

Characterising persistent hot-spots of urogenital schistosomiasis on Unguja Island, Zanzibar

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Outline

Identifying...

Surveying...

Characterising...

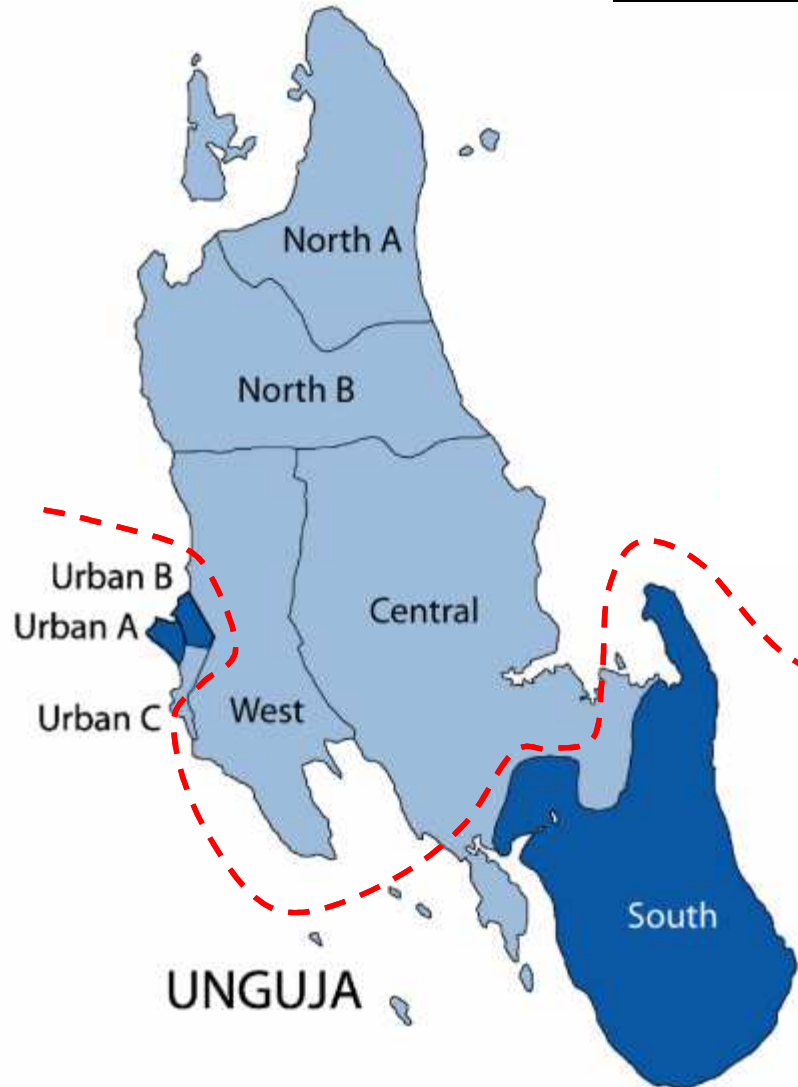
Tackling...



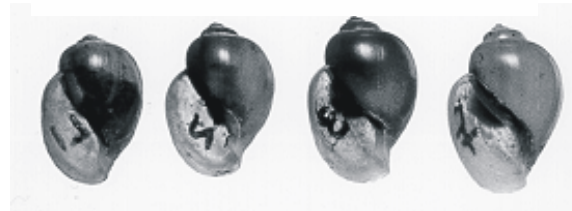
...persistent hot-spots
on Unguja Island



Distribution of *S. haematobium* Unguja, Zanzibar



 *Schistosoma haematobium*



Bulinus globosus

Overall *S. haematobium* prevalence <5%

Some areas with much higher prevalence
= **persistent hot-spots**

Selection of persistent hot-spots

ZEST Annual: Single urine filtration examination of ~100 schoolchildren per school (9-12 years)



Prevalence data 2012-2014

>15% *S. haematobium* at some point over 3 years
= 5 persistent hot-spots

<5% *S. haematobium* at some point over 3 years
= 2 low-prevalence areas*

Surveying human-water contact sites and safe-water sources

Mapping

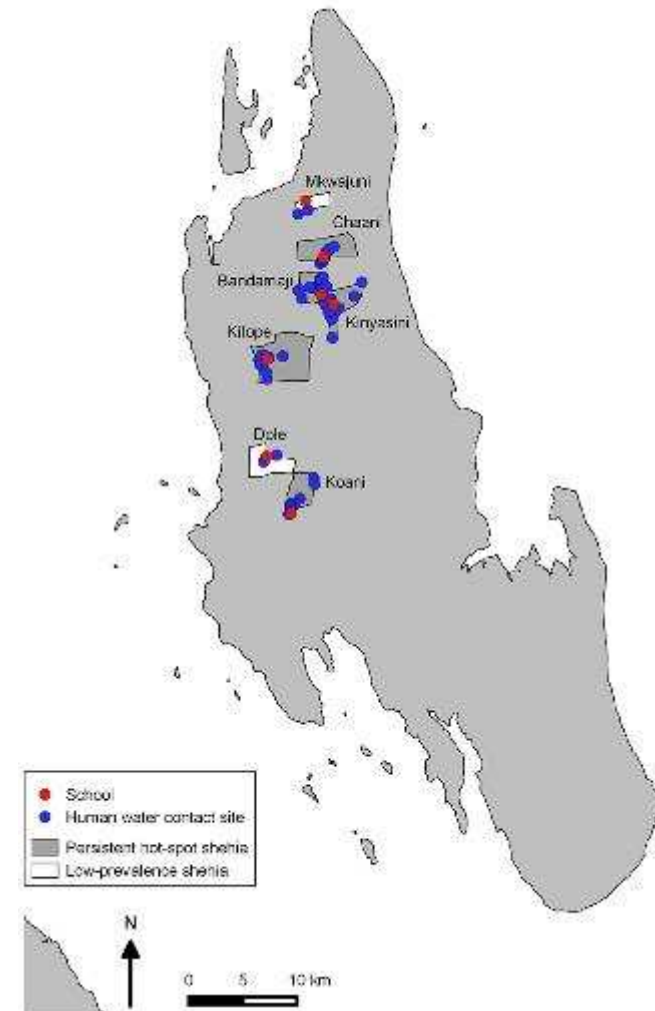
- Schools
- Human-water contact sites (i.e. ponds, rivers, streams, rice paddies)
- Safe water sources (i.e. taps, wells etc)

Snail surveys

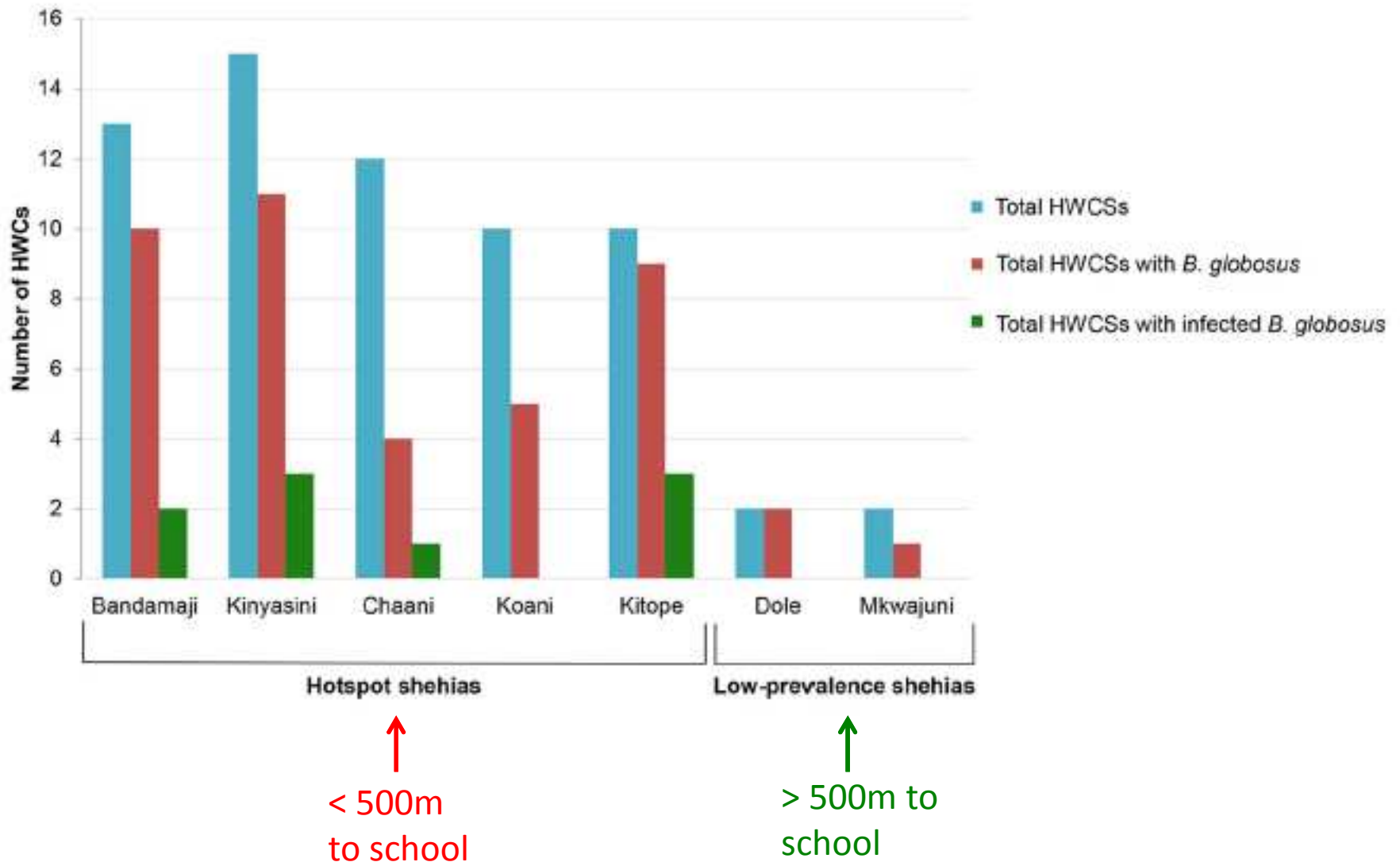
- Presence of [patent] infected and uninfected *Bulinus globosus*
- Habitat and behavioural surveys

Safe water source availability

- Reliability questionnaire



Negative... Neutral... Positive...	...impact on transmission	Persistent hot-spot	Low-prevalence area
Treatment Coverage	$\approx >75\%$	$\approx >75\%$	
Human-Water Contact Sites (HWCSs)	More HWCSs (12)	Less HWCSs (2)	
<i>Bulinus globosus</i> HWCSs	More HWCSs containing <i>B. globosus</i> (8)	Less HWCSs containing <i>B. globosus</i> (2)	
Infected <i>Bulinus globosus</i>	Yes	No	
Distance from schools to HWCSs	Shorter (229m)	Longer (722m)	
Risk behaviours at HWCSs	More common	Less common	
Number of Safe Water Sources	45	38	
Safe Water Source impact	Generally poor accessibility and availability	Generally poor accessibility and availability	
Number of taps	7	14	

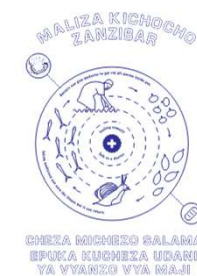


The **number of human-water contact sites**, their **infestation with *B. globosus*** and their **distance to schools** seem to play a major role for a persistently high *S. haematobium* prevalence in children.

Tackling persistent hot-spots

Treatment +

- Targeted snail control near schools
- Enhanced behaviour change measures
- Increasing access to reliably working taps



= reduce *S. haematobium* prevalence in hot-spot areas and reach elimination

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