

Quality of services provided by e-pharmacies in Kenya and India – a large-scale assessment through a website review and standardized patients



LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



Funding: Health Systems Research Initiative (MRC, FCDO, Wellcome Trust)

Objectives

1

Characterise e-pharmacy markets

2

Assess performance of e-pharmacies

3

Critical appraisal of regulatory systems

4

Understand policy processes influencing regulation

e-pharmacy

- India and Kenya
 - Both lower-middle- income countries
- Different in many ways
 - Size of populations and economies
 - Local manufacturing of pharmaceuticals
 - Stages of e-pharmacy development
 - e-pharmacy regulations in Kenya, and none in India

Objectives

1

Characterise e-pharmacy markets

WP2

Assess performance of e-pharmacies

WP3

Critical appraisal of regulatory systems

WP4

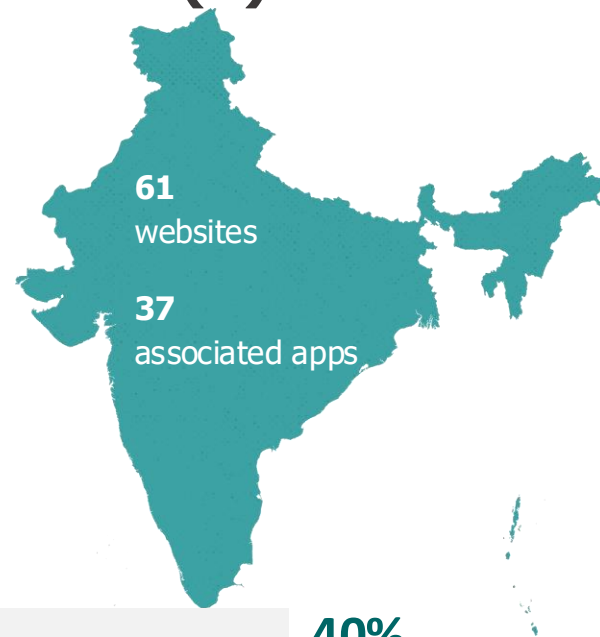
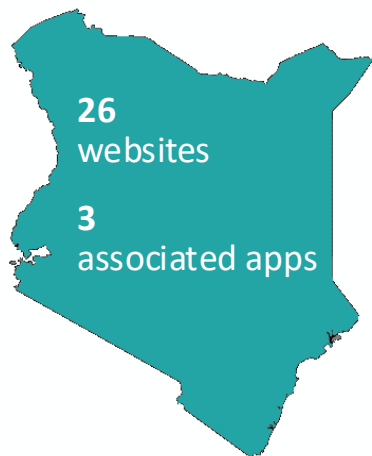
Understand policy processes influencing regulation

Characterizing e-pharmacy Markets: Methods

- Reviewed e-pharmacy websites, apps
 - identified through extensive Google search
 - e-pharmacy =
 - Business that sell prescription-only medicines directly to consumers online
 - Offers delivery of purchase through mail or courier service
- Data collection
 - Characteristics
 - Adherence to best practices and current/proposed regulatory requirement



Characterizing e-pharmacy Markets: Results (1)



15%

Offered services beyond pharmacy

40%

100%

Offered products of alternative systems of medicines

80%

69%

Offered discount on price

85%

Characterizing e-pharmacy Markets: Results (2)

No e-pharmacy in Kenya met all the regulatory requirements!

No e-pharmacy in India met all the proposed regulatory requirements!

9 out of 12 (75%)

8 out of 14 (54%)

Average compliance of to reg. requirements

10 vs 9

9 vs 7

Most visited* had better compliance

9 vs 8

8 vs 6

Physically located within the country had better compliance

Objectives/Work Packages

1

Characterise e-pharmacy markets

2

Assess performance of e-pharmacies

3

Critical appraisal of regulatory systems

4

Understand policy processes influencing regulation

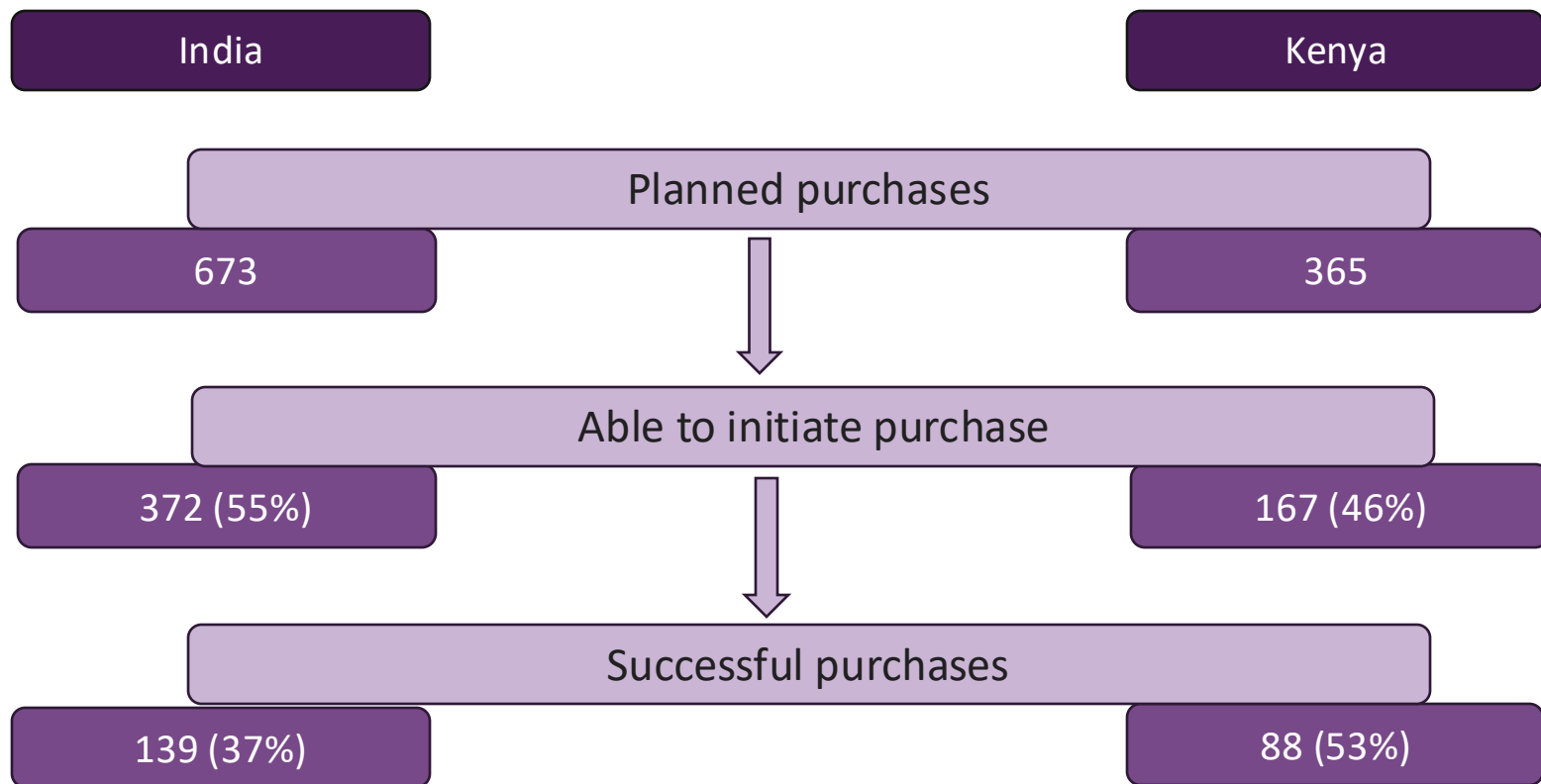
Assessing performance of e-pharmacies: Methods (1)

- **Design:** Cross-sectional standardized patient (SP) survey
- **Sample:** e-pharmacies identified for objective 1
- **Data collection:** SP online visits presenting fictitious case scenarios seeking to purchase prescription medicines across different prescription statuses:
 1. With a valid prescription
 2. Without a prescription
 3. With prescription with error
 - Contraindication
 - Bulk volume
 - Overdose (Kenya only)

Assessing performance of e-pharmacies: Methods (2)

Medicine attempted for purchase	Public health concern
Antibiotic	Antimicrobial resistance
Antihypertensive	Long-term use
Insulin	Temperature control
Non-Steroidal Anti-Inflammatory Drug	Late-pregnancy contraindication
Medical abortion pill	Physician consultation required
Opioid (pain killer)	Habit forming, abuse potential medicine

Assessing performance of e-pharmacies: Results (1)



Assessing performance of e-pharmacies: Results (2)

38% India (N=108)

74% Kenya (N=31)

**Prescription medicine purchased
without a prescription**

35% India (N=37)

27% Kenya (N=11)

Antibiotics purchased in bulk

Assessing performance of e-pharmacies: Results (3)

Of all the products purchased

2% India (N=139)

17% Kenya (N=88)

**Did not match quantity/brand/medicine
ordered**

3% India (N=110)

7% Kenya (N=56)

Opioid purchase

Summary

- Found issues related to quality of pharmacy care and compliance to regulations
- Not different to findings among physical pharmacies in previous studies
- Conducting a SP survey in physical pharmacies in both countries - direct comparison of performance of e-pharmacies and physical pharmacies
- Existence of an e-pharmacy regulations, as in Kenya, does not guarantee good quality pharmacy care

Thank you for your attention