



**Bridging the Gap:
Availability and Accessibility of Free
Medicines for NCDs and Mental Disorders
Across Health Facility Levels in
Bagamati Province:
A Mixed Method Study**

*Arjun Poudel,
Bagamati Province*



Authors..



Availability and Accessibility of Free Medicines for NCDs and Mental Disorders Across Health Facility Levels in Bagmati Province, Nepal

Arjun Poudel¹; Aashma Dahal², Namra Kumar Mahato², Muskan Pudasainee¹;

Dr. Anup Bikram BC³; Bibechana Sapkota², Laxmi Paudyal², Dr. Roshan Chaudhary², Keshab Raj Bhandari² , Bhimsagar Guragain², Dr. Dinesh Kumar Lamsal², Dr. Narendra Kumar Jha¹, Dr. Sumitra Gautam⁴, Dr. Pradip Gyawali²

¹ Health Directorate, Bagmati Province, Hetauda Nepal

² Madan Bhandari Academy of Health Sciences, Bagmati Province, Hetauda Nepal

³ World Health Organization, Nepal

⁴ Ministry of Health, Bagmati Province, Hetauda, Nepal



Presentation Outline



- Background of study
- Research objectives
- Methodology
- Results (Quantitative and Qualitative)
- Conclusion
- Recommendations/ Takeaway messages
- Acknowledgement
- References



Background



- Non-communicable diseases (NCDs) and mental health disorders are rising global health threats, causing 74% of premature deaths worldwide and 71% in Nepal ^{1,2}
- In Nepal, 10% of the population experiences mental disorders, and 7.2% have reported suicidal intentions, with both trends on the rise ^{3,4}
- The current National List of Essential Medicines includes 98 vital drugs under basic healthcare package¹⁰



Background



- Among them 18 types for NCDs and mental health disorders provided free of cost in public healthcare facilities^{10,11}
- Although, Nepal provides free NCDs and mental health medicines in public HFs, yet only about 12–15% of treated hypertensive patients rely on them exclusively^{3,10,11}
- Most NCD medicines are not consistently available in the public sector—only 8 of 34 have over 90% availability—pushing many people to depend on private providers⁹



Research objectives



This study is among the few in Nepal,

-to assess the access and availability of free NCDs and mental disorders medicines across public healthcare facilities and factors associated with availability of such drugs



Methodology



Study design

A cross-sectional analytical study

Study method

Concurrent mixed method; (both quantitative and qualitative)

Study setting

Out of 13 , 5 Districts of Bagamati Province



Methodology



Study population (Quantitative)

- Public healthcare facilities (District level hospital, Basic hospital, PHCCs, HPs, BHSCs)
- Chief of the hospital / In-charge were the participants for quantitative data

Qualitative

- KII (Officials working at MOH, PHLMC, Hospital Director, PHO, Health Section of local levels)
- FGD (People regularly obtaining NCDs medicines from nearby public healthcare facilities)



Methodology



Sample size estimation

- The study required an estimated sample size of 134 and included all required public healthcare facilities

Study duration

- Feb to July, 2025



Methodology (Sampling Procedure)



Randomly selected 5 Districts out of 13

Prepared the list of each categories of HFs located in each district

Allocated the required sample size for each categories of HFs proportionally to each district based on total numbers of them

Randomly selected 134 HFs among total HFs belongs from each categories by proportionate manner in each district

Purposive technique for qualitative



Methodology



Selection criteria (Inclusion)

- **The static public healthcare facilities** up to basic healthcare service center (BHSC) were included in study

Ethical considerations

- Ethical approval from **IRC**, Madan Bhandari Academy of Health Sciences (MBAHS)
- **Verbal and written consent** was taken before actual data collection



Methodology



Data collection tools

Structured interview schedule

Quantitative

**KII interview guideline
FGD guideline**

Qualitative

- The structured interview schedule was developed based on previous similar types of studies.^{12,13}



Methodology



Validity and reliability of tools

- **Pre-testing** was done with total a 14 of sample healthcare facilities in a similar setting and necessary corrections were made
- The **literature review** was done to ensure the accuracy and the content validity of the tools.
- The tools were developed under **close consultation with the experts** in same research field to confirm the face validity.



Methodology



Data collection procedure (Quantitative)

- The quantitative data were collected at respective healthcare facilities by applying structured interview schedule.

Qualitative

- Key Informant Interviews (KIIs) were conducted with officials following a KII guideline and were recorded.
- Focus Group Discussions (FGDs) with NCDs medicine users of public healthcare facilities were conducted in their respective communities following an FGD guideline
- The eligible participants were collected at a place with the help of local FCHVs and discussion was recorded at recording device.



Methodology



Data analysis (quantitative)

- Descriptive and inferential statistics were used to decide the status of availability of drugs and identify the independent predictor of the outcome variable.
- The availability of drugs was determined with reference to a previous study, based on which availability was **categorized as high or low availability.**¹⁴



Methodology



Data analysis (qualitative)

- Translated and transcribed interviews were analyzed manually using thematic analysis (following COREQ guidelines)
- A grounded theory approach was used to explore availability and accessibility of essential NCD medicines

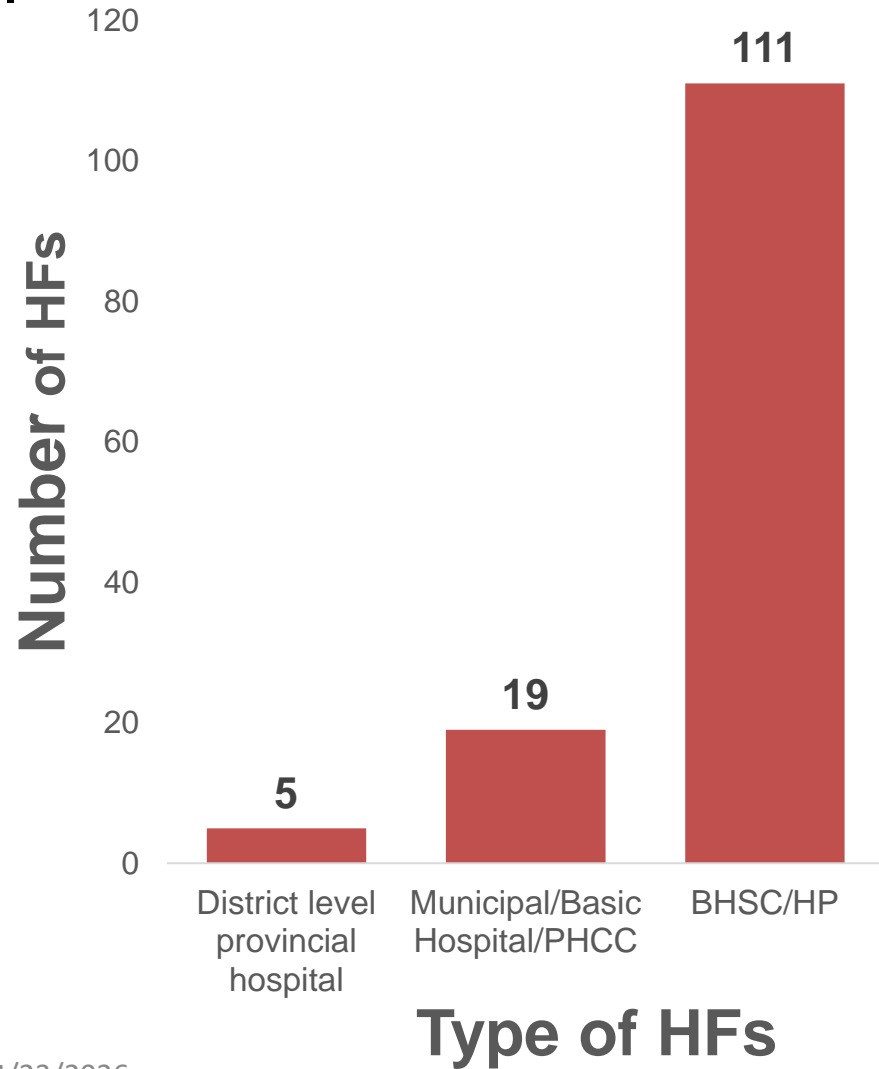
Results

Quantitative analysis

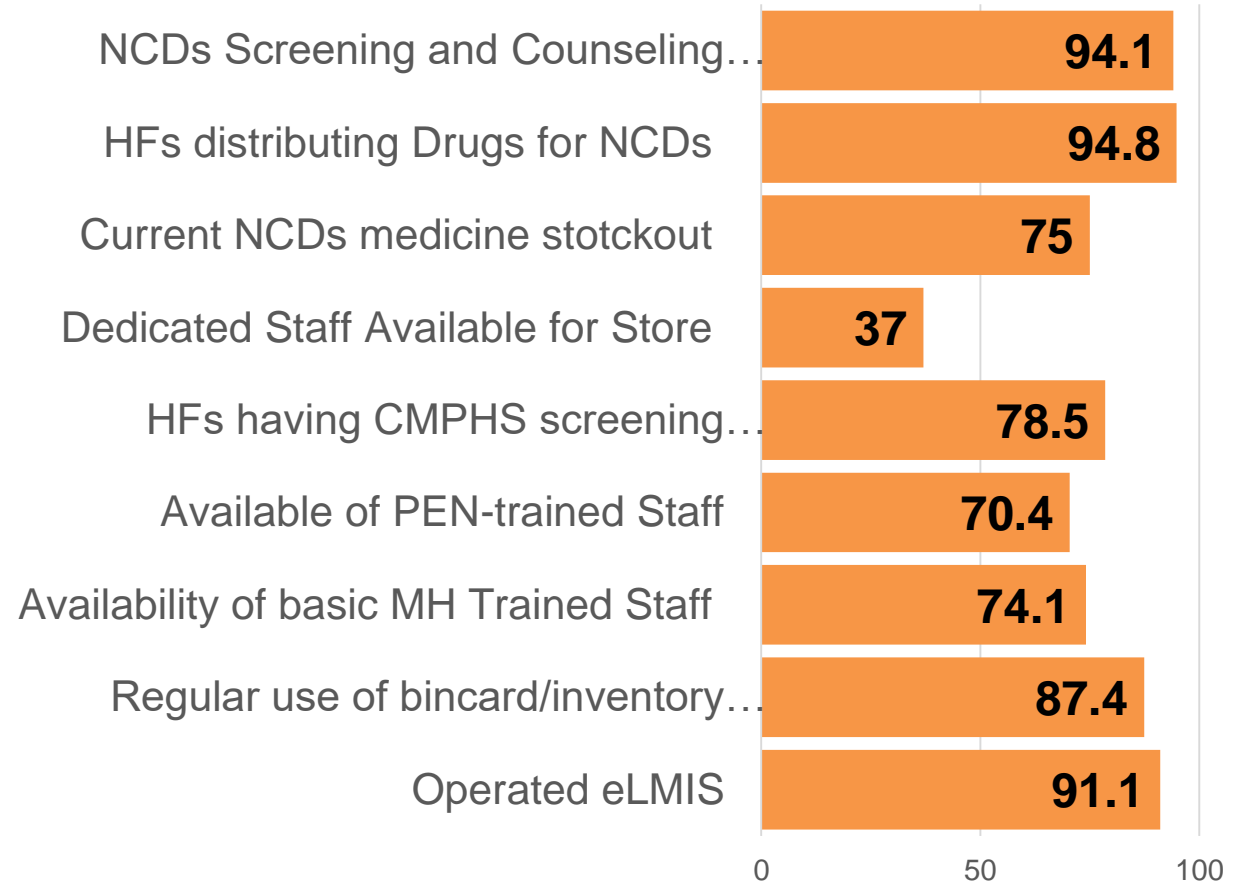
-Descriptive and inferential analysis



Background Information of HFs

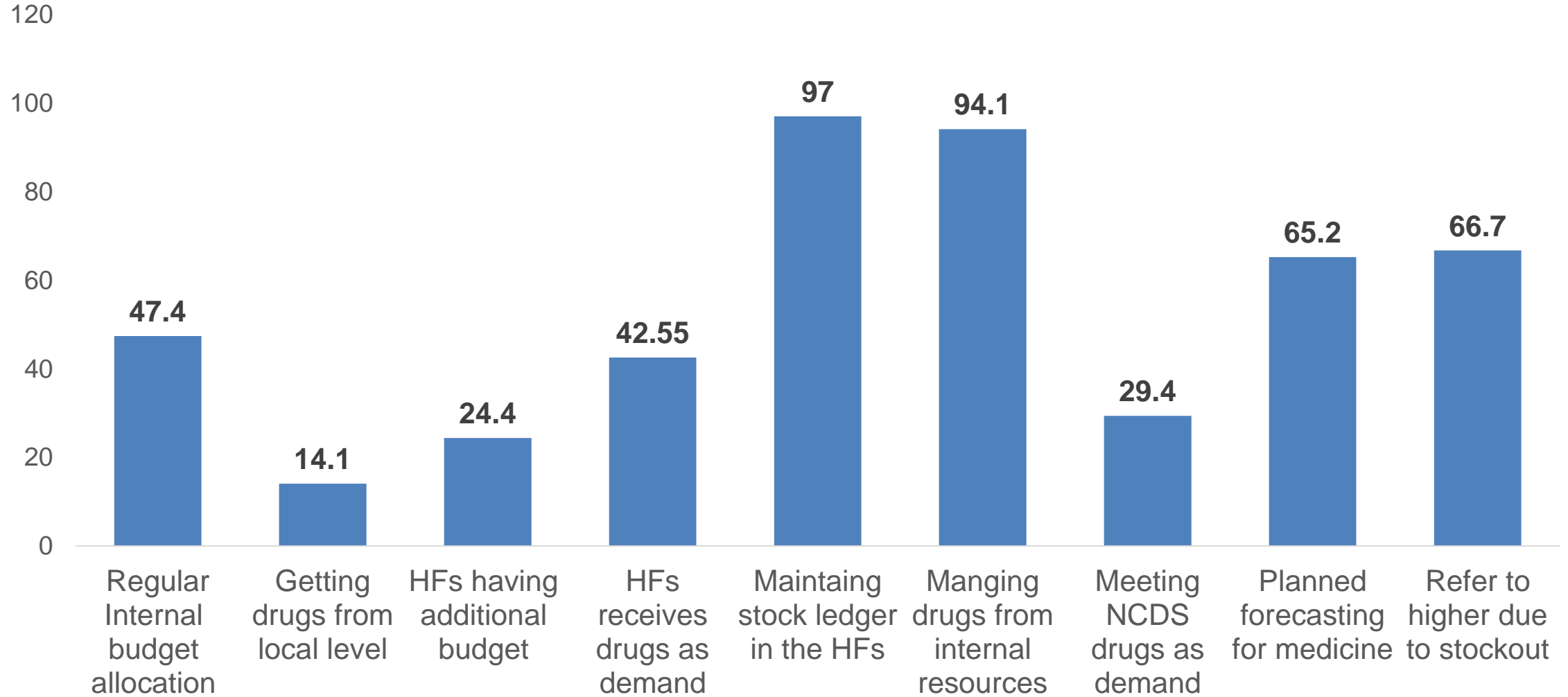


Characteristics of HFs



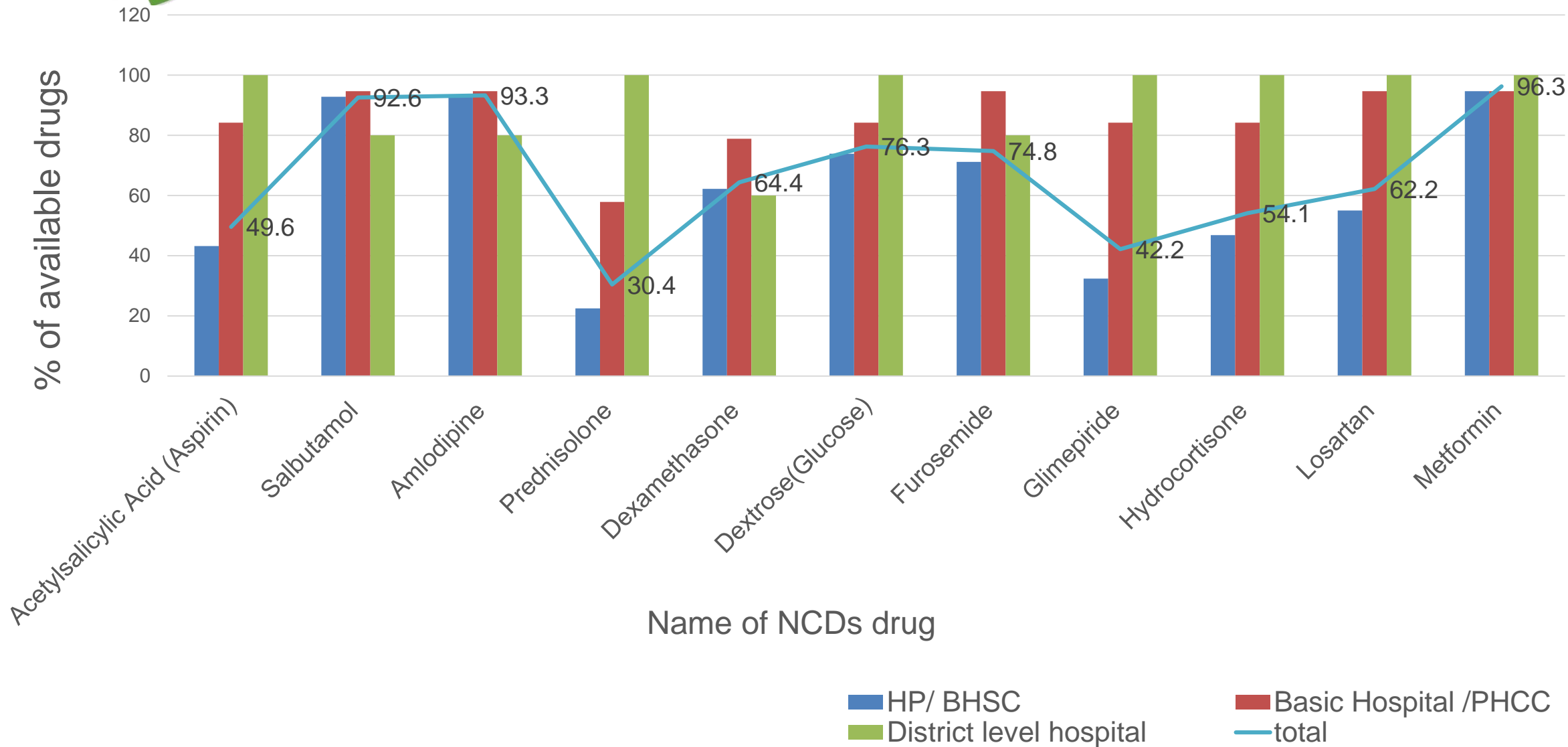


Background Information of HFs



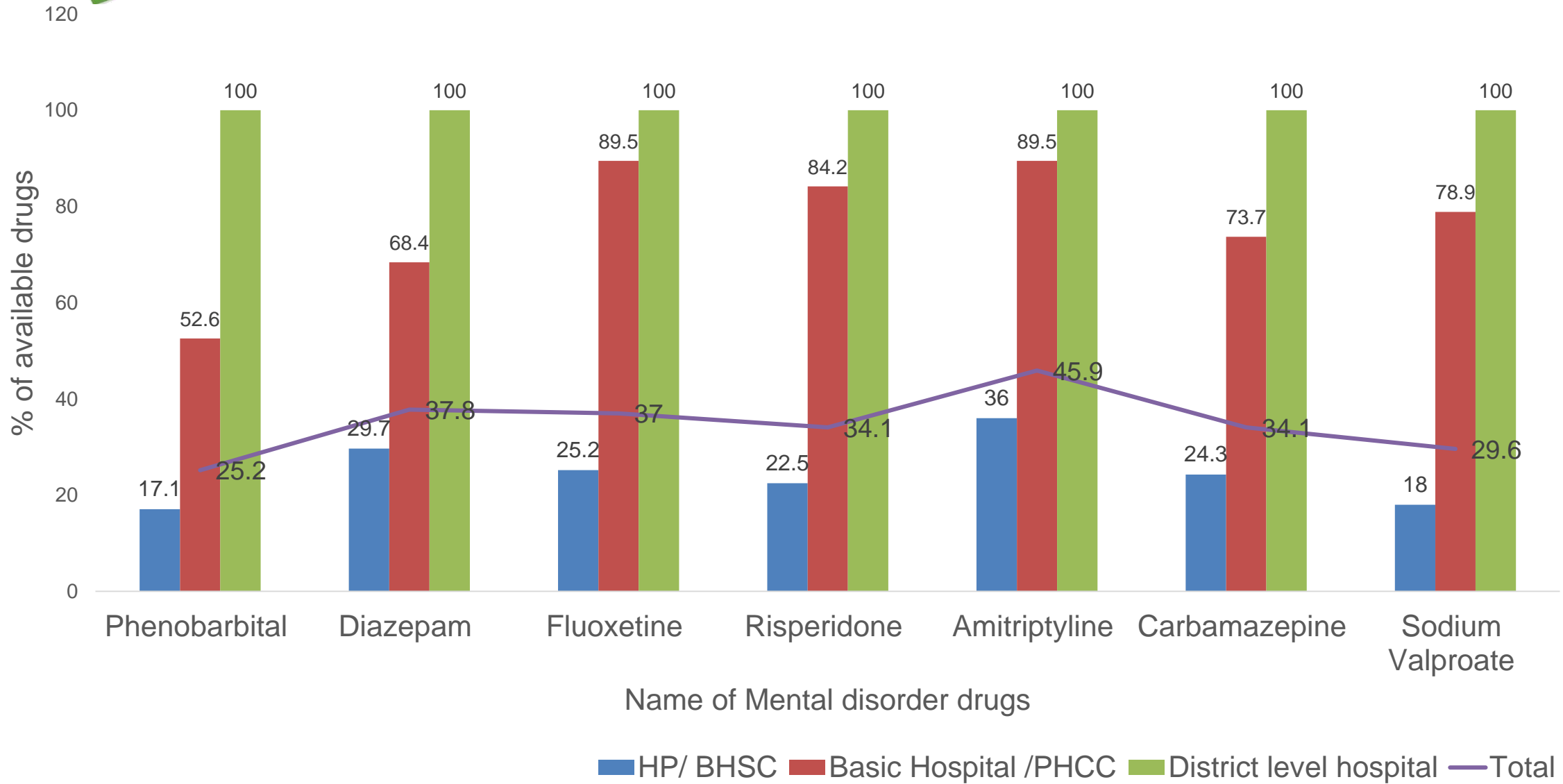
Characteristics of HFs

Availability of NCDs drugs at HFs





Availability of Mental Disorder drugs at HFs





Association between Health Facility Characteristics and Drug Availability



Availability of NCDs medicine (High/Low)			
Variable		aOR (CI)	p-value
Available dedicated staff for store (Yes) <i>Ref. No</i>		0.533 (0.180- 1.580)	0.257
Availability of PEN trained staff (Yes) <i>Ref. No</i>		0.533 (0.180- 1.580)	0.257
Operating CMPH screening program(Yes) <i>Ref. No</i>		0.881 (0.277-2.803)	0.831
Availability of MH trained staff (Yes) <i>Ref. No</i>		3.490 (1.34-9.08)	0.010
Running NCDs counselling services (Yes) <i>Ref. No</i>		0.478 (0.79-2.89)	0.422
Drugs buy from internal resources (Yes) <i>Ref. No</i>		0.202 (0.044-0.922)	0.039
LL allocates budget (Never (ref)	Always	0.543 (0.151-1.956)	0.350
	Sometimes	0.470 (0.166-1.33)	0.155
Participated in NCDs medicine forecasting workshop (Yes) <i>Ref. Never</i>		6.135 (1.237-30.41)	0.026
Allocation additional budget to purchase drugs during stock out (Yes) <i>Ref. No</i>		6.009 (1.26-28.47)	0.024
HF's able to meet demand on NCDs (Yes) <i>Ref. No</i>		3.601(0.981-13.22)	0.054
Received medicine as per demand (Yes) <i>Ref. No</i>		0.353 (0.085-1.463)	0.151
Getting medicine from other than regular supply (Yes) <i>Ref. No</i>		6.98 (1.50-32.39)	0.013



Results

Qualitative findings



Theme 1/2: Drug Availability and Accessibility



Subthemes	Description	Sample of Representative Verbatim Quotes
Drugs requirement	Common NCD drugs are only intermittently stocked, while mental health medications are often unavailable due to constraint budget, supply gaps and high demand	<p><i>“Sometimes we run out of Losartan for weeks. Patients are forced to buy it outside,”</i> <i>(Health Post In charge)</i></p> <p><i>“We don’t get mental health drugs regularly. Even when we do, they expire due to lack of use”</i> <i>(Pharmacist, PHC)</i></p>



Theme 1/2: Drug Availability and Accessibility



Subthemes	Description	Sample of Representative Verbatim Quotes
Physical and Financial hardship	Remote populations face difficult travel due to poor roads and seasonal disruptions, while incomplete free drug coverage forces many patients to pay out of pocket for prescribed medicines	<p><i>“During monsoon, our roads are blocked. People can't reach the health post,”</i> <i>(FCHV)</i></p> <p><i>“Doctors prescribe medicines that we don't have here. Patients must buy them, and not all can afford it,”</i> <i>(Basic Hospital Storekeeper)</i></p>



Theme 3/4: Procurement and Supply Chain Management



Subthemes	Description	Sample of Representative Verbatim Quotes
Procurement system	<p>Facilities lack autonomy to address urgent needs and depend on higher supply.</p> <p>The push-based system often delivers late or mismatched supplies, disrupting service continuity</p>	<p><i>“We can’t purchase even when we know what we need. We must wait for the municipality,”</i> <i>(Health facility In charge)</i></p> <p><i>“We ordered NCDs drugs in April, but medicines came in July. By then, we had no stock left,”</i> <i>(Hospital Pharmacist)</i></p>



Theme 3/4: Procurement and Supply Chain Management



Subthemes	Description	Sample of Representative Verbatim Quotes
Inventory and stock management	Systems like e-LMIS are underutilized and weak understanding of practices such as FEFO	<p><i>“We use e-LMIS, but internet is unreliable. So we keep paper records too,”</i> <i>(AHW-Health post)</i></p> <p><i>“I am not from a health background, so I don’t know much about FEFO or FIFO,”</i> <i>(Hospital Storekeeper)</i></p> <p><i>“We need people who understand medicine and inventory, not just clerical staff,”</i> <i>(Senior Health Administrator)</i></p>



Theme 5/6: Community Perspectives, Policy and governance



Subthemes	Description	Sample of Representative Verbatim Quotes
Patients experiences and community suggestions	Many report receiving only basic pills rather than needed treatments, and suggest ensuring consistent stocks of essential NCDs medicines and increasing the presence of qualified health workers	<p><i>“They give us only paracetamol and antacids. The medicine I need, I must buy outside,”</i> <i>(Participant, FGD)</i></p> <p><i>“Why go to the health post when you don’t get the prescribed drugs?”</i> <i>(Participants, FGD)</i></p> <p><i>At least common NCDs medicines should always be there,”</i> <i>(Participant, FGD)</i></p>



Theme 5/6: Community Perspectives, Policy and governance



Subthemes	Description	Sample of Representative Verbatim Quotes
Budget constraints & coordination gaps	Funds are quickly exhausted, replenishment is difficult, and supplies often mismatch local needs. HWs call for greater local autonomy, faster decision-making	<p><i>“Our annual medicine budget finishes in 3-4 months,”</i> <i>(Municipal Health Officer)</i></p> <p><i>“NCDs/MH drugs demand is high, we can not supply as per request, we ask for more budget, but it takes time and paperwork,”</i> <i>(Provincial Public Health Administrator)</i></p>



Conclusion



- In conclusion, the availability of **lifesaving free medicines for NCDs and mental disorder is limited across primary and lower-level facilities**, and mental health drugs being particularly scarce
- Facilities with **trained staff** (PEN-Package, mental health, and medicine forecasting) and **adequate internal budgeting** demonstrate better availability of medicines
- However, high demand, budget constraints, weak coordination, limited implementation of supply chain management systems, and shortages of trained (NCDs and MH) personnel continue to restrict access to essential medicines for chronic patients



Takeaway message



- **Access to free NCD and mental health medicines remains limited**, requiring increased budgets and timely procurement to meet high demand.
- **Strengthening PAMS V2 is essential** for effective supply chain management of NCDs and mental health drugs.
- **Lower-level health facilities need to be capacitated** to effectively manage NCDs and mental disorders, enabling proper screening, treatment, and optimal use of medicines while ensuring consistent availability for chronic patients.



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Arjun Poudel

Health Education Administrator, (9th level)

Chief, Public Health Office, Dhading

Passionate Health Promotion Professional



Thank You for listening to me!