

Supplementary Materials

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Search strategy and selection criteria

We searched PubMed, Google and Google Scholar to systematically identify One Health Networks based on the systematic search strategy developed by Khan et al. (2018) for their analysis of One Health Networks in Africa, Asia and Europe. The search terms used were (“One Health” OR “Eco Health” OR “Planetary Health” OR “One Medicine” OR “emerging infectious diseases” OR “zoonotic diseases”) AND (“network” OR “collaboration” OR “movement” OR “platform” OR “consortium” OR “alliance” OR “partnership” OR “hub”). In addition, to expand the geographical scope of Khan et al.’s (2018)¹ analysis, we also searched for regional and country-specific networks in Antarctica, North America, Oceania and South America in addition to Africa, Asia and Europe in Google (see supplementary material page 5). The search process was conducted twice; first in April 2020 for the search period between 26/06/2007 and 01/04/2020 and the second search was conducted in April 2022 for potential OHNs formed between 02/04/2020 and 01/04/2022. The second search was conducted to update the initial search for the two-year period since the first search.

Furthermore, key One Health Conferences were screened for relevant Networks with a focus on conferences taking place since 2007. For the identification of potential networks, no language restrictions were applied. Websites and publications in other languages were translated to English when possible, using the google translate function.

Once a final list of networks was compiled from each search, duplicates were removed using the Microsoft Excel function “Remove Duplicates” followed by manually removing any remaining duplicate networks. An additional step was conducted to remove duplicates from the second search (02/04/2020-01/04/2022). Using R software, potential networks that were extracted from the first search were compared to the networks from the second search and matching results removed. A second comparison was conducted manually for matching networks that were not detected by R. This allowed to only review the eligibility of networks that were unique to the second search and not found in the first search.

Two independent reviewers conducted the eligibility assessment of the OHNs and a third reviewer was introduced if there was a discrepancy. For a potential OHN to be included, it had to be formed by at least two organizations, bodies or entities and have activities in at least two sectors of One Health; human health, animal health and environment/ecosystem health. The reasons for exclusion are listed in Box 1 (see supplementary materials page 3) and the network selection process is displayed (see supplementary materials page 4).

Data extraction and analysis

We used the data extraction template developed by Khan et al and complemented it with additional columns to capture data on the status of a network (“active”, “ended” or “NA”), and the network type (“Network”, “Sub-network” or “Project”) (see supplementary materials page 8). If data extraction for a particular network was not complete, it was flagged as incomplete and excluded from the descriptive analysis in Excel.

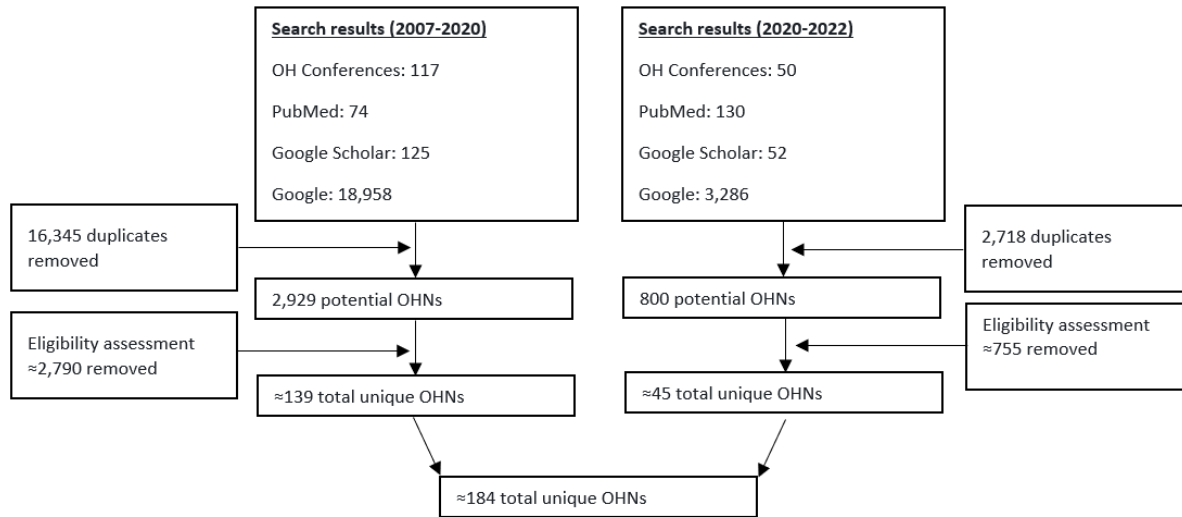
Limitations and suggestions for future research

The limitations to interpreting OHN characteristics included the availability of information from publicly available sources, as well as our search criteria for results in English language only. To counter the impact of these limitations, we included a selection of diverse case studies to illustrate OHNs own perspectives on their activities and their challenges. We encourage future research to engage more directly with OHNs to both independently critique and self-evaluate their characteristics, alignment, and progress through qualitative research and in-depth case studies. Regarding the definition and search strategy we adopted, we used an existing definition to identify the breadth of OHNs and intended to be as inclusive as possible. In so doing, we found there to be great heterogeneity in terms of the types of initiatives and collaborations identified, as well as the engagement of different sectors and stakeholders. Given this heterogeneity, we encourage future research to explore and develop other search strategies to map the One Health landscape, which might help to further categorise OHNs and lead to complementary analyses. For example, to analyse the extent to which OHNs may or may not align with the most recent OHHLEP definition of One Health, which was outside the scope of our analysis but would also help to inform and steer future investments in One Health.

Supplementary Box 1: Network exclusion criteria

- Does not meet sector criteria, but does meet partner criteria
- Does not meet partner criteria, but does meet sector criteria
- Does not meet either criterion
- No information found
- Name changed
- Duplicate
- Unclear what network is being referred to
- Language
- Other

Supplementary Figure 1: Network selection process



Supplementary Table 1: Scoping review search strategy

Search Engine	Search Terms	Explanation
PubMed	(“One Health” OR “Eco Health” OR “Planetary Health” OR “One Medicine” OR “emerging infectious diseases” OR “zoonotic diseases”) AND (“network” OR “collaboration” OR “movement” OR “platform” OR “consortium” OR “alliance” OR “partnership” OR “hub”)	Titles and abstracts of publications published between 26/06/2007 – 1/04/2020 and between 02/04/2020-01/04/2022 were screened for relevance.
Google Scholar	(“One Health” OR “Eco Health” OR “Planetary Health” OR “One Medicine” OR “emerging infectious diseases” OR “zoonotic diseases”) AND (“network” OR “collaboration” OR “movement” OR “platform” OR “consortium” OR “alliance” OR “partnership” OR “hub”)	The first 100 links were screened for potential networks for both time frame settings 26/06/2007-01/04/2020 and 02/04/2020-01/04/2022.
Google	(“One Health” OR “Eco Health” OR “Planetary Health” OR “One Medicine” OR “emerging infectious diseases” OR “zoonotic diseases”) AND (“network” OR “collaboration” OR “movement” OR “platform” OR “consortium” OR “alliance” OR “partnership” OR “hub”) (“One Health” OR “Eco Health” OR “Planetary Health” OR “One Medicine” OR “emerging infectious diseases” OR “zoonotic diseases”) AND (“network” OR “collaboration” OR “movement” OR “platform” OR “consortium” OR “alliance” OR “partnership” OR “hub”) AND [REGION] (“One Health” OR “Eco Health” OR	Three types of google searches were conducted: region specific, country specific and without specifying a geographical scope. Each search was conducted twice, filtering the search with the following time frames 26/06/2007 to 01/04/2020 and 02/04/2020-01/04/2022. Regions searched for individually were Africa, Antarctica, Asia, Europe, North America, Oceania and South America. Countries searched for individually were in accordance with the United Nations regional classification (n=247) (United Nations Statistics Division, 2008). The first 100 google hits were screened for potential OHN for the regional search and the first 10 google

	<p>“Planetary Health” OR “One Medicine” OR “emerging infectious diseases” OR “zoonotic diseases”) AND (“network” OR “collaboration” OR “movement” OR “platform” OR “consortium” OR “alliance” OR “partnership” OR “hub”) AND [COUNTRY]</p>	<p>hits for the country search.</p>
<p>Conferences</p>	<p>Afrique One—A One Health Commission; Biennial Congresses of the International Association for Ecology and Health First; International One Health Central and Eastern Africa (OCHEA) One Health Conferences 2013,2015,2019; Federation of Veterinarians of Europe (FVE) – Standing Committee of European Doctors (CPME) One Health Conference; International One Health Congress 2018, 2011; One Health for the Real World: zoonoses, ecosystems and wellbeing; 2016; One Health Global Risk Forum Davos; 2015; One Health Inter-Regional European Conference; West African regional Conference on One Health; World Veterinary Association(WVA)–World Medical Association (WMA) Global Conference on One Health; International Conference on (Re-)Emerging Infectious Diseases 2019, 2020; Prince Mahidol Award Conference 2018 (One Health as main theme); 2018 Planetary Health Annual Meeting in Edinburgh; 2020 World One Health Congress in Edinburgh</p> <p>2022 EU conference One Health (Health, Environment, Society); Africa CDC one health inaugural conference;</p>	

	<p>One Health in the 21st Century Conference; 5th International One Health Congress 2018; One Planet, One Health, One Future: Moving forward in a post-COVID19 world” 2020; Kenya One Health Conference: Challenges and opportunities of implementing One Health 2021; European Public Health WEEK 2021; World One Health Congress 2022; One Health and Development for a World Under Pressure Symposium 2022; IUCN congress 2020; One Health Intelligence Conference 2021; 3rd One Health EJP Annual Scientific Meeting 2021; The Belgian One Health Network (BeOH) Conference 2021; One health EJP annual scientific meeting 2022; ISDRS Conference; Towards a one health AMR Partnership 2022; Online Tokyo AMR One Health Conference 2021.</p>	
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Supplementary Table 2: OHN data extraction template

Domain	Characteristic
Network name	
Network acronym	
Functional website	
Type of network	Network/Subnetwork/Project
Status of the network	Active/Ended/NA
Self-identification as having a One/Eco/Planetary Health agenda	
Year founded	
Clearly defined Vision / Mission / Objective	
Geographical Scope	Global/Regional/Local
Headquarters location	City/Country
Sectors Involved	Human/Environment (or Ecosystem)
	Animal (wildlife)/ Environment (or Ecosystem)
	Human/ Animal (wildlife)
Focus and Activities	Disease control
	Surveillance & monitoring

	Risk management & emergencies	
	Recovery	
	Research & development	
	Social research and implementation	
	Policy development	
	Advocacy	
	Capacity building	
	Communication/collaboration platform	
	Data and information sharing	
	Community engagement	
	Disbursement of funds	
	Stakeholders	Private sector
		Government
Academia		
Communities		
NGO/Civil societies		
Funders		

Supplementary Table 3: List of OHNs included in the analysis

1	Advocacy for Neglected Zoonotic Diseases (ADVANZ)
2	Afghan One Health Hub
3	Africa One Health Network (AfOHNet)
4	Africa One Health University Network (AFROHUN)
5	African Science Partnership for Intervention Research Excellence (Afrique One-ASPIRE)
6	Alliance for Health Security Cooperation (AHSC)
7	AMR - One Health Consortium
8	Animal and Human Health for the Environment and Development (AHEAD)
9	Antibiotic Resistance Dynamics (ARDIG)
10	Anticipating the Global Onset of Novel Epidemics (ANTIGONE)
11	Asian Partnership on Emerging Infectious Diseases Research (APEIR)
12	Asian-American Centers for Arbovirus Research and Surveillance (A2CARES)
13	Australian Centre for Genomic Epidemiological Microbiology (Ausgem)
14	Bhutan One Health Hub
15	Biodiversity, health and zoonoses in South East Asia (BiodivHealthSEA)

16	Boyd Orr Centre for Population and Ecosystem Health
17	Burkina Faso National One Health Coordination Platform
18	Cambodia One Health University Network (CAMBOHUN)
19	Cameroon One Health Platform
20	Canadian Community of Practice in Ecosystem Approaches to Health (CoPEH-Canada)
21	Canadian Integrated Program for Antimicrobial Resistance Surveillance (CIPARS)
22	Capacitating One Health in Eastern and Southern Africa (COHESA)
23	Caribbean EcoHealth Programme (CEHP)
24	Center for One Health Illinois
25	Center for Research in Emerging Infectious Disease-Epidemiology, Surveillance, Pathogenesis (CREID-ESP)
26	Centers for Research in Emerging Infectious Diseases Network (CREID Network)
27	Chile One Health National Network
28	Climate Change and Health Network for Africa
29	Clinical and Translational Science Award One Health Alliance (COHA)
30	Collaborative Management Platform for detection and Analyses of (Re-)emerging and foodborne outbreaks in Europe (COMPARE)
31	Colombia/Wisconsin One-Health Consortium (CWOHC)

32	COMBAT-AMR
33	Companion Animals Multisectorial Interprofessional Interdisciplinary Strategic Think tank on Zoonoses (CALLISTO)
34	Companion approach for cross-sectoral collaboration in health risk management in Southeast Asia (ComAcross)
35	Connecting Organisations for Regional Disease Surveillance (CORDS)
36	Conservation & Ecosystem Health Alliance (CEHA)
37	Consultative Group on International Agricultural Research (CGIAR)
38	CORE Group
39	Cornwall Antimicrobial Resistance Group (CARG)
40	Cysticercosis and Taneosis Network of Sub-Saharan Africa (CYSTINET-Africa)
41	Danish Program for surveillance of antimicrobial consumption and resistance in bacteria from food animals, food and humans (DANMAP)
42	Drivers of Resistance in Uganda and Malawi Consortium (DRUM)
43	Dutch Signalling Forum Zoonoses
44	Dynamic Drivers of Disease in Africa Consortium (DDDAC)
45	East African Integrated Disease Surveillance Network (EAIDSNet)
46	Eco-Evolutionary Dynamics of Infectious Diseases (ECOFECT)

47	Ecology from Farm to Fork of Microbial Drug Resistance and Transmission Project (EFFORT)
48	Ecosystem Approaches to the Better Management of Zoonotic Emerging Infectious Diseases in the Southeast Asia Region project (EcoZD)
49	Emerging Infectious Diseases: South East Asia Research Collaboration Hub (EID-SEARCH)
50	Empowering universities' Learning and rEsearch caPacities in the one Health Approach for the maNagement of animals at the wildlife, livestock and human interface in souTh Africa" (ELEPHANT)
51	Ethiopia National One Health Steering Committee
52	EU Antimicrobial resistance One-Health Network
53	European Network for Neglected Vectors and Vector-Borne Infections (EURNEGVEC)
54	European Union Commission's Integrated Control of Neglected Zoonoses (ICONZ)
55	European Union Joint Action Antimicrobial Resistance and Healthcare Associated Infections (EU-JAMRAI)
56	European Union Joint Programming Initiative on Antimicrobial resistance (JPIAMR)
57	European Union network for sharing data on the geographic distribution of arthropod vectors, transmitting human and animal disease agents (VectorNet)
58	European Union Network on Taeniosis/Cysticercosis (CYSTINET)
59	FAO/OIE/WHO Collaboration (Tripartite)

60	Flanders Vaccine
61	French National Research Institute for Sustainable Development (IRD)
62	Future Earth
63	Geelong Centre for Emerging Infectious Diseases (GCEID)
64	Global AMR R&D Hub
65	Global Climate and Health Alliance (GCHA)
66	Global Early Warning System for Major Animal Diseases, including Zoonoses (GLEWS)
67	Global Health Security Agenda Consortium (GHSAC)
68	Global Leptospirosis Environmental Action Network (GLEAN)
69	Global Network of Expertise on Animal Influenzas (OFFLU)
70	GW4 AMR Alliance
71	Health and Agriculture Sustainability through Interdisciplinary Surveillance and Risk Assessment Platform of Global Emerging Zoonotic Diseases (Eco2Health)
72	Health and Environment Network (HENVINET)
73	Health and Environment Strategic Alliance (HESA)
74	Health in Animal and Livelihood Improvement (HALI) Project
75	Human Animal Infections and Risk Surveillance (HAIRS) group

76	Indonesia One Health University Network (INDOHUN)
77	Infection, Ecology and Epidemiology Network (IEE network)
78	Infectious Disease Emergence and Economics of Altered Landscapes Project (IDEEAL)
79	Infectious Diseases and One Health (IDOH)
80	Interactions Hôtes-Pathogènes-Environnements (IHPE)
81	International Alliance against Health Risks in Wildlife Trade
82	International Association for Ecology & Health
83	International Livestock Research Institute (ILRI)
84	International Student One Health Alliance (ISOHA)
85	Lancet Countdown Europé: Health and Climate Change in Europé
86	Lao PDR-Cambodia One Health Surveillance and Laboratory Network (LACANET)
87	Laos One Health University Network (LAOHUN)
88	Latin American Coalition for Escherichia coli Research (LACER)
89	Liberia National One Health Coordination Platform (OHCP)
90	Malaysia One Health University Network (MyOHUN)
91	Med-Vet-Net Association (MVNA)

92	MediLabSecure Network
93	Mekong Basin Disease Surveillance Network (MBDS)
94	Mnisi Community Program (MCP)
95	Myanmar One Health University Network (MMOHUN)
96	Myanmar Pig Partnership (MPP)
97	National Research Platform for Zoonoses
98	Nepal One Health Hub
99	Network for Ecohealth and One Health (NEOH)
100	Network for One Health Resistome Surveillance (NORSE)
101	North Carolina One Health Collaborative (NC OHC)
102	Norwegian Klebsiella Pneumoniae Network (NOR-KLEB)
103	One Arctic - One Health
104	One Health Aotearoa
105	One Health Bangladesh
106	One Health Brasil
107	One Health Breakthrough Partnership (OHBP)
108	One Health Commission (OHC)

109	One Health European Joint Programme (OHEJP)
110	One Health FIELD Network
111	One Health Global Network (OHGN)
112	One Health Hub Bangladesh
113	One Health Hub Pakistan
114	One Health Initiative
115	One Health Kansas
116	One Health Laboratory Network (OHLN)
117	One Health Latin America+Ibero and the Caribbean (OHLAIC)
118	One Health Network - Indian Ocean (OH-OI)
119	One Health Network for the Global Governance of Infectious Diseases and Antimicrobial Resistance (Global 1HN)
120	One Health Network South-East Asia
121	One Health One Caribbean One Love
122	One Health PACT consortium
123	One Health Partnership for Zoonoses
124	One Health Poultry Hub

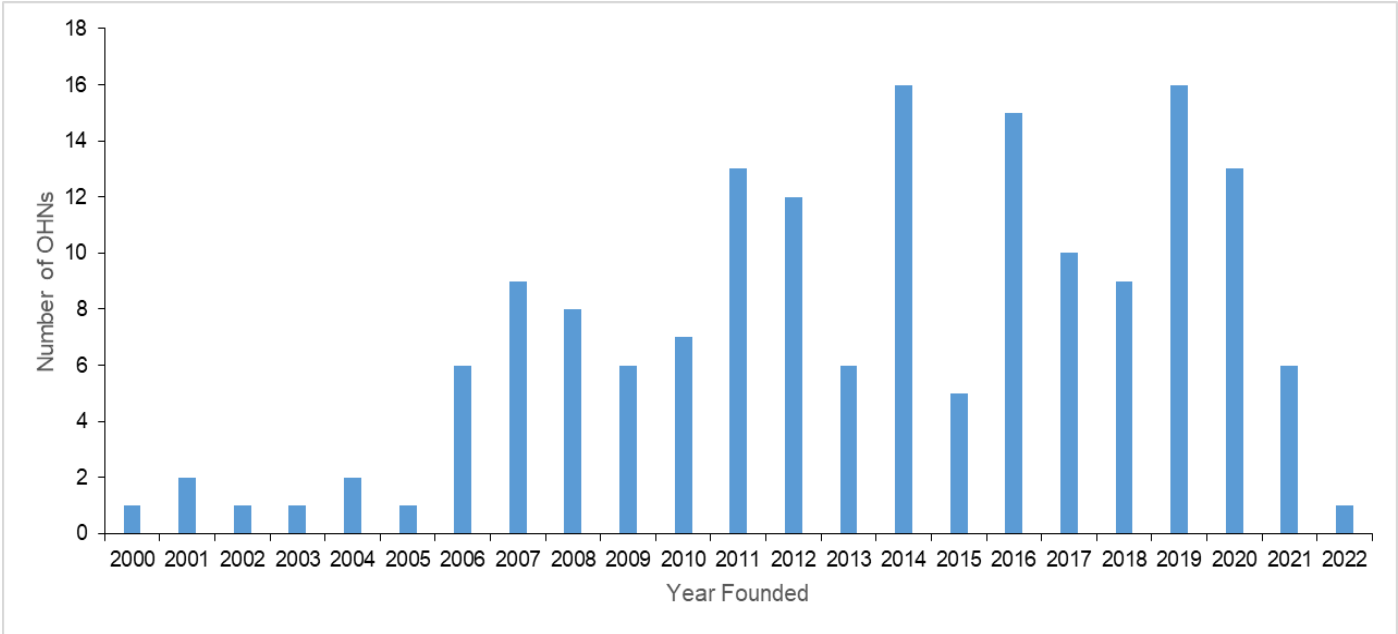
125	One Health Research Education and Outreach Centre in Africa (OHRECA)
126	One Health research network in Southeastern Europe and West-Central Asia (GeoHealth Hub?)
127	One Health Structure In Europe (COHESIVE)
128	One Health Sweden
129	One Health Units for Humans, Environment, Animals and Livelihoods project (HEAL)
130	One Health Workforce - Next Generation (OHW-NG)
131	One Health' consortium-india
132	Pan African Rabies Control Network (PARACON)
133	Pan African Network for Rapid Reserach, Response, and Preparedness for Infectious Diseases Epidemics consortium (PANDORA-ID-NET)
134	Papua New Guinea One Health Country Program (OHCP)
135	Participatory Epidemiology Network for Animal and Public Health (PENAPH)
136	Participatory One Health Disease Detection (PODD)
137	Partnership for Aflatoxin Control in Africa (PACA)
138	Pathways to Sustainability Global Consortium
139	Penn State/Nelson Mandela African Institute of Science and Technology (NM-AIST) Tanzania EcoHealth Partnership

140	People-Planet-Health project
141	Phillipines One Health University Network (PhilOHUN)
142	Planetary Health Alliance
143	Planetary Health Center of Expertise (PHCOE)
144	PREDEMICS Consortium
145	PRESAR Network
146	Preventing Zoonotic Disease Emergence Initiative (PREZODE)
147	Quadripartite
148	Regional Disease Surveillance Systems Enhancement (REDISSE)
149	Regional Network for the Horn of Africa (HORN)
150	Regional network on Emergent Risks Management in South East Asia (GREASE)
151	REsearch and ACTION targeting emerging infectious diseases (REACTing)
152	Research platform Production and Conservation in Partnership (RP-PCP)
153	Revitalising Informal Settlements and their Environments (RISE)
154	Roadmap to combat zoonoses in India (RCZI)
155	Rockefeller Foundation Economic Council on Planetary Health
156	Rwanda One Health Country Steering Committee

157	SEGA One Health Network
158	Sierra Leone National One Health Platform
159	Sino-Swedish integrated multi-sectoral partnership for antibiotic resistance containment (IMPACT)
160	South Asian network of AMR experts
161	Southeast Asia One Health University Network (SEAOHUN)
162	Southern African Centre for Infectious Disease Surveillance (SACIDS)
163	Sri Lankan One Health Hub
164	Stockholm Resilience Centre (SRC)
165	STOP Spillover
166	Swiss Center for Scientific Research in Côte d'Ivoire (CSRS)
167	Tanzania National One Health Platform
168	The Four Islands EcoHealth Network (FIEN)
169	The Global Antimicrobial Resistance Platform for ONE-Burden Estimates network (GAP-ONE network)
170	Training and Research Aimed at Novel Antibacterial Solutions in Animals and People (TRAIN-ASAP)
171	Uganda National One Health Platform
172	UK Health Alliance on Climate Change (UKHACC)

173	UN Interagency Coordination Group (IACG) on Antimicrobial Resistance
174	Una Salud Chile
175	United Against Rabies Alliance/Forum
176	Viet Nam One Health Partnership for Zoonoses (OHP)
177	Vietnam One Health University Network (VOHUN)
178	World Medical Association (WMA) and World Veterinary Association (WVA) Collaboration
179	Zambezi Ecohealth Partnership (ZEP)
180	Zoonoses and Emerging Livestock Systems (ZELS)
181	Zoonoses Anticipation and Preparedness Initiative (ZAPI)
182	Zoonotic and Emerging Diseases research group (ZED group)
183	Zoonotic Disease Unit - Kenya (ZDU)
184	Zoonotic Infectious Diseases Research Network

Supplementary Figure 2: Timeline of OHN emergence from 2000 to 2022



Supplementary Table 4: One Health Network Variables

Variables (N=184)	Frequency	Percentage (%)
OHN Distribution		
Global	57	31
Regional	54	29
National	73	40
Type of OHN Network		
Network	98	53
Subnetwork	22	12
Project	64	35
Status of Network		
Active	143	78
Inactive	33	18
Information unavailable	8	4
Regional Distribution		
Africa	78	42
Arctic	3	2
Asia	71	39
Europe	79	43
North America	47	26
South America	27	15
Oceania	18	10
Global OHN Headquarters (n=58)		
Africa	6	11
Asia	1	2
Europe	23	40
North America	12	21
South America	1	2
Virtual	9	16
No information available	5	9
OHN Self-identification		
One Health	137	74
Eco Health	14	8
Planetary Health	3	2
No identity as either OH, EH or PH	30	16
Transparency		
OHN with defined objectives or mission statement	171	93
Declared source of funding	140	76
OHN Year of Formation		
Formed before 2000	4	2

2000-2009	37	20
2010-2019	109	59
2020-2022 (April)	20	11
Year not found	14	8
OHN Engagement		
Human- Animal Health	51	28
Human - Environment	20	11
Animal - Environment	2	1
Human-Animal-Environment	111	60
OHN Stated Activities		
Communication/collaboration platform	129	70
Research & development	116	63
Capacity building	116	63
Data and information sharing	72	39
Surveillance and monitoring	61	33
Advocacy	45	24
Policy development	28	15
Disease control	28	15
Community engagement	25	14
Risk management and emergencies	25	14
Social research & implementation	16	9
Disbursement of funds	4	2
Recovery	0	0
OHN Stakeholders		
Academia	132	72
NGO/civil society	92	50
Government	92	50
Private sector	17	9
Communities	6	3
OHN Alignment to GHS Hazards		
Emerging infections and novel pathogens	105	57
Endemic infections and neglected tropical diseases	77	42
Extreme weather, water security and environmental degradation	37	20
Food safety and food/nutrition security	23	13
Antimicrobial resistance (AMR)	44	24

References

- 1 Khan MS, Rothman-Ostrow P, Spencer J, *et al.* The growth and strategic functioning of One Health networks: a systematic analysis. *The Lancet Planetary Health* 2018; **2**: e264–73.