

Diagnosis and Treatment Indicators

GLOBAL MALARIA PROGRAMME

Richard Cibulskis
CMWG, Geneva
July 27th 2011



Current Recommended Indicators

Diagnosis Indicator:

$$\frac{100 * \text{Number of children } <5 \text{ with fever in past 2 weeks with a finger/ heel stick}}{\text{Number of children } <5 \text{ with fever in past 2 weeks}}$$

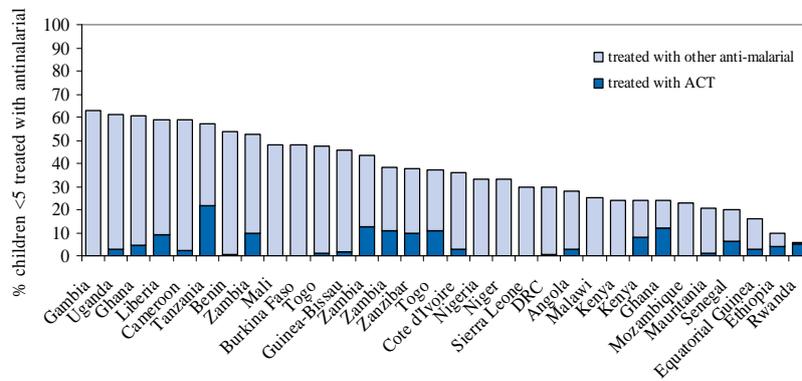
Treatment Indicator:

$$\frac{100 * \text{No. children } <5 \text{ with fever in past 2 weeks receiving anti-malarial treatment}}{\text{No. children } <5 \text{ with fever in past 2 weeks}}$$

But not all fever cases should receive anti-malarial medicines



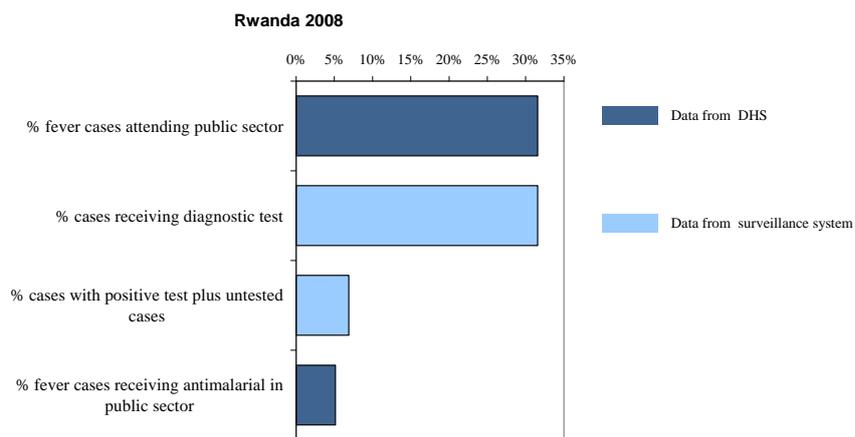
Use of anti-malarial drugs in children <5



Source: DHS, MICS and MIS surveys conducted 2006-2008



Proportion of children receiving antimalarial medicine compared to proportion requiring antimalarial medicine



Alternative Treatment Indicators

A: For those with positive test result:

$$100 * \frac{\text{No. children <5 with fever in last 2 weeks tested +ve and receiving antimalarial}}{\text{No. children <5 with fever in past 2 weeks with positive test}}$$

B: Taking into account negative test result/ not tested:

$$100 * \frac{\text{No. children <5 with fever in last 2 weeks tested and receiving recommended antimalarial treatment}}{\text{No. children <5 with fever in past 2 weeks tested}}$$



World Health
Organization



GLOBAL MALARIA
PROGRAMME

Recommended Antimalarial Treatment

- | | | |
|--------------|---------------------------------|----------------------------|
| ● Test + ve | : received anti-malarial | <i>Recommended</i> |
| | : did not receive anti-malarial | <i>Not recommended</i> |
| ● Test – ve | : received anti-malarial | <i>Not recommended</i> |
| | : did not receive anti-malarial | <i>Recommended</i> |
| ● Not tested | : received anti-malarial | <i>Recommended (?)</i> |
| | : did not receive anti-malarial | <i>Not recommended (?)</i> |



World Health
Organization



GLOBAL MALARIA
PROGRAMME

Recall by care takers of test results in Zambia

Source of fever treatment	Test positive			Total	% +ve
	Yes	No	DK		
Hospital A	11	2	0	13	85%
Health Centre B	83	15	9	107	85%
C	1	0	3	4	100%
E	0	1	0	1	0%
F	2	0	0	2	100%
Blank	8	0	0	8	100%
Total	105	18	12	135	

Test positive	Fever treat ACT			% ACT
	Yes	No	Total	
Yes	75	26	101	74%
No	4	14	18	22%
DK	8	4	12	67%
Total	87	44	131	

Source: Albert Killian

Reasons for high positivity rate:

- May be given final diagnosis not test result?
- If tested for malaria then assumption is that you have malaria?
- Caretakers only recall being tested if result is positive?
- Fault in health service or patient recall?
- Can be overcome by better training?

Ways Forward

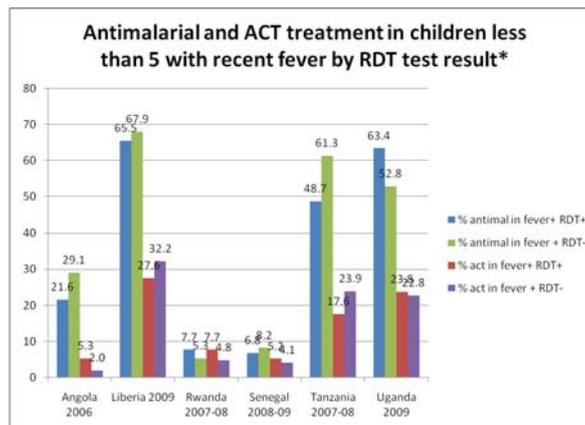
- **Stop recommending the current treatment indicator (% fever cases receiving antimalarial). Describe indicator in guidance document for historical purposes, explaining that it is no longer consider relevant.**
- **Further review experience of places where recall of test results has been attempted**
 - Cambodia, Zambia, Uganda, Senegal
- **Explore whether results of RDTs taken during household survey itself can provide information on appropriate treatment**
 - Seems to have problems
- **Pilot test questions in areas conducting MIS in 2011**
 - Verify recall of test result by caregiver - by visiting health facility and checking laboratory or patient registers
- **Explore two other indicators in the interim:**
 - % of fever cases seeking care from appropriate provider
 - % of antimalarial treatments that are ACTs

Solomon Islands: Reasons for not seeking treatment

Reasons a clinic/ hospital was not used for help/ care for recent sickness. SI HIES 2005-2006

	Number	%
Clinic to far	76	26.4%
Clinic not friendly	0	0.0%
Clinic not nice	1	0.3%
Clinic no staff	4	1.4%
Close relative works at clinic	3	1.0%
Clinic has no drugs	1	0.3%
Can't pay for clinic	10	3.5%
Can't pay for transport	7	2.4%
No transport available	8	2.8%
Illness at night	1	0.3%
Bad weather	10	3.5%
Too busy to go to clinic	17	5.9%
Illness not serious	49	17.0%
Other reason	9	3.1%
Always use TH first	10	3.5%
Not stated	82	28.5%
Total	288	100.0%

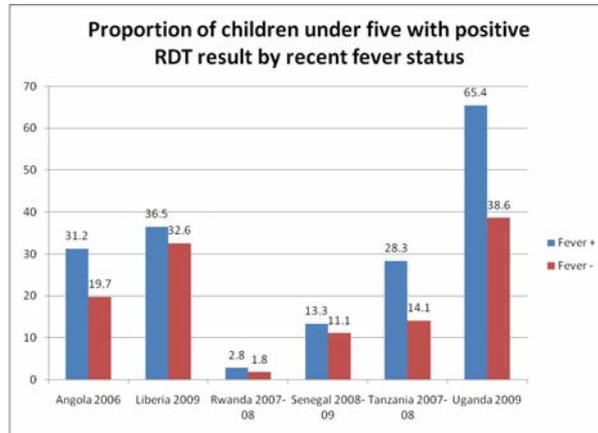
Looking at RDT results



Source: Lia Florey

Roughly equal proportions of fever cases get antimalarial medicine whether or not RDT+ve in household survey or not

Looking at RDT results

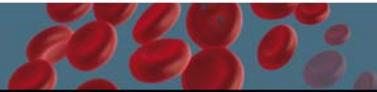


Source: Lia Florey

RDTs picking up asymptomatics?



World Health Organization



GLOBAL MALARIA PROGRAMME