



# RABID BYTES

The newsletter of The Global Alliance for Rabies Control

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## EDITORIAL

Sometimes it may seem as if we are not making as much progress as we would like regarding rabies prevention activities but this month's Newsletter is full of articles that provide evidence that there are many things ongoing that we have cause to celebrate. There is a new scientific article just published on the rabies prevention program in Bohol Philippines by Dr Lapiz and colleagues in PLoS NTD; a new book on dog zoonoses by Dr François Meslin et al.; a new chapter in the Rabies Blueprint on oral rabies vaccination using fox rabies as an example coordinated by Dr's Mueller and Freuling; and even rabies educational materials developed in the Innu-aimun language. Other news to celebrate is the launch of a canine rabies vaccine bank for Asia facilitated by the OIE, and a big achievement is the recent WHO resolution focused on increasing support for Neglected Tropical Diseases, including rabies. Finally, GARC has recently entered into official relations with the WHO, which allows us the valuable opportunity of a seat at the table if rabies is discussed at the World Health Assembly.

GARC would like to announce that we have officially established an Asian office in the Philippines and have a team in place there to expand our work adapting the Bohol model to new regions. This year, we are very pleased to also announce that Dr Lea Knopf and Dr Charles Rupprecht have joined our team and will head up GARC's policy and research activities respectively. With their expertise, GARC is in a very strong position to take the evidence that rabies control is feasible that we have been gathering, and to move into a new phase of global advocacy and policy change. Dr Knopf and Dr Rupprecht will also be providing more inputs into the Newsletter to help keep you up to date on our ongoing global activities.

Looking back at our collective achievements periodically can provide an opportunity to reflect on what we can do when we work together. Working as a team requires all of us to compromise, listen to new ideas, and sometimes take a step back and look at problems from a different angle. This is not always easy but it is this type of strategy that has enabled rabies experts to be able to change the world for millions of people living at daily risk of rabies infection. Clearly, we still have much to do but I would like to take the opportunity to thank all of you for your continued support and to tell you that we look forward to working with each and every one of you to continue to improve rabies prevention activities throughout the world.

*Deborah Briggs, Executive director of GARC*

## NEWS FROM GARC AND WRD

### CARE Project Ends in El Nido, Philippines

*"This project and all your efforts will carry beyond the province of Palawan. Some of the aspects of the project are already being extended to the entire province but I can assure you that the experience here goes beyond the Philippines. Other countries which suffer from rabies will benefit from your hard work and I thank you for that."* These were the words of GARC Policy Coordinator, Dr. Lea Knopf as she addressed the participants and guests during the CARE (Children Against Rabies) Exit Meeting held on January 17, 2013 in El Nido, Palawan.

The culminating event, which aimed to highlight the accomplishments of the CARE El Nido project as it came to a close, was attended by teachers from the 27 public schools in the municipality, rural health midwives, nurses, doctors, as well as representatives from the Municipal Health Office, Provincial Health Office, GARC, and the Local Government Unit (LGU) of El Nido.



*The GARC team represented by (from left to right) GARC Policy Coordinator, Dr. Lea Knopf; GARC Asia Coordinator, Dr. Mary Elizabeth Miranda, GARC Researcher, Ms. Vanessa Loren Cruz together with the staff of the El Nido Municipal Health Office.*

*Continued on page 2...*

Work of GARC Founder Deborah Briggs recognised with Encore.org Purpose Prize Fellowship

*Manhattan, Kansas, USA:* Deborah Briggs, a founding member of the Global Alliance for Rabies Control (GARC), was today announced as a Purpose Prize Fellow. This year’s Purpose Prize Fellows were selected from over 800 nominees and are finalists for the prestigious Purpose Prize, which awards 5 recipients \$100,000.00 in recognition of their efforts in social entrepreneurship.



Dr Briggs, Executive Director of GARC, was recognised for her continuing work in fighting the scourge of rabies worldwide. Rabies is the most lethal of all infectious diseases and kills one person every ten minutes, yet it is also 100% preventable. Dr Briggs and GARC work around the world to educate local communities, empower them to take responsibility for rabies prevention and bring together experts to share knowledge and advance our understanding of this overlooked and much misunderstood disease.

Dr Briggs is acknowledged as a global expert on rabies, having worked on the disease with both the Centers for Disease Control (CDC) in the USA and the World Health Organization. In response to what she saw as a pressing need for a dramatic change in the approach to rabies education and prevention, in 2006 she left her position at the CDC to establish GARC. “It seemed to me that there were many challenges to be overcome in the fight against rabies and that the best way to overcome these was to use my years of experience to bring people together and work directly with the communities affected,” said Dr Briggs. “The years since have demonstrated the power of this approach, perhaps most effectively in our work on the island of Bohol in the Phillipines. This island of more than a million people used to have a significant rate of rabies deaths, but after just three years of working with the community we have been able to eliminate rabies in the dogs of Bohol, dramatically changing the life chances for the whole population.”

The Purpose Prize was established by Encore.org to raise awareness of the impact of those over 60 who have dedicated the second half of their life to making a positive impact on society. “Purpose Prize fellows are using their passion and experience to help solve some of society’s steepest challenges,” said Marc Freedman, founder and CEO of Encore.org and author of *The Big Shift*. “They represent a growing wave of people in their 60s and beyond who are using their knowhow to change the world, while shifting perceptions of what is possible in this stage of life.”

Dr Briggs spoke of her feelings on becoming a Purpose Prize Fellow, “I am delighted and proud to have received this prestigious accolade, not just personally, but in recognition of the incredibly important work done by everyone involved in GARC. I hope that it will help to raise awareness of the need for this vital work to continue, and hope that it might also inspire other scientists in the second half of their careers to use their years of experience to help change the world for the better in whichever way they can.”

...**CARe Project** continued from page 1.

The program started with the opening remarks of the Municipal Health Officer, Dr. Cesar Rivera, where he emphasized the LGU’s commitment to support the rabies program in El Nido while the Municipal Rabies Coordinator, Ms. Shiela Gripon reported updates on the animal bite cases in the municipality. She noted in her report that the animal bite cases in the municipality have decreased to 234 in 2012 from the 247 cases in 2011. GARC Asia Coordinator, Dr. Mary Elizabeth Miranda also graced the event and discussed updates on the status of the CARe project. Lastly, representing the LGU of El Nido was Mr. Edgardo Sabenacio who spoke in behalf of El Nido Mayor Hon. Edna Gacot-Lim. An open forum for the participants ensued after the presentations.



*The Municipal Rabies Coordinator of El Nido, Ms. Shiela Gripon (left) and the Municipal Health Officer, Dr. Cesar Rivera (right) address the participants and guests during the Exit Meeting.*

The CARe Project, which was implemented from July 2011 to December 2012, is a joint effort of the organization with the municipal government of El Nido, Department of Health (DOH), and Sanofi Pasteur. Through the project, over five thousand school-age children in all 27 public schools in the municipality were given pre-immunization to protect them if they are exposed to rabies.

Following the success of its implementation, particularly the component on the integration of rabies education in the curriculum of elementary schools, the provincial government of Palawan has now commenced with the provincial adoption of the curriculum integration. The final version of the teachers’ manual is expected to be used in all elementary schools in the province by June 2014. As part of the El Nido rabies prevention program curriculum integration, monitoring and evaluation is being conducted until the end of March 2013.

*Contributed by Dane Medina, Communications Officer GARC, based in the Philippines*

## Blueprint for Rabies Prevention and Control Extended to Cover Fox Rabies Control

The Blueprint for Rabies Prevention and Control has been developed to serve as a guide for countries that would like to prevent human rabies by eliminating animal rabies within their borders. It is the result of a collective effort by a large number of rabies experts from ‘Partners for Rabies Prevention’ (PRP), an informal group of stakeholders including, GARC, FAO, OIE, WHO, PAHO, Animal welfare NGOs, Universities, reference laboratories and funders.

Initially, the blueprint focused on the control of rabies in dog populations and was launched in late June 2010 facilitated by the FAO Emergency Centre for Transboundary Animal Diseases (ECTAD), Bamako. Evaluation of its performance indicates that the initiative has had a global impact by providing relevant authorities and personnel in rabies-affected areas with a standard operating procedure (“Blueprint”) to develop their own programs for preventing human rabies through canine rabies elimination (Lembo et al., 2012).

Now a second module ([www.foxrabiesblueprint.org](http://www.foxrabiesblueprint.org)) has been developed and integrated into the website to cover the control of rabies in wildlife populations, specifically in red foxes using oral rabies vaccination (ORV). For decades this methodology has been successfully applied in North America and Western and Central Europe and resulted in virtual elimination of fox mediated rabies.



This Blueprint for Fox Rabies Prevention and Control has been developed by a handful of global rabies experts also from the “Partners for Rabies Prevention”. The initiative coordinated by the Global Alliance for Rabies Control and supported by WHO and OIE aimed at complementing the existing blueprint with a similar guide for controlling or eventually eliminating fox rabies, using the oral rabies vaccination (ORV) strategy. Before being published online the blueprint was critically revised by other rabies experts from North America and Europe including experts involved in fox rabies control projects on the ground. Their effort is greatly acknowledged.

This Blueprint is not meant to replace existing material or national guidelines but rather is meant to serve as an easy to use guide to assist countries in understanding how to prevent and control fox rabies using ORV. It brings together relevant information on rabies prevention from specific international (animal) health organizations, e.g. FAO, OIE, and published data from the field, expert knowledge and includes case reports on effective fox rabies control and elimination. By doing so the blueprint captures state-of-the-art expertise both from both practical and theoretical viewpoints. This is particularly important as with an improved disease status in large parts of Europe and a generation turnover in staff involved in rabies control in Europe there is a risk of expert knowledge being lost.

The fox rabies blueprint is applicable to countries where rabies has been present (endemic) and also for countries where rabies has been re-introduced after a period of absence. The information follows the successful concept of the canine rabies blueprint and is organized in a simple Q&A format and divided into five main sections: (I) Introduction, (II) Roles and Responsibilities, (III) Infrastructure, legislative framework, costs and funding, (IV) Communications plan, (V) Operational activities.

Answers to 154 questions are provided in clear and concise key messages, including links to specific documents and websites for more information if so required, and a section on how to develop a suitable communication strategy for an ORV campaign. The complexity of fox rabies control is illustrated by the fact that 102 questions are related to operational activities. For instance, a large section is devoted to the evaluation of ORV campaigns, including e.g. bait-uptake, seroconversion, herd immunity, surveillance.

The Blueprint is a living document in that it will continue to evolve to include all new or modified recommendations as they become available and is therefore much more flexible than traditional printed guidelines. Users are encouraged to send comments for further enlargement of this information tool, to [info@rabiescontrol.net](mailto:info@rabiescontrol.net).

*This article was contributed by Thomas Müller and Conrad Freuling of the Friedrich-Loeffler-Institute, Germany who lead the development of this resource, on behalf of the PRP group. The blueprint can be accessed through [www.rabiesblueprint.com](http://www.rabiesblueprint.com) and the fox chapter is available at [www.foxrabiesblueprint.org](http://www.foxrabiesblueprint.org). The publication on the canine rabies blueprint by Lembo et al (2012) is available [here](#).*



## Provincial Rabies Education Consultative Workshop Held In Palawan, Philippines

GARC’s goal to empower communities through advocacy and education reached another milestone as we, in partnership with the Palawan Provincial Health Office (PHO), Provincial Department of Education (DepEd) and Provincial Veterinary Office (PVO), conducted a two-day Provincial Rabies Education Consultative Workshop on January 15-16, 2013 in Puerto Princesa City, Palawan, Philippines. The event aimed to provide an overview of the proposed integration of rabies prevention education into the school curriculum as well as to elicit suggestions from the participants on developing a rabies education curriculum and teachers’ manual suitable for the province of Palawan.



*The participants listened intently during the presentations, and contributed to fervent discussion during the workshop proper.*

More than thirty participants including district supervisors, central principals, and master teachers from the various municipalities in the province attended the workshop. Representatives from the Palawan PHO and PVO gave background presentations on rabies and the status of human rabies incidence in the province. GARC Asia Coordinator, Dr. Mary Elizabeth Miranda and GARC Asia Community Education Head, Ms. Elaine Llarena spoke about GARC’s projects and the importance of rabies education in communities, respectively. The five master teachers from El Nido, Palawan, where the curriculum integration of rabies education was first implemented, also shared their experiences in developing the manual and briefly discussed the curriculum of each of the five subjects (Filipino, English, Science, Mathematics, and Makabayan).

A workshop on the development of the Rabies Prevention Program Manual was held on the second day. Attendees were placed in five groups, focusing on each of the subject areas and were tasked to review and comment on the respective sections of the manual used in El Nido. Each group then presented their feedback on how to further improve the manual and actions that could be carried out to ensure the success of the provincial adoption of the curriculum integration.

The participants recognized the importance of their role as educators to be involved in the rabies elimination program and the impact that they have on their students to encourage them to be responsible pet owners and help eliminate rabies in Palawan. Similarly, they also identified that the establishment of linkages and strengthening of cooperation among LGUs, NGOs, and other concerned agencies are critical for the success of the program implementation.



*The Speakers at the Provincial Rabies Consultative Workshop (from left to right): Dr. Louie Ocampo, OIC of the Palawan Provincial Health Office; Dr. Carla Limsan from the Provincial Veterinary Office; Ms. Eileen Macabihag, Provincial Rabies Coordinator; GARC Asia Coordinator, Dr. Mary Elizabeth Miranda; and GARC Asia Community Education Head, Ms. Elaine Llarena.*

Extending the worthwhile CARE (Children Against Rabies) Project in El Nido, GARC believes in the potential of integrating rabies education into the curriculum of elementary schools to uphold a sustainable rabies-free community.

The final version of the teachers’ manual is expected to be used in elementary schools in the province by June 2014.

*Submitted by Dane Medina, Communications Officer for GARC, based in the Philippines office.*

## Bohol Project Paper Published

A new publication on the Bohol Rabies Prevention Project has made information on the design, implementation and analysis of its impact available to all.



The Bohol Rabies Prevention and Elimination Project (BRPEP) was launched in 2007, to set up a sustainable program that would prevent human rabies by eliminating rabies at its source, in dogs, by 2010. In line with the Philippines government's national rabies control plan, the BRPEP is an integrated approach that involved government and other partners from agriculture, public health and safety, education, environment, and legal sectors. The community themselves played a big role in the design and implementation of the programme with their payments of dog registration fees being an integral part of the long term funding strategy. Mass vaccination campaigns in 2007 and 2008 covered 70% of the dog population across the island. Bite treatment centres were increased to better serves the island's 1.13m inhabitants and an innovative education programme integrated into the elementary school curriculum ensured that those most at risk of rabies, the children were taught how to avoid bites and what to do if they do get bitten.

The programme, in 2 years, reduced the burden of human rabies deaths from 10 per year to 0, and this has been sustained. Effective surveillance systems put in place enable rapid responses and mop-up vaccination if suspected dog cases are detected.

Full details are available in the paper, published in the [PLoS Neglected Tropical Diseases journal](#).

## NEWS FROM THE COMMUNITY

### Dogs, Zoonoses and Public Health

A second edition of the book "Dogs, Zoonoses and Public Health", edited by Calum N.L. Macpherson, François-Xavier Meslin and Alexander I. Wandeler will be available in February 2013. It updates and expands the first edition (released in 2000), with 3 additional chapters.

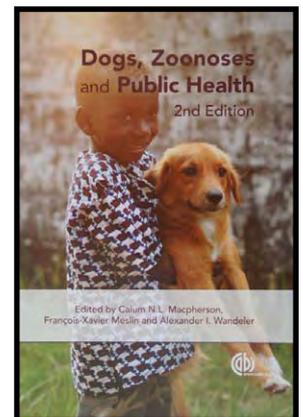
The book focuses on the human – dog relationship, and its impact on human society and health. The number of dogs in the world is unknown, but is positively correlated with human population, and could be as high as one-tenth of the world human populations, with 700 million dogs. Dogs are now an important part of our society in every corner of the world, and cultural attitudes towards dogs differ greatly, according to their many and varied roles.

Dogs serve humans as pets and companions, as eyes and ears for those with disabilities, as herders of sheep and other livestock, as a method of transport across frozen landscapes, as support for hunters, and as law enforcement agents, sniffing out drugs. There is now growing evidence of the value of the human-dog bond in helping people to live healthier, happier lives.

However, dogs are also often seen as a nuisance, fouling public streets and parks, biting and harassing people, pets, livestock and wildlife, barking and scavenging from garbage sites and causing traffic accidents. They can also harbor zoonotic diseases, perhaps most notably rabies, but also other viral, bacterial, protozoan, and helminth pathogens that can infect humans. A majority of the world's dogs, particularly in parts of Africa, Asia, the Middle East and Latin America, are or are regarded as strays, and appropriate solutions to these issues, adhering with international animal welfare principles, need to be found.

The book aims to give a comprehensive account of the complex public health aspects of the relationship between humans and dogs. As well as a chapter focusing on dogs and rabies, chapters on the Dog-human relationship, The Benefits of the Human-Dog Relationship, Dog associated problems, Dog Population Management, Zoonosis Prevention, Control and Elimination in Dogs and Fertility Control in Dogs would all be relevant to those interested in rabies control.

The book is available from [CABI publishers](#) and other online retailers such as [Amazon](#).



## Uapikun shash nishtutamu aueshish-akushunnu

The Province of Newfoundland and Labrador is located on the eastern shores of Canada, ranging in climate from polar tundra in the north to humid continental in the south. The mainland region of Labrador, with a land area of 294,330 km<sup>2</sup> has a human population of 26,728 (Canada Census 2011) giving a population density of less than 0.1 per sq km.

One of cultural groups of Labrador is the First Nations Innu people living primarily in the communities of Sheshatshiu and Natuashish, with a total population of just over 2,000.



As is the case for all people in Labrador, the Innu communities face the cyclic risks of rabies, spread primarily by red foxes (*Vulpes vulpes*) but also by wolves (*Canis lupus*) and arctic foxes (*Vulpes lagopus*). Rabies occurs in sporadic outbreaks amongst the red fox population, most recently in 2005 and 2012, and the occasional infected bat. However, due to the very sparse human population, it is likely that most infected animals are never reported. Though the people of Labrador are aware of rabies, the unpredictability of outbreaks and how extensive they may be, as well as the need



to always educate the new generations, means that public education is necessary on a continual basis, and in particular when outbreaks occur.

To provide public education on the risks associated with rabies, a World Rabies Day event was held in the [Sheshatshiu Innu School on September 28th, 2012](#). The use of the WRD logo translated into the Innu language (Innu-aimun) was prominent in the promotional materials and helped to demonstrate that the children in that community were sharing the same concerns as children around the world. Presentations were given about the facts of rabies to the older students while the younger ones participated by drawing pictures of animals that might get rabies. As might be expected, the drawings of foxes, wolves, and dogs were also supplemented by dinosaurs, sharks and birds of prey.



To create a permanent contribution to rabies education, a children's book is being written for publication in 2013 that will be part of an existing educational series with the young girl Uapikun (flower) as the central character. Its title is "Uapikun shash nishtutamu aueshish-akushunnu" which translates as "Uapikun now understands rabies".

Submitted by Dr. Hugh Whitney Chief Veterinary Officer Government of Newfoundland and Labrador. Information on rabies in Newfoundland and Labrador can be found at [www.nr.gov.nl.ca/rabies](http://www.nr.gov.nl.ca/rabies), and more information about the language spoken by the Innu of Labrador and Quebec can be found at [www.innu-aimun.ca](http://www.innu-aimun.ca).

## OIE support to rabies endemic countries: a vaccine bank in Asia



Picture from OIE Photo Gallery

Dogs are the main transmitters of rabies in endemic countries in Africa and Asia, where the majority of the 70,000 estimated human deaths due to rabies occur. Dog vaccination is therefore the preferred method of control, preventing more than 95% of human cases at only approximately 10% of the costs needed for post-bite treatment in people.

The OIE, with the support of its subregional representation in Bangkok (Thailand), is currently managing a rabies vaccine bank in Asia with the financial support of the European Union, under the framework of the regional cooperation programme on Highly Pathogenic and Emerging and Re-emerging Diseases in Asia (HPED). This first regional rabies vaccine bank was launched in early 2012 and could serve as a model for developing other rabies vaccine banks in other regions of the world.

Continued on page 7...

... **OIE** continued from page 6.

The rabies vaccine bank delivers vaccines to eligible countries (according to donor requirements) at the request of Delegates to the OIE (official country representatives of national Veterinary Services), allowing effective public/private partnerships between international organisations, national authorities, local authorities, NGOs and private companies to be established.

The guidelines for the use of the vaccine bank approved by the eligible countries specify that the applicant country must, in particular:

- prove that there is an increase in bite rates and human mortality; that the location of the outbreak(s) increases the risk of rabies spreading to people and/or animals; and that further spread of the disease may occur;
- provide a statement explaining that the national Veterinary Services are engaged and will have the authority to implement or supervise the vaccination of dogs;
- submit a specific vaccination control strategy;
- specify the nature and quantities of vaccines required;
- agree to international transportation conditions.

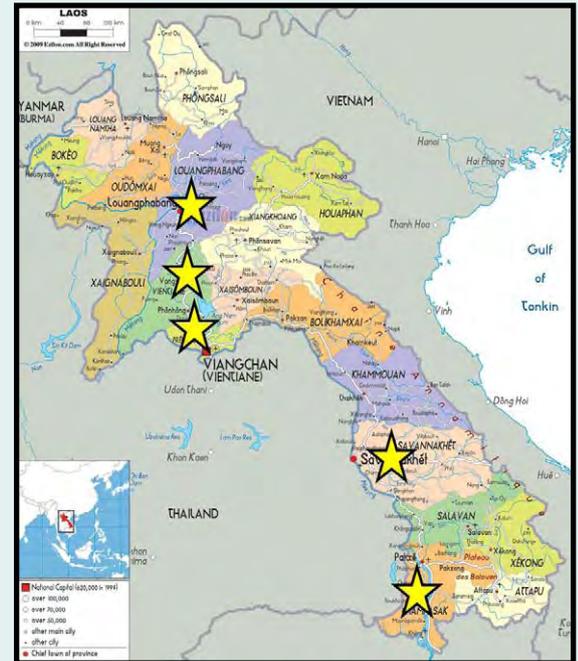
Coinciding with World Rabies Day in 2012, the OIE donated 50,000 injectable rabies vaccines to Lao PDR through the regional rabies vaccine bank (see map).

Following this first donation, other countries have requested the OIE for vaccine deliveries. Among them are countries in which GARC has projects, like the Philippines. Other deliveries are under preparation in other South-East Asian countries.

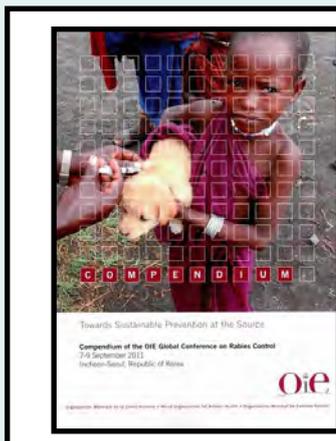
Ideally, a vaccination campaign should cover approximately 70% of the existing dog population, and canine vaccination should be sustained over time until sufficient immunity is achieved among the dog population. Understanding the ecological parameters of the dog population and adapting the control strategies to the epidemiological situation, and the resources available are key to the success of a dog vaccination campaign. The vast majority of dogs can be provided with parenteral vaccination in the field, and vaccination campaigns should be conducted annually (with vaccines that allow a 3 year duration of immunity) to avoid a drop below the canine immunity threshold due to a rapid population turnover.

A regional vaccine bank can help alleviate some of the costs that developing countries are faced with to control rabies. However, a good vaccination programme should also consider the additional expenses involved, such as the costs of planning the programme, coordinating regional programmes or administering vaccine to every possible dog in the villages, as well as dog population control when necessary. In this sense, the communication and participation of the community play a very important role. GARC is offering, in association with the OIE, support to countries that seek it, starting with the Philippines, in order to achieve, in the best possible way, a successful and sustainable dog vaccination campaign that will progressively eliminate rabies from the dog reservoir, and therefore, prevent avoidable human deaths.

Submitted by Dr Marta Martínez Avilés, a veterinary epidemiologist in the Scientific and Technical Department of OIE.



Map of Lao PDR indicating the five high-risk provinces where dog rabies vaccines were distributed



The **Compendium** of manuscripts, prepared by speakers of the of the OIE Global Conference on Rabies Control “Towards Sustainable Prevention at the Source” (7-9 September 2011, Incheon-Seoul, Republic of Korea), is now available for purchase at the [OIE online bookshop](#).

This *Compendium* provides an overview of the current rabies situation worldwide and highlights the importance of rabies control at the animal source in achieving worldwide elimination of rabies in humans. The recommendations adopted at the end of the conference are also included (also available on the [OIE website](#))

## New WHO report and resolution on Neglected Tropical Diseases

On 28th January 2013, the 132nd Executive Board of the World Health Organization (WHO) recommended a resolution on all 17 neglected tropical diseases (NTDs), including rabies, to the 66th World Health Assembly. This resolution will be put before the World Health Assembly in May 2013, with the hope that it will be adopted.

The resolution builds on the growing momentum in NTD control, following a dramatic shift in the strategy to control them. In 2005, a WHO strategic and technical meeting in Berlin recommended an integrated approach to the control of diseases of poverty, and a move away from looking at individual diseases in isolation. Since this date, increased engagement and commitment from member states and public-private partnerships with investment from pharmaceutical companies has unlocked resources for, and much progress in the fight against NTDs. The first WHO Report on NTDs, published in October 2010, highlighted the huge burden that these diseases exert on developing countries and the successes that partnerships had demonstrated in their control.

Inspired by a WHO roadmap laying out the vision for the prevention, control, elimination and eradication of NTDs in 2012, a diverse group of public and private partners came together and endorsed the London Declaration. This commits the partners to sustaining and expanding the progress made so far, with substantial further donations of funds and pharmaceuticals promised.

Last month, a [2nd report on NTDs](#) from the WHO, entitled *Sustaining the drive to overcome the global impact of neglected tropical diseases*, brings publicity to the recent unprecedented impacts on NTDs worldwide, enabled by a regular supply of quality-assured, cost-effective medicines and support from global partners.

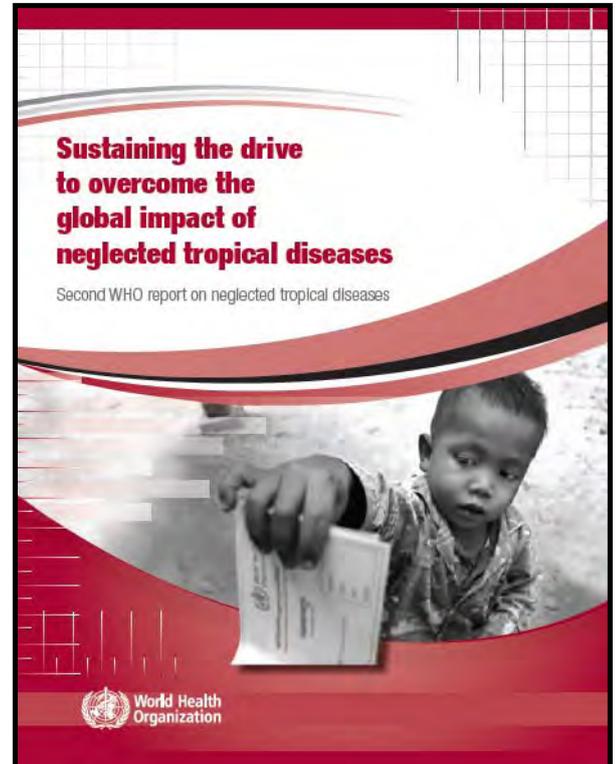
“With this new phase in the control of these diseases, we are moving ahead towards achieving universal health coverage with essential interventions,” says Dr Margaret Chan, Director-General of WHO. “The challenge now is to strengthen capacity of national disease programmes in endemic countries and streamline supply chains to get the drugs to the people who need them, when they need them.” The report also highlights an urgent need to strengthen human resources and to integrate education, agriculture and veterinary public health into disease control programmes that have previously concentrated only on human health.

The resolution proposed to the WHA for consideration in May, sets targets for eradication of two diseases (guinea-worm disease and yaws) and 16 targets for global or regional elimination of a further 9 diseases, all by 2020. On the subject of rabies, the report notes that it has been eliminated or severely reduced in several countries, due to mass vaccination. The roadmap will establish a global control strategy for rabies in humans and dogs and has set targets for regional elimination in Latin America by 2015 and in SEAsia and the Western Pacific by 2020. The first part of the elimination plan for SEAsia is to reduce by half the estimated human deaths caused by rabies by 2016. Elimination (by 2020) will then be followed by certification as rabies-free and efforts to maintain this status will begin.

Several of the diseases (including dengue and rabies) have the potential for epidemic spread, and the report notes that the world needs to change its reactive approach and implement sustainable preventive measures. It urges member states to ensure country ownership of prevention, control, elimination and eradication programmes; expansion and implementation of interventions and advocate for predictable, long-term international financing to finance activities related to control, capacity strengthening and achieve the roadmap targets.

“*[The resolution] stands as evidence to the growing commitment of Member States and public and private partners in reaching targets outlined in the 2012 WHO roadmap and further elaborated in the recently launched 2nd WHO report on neglected tropical diseases.*” said Dr Lorenzo Savioli, Director of the Department of Control of Neglected Tropical Diseases.

Summarized by Louise Taylor from WHO news articles on [the resolution](#) and [the second report on NTDs](#) (from where you can download the full report).



## Images of World Rabies Day

After another successful World Rabies Day in 2012, GARC once again received hundreds of photos of events held around the world. All these photos were entered into a competition, and difficult as it was to choose, a winner and runner-up finally emerged.

The winning photos were two from a selection sent in by Dr. Omesh Kumar Bharti, a government doctor who has established a low cost anti-rabies clinic in a district hospital in Shimla, India. For World Rabies Day, he administered pre exposure rabies vaccination to 57 rag pickers at a waste disposal site, including women and children at daily risk of exposure to rabies. Dr. Bharti noted that many of them had been bitten by dogs before, but could not afford to be vaccinated.

The first photograph illustrates the rag pickers at the waste disposal site and the second shows two women receiving vaccinations. Dr. Bharti said he would like the photos to draw attention to the need to offer free pre-exposure vaccination to disadvantaged populations living with the daily risk of rabies all over the world.



action. Professor Darem Tabbaa, Director of Spana/Syria, said that the information they distributed helped health care personnel, policy makers, scientists, school teachers and students, small children and villagers to be more aware of the risk of dog bites and the dangers of rabies.

GARC would like to thank everyone who sent in photographs. All of them are a valuable record of the extraordinary commitment to preventing rabies all over the world, and the full range of photos can be seen on our website at [http://www.worldrabiesday.org/EN/media\\_center/wrd-2012-photos.html](http://www.worldrabiesday.org/EN/media_center/wrd-2012-photos.html).

*Contributed by Jane Coutts of the World Rabies Day team and African outreach coordinator. You can contact her at [Jane.Coutts@worldrabiesday.org](mailto:Jane.Coutts@worldrabiesday.org).*

The runner up was Spana/Syria Animal Protection Project. In some provinces in Syria, rabies is an increasing concern in a deteriorating political climate. This year, Spana/Syria conducted a campaign of free dog vaccination at its premises in the Faculty of Veterinary Medicine, Al Baath University, Hama, vaccinating strays and well as owned dogs. Over 1,000 animals were vaccinated. The group also raised awareness about the dangers of rabies by distributing posters and leaflets, and an illustrated story for children.

Their photograph shows a stand with vets, dogs and children: one health awareness in



## Rabies advice for travellers from Australia

Caroline Nash and Lisa Wisely are Registered Nurses who work at Ballarat Medical Centre a busy medical practice in Ballarat, Victoria, Australia. With 8 General Practitioners (GPs), the practice along with others, serves a community of 95,000 people. It is the only practice in the area that specialises in travel medicine and is a member of the Travel Clinics Australia (TCA) group. Travellers that attend the clinic are offered comprehensive pre- travel consultations. Of all travellers that attend the clinic, 66% travel to rabies endemic regions such as South East Asia. Staff at the clinic therefore ensure that the traveller is well informed about the rabies virus, prevention strategies, pre-exposure vaccination and post-exposure treatment and provide resources.

The cost of intramuscular rabies vaccine is commonly an issue, so the practice offers intradermal vaccination as a cheaper option. In Australia intradermal administration of rabies vaccine is approved by the National Health & Medical Research Council (NHMRC). It can only be given intradermally at licensed travel clinics by specially trained

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staff that have expertise and regularly use this technique.

In 2011, due to their keen interest in travel medicine, the nurses commenced post-graduate studies at James Cook University (JCU), in Queensland, Australia. They first enrolled in a Graduate Certificate of Travel Medicine and in 2012 received individual \$30,000 scholarships from the Australian Government to upgrade to a Masters of Public Health. Next month they will travel to Bangkok to attend Mahidol University to undertake an elective in tropical medicine.

In recent years Caroline and Lisa have noted an increase in the number of travellers returning from high-risk areas that have required rabies post-exposure prophylaxis following an animal bite. Most of these travellers had not sought specialised pre-travel advice. Many were unaware of the risks associated with rabies or that it was endemic in areas such as Bali that have previously been rabies free.

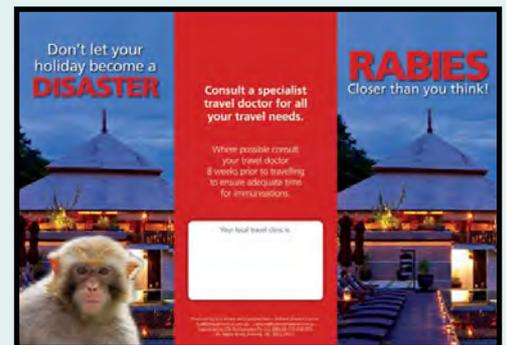
The increasing number of returning travellers requiring rabies post-exposure prophylaxis is also reflected in Victorian Department of Health statistics (227 in 2011 and 206 to the end of August 2012). Countries where travellers had most commonly returned from were Bali and Thailand and the most common animals responsible were monkeys and dogs. Each rabies post-exposure prophylaxis series (4 rabies vaccines & RIG) costs the Australian government approximately AUD 1100 (\$US 1140).

In response to these statistics, the nurses have produced a rabies brochure, designed to educate travellers (pictured). The brochure outlines facts about the disease, who is at risk and the countries where rabies is present. Intramuscular and intradermal pre-exposure vaccination options are also discussed. Most importantly, the action to take in the event of a potential rabies exposure is outlined for both the vaccinated and unvaccinated traveller.

Caroline and Lisa have since embarked on a campaign to increase awareness of the risks of rabies while travelling. They have presented to GPs, nurses and other allied health professionals, local community groups, travel agents and the Department of Health in the state of Victoria. Their brochure has been promoted in [an article](#) in the Department of Health Victoria newsletter.

To date Caroline and Lisa have been very successful in increasing awareness of rabies and have seen an increase in the uptake of vaccination in their clinic.

Contributed by Caroline Nash and Lisa Wisely of Ballarat Medical Centre, Victoria, Australia. Their brochure is also available on the GARC website, [here](#)



## Upcoming conferences

The 23rd European Congress of Clinical Microbiology and Infectious Diseases, which will be held in Berlin from 27 to 30 April 2013. See [www.congex.ch/eccmid2013/](http://www.congex.ch/eccmid2013/)

5th International Symposium on Non-Surgical Contraceptive Methods of Pet Population Control will be held June 20-22, 2013 in Portland, Oregon, U.S. See [www.acc-d.org/5thSymposium](http://www.acc-d.org/5thSymposium)

“Science in the Service of Animal Welfare: Priorities around the world”. This is a symposium of the UFAW International Animal Welfare Science Society and will be held at the Universitat Autònoma de Barcelona, Barcelona, Spain 4-5th July 2013. See [www.ufaw.org.uk/conf.html](http://www.ufaw.org.uk/conf.html)

The 24th Rabies in the Americas (RITA) meeting will be held in October 2013 in Canada. Further details will be posted when available.

2nd GRF One Health Summit 2013, entitled “One Health - One Planet - One Future: Risks and Opportunities” will be held 17 - 20 November 2013 in Davos, Switzerland. See [onehealth.grforum.org/](http://onehealth.grforum.org/)

The International Society for Infectious Diseases has announced that the next International Congress on Infectious Diseases will be held in Cape Town, South Africa from the 2nd to the 5th of April 2014. Sign up for the 16th ICID mailing list at [www.isid.org/icid/](http://www.isid.org/icid/)

The editor of the Alliance newsletter is Louise Taylor and the layout and typesetting is by Pete Else. If you have news items about rabies, please contact Louise at [louise.taylor@rabiescontrol.net](mailto:louise.taylor@rabiescontrol.net). For further information on the Alliance's work see [www.rabiescontrol.net](http://www.rabiescontrol.net).