



Partnership To End Malaria



Partnership
To End Malaria

4th February, 2020

VBD and the Built Environment

Co-chairs: Professor Steve Lindsay and Dr Lucy Tusting

Thank you and farewell to Steve – and finding a new co-chair

- Our founder Steve Lindsay will be stepping down as co-chair in 2020. Thank you for your tremendous ideas, vision and leadership.
- We are looking for a new co-chair
- Nominations should be emailed to konstantina.boutsika@swisstph.ch by 1st March 2020





Partnership To End Malaria

30th January, 2019

Welcome

Lucy Tusting

Agenda – part 1

14:00 – 14:15	Welcome & review of 2019-2020	Lucy Tusting
14:15 – 14:30	Update on our core activity: the BOVA Network (Building out Vector-borne Diseases in Africa)	Fiona Shenton
14:30 – 15:15	Research updates (15 minutes each): <ol style="list-style-type: none">1. Preventing vector-borne disease outbreaks in emergent peri-urban settings: a transdisciplinary study on the Integrated Housing Development Programme in Jimma, Ethiopia2. Trash to Treasure: Collecting trash for profit to reduce vector breeding sites in Kwale County, Kenya3. Turning the house into a "lethal lure": results of a cluster randomised controlled trial from central Cote d'Ivoire	Adamu Addissie Francis Mutuku Matt Thomas
15:15 – 15:45	Afternoon break	

Agenda – part 2

15:15 – 15:45	Afternoon break	
15:45 – 17:30	<p>Discussion - ALL</p> <ul style="list-style-type: none">• Introduction to UN-Habitat's International Guidelines on Urban and Territorial Planning from Graham Alabaster• How do we build on what the BOVA Network has started?• How can we link with people working in the built environment?	Led by: Steve Lindsay Lucy Tusting Fredros Okumu Marceline Finda



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Review of 2019-2020

Lucy Tusting

Why is the built environment important for vector control?

Why is the built environment important for vector control?



Poorly screened houses



Open water containers

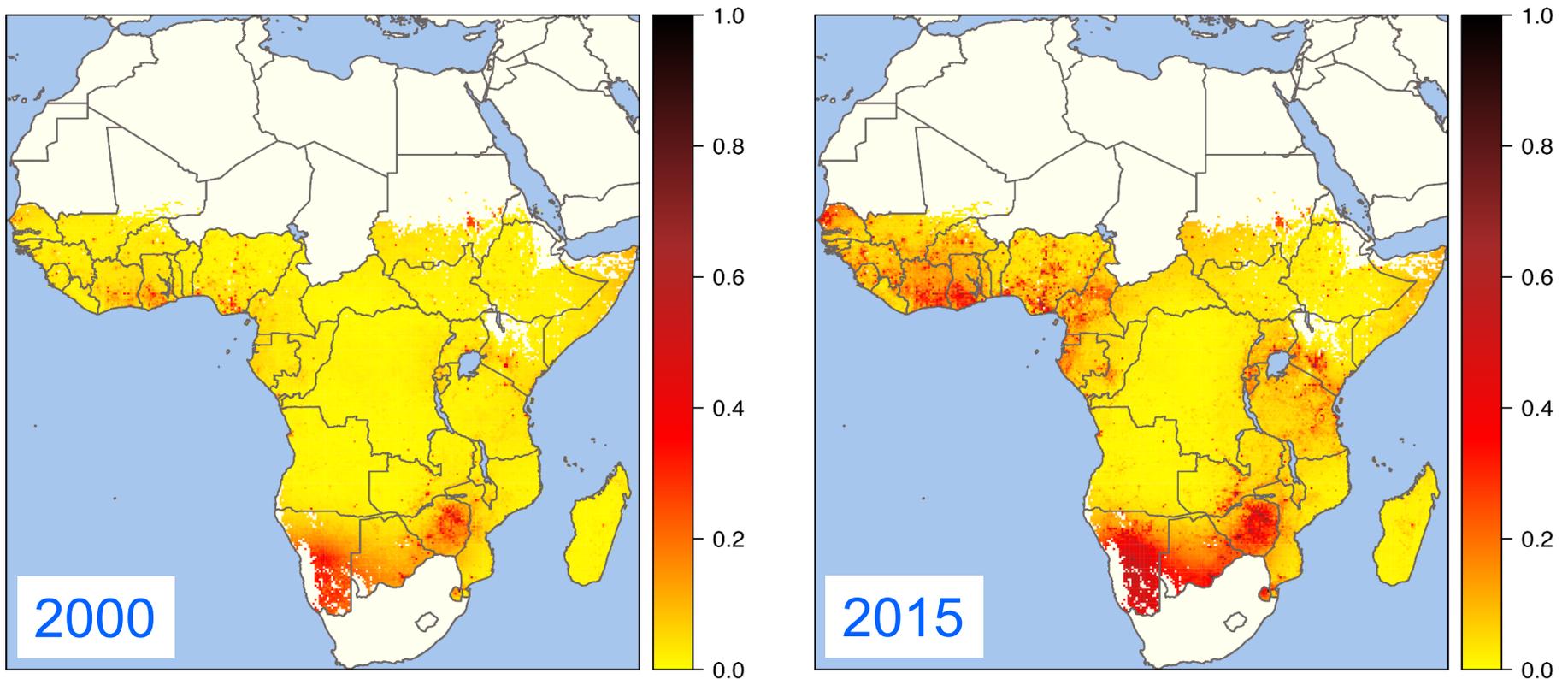


Solid waste



Standing water

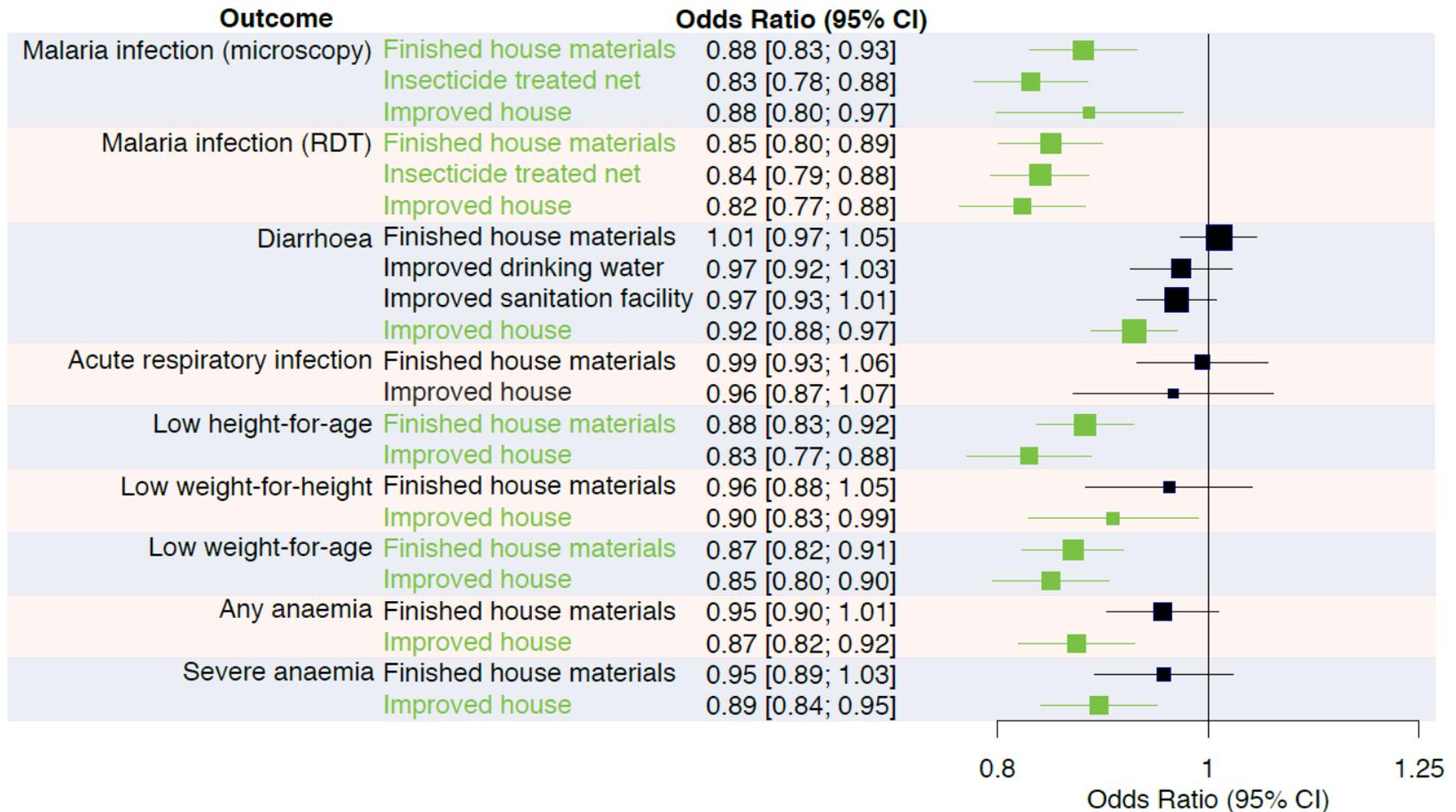
Prevalence of improved housing doubled in sub-Saharan Africa from 2000 to 2015



Predicted prevalence of housing with finished building materials, improved water & sanitation and sufficient living area

Tusting et al *Nature*, 2019

Improved housing is associated with better child health in sub-Saharan Africa



Data are from 824,694 children aged 0-5 years surveyed in 54 DHS surveys, 21 MIS surveys and 2 AIDS Indicator Surveys dating from 2001 to 2017 in 33 countries.

New *Lancet*
commission on
Aedes-
transmitted
diseases in Cities

THE LANCET



How is this Work Stream contributing?

Our objectives

1. Bring together specialists in VBD and housing
2. Support research to develop vector-free, healthy and comfortable houses
3. Support scale-up of housing interventions against VBD

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BOVA: Building Out Vector-Borne Disease in sub-Saharan Africa

https://www.bovanetwork.org

BOVA
network

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Join the BOVA network

Building out vector-borne diseases in sub-Saharan Africa: an interdisciplinary network focusing on preventing vector-borne diseases through improving the built environment

- Directed by Prof Steve Lindsay and Prof Mike Davies
- Funded by the UK government from 2018-2021
- Has enabled the core activities of this Work Stream

Our objectives

1. Bring together specialists in VBD and housing
2. Support research to develop vector-free, healthy and comfortable houses
3. **Support scale-up of housing interventions against VBD**

Linking with the MSWG

- Co-chairs linked with UN-HABITAT, UNHCR and others at 1st Multisectoral Working Group meeting

Consultant list

- List of specialists in health/vector-borne disease and the built environment
- Can be called upon to support large-scale housing and infrastructure projects in incorporating vector control
- <https://endmalaria.org/vbds-and-built-environment>



New research

POLICY FORUM

Knowledge gaps in the construction of rural healthy homes: A research agenda for improved low-cost housing in hot-humid Africa

Lorenz von Seidlein ^{1,2*}, Hannah Wood³, Otis Sloan Brittain³, Lucy Tusting ⁴,
Alexa Bednarz⁵, Salum Mshamu⁶, Catherine Kahabuka⁶, Jacqueline Deen ⁷,
David Bell ⁸, Steve W. Lindsay ⁹, Jakob Knudsen ^{3,10}

⁴ Department of Entomology and Nematology, University of California Davis, Davis, California, United States of America, ⁵ Department of Plant Sciences, Wageningen University and Research, Wageningen, the Netherlands, ⁶ Department of Biosciences, Durham University, Durham, United Kingdom

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30th January, 2019

BOVA Network update

Fiona Shenton



30th January, 2019

Research Updates



RBM Partnership
To End Malaria

30th January, 2019

Discussion

Introduction to UN-Habitat's International Guidelines on Urban and Territorial Planning from Graham Alabaster

How do we build on what the BOVA Network has started?

- Unclear whether BOVA funding can be extended beyond 2021. Funding for grant-writing workshops will hopefully lead to further funding for specific projects
- UK funders – increasing recognition of need for multisectoral approaches
- Possible routes:
- Guidelines on housing and health – WHO
- UN new guidelines on territorial planning

- DHS – keen to include housing variables. MIS – option to include additional questions
- Refugee/migrant housing – need for long-term solutions and shift to housing within existing urban centres, potential benefit for existing residents and migrants through humanitarian financing

What are the best routes for scaling up?

- Stakeholder interviews in Kilombero valley Tanzania – residents view housing improvements as important and desirable but not viewed as priority by the government/policy-makers due to cost, other priorities needing funding
- Assessing housing need in specific countries, potential to tap into ongoing changes in housing, opportunities to add specific interventions such as eave tubes. Rapid increase in prevalence of house screening in urban Tanzania
- ? Approaching housing like WASH – behavior change, communication, education, microloans
- Access to materials, durability of screening - important drivers of housing improvements
- How do we design a system that can be used across settings and is durable? Existing screening materials are often not good enough – need much better materials
- What threshold of house improvements is needed to reduce malaria – both individual housing and community level prevalence
- Important to recognize places where technological quicker fixes can work
- Despite widespread housing improvements the poorest of the poor still do not have basic level of housing limiting the opportunity to make improvements
- Need for market segmentation
- Need for cost-effectiveness analysis – not just malaria but other health outcomes
- Potential mortgage product to enable people to quickly get the benefits of a better house – rather than incremental improvements that take many years to complete (Pilgrim Africa – Uganda)
- Design of a microfinance program?

What are the best routes for scaling up?

- A need to work more closely with architects, planners, engineers, only one in this room. Lessons learnt from Jimma, Ethiopia – health specialists need to present problem & ask for help, identify data gaps, iterative process bringing in officials (architects are gateway to them)
- Social science important to understand cultural preferences
- Mortgage products need to be affordable. Are there opportunities to use existing cooperatives within the community e.g. in Haiti. Comes back to importance of understanding local systems and tapping into what is already in place. Also recognizing that many are working informally with intermittent or seasonal income e.g. farmers
- ‘Sweat equity’ – working in exchange for house
- Demonstration houses need to be accessible and use locally available building materials/skills or may put people off
- Microfinance initiatives for housing already exist e.g. Centre for Affordable Housing & Microfinancing in Africa
- We need to be clear on what features of housing should be recommended within microfinance programs.
- Importance of advocating to younger generation supporting parents and those sending remittances
- Microfinancing needs to be carefully designed so loans are used for the right purposes; often greater success if paired with social enterprise e.g. sewing machines as the incentive
- Updating housing consensus statement on the basis of the new DELIVER recommendations (doors, eaves, LLINs, ventilation, elevation, roof)
- Need for an international set of guidelines on what is considered to be healthy house
- Subsidy systems in India – possible model for elsewhere

What are the best routes for scaling up?

- Governments are prepared to take out huge loans for infrastructure projects e.g. roads, train lines – why can we not persuade governments to provide/subsidise universal housing. How can we incentivize this
- Recognizing that building is slow and incremental – we need a modular approach to house design. Housing needs to be achievable.
- Tapping into climate change as a way to get city planners, policy makers on board
- Importance of advocating for the benefits of investing in housing for health in general and overall improvements in wellbeing
- Target product profiles – what do we want ideally. Aim and minimum acceptable.