

THE CHALLENGE OF VALIDATION OF ELIMINATION

Piero Olliaro

Consortium: Setting the Post Elimination Agenda for Kala-Azar in India
(SPEAK India)

New Delhi, India, 3rd - 5th November 2016



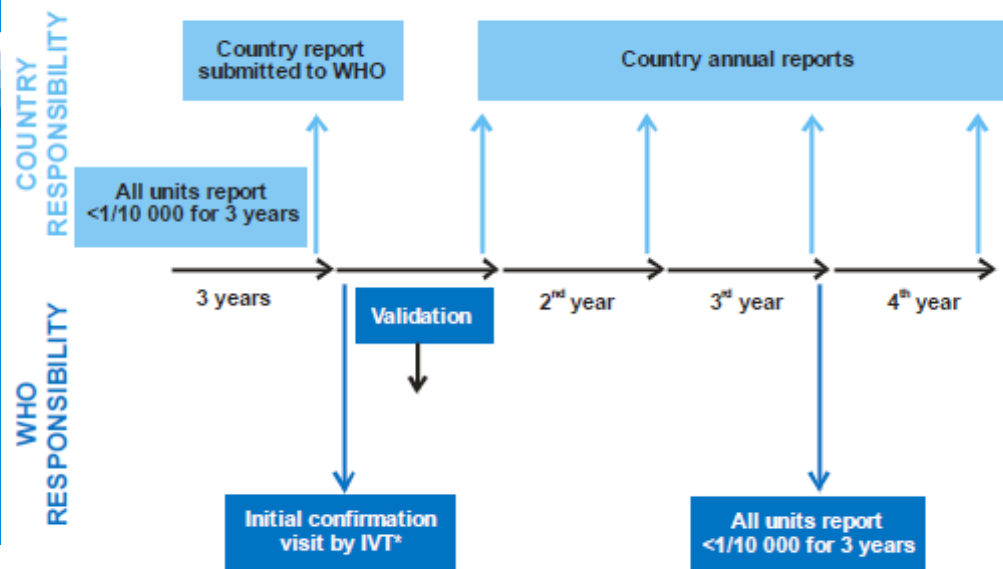
Process of validation of elimination of kala-azar as a public health problem in South-East Asia

Preconditions:

1. National strategic guideline for KEP
2. Adequate health services for early detection, treatment & follow-up
3. Adequate epidemiological surveillance system
4. Integrated vector control management



Figure 3: Timeline for validation and revalidation of KA elimination



Challenges

Issues with elimination target:

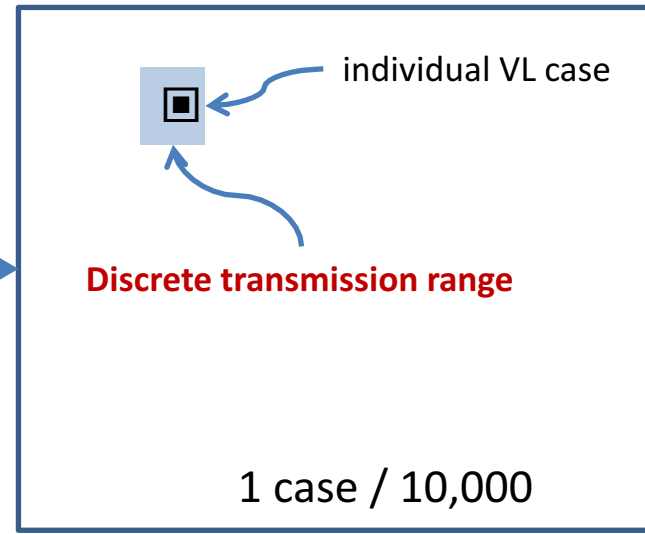
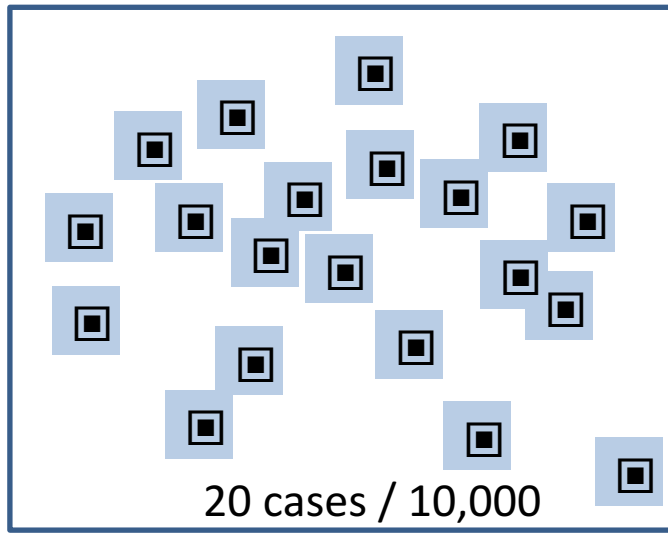
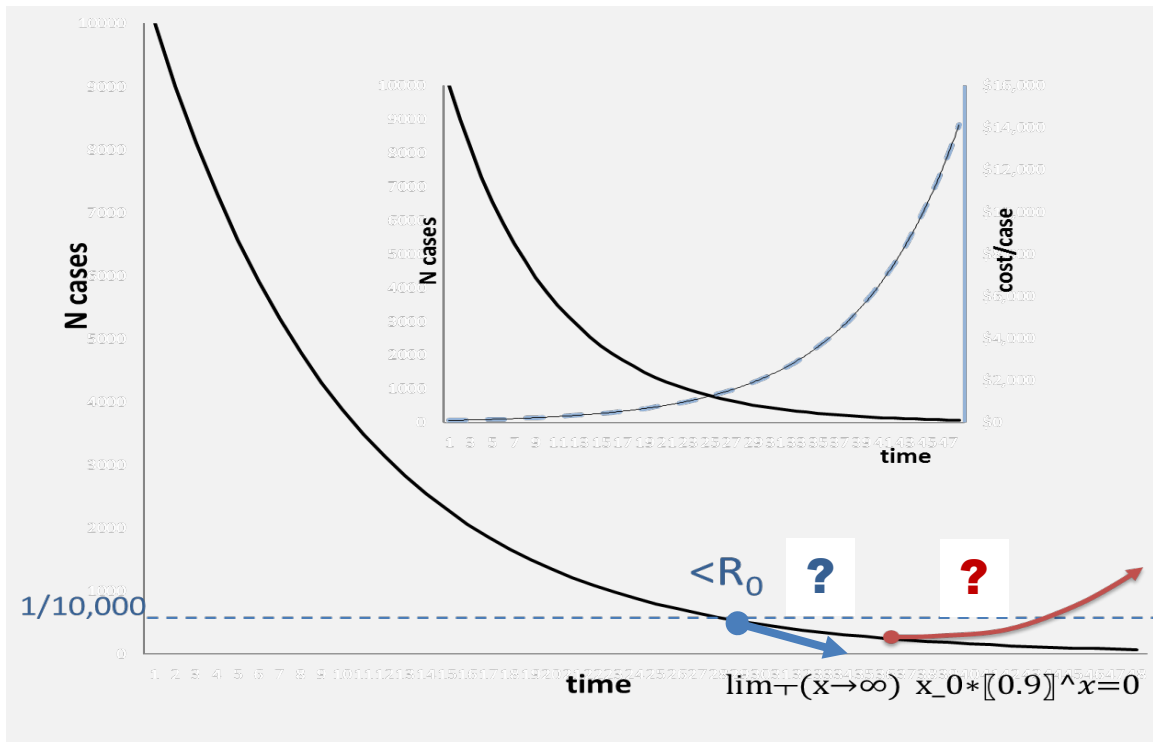
- 1/10,000 = still high numbers in densely-populated areas
- Unaccounted cases in non-programme areas
- R_0 ?

Issues with tools/approaches:

- No PoC antigen detection test – but antibody detection OK for elimination
- No vaccine for eradication
- Sustainable case-detection and vector-control systems; vertical vs. integrated programmes
- New priorities, diverted resources
- Cases missed by index-case & camps; delays – community health workers; EWARS

Open questions: role of subclinical and PKDL cases in transmission

→ Elimination of transmission (zero-transmission)



RESEARCH ARTICLE

Transmission Dynamics of Visceral Leishmaniasis in the Indian Subcontinent – A Systematic Literature Review

Siddhivinayak Hirve^{1*}, Marleen Boelaert², Greg Matlashewski³, Dinesh Mondal⁴, Byron Arana⁵, Axel Kroeger⁶, Piero Olliaro⁶

1 Global Influenza Programme, World Health Organization, Geneva, Switzerland, **2** Epidemiology and Control of Tropical Diseases, Institute of Tropical Medicine, Antwerp, Belgium, **3** Department of Microbiology and Immunology, McGill University, Montreal, Canada, **4** Nutrition and Clinical Services Division, International Center for Diarrheal Disease Research, Dhaka, Bangladesh, **5** Drugs for Neglected Diseases Initiative, Geneva, Switzerland, **6** Special Programme on Research and Training in Tropical Diseases, World Health Organization, Geneva, Switzerland



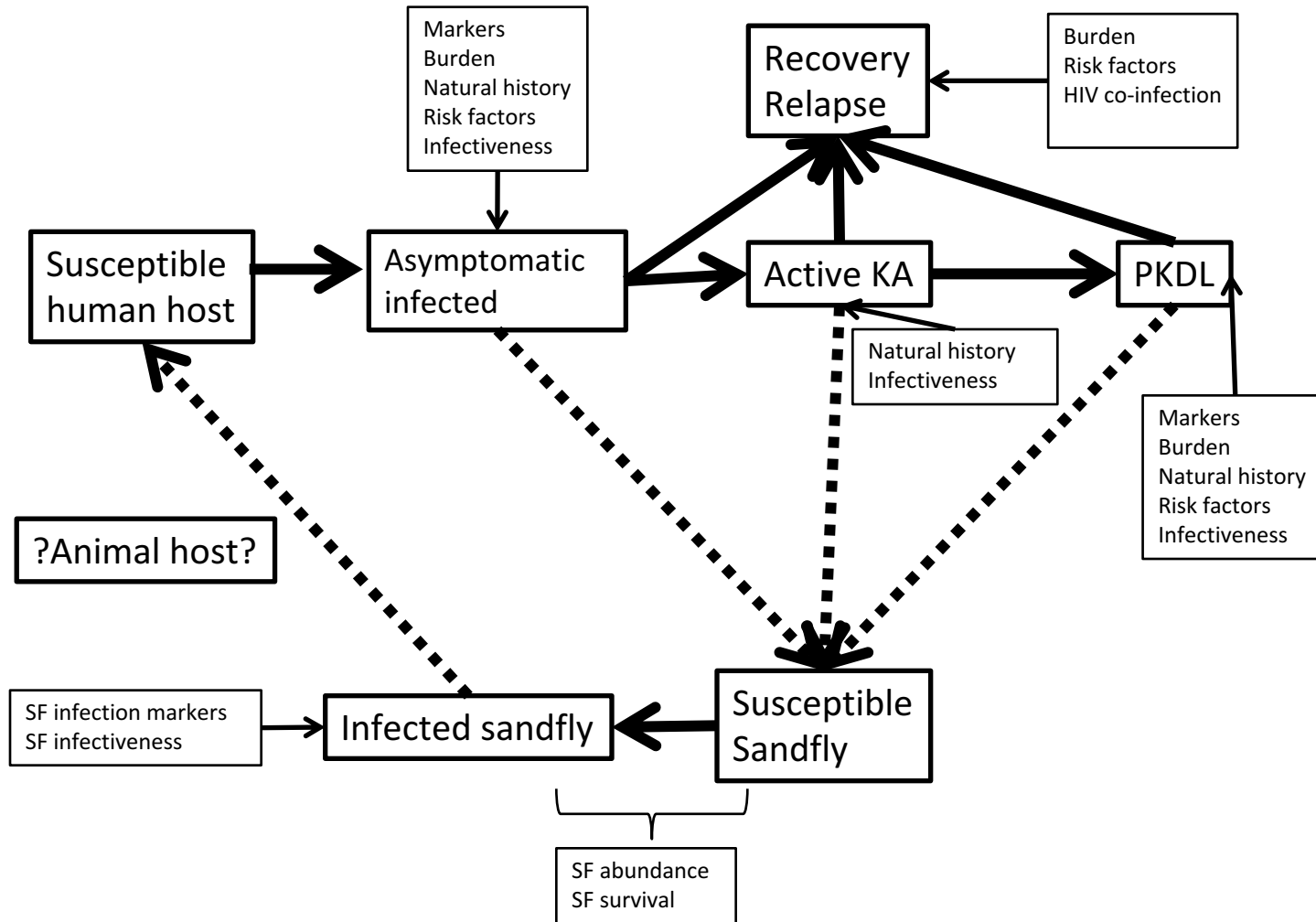
nature.com/diagnostics-modelling

ARTICLE **OPEN**

Health-seeking behaviour, diagnostics and transmission dynamics in the control of visceral leishmaniasis in the Indian subcontinent

Graham F. Medley¹, T. Déirdre Hollingsworth^{2,3}, Piero L. Olliaro^{4,5} & Emily R. Adams^{2,6}

Transmission dynamics: conceptual framework



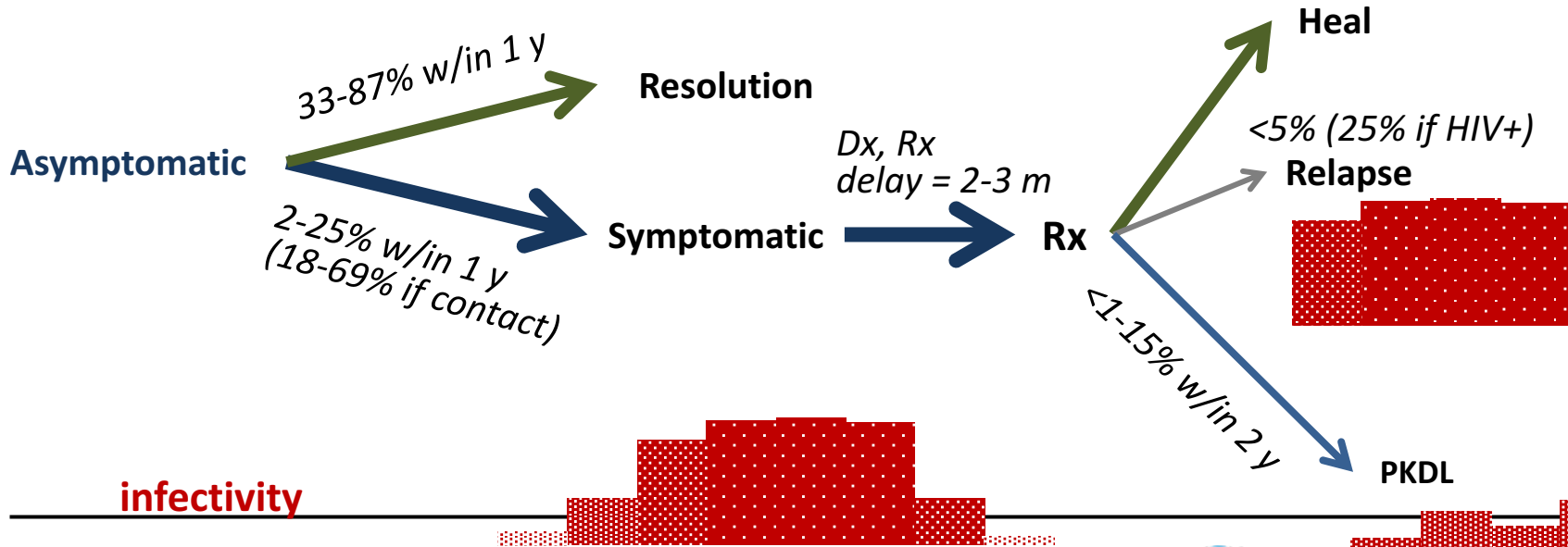
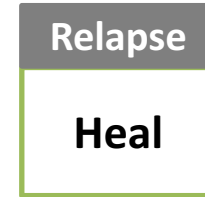
← Risk factors: HIV, Malnutrition, Young age →



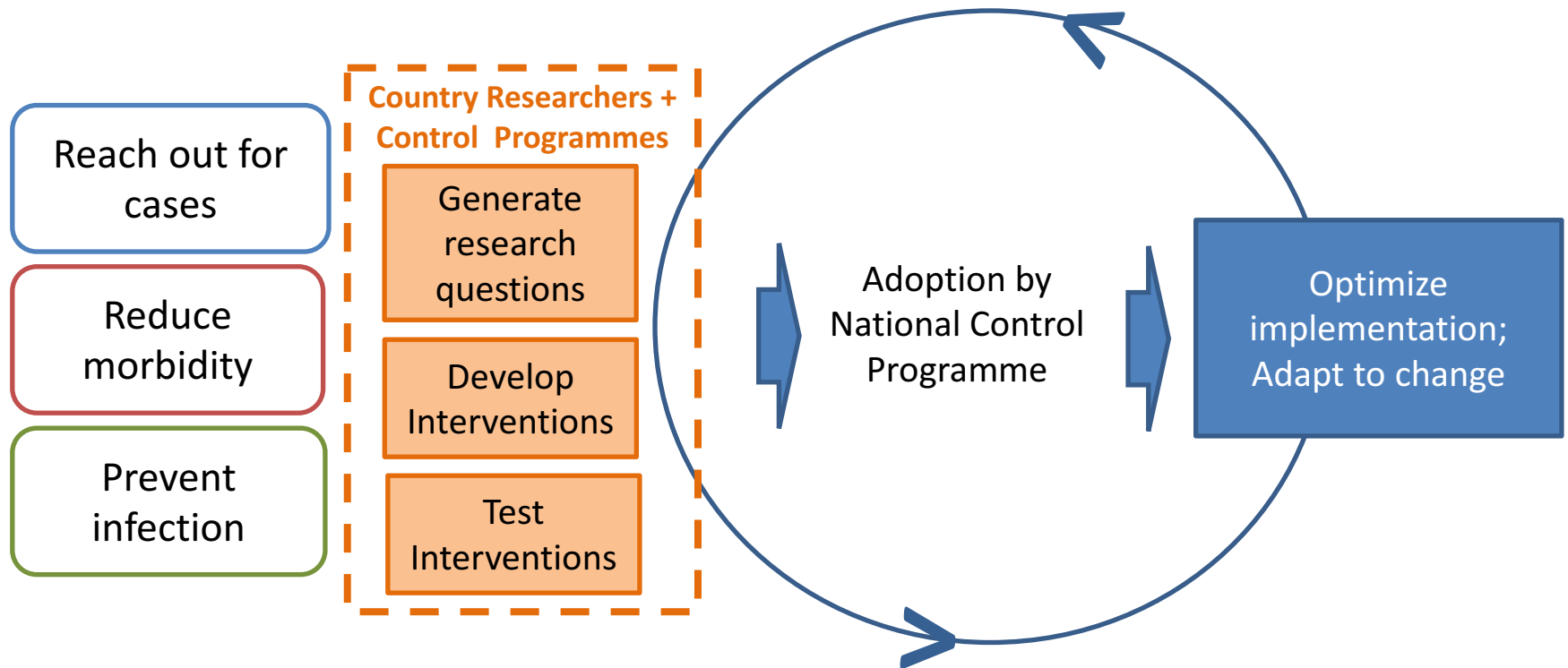
ratio I:D =
{4:1 – 10:1}

ratio T:D ∝
programme
effectiveness

ratio H:R ∝
treatment
effectiveness



TDR involvement in research to inform KEP strategy





THANK YOU