

1 Ending the neglect to attain the Sustainable Development Goals

2 **One Health companion document to the neglected**
3 **tropical diseases road map 2021–2030**

4 *DRAFT FOR PUBLIC CONSULTATION – UPDATED 19 OCTOBER 2021*

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20 About this companion document

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22 This document is a companion to the World Health Organization (WHO) road map entitled *Ending the*
23 *neglect to attain the Sustainable Development Goals: a road map for neglected tropical diseases*
24 *2021–2030* (“the road map”). It aims to support a range of stakeholders – including people from endemic
25 countries, international organisations, and non-State actors – to achieve the road map targets through a
26 cross-cutting, One Health approach.

27 The companion document has five parts:

- 28 1. An introduction to One Health, including what it is and why it is essential to sustainably achieving
29 the road map targets;
- 30
- 31 2. One Health actions needed by major stakeholders to achieve the road map targets, including
32 countries, international organizations and non-State actors;
- 33
- 34 3. Guidance on how to support a paradigm shift toward One Health in national NTD programmes,
35 from programme design to prevention, treatment, surveillance and community engagement;
- 36
- 37 4. Common challenges and how they can be overcome, including bridging capability gaps between
38 sectors, reconciling conflicting objectives and setting clear accountabilities for collaboration;
- 39
- 40 5. Key resources.

41 The companion document was developed through a global consultative approach, including through
42 stakeholder interviews, interactive workshops and online public consultation.

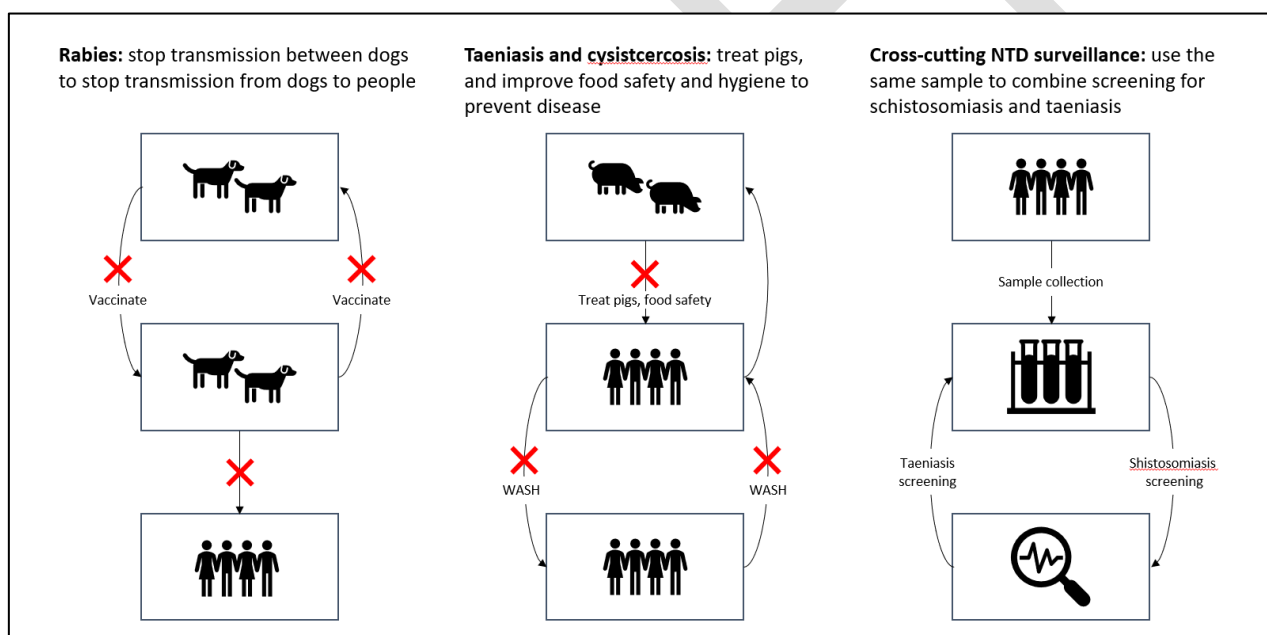
43 1. Introduction to One Health

44

45 A One Health approach aims to improve health outcomes by recognizing the connections between the
 46 health of people, animals and their environment. It is defined by the Tripartite alliance as ‘an approach to
 47 address a health threat at the human-animal-environment interface based on collaboration,
 48 communication, and coordination across all relevant sectors and disciplines, with the ultimate goal of
 49 achieving optimal health outcomes for both people and animals’. ¹ This is especially important for NTDs,
 50 which often have a significant zoonotic or environmental component. This relationship can take various
 51 forms, for example (Fig. 1) for:

- 52 • rabies, where most cases are transmitted by dogs to people through direct contact (bites and
- 53 scratches), hence preventing disease in dogs is key to preventing disease in people;
- 54 • taeniasis and cysticercosis, where people develop taeniasis through the ingestion of larval cysts in
- 55 infected raw or undercooked pork, or develop cysticercosis through the ingestion of the parasite’s
- 56 eggs due to poor hygiene (faecal–oral transmission), or ingesting contaminated food or water,
- 57 hence interventions in pigs, food safety and water, sanitation and hygiene (WASH) are critical;
- 58 • cross-cutting NTD surveillance, such as for schistosomiasis and taeniasis, where the same sample
- 59 or population can be used for disease detection

60 **Fig. 1. Examples of human–animal–environment interfaces for NTDs**



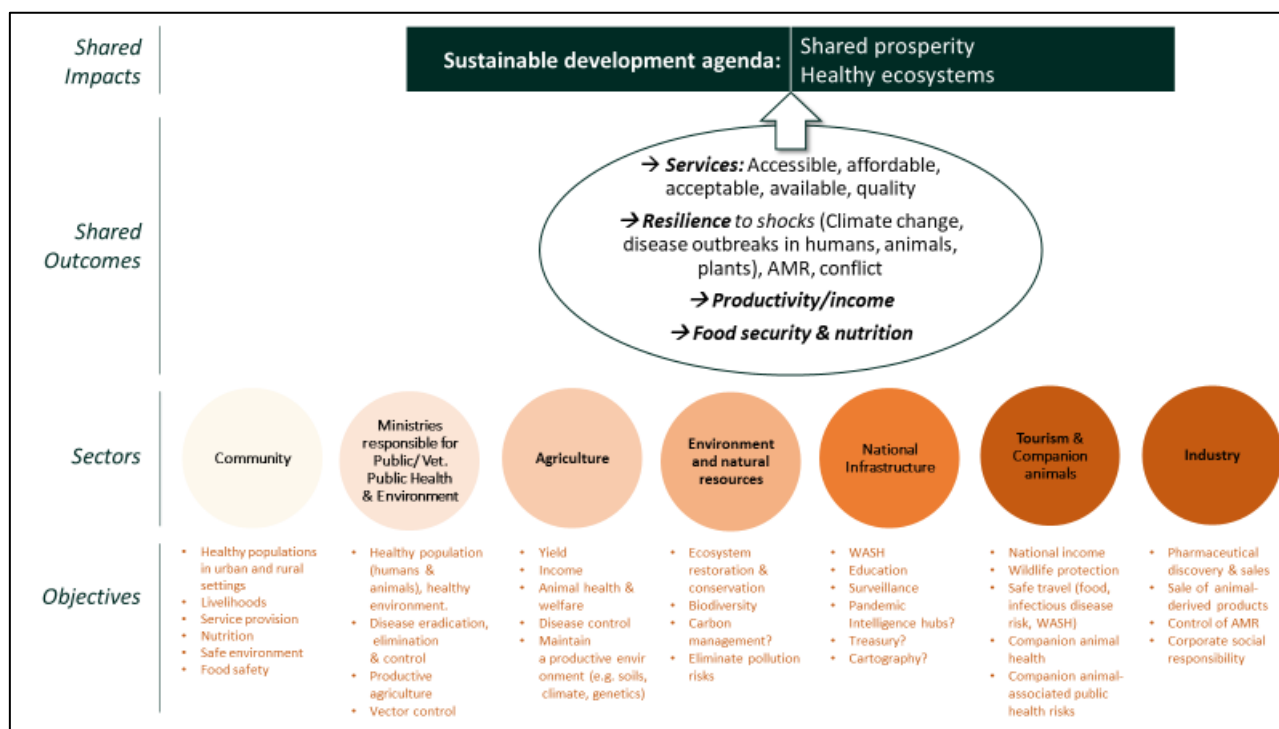
61

62 In each example, effective and sustainable disease prevention requires cross-cutting action among
 63 human, animal and environmental health sectors, WASH, and others. However, the motivation for
 64 different sectors to integrate NTD objectives into their programmes of work may not always be clear. For
 65 example, for some diseases where livestock pose a transmission threat to people but do not cause any
 66 challenges to the health or productivity of the animal itself; and it can be difficult to engage agricultural
 67 stakeholders (e.g., farmers) in animal health interventions solely to benefit human public health

¹ A tripartite guide to addressing zoonotic diseases in countries, accessible [here](#)

68 outcomes. Understanding objectives from the whole system is therefore important to help identify
 69 common ground for different sectors to collaborate in NTD control (Fig. 2).

70 **Fig. 2. Example sectors and their objectives involved in a cross-cutting One Health approach**



71
 72 One Health approaches also typically consider and involve a range of stakeholders from the public and
 73 private sector, and across global, regional and national levels. For example, community members who
 74 demand or receive services; government ministries and municipalities that plan, fund and provide them;
 75 industry and academia to develop products, conduct research and share expertise; media and education
 76 agents that communicate, advocate and raise awareness; and international organisations that provide
 77 technical support, funding and guidance. By building system-wide capability and collaboration across
 78 stakeholders and sectors, One Health approaches can also strengthen health systems and surveillance,
 79 drive ownership and deliver results.

80 Cross-cutting approaches are advocated in the road map, which sets ambitious global targets to reduce
 81 the burden of NTDs in line with United Nations Sustainable Development Goal 3 “to end the epidemics ...
 82 of neglected tropical diseases” by 2030. Specific targets for 2030 include:

- 83 • 90% reduction in people requiring interventions against NTDs;
- 84 • 75% reduction in disability-associated life years related to NTDs;
- 85 • 100 countries having eliminated at least one NTD; and
- 86 • two NTDs eradicated (dracunculiasis and yaws).

87 This companion document supplements the road map identifying One Health actions needed to achieve
 88 the road map targets, and by supporting countries to implement integrated One Health approaches to
 89 address NTDs. It focuses on examples of zoonotic NTDs as a starting point (Fig. 3). However, principles can
 90 be applied in a transdisciplinary way to engage other sectors and stakeholders beyond health and NTDs
 91 alone - such as environment, education and others.

92 **Fig. 3. Zoonotic NTDs and factors influencing transmission, surveillance and control**

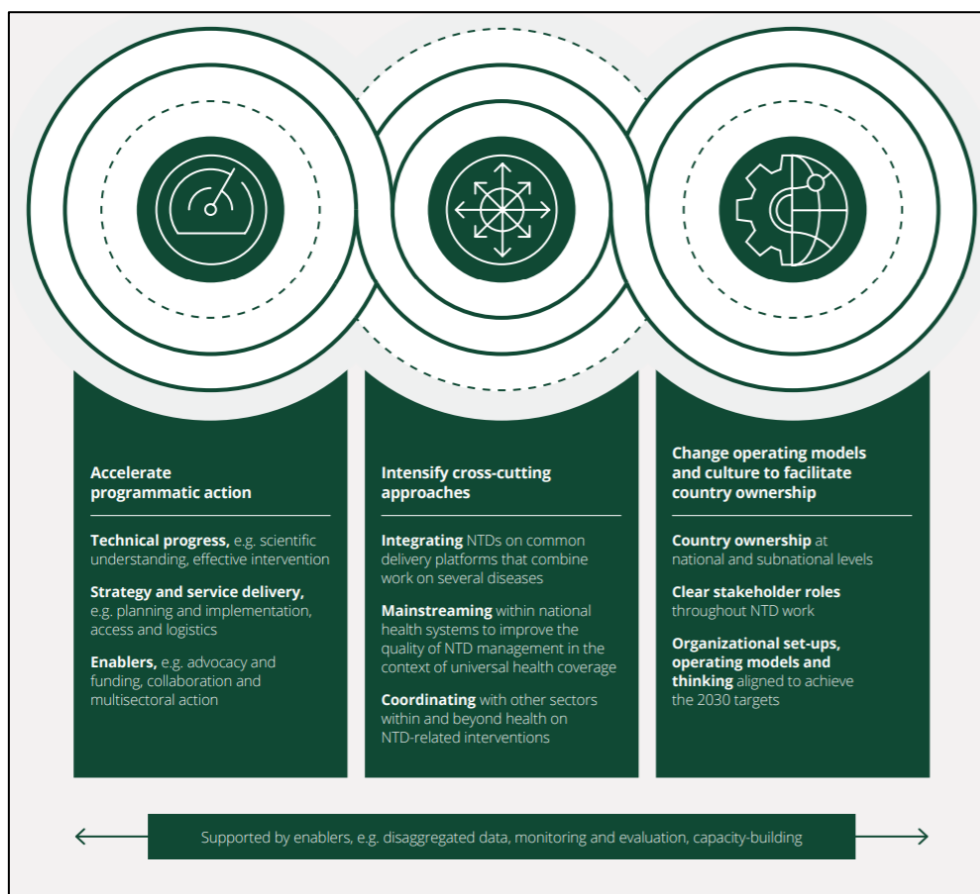
	Disease Agent					Transmission/ Exposure Routes				Livestock Animal				Companion Animal		Wildlife					Environmental Factors that Influence Transmission							
	Helminth	Protozoa	Virus	Ectoparasite	Other	Foodborne	Waterborne	Arthropod	Faecal/Oral	Direct Contact	Pigs	Cattle	Goats	Sheep	Dogs	Cats	Foxes/Canids	Fish	Crustacean	Snails	Primates	Rodents	Vector	Deforestation	Urbanization	Climate Change	Ground/Soil	Man-made Ecological Change
Taeniasis/Cysticercosis	X					X		X		X																X		
Echinococcosis	X							X		X	X	X	X	X	X	X	X					X			X	X		X
Foodborne Trematodiasis	X					X				X	X	X	X	X	X		X	X	X								X	
Schistosomiasis	X					X				X	X	X	X	X	X	X				X	X	X	X			X		X
Dracunculiasis	X					X	X								X	X		X	X		X							
Zoonotic Leishmaniasis	X						X								X		X					X	X	X	X			
Human African Trypanosomiasis		X					X				X												X	X	X		X	X
Chagas Disease	X					X	X								X						X	X	X	X		X	X	X
Rabies			X						X					X														
Scabies & Other Ectoparasite				X					X	X				X		X										X		
Snakebite envenomation					X				X														X	X			X	X

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94 2. One Health actions needed to achieve the road map targets

95 The three main stakeholder groups involved in achieving the road map targets are countries, including
 96 State and local governments, communities, and citizens; international organizations, such as the United
 97 Nations, WHO, FAO, OIE, UNEP and others; and non-State actors, such as academics, industry, and NGOs.
 98 Each group plays an important role across the three pillars of the road map (Fig 4).

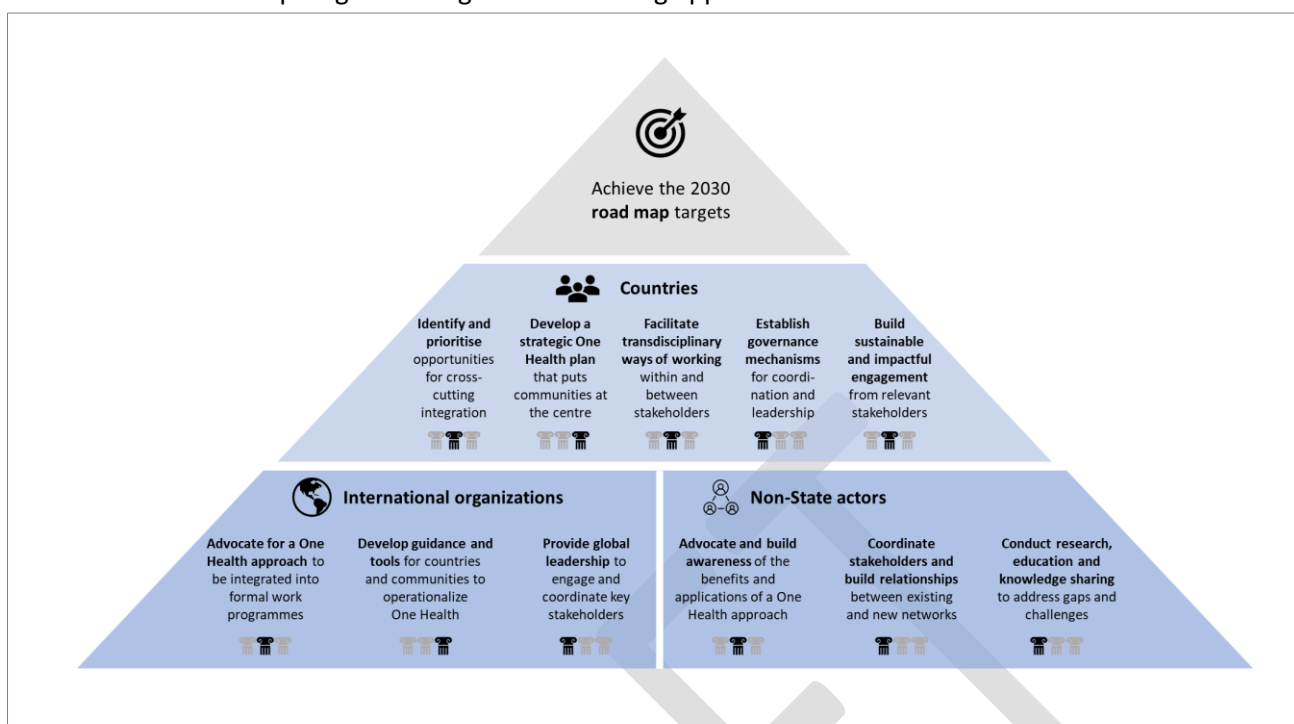
99 **Fig. 4. Three pillars of the road map: accelerate programmatic action; identify cross-cutting approaches;**
 100 **and change operating models to facilitate country ownership**



101

102 Priority One Health actions needed by each group to achieve the road map targets are summarised in **Fig.**
 103 **5** and detailed further below and in **Annex 1**.

104 **Fig. 5.** Priority One Health actions needed by countries, international organisations and non-State actors
 105 to achieve the road map targets through a cross-cutting approach



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109 Countries, including State and municipal governments, communities, and citizens

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- 110 • Identify and prioritise opportunities for cross-cutting integration within NTD programmes, and
 111 between NTD programmes and other sectors. This could start with a programmatic review to
 112 identify areas of potential synergy between, for example, programme priorities, workforce
 113 capabilities, stakeholders, and communities.

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 115 This can also be an opportunity to identify synergies that go beyond traditional collaborations to
 116 unlock new, exciting possibilities based on the local context. Examples of different levels of
 117 integration include:

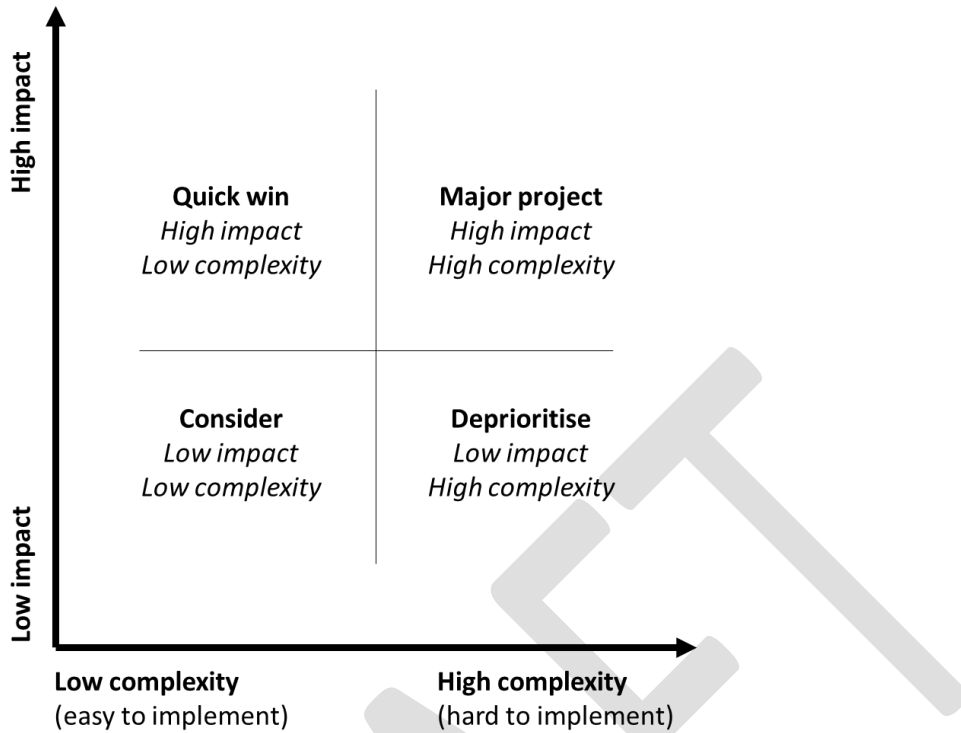
- 118 ○ *Integration within NTD programmes* – e.g., joint surveillance efforts for parasitic diseases
 119 that require the same sample and diagnostic approach
- 120 ○ *Integration between broader health programmes* – e.g., building in strategies to address
 121 Taeniasis / Cysticercosis in people, with broader animal health focussed interventions in
 122 pigs (e.g., for Classical Swine Fever)
- 123 ○ *Integration between sectors* – e.g., linking human and animal health surveillance systems;
 124 involving WASH or waste management in interventions; or drawing on private sector
 125 supply chains to provide products or services in remote areas.

126 Ideally, this review should be followed by a prioritisation exercise to identify where to start – for
 127 example, by ranking opportunities based on likely impact, and ease of implementation (**Fig. 6**).
 128 Not all opportunities will be feasible to pursue, or make sense to pursue first – and integration,
 129 although it can have great benefits, will require a paradigm shift that takes time, cost, effort, and
 130 leadership to implement effectively. Section 3 provides guidance on how this paradigm shift can
 131 be approached in national or local programmes, e.g., by programme managers.

132 **Fig. 6. Example prioritisation matrix.** This matrix can be used to rank initiatives based on likely
 133 impact, and how complex they are to implement. Ideally, programmes should target ‘quick wins’ –

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i.e., initiatives that will be high impact, but with relatively low complexity; although ‘high impact, high complexity’ initiatives may also be worthwhile.



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- Develop a strategic One Health plan that sets clear targets for integration, and a pathway to reach it – for example, based on the opportunity assessment and prioritisation described above. Typically, a strategic plan would include a clear purpose and targets; specific objectives; describe the activities needed to meet the objectives (including timeline, who is responsible, and resources needed); and identify metrics to monitor and evaluate performance.

Ideally, the plan should put communities at the heart of programmatic efforts, through an inclusive, participatory design process that: (i) supports community engagement in policy development, decision making and local solutions; and (ii) ensures policies reflect local values, objectives, and contexts.

The plan should also consider the key players involved in implementation – for example, local governments play a critical role in implementing interventions and building traction within the community. Where possible, local leaders should be engaged, supported and encouraged.

Case study: One Health Strategic Plan developed in Bhutan (available [here](#))

In 2019, the Ministry of Health and Ministry of Agriculture and Forests in Bhutan launched a One Health Strategic Plan, which has four objectives:

1. To institutionalize One Health initiative involving relevant stakeholders
2. To strengthen surveillance system for prioritized zoonoses, foodborne diseases and [antimicrobial resistance \(AMR\)](#)
3. To strengthen joint outbreak investigation and response for prioritized zoonoses and foodborne diseases including AMR issues
4. To promote collaborative research activities for prioritized zoonotic, food-borne diseases and AMR

The plan also emphasizes the need for participatory approaches that involve and support communities. *[NB: Case study to be elaborated]*

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- 155 • Facilitate transdisciplinary ways of working within and between sectors, and with other
156 stakeholders (e.g., non-State actors). This is simpler where incentives are aligned (e.g., through
157 shared goals or budgets), and roles and responsibilities of contributors are clear. For example,
158 where different sectors agree to build joint capability in a particular area, and there is a clear
159 owner to conduct associated training.

160

161 However, where sectors or stakeholders have, or perceive, competing interests, there may be
162 need to cultivate shared incentive structures that encourage collaboration over competition. For
163 example, *Echinococcus* control programmes encourage offal to be discarded to promote human
164 health – however this comes at a cost to the farmer, who would otherwise be able to sell it. In
165 some settings, offal is then sold on the black market at a low price, bringing in income for the
166 farmer, but placing the buyer – who is often also poor - at increased risk.

167

- 168 • Establish governance mechanisms to support coordination and leadership. This involves clearly
169 defining the roles and responsibilities different stakeholders; allocating resources proportionately;
170 setting up clear pathways for decision making and conflict resolution; and having structures to
171 coordinate and share information and activities between different groups (e.g., governments,
172 NGOs).

173

174 For example, in 2011 Kenya set up a One Health ‘Zoonotic Disease Unit (ZDU)’. The ZDU is jointly
175 headed by a director of Medical and Veterinary Services, who support a cross-functional zoonotic
176 technical working group and disease unit, which interface with One Health Units in Counties. This
177 structure supports a collaborative approach between multiple sectors.

178

- 179 • Build sustainable and impactful engagement from relevant stakeholders – including non-
180 traditional stakeholders – through identifying shared outcomes, dependencies, drivers, levers, and
181 conflicts of interest; and engage stakeholders early and transparently in planning.

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183

**International organizations, such as the UN, WHO, FAO, OIE and others**

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- 186 • Apply a cross-cutting One Health approach to formal work programmes internally, among other
187 international organizations, and in regions and countries. For example, by including specific One

188 Health targets, indicators, and actions in the next edition of WHO’s General Programme of Work;
189 and in relevant plans of other UN agencies.

190

- 191 • Develop guidance and tools for countries and communities to operationalise One Health
192 practices, and support their implementation, for example:
 - 193 ○ Helping countries to identify shared outcomes and incentive structures between NTD and
194 other sectors and stakeholders to encourage integration
 - 195 ○ Helping countries to develop sustainable financing and governance mechanisms to
196 support One Health collaboration
 - 197 ○ Supporting and catalysing countries – either directly, or in collaboration with other
198 stakeholders – to implement the priority actions described above
- 199
- 200 • Provide global leadership to engage and coordinate key stakeholders – including through:
 - 201 ○ Promoting country ownership, while galvanising international collaboration to support
202 greater take-up of One Health approaches where relevant
 - 203 ○ Integrating NTDs into global One Health initiatives, such as the Tripartite Alliance, which
204 was recently extended to include the United Nations Environment Programme (UNEP);
205 pandemic preparedness strategies; and others
 - 206 ○ Engaging the NTD community in One Health, and the One Health community in NTDs
 - 207 ○ Integrating internal approaches to NTD programmes where relevant, and strengthening
208 the institutions, governance, and leadership structured need to deliver.
- 209

Case study: Programme Against African Trypanosomiasis (PAAT) (access [here](#))

PAAT is a long-standing interagency collaboration between WHO, FAO, the International Atomic Energy Agency (IAEA) and the African Union - Interafrican Bureau for Animal Resources (AU-IBAR) to coordinate control activities for animal and human African trypanosomiasis (AAT and HAT).

Examples of activities that have occurred under this collaboration include:

- Synergising vector control activities to benefit control of both HAT and AAT, given the Tsetse fly transmits disease to both people and animals
- Collaborating to share data and geographical information, including HAT and AAT atlases, sharing maps of Tsetse fly distribution, guidance manuals etc
- Conducting shared trainings on HAT and AAT management, vector control, and data, and coordinating participation of both sectors in scientific meetings and expert discussions

IAEA was a novel stakeholder to involve in an NTD programme, however brought expertise in developing and applying insect sterilisation techniques. *[NB: Case study to be elaborated]*

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Non-State actors, such as academics, industry, and NGOs

- 214 • Advocate and build awareness of the benefits and applications of a One Health approach,
215 including through identifying and demonstrating areas where NTDs can be integrated into other
216 policy or programmatic priorities. This may extend to supporting implementation and funding of
217 such integration, in alignment with national priorities and plans, and is typically within the remit
218 of NGOs.

219

- 220 • Coordinate non-State actor stakeholders and build new relationships, for example through:
221 ○ Developing existing and new networks for collaboration and partnership, e.g., through
222 building a One Health community of practice
223 ○ Identifying and engaging novel stakeholders – e.g., from industry, and other sectors such
224 as education, tourism, nutrition, etc – to drive broader involvement in NTD programmes
225 ○ Supporting NTD stakeholders to join wider One Health, and cross-sector conversations

226 This coordination could be undertaken by NGOs, with input from academic and industry networks.
227

- 228 • Conduct research, education, and knowledge sharing to address gaps and challenges to cross-
229 cutting NTD control. This includes:
230 ○ Engaging in multisector research to identify gaps, and develop and promote tools for
231 countries and communities to operationalise One Health
232 ○ Sharing knowledge – including data, technological advances, programme feedback – and
233 facilitating information flow across sectors and stakeholders
234 ○ Conducting training in key competencies to facilitate greater integration between sectors
235 These actions sit primarily with academia and industry; however NGOs may also play a role
236 particularly in knowledge sharing and conducting training.

237 These priority actions provide a starting point for countries, international organizations, and non-State
238 actors to take a One Health approach to address NTDs and achieve the road map targets. They can be
239 complemented by the key resources described in section 5; and in the following sections which provide
240 guidance on how a paradigm shift toward One Health can be supported national programmes, and how
241 common One Health challenges can be overcome.

242 3. Guidance on how to support a paradigm shift toward One Health in national NTD programmes 243

244 This section is specifically geared toward programme managers and provides guidance on how to support
245 a paradigm shift toward a One Health approach in national programmes. A One Health approach can take
246 many forms, depending on the context of the programme, setting, stakeholders and resources available.
247 Fundamentally, it is about identifying – and activating – opportunities to integrate efforts among sectors
248 and diseases to achieve shared or synergistic goals.

249 This can be started anywhere, at any time, for any relevant programmatic activity. Ideally, these activities
250 should be supported in parallel by other groups (e.g., international organisations and non-State actors) to
251 create an enabling environment for change. The following examples outline how a One Health approach
252 can be practically applied to different aspects of NTD programmes, and provide links to additional
253 resources where relevant and available.

254 Programme design 256

257 General principles of programme design continue to apply when taking a One Health approach (**Annex 2**).
258 However, steps that become even more important include stakeholder mapping, to identify the sectors or
259 stakeholders who should be involved in the programme and their motivations; and, where multiple
260 stakeholders are involved, to agree clear roles and responsibilities for implementation.

261 For example, to design a rabies prevention programme involving both human and animal interventions,
262 stakeholder mapping might identify four key sectors to involve: human and animal health, education, and
263 municipalities (note this list is not exhaustive). Clear roles and responsibilities would then need to be
264 agreed with relevant focal points from each sector to achieve programme targets. For example:

- 266 • human health ministry – responsible for rabies awareness campaigns; providing rabies post-
267 exposure prophylaxis to bite victims; and collating data on rabies cases and bite burden;
- 268 • animal health ministry – responsible for conducting mass dog vaccination campaigns, and
269 collecting and sharing surveillance data on animal rabies cases;
- 270 • education ministry – responsible for implementing rabies awareness in school curricula; and
- 271 • municipalities – responsible for implementing community-based interventions, with support from
272 human and animal health ministries.

273
274 **Action:** apply a One Health approach to programme design by mapping stakeholders and agreeing clear
275 roles and responsibilities to reach shared outcomes. This can be supported by stakeholder mapping², RACI
276 (responsible, accountable, consulted, informed) and similar tools to support these respective actions
277 (**Annex 3**).

278 Workforce capability building 280

² See this WHO tool on stakeholder analysis [[link](#)].

281 Building workforce capability in different sectors improves overall capability and allows skilled personnel
 282 to be shared or redeployed in times of high need (e.g. during a pandemic). It can also serve to break down
 283 organisational siloes and improve transdisciplinary ways of working. For example, in Kenya, researchers
 284 who trained in disease modelling for animal disease were subsequently redeployed to lead national
 285 COVID-19 modelling efforts, thereby overcoming a critical skills shortage.

286 Examples of common skills required for effective NTD programmes across human and animal health
 287 sectors include those for:

- 288 • understanding disease burden,
- 289 • mapping country contexts,
- 290 • collecting and reporting data,
- 291 • monitoring and evaluating programme performance,
- 292 • laboratory diagnosis of disease,
- 293 • modelling impact of interventions,
- 294 • planning and programming
- 295 • communication and community awareness, and
- 296 • logistics (e.g. forecasting, distribution).

297 Examples where a more integrated workforce may make sense include understanding disease
 298 epidemiology; implementing shared interventions across sectors (e.g., surveillance, risk assessments,
 299 evaluations, etc); and where leadership, facilities or infrastructure are common across programmes.

300 Action: explore opportunities for cross-sector training to build workforce capability for critical gaps and/or
 301 secondments for skilled personnel to share expertise within and among programmes or departments.
 302 Where relevant, encourage transdisciplinary training locally, regionally and globally.

303



Awareness and education

305

306 Often, awareness messages and their target audience for a given disease or intervention are cross-cutting
 307 for different NTDs. For example, WASH and safe food preparation practices are essential to prevent
 308 infection from dracunculiasis, foodborne trematodiasis, taeniasis and cysticercosis. Coordinated
 309 campaigns that distil and share common messages for awareness and prevention are efficient, reinforcing
 310 and reduce information overload for recipients.

311 Also, the target audience for awareness or education campaigns is often similar – e.g. livestock owners
 312 may all receive information on prevention strategies for echinococcosis, schistosomiasis and foodborne
 313 trematodes (if they own cattle, goats, or sheep), and for taeniasis and cysticercosis (if they also own pigs).

314 Action: explore opportunities to integrate awareness and education interventions within communities and
 315 across NTDs, for example through cross-cutting communications that coordinate key messages and target
 316 audiences.

317



Community interventions (engagement, prevention and treatment)

320

321 The overlap of transmission routes, animal hosts, and control and prevention strategies among zoonotic
 322 NTDs creates opportunities to both:

- 323 • combine cross-cutting interventions for disease(s). For example, in Madagascar a preventive
 324 chemotherapy programme to address taeniasis in people was combined with a complementary
 325 programme in pigs, thereby providing treatment while simultaneously raising awareness and
 326 addressing the disease at its source;
- 327
- 328 and
- 329
- 330 • draw on existing community relationships to introduce or accelerate new interventions. For
 331 example, in KwaZulu-Natal, South Africa, strong community relationships built through sustained
 332 rabies control efforts enabled the successful initiation and implementation of a brucellosis control
 333 programme using the same network.

334 Action: explore opportunities to combine interventions, or use existing infrastructure and relationships to
 335 introduce or accelerate new interventions.

336



338 Surveillance

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340 Robust surveillance systems for both human and animal disease allow understanding of the usual – and
 341 detection of the unusual – with implications for the health of both people and animals. For example,
 342 animal burdens of parasitic diseases such as *Taenia solium* and *Echinococcus* can act as proxy indicators
 343 for human diseases, especially sequelae that appear late – such as neurocysticercosis, and echinococcosis.

344 Sharing information among sectors can also be critical to inform appropriate treatment and follow-up. For
 345 example, an animal that tests positive or negative for rabies will inform treatment options in a potentially
 346 exposed person and any requirement for follow-up of potential further contacts.

347 An integrated approach is also key where multiple diseases affect the same population, and detection can
 348 be performed using the same samples or logistics. For example, community screening for schistosomiasis
 349 can be combined with screening for taeniasis, as the sample and the target population are the same.

350 Action: explore opportunities for intersectoral collaboration to share information, integrate surveillance
 351 for diseases that use the same samples or affect similar populations, and strengthen animal and human
 352 disease surveillance systems overall.

353 4. Common challenges and how they can be overcome

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355 A cross-cutting approach that involves multiple sectors and stakeholders, while effective, can bring
356 challenges, especially in settings that are already over-burdened and under-resourced.

357 Common challenges include:

358 • *“Programmes only get implemented when the Ministry of Health is responsible for them”*: low
359 capacity, investment and capability of other sectors, e.g. animal health disincentivizes partnership,
360 especially where health systems are already strained and inadequate, and local governments are
361 responsible for implementation in the community.

362 ○ *[NB: case study to be detailed]*

363

364 • *“Why should farmers treat cattle for a disease that doesn’t impact production?”*: competing priorities
365 for NTD objectives between sectors, e.g., where livestock transmission poses a threat to human
366 health, but does not negatively impact animal productivity, can disincentivise animal treatment.
367 However often, combined human and animal treatment is the most effective and sustainable way to
368 address disease in people.

369 ○ *[NB: case study to be detailed]*

370

371 • *“If everyone is responsible, nobody is responsible”*: unclear accountabilities between stakeholders and
372 sectors can result in a lack of transparency, and missed actions and opportunities.

373 ○ *[NB: case study to be detailed]*

374

375 5. Key resources

376

377 **WHO**

378 Ending the neglect to attain the Sustainable Development Goals: a road map for neglected tropical
379 diseases 2021–2030. Geneva: World Health Organization; 2020 (access [here](#)).

380 Ending the neglect to attain the sustainable development goals: a global strategy on water, sanitation and
381 hygiene to combat neglected tropical diseases, 2021–2030. Geneva: World Health Organization; 2021
382 (access [here](#)).

383 Taking a multisectoral one health approach: a tripartite guide to addressing zoonotic diseases in countries.
384 Geneva: World Health Organization; 2019 (access [here](#)).

385

386 Country NTD master plan, 2021–2025: framework for development. Brazzaville: World Health Organization
387 Regional Office for Africa; 2020 (access [here](#)).

388

389 **One Health**

390 Framework for One Health practice in national public health institutes. Addis Ababa: African Union; 2020
391 (access [here](#)).

392 Bhutan One Health strategic plan, 2018–2023, second edition. Thimphu: Ministry of Health of Bhutan; 2019
393 (access [here](#)).

394

395 **Tools**

396 Stakeholder mapping: WHO training on stakeholder analysis. Geneva: World Health Organization (access
397 [here](#)).

398

399 **Annex 1. One Health framework for action on NTDs according to pillars of the road map****Pillar 1 Accelerate programmatic action: Integrate One Health into NTD programme design and delivery**

Support NTD stakeholders to understand and utilise systems thinking; identify key entry points for One Health; evidence and advocate for One Health interventions in NTDs.

Achieving this will require action in the following areas:

1. Technical progress, e.g. evidence base and guidance on integrated interventions	Countries: <ul style="list-style-type: none"> – Map stakeholders for relevant NTDs to identify human-animal-environment interfaces and investigate potential areas for integrated one health approaches. – Share data across sectors and facilitate cross-sector use. – Identify suitable metrics (existing or new) to monitor and track relevant One Health targets. International organisations <ul style="list-style-type: none"> – Develop guidance and tools for countries to operationalise One Health practices and support their implementation. Non-State actors <ul style="list-style-type: none"> – Conduct research, education and knowledge sharing to address gaps and challenges to cross-cutting NTD control e.g. through multisector research to better understand the human-animal-environment interface; knowledge sharing and training.
2. Strategy and service delivery e.g. surveillance, joint risk assessment	Countries: <ul style="list-style-type: none"> – Identify and prioritise opportunities for cross-cutting integration based on local needs, and use co-design and adaptive programme design to inform delivery. – Develop a strategic One Health plan that sets clear targets for One Health integration and outlines activities, resourcing and monitoring required to reach it. – Facilitate transdisciplinary ways of working between sectors and stakeholders e.g., through aligning incentives, clear governance structures, and testing of novel mechanisms. International organisations <ul style="list-style-type: none"> – Support and catalyse countries to co-design cross-cutting processes and ways of working. – Promote One Health approaches to drive political buy-in at country level. Non-State actors: <ul style="list-style-type: none"> – Identify and coordinate non-State actor roles in systems maps and fill evidence gaps.
3. Enablers e.g. integrated funding pathways, advocacy collaboration and multisectoral action	Countries: <ul style="list-style-type: none"> – Identify systematic barriers to cross-cutting approaches – Integrate funding for integrated actions and support sharing of knowledge and capacity across sectors. – Build One Health capacity e.g., by developing or integrating One Health approaches into existing curricula to break down siloes and any encourage cross-sector collaboration – Advocate for a One Health approach to NTDs. International organisations <ul style="list-style-type: none"> – Engage NTD community in One Health and One health community in NTDs – Enable One Health action by supporting suitable financing and governance mechanisms – Lead by example by delivering high-level multisector action between UN agencies. Non-State actors: <ul style="list-style-type: none"> – Target and fund capacity building and delivery of One Health for NTDs. Address evidence gaps. Offer suitable financing mechanisms – Build relationships in existing and new networks to share knowledge – Focus education and training on competencies to facilitate greater integration in common areas between health sectors.

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Pillar 2 Intensify cross-cutting approaches: Coordinate and integrate action on NTDs across key sectors

Demonstrate interconnections between sectors and highlight shared outcomes; facilitate conversations and nurture relationships; integrate NTDs into existing structures.

Achieving this will require action in the following areas:

<p>1. Integrating NTDs in common delivery platforms that combine work on human and animal diseases</p>	<p>Countries:</p> <ul style="list-style-type: none"> – Identify opportunities for integration – e.g., efficiencies, entry points and shared priorities for NTD programmes with non-NTD sectors. – Facilitate transdisciplinary ways of working and sectoral equity in their integration. – Problem framing and objective setting: Place the patient and community at the heart of objective setting. Shift programmatic focus to be cross-cutting. <hr/> <p>International organisations</p> <ul style="list-style-type: none"> – Integrate approaches to NTD programmes within UN agency governance and policies and strengthen the institutions, governance and leadership structures needed to deliver. – Support countries to identify entry points for integrating NTDs in other sectors. Collate evidence and support country level decision making. <hr/> <p>Non-State actors:</p> <ul style="list-style-type: none"> – Identify novel stakeholders to integrate following One Health analysis and support integration in prioritised areas.
<p>2. Mainstreaming NTDs within national human, animal and environmental health systems to improve the quality of NTD interventions</p>	<p>Countries:</p> <ul style="list-style-type: none"> – Promote clear One Health targets in relevant national and local NTD policies and include NTDs in national One Health strategies – Develop One Health champions to link NTDs to other health and non-health sectors at national and global level. <hr/> <p>International organisations</p> <ul style="list-style-type: none"> – Support inclusion of NTD targets in other sectors and One Health policies. – Support countries and sectors to establish and sustain One Health ways of working and engage with national One Health Champions <hr/> <p>Non-State actors:</p> <ul style="list-style-type: none"> – Identify and advocate for opportunities for NTDs to be included in other policy areas – Support NTD stakeholders to join wider health sector conversations such as those on pandemic preparedness, help in their co-design process to reap gains for NTDs
<p>3. Coordinating with other sectors within and beyond health on NTD-related interventions e.g. establishment of cross-sectoral coordination mechanisms.</p>	<p>Countries:</p> <ul style="list-style-type: none"> – Identify non-health stakeholders and their role in delivery and uptake of One Health for NTDs. Establish national and local/ subnational mechanisms to coordinate all stakeholders. – Develop governance mechanisms to support coordination and leadership <hr/> <p>International organisations</p> <ul style="list-style-type: none"> – Help identify shared outcomes between NTDs and non-health sectors and support coordinated responses and reporting across sectors – Integrate NTDs into global One Health activities such as the Tripartite+ and pandemic preparedness strategies. <hr/> <p>Non-State actors:</p> <ul style="list-style-type: none"> – Advocate for collaboration outside health e.g. education, tourism, nutrition and coordinate between sectors for joint advocacy, funding and implementation. – Develop public-private partnerships to fill gaps and facilitate a One Health approach to NTDs

Pillar 3 Change operating models & culture to facilitate country ownership: Nurture and sustain country-led One Health action

Putting communities and countries at the core of decision making; One Health champions to lead transition to One Health working, sectoral equity and ownership in achieving shared outcomes; proportionate resourcing according to One Health system.

Achieving this will require action in the following areas:

<p>1. Ownership at national and subnational levels e.g. responding to the specific needs of populations and the global health security agenda.</p>	<p>Countries:</p> <ul style="list-style-type: none"> – Put communities at the heart by supporting community engagement in policy development, decision making and local solutions. Ensure policies reflect local values, objectives and contexts – Build sustainable and equitable engagement from all stakeholders (including non-traditional stakeholders) in One Health for NTDs with identification of shared outcomes, dependencies, drivers, levers and conflicts of interest. Manage conflicts. Engage stakeholders early in the planning and be transparent. <hr/> <p>International organisations</p> <ul style="list-style-type: none"> – Offer global leadership while facilitating country ownership of NTD programmes and galvanise international collaboration – Provide guidance on participatory approaches to increase country ownership <hr/> <p>Non-State actors:</p> <ul style="list-style-type: none"> – Facilitate information flow to support participatory approaches to One Health for NTDS – Identify community / stakeholder priorities and represent locally specific contexts.
<p>2. Clear stakeholder roles throughout NTD work ; managing competing priorities both across sectors and between nations.</p>	<p>Countries:</p> <ul style="list-style-type: none"> – Lead by example and give confidence to others to engage in one health for NTDs – Clearly define state and non-state roles and distribute responsibilities for NTDs and assign proportional resources and governance. – Conduct capacity review to identify weak links <hr/> <p>International organisations</p> <ul style="list-style-type: none"> – Offer guidance on distributing responsibility for One Health across stakeholders, public and private. – Ensure accountability systems in place at country level to support country and sectoral ownership of roles and responsibilities. <hr/> <p>Non-State actors:</p> <ul style="list-style-type: none"> – Collaborate across sectors to identify shared aims and build sectoral equity and support community -led development. – Give policy-makers a single route to advice from across OH stakeholders.
<p>3. Organizational set-ups, operating models and thinking aligned to achieve the 2030 targets</p>	<p>Countries:</p> <ul style="list-style-type: none"> – National governance: Deliver local solutions with a global vision. Facilitate and sustain truly transdisciplinary One Health action between government sectors, ensuring sectoral equity and adequate resource allocation. Consider suitability of existing organisational structures to enable sustainable collaboration and action towards shared or complementary targets, able to resolve potential conflicts in priority setting. – Employ inclusive design processes with the needs of the community at its core e.g. participatory and co-design processes with structured management of stakeholder input. – Facilitate Public-Private partnership opportunities <hr/> <p>International organisations</p> <ul style="list-style-type: none"> – Support countries to use organisational set ups to plan long-term impact, value sustainability and achieve 'last mile' stages to eradication where appropriate. <hr/> <p>Non-State actors:</p> <ul style="list-style-type: none"> – Adapt to changing governance structures adopted at national or international level, facilitate others to do the same – Commit to cross-sector (broad) and continuous feedback and evaluation loops in programme design and implementation, communicate findings with policy makers

403

404 **Annex 2. General principles of good programme design**

- 405
- 406 • Define the problem or intervention: what are you trying to do?

407

 - 408 • Understand the context of the system: in what conditions will you do it?

409

 - 410 • Map the key stakeholders: who will be involved (directly or indirectly)?
 - 411 – Who is affected by the problem or intervention?
 - 412 – Who will influence the problem or intervention?
 - 413 – Who will be responsible for action?

414

 - 415 • Identify target outcomes and metrics: what does success look like?
 - 416 – How will you measure it?

417

 - 418 • Agree actions and interventions: what will you do?
 - 419 – Which actions will have the most impact on your target?
 - 420 – How, when and with what resources will you do them?

421

 - 422 • Agree roles and responsibilities: who will do what?

423

 - 424 • Implement (test and scale): do it

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 - 426 • Evaluate performance: is it working?
 - 427 – What is working well?
 - 428 – What is not working well?
 - 429 – What needs to change?

430

 - 431 • Adapt as required: what will you do differently?

432 **Annex 3: Example RACI template**

433 RACI is a tool used to clarify and agree roles and responsibilities for a programme of work. It identifies the
 434 person, or persons, who are:

- 435 • Responsible – i.e., the person(s) who will complete the work
- 436 • Accountable – i.e., the person who delegates and reviews work, and is accountable for completion
- 437 • Consulted – i.e., the people who provide content input and expertise on the work
- 438 • Informed – i.e., the people who need to be kept informed on programme progress

439
 440 For example, conducting a vaccination campaign might involve the following tasks and stakeholders:
 441

Task	Manager	Nurse	Municipal lead	Country lead
1. Plan campaign	R / A	C	C	I
2. Secure supplies	R / A			I
3. Develop comm materials	R / A	I	C	I
4. Conduct campaign	A	R	I	I
5. Report results	A	R	I	I

442
 443
 444 The below chart provides a blank template to conduct your own RACI exercise:
 445

Task	Person A	Person B	Person C	Person D
Task 1				
Task 2				
Task 3				

446
 447