

# Rabies In Ethiopia & The Way Forward Stakeholders Workshop

July 18 - 19, 2013  
Akaki Beseka, Ethiopia



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# EXECUTIVE SUMMARY

The Ethiopian Health and Nutrition Research Institute (EHNRI), University of Gondar, The Ohio State University, U.S. Centers for Disease Control and Prevention (CDC) Addis Ababa University (AAU), and other national, regional, and international partners convened a two-day stakeholders Focus Forward workshop in Akaki-Beseka, Ethiopia, in July 2013. The objectives included:

- 1) Compile experiences on the past and current epidemiology, rabies control and prevention efforts, and findings from needs assessment and baseline data at the national, regional, and international levels;
- 2) Discuss findings from needs assessment and baseline data and all other practically relevant stakeholder inputs; and
- 3) Develop key priority rankings necessary for project implementation and
- 4) Design action plan for establishment of a comprehensive road map for elimination of rabies from a defined region (Gondar) in a short term (5-10 years) and scaling up to other regions based on lessons learned.

A total of 75 participants from various stakeholders took part in this workshop including professionals working at various relevant Ethiopian government institutes (43.2%); academic faculty from University of Gondar and Addis Ababa University (29.6%); faculty from Ohio State (6.8%); students from Ohio State (6.8%); students from Ethiopian universities (2.3%); pharmaceutical industry (2.3%); and others including nonprofit organizations (9%). Lead partners presented important background information on rabies in Ethiopia including current status of rabies, surveillance, and prevention approaches.

In addition, a proposed framework for the elimination of rabies from a defined region in Ethiopia was presented. Global approaches for rabies prevention and control in humans and also in animals including current scientific developments on vaccine development were presented. The Ohio State and University of Gondar team also presented the expert model and gaps identified based on preliminary pilot activity that was conducted in the past few months in Gondar. Eastern African regional efforts using the One Health model were also discussed. A lead investigator of the project from the Sokoine University of Agriculture presented a WHO project in Tanzania.

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## Using a Focus Forward format, the workshop participants tackled four major aspects:

- 1) Surveillance and monitoring;
- 2) Human rabies prevention and control;
- 3) Animal rabies prevention and control; and
- 4) Education and advocacy.

**Key approaches relevant to Ethiopia were prioritized for each of the four areas. In summary, the key priorities identified by the participants included:**

- Engage policymakers (Ministries of Agriculture and Health) to support legislation in the realm of dog ownership/control laws (registering dogs);
- Create guidelines for cooperation;
- Government backing of rabies diagnostic facilities such as National Animal Health Diagnostic Center (NAHDC);
- Access to PEP/Vaccines and rapid diagnostics at local and regional levels;

- Increased quality, accessibility, and affordability of PEP at health centers;
- Establish legal framework for dog ownership and animal control;
- Government mandated vaccination of dogs and registration;
- Legislation to restrict inhumane population control for dogs and implement humane methods of population control;
- A clear policy to appropriately define dog ownership (e.g. community dogs);
- Create joint training and education on One Health/Rabies to human and animal health professionals, taking advantage of professional associations to reach the majority;
- Create a detailed MOU for inter-collaborative communications that includes timing what/when communication should occur emphasizing local communications.

**Detailed priority areas for each of the topic areas are as shown in the sections that follow. The Rabies and Infections of Global Health in the Tropics (RIGHT) team looks forward to developing a strong roadmap plan and to beginning implementation in the near future.**

# FOCUS FORWARD WORKSHOP AGENDA

**THURSDAY, JULY 18, 2013**

**Welcome and Opening Comments**

Opening Remarks – *Amha Kebede (Director General, Ethiopian Health and Nutrition Research Institute/ EHNRI)*

Dog Rabies: Dynamics of Virus Transmission and Exposure – *Ermias Belay (Associate Director/ Division of High Consequence Pathogens, U.S. Centers for Disease Control and Prevention/ CDC)*

**Overview Sessions:**

Current Status of Rabies in Ethiopia – *Hailu Mamo (Director, Division of Zoonotic Diseases/ EHNRI)*

The RIGHT+ Project: Proposed Framework of Rabies Elimination in a Defined Region of Ethiopia – *Wondwossen Gebreyes (Director of Global Health Program, College of Veterinary Medicine, The Ohio State University)*

**Focus Forward Breakout Sessions**

Session #1: Surveillance and Monitoring; Importance of and Guidance from Canine Rabies Blueprint – *Jeanette O'Quin (Ohio State) and Asefa Deressa (EHNRI)*

Session #2: Global Human Rabies Prevention and Control – *Abraham Ali (EHNRI) and Jesse Blanton (U.S.-CDC)*

Session #3: Animal Rabies Prevention and Control- *Teshome Mebatsion (Merial) and Kelbessa Urga (EHNRI)*

Rabies Expert Model pilot study: Gaps Identified from Focus Group – *Jeanette O'Quin (Ohio State, College of Veterinary Medicine), Kristine Slagle (Ohio State, School of Environment and Natural Resources), and Wassie Molla (University of Gondar)*

**FRIDAY, JULY 19, 2013**

WHO Regional Efforts – Human Rabies Prevention Through Dog Rabies Control and Eventual Elimination: Tanzania model – *Rudovick Kazwala (Professor, Sokoine University of Tanzania)*

Breakout Session #4: Education and Advocacy – *Wassie Molla (University of Gondar) and Jeanette O'Quin (Ohio State)*

**PRIORITIZATION OF RECOMMENDATIONS**

Moderator – *Mary Jo Burkhard (Ohio State)*

**Closing Session**

Next Steps – *Wondwossen A. Gebreyes (Ohio State)*

Closing remarks – *Hon. Yoseph Abebe (FDRE, House of Representatives)*



# SUMMARY: BREAKOUT SESSION THEMES, PRIORITY RANKINGS

## Session 1: Surveillance and Monitoring

Recommendations for developing, implementing, and sustaining a system for surveillance and monitoring of human cases of rabies and rabies cases in animals.

RANK	%	THEME
1	28.0%	Engage policymakers (Ministries of Ag. and Health) to support legislation in the realm of dog ownership/control laws (registering dogs). Create guidelines for cooperation. Government backing of rabies facilities like NAHDIC.
2	21.2%	Create a better working relationship between animal and human health care workers and related disciplines and also focus on traditional healers.
3	16.7%	Create a better working relationship between animal and human health care workers and related disciplines and also focus on traditional healers.
4	13.6%	Define rabies using a specific case definition, diagnostic approaches, and surveillance system as the baseline for a formal digital reporting system.
5	12.9%	Create a successful connection between local and regional reporting agencies including educational material.
6	5.3%	Increase education and training of HCPs including number of MPH VPH, as well as the public.
7	2.3%	Establish dedicated quarantine facilities.



## Session 2: Human Rabies Prevention

2a. Recommendations for identifying cases of human exposure to rabies and ensuring that exposed humans are connected to appropriate care.

RANK	%	THEME
1	31.2%	Access to PEP/vaccines and rapid diagnostics at local and regional levels.
2	22.7%	Increase rabies education specifically through mass media to the communities, religious leaders, and traditional healers emphasizing modern medicine treatments (use everyday people in campaigns).
3	17.2%	Decentralize health care work force into rural communities that primarily practice traditional medicine to encourage modern practice.
4	11.7%	Identify individuals through the Ministry of Health (e.g. health extension workers) to work with systematic risk assessment of potential rabies exposure.
5	9.4%	Increase education on when it is necessary to seek PEP (clinical signs of rabies in animals) and wound care (use of soap and water).
6	7.8%	Education for diagnostics and skills for PEP treatment.

2b. Recommendations for implementing timely and effective point-of-care treatment for potentially exposed people.

RANK	%	THEME
1	32.0%	Increase quality, accessibility, and affordability of PEP at health centers.
2	22.4%	Increase education and training for HCPs on rabies risk factors, prevention, and PEP, especially in rural communities (can offer training incentives).
3	13.6%	Shift rabies focus from human treatment to human and animal preventive medicine.
4	13.6%	Create a rabies network to share PEP medications both within a country and through neighboring countries.
5	10.4%	Develop new rabies PEP combining modern and traditional medicine (culturally accepted).
6	8.0%	Develop PEP algorithm in a local context.

### Session 3: Animal Rabies Prevention and Control

#### 3a. Recommendations for implementing large-scale vaccination of animals.

RANK	%	THEME
1	33.6%	Establish a legal framework for dog ownership and animal control. Government mandated vaccination of dogs and registration.
2	27.5%	Affordability, accessibility, and quality vaccines available throughout the country.
3	13.7%	Tailored vaccination programs for specific target groups (e.g. injectable for owned animals and oral vaccines for stray) and areas (high-risk rural communities).
4	11.5%	Develop a specialized group to create sustainable vaccination campaigns drawing from numerous areas of expertise. Identify sources of funding.
5	7.6%	Periodic vaccination campaigns utilizing different stakeholders (e.g. world rabies day).
6	6.1%	Separation of wild and domestic rabies control programs utilizing various trained professional in those respective fields.

#### 3b. Recommendations for humane dog, food animal, and wildlife population control.

RANK	%	THEME
1	31.1%	Legislation to restrict inhumane population control for dogs and implement humane methods of population control. A clear policy to appropriately define dog ownership (e.g. community dogs).
2	28.8%	Develop ABC programs that include a variety of options for both owners and communities including non-permanent contraceptives, surgical/chemical sterilization (permanent), and euthanasia (stray dogs)..
3	24.2%	Increase education in vet programs focusing on high-volume medical and surgical sterilization and decreasing surgery time.
4	15.9%	Create and train animal control officers to assist with stray dogs and enforce pet ownership legislation.





Dr. Tamiru of UOG with Ohio State Students Korbin (Health Sciences) and Karissa (CVM).

## IN ADDITION...

In an attempt to better understand local knowledge, attitudes, and practices related to rabies, The Ohio State University (OSU) and the University of Gondar (UOG) came together to develop and implement a survey. Over a three-week period prior to the Rabies in Ethiopia Workshop the survey was administered to five subject groups comprised of community leaders, policy makers, health care workers (human and animal), rural adults and children, and urban adults and children. Surveys were conducted by interdisciplinary teams consisting of one OSU graduate or professional student, one UOG veterinary medicine faculty member, and one UOG College of Health Sciences representative. Interview teams traveled to four urban areas: Gondar, Werota, Debank, and Debre Tabor, and rural communities. Areas were selected as representative of highland, mid highland, and lowland areas.

Data from the 293 interviews were entered into a database using a mobile data capture system (MAGPI), a survey tool developed for use on iPads and other mobile devices. Preliminary review of interviews with rural and urban adults showed that the majority are aware that dog bites are the main transmission pathway for rabies in Ethiopia. However, only 30% of the interviewees believed that immediate care of bites was important in preventing rabies and 30% believed that treatment was effective after signs of rabies developed. Findings such as these will allow us to identify areas that need to be addressed which will further aid in the development of educational interventions for vulnerable communities.



## Session 4 Education and Advocacy

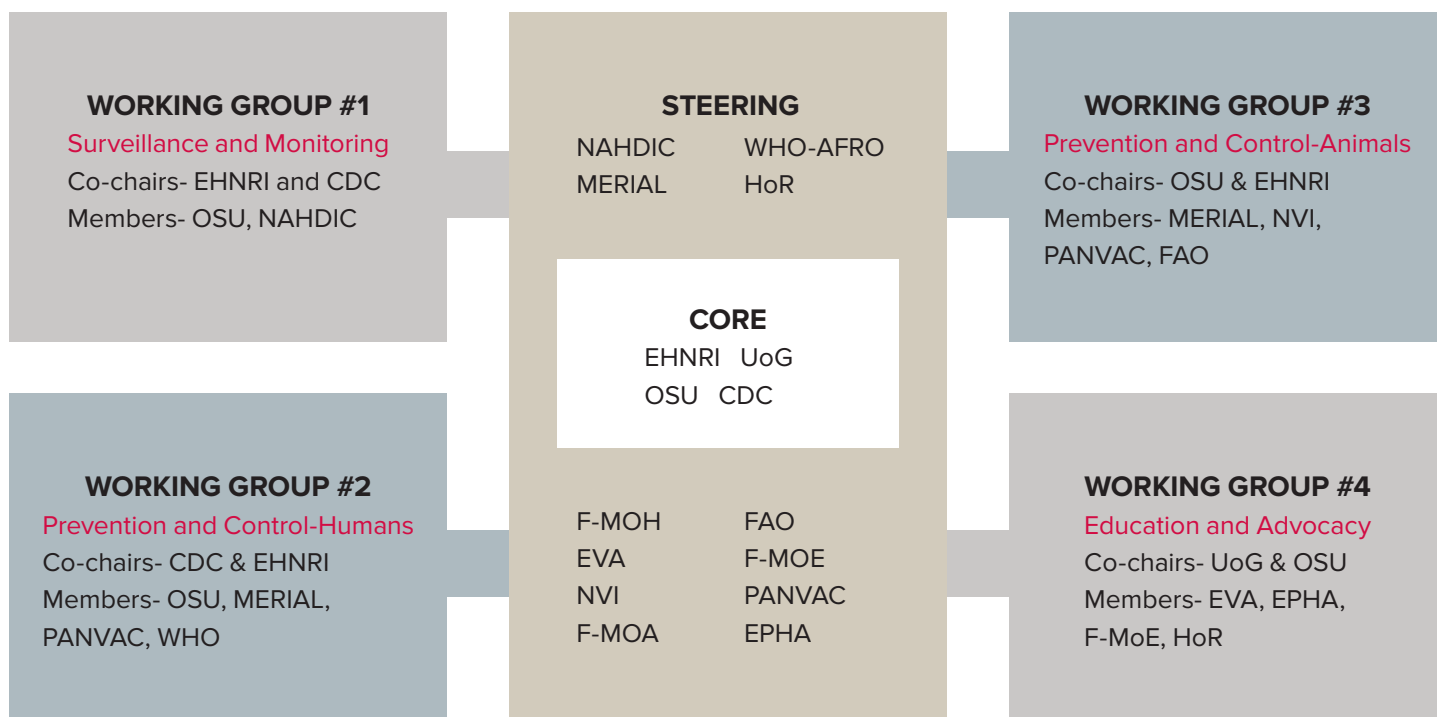
4a. Recommendations to best reach and effectively communicate (urban and rural) to internal networks (professionals and general public).

RANK	%	THEME
1	28.7%	Create joint training and education on One Health/Rabies to human and animal health professionals, taking advantage of professional associations to reach the majority.
2	27.9%	Utilize radio, television, and video as well as print to reach both rural and urban communities (radio especially for rural communities).
3	27.9%	Use community gatherings (e.g. community meetings, religious centers, and schools) to distribute information.
4	15.5%	Design an education program to be distributed through health extension workers, the Dept. of Ag (development agents).

4b. Recommendations to best reach and effectively communicate messages to external networks (intersectoral/collaborators etc.).

RANK	%	THEME
1	25.2	Create a detailed MOU for inter-collaborative communications that includes timing what/when communication should occur, emphasizing local communications.
2	24.4%	Organize regular meetings, including national, local, and international partnerships, to discuss management and other rabies related issues..
3	13.7%	Tailored vaccination programs for specific target groups (e.g. injectable for owned animals and oral vaccines for stray) and areas (high-risk rural communities).
4	17.6%	Evidence based advocacy to policymakers to assist with buy-in of rabies based projects.
5	8.4%	Take advantage of current organizations (e.g. World Rabies Day) as a means of massive education campaign and finding additional partners in country projects.

**FIGURE-** Partners and working groups for elimination of rabies in Gondar, Ethiopia project



**TASKS**

- Each working group will identify specific tasks and timelines based on outputs from the Focus-Forward.
- Each working group will develop a roadmap component including defined activities, timelines and financial resource needs including plan for sustainability.
- Members of the core will play a lead role in defining tasks, coordinating activities, compiling roadmap document and communication aspects

**WORKSHOP EVALUATION**

Question	SA	Agree	Neutral	Disagree	SD
I am satisfied with the conference outcomes.	50%	48%	2%	0%	0%
The design and facilitation of the conference enabled us to be productive.	48%	48%	4%	0%	0%
I am confident that this conference will have a positive impact for rabies control and eradication in Ethiopia.	52%	39%	9%	0%	0%
I enjoyed the participatory design of this conference.	74%	24%	2%	0%	0%
I created new contacts for potential networking and collaboration.	30%	41%	24%	4%	0%

SA= Strongly Agree  
SD= Strongly Disagree

Thank you for participating at the  
Rabies in Ethiopia & The Way Forward Workshop.

## LIST OF PARTICIPATING INSTITUTES

Addis Ababa University (AAU)  
African Union, Pan-African Vaccine Center (PANVAC)  
Amhara Region Livestock Agency  
Ethiopian Health and Nutrition Research Institute (EHNRI)  
Ethiopian House of Representatives  
Ethiopian Public Health Association (EPHA)  
Ethiopian Radio and Television Authority (ERTA)  
Ethiopian Veterinary Association (EVA)  
Ethiopian Wildlife Conservation Authority (EWCA)  
Federal Ministry of Health (F-MOH)  
Federal Ministry of Agriculture (F-MOA)  
Federal Ministry of Education (F-MOE)  
Meril Sanofi Inc.  
National Animal Health Diagnostic Center (NAHDC)  
Ohio State University (OSU)  
Sokoine University of Agriculture (SUA), Tanzania  
University of Gondar (UoG)  
U.S. Centers for Disease Control and Prevention (CDC)  
World Health Organization, Regional Office for Africa (WHO-AFRO)

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