



Sandy Cairncross

London School of Hygiene & Tropical Medicine

**Fictions, predictions & contradictions;
Guinea worm eradication
in West Africa**

Boyd Orr Conference

Glasgow, July 2014



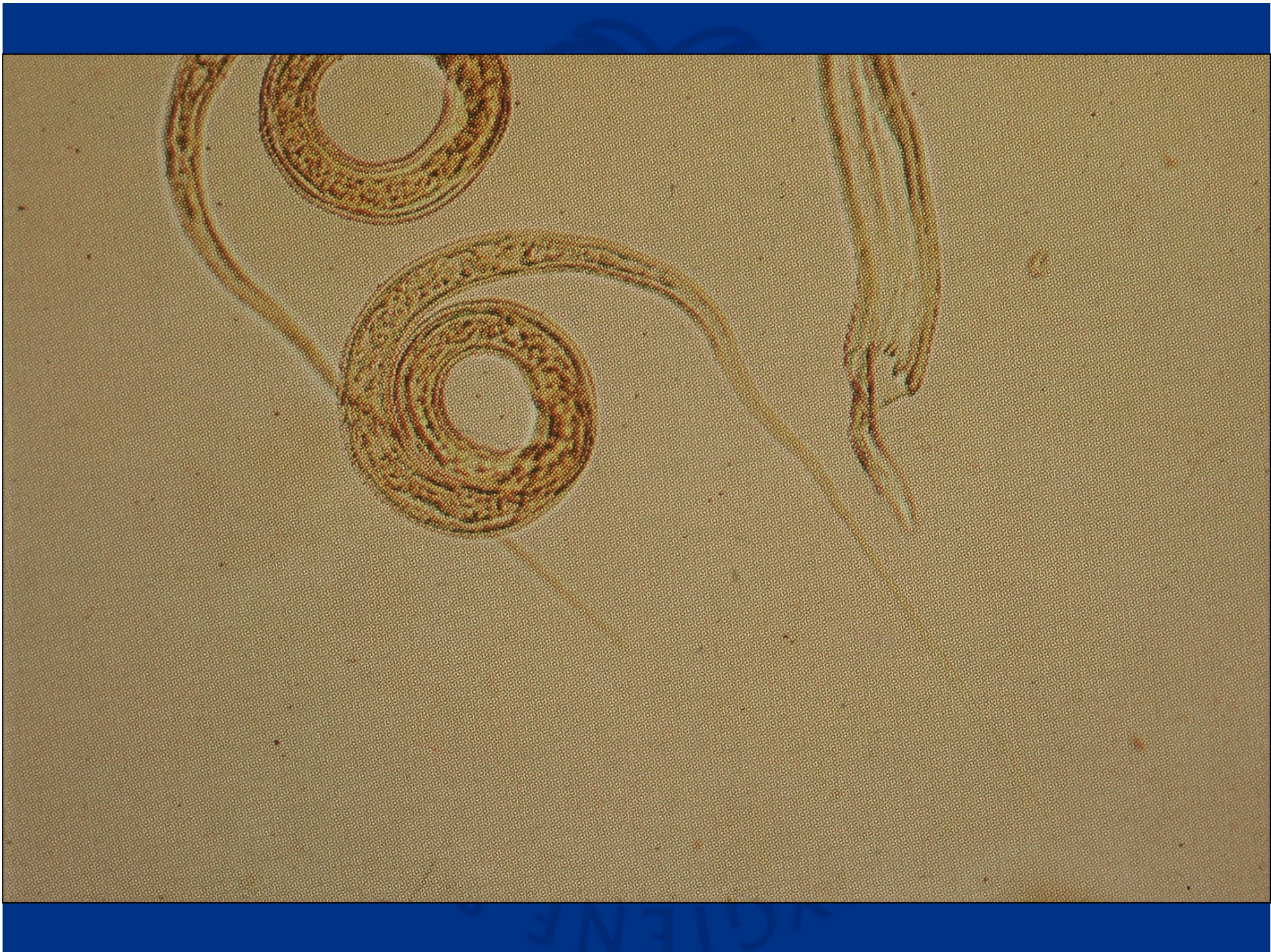
Transmission cycle



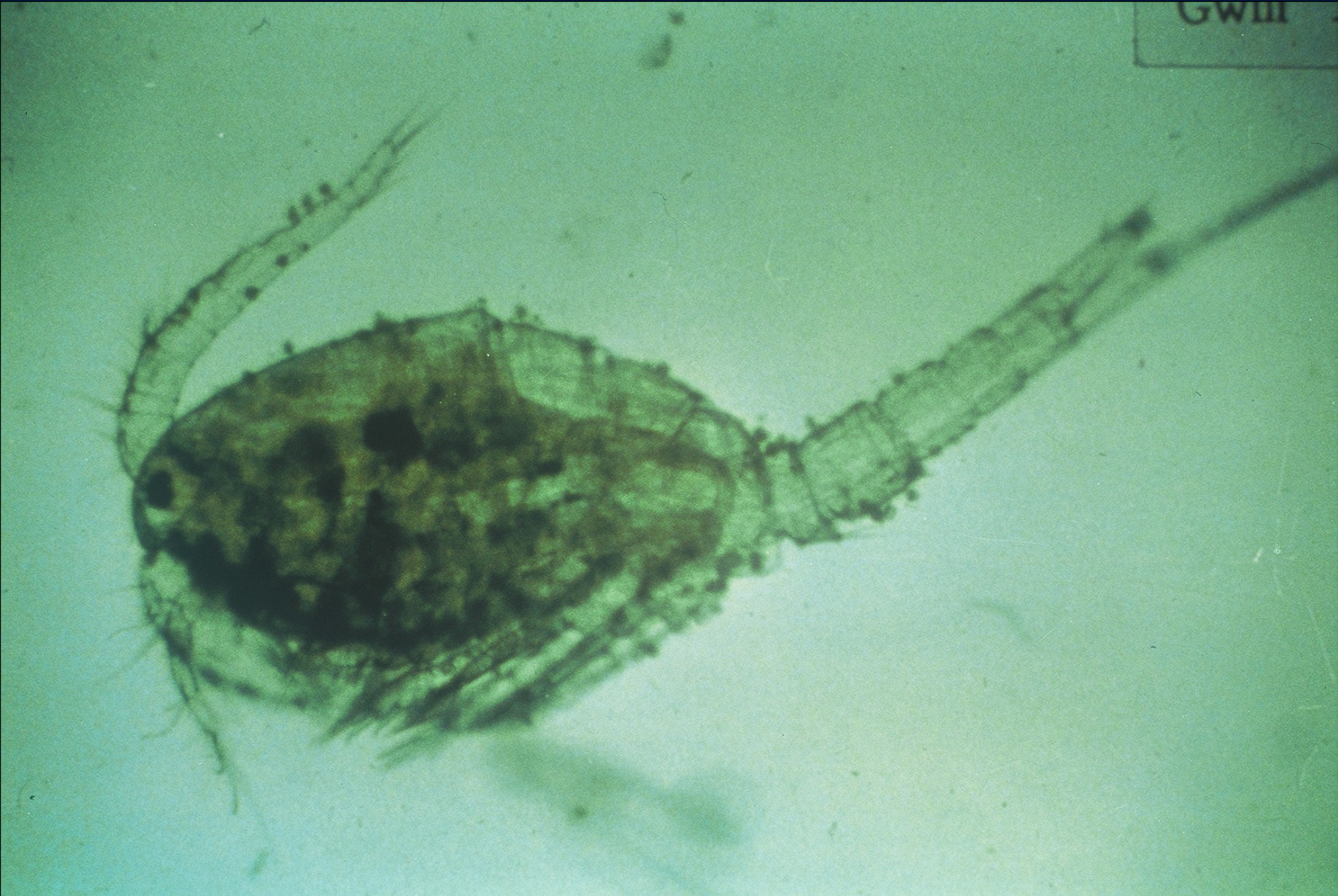








GWIII



NGLENT



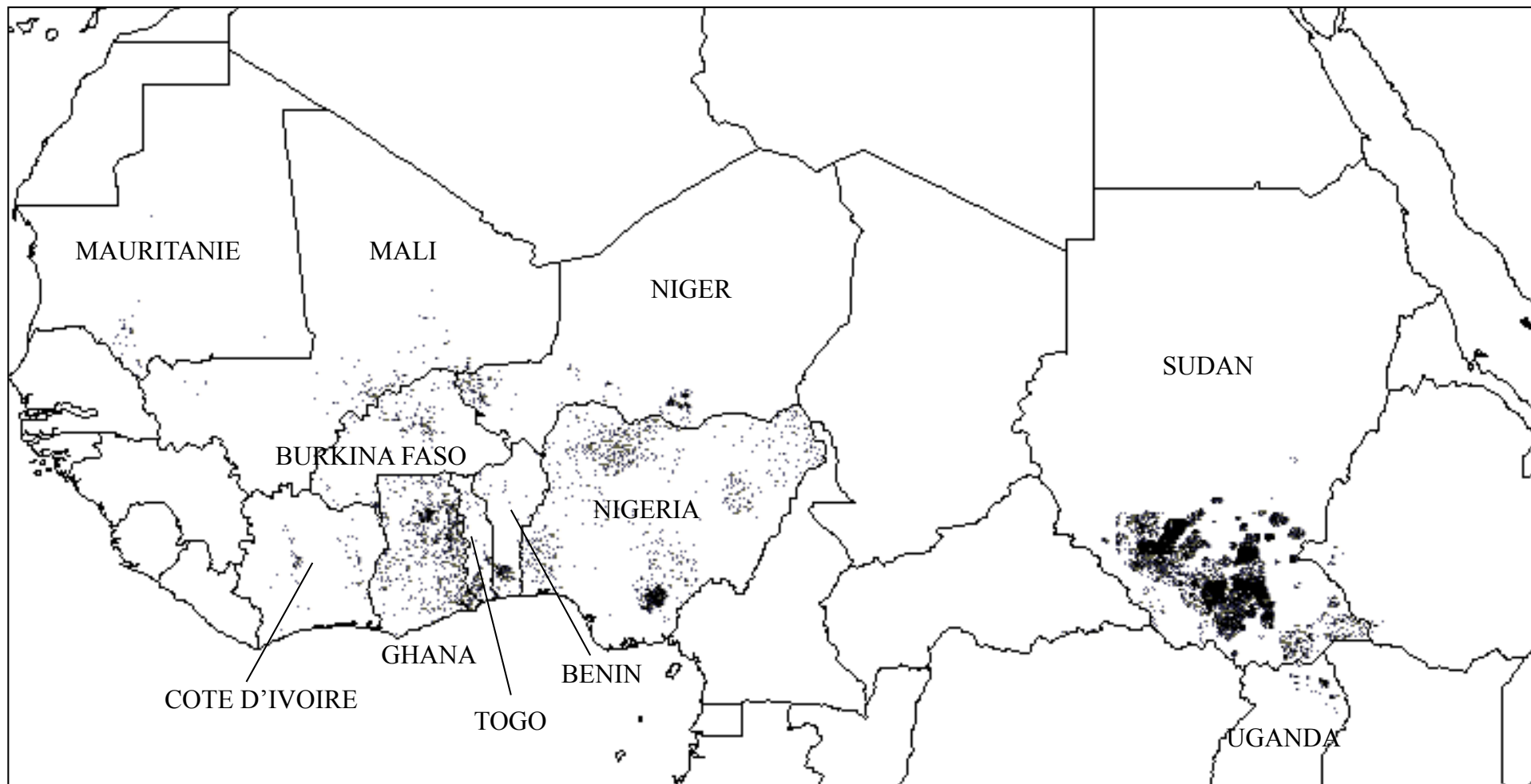
Epidemiology

The background features a large, faint watermark of the London School of Hygiene & Tropical Medicine crest. The crest is circular and contains a central figure holding a staff with a snake, surrounded by various symbols including a globe, a wheel, and a shield. The text 'LONDON SCHOOL OF HYGIENE & TROPICAL MEDICINE' is visible around the perimeter of the crest.



Figure 1. Distribution géographique de la dracunculose. L'aire de distribution actuelle est délimitée par la ligne grasse.

Figure 1. Geographical distribution of dracunculiasis. The current geographical distribution is shown with a bold line.



WHO/OMS

CDS/CPE

Guinea Worm Eradication Programme

Currently Endemic Villages in 1999

Note:

1 dot = 1 endemic village

In Sudan and Ghana villages were distributed according to the first administrative levels and not according to the co-ordinates.



TROPICAL MEDICINE

WOMEN SCHOOL

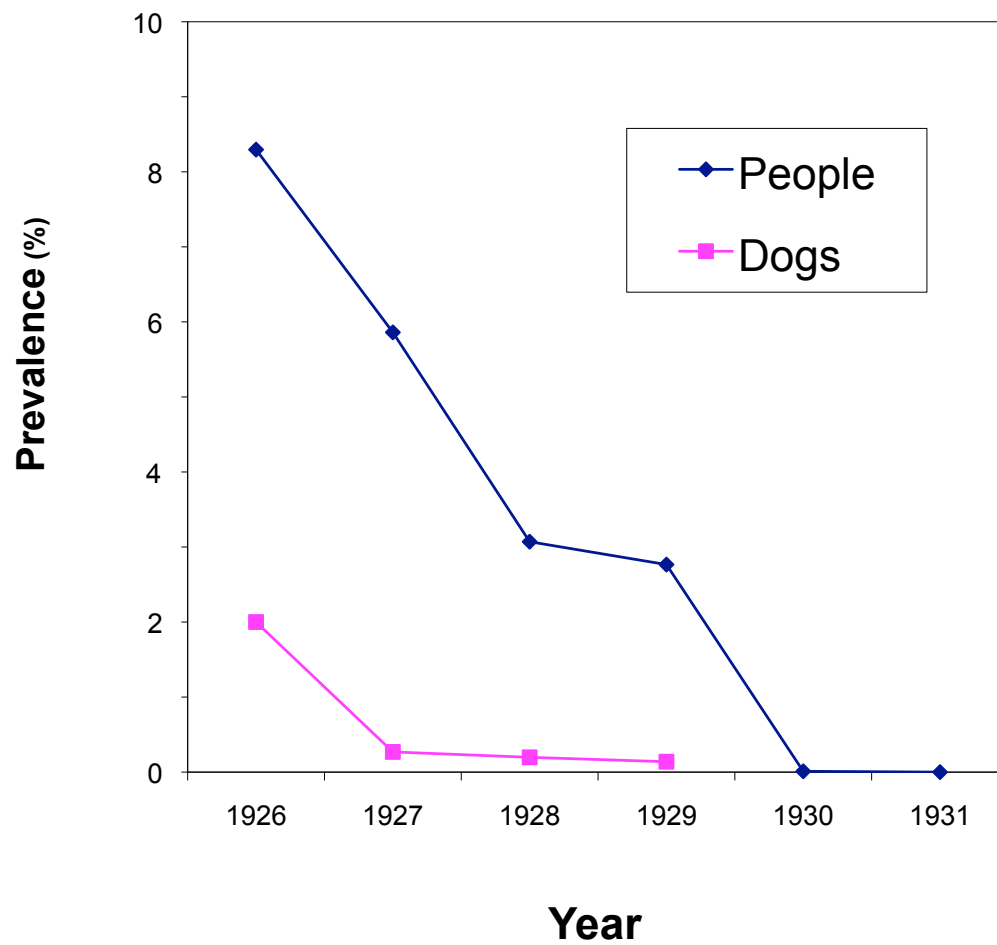


Characteristics of past and present eradication candidates.
 Characteristics favouring eradication are marked "+".

| | Malaria ^b | Smallpox | Polio | Dracunculiasis |
|---|----------------------|----------|-------|----------------|
| Agent | | | | |
| No animal reservoir | + | + | + | + |
| No mobile vector | - | + | + | + |
| Host | | | | |
| Limited carrier state | - | + | + | + |
| Easy diagnosis | - | + | - | + |
| Distribution | | | | |
| Limited endemic area | + | + | - | ++ |
| Seasonal transmission | + | + | +/- | + |
| Threat to western countries & visitors | + | + | + | - |
| Intervention | | | | |
| Effective drugs exist | + | - | - | - |
| Prevention cheap & complete | - | + | + | + |
| Prevention needs no behaviour change | - | + | + | - |

Source: adapted from Hopkins, D.R. 1983. Epidemiol. Rev. 208-219.

Dracunculiasis in people and in dogs in Old Bukhara, Uzbekistan, 1926-31





Interventions:

Water supply

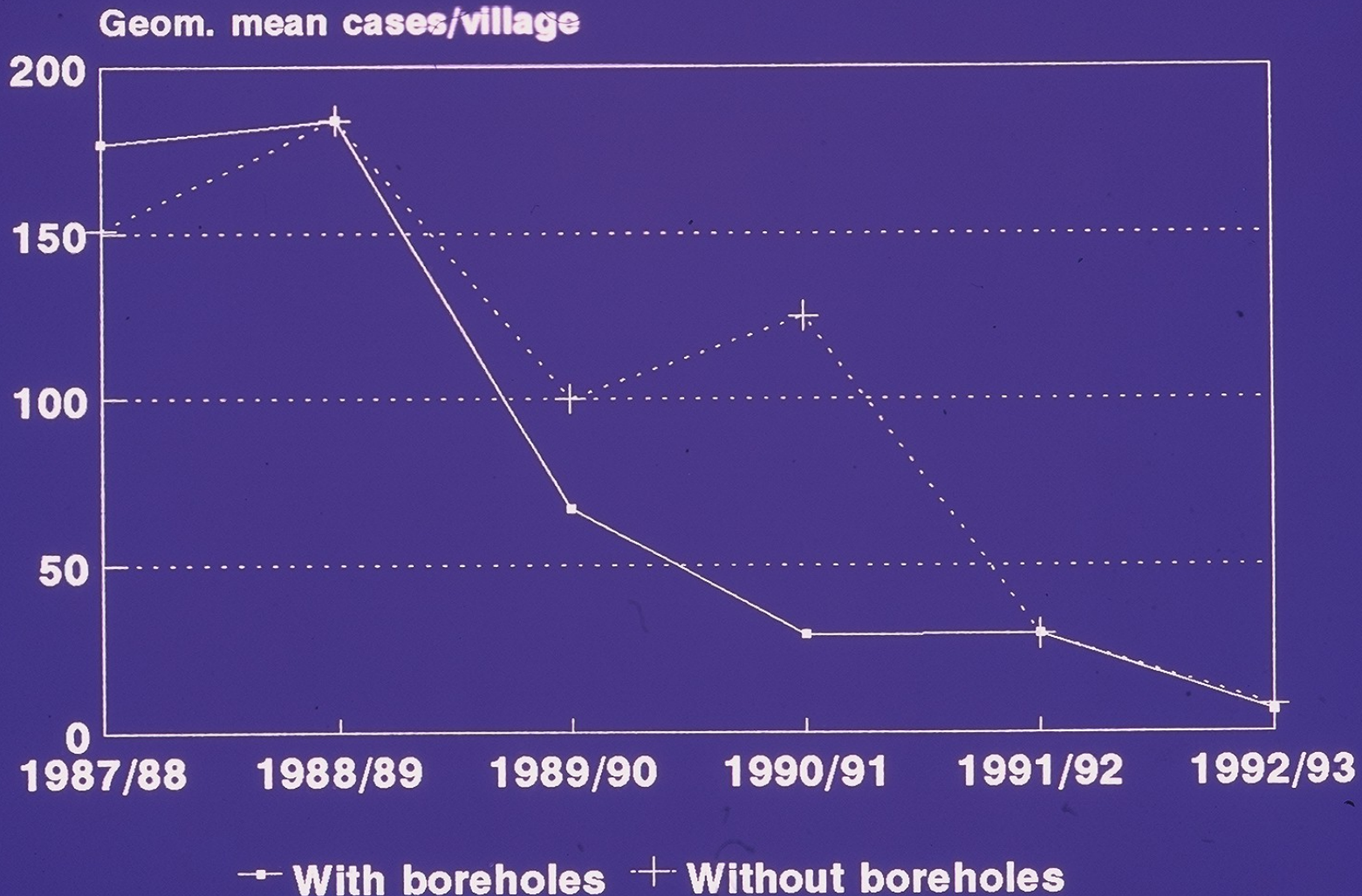




Interventions:

health education

Guinea worm in Enugu State, Nigeria: impact of boreholes and health education















Community-based surveillance

Characteristics of community-based surveillance:

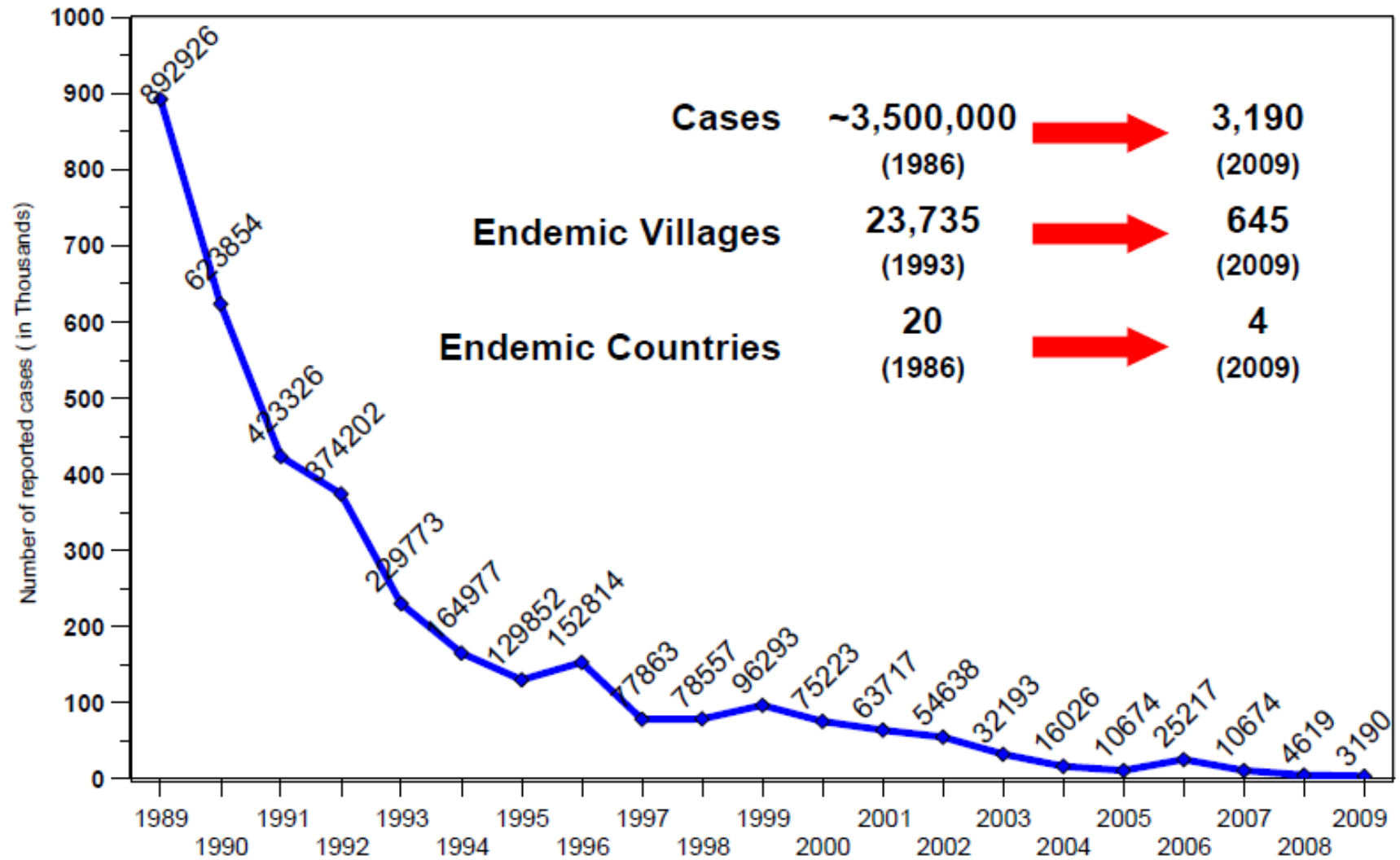
- Active, with
- Monthly home visits
- By volunteers
- Who know those visited
- Supervised monthly

The data should be used as near the village as possible

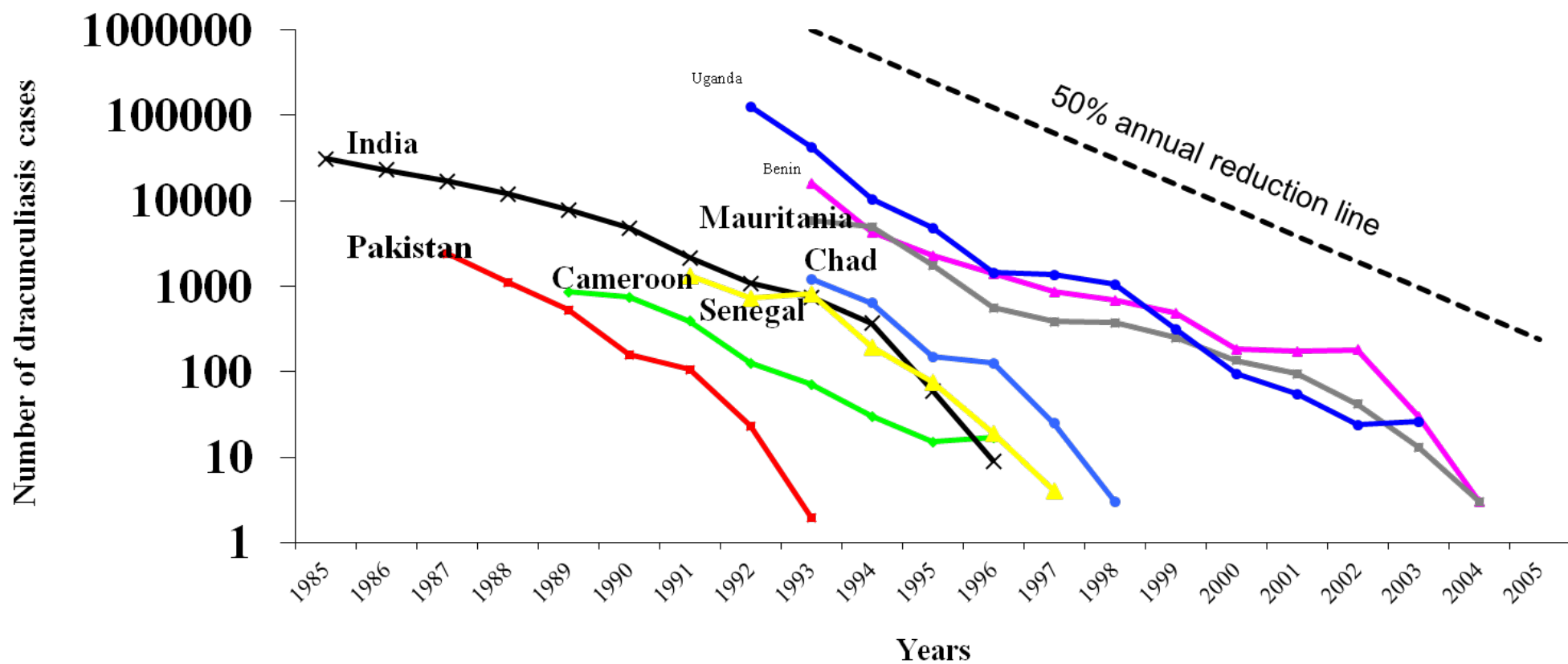




Number of Reported Cases of Dracunculiasis by Year, 1989 – 2009

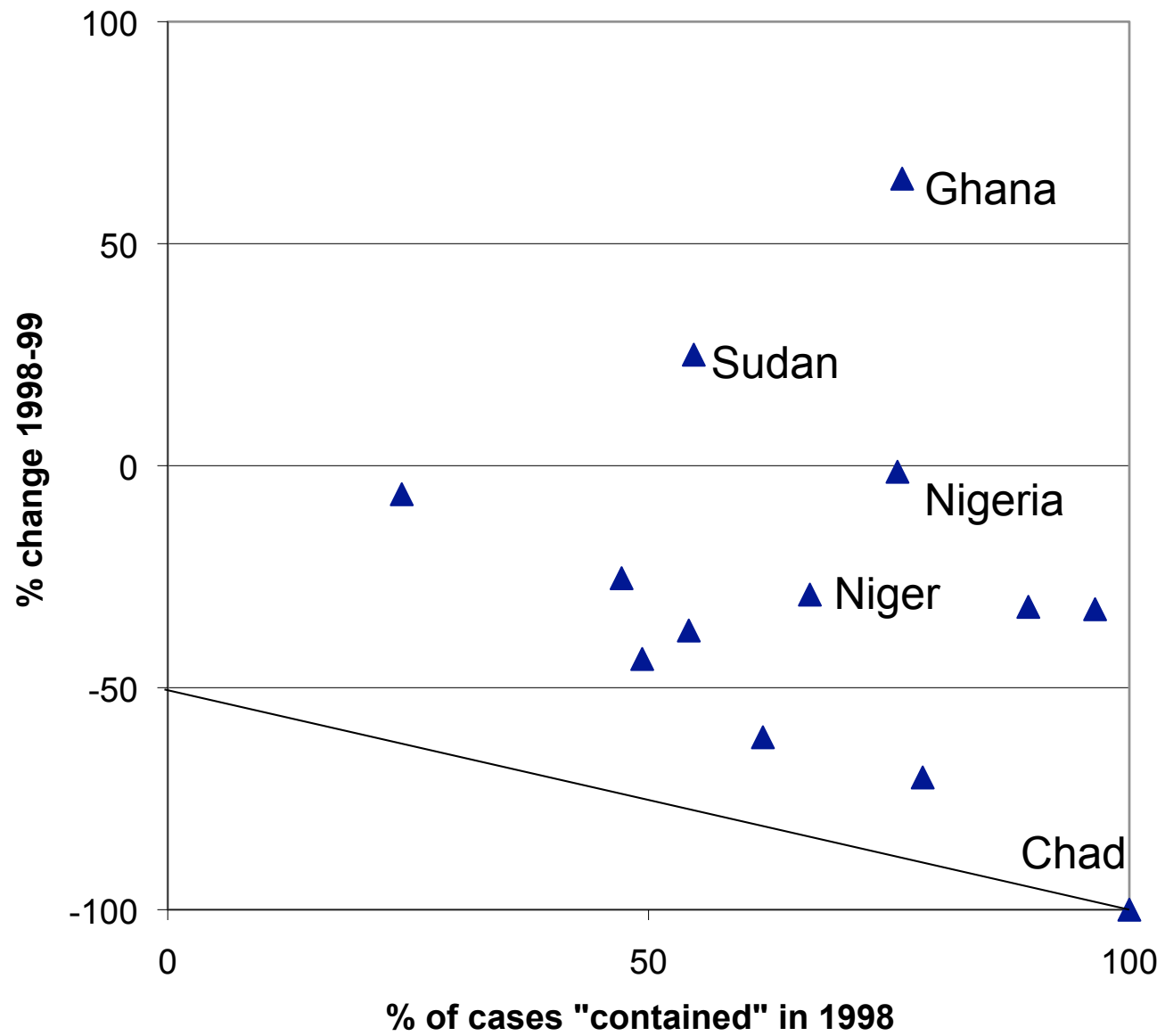


Annual number of dracunculiasis cases reported in the countries that interrupted disease transmission



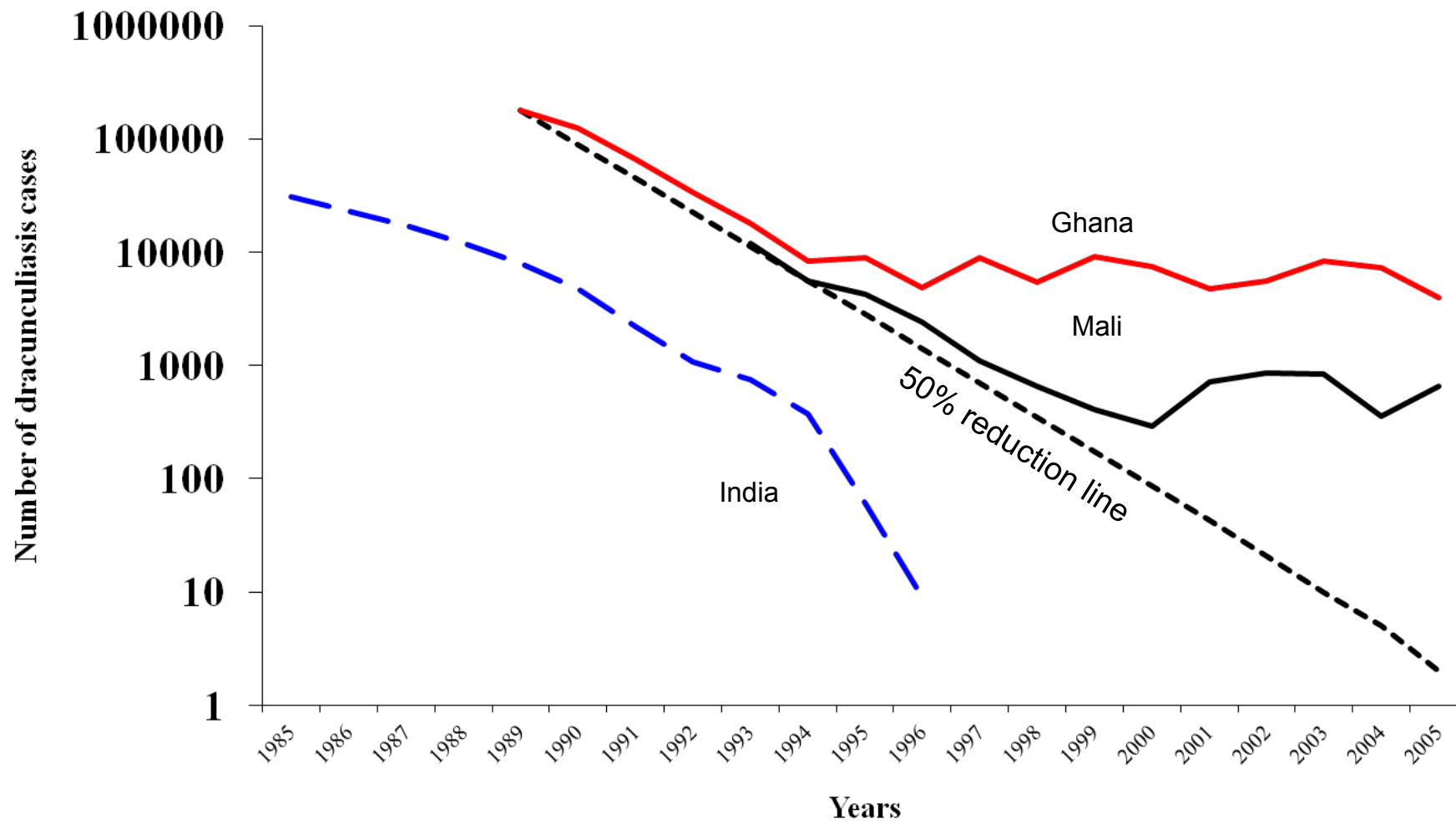






Source: GW Wrap-up #89 and 98

**Annual number of dracunculiasis cases reported in Ghana and Mali;
comparison with line representing 50% reduction and with India**



Some issues:

- vertical vs horizontal; the integration debate
- fictions; how creative is consensus ?
- predictions; the politicians' nemesis
- contradictions; advocacy & planning
- mother nature's surprises



Thank you