





13th Partners for Rabies Prevention -United Against Rabies (UAR) Meeting:

Strengthening international engagement to support the Zero by 30 Global Strategic Plan (Zero by 30)

Les Pensières Centre for Global Health, Veyrier-du-Lac, France 13-15 June 2022

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Acronyms & abbreviations

EMC Emergency Management Centre
FAO UN Food and Agricultural Organization
GARC Global Alliance for Rabies Control
IBCM Integrated Bite Case Management

M&E monitoring and evaluation NSP national strategic plan

OHHLEP One Health High-Level Expert Panel

ORV oral rabies vaccination
PEP post-exposure prophylaxis
PRP Partners for Rabies Prevention

RDT rapid diagnostic test

RHIS WHO Toolkit for Routine Health Information Systems

SARE Stepwise Approach towards Rabies Elimination
SWOT strengths, weaknesses, opportunities and threats

UNEP UN Environment Programme

US CDC US Centers for Disease Control and Prevention

VIS Gavi's vaccine investment strategy

VPP veterinary para-professional WHO World Health Organization

WOAH World Organisation for Animal Health (founded as OIE)

Executive summary

The 13th Partners for Rabies Prevention (PRP) meeting brought together international rabies stakeholders from around the world. The meeting was attended by representatives from UN and animal health Member State agencies involved in rabies control; rabies collaborating centres; reference laboratories; non-profit organisations; research institutes; global foundations focused on health; private industry; and others. Hosted and co-organized by the Fondation Mérieux and the United Against Rabies Forum (UAR) at Les Pensières Centre for Global Health in Veyrier-du-Lac, France, the meeting was a working event during which participants reviewed the current global rabies situation following the COVID-19 pandemic, reviewed the activities of different working groups, and considered strategic questions relating to the future of the PRP and the UAR Forum.

Technical discussions focused on how the global community could most effectively draw upon existing guidance, tools and networks to strengthen coordination and support for rabiesendemic countries as they strive towards the *Zero by 30* goals.

In a series of facilitated discussions and exercises, participants also had the opportunity to contribute their expertise to the plans and deliverables for the next 12 months. Collaborative activities included a SWOT analysis of the future of the PRP and the UAR Forum, and a "World Café" session in which all the meeting participants held facilitated discussions to crystallise the key considerations for dog vaccination campaigns.

The work of the meeting was aligned with thematic activities of the three Working Groups and associated workstreams of the UAR Forum, in keeping with the goals of *Zero by 30: the global strategic plan to end human deaths from dog-mediated rabies by 2030* (aka "*Zero by 30*") .

Introduction

The 13th Partners for Rabies Prevention (PRP) meeting brought together rabies stakeholders from around the world. The meeting was attended by representatives from international agencies involved in rabies control; rabies collaborating centres; reference laboratories; non-profit organisations; research institutes; global foundations focused on health; private industry; and others. Hosted and co-organized by the Fondation Mérieux and the United Against Rabies (UAR) Forum at Les Pensières Centre for Global Health in Veyrier-du-Lac, France, the meeting was a working event during which participants reviewed progress from the previous year, reviewed the activities of different working groups, and considered strategic questions affecting the future of the PRP and the UAR Forum.

Technical discussions focused on how the global community could strengthen coordination and support rabies-endemic countries in achieving the *Zero by 30* goals by drawing upon and improving existing guidance, tools and networks.

In a series of facilitated discussions and exercises, participants also had the opportunity to contribute their expertise to the plans and deliverables for the next 12 months. Collaborative activities included a SWOT analysis of the future of the PRP and UAR, and a "World Café" session in which all the meeting participants held facilitated discussions to crystallise the key considerations for dog vaccination campaigns.

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Session 1. Strengthening collaboration towards Zero by 30

Welcome and introduction

Valentina Picot, Les Pensières Centre for Global Health

Dr Picot welcomed participants to Les Pensières on behalf of the Fondation Merieux, expressing happiness that it was again possible, after two years of the COVID-19 pandemic, to meet in person. She opened with a brief explanation of the foundation's work fighting infectious diseases affecting vulnerable populations in developing countries — especially mothers and children — by building local capacities, particularly in laboratories and surveillance. Fondation Mérieux is active in around 20 countries, working with international, national, regional and local partners through eight local offices, four training and research centres and 19 applied research units. Dr Picot recalled the first rabies conference in which the Foundation was involved, in 2013, and stressed its continued desire to help.

Partners for Rabies Prevention: a historical perspective

Louis Nel, Chief Executive Officer, Global Alliance for Rabies Control

Partners for Rabies Prevention (PRP) is an informal group of stakeholders that was established in 2008 to discuss and implement rabies prevention and control strategies. It brings together public and private stakeholders including WHO and WOAH Collaborating Centres for Rabies,

large multilateral organizations like the World Health Organization (WHO), the World Organisation for Animal Health (WOAH, previously OIE) and the Food and Agriculture Organization of the United Nations (FAO); private sector partners working in human and veterinary health; national organizations like the US Centers for Disease Control and Prevention (US CDC); universities; and donors, with the Global Alliance for Rabies Control (GARC) providing secretariat functions. PRP was formed in response to the frustration in the rabies community at the time. There was a need for a collective vision for rabies, increased exposure and transparency, and effort to implement scientific recommendations, making stronger links between decision-makers and people dealing with rabies day to day. At the outset, the work of PRP was organized into five pillars: advocacy; communications; research; capacity building; and pilot projects.

The group set out to gather major players who were not collaborating at the time to advocate on a high level for rabies prevention. It created a platform to share technology and practical information; use the partners' skills and capacities to further awareness and prevention; provide tools, education and training; generate partnerships globally and locally; and step up advocacy internationally. The group had no formal membership or structure and remains open to all interested parties wanting to control and prevent rabies.

A huge amount has been addressed down the years of PRP meetings, including dog population management and immunocontraception; the health economics of rabies; the creation of the Canine Rabies Blueprint, the Fox rabies blueprint, the Surveillance Blueprint and the Global Atlas of Rabies; the burden of dog rabies; landscape analysis work and the creation of a case for change; development of tools; the creation of the Stepwise Approach towards Rabies Elimination (SARE); and the creation of the UAR. The PRP gathered and documented information from the perspectives of industry, intergovernmental agencies, academia and more and, by establishing the UAR Forum, achieved its longer-term goal of uniting against rabies. This history of work has changed thinking around rabies with contributions from everyone, and genuinely achieved its goal of global collaboration and advocacy.

The question for the UAR Forum now is: what lessons can be learnt and what further progress can be made? The lessons of other successful eradication programmes like smallpox and rinderpest suggests eight key elements to consider:

- 1. International coordination and communication
- 2. **Simple strategy**: a stepwise approach is important
- 3. Feasibility
- 4. Support
- 5. Country-focussed initiatives owned and led by national teams: 70% of smallpox and rinderpest eradication was funded by national governments a strong case for investment is crucial
- 6. Community involvement
- 7. **Surveillance:** rabies is severely under-reported and surveillance is very limited. But for smallpox, surveillance was fundamental to the campaign from the start. Without it, eradication could not have happened.
- 8. Research

There are numerous non-profits, charities and individuals that make a very real difference because they believe in what they do; and while they are often quite small, they are enthusiastic and critical partners. Given the progression of *Zero by 30*, and now the UAR Collaboration and Forum, the PRP should now be repurposed as an alliance and a home for those smaller entities that play such a vital role. In this function the PRP would provide them with better support and encouragement, include them as important parts of something bigger, advocate for them and help them align globally in an overarching community. If elimination is to be achieved, the role and contribution of communities – at all levels – will be critical.

Objectives of the meeting

Rachel Tidman

Dr Tidman presented the meeting objectives:

- Reviewing the achievements and progression of PRP and its integration into the UAR Forum
- Reviewing the activities of the UAR Forum working groups
- Progressing the key activities of the UAR Forum and ensuring alignment with the overarching goal of Zero by 30
- Promoting connection, cross-collaboration and relationships between working groups.

Session 2. Overview of Zero by 30 actions to date

Four years of the Global Strategic Plan/eight years to go: lessons identified

Gregorio Torres

Zero by 30 is a One Health strategic plan led by FAO, WHO and WOAH ("the Tripartite") and GARC and designed to be inclusive, uniting previously fragmented work against rabies, leveraging collective strengths, scaling up small activities and addressing dog vaccination and post exposure prophylaxis (PEP) with education and awareness raising. It provides a business plan to achieve three objectives: to use vaccines, medicines, tools and technologies effectively; to generate, innovate and measure impact; and to sustain commitment and resources for the fight against rabies.

Figure 1: Zero by 30 three-phase approach

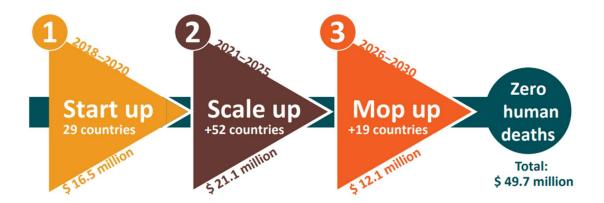


Figure 1 illustrates the three-phase approach of the strategy. The plan for the first phase was to start with countries more advanced in rabies elimination to create a snowball effect, identifying and leveraging champions and promoting regional coordination. Rabies is presented as a model of One Health, arguing that investing in rabies elimination strengthens health systems. This phase was due to end in 2020 and has been widely successful: the rabies world is more united, with standards and guidelines harmonized and updated; new partners, investors and implementers are involved; World Rabies Day is a successful advocacy event complemented by high-level engagement from FAO, WHO and WOAH; and the commitment of traditional stakeholders such as the PRP has been sustained.

Seven lessons have emerged from progress to date.

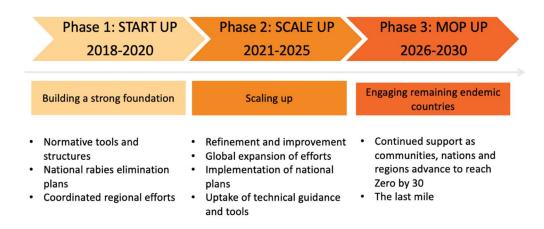
- 1. "If you want to go fast, go alone; but if you want to go far, go together:" the Tripartite and GARC cannot achieve *Zero by 30* alone. Rabies elimination must be a shared responsibility.
- 2. "We can do small, but we need to scale up:" running successful pilot projects is relatively easy. These need to be scaled up and integrated into national policy. Countries must have national strategic One Health plans.
- 3. 70% dog vaccination may be the "silver bullet," but it is not always feasible or necessary. There is a permanent need to make strategic use of scarce resources. Effective vaccination requires strategic thinking and country commitment.
- 4. High level management and buy-in are crucial: chief medical officers and chief veterinary officers need to be engaged, and currently often are not. But it is equally important to engage decision-makers close to the field. Dog populations are managed by local authorities, and any change should be driven by communities and grassroots actors, with the involvement of the private sector where necessary.
- 5. National investment is necessary to sustain effort: highly visible resource partners (such as GAVI, global philanthropists, and others) can change the game. But investors want to understand the impact of their committed resources, and need to see strong cases for investment, with realistic, costed plans of actions.
- 6. The 'traditional' rabies community is very committed, and this commitment has to be maintained; but there is also a need to engage new stakeholders. Rabies control is a

- global effort built on country-focussed interventions, and wider a range of partners is needed to sustain such work.
- 7. The One Health approach is crucial and its importance has been demonstrated by COVID-19. It is now high on the political agenda, but it is becoming a competitive landscape, with the risk of dilution and/or confusion of the rabies message. Focus on pandemic preparation and high-profile diseases risks the neglect of endemic diseases such as rabies, and hard work will be required to keep rabies visible.

Zero by 30 – the road ahead

Bernadette Abela-Ridder, WHO

Figure 2: Detail of the three-phase approach



The UAR Forum was launched in 2020 by the Tripartite to accelerate and implement a One Health Approach as agreed in "Zero by 30: the global strategic plan to end human deaths from dog-mediated rabies by 2030". The plan was derailed by the COVID-19 pandemic: supply of human and dog biologicals was disrupted, dedicated bite treatment centres were closed and it became difficult for people to travel to receive vaccinations or conduct investigations and surveillance. Fear of COVID-19 discouraged health-seeking by bite victims. Gavi's Vaccine Investment Strategy (VIS) was put on hold and the financial resources allocated to rabies were reduced as the pandemic response siphoned off funds. Educational activities were most affected, due to long-term school closures, and rabies surveillance – already notoriously weak – was further depowered.

On the other hand, the pandemic – and the changes in funding flows it brought about – did precipitate some advancements that help aid rabies prevention, or could do so in future. These have included improved telemedicine and online services; a lack of traffic in lockdowns that made it easier to catch dogs; use of local community health workers to vaccinate dogs; drive-through vaccination services in many urban areas; increases in rabies supporting capacity; enhanced contact tracing capabilities; the use of rabies expertise to model and forecast COVID-19; reprogramming of laboratory diagnosis; strengthened regional coordination; and increased awareness of the importance of One Health.

Item 3.2.4 of the Tripartite Joint Plan of Action for One Health (see next section) is to

...provide resources and support to countries to implement proven disease control strategies, as for example proposed by *Zero by Thirty: the Global Strategic Plan to Eliminate Human Deaths from Dog Mediated Rabies by 2030*, as a way of operationalizing a One Health approach.

This entails supporting countries in establishing WOAH-endorsed national control programmes for identified priority diseases like rabies; advocating the use of tools, services and guidance provided by expert groups and networks like the UAR Forum working groups; increasing uptake and use of educational resources like the Open WHO One Health Rabies course; and facilitating synergy between stakeholders and partners. In service of these goals, WHO has launched a new companion document to the WHO Roadmap for NTDs entitled *One Health: Approach for action against neglected tropical diseases 2021–2030*; launched an Open WHO online course entitled "Rabies and One Health;" and explicitly inserted rabies into the Action Plan for One Health developed by the Tripartite and the UN Environment Programme (UNEP).

To boost the introduction of human rabies vaccine into national programmes, rabies was added to GAVI's Vaccine Investment Strategy (VIS) for 2021-2025. WHO is contributing by supporting national policy discussions and operational planning to introduce or expand PEP in national immunization programmes; highlighting complex rabies PEP-specific issues into existing systems for implementation, monitoring and evaluation; and sharing examples of PEP delivery in different countries.

Surveillance and data are key: without good data there is no programme. WHO is helping strengthen rabies surveillance by prioritizing strengthening of health systems, supporting countries' collection of minimum rabies indicators, and strengthening analysis and dissemination of data, including global reporting. Reporting to WHO is done by national focal points directly via an online portal that integrates an online tool with a dashboard displaying integrated global data. This streamlines and facilitates reporting down to health facility level using data from the WHO Toolkit for Routine Health Information Systems, for which a rabies-specific module is in development.

Implementing Zero by 30 at country level

Junxia Song, FAO

The Tripartite works to support members to achieve *Zero by 30* and thereby contribute directly to the sustainable development goals – particularly SDG3, which aims to ensure health and wellbeing for everyone.

The nature and strategic importance of rabies mean that four broad types of national action are essential to control it: awareness and education; national policy; strong surveillance and diagnostics; and preparedness and response. Controlling rabies has health benefits for humans and animals; economic benefits from the livestock production perspective; and animal welfare benefits.

Awareness and education

Since the establishment of World Rabies Day, all partners and other stakeholders contribute to awareness campaigns at global, regional, national, and community levels. Training needs assessments take place continuously in different regions and countries and educational materials have been developed for use in school curricula in rabies-endemic countries.

National policy

National policy programmes are the key part of the strategy. The adoption of a resolution and endorsement of national programmes for dog mediated rabies in a WOAH General Session was a big milestone to support national efforts to achieve *Zero by 30*. Examples of Tripartite assistance so far have included supporting development of national rabies elimination plans in Burkina Faso, Cote d'Ivoire, Ethiopia, Ghana, Guinea, Liberia, and Senegal; supporting national SARE assessments; supporting mass dog vaccination strategies in Bali and Bangladesh; and supporting dog population management interventions. The PRP could take this opportunity to examine, carefully, which other countries are rabies-endemic and which are now free from dog mediated rabies. Endemic countries that do not yet have official programmes should be the priority for support. Countries that are rabies free could be encouraged to self-declare, or take other actions to create and sustain an enabling environment for the aims of *Zero by 30*. FAO also pushed countries to rank rabies highly in zoonotic disease prioritisation. Rabies is now among the top five prioritized zoonotic disease in many countries.

Strong surveillance and diagnostics

Without good information, rabies cannot be controlled. FAO has supported collective efforts to strengthen surveillance and diagnostics – for example, by providing lab equipment and reagents and onsite trainings in laboratory diagnostics and conducting proficiency tests. In 2017, tests were done in 134 labs across 13 countries; in 2020, it was 15 labs in 12 countries; and in 2022 tests will cover 20 labs across 16 countries.

Preparedness and response

Tripartite Emergency Management Centre (EMC) missions are deployed on request from countries. EMC missions are hosted by FAO but are joint efforts. Between 2006 and 2020 rabies EMC missions were deployed in Indonesia, Vietnam and Malaysia.

Challenges remain. At country level, issues include population management and vaccination of stray/free-roaming dogs; the lack of multisectoral national action plans for rabies, or inadequate implementation where they do exist; underinvestment in essential diagnostic capacities in both human and animal health; limited support for critical human resources such as expert dog catchers; and the fact that rabies is still not a notifiable disease for human cases in some countries. At regional level, problems include limited bilateral cooperation to build capacity, leverage tools, and expand best practices; limited availability of high-quality vaccines; and poor cross-border coordination around animal movement and vaccination. The

COVID-19 pandemic exacerbated these issues, restricting resources further and hampering surveillance, investigation, vaccination, and information sharing across sectors.

The future: the One Health Joint Plan of Action (OHJPA)

The current context is that of a new One Health era. It requires a rethink of how rabies control can and should be done. Accordingly, work has begun on a One Health Joint Plan of Action (OHJPA) organized around six tracks:

- 1. Action Track 1: Enhancing One Health capacities to strengthen health systems
- 2. Action Track 2: Reducing the risks from emerging and re-emerging zoonotic epidemics and pandemics
- 3. Action Track 3: Controlling and eliminating endemic zoonotic, neglected tropical and vector-borne diseases
- 4. Action Track 4: Strengthening the assessment, management and communication of food safety risks
- 5. Action Track 5: Curbing the silent pandemic of antimicrobial resistance (AMR)
- 6. Action Track 6: Integrating the environment into One Health.

The UAR Forum should consider how best to utilise this opportunity for rabies – and in doing so, decide whether *Zero by 30* really can be achieved, and if not, what we *can* feasibly achieve in that time.

Session 3. UAR working group 1: effective use of vaccines, medicines, tools, and technologies

Overview

Rachel Tidman

The key objectives of this working group are to strengthen surveillance systems; maximise the use of existing tools and information resources; enhance vaccination programmes; and engage communities for capacity building. Work has taken place across six thematic areas.

1. Minimum data elements

In this area, the group has worked to identify the minimum essential data elements needed to inform the key areas of disease detection and Integrated Bite Case Management (IBCM), dog vaccination, treatment of human bites and PEP, and stocking and delivery of vaccines and pharmaceuticals. This initially focused on international data, including a landscape analysis of documents with standardized definitions. This led to the development of set of minimum data elements that will be finalized and made available online soon. The task then will be to implement it, including by linking it to the WOAH endorsement process.

2. Tool evaluation

The working group has collected and evaluated existing rabies tools and provided guidance for countries on how to adapt and use them to improve rabies programmes, trying to ensure that stakeholders are supported in choosing the tool that best fits their specific programmatic needs. Tools and technical resources have been arranged and presented in alignment with the SARE workplan and this information is available on the UAR website. The next step will be to define and publicise the submission process for new tools.

3. Partnership map

This project set out to provide a global overview of rabies stakeholders and activities, collating and visualizing country-specific data to inform investors and other stakeholders, thereby improving coordination, transparency and equity of support to rabies-affected countries. It has been challenging, politically sensitive work, especially given the paucity of existing data, but it has helped identify gaps where resources and interventions are needed (in conjunction with the activities of Working Group 3). It also helps avoid duplication of work and fosters alignment and synergy. It is important to note that mapping is not intended to provide exhaustive data: to be sustainable, it must be easy to maintain. Data collection consists of two aspects: compilation of "country cards" containing country-specific information, and a questionnaire for stakeholders and activities.

4. Dog identification and the human/animal bond

This workstream, recently restarted, is still identifying its workplan, but broadly speaking will attempt to demonstrate the benefits of people being able to differentiate between

vaccinated and unvaccinated dogs. Pilot projects to collect cost-effectiveness and benefit data are under consideration.

5. Rapid diagnostic testing

This workstream is reviewing evidence on the performance of rapid diagnostic tests (RDTs) for rabies diagnosis, analysing the costs and benefits of different tests and developing guidance to support and improve RDT policy and practice. Current activities are focussed mainly on questionnaires and surveys of experts and field users of RDTs.

6. Dog vaccination

This newly established thread builds on Working Group 2's constraints workstream. It is reviewing the constraints to dog vaccination based on an exhaustive literature review and a series of programme stakeholder surveys. Better knowledge of constraints should help identify practical solutions.

Discussion

A brief period of discussion raised a few themes.

- Emphasising the relevance of rabies control for health systems will mean continuous
 effort to ensure that rabies topics are only not restricted to veterinary work but also
 part of the human public health discourse. There is interest in the human angle, but it
 is perhaps not best handled by this working group. WHO will hold an expert meeting
 in late 2022 and UAR will push to get that angle addressed.
- There is a need to ensure countries are not confused by different reporting requirements of WOAH, WHO and others and to address the fact that WOAH does not have a platform to receive the necessary data. Consideration of downstream activities is required: what is asked of countries and what is done with their data?
- The mapping exercise would be enriched if it was sent out to everyone, including local NGOs. A great start has been made but much is missing. Either the criteria should clarify what is included, or the process should be opened to the world.
- There is no limit on who can be a UAR member. Local NGOs and others are very welcome to sign up. But problems occur when the information is opened up and there is no way of managing and cleaning the data. By limiting it to the UAR Forum as now, data remains manageable and there are listed contacts with whom it can be checked. If people want to submit data, they just have to join the forum, and fill in the appropriate forms and questionnaires.
- Technical difficulties with updates and submissions are common. This is key to sustainability: in the beginning when there is a lot of excitement around the project and everyone signs up, it looks fantastic; but as the initial excitement abates, failures to update create poor data that is detrimental to the project's advocacy goals.
- As the PRP becomes more of a home to smaller entities, there will be a need to address who takes on the responsibility of ensuring high quality data.

Session 4: UAR working group 2: Strategic and operational support

Overview

Katinka de Balogh, FAO

The objectives of this group are to move international rabies work from a fragmented landscape of disparate, unconnected activities to a foundation of integrated country and regional strategies, and to promote transboundary rabies control through regional communication and collaboration. This working group has also organised its activities into six workstreams.

1. Roadmap

The roadmap approach uses the SARE to monitor the progress of rabies-endemic countries towards elimination, recommending readily available tools and resources to address activities in countries' SARE-derived rabies elimination work plans. The full roadmap is available on the UAR Forum website. The next steps here will be to update SARE and link the roadmap to the toolbox curated by Working Group 1.

2. National strategic plan template

A generic template has been produced to help countries develop national strategic plans (NSPs) for rabies. This development process is linked with WOAH endorsement and is an important milestone for countries. The guide takes into account countries' different contexts and starting points and provides a minimum basic structure for the early stages of the development process, supplemented with optional annexes for more advanced stages. The template is available on the UAR Forum website in English and French and has already been shared with multiple countries for use.

3. Identification of main constraints

This workstream seeks to identify, analyse and disseminate information on constraints to achieving the objectives of *Zero by 30*, and to showcase potential solutions. It is based on a literature review to identify different categories of constraints, which was supplemented by a series of polls to prioritise those constraints and clarify levels of public knowledge, dog vaccination and dog ecology/dog population management. The next steps in this work are to use the results to inform new workstreams that develop solutions to the constraints – for example, the dog vaccination workstream.

4. Monitoring and evaluation (M&E)

Effective monitoring and evaluation requires an M&E framework that countries can implement, helping them measure and demonstrate progress. This is being developed by the working group, though elements of this activity were already addressed by the activities of other workstreams (e.g. the minimum data elements efforts of Working Group 1, the roadmap and the NSP template of Working Group 2).

5. Revision of WHO recommendations for oral vaccination of dogs against rabies

This workstream is updating the 2007 WHO recommendations on oral rabies vaccination of dogs (ORV), focusing on the practical implementation of ORV to promote and facilitate its use as a complementary tool in future campaigns. The hope is that the recommendations will be issued as a formal Tripartite publication to ensure uptake by countries – though this is a challenging process.

6. Integrated/cross-cutting approaches

This group is conducting a strengths, weaknesses, opportunities and threats (SWOT) analysis of the integration of rabies control with other disease control interventions. This involves critical analysis of past experiences, case studies and lessons to evaluate where and how integrated approaches could improve outcomes. A framework is being developed on the basis of this work that will help countries identify options for integration aligned with existing resources and tools (such as, for example, the WHO Neglected Tropical Diseases Roadmap 2021-2030).

Country perspectives: Mozambique and Burkina Faso

Presenter, Katinka de Balogh

At the time of the meeting a suspected rabies outbreak was ongoing in the Cabo Delgado province in the north of **Mozambique**, a region that is home to two million inhabitants, but which suffers from conflict that means 900 000 people, almost 50% of the population, are internally displaced. Dog ownership, vaccination and access to medication are all severely affected. WHO conducts surveillance in the Cabo Delgado together with the government, looking for dog bites and suspected human cases, both of which have increased in every district within the province. For this purpose suspected human cases are defined as clinical presentations of rabies – hydrophobia, photophobia and neurological symptoms around 30 days after a dog bite – but without laboratory confirmation.

WHO assembled a joint team with FAO and the Mozambique ministries of health and agriculture that deployed to the region, where, after active case finding in five of the region's 70 villages (chosen as those with the highest number of bite notifications), the mission observed double the number of dog bites notified through official channels. They also found that since October 2021 there had been several cases of rabies in humans that had not been notified. There were two sets of reasons: firstly, some cases were not notified through official channels because the patients did not seek care; and secondly, there was a widespread lack of capacity or knowledge on the need to notify.

The large number of displaced people means many dogs have been left ownerless, but about 50% of reported bites were still from domestic dogs (vaccination coverage in the region is low). Notified cases, however, were more likely to come from stray dog bites. Approaches were needed to decrease the number of dogs in the population, but more pressingly to move fast to remedy the fact that people were dying of rabies. That requires mass vaccination. WHO coordinated with FAO and the ministries to plan a vaccination campaign. At the time of the meeting the details of the operation were being defined.

There are two main challenges. The first is not unique to Mozambique or to Cabo Delgado, and has to do with the fact that One Health is not working in the field. There is no communication between the agriculture and health sectors. To help establish the necessary continuous communication between the sectors, organisations like WHO can visit areas of concern and ask if communication is happening. If it is not, WHO can help set up the necessary channels, down to the level of making the right people exchange telephone numbers with one another so they can communicate when cases are notified.

The other challenge is more contextual, and has to do with a lack of resources that greatly increases the logistical challenges of a vaccination campaign. On top of this, the vaccine is too expensive for the local population to afford, and the local government lacks resources to help. A response is needed that at least supplies human doses to the affected population. This must be supplemented by awareness raising: there is a widespread lack of awareness of what rabies is, what to do about it, when to go to hospital, what to do with dogs, and so on. Multilaterals and partners must work together to mobilise the necessary resources to conduct a rabies campaign.

At the time of the meeting **Burkina Faso** was also facing an ongoing outbreak in Ouagadougou. The Brazilian government has a lot of PEP that is not being used and which is approaching expiry, and about three months ago offered to donate it. WHO agreed to fund the transport of 10,000 doses of PEP and is awaiting a letter from the Ministry of Health to WHO to initiate this. After over two months' wait, the letter is still not forthcoming.

Session 5: UAR working group 3. Advocacy and resource mobilization

Overview

Isabelle Dieuzy-Labaye, WOAH

This working group's mission is to support rabies-endemic countries as they advocate for and mobilize sustainable resources for rabies elimination. It is a stable, engaged group with representatives from all Tripartite organizations as well as regional representatives from rabies-affected countries – including Togo, Nigeria, Kenya, Indonesia, India and Namibia – and the industrial private sector. The group also contains observers from Working Group 3 and has hosted speakers from a range of relevant organisations including the Bill & Melinda Gates Foundation, the Dogs' Trust, UNICEF/Pampers (a long-standing project that makes donations to tetanus elimination with every pack of nappies/diapers sold), and others. More are needed to inject new ideas, even from outside the rabies sphere. The group has a "client-focused" approach aimed at short-term deliverables for World Rabies Day 2022 across three main workstreams.

1. Engagement of rabies-affected countries to invest until elimination

This workstream supports resource mobilisation in rabies endemic areas. A sub-project is working on advocacy and resource mobilisation in Cameroon. Another landscaping exercise is ongoing in Nigeria, reviewing potential investors and resource partners for national

elimination and testing approaches with in-country representatives with the longer-term goal of developing a transferable model for landscaping resource partners in any rabies-affected country. In addition, rabies case studies from different contexts – including Namibia, Goa and Mexico – are being adapted to target national and/or local investors and identify champions and ambassadors.

2. Engagement from non-affected countries or globally to invest in rabies elimination as part of One Health systems improvements

This work is meant to trigger interest in rabies elimination on the part of development agencies and corporate foundations nationally, regionally and/or globally. Efforts were focussed on ensuring that rabies is part of the One Health Joint Plan of Action and included in future One Health financing mechanisms, identifying the elements needed to develop the case for rabies as a One Health model for success. An additional workstream is landscaping relevant corporations and associated foundations to assist in elimination and building relationships with them and their associated foundations.

3. "The Advocacy Factory"

This project is developing an information package on the cost and benefits of rabies elimination and progress and successes so far, developing tools that are easily accessible for clients so that if they need to do advocacy with anybody in their country, or any potential large investor, they can access the information package or any given presentations or slides they might need. These resources can form the basis of any business case for rabies investment. The group will collaborate with Working Group 1 on mapping to support advocacy and resource mobilisation, liaising with developers of national plans to obtain information on gaps and needs in specific national contexts. A core pitch deck for rabies elimination is being developed to collate rabies information in simple terms, with specific functions targeting three groups: private audiences (including corporations and philanthropists); governments; and civil society. A financing facility will be developed to fund rabies elimination.

The client-focussed approach means that across all these activities the priority is on listening to people in the field and tailoring responses and products to their needs. Focussing on local, small-scale clients and short-term deliverables is crucial. The next target for deliverables is World Rabies Day 2022.

Discussion

A brief period of discussion raised a few themes.

 It is important to use meetings such as this to connect the dots between workstreams, analysing how one stream might match and bring value to another. The activities of this group are particularly rich in these types of connections. Regular meetings of Tripartite colleagues and working group co-chairs mean that the mechanisms for the necessary internal coordination are already in place. Connections between groups are crucial – the UAR Forum should never work in silos.

- "Crash testing" is important. When time and money are invested in rabies initiatives, even when successful they often collapse after two or three years. There is a need for more secure legacies. The world is changing fast and priorities are changing with it; questions about sustainability are paramount. Rabies activities need to be planned with the appropriate resilience for their context whether that be starvation, or the next pandemic, or something else. Rabies activities cannot be allowed to fall away because these potential changes are not considered. There are some important positive stories of long-term commitments for example, anti-rabies work in Goa that has been going over a decade and is being replicated in other states, or Germany's support to Namibia but real sustainability will be achieved by focussing on local resources. At some point, external funders disappear.
- Latin America sets an example: year after year many countries in the region put rabies in national budgets. It is worth examining seriously how this was achieved.
- Approaches or strategies for rabies in urban contexts are valuable. They also create scope for joining cities into regional urban initiatives that could be explored further. The task is to connect and form alliances for action. There is great potential in mayoral incentives that could be exploited for example, by staging regional competitions between mayors and offering visible incentives for the best mayor with the best plan, generating important political leverage. The working group has had contact with the Commonwealth Mayors' Association and a letter has been written to the Association of Francophone Mayors. Another connection has been made with the Asia Pacific Mayors' association.
- Work has been done with UN Habitat and a range of other partners to explore options for working with city leaders. A declaration has been drawn up and signed by over 20 such leaders with at least 80 more prepared to sign that addresses the environmental factors contributing to vector borne disease, neglected tropical diseases, tuberculosis and explicitly rabies. The next phase is the establishment of a challenge fund under UN Habitat. This addresses a big challenge at national level: the fact that every minister of health has important priorities, and bringing rabies to light is difficult. But at city level, rabies is an attractive challenge, because in a three-year term of office, significant gains can be made. To achieve these, wider political thinking is needed: public health is paramount but mayors need something visible to show residents at the next election.
- Through the city Leader lens it has also been possible to work with the UN to combat non-communicable disease and highlight the role of this level of leadership. The 2022 Commonwealth Heads of Government Meeting launched a new Declaration on NCDs, one commitment of which UN Habitat's Healthy Cities, Healthy People initiative, within which is embedded rabies. This is the first time that rabies has been in a global declaration. Such high-level political discussions are opportunities to bring forward strategic commitments from high profile partners and leaders. These are opportunities to look at challenges from different perspectives.

Breakout sessions

The meeting the separated into three self-selected, topic-specific breakout groups. Breakout sessions were facilitated and each had a rapporteur who summarized their discussions in a plenary session at the end. The focus of the discussions was to suggest concrete actions that can be taken in the next six to 12 months.

Breakout session 1: Surveillance and diagnostics to support national strategic plans

Facilitator: Terence Scott; Rapporteur: Katrin Bote

This group considered four main challenges:

- 1. How to improve the reporting of country data internationally to WHO and WOAH
- 2. How to implement the minimum data elements (MDE) and improve their uptake by WHO, WOAH and national governments
- 3. How best to link the MDE, the use of RDTs and the NSP template together to support the development and implementation of NSPs
- 4. How the UAR Forum can best support the WOAH endorsement process.

Data reporting to international level

Effective rabies control requires standardized data reporting to measure and track progress and monitor, evaluate and adjust interventions.

Two key sets of challenges currently hamper reporting. One is the fact that the necessary country-level data is often unavailable to report. This can be addressed by strengthening surveillance.

The other is based on the need to communicate reporting requirements and benefits in the first place. As rabies is not a trade disease, there is no obvious "reason" to report it, and it is often the case that national governments and people working in the field are unaware of why international reporting is important. The UAR Forum must therefore advocate for the benefits of reporting.

The advocacy process is made easier by substantive stakeholder investment and engagement. Strong arguments for reporting can centre on the benefits it brings to national campaigns: the data collected for reporting are ideal for such campaigns and helpful for capacity building. In addition, reporting is not only an outward marker and demonstration of progress, but also a means by which to ensure that such progress is made: work reported is work done.

The widespread adoption of the minimum data elements – which were designed to identify and standardize those indicators that are essential for international reporting – should facilitate standardization. The UAR Forum must be able to make a strong case for the importance of reporting to international level.

It should be clear to countries what they must report to WHO and WOAH, and when and why they should do so. The current reporting landscape is cluttered and confused, with too many places to report the same or similar data. In the long term there could be a single rabies reporting platform, but in the shorter term the reporting landscape could be simplified by better coordination of existing platforms. Then, the appropriate data indicators to report need to be clear, along with justification of why that data is essential (this latter need is largely met by the activities of the MDE workstream).

Concrete, short-term activities to move this agenda forward could include efforts to clarify the picture of international reporting outcomes by developing a questionnaire and/or survey for countries that — among other things — establishes why they are not reporting, and examines whether there are perceived negative connotations to reporting in a given country context. This would improve understanding of country contexts and barriers — the example was given of Namibia, where national legislation prevents international reporting.

To address any barriers thus clarified, the UAR Forum can develop reporting advocacy materials, including videos, interviews, infographics and easily digestible, social media-oriented communication resources. These could be disseminated through networks such as WOAH national notification focal points, regional networks, etc. In the meantime, the UAR Forum can lobby the Tripartite to emphasize the importance of international reporting and encourage donors such as the Bill and Melinda Gates Foundation and Gavi to highlight the importance of international reporting for funding and investment. UAR Forum case studies should also be sure to highlight the benefits of reporting and good data transparency.

Implementing the minimum data elements and improving uptake

If countries already have data collected in the right format, sharing becomes easy. The MDE have been developed with this purpose and data usage is described in the MDE document.

There are challenges: the proliferation of different data collection forms and tools, and the wide range of organizations asking for data, can be overwhelming for country teams. To address this problem in the short term, an initial webinar or series thereof could be held to introduce the MDE, supported by the creation of new communications material for the MDE, including short videos, infographics, etc. This aspect of the job overlaps to some degree with the need to develop advocacy materials for reporting, as above.

Linking the MDE, RDTs and the NSP template to support NSP development and implementation

A new chapter on lateral flow tests is included in the Rabies Chapter of the revised WOAH terrestrial manual (Chapter 1.3.3. "Rapid immunochromatographic tests and rapid lateral flow devices"), but this has not yet been adopted and remains open for discussion.

There are many rabies tests on the market, but they differ in terms of sensitivity and specificity and only one or two are considered of sufficiently high quality by the reference laboratory network (and for one test, the manufacturer's instructions have to be modified). As the market is not lucrative, diagnostics companies have little interest in research and

development and little incentive to apply for WOAH approval for their products. National tenders for in-country use tend to choose cheap tests over better-performing ones.

The likely continued use of less-than-ideal tests cannot be ignored; it is impossible to stop countries from using them. Given this, their limitations should be communicated clearly to countries to clarify the best ways in which they can be used. Once the risks and caveats are taken into account in a properly considered testing strategy, value can be derived from their use. Some reporting, even if imperfect, is better than none at all. There are examples where this type of approach has been adopted for other diseases, such as avian influenza.

Short term actions in this area include the inclusion of lateral flow devices in the WOAH terrestrial manual as a new chapter, communicating clearly the tests' limitations and clarifying their intended and best practice usage. Tender guidelines and requirements should be developed for countries to ensure that only the better LFDs are procured and used. Competitions could be held, or other incentives devised, to inspire companies to improve their products. Commercial interest could be generated via a grant challenge, prize scheme, and/or advocacy for WOAH validation (perhaps as screening tests).

UAR Forum support for the WOAH endorsement process

The UAR forum can contribute to the WOAH endorsement process by endorsing NSPs that use science- and evidence-based approaches.

Countries currently submit dossiers for WOAH endorsement according to an annual deadline at the end of August, with a submission fee of €2000. Once accepted, they are obliged to demonstrate progress every year, showing accountability for sticking to the provisions of the NSP.

Challenges include the fact that many countries are uncertain as to how these dossiers should look. There is no standard template or clear guidance on what needs to be conveyed. The two countries that have already been endorsed — Namibia and the Philippines — submitted very different dossiers (one was around 150 pages, the other 50). Generating a template and/or more specific guidelines would be helpful.

The fee is also an administrative burden for countries. It can be argued that a fee of some sort is important to generate engagement, but there may be necessary discussions around possibilities for supporting this through third parties.

The next steps in this process consist of identifying countries that would qualify for endorsement, then offering them technical support for dossier preparation. WOAH takes the position that it cannot support development of applications for its own endorsement, so this is an area where UAR can clearly add value. As part of this process, creating an illustrative example dossier or "dummy" template would be useful, as would further exploration of possibilities for third party assistance with application fees.

Another question around the process – as with reporting, and with many of the same arguments and concerns – is why countries should bother in the first place. The UAR Forum

can help by generating recognition for those countries that have an endorsed NSP, using channels like the UAR Forum website and the Partnership Map country cards. The UAR Forum can highlight and advocate for the benefits of undergoing the process, and – as with the MDE project – create advocacy materials and videos and case studies that show the impact of endorsement on investment, the potential it confers for additional support, and the way that the dossier could streamline and simplify future processes such as self-declaration of freedom.

Breakout session 2: Implementation and operationalization of tools – start small, think big

Facilitator: Katinka de Balogh; Rapporteur: Rachel Tidman

This group considered four themes:

- 1. Continued maintenance of the Rabies Toolbox (including the review process and tool submission)
- 2. Operationalisation of the Roadmap including linking the SARE assessment and toolkit with the Roadmap and engaging with countries to ensure they benefit from a linked work plan and use of UAR tools and resources
- 3. How to integrate the Canine Rabies Blueprint
- 4. How to incorporate the outcomes of the Oral Rabies Vaccine and RDT workstreams into the Roadmap to ensure users are linked with the tools and resources

Maintenance of the Rabies Toolbox

The word "toolbox" should be changed as it does not always translate well and causes some confusion. A better alternative is needed.

Several tools have been submitted – nine at the time of the meeting – and they are screened rigorously, but it would be helpful to have guidance on how to submit more tools in order to offer a larger selection to users. The tool evaluation workstream may have additional experts to help evaluate the tools and streamline this process, but further training on tool evaluation is required.

The recommendations for short term action were for the tool evaluation workstream to develop guidance for submitting tools, then circulate a call for new ones. The workstream should also bring on additional experts to help evaluate these tools, providing further training if required.

Operationalising the Roadmap

The question of how to operationalise the Roadmap requires consideration of how best to link the SARE assessment and toolkit with the Roadmap, and to engage with countries to advocate for the process and ensure they benefit from a properly linked work plan and the use of UAR tools and resources. Since 2018, 24 countries have done SARE assessments,

emphasizing the value and importance of creating a network of trained SARE facilitators. There are only a few such facilitators at present, and it would be good to have more. There is already some training available, including online options, that has proved helpful; but development of a facilitators' guide would be a valuable addition.

The first recommendation was therefore to develop such a guide and more formal training programme (which is currently underway). The next was to improve linking of the SARE approach to the available tools – a task that is part of the Roadmap. Here, the leads of working groups one and two should arrange discussions how to improve the necessary linkages. Finally, in response to a perceived lack of national follow-up on initial assessments, there was the suggestion that countries that have shown commitment should be targeted for support, thereby decreasing the incidence of one-off SARE assessments with inadequate further action.

Integration of the Canine Rabies Blueprint

A lot of work went into the development, translation and updating of the Blueprint that should not be lost. The website and accompanying system is becoming problematic, so there was discussion on how best to integrate the Blueprint into the UAR website. Some materials from the Blueprint might already be present in other guidance documents (such as WHO training materials), and duplication should be avoided as much as possible.

The recommendation is therefore to establish a workstream (or a task within the tool evaluation workstream) to go through the Canine Rabies Blueprint and determine what needs to be moved over to the UAR Forum website, and how. In addition, the workstream could identify resources that need to be compiled/developed after specific needs have been identified.

Incorporating oral rabies vaccine and RDTs into the Roadmap

It is necessary to separate what has already been endorsed by Tripartite guidance from what is being developed. One suggestion was to design a flowchart or decision tree tool into the Roadmap to help decide when to use parenteral vs oral rabies vaccination (ORV). Overall guidelines and recommendations on RDTs and ORVs need to be made as accessible and digestible as possible for both users and policy makers, perhaps in the form of a policy brief or policy guideline document and accompanying infographic package. The UAR Forum webinars could help determine how to simplify resources.

Recommendations in this area were for the ORV workstream in Working Group 2 and the dog vaccination workstream in Working Group 1 to link up and address these issues. On the resources front, the decision tree tool should be developed, as should a package of basic infographics around some of the key outputs to help user education and experience.

Breakout session 3: Building national and regional networks

Facilitator: Isabelle Dieuzy-Labaye; rapporteur: Valentina Picot

This group focussed its discussions on network development, the objective of which is to build political support and momentum and generate pressure to ensure that rabies is well represented in national and global agendas — not only in order to stay on the One Health bandwagon, but also to ensure that national budget give rabies the resources it needs.

The group recommended prioritizing four networks or network types.

One Health High-Level Expert Panel (OHHLEP)

This group is at the forefront of the One Health discussion, and needs to be convinced that rabies is the perfect One Health showcase. The initial objective of this engagement would be to give a UAR presentation at one of the upcoming OHHLEP virtual meetings.

Youth networks

This is a crucial group. Through the FAO Youth Engagement Team, the International Veterinary Students' Association and the International Society for Neglected Tropical Diseases, the UAR Forum can reach out to youth and student networks with the initial target of organizing a 2022 webinar on how to operationalize One Health using the rabies example (and environmental connection). A concept note for this workstream, produced in collaboration with these partners, should be completed by September 2022.

City Mayor networks

As addressed in the discussions following the summary of the activities of Working Group 3 (Session 5), urban leaders can play a strategically crucial role in rabies control. Ongoing work to engage with these people should continue, linking as necessary with other topics such as dog population management, animal welfare, responsible dog ownership, waste management and the environment, etc. All these topics are acutely important issues in many urban centres. Representatives of city leaders' networks should be invited to stakeholder meetings. Another useful intervention here would be to create a "twinning" mechanism for transferring knowledge and experience, linking cities that have made significant progress with other comparable cities at an earlier stage of their own journeys. Creating an atmosphere of healthy competition might push people to share and cross-pollinate good ideas. City contests or certification incentives should also be considered as ways to incentivise data provision.

World Economic Forum (WEF)

The objective here is to get One Health (and rabies) on the next Davos agenda. This year there was no topic that included One Health. The WEF attracts a wide and interesting community of CEOs, philanthropists and others with whom engagement would be valuable.

Optimizing the usability of the Partnership Map

To be able to use the map better for advocacy and mobilizing resources, it is important to identify connections between partners – including investors – and understand existing and

potential synergies between these various partners in countries. A more comprehensive and accurate picture of relationships and connections between partners is needed. There is a need for the map to show information on the status and timings of SARE assessments, PVS evaluations and the like, ensuring that the information is kept recent and up-to-date and, as far as possible, includes outcomes. The map should provide insight into national gaps, showing what exactly is needed in countries and making it possible to approach resource partners with clear needs and goals. Given the wide scope of these tasks, the work could start with five or six countries, and possibly include metrics to build a case for further investment.

"World Café" session: Dog Vaccination

This session set out to identify the key elements needed to increase dog rabies vaccination, and – if possible – ways forward for the PRP and UAR. Following the "World Café" method, five facilitated thematic stations were set up and the participants separated into five groups. Each group spent a period of time at each station discussing the respective themes, attempting to list the main topics and actions to be address in order to enhance dog vaccination against rabies; define deliverables for UAR; and, if possible, outline which UAR working group or other entity should coordinate which deliverables.

The exercise produced the following discussion points and recommendations.

Socio-cultural aspects

Facilitator: Rachel Tidman

The key issues raised in this theme were as follows.

- Dogs being used as a food source creates issues around unregulated breeding practices; transport of dogs (including across administrative boundaries) and risk of incursions into rabies-free zones; a lack of regulation on slaughter and associated animal welfare issues; and testing and rabies concerns for dog handlers. The PRP and UAR Forum cannot decree that people should not eat dogs; instead, they need to promote safe and humane practices. There is a potential additional workstream around dog meat trade though recommendations would have to be considered carefully to ensure they fit the priorities of the UAR Forum, are broader than any single country, and are culturally sensitive.
- Responsible dog ownership: Resources and tools already exist, so it may not be
 necessary to create new ones, but rather to make them more accessible. Working
 Group 1 could review existing resources and advise on how to link and promote them.
- Social media, radio, TV and loudspeaker campaigns when teams are out vaccinating
 or catching dogs are good opportunities to promote responsible dog ownership in
 communities.
- Private sector vets can help promote responsible dog ownership in rabies-endemic countries. In wealthier contexts they can help mobilise resources to support rabiesendemic countries.

- Vaccinated dogs are protectors of the community and prevent spillover events into wildlife. Promoting responsible dog ownership means enforcing the idea of vaccinated dogs being a benefit to communities.
- Dog population management is a permanent issue; in many communities it is dog populations rather than rabies that causes most concern. A strategy is needed on how best to address this with existing resources, and what the realistic deliverables might be to support countries. One issue that arose was a perceived difficulty in distinguishing between mass culling and humane euthanasia, and part of the job may well be to clarify some of the core concepts and adapt resources to different religious and cultural contexts. Initiatives to share experiences and ideas between people from different cultures could help, and as the diversity of the UAR Forum increases, the range of perspectives and solutions will hopefully grow. This process can be accelerated and improved by engaging anthropologists and addressing socio cultural aspects, including the use of traditional medicines.
- Underreporting due to stigma around rabies is another issue. Work is needed to address these attitudes and encourage people to report.
- Accessibility and usability of resources: while there is a huge range of available resources in all these areas, they may not be easy to find or use for those who need them most. There is a need to simplify the resources available and invest more in translation services to get them into practical use in affected communities.

Technical aspects and needed tools

Facilitator: Gregorio Torres

- Surveillance and data need to improve and move out of current silos. Rabies surveillance must be integrated with human surveillance. A lack of baseline data makes progress monitoring difficult and needs to be fixed. Data from reporting positive or negative needs to be standardised. Promoting the minimum data elements is a low-hanging fruit in this regard: the document is ready to be pushed, and can fix many existing problems.
- Diagnostic tools are not always well used. Plenty are available, but their access and use need to improve not necessarily by getting every single sample to a central laboratory, but also by increasing point of care testing. This requires validation of tests and general strengthening of testing capacity not just tools and resources, but also by building general capacity all the way from the field to the lab. For example, this might include increasing management capacity to avoid situations where the wrong samples are shipped and tested, or exploring different techniques for taking appropriate samples from animals and establishing clear SOPs and sample transport protocols at point of care. Field programmes managers are the key targets for training.
- The production base for dog vaccines should be expanded, locally and regionally.
 There are many high-quality regional producers who should be promoted and given greater access to market.
- Vaccination strategies should be tailored to the local immunological context, and should include puppies, which are left out of the scope of strategy in many places.
- **Better data is needed to improve vaccination strategies**, particularly on vaccine thermotolerance. Use of oral vaccines requires further examination.

- **Prequalification processes need to be simplified**: they are currently very demanding on resources. This is a complicated issue but it needs to be addressed.
- Better M&E is needed to evaluate and improve strategies: often countries do the same things year after year with no analysis or modification in response to experience.
 Working groups one and two may have roles in promoting better M&E.
- Mapping existing activities to increase coordination and efficiency would be a relatively easy win.
- Studies on human antivirals need to be promoted. Many countries are demanding unrealistic amounts of PEP because vaccines are not properly implemented. The human element of rabies elimination needs to be better highlighted.
- The many components of rabies prevention at national level are not always adequately connected: there may be veterinary work and human work taking place, but often there is insufficient effort to integrate all the elements with other health systems, interventions, logistics, infrastructure and/or other relevant services and entities.

Operationalising One Health in countries

Facilitator: Junxia Song

- Expanding real time information sharing is crucial for example, to ensure that when samples test positive this information is shared quickly between veterinarians and labs.
- Coordinated efforts between government departments are needed to underpin One
 Health at country level, based on clear structures defining who is responsible for what,
 linking rabies with other priorities, and mainstreaming rabies into national One Health
 programmes. It can be hard to get zoonoses on high level agendas, but mainstreaming
 is one possible solution.
- Minimisation of stray dog populations can be partially addressed by emphasising the
 environmental aspects of the task and strengthening basic communication and
 information flows between sectors. This links with other activity on strengthening
 information sharing between One Health sectors, planning and implementing One
 health education, and integrating One Health into veterinary curricula. Dedicated
 education materials are being produced for college level students and primary and
 secondary schools.
- More practical, pragmatic training and tools are needed: suggested deliverables might include common language outreach through dedicated, translated materials; development of country level key performance indicators (KPIs) that measure the progress of One Health action plans covering the human, animal and environment sectors; multisectoral case studies and success stories for sharing across regions, countries and sectors; and formation of national One Health rabies subgroups that bring relevant stakeholders together and hold national rabies workshops.

Strategy, policy and legislation

Facilitator: Katrin Bote

- A strong legal basis is important for a lot of activities: interventions function better
 when embedded in national law, with mechanisms for enforcement. This includes
 laws on making rabies notifiable where necessary, responsible dog ownership (e.g.
 mandatory vaccination), vaccination more generally, quarantine for bites, and so on.
 Local bylaws are also important. The UAR Forum could advocate to raise the profile of
 rabies in countries and support them in creating this basic legislation.
- Policies need to be locally adapted and specific: one size does not fit all.
- **Countries can start small**: starting from scratch can be overwhelming and it is important for the Forum to communicate that they do not need to do everything at once. The message should be: it is important just to start, get something done and be accountable for it. Scaling up is always possible if capacity increases.
- National strategic plans are the central element of all these discussions. The NSPs should be established in a common process (as per the NSP template) that includes all different stakeholders, not just one ministry or one person. Once implemented, NSPs should be evaluated, not just once but on a recurring basis so that they can be adapted to their successes, failures and budgetary contexts. Continuous UAR support for NSP implementation is crucial.
- The WOAH endorsement process should be supported by cost-benefit analyses at different levels. Prevalent focus is on government level, but cost/benefit analysis can also be done elsewhere at community levels, for example.
- Scaling up, down and across borders: there was discussion of whether it is possible
 to start with local activities, then group them together into national plans for
 example, in federated countries with several different states carrying out separate
 activities. It was also discussed whether the reverse might be possible, decentralising
 national plans, or whether countries within regions might be connected to form
 overarching regional strategies.
- Vaccination requires overarching but locally-adapted strategy. Vaccination strategies should be underpinned by national strategic plans and best practice guidance on how to identify dogs, how to vaccinate, and who is responsible for what. There may be a need for further research on who is vaccinating dogs.
- It is important to have the most up-to-date information and documents easily available.
- Monitoring and evaluation are crucial.

Resources and sustainability

Facilitator: Isabelle Dieuzy-Labaye

- Resources are the central problem in rabies control, particularly the lack of reagents
 for diagnostics. When reagents are available, resources issues can affect other areas,
 like transport of samples to labs. Several potential solutions are possible for
 example, purchasing diagnostics from third-party providers, creating a diagnostics
 bank following the model of vaccine banks, exploring countries' abilities to produce
 diagnostics domestically using cheaper tests, and/or approaching manufacturers to
 increase production and decrease prices.
- Human resources are also a problem. Legislative solutions to ease pressure on people might include allowing veterinary para-professionals (VPPs) or community animal

health workers to vaccinate. Non-legislative actions here include ongoing WOAH efforts to build the veterinary workforce, covering not just veterinarians but also anybody else that can assist in animal health and welfare procedures. This is making great progress to date, advancing not only resources but also the thinking around who can contribute.

- On that point, Using professionals from other fields could be a core solution. Such staff might include agricultural extension workers, nurses, dentists, students, pharmacists and others. The reverse has already been shown to work – for example, in France, veterinarians vaccinated people against COVID. Pushing for legislation widening the ability to vaccinate dogs is important.
- Dog vaccines raise sustainability issues. Giving away vaccines sends a message that can decrease the perceived value of the vaccine, potentially also decreasing governments' willingness to pay for it. One possible response would be to impose time limits on "free" elements of stimulus packages, along with clear plans to move quickly to country ownership. In some contexts it is unrealistic to expect people to pay to vaccinate their dogs, but in any context, country ownership and reserve budgets to pay for vaccines should be the target. In countries where private vets object to free vaccines, the argument should be made that free vaccination is a pathway to longer term engagement with veterinary services.
- **Starting small is important**. There was a recommendation to identify milestones within NSPs, outlining easily achievable intermediary steps. This would encourage and reflect progress and thereby reinforce sustainability.
- Country commitment, in the form of ownership and investment, is crucial. It has been
 discussed in the context of vaccine budgets and funding, but it is also important at
 community level. Communities have an important role in advocating to their own
 political representatives and moving towards bottom-up rather than top-down
 approaches.
- Integrating outreach and education with vaccination campaigns offers further possibilities for example, when schools are used as vaccination points to which dogs are brought, education packages can be delivered at that point. This can be complemented with other methods, such as the systematic use of text messages to bring people to vaccination.
- It is important to recognise champions and acknowledge their contributions. This helps address sustainability. The UAR website offers a good means by which to showcase not just the countries doing a good job, but also the individuals, telling stories and disseminating case studies of success and those who have contributed. World Rabies Day is another great opportunity to highlight and nominate champions.
- We all need incentives, we all need to feel that we're doing well from time to time –
 especially in big jobs, like rabies control, that require long-term effort and are unlikely
 to be completed in our lifetimes.

Group discussion: strengths, weaknesses, opportunities and threats

Throughout the meeting, participants contributed ad hoc notes to a noticeboard to generate a collective picture of the strength, weaknesses, opportunities and threats for the PRP and the UAR Forum (aka a SWOT analysis). Table 1 shows the outcome.

Table 1: strengths, weaknesses, opportunities and threats

Strengths	Weaknesses	Opportunities	Threats
 The group itself The UAR Forum is a committed and engaged group of multidisciplinary partners and experts that meets regularly It is a highly motivated group with a common vision, a clear mission and strong coordination from working group chairs and workstream leaders It is an inclusive group 	Countries are not the "end user" part of rabies control solutions.	 Politicians and donors are now more aware of rabies One Health gaining is momentum. A culture change and a new generation of One Health advocates have created a more favourable environment for rabies control. Intersectoral collaboration offers many ways to improve interventions Rabies can be linked to the SDGs for advocacy 	 The lack of diversity in the workstreams and the working group is a threat: if the rabies community does not break out of its silo, it will be impossible to gain traction. There is a need to import new people, new blood
 Advocacy and leverage opportunities World Rabies Day is a powerful tool – a high profile focal point and lever for advocacy and 	Rabies competes with other priorities for funding and attention, and is losing that battle	Providing direct support to countries – bringing UAR Forum to countries – offers many opportunities for impact	Rabies faces difficult competition for attention and resources Rabies work suffers from a lack
 progress UAR, in collaboration with FAO, WOAH and WHO, leads a group with the power to influence governments Effective tools for rabies control have been developed and 	 Poor surveillance makes it difficult to measure the impact of rabies interventions in countries 	 Rabies strategies can be embedded into larger country development plans New veterinary and paraprofessional business models can be built that incorporate and leverage rabies control 	 of visibility. There is little focused priority on rabies As a result, there are very few funds earmarked for rabies vs competing priorities The COVID pandemic has destroyed momentum, and the

proven. The required solutions exist: "[now] we just need to crack implementation"			 coming global food shortage is likely to do the same There is no means to measure the impact of rabies interventions
	 Countries should be integrated into the membership: they need to own the agenda. Gavi should be a UAR forum member: Gavi investment is key. Not all members are engaged; active participants burn out Some of the group's actions may not be contributing to the roadmap Insufficient diversity of UAR members: there are not enough human health representatives 	 The human PrEP 2 dose regimen is an opportunity to develop prevention campaigns as part of the overall rabies strategy A greater focus on human health offers many opportunities for impact. 	 Rabies work suffers from a lack of visible and recognised progress The efforts and progress made are often not sustainable Fatigue is an issue: the goal of Zero by 30 sometimes seems impossibly difficult to reach
	Better coordination of country level activities is needed Rabies is not visible enough in a complex environment with multiple health threats and demands for resources	 There is a need for interactive tools for teachers, so they can teach children what rabies is Different contexts offer many opportunities to get crucial rabies information out to governments and health professionals 	 We are reinventing wheels too often There is a failure to learn the right lessons and take properly into account what has and has not worked in the past, to examine what could be done differently or additionally

 Tools and reporting resources and structures are not harmonised There is a need for a portfolio of finance investment opportunities There has been a failure to build on success. Stopstart efforts may do more harm than good. 		
	 Using youth networks and empowering the youth could supercharge progress More NGOs should be included Bringing new blood to UAR could re-energise Zero by 30 Engaging private veterinary surgeons and large corporate groups could help make progress Advocacy and investment with dog owners in rabies-free countries is important Working with pet food companies offers opportunities for productive partnership 	
	 The human-animal bond The shift of focus towards the human-animal bond offers many opportunities 	

Next steps for the UAR Forum

Rachel Tidman

Background strategy

About six months before the meeting, the UAR Forum set out some of the key focus areas for 2022. These turned out to align well with the discussions and feedback processes of the meeting, and were as follows:

- Engaging local authorities
- Maintaining the presence of rabies in the One Health agenda
- Facilitating knowledge transfer
- Engaging, empowering and facilitating the work of national stakeholders
- Expanding and engaging membership
- Engaging the wider health development community.

With further analysis of the best way to use time and resources to build the relationships that might underpin these activities, the Forum established the following priority areas for action to achieve these goals:

- Improving surveillance
- Supporting countries in NSP development, implementation and endorsement including by identifying and prioritising which countries to support and developing the NSP template
- Engaging with, and in, more networks
- Working to involve cities and local authorities
- Ensuring that the many available tools are user-friendly and easy to access.

Next steps

Given these priorities and the discussions in the meeting, Dr Tidman presented a draft list of key shorter-term action points— with the caveat that this is an incomplete list and more may well emerge. These next steps were as follows:

- Minimum data elements project: holding webinars, producing infographics and analysing (probably through a questionnaire or survey) why countries are not reporting.
- **Tool evaluation**: refining the submission and evaluation process, providing training for evaluators, linking tools with the roadmap and incorporating the content of the Canine Rabies Blueprint.
- Partnership map: activities are to be determined, but there were several strong ideas
 in session three for ways to add value to the map. These will be considered and action
 taken in time for World Rabies Day, making the map a better advocacy tool.
- Rapid diagnostic testing and oral rabies vaccine: improving guidelines and ensuring they link to international standards and the work of WHO Collaborating Centres and

WOAH reference laboratories, and getting them endorsed, particularly for ORV (guidelines will not be recommended to countries until they are formally validated by the Tripartite).

- **Roadmap**: operationalising the roadmap by linking it back to existing tools and the SARE (SARE facilitator training is in progress and will be linked with this effort).
- National strategic plans and WOAH endorsement: supporting countries in developing dossiers and paying fees.
- Dog vaccination/ORV: providing clear guidance and recommendations and developing a decision-making tool for stakeholders around parenteral vs oral vaccination.
- Case studies: Highlighting the importance of international reporting and surveillance.
- Connecting better with outside networks and pushing engagement with local authorities (this is applicable to all working groups, but particularly to Working Group 3).
- **Potential new work streams:** There was some discussion of new work around dog population management and the sociocultural aspects of rabies control.
- It is also important that the Forum prioritises well, making sure that current activities are well consolidated before new ones are started.

General discussion

A period of open discussion followed these proposals and raised several points.

Working with communities and local authorities

- Most of what the meeting discussed is based on top-down approaches that are often unsustainable. Disease control programmes that fail to engage local communities in campaigns dissipate the moment the campaign goes away. More work is needed to engage at community level and educate people on why rabies must be controlled. New methods, including social media, offer opportunities to improve public communication and circumvent possible cultural barriers to asking for help. Local NGOs can be very helpful in this regard.
- UAR is effectively a task force attempting to make different actors from an ecosystem
 work on specific roadmap activities. It will be important to correlate the working
 groups' outputs to the aims of that task force to ensure that they are aligned with the
 goals and can guide implementation at country level.
- It is important in all areas of work to engage end users. Many people playing vital roles in rabies control in the field do not have academic backgrounds, and local authorities and communities are sometimes very disconnected from each other. Again, empowering local NGOs is one good way to address this.
- It is not usually possible to implement community intervention programmes in any community. Locations must be prioritised based on feasibility and local context.
- Working with cities is a valuable opportunity to change the usual practices of targeting
 the central government and community levels and missing the parts in between. Cities
 are really just collections of communities, but they are very well organised and many

- relevant aspects of how they work in response to health threats and communicate have been newly illuminated by COVID.
- Very good networks and events for local authorities already exist, including the Francophone Mayors' network, the Commonwealth Local Government Forum, UN Habitat, the World Urban Forum and others. Local leaders at this level are busy, results-driven people who need to deliver within a term of office; if they can be engaged they are a receptive, productive audience.

Vaccine coverage

- The vaccination coverage benchmark of 70% needs to be discussed. It has been derived from modelling, but in real time scenarios the world looks different, and the perceived difficulty of this high level of coverage can discourage countries from implementing dog rabies elimination programmes. Even with lower coverage 50%, for example a difference can be made, though it might be slower. This message needs to be explicit: in some contexts, 70% vaccination coverage is almost impossible (recognising this, strategic vaccination is now embedded in the SARE). The most important idea in real terms is to start small, but be strategic. Messaging must walk a tricky line between giving people enough confidence to start and ensuring that targets are strong enough to reach their final objective.
- Lower vaccination coverage can be more effective if targeted at epidemiologically relevant dogs i.e. those that roam. There is a common misunderstanding about the differentiation of herd immunity and campaign targets: many countries think that they need to maintain 70% indefinitely rather than this being an annual campaign target that allows for coverage to fall between campaigns (while staying above the critical minimum threshold of 40%).

Including the countries

• Bringing the countries to the forum is critical, and it requires identifying people at country level to identify and really engage with what the PRP and UAR Forum are doing. These people need to be empowered and recognised internationally. One concrete proposal to initiate this was to identify the countries with trusted colleagues, invite them to a meeting, engage them, listen to what they need, and "get a reality check." If a list of people could be invited officially by UAR Forum on a regular basis, it would form a sustainable basis for engagement that would be reflected in many crucial areas of discussion so far – encouraging regular reporting, for example. This network of de facto focal points could be more formalised later if required. The first step is to identify the countries, and the second is to delegate UAR Forum to invite the people.

Cost/benefit analyses

• Work on quantifying the return on investment for One Health is ongoing with the World Bank and five Central Asian countries. Countries want to see evidence of return for cross-sectoral work, and rabies could be a good showcase – but currently economic data is lacking. A few tools have been developed on cost-effectiveness of rabies

vaccination, and the activities discussed to make those more accessible will help. But attempts to combine cost effectiveness with local dynamics are missing – for example, projects to obtain local data on dog populations, combining it with economic data so programme managers can work in an informed, data-driven manner in their individual areas, and outline with greater accuracy what cost savings they aim to achieve.

• The need for community engagement does complicate this task, however: the costs and benefits for governments will not necessarily be the same for other parties and communities. Costs are not just money, but also time and effort, and different communities benefit in different ways. The different, often contradicting costs to different parties have to be balanced. Work on this is ongoing, but could be better coordinated with other projects.

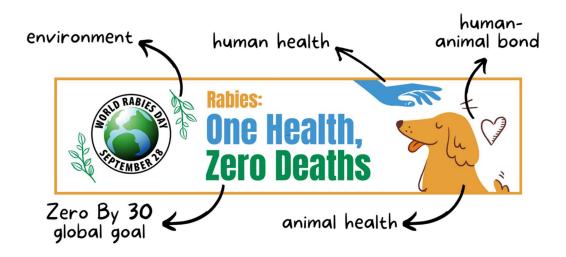
Planning for upcoming events

World Rabies Day

Terence Scott

The theme of World Rabies Day in 2022 is "Rabies: One Health, Zero Deaths" – complementing the discussions around advocating for rabies elimination, aligning it with the One Health agenda, and operationalizing rabies in the One Health context. The theme and the banner for this year's event (Figure 3) were designed to represent human and animal health, touching on the human-animal bond (with the human hand blue to keep it race neutral), positive messaging around rabies, responsible dog ownership and the environment.

Figure 3: World Rabies Day 2022 banner design explained



All themed banners are available in English, French, Spanish and Portuguese¹. The generic World Rabies Day banner is available in over 60 languages and the organizing team is happy to work with partners on further translations of this year's theme. Preparatory

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¹ All meeting resources are available at this link: https://rabiesalliance.org/world-rabies-day/event-resources

communication work has included production of a World Rabies Day social media toolkit² for daily posts, with suggested text and images for every day until September and a plan for coordinated partner messaging. Social media hashtags are as follows: #WorldRabiesDay; #WRD2022; #UnitedAgainstRabies; #1health4rabies; #ZeroBy30; and #OneHealth.

The idea is to create unified joint messaging. In fact, one of the most important goals of the UAR Forum is to have coordinated messaging, from international level to the field. If organisations that are differently oriented share messaging – for example when animal-focused bodies or individuals share or repost messages addressing human health, or vice versa – that underlines and strengthens One Health. Further communications materials can be developed if desired.

Members are urged to host their own events and to encourage local partners to do the same, joining together to encourage participation and raising global awareness. An event planning toolkit³ has been developed to help with this.

The World Rabies Day Awards have been designed to encourage local champions and showcase the great work being done on the ground. Like last year, the awards are focused on individuals rather than organisations or groups, and will be given in four different categories: the Veterinary Clinic Champion award (designed to encourage better engagement with the private sector); the Animal Welfare Champion award; the Education Champion award; and the Vaccination Champion award.

Event registrations have already opened and will follow the timeline in Table 2 (registration can be done at https://rabiesalliance.org/world-rabies-day/register). Members are encouraged to submit nominations for the World Rabies Day Awards: this is a great chance to highlight local champions within networks and can be done vis this link: https://rabiesalliance.org/world-rabies-day/awards-2022/nominations.

Table 2: World Rabies Day timeline 2022

Activity	Date	
World Rabies Day event registrations open	24 April 2022	
Awards nominations open	18 July 2022	
Awards nominations close	18 September 2022	
Award nominee shortlist announcement	28 September 2022 (World Rabies Day)	
Award public voting opens	28 September 2022 (World Rabies Day)	

² The toolkit is available at https://rabiesalliance.org/world-rabies-day/event-resources/WRD-themed-social-media-toolkit

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³ https://rabiesalliance.org/resource/world-rabies-day-event-organisers-toolkit-2022-0

UAR Forum annual event

Gregorio Torres

Dr Torres opened a brief discussion on whether a UAR Forum Annual Meeting should be organised and maintained. At an initial meeting for the UAR Forum launch, about 1700 people attended remotely, and a series of webinars have since attracted about 400 people from over 90 countries to each session. The Forum's terms of reference stipulate an annual event or video meeting to strengthen relationships and networks, revisit work done and plan for the year ahead. These do not have to be standalone meetings, however – there was some suggestion that it could be more efficient to piggy-back them on other events or gatherings.

Participants were asked a loose series of questions, including: is an Annual Meeting of the Forum necessary? If so, with what objectives? What format is preferable and when should it take place? Who should participate – everybody, workstream and working group leaders, or a different combination? An open discussion followed.

Need for and nature of a meeting

- GARC, PRP and the UAR Forum overlap substantially but the nature of that overlap when it comes to meetings is not wholly clear. The UAR Forum is now doing what the PRP set out to do historically, by uniting the rabies community on the global level, and the PRP will be repurposed as a home for the smaller, community-driven entities, smaller NGOs, and individuals. So a future UAR Forum meeting would be essentially what the PRP was in the past.
- It is important to meet regularly, perhaps annually. It is now easy to have remote participants visible on screens, so we are conscious of exactly who is in the meeting and feel more together and this is a cost-effective, ecologically sensible way of sharing information. It was argued, though, that the remote approach is offset against the less tangible benefits of face-to-face meetings and the additional possibilities that come with physical proximity.
- As well as the global strategic direction-setting function of annual meetings, attention must be given to supporting partners in different regions, including through meetings, and ideally in person. Moving towards a new, more operational phase of rabies control means being more grounded in working directly with partners in their respective regions and gathering global experts to support them in countries as they develop the next stages of their implementation plans.
- It is important to have at the very least an opportunity for the steering committee and working groups to meet annually, in person.

• The PRP's new role, as opposed to that of the UAR Forum, could be seen more as to distribute deliverables and improve implementation, leaving the UAR Forum to provide guidance, develop tools and look for funding. This fits the vision for the PRP as a body gathering together a huge, enthusiastic community of smaller organisations and making them part of a bigger, united community with a universal goal. "We are all PRP and we are all the UAR Forum," but we need make the most of our time and ensure that we bring new blood into the rabies discussion.

Objectives

Two main objectives emerged for the potential meeting: disseminating the work of the UAR Forum to the general public, and providing dedicated time for working groups to sit together to revisit the progress and create a clear workplan for the following 12 months.

It was also suggested that it would be valuable for the PRP to hold annual meetings of representatives of smaller-scale organisations in accordance with its new remit.

Timing

The Rabies in the Americas meeting takes place annually in the last week of October and should be avoided, as it renders US CDC people unavailable.

Scheduling meetings around World Rabies Day is a good way of capitalising on advocacy momentum.

Closing

The meeting ended with a round of thanks: having people together is a good thing, and the opportunity to hold this meeting, and to interact and debate was valuable and widely appreciated.

Special thanks were offered to the organisers, presenters and facilitators of the groups and exercises. Further appreciation was extended to all the participants for attending, to the Fondation Mérieux for hosting, to Sanofi Pasteur for sponsoring the meeting, and to the Mérieux technical team for providing audiovisual expertise and connections for remote participants.

Annex 1: Meeting agenda & Lists of Participants







Strengthening international engagement to support the Zero by 30 Global Strategic Plan (Zero by 30)

13th Meeting of the Partners for Rabies Prevention

Les Pensières, Center for Global Health, Veyrier-du-Lac, France 13-15 June 2022

13 June - Arrivals & Opening Dinner

16:00	Arrivals and check-in
19:00	Welcome Cocktail and Opening Dinner

14 June - Day 1

08:30 – 09:10 Session 1: Strengthening collaboration towards Zero by 30 Welcome address and Introductions - Valentina Picot (15 min) Historical perspective: Partners for Rabies Prevention - Louis Nel (20 min) Objectives of the 13 th PRP meeting, UAR forum - Rachel Tidman (5 min) Session 2: Overview of Zero by 30 actions to date Brief review - Gregorio Torres (10 min):	, ,	14 June – Day 1		
Session 1: Strengthening collaboration towards Zero by 30 Welcome address and Introductions - Valentina Picot (15 min) Historical perspective: Partners for Rabies Prevention - Louis Nel (20 min) Objectives of the 13 th PRP meeting, UAR forum - Rachel Tidman (5 min) Session 2: Overview of Zero by 30 actions to date Brief review - Gregorio Torres (10 min): Zero by 30 Phase 1 (Start-up 2018-2020) Achievements, Jessons learned Road ahead - Bernadette Abela-Ridder (15 min): Establishing the UAR Forum Zero by 30 Phases 2 and 3. Given COVID-19, where are we now? Next steps in supporting countries to introduce human vaccine in national programmes Implementing Zero by 30 at country level – Junxia Song (10 min) Session 3: UAR Working Group 1. Effective use of vaccines, medicines, tools, and technologies Overview of Working Group 1 - Rachel Tidman (25 minutes) Q&A to Working Group 1 (all workstream leads available) (20 minutes)	07:30 – 08:30	Breakfast		
Brief review - Gregorio Torres (10 min): Zero by 30 Phase 1 (Start-up 2018-2020) Achievements, lessons learned Road ahead - Bernadette Abela-Ridder (15 min): Establishing the UAR Forum Zero by 30 Phases 2 and 3. Given COVID-19, where are we now? Next steps in supporting countries to introduce human vaccine in national programmes Implementing Zero by 30 at country level –Junxia Song (10 min) Session 3: UAR Working Group 1. Effective use of vaccines, medicines, tools, and technologies Overview of Working Group 1 - Rachel Tidman (25 minutes) Q&A to Working Group 1 (all workstream leads available) (20 minutes)	08:30 – 09:10	 Welcome address and Introductions - Valentina Picot (15 min) Historical perspective: Partners for Rabies Prevention - Louis Nel (20 min) 		
tools, and technologies Overview of Working Group 1 - Rachel Tidman (25 minutes) Q&A to Working Group 1 (all workstream leads available) (20 minutes)	09:10- 09:45	 Brief review - Gregorio Torres (10 min): Zero by 30 Phase 1 (Start-up 2018-2020) Achievements, lessons learned Road ahead - Bernadette Abela-Ridder (15 min): Establishing the UAR Forum Zero by 30 Phases 2 and 3. Given COVID-19, where are we now? Next steps in supporting countries to introduce human vaccine in national programmes 		
10:30-11:00 COFFEE BREAK	09:45-10:30	tools, and technologies Overview of Working Group 1 - Rachel Tidman (25 minutes)		
	10:30-11:00	COFFEE BREAK		

Session 4: UAR Working Group 2. Strategic and operational support
control of the contro
 Overview of Working Group 2 -Katinka de Balogh (25 minutes) Q&A to Working Group 2 (all workstream leads available) (20 minutes)
Session 5: UAR Working Group 3. Advocacy and Resource mobilization
 Overview of Working Group 3 - Isabelle Dieuzy-Labaye (25 minutes) Q&A to Working Group 3 (all workstream leads available) (20 minutes)
LUNCH (Lunch provided with the kind support from Sanofi Pasteur)
Breakout Sessions
Breakout session 1: Surveillance and diagnostics to support national strategic plans Facilitated by: Terence Scott Rapporteur: Katrin Bote
How do we improve the reporting of data to WHO/OIE?
 How can we implement the Minimum Data Elements (MDE)? Improving uptake by WHO and OIE, and national governments?
 How do MDE, Rapid Diagnostic Testing and NSP template link together to support NSPs?
How can UAR Forum support the OIE endorsement process?
Expected outcomes:
 (Concrete activities that can take place over next 6-12 months, needs for stakeholder meeting)
Breakout session 2: Implementation and operationalization of tools – start small but think big
Facilitated by: Katinka de Balogh Rapporteur: Rachel Tidman
Continued maintenance of Rabies Toolbox – review process, continued tool submission.
 What is needed to operationalise the Roadmap?
 How does the SARE assessment and toolkit link with the roadmap? How to engage with countries to ensure they benefit from a linked work plan, with UAR tools and resources?
 How can the Canine Rabies Blueprint be integrated? How can the outcomes of the "Oral Rabies Vaccine" and "Rapid Diagnostic Testing" workstreams be incorporated into the roadmap to ensure that users are linked with the tools and resources? How can MDV efforts be scaled up from pilot to national level?
Expected outcomes: (Concrete activities that can take place over next 6-12 months, needs for stakeholder meeting)

	Breakout session 3: Building national and regional networks
	Facilitated by: Isabelle Dieuzy-Labaye
	Rapporteur: Valentina Picot
	 How can existing networks be aligned/collated with the UAR Forum, and how can the UAR Forum help connect stakeholders? How can the Partnership Map facilitate collaboration and advocacy, and trigger interest by investment partners to support rabies elimination?
	How can partners contribute to the Global Strategic Plan and the UAR Forum? What are the benefits to joining the UAR Forum? Expected outcomes:
	(Concrete activities that can take place over next 6-12 months, needs for stakeholder meeting)
16:00-16:30	COFFEE BREAK
16:30-17:30	World Café: Dog Vaccination
	Stations:
	Socio-cultural aspects – facilitated by Rachel Tidman
	Technical and tools needed – facilitated by Gregorio Torres
	Operational and One Health – facilitated by Junxia Song
	Strategy, Policy, Legislative – facilitated by Katrin Bote
	Resources and Sustainability – facilitated by Isabelle Dieuzy-Labaye
17:30	End of Day One
18:00	Free evening (trip to Annecy by Bus organized from and to Les Pensières Conference Center). Bus departs at 6.15pm and returns at 10h15pm.

15 June - Day 2

07:30 - 09:00	Breakfast & check out
09:00 - 09:30	Recap/feedback: Breakout session 1: Outcomes, challenges, next steps (Terence Scott)
09:30 - 10:00	Recap/feedback: Breakout session 2: Outcomes, challenges, next steps (Katinka de Balogh)
10:00-10:30	Recap/feedback: Breakout session 3: Outcomes, challenges, next steps (Isabelle Dieuzy-Labaye)
10:30 - 11:00	COFFEE BREAK
11:00 - 12:15	Group discussion on breakout session feedback and Strengths, Weaknesses, Opportunities, Threats

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12:15 - 12:45	Next steps for UAR Forum (Rachel Tidman) Confirm objectives/timelines for deliverables of existing workstreams, establish new workstreams (if need identified) Follow up action items and next steps from breakout sessions
12:45-14:15	LUNCH (Lunch provided with the support from Sanofi Pasteur)
14:15-15:15	Planning for upcoming events (Terence Scott, Gregorio Torres)
	WRD, improving joint messaging, collaborative events, etc
	Planning for the UAR Forum stakeholder meeting
15:15-15:30	Discussion on the development of an official UAR/PRP meeting report
15:30-15.40	MEETING CLOSING
15.40	Departure of all guests - Taxis from the Conference Center to Geneva Airport

The 13th PRP Annual Meeting was a collaboration between GARC, United Against Rabies and Fondation Mérieux

LIST OF PARTICIPANTS

(In Person Attendees)

13th Meeting of the Partners for Rabies Prevention Les Pensières, Center for Global Health, Veyrier-du-Lac, France

13-15 June 2022

Name	Institution	Country
Dr. Bernadette Abela-Ridder	World Health Organization	Switzerland
Dr. Angelique Angot	Food and Agricultural Organization	Italy
Mr. Matt Backhouse	Four Paws	Thailand
Dr. Katinka de Balogh	Food and Agricultural Organization	Italy
Ms. Sarah Beeching	Oshun partnership	United Kingdom
Dr. Paola De Benedictis	Istituto Zooprofilattico Sperimentale delle Venezie	Italy
Dr. Marc Bonneville	Fondation Mérieux	France
Dr. Katrin Bote	World Health Organization	Switzerland
Dr. Hervé Bourhy	Pasteur Institute	France
Dr. Catherine Bravo	Sanofi Pasteur	France
Dr. Florence Cliquet	ANSES	France
Dr. Andre Coetzer	Global Alliance for Rabies Control	South Africa
Dr. Guillaume Convert	Boehringer Ingelheim	France
Dr. Isabelle Dieuzy-Labaye	World Organisation for Animal Health (OIE)	France
Mr. Kim Doyle	Global Alliance for Rabies Control	United Kingdom
Dr. Tony Fooks	Animal and Plant Health Agency	United Kingdom
Ms. Marianne Gojon-Gerbelot	Fondation Merieux	France
Dr. Dan Horton	University of Surrey	United Kingdom
Dr. Alasdair King	Merck Animal Health	USA
Dr. Annabelle Monnet	Sanofi Pasteur	France
Dr. Thomas Müller	Friedrich Loeffler Institute	Germany
Dr. Louis Nel	Global Alliance for Rabies Control	South Africa
Dr. Valentina Picot	Fondation Merieux	France
Dr. Juan Persico	Biogenesis Bago	Argentina
Dr. Joaquin Prada	University of Surrey	United Kingdom
Dr. Terence Scott	Global Alliance for Rabies Control	Luxembourg
Dr. Junxia Song	Food and Agricultural Organization	Italy
Dr. Jerlyn Sponseller	Boehringer Ingelheim	France
Dr. Rachel Tidman	World Organisation for Animal Health (OIE)	France
Dr. Gregorio Torres	World Organisation for Animal Health (OIE)	France
Dr. Thaïs Vila	Boehringer Ingelheim	France
Dr. Ad Vos	Ceva Santé Animale	France

LIST OF PARTICIPANTS

(Virtual Attendees)

13th Meeting of the Partners for Rabies Prevention Les Pensières, Center for Global Health, Veyrier-du-Lac, France

13-15 June 2022

Name	Institution	Country
Dr. Bernadette Abela-Ridder	World Health Organization	Switzerland
Dr. Frank Busch	Friedrich Loeffler Institute	Germany
Dr. Katy Cronin	United Against Rabies	United Kingdom
Dr. Anna Fahrion	Friedrich Loeffler Institute	Germany
Dr. Conrad Freuling	Friedrich Loeffler Institute	Germany
Prof. Katie Hampson	University of Glasgow	United Kingdom
Dr. Elly Hiby	ICAM	United Kingdom
Dr. Vivian Iwar	ECOWAS	Nigeria
Dr. Pankaj KC	ICAM	United Kingdom
Dr. Junaidu Maina	JMGlobal Associates	Nigeria
Dr. Kavosa Mudoga	Action for Protection of Animals Africa	Kenya
Dr. Thumbi Mwangi	Washington State University	Kenya
Dr. Anna Okello	ACIAR	Australia
Dr. Pebi Purwo Suseno	Ministry of Agriculture Indonesia	Indonesia
Dr. Yu Qiu	Food and Agriculture Organization	Italy
Dr. Maganga Sambo	University of Glasgow	United Kingdom
Dr. Sean Shadomy	Centers for Disease Prevention and Control	United States of America
Dr. Katrin Taylor	Food and Agriculture Organization	Italy
Lord Alexander Trees	House of Lords UK	United Kingdom
Dr. Marco Vigilato	Pan American Health Organization	Brazil
Dr. Ryan Wallace	Centers for Disease Prevention and Control	United States of America
Dr. Gowri Yale	Mission Rabies	India

Annex 2: links to the meeting presentations

Ressources from the 13th Partners for Rabies Prevention (PRP) - United Against Rabies (UAR) Meeting are available via the below link:

• https://www.fondation-merieux.org/en/events/13th-international-meeting-of-the-partners-for-rabies-prevention/