



ANNUAL REPORT

JANUARY 2021 – DECEMBER 2021

FOREWARD

This year, the Global Alliance for Rabies Control (GARC) continued its efforts to support rabies control and elimination efforts throughout the dog rabies endemic world. We remain convinced that large scale rabies elimination can be achieved if we are able to provide the most appropriate kind of support for those particular settings where it is needed.

We endeavor to continue to complement and support the mandates of institutions such as National Governments and Intergovernmental Agencies and we believe that our major value is fundamentally based on progressing effective regional and global cooperation and collaboration. This approach includes the formation and maintenance of our regional and global networks and to accompany this, the development and advancement of innovative tools and solutions that might be most helpful towards the goal of rabies elimination.

Unfortunately, many rabies activities around the world were hampered because of the global coronavirus pandemic. In the case of GARC, we endeavored to adapt and adjust in order to continue to provide the best tools, support, and expertise to our partners and stakeholders working towards the global elimination of dog rabies. With novel innovations and adaptations to difficult circumstances in the rapidly evolving environment that the world experienced this year, GARC remained focused on its goals to drive global rabies elimination in line with the Zero by 30 goal.

In this regard, we would like to sincerely thank our donors, partners, and collaborators. Thank for your support and for sharing our vision – without this, we would not have been able to move forward. I also wish to thank all of GARC for your innovation and adaptivity. Thank you for your positivity, for keeping focused and for going the extra mile during these extraordinary times. GARC will continue to drive efforts towards the elimination of dog-mediated rabies, ensuring a better life for dogs and people all around the world. We appreciate your continued support and participation, and our collaborative efforts towards making our goal a reality.

With my very best wishes,



A handwritten signature in dark ink, appearing to read 'L. Nel'.

Louis Nel
Executive Director
Global Alliance for Rabies Control

MISSION AND VISION

GARC's mission is to prevent human deaths from dog-mediated rabies and relieve the burden of rabies in other animal populations, especially dogs.

We aim to eliminate human deaths from dog rabies by 2030, by working with governments; veterinary, public health and educational experts; and communities to facilitate policy change and build capacity to eliminate rabies in areas hardest hit by the disease.

Despite successful dog rabies elimination programs in certain parts of the world, neglected communities are still facing tens of thousands of deaths due to rabies - one of the deadliest diseases on the planet.

With limited global and national resources dedicated to tackling the disease, our programmatic approach focuses on raising disease awareness, education, strengthening coordination and improving operational capacity. All of these activities have a multiplier effect in terms of reach and impact. As the African proverb states, “If you want to go fast, go alone, if you want to go far, go together”.



RAISING AWARENESS & EDUCATION ACTIVITIES

GARC aims to raise awareness of rabies as a neglected disease and provide education to limit exposures. Our focus remains on dog-mediated rabies, which accounts for over 98% of all rabies cases globally. Alongside this, we provide education resources to community actors and professionals working in the rabies field.

I. World Rabies Day

Created and coordinated by GARC, World Rabies Day was remarkably successful in 2021 given the continued global preoccupation with COVID-19. This year, World Rabies Day focused on “Facts, not Fear”. The theme was selected based on current global trends including several current topics and issues faced by the global public:

1) Fake news and the need for facts and fact-checking, rather than spreading fear and rumors. This is particularly important considering the influence of social media, emphasizing the need for a strong united presence on social media platforms from expert organizations.

2) Anti-vaccination trends: This is particularly pertinent considering the roll-out of the COVID-19 vaccine and can help to address concerns and issues surrounding anti-vaccination movements, as well as vaccine hesitancy. Rabies presents as the ideal One Health example disease that can address these challenges, not only for the rabies world, but also for all other zoonotic diseases.

Despite the COVID-19 pandemic and the significant restrictions placed upon the ability to host in-person events and activities World Rabies Day 2021 was a greater success than 2020, highlighting that the continued efforts of the GARC team are bearing fruit for the continued and ever-increasing success of World Rabies Day as a global event. The online activities were understandably higher, resulting in better online engagement through the GARC website and social media. From September 3rd to the 30th, GARC’s website was visited by people from 182 different countries; this includes places like Iceland, Macao, US Virgin Islands, Sint Maarten, Syria, and others. GARC also offered free downloadable resources helpful in hosting WRD activities.

There were also 287 resource downloads on the GARC website from September 1 – October 31, 2021.



As only events reported to the organization are captured in these figures, these figures underreport the total number of events.



Image: 2021 World Rabies Day events

World Rabies Day Awards

This year was the 6th time that the World Rabies Day Awards were hosted. This year the awards underwent a makeover with completely new categories. In previous years, awards were separated both geographically and by nominee – with separate categories based on whether the nominee was an individual or whether they were an organization. In an effort to further improve the awards process, the awards celebrated an individual under each of the four new categories, with nominees for each category being accepted from around the world. The four global categories for individuals were:

- Veterinary Clinic Champion
- Animal Welfare Champion
- Education Champion
- Vaccination Champion

The focus on the individual champions were well received with:

54

World Rabies Day
award nominations
received.

26

Countries nominated
someone for the World
Rabies Day awards.

3,675

people voted for their
favorite World Rabies Day
awards shortlisted nominee.

Media

GARC partnered with stakeholders to hold various events and support the message of ‘Rabies: Facts, not Fear’ this year. Some of these included supporting the Kept Animals Bill with Battersea and participating in webinars with Biogenesis Bago and Vets Beyond Borders, and co-hosting webinars with Bavarian Nordic, US CDC, USDA-Wildlife Services, IVSA Standing Committee for One Health and Fondation Merieux. GARC personnel conducted individual interviews, such as one on Instagram Live by Bhima Thapa about the upcoming World Rabies Day events and the 2021 theme chosen. A list of some of the main World Rabies Day media engagements are listed below:

Fondation Merieux - 6 September

Webinar: World Rabies Day: Celebrating Action to Maintain Momentum

Bhima Thapa - 22 September

“In conversation with Dr Scott: Sharing Facts not Fear”, Rabies: Facts Not Fear

USDA-Wildlife Services US CDC, Bavarian Nordic - 24 September

Webinar: Rabies in the US: Facts, not Fear

Biogenesis Bago, Mundo Sano - 28 September

Webinar: World Rabies Day: A Neglected disease that can be prevented

Vets Beyond Borders - 28 September

Rabies panel discussion

Battersea

Promote Kept Animals Bill on social media

Boehringer Ingelheim

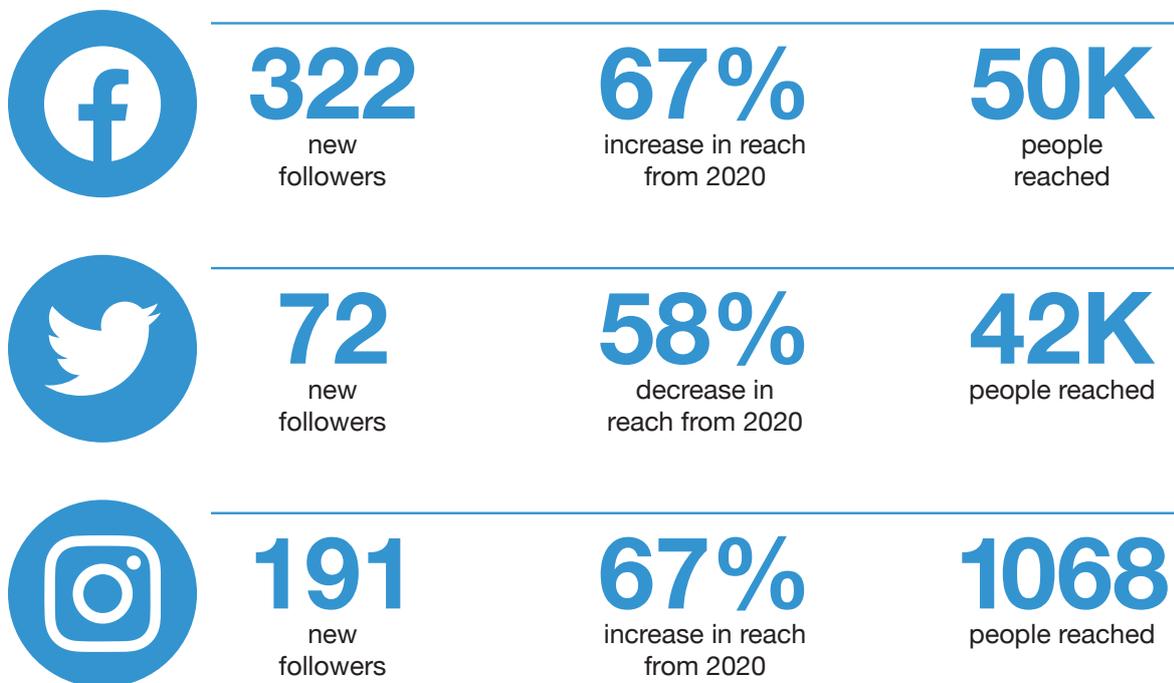
World Rabies Day Awards 2021

World Rabies Day was highlighted around the world in multiple online news publications. This included significant interest and uptake in India with news stories appearing in the Hindustan Times, India Today and many others. Other international organizations made announcements relating to World Rabies Day, including WHO, OIE, PAHO, World Veterinary Association, International Student Veterinary Association (IVSA) global and Vets Beyond Borders, among others.

World Rabies Day social media

Social media significantly contributed towards the success of World Rabies Day in 2021. In particular, during the month of September various organizations, institutions, and individuals were active in posting their activities on social media which helped to reinforce the collaborative and participatory messages embedded within the ethos of WRD.

During 14th Sept - 14th Oct 2021



II. GARC's Education Platform

The GARC Education Platform (GEP) was created to offer lay persons, community actors and professionals, courses on rabies and its control and elimination. To ensure maximum access, the courses are freely available online but participants need to pass to an exam to be considered a graduate of the program. Following the foundational Rabies Educator Certificate, a choice of courses is available, based upon the graduate's interest.

In line with our efforts to ensure that the GARC Education Platform courses remain up-to-date, relevant and have the most pertinent scientific information, the Animal Handling and Vaccination Certificate (AVC) course underwent extensive revisions and improvements. Using the valuable feedback and suggestions that was provided to us through an online survey – aimed at better understanding the desires and needs of the target audience – we not only included more detailed information throughout the coursework, but also vastly improved the number and the quality of the images (e.g., photos and explanatory diagrams). These images have been developed to improve learning and knowledge retention using visual cues. We at GARC would like to share a special thanks to Dr. Darren Bugden and Mr. Daniel Stewart who volunteered much of their time and expertise by assisting us with reviewing and updating the coursework.

In addition, the Community Coordinator for Rabies Certificate (CCC) course was also updated with revisions that included new sections on overcoming vaccine hesitancy and treatment (something that aligned with vaccine hesitancy during the COVID-19 pandemic). In addition, the coursework language was significantly improved to make it more understandable and accessible for non-native speakers and geographical context-specific examples and language was replaced with globally accessible language. We would like to send a special thanks to Dr. Darren Bugden for his time and expertise in assisting us with reviewing and updating the coursework.

In 2021, the number of graduates for all the courses on the GARC Education Platform (GEP) continued to grow with 2,722 new graduates in 2021.



(REC) Rabies Educator Certificate
(CCC) Community Coordinator for rabies Certificate
(AVC) Animal Handling and Vaccination Certificate
(RHC) Rabies Healthcare Certificate

Through the dedication of the global certified rabies educator community, we estimate that more than **11 million people** have benefited from the life-saving information provided through the Rabies Educator Certificate course between 2015 and 2021!

III. Education Materials

Education remains critical to ensuring that both the public and professionals have a good understanding of rabies elimination, rabies prevention, responsible dog ownership, bite prevention and all other key aspects important for the implementation and effective delivery of rabies elimination interventions. With this in mind, GARC continues to develop new resources, update existing materials with the latest knowledge and information, and make the existing resources more accessible to people living in rabies-endemic countries.

As part of a Community Based Rabies Surveillance (CBRS) program assessing the strength of different community engagement models, in Muntinlupa City, Philippines, GARC developed various education materials for different groups of audiences. Notepads and stickers for public utility vehicles with key messages on responsible pet ownership and rabies awareness were produced and distributed to the community members. Activity books and activity sheets with age-appropriate messages on responsible pet ownership and bite prevention for day care students (aged 3-6years old) were also developed.

The “Want a Friend, Be a Friend” booklet was also translated into kiSwahili to make it more accessible to children in East Africa.

IV. GARC Outreach

International engagement

While face-to-face workshops and meetings were not possible, we hosted or participated in a number of webinars in collaboration with our various partners. To replicate the benefits of physical meetings, these virtual meetings were aimed at gathering experts and stakeholders and to share knowledge and ideas and to provide a platform for meaningful interaction on the road ahead for rabies control and elimination. We had over 1,000 people registering for our webinars in 2021, helping us to have a wider reach than would have been possible with face-to-face meetings. These webinars focused on our rabies control networks' participating countries, young professionals, and the public.

Over 1,000 people reached through GARC-hosted webinars.

In addition to our online engagement, GARC broadened its reach and engagement beyond the rabies world and into the much larger and more diverse world of Animal health. This year GARC joined the Action for Animal Health coalition that focuses on uniting different stakeholders towards improved advocacy for animal health globally. GARC is also contributing to the NNN One Health group (NTD NGO Network) that is generating a guidance document to complement the WHO NTD Roadmap. We also remain actively involved in the International Companion Animal Management (ICAM) coalition, given the intrinsic links between rabies elimination and humane companion animal management.



Action
for Animal
Health

FORCE campaign launch

FORCE (Faces Of Rabies Control and Elimination) is a campaign launched by GARC and the End Rabies Now campaign to celebrate every person who is involved in rabies control and elimination globally. The campaign aims to improve engagement from more individuals who are either interested in rabies or are actively playing a part in rabies elimination efforts. The campaign looks to celebrate any and every person that is educated about rabies as a FORCE to be reckoned with, as they are playing a key role in helping stakeholders achieve rabies elimination through education.

The campaign launched with the creation of photo wall where REC graduates can submit their pictures of themselves with their REC certificate, as well as their dog or cat. The campaign calls for a little fun to highlight the celebratory importance of being educated about rabies and its elimination. People are also able to include a motivational message to encourage others to continue their rabies elimination efforts. Considering the importance of youth in rabies elimination, especially in terms of community engagement, GARC partnered with the International Veterinary Students Association, Standing Committee for One Health (IVSA-SCOH) to generate template frames for the FORCE wall. The partnership encouraged all IVSA members from around the world to complete the REC course and post their photo – using the custom IVSA template – on the FORCE wall.



Website

The updates to the GARC website continued throughout 2021 as an ever evolving and progressing process. In 2021, several major improvements were made. This included the creation of more clearly delineated sections of the website, such as an entirely new “Surveillance tools” section that was created and subsequently updated with several sub-sections pertaining to the different surveillance tools that GARC offers as part of the REB. Furthermore, the “About Rabies” section was created as an entirely new section to provide foundational information about the disease more accessible to interested visitors. This included a full review of the FAQs and better linking these FAQs from the “Resources” to this new section.

The website will continue to be updated and revitalized in the coming years, with a gradual progression to achieving our vision for improved usability, access and user experience.



Social Media

Our social media engagement and reach continued to grow steadily throughout the year. Our more established platforms such as Facebook continued to grow at a steady and improved rate to last year. Importantly, our new Instagram platform had excellent continued growth, exceeding the growth from its first year in 2020. This is extremely promising as current social media trends indicate that Instagram will broaden our reach to new audiences that are not yet engaged through our other platforms. Furthermore, renewed engagement and additional effort was placed on engaging on YouTube to reinvigorate the platform. The GARC team focused heavily on engaging with individuals on the platform, actively answering questions and spreading the message about the need for rabies elimination. The outcomes from this investment of time were evident with the massive growth in followers on YouTube this year.

GARC Social Media Stats (2021)



Newsletter

The GARC team released 5 newsletter issues this year with 21 individual articles highlighting the work that is being done and major achievements and milestones. Our mailing list continued to grow to over 10,300 contacts with a good engagement and low unsubscribe and spam report rate, indicating a healthy and engaged audience. While this is predominantly attributed to the high-quality articles, we also experimented with A/B testing for email subject lines to identify the best subject lines for our target audience.

STRENGTHENING COORDINATION

GARC works towards strengthening international, regional, and national coordination to share lessons learned, avoid duplication, and improve the efficient use of limited resources.

I. International Stakeholder Network – Partners for Rabies Prevention and the United Against Rabies Forum

GARC remains committed to contributing to the global efforts to drive rabies elimination through the United Against Rabies Forum. Our team leads a number of the key workstreams, particularly in Working Group 1 and Working Group 2, highlighting our continued engagement and motivation to support rabies elimination efforts on all levels. The exercises carried from 2020 when the UAR Forum initially launched have been developed into larger workstreams that bring together international experts and representatives to provide joint expertise and insight into the development and implementation or continued implementation of these tools.

UAR Forum Workstream updates

Roadmap workstream

The Roadmap is a mechanism whereby countries can measure their progress towards the “Zero by 30” goal, while also accessing the most appropriate tools and resources for their various work plan activities. The SARE – developed by GARC and UN FAO – is integral to the roadmap, whereby the SARE stages are used to determine a country’s current capacity. For the Roadmap, the SARE stages are grouped together and displayed as overarching Roadmap “milestones” that provide a broad situational description of the country’s rabies control efforts. For countries to progress along the Roadmap – and thus report on tangible progress – governments will need to periodically re-assess their rabies elimination efforts using the SARE. Not only will this enable countries to monitor their progress but will also ensure that countries update their SARE-derived work plans and renew their efforts towards rabies elimination.

In December 2021, the SARE-facilitated Roadmap that provides situation-specific technical guidance, tools, and resources to countries as they progress towards eliminating dog-mediated rabies was approved by the United Against Rabies Steering group. The Roadmap, which is now embedded in the UAR website, i) uses the Stepwise Approach towards Rabies Elimination (SARE) to monitor the progress of rabies-endemic countries towards rabies elimination, and ii) recommends specific tools and resources that are readily available to address pending activities in the country’s SARE-derived rabies elimination work plan.



Mapping workstream

What was initially a continuation of the Global Atlas as presented in the 2020 annual report and as an activity carried over from the PRP meeting in 2019, the Mapping workstream has shifted focus from the data capture and analysis on the global level and is focused more on preventing the duplication of efforts. It was decided that the mapping of global data was addressed by the WHO and OIE international reporting systems. However, the challenge of the duplication of efforts and multiple partners working independently in the same country needed to be addressed. The mapping workstream has taken this responsibility to generate a global map of the activities of all UAR member organizations working around the world in an effort to foster collaboration and prevent the duplication of efforts.



Minimum Data Elements workstream



As a means to improve global standardization, especially in terms of international data reporting and rabies data capture, a new workstream was developed to address minimum data elements for data reporting. The Minimum Data Elements workstream was developed as a means for the international community – through the UAR Forum – to come together to determine what the minimum essential data elements should be that every stakeholder should capture for an effective rabies surveillance system. Because of GARC's integral involvement in data through the Rabies Epidemiological Bulletin, GARC was significantly involved in this workstream. The workstream decided to focus on international minimum data elements first and will continue its efforts into 2022.

Tools workstream

The tools workstream has been created to take the SISOT-R tool and use it to analyze and objectively assess the different tools available for rabies elimination. The SISOT-R tool provides the evaluation matrix on which to analyze and assess all tools. This aims to help end-users decide which tools best fit their needs. The tools workstream has re-evaluated the SISOT-R and has begun compiling the various international tools on offer, categorizing them into user-friendly categories to make finding the right tools for the right situation easier. This is once again in an effort to streamline efforts and reduce workload and burden from the end-user – the people on the ground who are delivering rabies elimination interventions. The workstream will continue its work into next year to create an online toolbox where the tools are accessible, with descriptions and the SISOT-R evaluations.

II. Regional Rabies Networks



MERACON

Although newly branded and aligned, the MERACON network in fact builds upon the past successes of the Middle East, Eastern Europe, Central Asia and North Africa Rabies Expert Bureau (MEEREB) network that was formed under the guidance and secretariat of our partners at Fondation Merieux. Through our collaboration and close partnership, we have jointly formed the MERACON network to continue to build upon those successes – focusing on supporting countries in their own efforts to reach freedom from dog rabies. Initially, an in-person MERACON meeting had been planned, but it was quickly delayed and then finally changed into a virtual meeting due to international travel restrictions (due to COVID-19). Therefore, on 26 February 2021, the first MERACON meeting was held. The aim of the first MERACON meeting was to build momentum with the different participating states using the various tools and resources that GARC offers. Twenty-one participants from 9 MERACON participating states, along with international experts from another 12 countries globally, attended the virtual meeting.

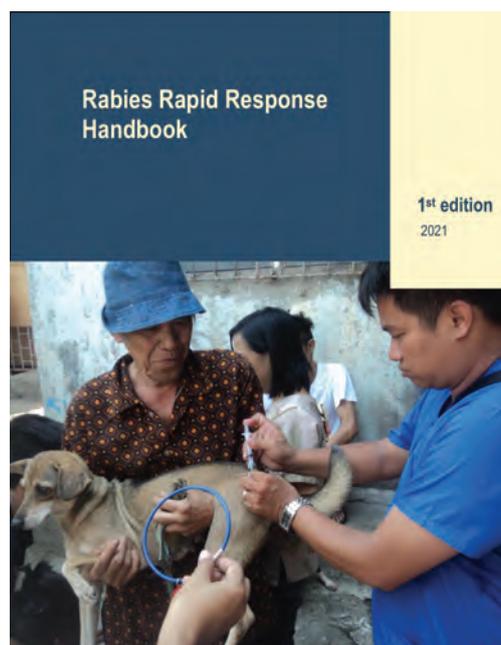


ARACON

As part of our regional focus in Southeast Asia through ARACON, GARC, together with Oita University and supported by WHO, developed the 'Rapid Response Toolkit for Rabies' for the Philippines National Rabies Prevention and Control Program. The Toolkit is a compilation of local and international guidelines and procedures related to an effective rabies response. These guidelines address the responsibilities of all stakeholders from the different sectors involved in a rabies response. The guidelines are presented as role-based checklists for different rabies-related events, allowing each stakeholder to easily view and follow the list of tasks for an effective and timely rabies response. While this toolkit was specifically developed for the Philippines National program, the toolkit was designed in such a way as to make it easily transferable and customizable to any interested national government.

PARACON

While a PARACON meeting was not hosted in 2021, we continued to engage with PARACON countries throughout the year to address gaps and needs where requested. With this continued engagement, GARC facilitated a Rabies Epidemiological Bulletin (REB) Level 1 training for key stakeholders in Malawi's animal and public health sectors. At the end of the training, 8 stakeholders had graduated from the program after demonstrating their proficiency in the use of the REB as a One Health rabies surveillance platform. In addition, GARC provided technical assistance in the implementation and analyses of a knowledge, attitudes and practices (KAP) survey towards rabies of the general population residing in the Harare Metropolitan Province of Zimbabwe. This study was subsequently published as a peer-reviewed scientific publication.



III. End Rabies Now: Supporting community-based civil society organizations.

ERN re-envisioned

GARC - as the leading organization of ERN - believes that civil society is often overlooked in their contributions towards the elimination of rabies. For this reason, GARC has created a fresh new vision for ERN – one that focusses on civil society specifically. To do this, we aim to generate a platform that unites civil society, while promoting and sharing the excellent work being done all around the world by these groups. It is our belief that local organizations and groups are important and valuable contributors to the global fight against rabies, but unfortunately do not receive the credit and acknowledgement that they deserve for the hard work that they are doing.

The new vision for ERN is to create a platform for civil society to share their experiences, stories, and efforts towards rabies elimination. We would like to thank Biogénesis Bagó – a biotechnology company focused on animal health and animal rabies vaccine manufacturer based in Latin America – for their support as proud supporters of the re-envisioned End Rabies Now campaign.

27 new organizations pledged their support to the End Rabies Now campaign.

185 total supporters by the end of 2021.

ERN website update

The End Rabies Now website was updated to improve user access to the news stories and articles. A direct link and summary box for the stories was added to the landing page to encourage visitors to go to the stories section. In addition, guidelines were created for the submission of stories, and these were made available. All of these changes align with the new vision to make the End Rabies Now website a platform for community stakeholders to share their stories and experiences and to encourage improved local level engagement and recognition.

With the new focus and improved engagement through social media, as well as a more proactive campaign to encourage people to submit stories to the website, overall web traffic dramatically increased this year by more than 200% for users, site sessions and page views.

	Users	Site Sessions	Page Views
 2021	7,803	10,860	18,465
2020	3,607	4,362	9,782

ERN Social media

The ERN social media also steadily grew, particularly through Facebook. After many years of the campaign social media relying primarily on GARC content being reshared, a decision was made to more actively engage ERN social media with unique ERN-specific content. This was highlighted through improved recognition of pledging organizations, as well as more community stories being shared on the website and subsequently promoted through social media.

	New Followers	Total Followers	Average Reach Per Month	Total Reach
	152	1,768	2,321	27,849
	129	3,117	8,339	100,065

IMPROVING OPERATIONAL CAPACITY

GARC aims to enhance operational capacity of actors on the ground to deliver rabies control and elimination programs effectively. This is essential to drive sustainable rabies elimination efforts by strengthening local expertise and national health systems. To achieve this goal, GARC provides tools, resources, protocols, programs and scientific expertise.

Over the years, when faced with identified needs, GARC has developed, alone or in partnership, numerous surveillance, planning, and vaccination tools to strengthen capacity which it deploys across the world.

I. Stepwise Approach towards Rabies Elimination (SARE)

The Stepwise Approach towards Rabies Elimination (SARE) tool empowers governments to evaluate their current rabies situation, while facilitating and simplifying the complex task of prioritizing critical activities required to achieve elimination, packaged in a customized work plan.

With the assistance of multiple collaborators, we were able to undertake six in-country SARE workshops during the year. The value of this achievement lies in the ownership taken by the individual nations for their rabies elimination efforts and the development of concrete work plans that are in-line with the Global Strategic Plan and the Zero by 30 goal.

In collaboration with the Food and Agriculture Organization of the United Nations (UN FAO) and continuing from the implementation of the first successful virtual SARE workshop in Gabon in 2020, GARC implemented multi-stakeholder virtual SARE workshops in three Central African countries, namely the Democratic Republic of the Congo (DRC), Central African Republic and the Republic of the Congo. During these workshops, a thorough assessment of each country's rabies control program was used to facilitate the development of tailor-made rabies elimination work plans. These national work plans are used by the countries to deliver their rabies control programs.



3 virtual SARE workshops facilitated in Central African Republic, the Democratic Republic of the Congo, and the Republic of the Congo.

In addition, GARC also provided technical support to three virtual SARE workshops that were undertaken by external facilitators. During these workshops, the facilitators were provided expert guidance from GARC, as well as detailed implementation guides to help them successfully host and facilitate an online SARE workshop. In line with our goal to strengthen technical capacity, we are pleased that such activities would also help to ensure a growing panel of capable SARE workshop facilitators around the world.



3 virtual SARE workshops supported in Eritrea, Burundi, and Somaliland.

II. Laboratory Training

Regional Rapid In-Field Diagnosis and Epidemiology of Rabies (RAIDER) training

One of the key challenges to eliminate dog mediated rabies is poor rabies surveillance with limited accurate and timely information available. To address this challenge, GARC developed the “Rapid In-field Diagnosis and Epidemiology of Rabies” (RAIDER) toolkit improve rabies surveillance at the community-level by enabling the collection and timely reporting of animal rabies surveillance data from remote areas that are not usually covered by existing surveillance networks.

The Rapid In-Field Diagnosis and Epidemiology of Rabies (RAIDER) toolkit can be used to safely diagnostically screen, and report suspect animals directly from the community – there is no need for any sophisticated equipment. The full process takes less than 1 hour, after which the preliminary result is reported. This means that an hour after a potential rabies case has been identified, a response team can be preparing to head out and vaccinate while the sample is still on its way to the laboratory for confirmatory testing.



In December, we went to Cameroon as part of a regional diagnostic training workshop that was undertaken in collaboration with the UN FAO where the GARC team trained 15 rabies laboratory professionals from 5 Central African countries on the RAIDER toolkit. The participants underwent a series of lectures covering the theoretical knowledge, and then had the opportunity to do hands-on training of the entire RAIDER toolkit, starting with obtaining a rabies sample in the field with a safe, cheap, and effective method to the in-field diagnostic screening, reporting and sample shipment. The workshop ran for the course of just 4 days, after which the expert representatives were proficient in the RAIDER toolkit. As testament to this, just one day after the workshop concluded, the toolkit was used, and a positive rabies sample was identified in a community.

In November 2021, GARC supported the improvement of Zanzibar’s rabies surveillance network by providing ongoing technical training to the laboratory personnel responsible for rabies diagnosis on the island. In addition, GARC implemented the RAIDER toolkit to increasing disease testing and response time following in-field sample collection and testing. This ensured that more rabies testing was done, which in-turn helped to identify areas where rabies is spreading as well as areas where there is no rabies present.

III. Rabies Surveillance: The Rabies Epidemiological Bulletin

We continued to develop and improve upon our suite of surveillance tools embedded in the Rabies Epidemiological Bulletin (REB). Focusing on surveillance gaps, we created 2 new tools during 2021 – both available as part of our mobile phone app. The first tool was developed to ensure that private veterinarians and groups doing trap, neuter, vaccinate, release (TNVR) programs or mobile clinics were able to easily collect, manage, analyze, and report their data. The second tool was developed to help collect data for dog population counts using the Dog Population Census tool.



2 new tools developed, namely the Dog Population Census (DPC) tool and the Vaccination and Sterilization Tracker (VST) tool.

We also improved upon our Rabies Case Surveillance tool. In addition to its use to track cases that have been diagnostically confirmed in a laboratory, the tool can now also be used to record suspect and probable animal and human cases in the field. This functionality includes the possibility to capture in-field diagnostic assays such as the antigen tests offered by lateral flow devices and integrates with the new RAIDER protocol developed by the GARC team.



1 tool significantly upgraded with more features and wider applicability.

Online tool trainings facilitated

It is our aim to continue to develop tools that can help drive rabies elimination efforts in a most cost-effective and efficient manner. However, we also realize that it is important to provide support (that may include some training and technical assistance) to ensure that the use of these tools have the desired impact as it relates to the control and elimination of rabies.

Since our surveillance tools are designed to be easy to use, face-to-face trainings are generally not essential, and we were able to conduct various online trainings for beneficiaries across the world. In so doing we hosted 14 online training sessions that focused on various countries in Latin America, Africa, and Asia. It is our hope that these efforts will contribute to the capture and analysis of reliable rabies surveillance data towards effective decision-making processes and strategies.



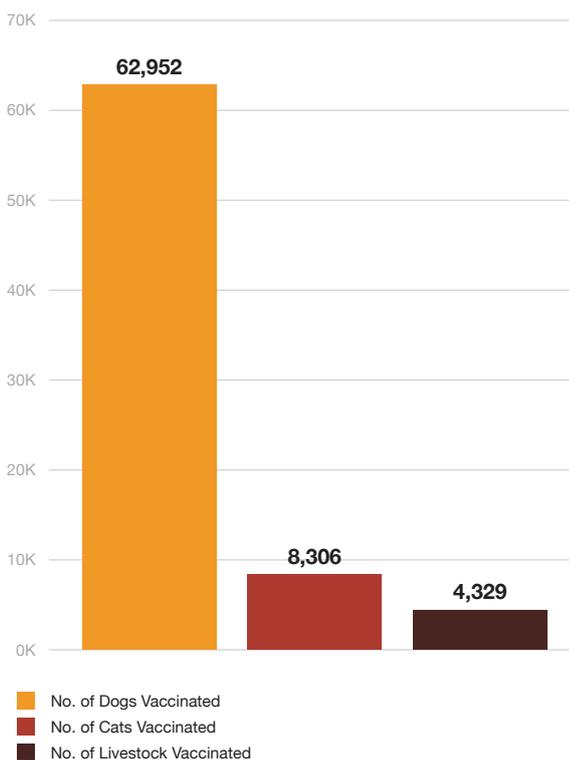
14 governments, groups, or organizations were trained on our surveillance tools and mobile phone app from **13 countries**.

Given its versatility and growing uptake in the global rabies community, it is envisaged that the REB will increasingly contribute to national, regional, and global elimination efforts.

Vaccination tracking

Dog vaccination tracking was developed as a surveillance tool embedded in the Rabies Epidemiological Bulletin (REB). The real-time updates, maps and graphs help to identify missed areas and target future vaccination sites. As the vaccination data is provided in real-time online, GARC is able to provide technical assistance to vaccination campaigns across the world.

Animal Vaccinations tracked using GARC surveillance tools in 2021



In 2021, more than

62,000 dogs,
8,300 cats and
4,300 livestock vaccinations

were tracked using the GARC surveillance tools.

The vaccinations were undertaken by partners that we support around the world.

Case Studies

Zanzibar:

The Government of Zanzibar, GARC, and other partners have been collaboratively working towards rabies elimination in Zanzibar since 2017. Every year we revise, adapt, and improve our approach as we better understand the situation and develop new tools and resources to help us achieve success.

GARC's support in 2021 focused on helping the vaccinators become more efficient by enabling them to track the location of each vaccinated animal using the Rabies Vaccination Tracker (RVT) tool on the GARC App. By simply empowering the vaccinators to perform to the best of their abilities through more strategic approaches fostered using the RVT tool, more than 6,200 dogs and 750 cats were vaccinated in Zanzibar during the year, resulting in approximately 72% of the island's dog population being protected against rabies. As a result, Zanzibar had two consecutive years where the estimated dog vaccination coverage was more than 65%.

Namibia and Angola:

In 2021, GARC continued to support the governments of Namibian and Angola in their efforts to control and eliminate rabies. To this end, GARC provided another year of technical support that enabled the National Governments to use the GARC Data Logger to collect, collate and analyze their mass dog vaccination data.

Kenya:

Vétérinaires Sans Frontières Germany (VSF-G) collaborates with the Governments, private veterinary service providers and conservationists in rabies control in Kenya. Over 10 years the campaigns have focused on the pastoralist counties of Narok, Kajiado, Machakos, Marsabit and informal settlements of Nairobi City, with high dog population and frequent interactions between dogs and humans. VSF-Germany and their partners undertook a vaccination campaign in Narok County, Kenya to protect communities around wildlife reserves from rabies – with a special focus on protecting the rare and endangered wildlife species that inhabited many of these reserves, such as the African Wild Dog. In little over a month, the team had already vaccinated more than 3 200 animals. We know this as every vaccinated animal was tracked using the GARC app. The real-time updates, maps and graphs helped to identify missed areas and target future vaccination sites.

Tanzania:

A mass rabies vaccination and awareness campaign was undertaken in the Kisarawe district of Tanzania in May 2021. The project formed part of experiential learning for veterinary and human health university students and was implemented in collaboration with African One Health Universities Network (AFROHUN), FAO, WHO, the Tanzanian Ministry of Livestock and Fisheries, the Tanzanian Ministry of Health, the Local Government Authority, Ifakara Health Institute, and GARC. During the five-day campaign, more than 1 500 dogs and cats (more than 50% of the targeted population) were vaccinated against rabies, with the GARC app and GARC Data Loggers being used to track each vaccinated animal and monitor the campaign progress in real time.



TRANSPARENCY

We remain committed to transparency and accountability in our work and maintained our high positive ratings for the various rating organizations, ensuring that we remain a charity that can be trusted.

There was no change to the composition of the GARC board in 2021. The leadership team remains unchanged in 2021, with the exception of Dr Sarah Jayme, our former head of Asia, who has left us to work for a bilateral program coordinated by a prestigious Japanese university. GARC would like to thank Dr Sarah Jayme, for her dedication and commitment over the years to GARC's mission and the organization.

Charity Navigator Score



94/100

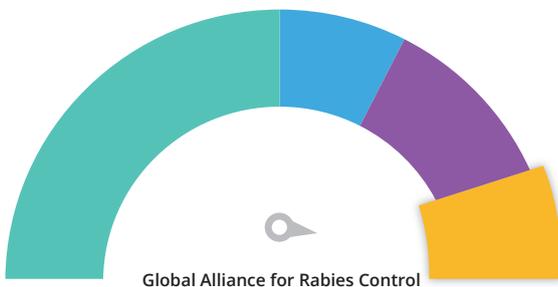
GuideStar



Gold seal of transparency for 2021

Kinder World

GARC remains a role model organization based on its transparency and trustworthiness as a charity on the Kinder platform and is recognized as a top 10% organization in the Animal Welfare category.



- Strive ahead
Below average in this sector
- Well on the way
Above average in this sector
- Rising star
Top 25% in this sector
- Role model
Top 10% in this sector

● Role model

Your Overall Result is in the **top 10%** of organisations active in the **Animal welfare**. The graph you see is dynamic and your position on it depends on your Overall Result as well as the results of other organisations.

OPERATIONAL RESEARCH

Our work is fundamentally science based and we place a premium on peer-reviewed research outputs. This year, GARC added five scientific publications in peer reviewed journals – adding to our tally of over 50 scientific publications to-date. The 5 scientific publications from 2021 focused on providing neuroimmunological information about rabies to African students; understanding the knowledge, attitude, and practices for rabies of people living in Harare, Zimbabwe; a review of the situation in the MERACON network; considering the potential for joint cross-disease programs using snakebite and rabies; and developing diagnostic capacity in resource limited countries, such as Liberia.

5 scientific publications published this year, bringing our total to 60



Knowledge, attitudes and practices towards rabies:
A survey of the general population residing in the Harare Metropolitan Province of Zimbabwe.



Rabies in the Middle East, Eastern Europe, Central Asia, North Africa:
Building evidence and delivering a regional approach to rabies elimination.



Assessing the practicalities of joint snakebite and dog rabies control programs:
Commonalities and potential pitfalls



Lyssaviruses and the Fatal Encephalitic Disease Rabies



Rabies control in Liberia: Joint efforts towards Zero by 30

ACCOUNTS

Income in 2021 was 141,417 USD, representing a decline of approximately 16 % from 2020 income. This was primarily due to the completion of a philanthropic grant. Expenditure also dropped by approximately 8 % to 261,902 USD from 283,983 USD. Staff and travel costs represented the most significant reductions, as GARC did not replace a long-standing staff member and promoted the deployment of online training modules and virtual/hybrid workshops developed during the COVID-19 pandemic to build capacity and expertise in rabies endemic countries. Fundraising costs remain low as there is no dedicated fundraising team but rather it is the responsibility of the entire team to secure funding to allow GARC to deliver its mission. The management costs comprise of financial, legal, office and information technology costs. To be closer to its end beneficiaries and to better manage its cost base, GARC remains predominately a virtual organization with teams working remotely across the global.

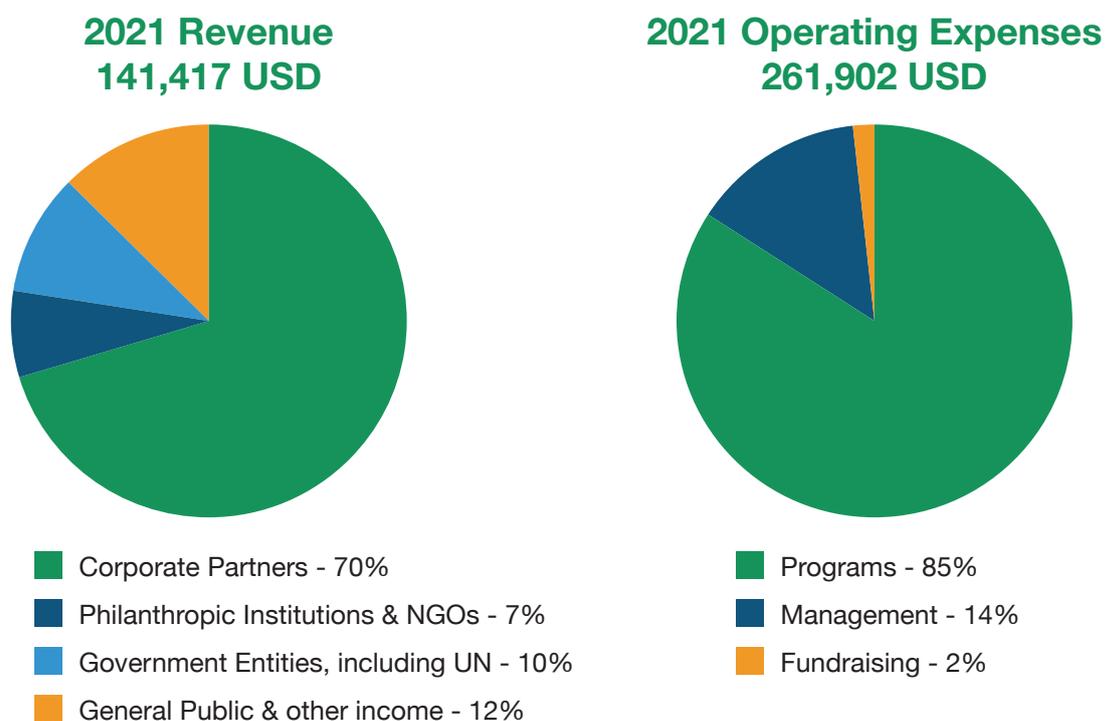
Although forecast, 2021 represented another financially challenging year for GARC. To cover the shortfall, GARC drew on allocated reserves of 120,485 USD. Net assets on 31 December 2021 were 478,333 USD, in line with GARC's 2021 forecasts.

Despite this, its programmatic output has recovered from the negative impact of the COVID-19 pandemic and GARC is proud of its impact and reach despite our limited size.

GARC is incredibly grateful to every donor, whose support allows it to continue to deliver against its mission, alongside the support it receives from the philanthropic community and corporate partners. We would like to especially thank the Partners at Loyens and Loeff Luxembourg office for their charitable donation to help us continue our work.

GARC's sister charitable organization, the Alliance for Rabies Control, registered in Scotland, United Kingdom had an income of 42,342 GBP and expenditure of 34,455 GBP in 2021.

GARC would like to thank all its supporters and donors who make our work possible and share our Zero by 30 goal.





The Global Alliance for Rabies Control is registered in the United States as a 501(c)3, non-profit organization.

It works alongside its sister charity, the Alliance for Rabies Control (No.SC037112), a registered charity in Scotland, United Kingdom.

📍 Alliance for Rabies Control, 168 Bath Street, Glasgow, G2 4TP, United Kingdom

📍 Global Alliance for Rabies Control, Manhattan, KS, 66502, USA

✉ Email: info@rabiesalliance.org

🌐 Website: <https://rabiesalliance.org/>

🌐 End Rabies Now campaign website: www.endrabiesnow.org

📘 FB: www.facebook.com/GlobalAllianceforRabiesControl

📷 Instagram: @RabiesAlliance

🐦 Twitter: @RabiesAlliance

📺 YouTube: www.youtube.com/user/worldrabiesday

🌐 LinkedIn: <https://www.linkedin.com/company/global-alliance-for-rabies-control/>