The objectives of the meeting were:

- To assemble forecasts of human and dog rabies vaccines and rabies immunoglobulins (RIGs) from specific countries.
- To review the manufacturing capacity for rabies vaccines and RIGs, shortfalls and logistical needs.
- To obtain a shared understanding of the global supply of vaccines as well as RIGs needs and forecasts.
- To explore bulk purchasing options for countries through WHO/UNICEF (human vaccine and RIGs) and OIE/WHO (animal vaccine) mechanisms.

**DEATHS**

**WHAT IS RABIES?**

- Rabies is a disease caused by a virus that affects the central nervous system of mammals.
- It is highly contagious and is 100% fatal in untreated cases.
- Rabies is transmitted to humans and animals through saliva from an infected animal’s bite.
- It is preventable through vaccination.

**WHAT IS DOG-TRANSMITTED RABIES?**

- Rabies is the cause of 55,000 human deaths every year, with 99% occurring in low-income countries.
- Rabies is transmitted to humans and animals through saliva from an infected animal’s bite.
- It is preventable through vaccination.

**WHAT IS RIGS?**

- Rabies immunoglobulins (RIGs) are manufactured from healthy horses and are used to neutralize the rabies virus in humans and animals who have been exposed to the virus through a bite from an infected animal.
- They contain high levels of neutralizing antibodies that can help prevent the virus from spreading in the body.
- The effectiveness of RIGs is gauged by the neutralizing index (NI).

**WHAT ARE THE KEY MESSAGES FROM THE WHO/OIE CONSULTATION HELD IN GENEVA, SWITZERLAND – 12-13 OCTOBER 2015?**

- Forecasting: Accurately predicting vaccine and RIGs needs
  - Improved data collection will lead to more accurate, reliable forecasting and eventually to more stable, timely, and consistent product availability.
  - Identifying dog vaccine requirements is fundamentally linked to country-level plans.
  - Manufacturing capacity is driven by demand. Improved confidence of stable and predictable requirements would allow manufacturers to plan appropriately.
  - Consolidation of estimates at the regional level would improve timing of requirements, including seasonal campaigns, leading to assured production and sales.

- Procurement: Any procurement system must work well for both manufacturers and recipients, with quantities and timing based on reliable and accurate forecasting data.
  - Create a stockpile of RIGs
  - Start with countries that have rabies control programs/strategies such that they can participate in a joint procurement system.
  - The current procurement mechanism being used by OIE and WHO through the OIE vaccine banks for dog vaccines is working well to expand to a sustainable, long-term program.

- Funding: Accurately predicting vaccine and RIGs needs
  - Funding for vaccines and beyond: capacity building, delivery, training, logistics, equipment
  - No one-size-fits-all solution – a variety of strategies needed (national/regional/local)
  - Pooled funding and transparent tendering processes improve efficiency
  - Consider use of an interagency coordinating group funding mechanism

- Quality: International quality standards for RIGs should be established
  - Post-delivery tracking and control – poor delivery systems can impact a vaccine’s quality
  - Next generation vaccines (single dose and thermostable) will be “game changers”
  - Better and purer antigens will improve safety and efficacy and lead to greater quality overall

**KEY FINDINGS**

- A procurement mechanism and coordination for dog and human vaccines and RIGs, with joint leadership from WHO and OIE, is needed.
- Political will is needed to raise awareness of rabies as a public health priority.

**BUILD ON WHAT’S WORKING**

- Learn from the best practices and success stories of others – PAHO procurement system, Uruguay dog licensing for funding, vaccine bank, mass dog vaccination program in the Philippines, in-country action plans.
- WHO/OIE coordinating platform: consolidation of regional estimates of vaccine requirements, collective tendering process.
- Partners and champions – commitment and engagement.
- Joint human/dog programs: One Health approach.
- Start small, have a vision and progressively scale up.

**NEXT STEPS**

- Continued commitment of WHO and OIE to work together with relevant partners.
- Action plan specifying activities, responsibilities, and timelines to follow.

**BARRIERS & CHALLENGES**

- Rabies is not always recognized as a public health issue.
- Lack of capacity and infrastructure.
- Poor quality and unreliable data.
- Price of post-exposure prophylaxis (PEP) is often unaffordable.
- Raw materials (plasma) for RIGs can be difficult to obtain.
- Availability of vaccine and RIGs can be erratic.
- Vaccine and RIGs quality varies.

**KEY QUESTIONS**

- Rabies is 100% preventable.
- 99% of human cases are caused by dog bites.
- Vaccinating 70% of dogs breaks rabies transmission cycle in an at-risk area.

**OIE – World Organization for Animal Health**
- PAHO – Pan American Health Organization
- PEP – Post-exposure prophylaxis
- RIGs – Rabies immunoglobulins
- UNICEF – United Nations International Children’s Fund
- WHO – World Health Organization