



Health Burden of Non-Communicable Diseases Among Male Truckers and Their Communities: A 5-Year Observational Study from a Mobile Medical Unit in Assam, India

Dr. Pankaj Chaudhary, MD

Consulting Diabetologist

MMU Incharge, PIRAMAL SWASTHYA

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Abstract

Background: Truck drivers are a high-risk occupational group for non-communicable diseases (NCDs) due to prolonged sedentary work, poor dietary habits, stress, substance abuse, and inadequate access to health services.

Objective: This study aims to document the health burden of NCDs among truck drivers in Cachar district over five years and evaluate the outcomes of MMU-based screening.

Methods: From January 2019 to January 2025, mobile medical unit (MMU) camps were organized across major logistics hubs including IOC Depot, IOC Bottling, ISBT, ASTC, and others. These camps provided completely free health services throughout the five-year study period. A total of 5,164 male truckers, their family members, and helpers were screened for hypertension, diabetes, tobacco usage, musculoskeletal conditions, and obesity.

Results: Hypertension (38%), diabetes (22%), tobacco use (65%), and musculoskeletal issues (30%) were most prevalent. A significant number were unaware of their condition. Follow-up care remained low (~30%) due to occupational constraints.

Conclusion: A structured MMU-based outreach program effectively identified hidden NCD burden among truckers. Further integration with permanent healthcare services and digital health tracking is recommended.

Keywords: Truckers, Non-communicable diseases, MMU, Mobile health, Hypertension, Diabetes, Occupational health

Introduction

Truckers are a vital but medically underserved segment of India's labor force. Their occupation involves long hours of driving, sleep deprivation, erratic food intake, and minimal physical activity. These factors cumulatively contribute to a higher risk of developing chronic conditions such as hypertension, diabetes, and musculoskeletal disorders.

Despite this, access to routine healthcare is minimal among truckers due to their transient lifestyle and socioeconomic challenges. The Mobile Medical Unit (MMU) program in Cachar aimed to bridge this gap by delivering on-site screening and medical counseling at transport hubs. This study presents a 5-year data-based analysis from MMU camps conducted across Cachar. This study exclusively focused on male truck drivers and their immediate community (family members and helpers), given their predominant representation in the transport sector and the unique challenges they face. These health camps were held free of charge for the entire duration of the study.

Materials and Methods

Study Design: Cross-sectional observational study

Study Area: Cachar district, Assam, including MMU service locations: IOC Depot, IOC Bottling Plant, ISBT, ASTC, Barak Valley Cement, and others.

Study Period: January 2019 to January 2025

Population: Only male truck drivers, their family members, and helpers who attended MMU camps.

Sample Size: 5,164 participants

Procedures: Standard protocols were followed for history-taking, measurement of blood pressure (BP), random blood sugar (RBS), BMI, and tobacco use behavior. Counseling sessions were held post-screening. IEC materials were distributed to promote lifestyle modification.

Tools Used: Digital BP apparatus, glucometer, BMI charts, and tobacco dependency questionnaires.

Results

Demographics:

- Mean age: 38.2 years (range 25–62 years)
- Gender: 100% male (female truckers were excluded from this analysis)
- Education: Majority below 10th standard

Prevalence of Conditions:

- Hypertension: 38% (n=1,962)
- Type 2 Diabetes Mellitus: 22% (n=1,136)
- Tobacco usage: 65% (n=3,356)
- Musculoskeletal disorders: 30% (n=1,549)
- Obesity (BMI >25): 17% (n=878)

Barriers Identified:

- Lack of awareness about chronic diseases
- Time constraints due to continuous travel
- Limited affordability and accessibility of follow-up care

Discussion

The findings confirm that truckers are disproportionately affected by lifestyle-related NCDs. The MMU initiative played a vital role in identifying undiagnosed conditions and raising health awareness. However, long-term disease management is still suboptimal due to low follow-up rates and minimal lifestyle change.

Key risk factors include tobacco use, irregular meals, stress, and insufficient physical activity. The occupation-related mobility of drivers presents a major challenge for consistent healthcare access. Digital health records, partnership with transport unions, and incentivized health programs could improve continuity of care.

Conclusion

This 5-year MMU-based screening study demonstrates a significant burden of NCDs among truck drivers in Cachar. Timely detection and counseling are achievable through mobile outreach, but systemic changes are necessary for sustained disease control. Integrating occupational health into the broader public health system is essential to support this at-risk population.

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Conflict of Interest

The author declares no conflict of interest.

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