A Digital Approach for Targeted Malaria Treatment

October 29, 2019

Maria Dieci
>50% of patients in East Africa visit pharmacies as their first point of access to primary health care\textsuperscript{1-3}
Complex market with multiple market failures

Policymakers and payers

Providers

Low quality orders

High markups

Patients

High costs
The case of malaria

190 million cases in sub-Saharan Africa each year

400,000 deaths

Safe, effective treatments are known and widely available. \(^1,4,5\)
Mismatch between diagnosis and treatment
Mismatch between diagnosis and treatment
Digital technology for pharmacies

1. LINKED DIGITAL PHARMACY NETWORK
2. POINT OF SALE REIMBURSEMENT
3. MEDICATION RESTOCK FOR QUALITY + AFFORDABILITY
Randomized trial to improve targeted malaria treatment

- **Digital point of sale platform** (CONTROL)
- **Patient discounts** (INTERVENTIONS)
- **Provider performance pay** (INTERVENTIONS)
Takeaways

• Pharmacies are a primary access point to the health care system for many people

• Misaligned incentives between patients and providers have consequences for health outcomes

• Digital technology can improve care targeting to those most in need & realign incentives to focus on quality care
Thank you

Maria Dieci, UC Berkeley
dieci@berkeley.edu

Collaborators
Paul Gertler, UC Berkeley
Jon Kolstad, UC Berkeley
Maisha Meds

Funders
USAID
Bill and Melinda Gates Foundation
Sources


Patient discount treatment arm

- Malaria symptomatic patient visits pharmacy
- Patient offered rapid diagnostic test at discount
- Patient uploads photo of test outcome and receives recommendation
- Patient gets discount on recommended treatment and receives care
- Maisha Meds pays remainder of transaction cost via mobile money
Study Design

Sample
- Maisha Meds network of active pharmacies

Random assignment
- Ineligible
- Eligible
  - Active for at least 6 months
  - > 100 malaria-related sales in this time

Interventions
- Treatment arms
  - Information + patient subsidy
  - Information + performance pay
  - Information and both
  - Information (control)

Endline 1
- % uptake
- % uptake
- % uptake
- % uptake