

Using household surveys to assess drug utilisation patterns, e.g. home treatment of malaria

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Drug Utilization Research - reminder

- Correct interpretation of data on drug utilization requires patient level investigation:
 - why are drugs prescribed?
 - who are the prescribers?
 - for whom do prescribers prescribe?
 - patients takes medicines correctly?
 - benefits and risks of the drugs?

Why household survey?

- Ultimate goal of drug utilization research is to assess whether drug therapy is rational or not
- To reach this goal, methods for auditing drug therapy towards rationality are necessary
- Prescription data may/may not be available at national level
- How are drugs used in a specific setting?
- Over the counter drugs?

Example: Adoption of the new antimalarial treatment policy in Tanzania

- Malaria CQ resistance → In 2001 Tanzania changed 1st line treatment from CQ to SP
- Home treatment by mothers/guardians large part of malaria treatment
- Poor knowledge of CQ treatment dosage
- Mis-reporting of home treatment
 - irrational use of antimalarials → drug resistance/treatment failure
- SP resistance develops quickly

Steps involved in policy change (Walt, 1994):

- Problem identification
- Policy formulation
- Policy implementation
- Monitoring and evaluation



Knowledge gaps

- Little known about policy change in low-income settings (e.g. self-treatment)
- Most research focused on formulation on policy and making the change “on paper”
- Little known about the implementation/diffusion itself



Factors involved in diffusion of innovations/policies

- Perception of the innovation
- Characteristics of individuals who may adopt the change
- Contextual and managerial factors

» Berwick et al., Dissemination of innovations in health care. *Jama* 2003

Aim

- To assess the attitudes and practices in use of antimalarials, especially SP, in households in Kibaha district, Tanzania and how this has been affected by the change in the malaria treatment policy of the country

Methods

1. Household (HH) survey
 - Caretakers in 729 HH interviewed, half of the HH had underfives
 - 116 children had fever last 4 weeks
2. Blood CQ and SP concentrations from all underfives
3. Focus Group Discussions
 - 4 with mothers, 4 fathers, 4 health care professionals

Household survey

- Semi-structured questionnaire - closed- and open-ended questions addressing:
 - home stocking of antimalarial drugs
 - home-treatment practices of children younger than 5 years with fever
 - source of antimalarials
 - knowledge about antimalarials, especially SP
 - knowledge of the recent policy change

Policy diffusion in Kibaha, Tanzania

- *Household interviews:*
- 51% knew SP was first line treatment, 41% knew why (CQ resistance)
- 85 stocked antimalarials
- Last fever episode: 88% sought care outside home, mostly public HF, 4% gave antimalarial at home

- *Focus group discussions:*
- All had heard about the policy change
- Mass media and health facilities source of information about policy

Conclusion

- Policy change had diffused to communities
- dramatic change from self-treatment with CQ to seeking care at public health facilities where SP was given under observation
- Triangulation of methods strengthen results
- Valuable information for policy makers and health system

Continuation

- Artemisinin-based combination therapy (ACT) from fall 2006 in Tanzania
- Challenges:
 - Health system/implementation
 - Cost
 - Compliance (1x2xIII) resistance
- Encouraging:
 - Less self-treatment (?)
 - Lower drug pressure → inhibited resistance

