

The role and impact of medical representatives in an unregistered slum located in Mumbai, India.

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ABSTRACT

Urban slum communities often experience heavy disease burdens yet lack access to the adequate healthcare needed to treat their conditions.¹ KB, an unregistered slum in Mumbai, India, fits this pattern and provides the field site for this study. Using a combination of quantitative and qualitative methods, including GIS technologies and structured interviews, respectively, we examine both patient and provider preferences and behaviors to understand possible predictors of poor health outcomes, and thus opportunity for action. Our research demonstrates that there is an overall affinity for allopathic medicine despite the lack of training amongst practitioners, a likely source of poor health outcomes in KB. Our investigation also found that medical representatives are a key source of medical knowledge for practitioners, another source of concern given their extremely basic training in medicine & pharmacology.

INTRODUCTION

KB is an unregistered slum community located in Mumbai, India. Like most slums, this community is characterized by extreme crowding, lack of sanitation services, and a high burden of communicable disease. To treat disease, KB residents often rely on healthcare offered within the slum. Healthcare in slums is largely unregulated, however, resulting in a variety of ill-equipped practitioners and poor health outcomes. Research on the contours of slum health systems and patient behavior is therefore required to provide recommendations and to design interventions.

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RESEARCH AIMS

Build understanding of the contours and quality of the health system in the KB slum by:

1. Investigating the health-seeking behaviors of members of the KB community;
2. Investigating the health care system in KB, with attention to type of practitioner, medical representatives, training credentials, and physical and financial access.

Greater familiarity will help to identify predictors of poor health outcomes and opportunities for improvement.

MATERIALS & METHODS

- 1) Household (HH) data. Data collected via a 2008 HH survey (n=952 HH) was analyzed to provide monthly household medicine expenditure in KB.
- 2) GIS data. Manual coordinates of all identified health care outfits were recorded in 2009; colleagues at HSPH and PUKAR revisited these sites with GPS instruments in 2010 and later georeferenced the health care establishments.
- 3) Semi-structured interviews & focus groups. Peer-reviewed instruments were used to interview patients and providers in accordance with the researcher aims. All participants were sampled, and enrollment in this research was voluntary and subject to consent. The resulting group included:
 - 7 members/patients from KB;
 - 7 health professionals from KB, including:
 - 2 senior doctors;
 - 2 dispensers; and
 - 1 medical representative;
 - 1 doctor practicing outside of KB but nearby the community

All elements of this study were reviewed by Harvard University's IRB committee.

RESULTS

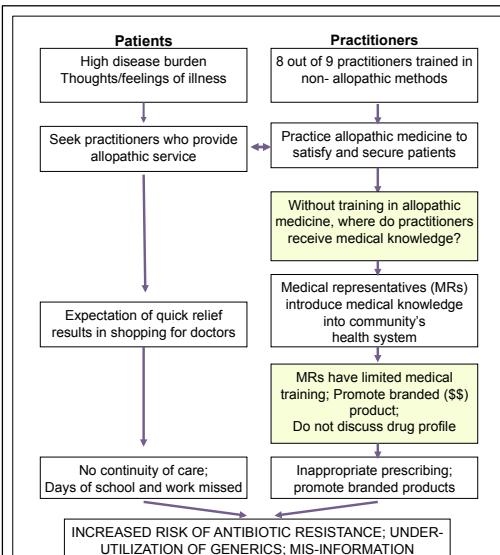


Figure 1. Mapping health behavior in the KB slum

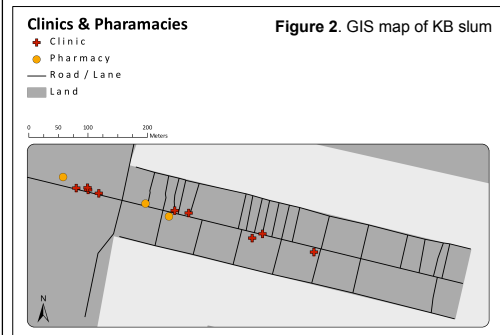


Figure 2. GIS map of KB slum

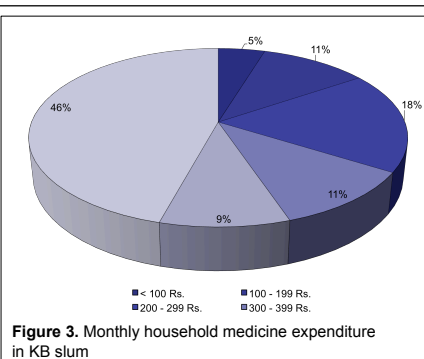


Figure 3. Monthly household medicine expenditure in KB slum

"Sir, write, write, write. ...Please sir, write this; this is good for *this* case and that's good for *that* case."
 - Local doctor, commenting on the aggressiveness of MR in promoting drugs, qualitative individual interview

The main drugs promoted in this community are antibiotics, gastrointestinal, and vitamins.
 - Local medical representative explaining the drug classes he promotes in KB, qualitative individual interview

"...if a medical representative visits a doctor more frequently, doctors will promote those drugs. If someone comes only once in four to six months then doctor's won't promote these services."
 - Local chemist commenting on the relationship between doctors and medical representatives, qualitative individual interview

DISCUSSION

The practitioners interviewed in this community tend to rely heavily on medical representatives to learn about new allopathic medicines. The initial findings support that the decision-making process and the prescribing patterns in this community are greatly influenced by how well medical representatives promote their medicines. Unfortunately, medical representatives may have their own agendas, resulting in prescribing expensive brands and inappropriate prescribing.

This study reveals that because practitioners from this slum are not formally trained to provide allopathic treatment, involvement of medical representatives may further exacerbate the negative impact on the community. Poor quality of information passed down to patients and practitioners prescribing inappropriately to satisfy and maintain business, may result in patients more likely to shop for practitioners.

Limitations to this study include small sample size and potential bias introduced from interviewees.

Future research should further examine these relationships to understand how much of practitioners' medical information originates from medical representatives.

CONCLUSIONS

- 1) Given the excessive disease burden in KB, high health-spending, and reliance on an ill-equipped practitioners, the KB health system is in need of dire reform.
- 2) MRs play a significant role in distributing information in KB. Insofar as MRs may be driven by the profit motive, their information may be biased and health outcomes may be impacted.
- 3) While MRs play a significant role in KB further research is needed to understand their influence in greater Mumbai and India.

REFERENCES

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