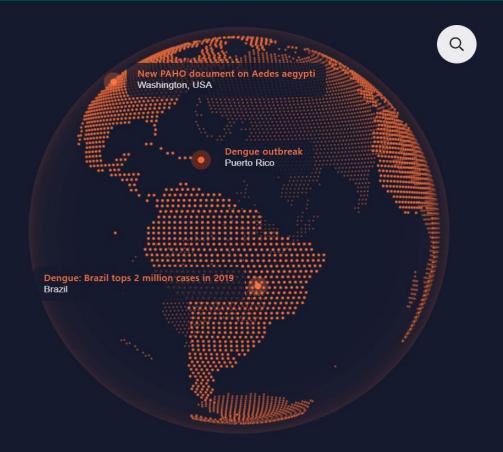


Global Vector Hub



The global open access community for vector control information and research







RBM-VCWG 17th annual meeting
Dr Frederik Seelig

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The Global Problem



- 80% of World's population at risk of vector-borne diseases (VBDs)
- 17% of global disease burden of communicable diseases due to VBDs
- 241 million malaria cases and 627,000 malaria deaths worldwide in 2020
- 390 million dengue infections per year, 3.9 billion people at risk

Our aims









Be the first port of call for researchers, public health workers, government agencies, policy makers and NGOs responding to threats of vector-borne disease



#2

Build a community of practice through hosting bespoke educational materials and learning packs for professionals working in vector control and research



#3

Provide a **platform for transparent data sharing**and worldwide information
about vector species that
transmit disease



#4

Build capacity and maximise preparedness for outbreak situations



#5

Connect vector control professionals through developing a network and discussion forums with search functions that are intuitive



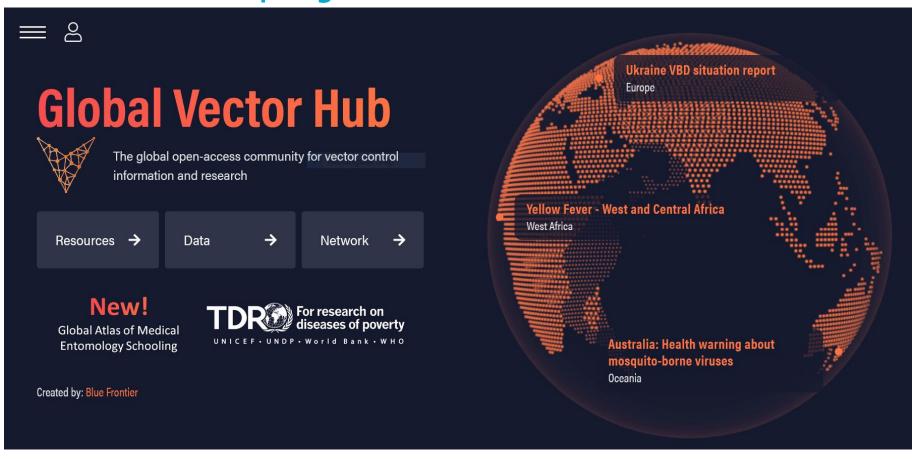
#6

Reduce vector-borne disease incidence by making research more effective and less wasteful, worldwide

The Global Vector Hub platform



https://globalvectorhub.lshtm.ac.uk/



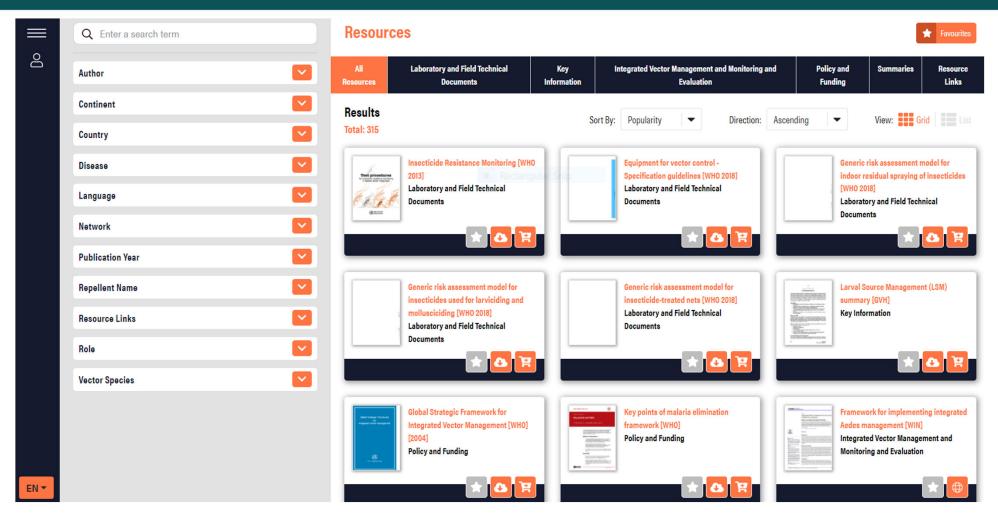
GVH current status



- An early version of The Global Vector Hub (GVH-Beta) was launched in June 2020, with a full version to follow very soon.
- This beta version includes data, resources and networking features, focusing on capacity building and systems strengthening for vector control globally, and establish a community of practice for vector control interventions.
- It also includes a global directory of training courses in medical entomology developed by GVH and Arctech Innovation for WHO-TDR.

Resource repository





Resource repository



Currently 315 resource documents available on GVH.

Top 5 resources accessed by users:	
1. The Impact of COVID-19 on Vector-Borne Disease Research and Control Operations [GVH; 2020]	1,481 views
2. Global Vector Control Response 2017-2030 [WHO; 2017]	1,392 views
3. Ukraine VBD situation report [GVH; 2022]	1,148 views
4. Pictorial identification key for important disease vectors in WHO SE Asia region [WHO; 2020]	891 views
5. Entomological Surveillance Planning Tool [MEI; 2020]	551 views

Assessing the impact of COVID-19

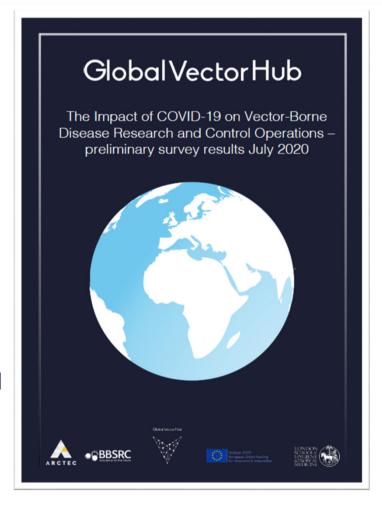


In July-August 2020, the GVH ran a survey to establish the potential **impact of COVID-19** on **global vector control efforts**, including:

- How different sectors and stakeholder groups are affected;
- The control and surveillance of which VBDs are most strongly affected;
- Characterise gaps in knowledge and communication;
- Develop robust recommendations for future epidemic preparedness;
- Identify common narratives and experiences.

Our findings were used to **provide recommendations** to numerous agencies including the WHO, NGOs, policy makers and industry during the pandemic.

1: The Impact of COVID-19 on Vector-Borne Disease Research and Control Operations – preliminary survey results July 2020. Available here: https://tinyurl.com/y5hv4jee



Impact on vector control operations



- Large proportion reported severe impacts on their own work
- 57% felt that COVID-19 affected VBD research and control operations in general 'greatly' or 'extremely'

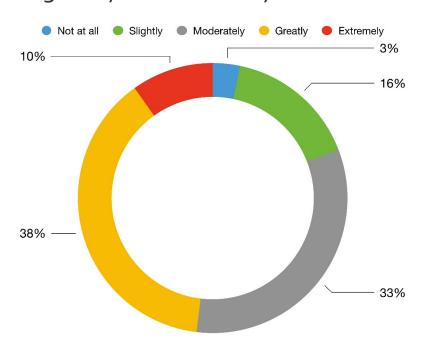


Fig. 5. Respondents' perception on how COVID-19 has affected their own work.

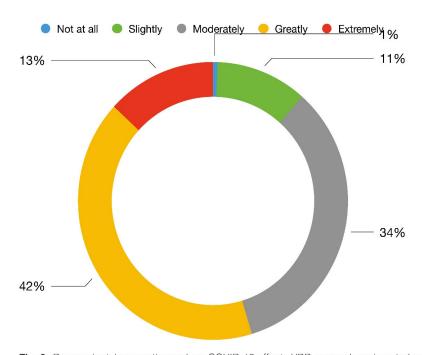


Fig. 6. Respondents' perception on how COVID-19 affects VBD research and control operations.

Ukraine VBD situation report



Available at: https://globalvectorhub.lshtm.ac.uk/news/4109

Key points:

- Risk of nuisance biting by ticks and mosquitoes in coming months
- Moderate risk of Lyme borreliosis (LB) and TBE
- Very small risk of WNV
- Negligible risk of other VBDs, eg. malaria or CCHF
- Overall, risk of VBDs considered low; specific risk profiles depend on environmental conditions and living conditions of affected people.
- Avoid insect and tick bites
- Specific guidance on preventative measures against tick and insect bites given in report.

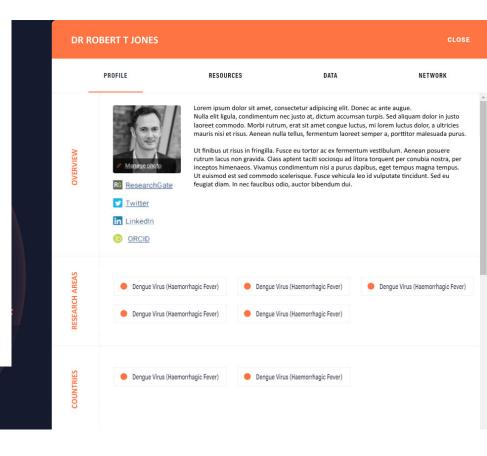
GVH network



Registered users can **share** data and information about their fields of expertise, actively participate in online **discussion** forums and **collaborate** on future projects.

The network also includes information on relevant academic, government, not-for-profit, industry led-organisations and research institutions.

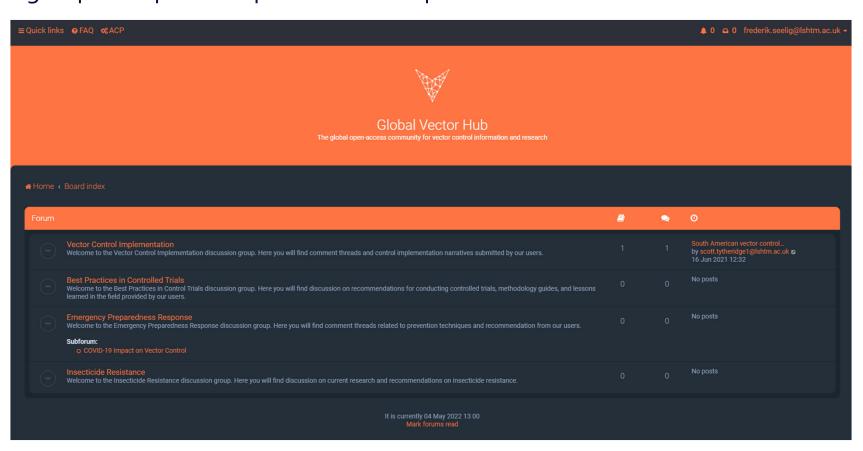
Further sections on funding and employment **opportunities** are also included to allow for **capacity building** and improve staff retention.



Discussion forum

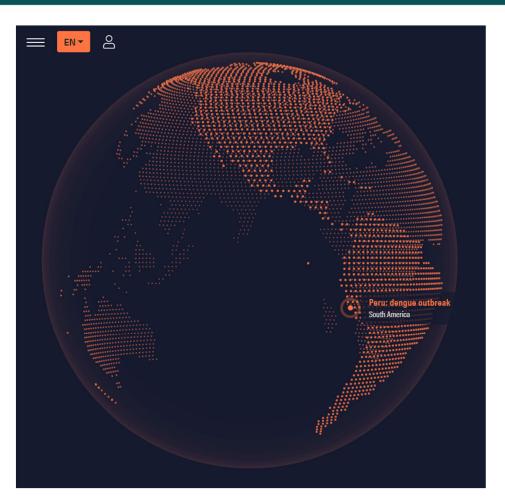


Dedicated subgroups for specific topics or external partners.



External partners: BOVA Network









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

The BOVA Network is now hosted by GVH. This page provides an insight into the work that was carried out from early 2017 to December 2021.

Resources

Discussion Forum

About



The Problem What is the burden of vector-borne diseases in sub-Saharan Africa and how are they linked to the built environment?



Network
The BOVA network was co-led by network
Directors Professor Steve Lindsay and
Professor Mike Davies, and supported by a
network Management Board.



What we do

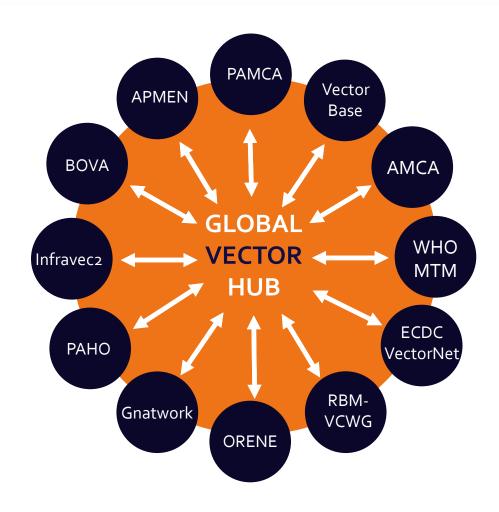
The BOVA network aimed to create an interdisciplinary network of researchers in the
built environment and vector-borne diseases
in sub-Saharan Africa.

Linking resources & initiatives



The GVH is backed by many **key partners** within the **vector control community**, and serves as a central platform bringing together data and resources from multiple sources for health workers and researchers to **access in one location**.

This enables **closer collaboration** between vector control groups and initiatives, and ensures **knowledge gaps** are identified, and impact is demonstrated and shared across every region.



GVH vector data example: Colombia



Vector abundance – Aedes aegypti



TDR partnership with GVH



In January 2021, the GVH launched a **global directory of medical entomology training courses**, developed in partnership with the Special Programme for Research and Training in Tropical Diseases (TDR) and ARCTEC.²

This new resource helps strengthening the capacity of scientists combating **neglected tropical diseases** and other **vector-borne diseases**.



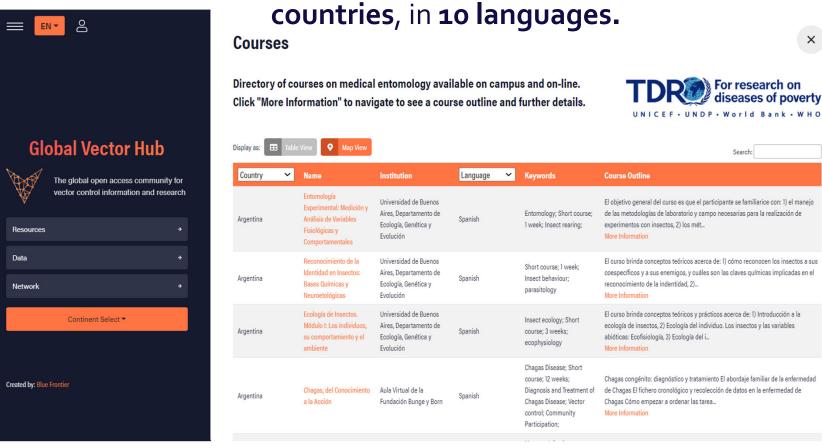


2: Press release: https://www.who.int/tdr/news/2020/new-resource-for-building-medical-entomology-capacity/en/

TDR & GVH course directory



Course directory: 161 training courses in medical entomology, from 32 countries, in 10 languages.



TDR-GVH symposium





TDR-Global Vector Hub symposium

Global landscape analysis of training courses in medical entomology for vector-borne disease control: Lessons learned from existing courses and summary of needs assessment

Date

Monday 31 January 2022 13.00-15.00 CET

Chair

Dr Fredros Okumu, Ifakara Health Institute, Tanzania

Panelists

Professor María Guadalupe Guzmán, Pedro Kourí Tropical Medicine Institute/IPK, Cuba

Dr Martin Akogbeto, *Centre de Recherche Entomologique de Cotonou/CREC*, *Benin*

Ms Michelle Katusele, PNG Institute of Medical Research/IMR Papua-New Guinea

Dr Kelly Martinou, Joint Services Health Unit/JSHU, Cyprus Professor Theeraphap Chareonviriyaphap, Kasetsart University, Thailand

TDR diseases of poverty



Landscape analysis of training courses in medical entomology for VBD control: lessons learned from existing courses and summary of needs assessment.

Chaired by Dr Fredros Okumu (IHI, Tanzania)
Panelists from Cuba, Cyprus, PNG, Thailand

Massive Open Online Course (MOOC)



'The Global Challenge of Vector Borne Diseases and How to Control Them'³

>4,500 registered users; extremely positive feedback from stakeholders (AMCA, PAMCA, APMEN), requests for repeats and inquiries about future collaborations.



3: MOOC available at: https://www.futurelearn.com/courses/vector-borne-diseases

PLOS NTDs Viewpoint article





PLOS NEGLECTED TROPICAL DISEASES



VIEWPOINTS

The COVID-19 pandemic should not derail global vector control efforts

Frederik Seelig , Haroldo Bezerra, Mary Cameron, Jeffrey Hii, Alexandra Hiscox, Seth Irish, Robert T. Jones, Trudie Lang, Steven W. Lindsay, Rachel Lowe, Tanaka Manikidza Nyoni, Grace M. Power, Juliana Quintero, Anna M. Stewart-Ibarra, Lucy S. Tusting, Scott Tytheridge, James G. Logan [view less]

Published: August 31, 2020 • https://doi.org/10.1371/journal.pntd.0008606

- Brought together broad coalition of global vector experts.
- Article mentioned in several external newsletters
- Currently >3,600 views, 9 citations.

4: Available here: https://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.ooo86o6

Online GVH workshop



'The impact of COVID-19 on global vector control efforts'5

Organised in collaboration with The Global Health Network (TGHN)

Attended by >400 participants from 60 countries.

Panellists from WHO, KEMRI, PRVCU & LSHTM



5: Recording available here: https://globalvectorhub.tghn.org/online-workshops/

The GVH Team





Prof James Logan Head of Dept. of Disease Control, LSHTM **GVH Director**



Dr Robert Jones Research Fellow Content Manager & Case Studies



Dr Alexandra Hiscox Head of Research Programmes **Project Manager (ARCTECH)**



Scott Tytheridge Research Assistant **Content Developer**



Dr Frederik Seelig **Partnerships Manager**



Tanaka Manikidza Nyoni Project Coordinator Content Editor



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