

**OP-14: A project to improve the effectiveness of management of vehicles at
Regional Director of Health Services, Hambantota**

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Introduction: Transport plays a critical role in the effective and efficient delivery of health care. It enables people to access services and health workers to reach communities. This quasi-experimental research project was carried out at Regional Director of Health Service (RDHS) Hambantota with the intention of identifying the gaps in the current vehicle management, maintenance and operating system, and improving the effectiveness of management of vehicles. The project was carried out in three stages.

Methods: The pre-intervention phase aimed at identifying the existing situation and gaps in the vehicle management system, using both qualitative and quantitative techniques. It was revealed that inadequate staff training regarding proper fleet management, lack of technical knowledge of drivers, absence of preventive maintenance schedules and a poorly managed vehicle inventory system led to inefficient vehicle management at RDHS Hambantota. In the second phase of study, a digital platform created through establishing a database for the transport section of RDHS Hambantota, helped to maintain, manage and operate the vehicles. It consisted of different sections for vehicle profiles, monitoring, managing preventive maintenance and inventory, identifying and analysing high cost vehicles, developing reports for regular complaints and monitoring vehicles used. Post interventional qualitative results indicated that the availability of the online and offline digital platform for vehicle management improved the transport related processes, streamlined the vehicle management operations and maintenance and improved the accountability of the relevant officers and their decision making process.

Results: It is evident that after the interventional phase, significance test statistics reveal that the average time for the documentation process at RDHS improved from 16.52 days to 3.56 days at $p < 0.0001$ level. Vehicle availability increased from 62% to 81%, utilisation improved from 68 % to 76%, and performance improved from 69.0 % to 84.0% at RDHS Hambantota.

Conclusions: The multifaceted and package of interventions implemented in this project was effective in improving the vehicle management at RDHS. It is recommended to improve the online system further by adapting the experience gained throughout the intervention phase and expand the project to the other healthcare institutions.

Keywords: fleet management information system, inventory management system, key vehicle performance indicators