

POTENTIAL DETERMINANTS IN HEALTH SECTOR INFLUENCING HEALTH CARE EXPENDITURE OF THE HOUSEHOLDS: A MIXED-METHODS STUDY IN BANGLADESH

Background

Demographic, and epidemiological transitions are taking place and tackling the rising burden of non-communicable diseases (NCDs) are challenges in achieving universal health coverage (UHC) in the country. Though the national health budget supports health care, 74% of total health expenditure is met by households out of pocket (OOP) which is the second highest in South-East Asia. The Government of Bangladesh (GOB) has consistently shown commitment in ensuring sustainable financing for health care. However, the high health care expenditure is on an increasing trend due to many nonfinancial reasons as well and a large proportion of OOP is spent on medicine and diagnostic tests.

This study specifically focused on potential determinants of NCD services (HTN & DM) rather than wider health sectors and focused on PHC facilities only. The study also identified causes of hypertension (HTN) and Diabetes Miletus (DM) related household expenditure and recommended to overcome this extra expenditure.

General Objective

The objective of the study was to investigate the potential determinants of health system influencing OOP healthcare expenditure of households for receiving healthcare services for HTN and DM case of households.

Methods

Ethical clearance of the study was taken from the IRB of Institute of Health Economics (IHE), University of Dhaka. The study was conducted in Daudkandi upazila of Cumilla district in May and June 2023. The study used mixed-methods approach using both quantitative and qualitative data. Quantitative methods included household survey, health facility survey and patient exit survey. Qualitative methods included key informant interviews.

Results



314
Respondents

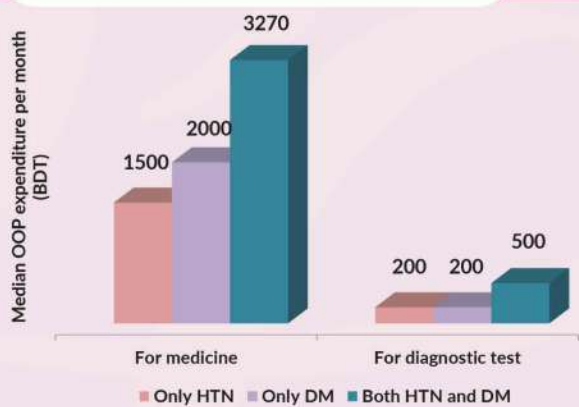


177 Diabetes
92 Hypertension

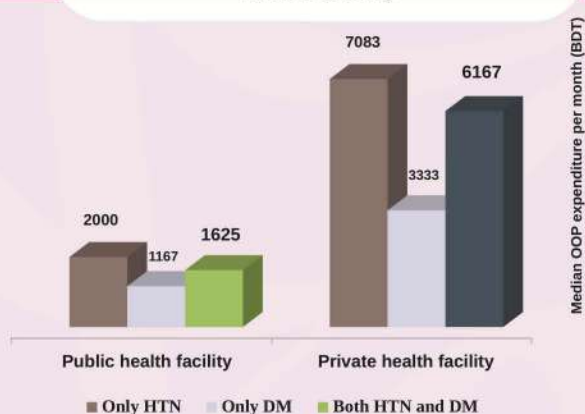
45 Both

**self reported*

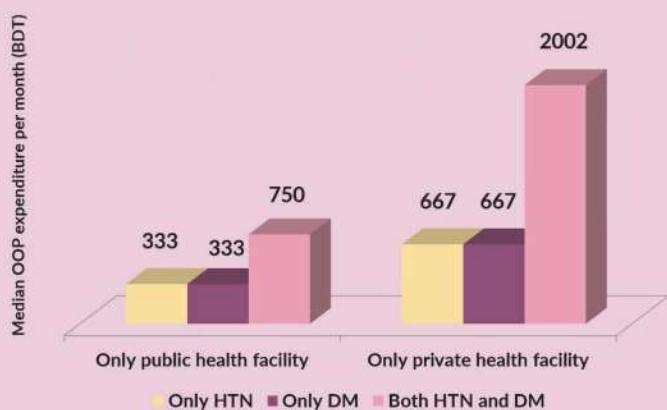
Routine healthcare expenditure



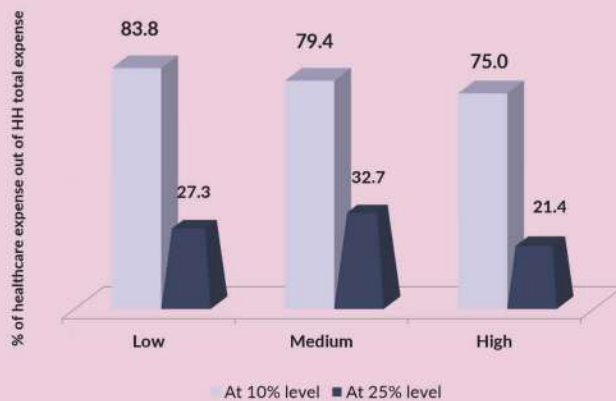
Inpatient service from public or private health facility



Outpatient service from only public or private health facility



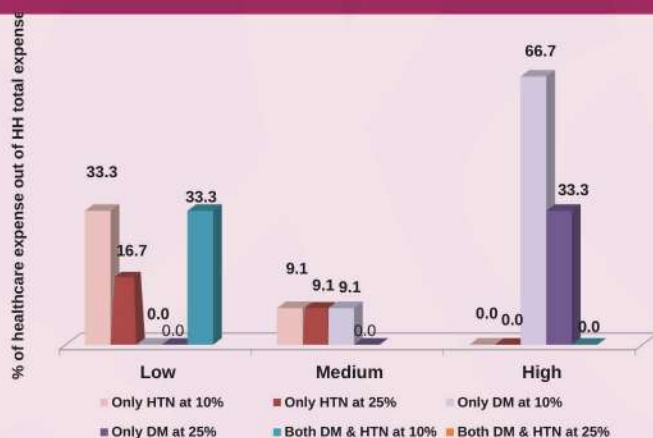
Catastrophic Health Expenditure (CHE) for receiving service for DM and HTN according to socioeconomic status



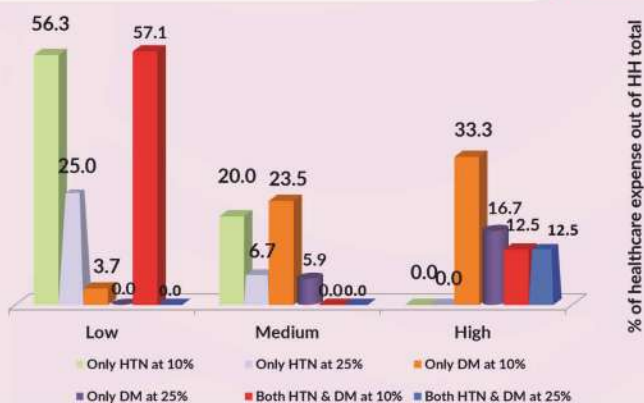
CHE for receiving outpatient service from only private facility according to socioeconomic status



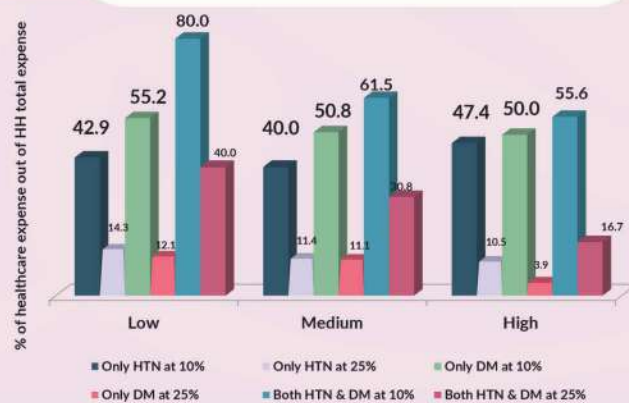
CHE for receiving outpatient service from only public facility according to socioeconomic status



CHE for receiving outpatient and inpatient service from public facility as per socioeconomic status



CHE for routine healthcare medicine as per socioeconomic status





Coping mechanism to cover out of pocket healthcare expenditure

Feature	Households with hypertension	Households with diabetes
Loan as primary source of OOP healthcare expenditure	5% (2/41)	1.7% (5/300)
Average loan amount	30000 BDT	92500 BDT (avg), 30000 BDT (median)
Loan sources	friends and family, local money lender	local money lender, friends and family, bank/financial institution
Average interest rate of loan	2.5%	7.3%
Property mortgaged	2.4% (1/41)	0%
Property sold	7.3% (3/41)	0.3% (1/300)
Average value of property sold	50090 BDT	N/A

Findings from Patient Exit Survey

Exit client survey was conducted among 31 patients diagnosed with HTN and/or DM at NCD corner of Daudkandi UzHC. 81.8% (9/11) only HTN, 66.7% (6/9) only DM and 90.0% (10/11) both HTN and DM cases reported of taking regular medication. Among only HTN cases 18.2%, 54.5%, 27.3% reported of suffering from heart problem, vision problem and stroke problem respectively as complications related to HTN. Among only DM cases 11.1%, 11.1%, 33.3% and 55.6% reported suffering from heart problems, kidney disease, vision problem, and foot damage problem as complications related to DM.

Discussion

Findings from the study are found consistent with the findings from BNHA 2020. Among total health care expenditure for treating DM and/or HTN, major contributions are of medicine, lab investigation related expenditure. Need to ensure to follow the National protocol on NCD management for both for the government and private facilities. Have to ensure supply of prescribed medicine and lab investigations at public health facilities.



Recommendations

Category	Recommendation
General	Digitize patient records
	Ensure availability of NCD drugs and tests at public facilities
	Set standard charges for NCD diagnosis and treatment at private facilities
	Improve data storage and tracking of NCD patients
	Train healthcare providers on NCD management protocols
	Increase awareness of NCD services and preventive measures

Category	Recommendation
UzHC improvements	Reduce patient load and waiting times through appointment system and medication refills at nearby centers
	Regulate private healthcare and standardize pricing
	Improve staff behavior and address patient concerns
NCD program	Strengthen referral pathways and drug supply chains
	Consider combo pills for chronic NCDs to reduce costs
	Explore additional funding sources like local government and health insurance
National level	Expand health insurance coverage for NCDs
	Enforce standardized treatment protocols and pricing

Conclusion

Study finds medicine and lab costs dominate OPD spending for diabetes and hypertension. Early diagnosis, regular treatment, and healthy lifestyle can significantly reduce need for inpatient care. Government providing regular consultations, medication, and tests at public facilities (median cost 333-750 BDT) could help patients manage chronic conditions, reduce OOP expenses, and improve overall health. Consistent adherence to national NCD protocols and ensuring medicine and lab availability at public facilities are crucial. Further action based on study findings is needed to address healthcare system factors influencing household expenditure.