The (short) story of brucellosis in western Kenya

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A lateral flow assay was used as primary screening test for brucellosis in sympatric animals and people.



- Rapid and simple
- Good performance
- Animal and human tests
- A bit expensive

We found:





2116 people in 416 homesteads

 $LFA: 0.71\% \ (95\% \ C.I. \ 0.38-1.17)$

RBT: 0.06% (95% C.I. 0.0014 – 0.32)

893 cattle in 230 homesteads

LFA: 0.31% (95% C.I. 0.06 – 0.89)

No relationship between animal and human sero-status at the household level

Further surveillance based on central point sampling



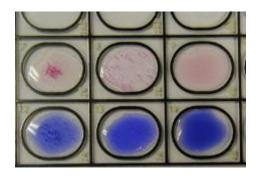
Seroprevalence based on RBT < 0.5%

But, brucellosis apparently a common diagnosis in district and sub-district hospitals in study area....

So, we went to investigate.



Rose Bengal



Brucella Agglutination Test

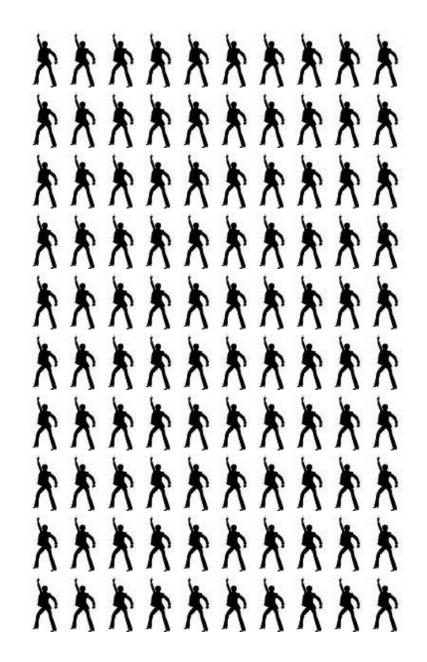


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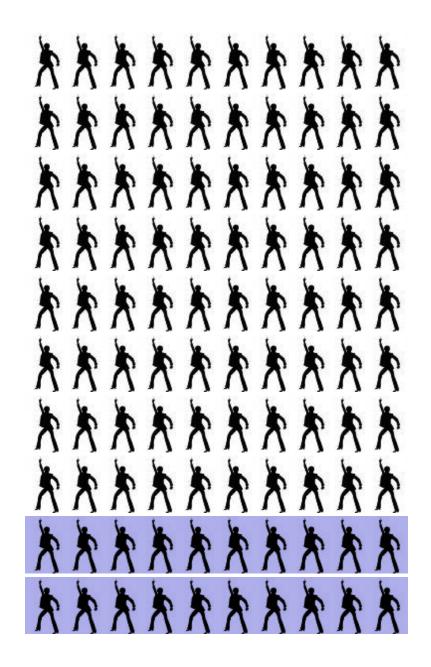
Lateral Flow Assay

A population of 827 brucellosis suspects



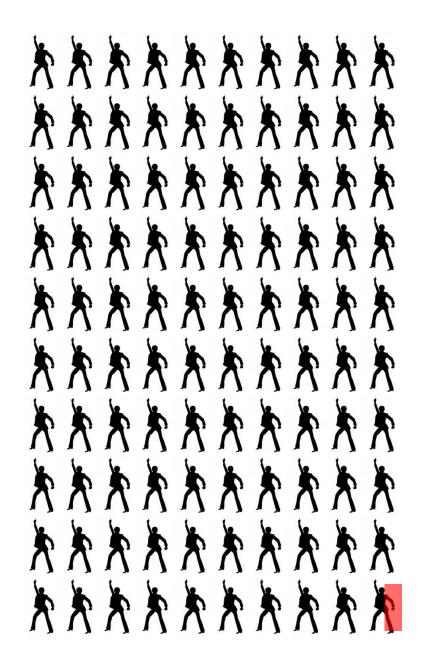
A population of 827 brucellosis suspects

BAT: 19.7%

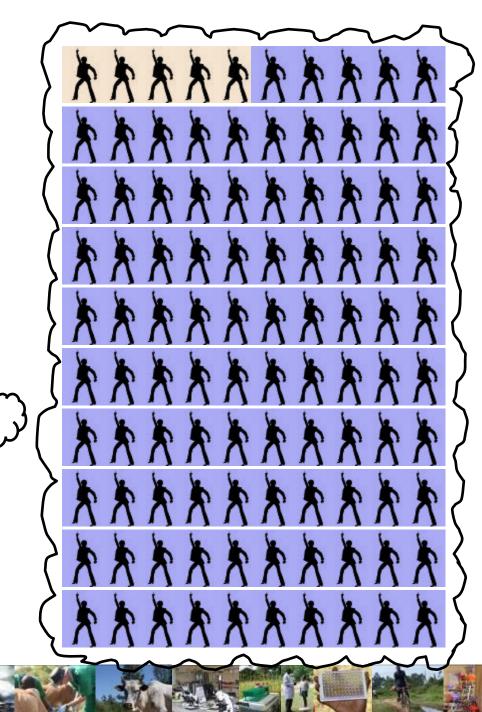


A population of 827 brucellosis suspects

RBT: 0.6%



******* **** **** ******* **** **** ******* ****** ******** *** 5% of reactive BAT confirmed on LFA



So, brucellosis *appears* to be rare and over-diagnosed using current diagnostic approaches in western Kenya.

Limits use of people as 'sentinels' for zoonotic disease in animals.

..... 'one-health'

Thank you.

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