

# Social, Economic and Behavioural Drivers of Antibiotic Use by Informal Healthcare Providers in Rural West Bengal, India

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## Introduction

Informal providers (IPs) without medical qualifications commonly deliver much of curative healthcare in many Low and Middle Income Countries. Evidence suggests that IP practices can be improved in many areas, but that a particularly pressing challenge relates to inappropriate antibiotic (AB) practices. Based on an ongoing study, we explore the patterns and drivers of AB provision by IPs in rural India in order to identify policies and interventions to promote their more rational use.

### Research Questions:

- Q.1.What are the patterns of antibiotic use by IPs in two rural districts of West Bengal (numbers and types of antibiotics used, signs/symptoms for which used the most, dispensed/prescribed)?
- Q.2.What are the social, behavioural, and economic drivers of antibiotic use by informal private healthcare providers in the study setting?

## Methods

**Setting:** South 24 Parganas and Birbhum districts in West Bengal, India

### Survey sample

- 150 providers per district
- Surveyed all providers in a random selection of 11 Gram Panchayats (village clusters) in South 24 Parganas and 7 GP pairs in Birbhum

**In-depth Interviews with providers: 15 each district**

### Focus Group Discussions: 4 per district

- 2 male and 2 female groups per district

### Key Informant Interviews: 10-15 per district

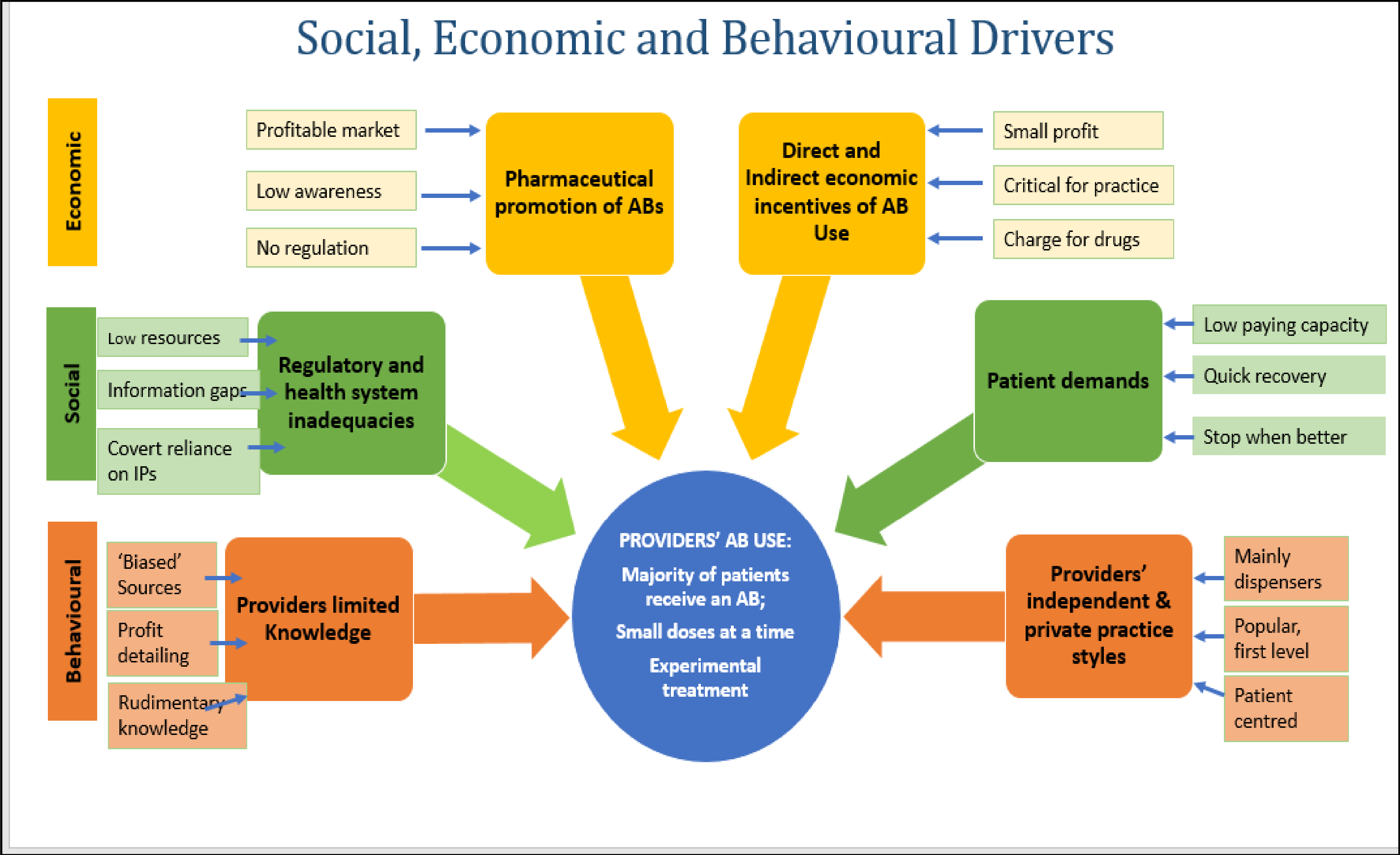
- Senior government health and regulation officials,
- Representatives of medical associations
- Pharmaceutical representatives
- Formal doctors (public and private)



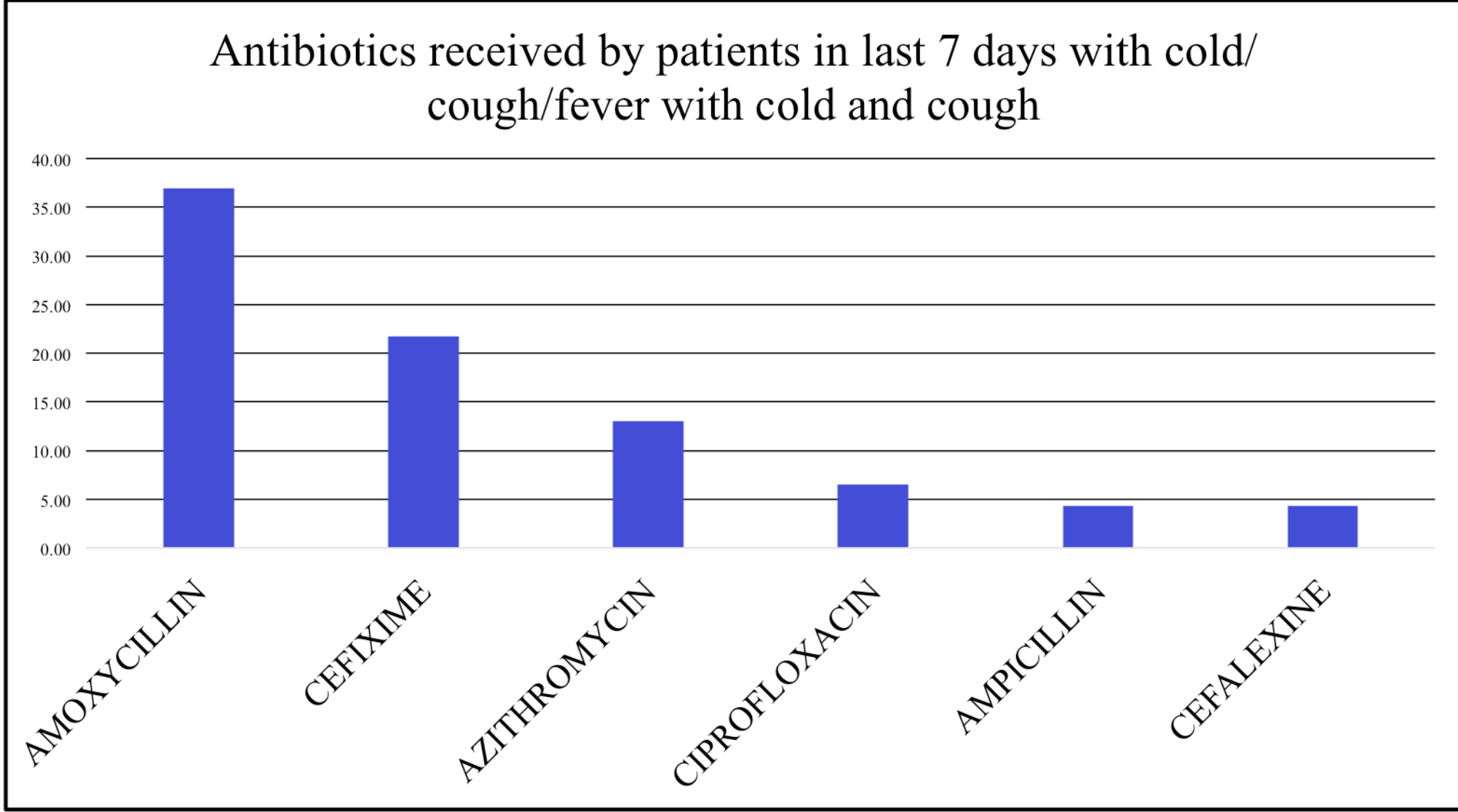
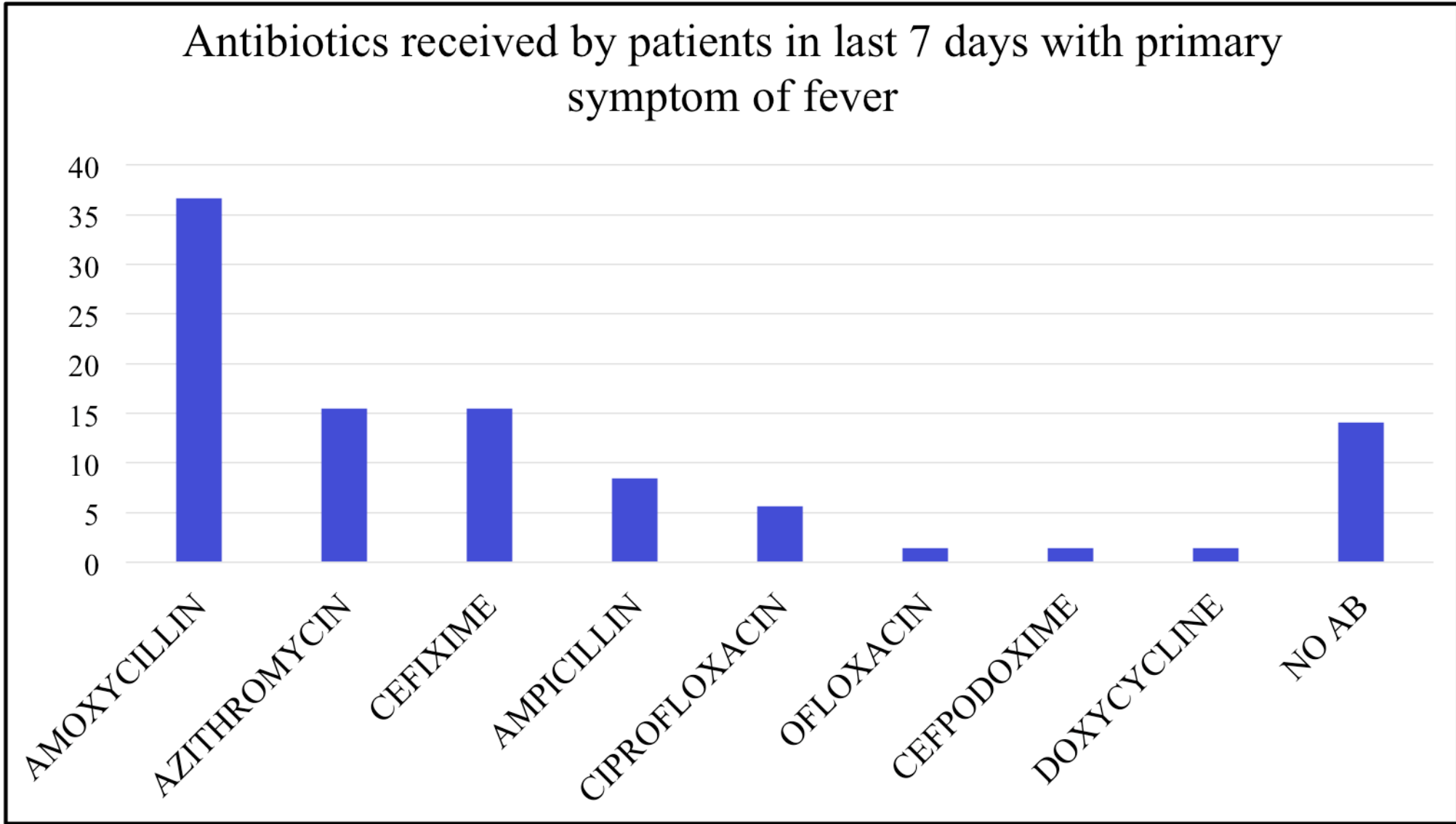
## Findings

Table 1: Practice and perceptions of informal providers

Type of services	SOUTH 24 PARGANAS N = 153	BIRBHUM N=150
Practice allopathy	94%	98%
Practice only homeopathy	6%	2%
Dispense medicines, with/without prescribing	93%	96%
Provide outpatient treatment for common illnesses (e.g.fever)	96%	98%
Provide in-patient services also	23%	8%
Provide treatment for diabetes	73%	59%
Provide treatment for hypertension	88%	91%
Provide dental care	88%	91%
Provide eye care and check ups	80%	90%
Suture small wounds and injuries	86%	88%
Provide treatment for animals also	26%	43%
Mean percentage of patients daily who receive at least 1 antibiotic	55%	53%
Can antibiotics cure viral infections? Yes	75%	61%
Do pharma sales representatives give you free samples? Yes	72%	49%
Are you aware of any laws about using antibiotics? No	58%	59%
Are there any antibiotics that cannot be bought here without a formal doctor' s prescription? No	74%	79%
Has anyone ever asked you not to use any antibiotics? No	90%	84%
Is antibiotic resistance a big problem in this area? Yes	59%	35%



Antibiotics received by patients in the last 7 days\* for primary symptoms



\*Source: Prospective 7-day data shared by 20 IPs.

## CONCLUSIONS

- Informal providers' antibiotic use is influenced by multiple social, economic and behavioural factors: the pharmaceutical industry and the formal medical sector have a significant role and financial interests in promoting ABs; patient demands and economic status influence choice of ABs and treatment compliance; while implementation of AB regulation is almost non-existent and there is an almost universally low level of awareness of AB use and resistance.
- A multi-stakeholder approach is needed to develop antibiotic stewardship at this level. This must go hand in hand with harnessing the opportunity that informal providers present for universalizing health coverage.