How can we detect and deter medicine theft?

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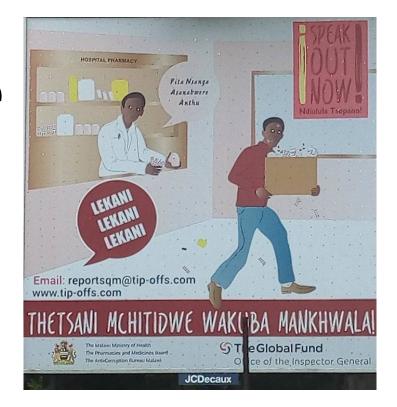
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Diversion is one of the world's biggest health challenges

- Globally, up to one-third of public medicines are diverted to private markets (Bate 2010, Vian 2006)
- In Malawi, 29% of medicines are diverted (Mphande 2017) and 75% of communities have experienced the theft of medicines (author survey 2019)



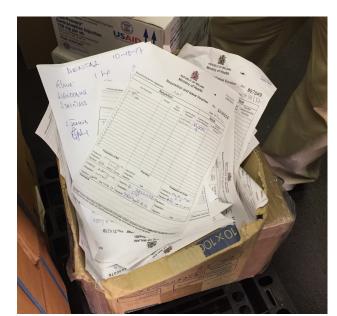


Costs of medicine diversion

- Economic: Globally, it is likely that 10-25% of global health spending is lost to corruption (Garcia 2019). Up to a third of Malawian medicine budgets are lost (Mphande 2017).
- Health: Corruption leads to worse health and mortality. Most Malawians have suffered from medicine stocking issues and see theft as a reason for poor healthcare in their community (authors).

A difficult policy problem to solve

- Theft is profitable and low risk for many
- Theft is difficult to identify, especially at downstream points in the supply chain (e.g., by clinic officials)
- Existing audit mechanisms are imprecise and expensive
- Lack of real-time data leads to large information gaps between accountability organizations and health officials

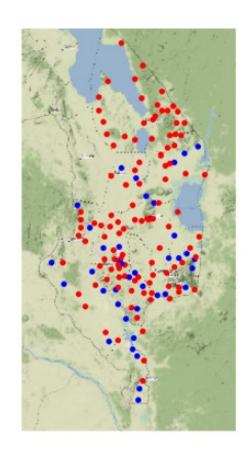


Procurement records at one clinic (authors)



What we did

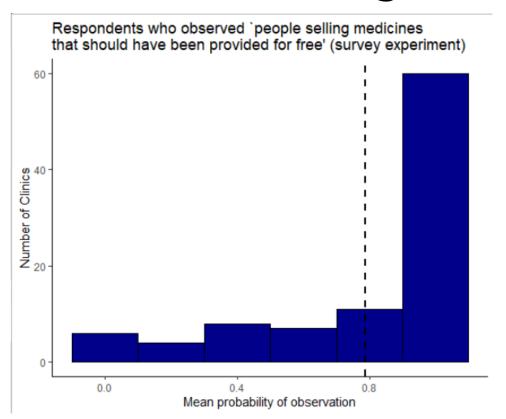
- Surveys and interviews with patients and officials at 100 clinics
- Remote digital tracking of 2,400 medicines to 170 facilities
- Two in-person digital audits at 144 public facilities
- In-person digital audit at 143 private markets and pharmacies
- Experimental evaluation of monitoring information on medicine diversion



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Survey on diverted and missing medicine

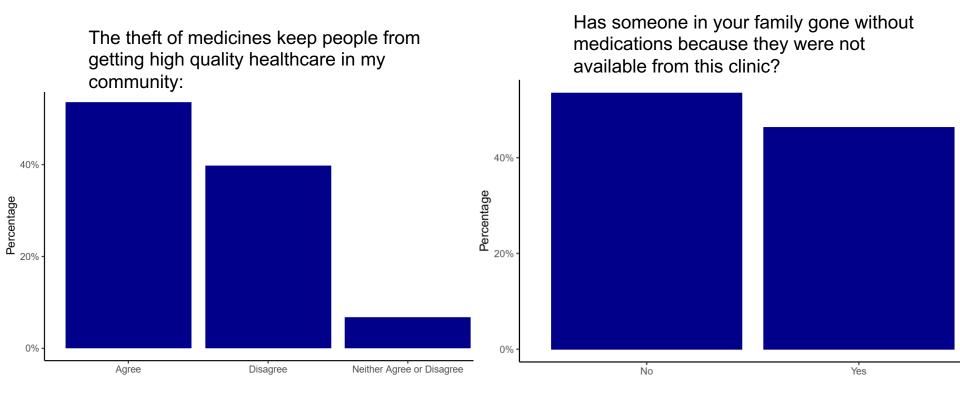
About two-thirds of citizens have observed the illegal sale of medicine





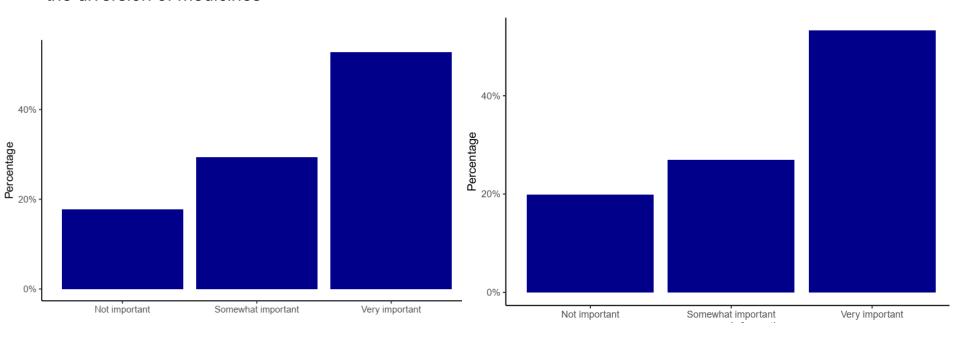
Sale of government medicines at a market (authors)

Most blame theft for poor quality healthcare



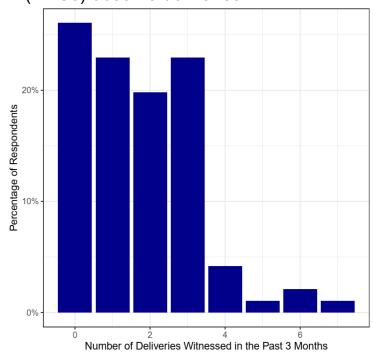
Information and capacity gaps prevent reporting

People do not have effective ways to report the diversion of medicines People do not know whether medications in their clinics are stolen.

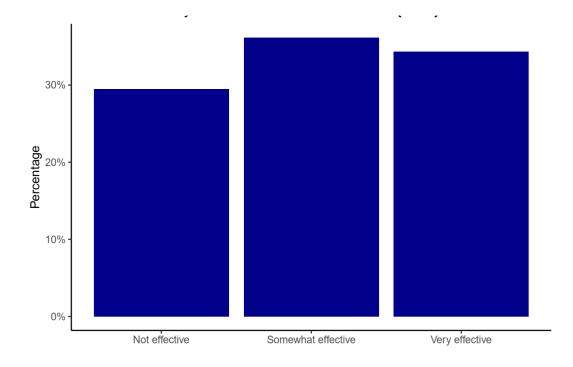


Formal accountability institutions are weak

How often do citizen health committees (HACs) observe deliveries?



How effective are citizen health committees (HACs)?



03

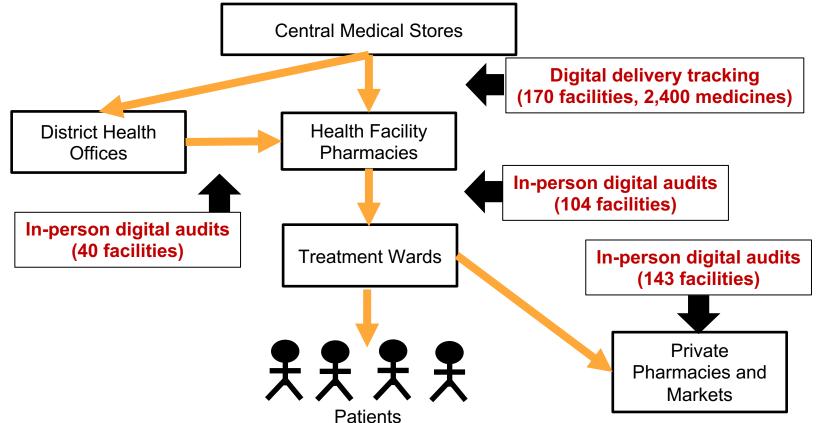
Remote and in-person digital audits

Solving the measurement challenge with tracking and digital audits





Auditing the medicine procurement process



In-person audits

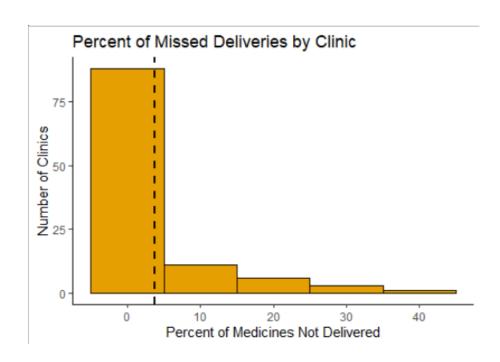


Market during in-person digital audit (authors)



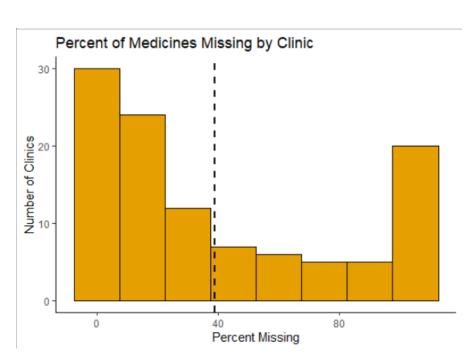
Market during in-person digital audit (authors)

Medicines rarely go missing during deliveries

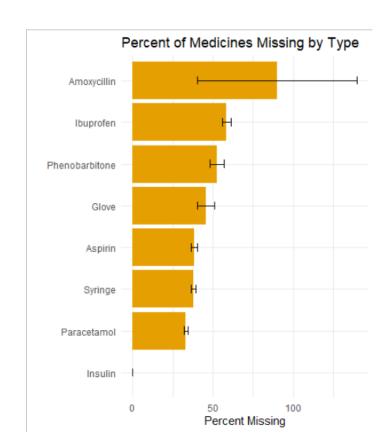


Preliminary data, do not cite

Medicines often go missing after deliveries

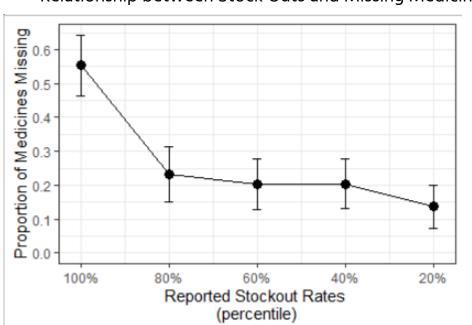


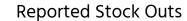
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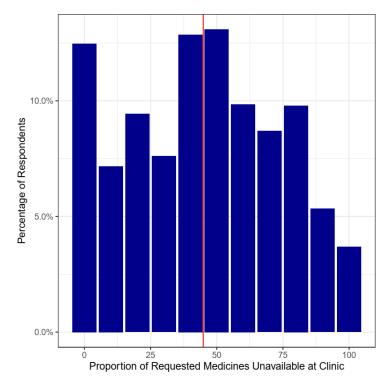


Missing medicines are correlated with stock outs

Relationship between Stock Outs and Missing Medicines







Preliminary data, do not cite

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Can digital audits deter theft?

Treatment provided information about theft costs and tracking

THIS MEDICINE IS BEING TRACKED

Stealing it can send you to PRISON



This medicine is property of The Malawi Ministry of Health



Implications and next steps

- Diversion has severe health consequences, yet accountability hindered by capacity and information gaps.
- Pilot of digital auditing suggests greater ability to identify downstream diversion relative to traditional audits.
- Also suggests diversion related to stock outs and other health issues.
- Next steps: Digital audits may be a powerful tool to empower citizens and accountability institutions.



Protests against medicine theft in Malawi



Funded by UK aid from the British people, GI-ACE works to support researchers generating world-class evidence on anticorruption efforts, in order to inform practitioners' efforts to deliver better outcomes. Working alongside 14 teams conducting operationally relevant, rigorous, and actionable research, we help communicate and share findings in ways that support practitioners to design and implement more effective anticorruption strategies. In addition to generating evidence about anti-corruption initiatives, we are learning how to strengthen partnerships between researchers and practitioners, and how to communicate about research in ways that meet the needs of practitioners.

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