Efficient transport management

systems to improve health delivery

Key messages: **An efficient transport management system (TMS) is vital for providing prompt access to maternal health services, making vaccines more readily available and improving immunisation coverage.**

1. Women in labour need to be able to reach health facilities promptly, and child vaccinations need to be available when they get there.
2. To get vaccinations to health facilities there needs to be an efficient transport system to deliver them.
3. There are a number of challenges to TMS that need to be addressed and recommendations to be considered.

The challenge: achieving effective transport management

There is significant concern for the high levels of illness and death among mothers and children in Northern Nigeria, where the rates of maternal, newborn and child mortality are some of the highest in the world.

Delays in the transfer of maternal cases from communities to health facilities often result in women losing their lives during childbirth. The long distances to health facilities, high cost of using commercial transport in the event of an obstetric emergency and the lack of available transport at night are all factors that contribute to a high risk of death during pregnancy in Nigeria.

Non-delivery of healthcare and other basic services is often attributed to a lack of available transport. However, when more vehicles are provided, increases in service delivery often fail to materialise because the systems that underpin their operation are absent. Effective management of existing vehicles can often improve service delivery and make investment in new vehicles go further in the future.

The cold chain and related transportation is vital for making vaccines more readily available and improving immunisation coverage. Furthermore, maternal referral requires the presence of a well-managed ambulance system. Therefore, a successful TMS is crucial to achieving the aims of the PRRINN-MNCH project.

The response: targeted training and system management

Across all four states a core series of activities focused on TMS strengthening included:

- Training state transport managers in TMS
- Training LGA transport officers in TMS
- Development of TMS policy and plans and follow-up implementation
- Introduction of logbooks for managing vehicle usage
- Training of PRRINN-MNCH senior programme officers (supply side)
- Monitoring and supervisory visits

Peripheral activities also included:

- Training of ambulance drivers
- Introduction of the motorcycle revolving fund and training of ward focal persons on the use and maintenance of motorcycles in Jigawa state

A team of TMS experts focused on logistics and the improvement of the cold chain necessary for the safe transportation of vaccines, as well as the movement of health personnel. This began with an assessment of the condition of transport available in each state. This then led to the development of operational guidelines for scheduling, maintenance, and overall management of transport prior to training with the appropriate staff. With this in place, the experts worked with all stake-holders to find solutions to any shortfalls in transport to meet the demands of the state.

The results: quantifying tangible health outcomes

All four of the target states now have approved transport guidelines detailing policies on use, maintenance, scheduling etc. Key performance indicators (KPIs) have been developed

THIS DOCUMENT IS ONE OF A SERIES OF KNOWLEDGE SUMMARIES THAT DRAW ON THE ACTIVITIES, RESULTS AND LESSONS LEARNED FROM THE PRRINN-MNCH PROGRAMME

and a transport performance management tool collated, while quality of data collation and KPI reporting from the LGAs has improved.

Capacity building measures now include:

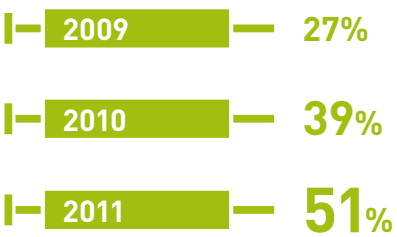
- Transport management training for transport officers, transport managers and programme supply officers as well as training for 98 drivers
- The scale up of the motorcycle TMS with a link for monitoring vaccine logistics through the cold chain officers and ward focal persons. Here TMS training took place in seven Gunduma councils involving over 200 cold chain officers, immunisation and service delivery staff
- Capacity to develop and implement TMS plans as well as transport guidelines, training of trainers, etc
- The Jigawa RI motorcycle scheme has led to increased immunisation coverage and the economic life of the motorcycles has been prolonged. Improvements in TMS KPIs also suggest that fleets are being operated more effectively which should have an impact on increasing referrals, larger numbers of commodities distributed and more monitoring and supervisory services
- Planned preventative maintenance (PPM) strategies

This TMS was especially successful in Jigawa where the activities were linked to a revolving fund loan and training scheme for motorcycle riders. Feedback from a range of stakeholders in Jigawa during the qualitative interviews was extremely positive:

"It is a very important initiative. It addresses the maintenance culture, reduces costs, improves service delivery and also reduces delays in transporting pregnant mothers to health facilities." – Supply-side programme officer, Jigawa

A review of the Jigawa RI scheme in 2011 reported that "95% of all the motorcycles distributed since 2009 are still functioning very well. Immunisation coverage (fully immunised children) in the five councils has changed progressively from 27% in 2009 to 39% in 2010 and 51% in 2011' (Fig 1).

Fig 1: Three-year RI coverage in five Gunduma councils (2009-2011)



However, there have also been a number of challenges to implementation across all states:

- A lack of sustainable funding for transport means maintenance is still a problem
- The lack of an M&E framework at the outset has made it difficult to quantify tangible health outcomes from the TMS activities
- A lack of budget for practical day-to-day TMS activities
- The small fleet means that it's difficult to demonstrate the tangible benefits that a functioning TMS is proven to have

Conclusion

Challenges during the implementation of the TMS include:

- A lack of adequate, sustainable funding for vehicle running and transport maintenance costs within the State Ministry of Health (SMoH)
- Producing ideal fleet models and subsequent vehicle procurement plans for each state
- Many health workers are still paying for their own transport and there's a lack of vehicle pooling, which leads to staff leaving
- Proving a demonstrable link between the TMS activities and health outcomes

A review of the TMS highlighted these recommendations:

- Continuing with refresher TMS and driver training as well as M&E activities
- Scaling up the Jigawa RI motorcycle initiative to other states
- Releasing the funds that were banked for replacement motorcycles
- Any future TMS programme should establish mechanisms from the outset to track and consolidate simple transport KPIs and explore the feasibility of embedding health outcome indicators that can be practically measured from the outset

Overall, the TMS clearly added value to the PRRINN-MNCH programme and has the potential to add even more as some of the processes become embedded and these need to be monitored more carefully. The Executive Chairman of the Katsina State Primary Health Care Development Agency (KSPHCDA) said:

"Two years after the training, I have seen so much difference in the drivers' performance... safety, maintenance and first aid management of patients have become the norm for most of the 30 trained drivers. KSPHCDA appreciates the good work of PRRINN-MNCH; we need to do more."

Therefore, despite the challenges, the TMS is still recognised as a core component of health system strengthening and should be incorporated in any future projects.

PRRINN-MNCH
Partnership for Reviving Routine Immunisation in Northern Nigeria; Maternal Newborn and Child Health Initiative

The PRRINN-MNCH programme works with federal, state and local governments and local communities to improve the quality and availability of maternal, newborn and child health services.

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