

Chapter 11: Socialist Republic of Vietnam

Rabies Prevention and Control in Vietnam

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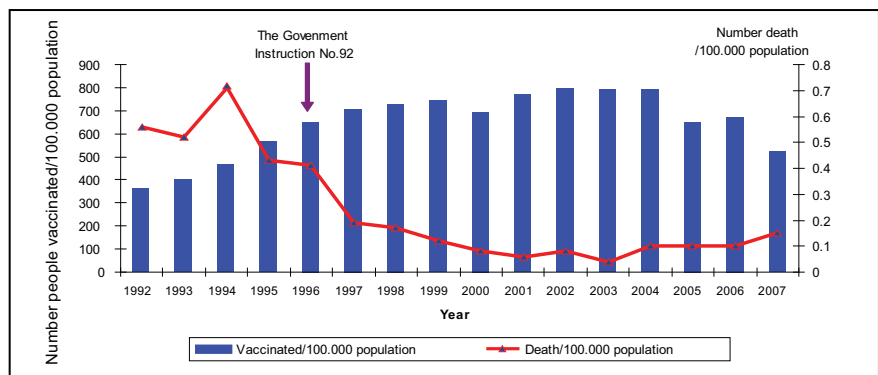
1. General Introduction

Rabies has been existing in Vietnam for many years, especially during the period of 1991-1995. The fatality rate of rabies cases in Vietnam, based on a population of 100,000, during 1991-1995 was 0.43, which is the highest rate among the 10 epidemic-causing infectious diseases with high fatality rate. During 5 years between 1991 to 1995, about 400 death cases occurred annually nationwide. This number is eight times higher than the number of death caused by viral encephalopathy, and four times higher than that of dengue.

The main reasons are:

- (1) The rabies transmission sources are mostly from domestic dogs, followed by cats. As many as 5-7 millions of dogs in Vietnam are domestic dogs, and the risk of rabies is always hidden in the community because only 24-40% of dogs are vaccinated.
- (2) Not well cooperated in rabies control activities among animal health, human health and other sectors, as well as between authority and people.
- (3) Not managed well on surveillance system and prophylaxis of people suspected with rabies exposure.
- (4) Information, Education and Communication (IEC) activities were not conducted well. Since authority and community are not aware of the danger of rabies, active measures are not implemented.
- (5) Human rabies vaccine and animal vaccine are not really safe and highly effective.

Graph 1: Human Rabies Situation in Vietnam from 1992-2007



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2. Good Practice on Human Rabies Prevention and Control (RPC) in Vietnam

2.1 Promoting Support from the Government and Authorities at Different Levels

The Government is supportive of a national rabies elimination program as per Instruction No.92/TTg signed on 7 December 1996. and Decree No. 05/2007/ND-CP signed by Prime Minister on 9 January 2007. The intersectoral collaboration is in place which includes health, agriculture, education, and other ministries. People's committees at all levels are responsible to organize and implement all activities of rabies prevention and control in their areas, including animal vaccination, Information, Education and Communication (IEC) and law enforcement of regulations.

2.2 Establishing Relationships among Sectors, National and International Organizations and Promoting International Cooperation in Technical and Financial Areas

In order to achieve the objective of "To contain and gradually eliminate rabies", the model of "social mobilization" in RPC is being studied in Vietnam. Social mobilization is a long-term, comprehensive strategy, and it is also a good inter-sectoral solution, aiming at mobilizing the whole society to participate actively.

The health sector takes the main responsibility for human RPC while animal health sector for animal RPC. Those two sectors play the advisory role to the authorities in issuing documents, directing and guiding other sectors, and advocating the community to carry out activities for RPC. The social mobilization implemented in some rabies prevalent provinces has proved to have a clear effectiveness. This model is also appropriate to countries with a difficult economy.

Vietnam has always cooperated with international organizations such as WHO, OIE in providing constructive comments for development of projects, training and communication materials, and responding to the world day against rabies.

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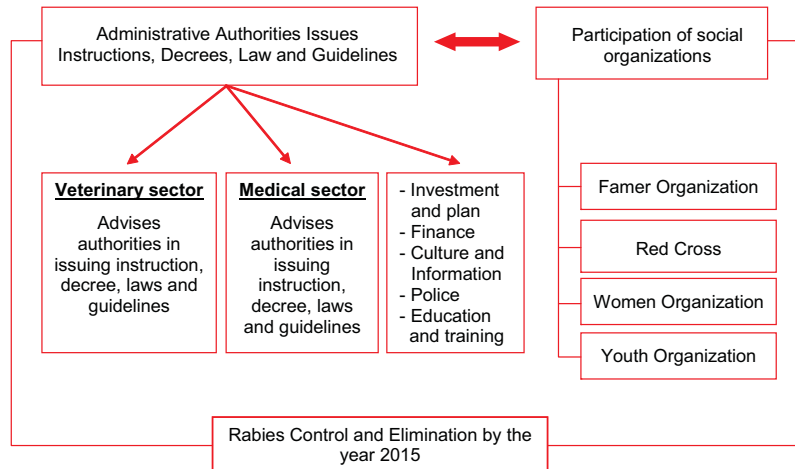
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2.3 Ensuring the Expertise and Technical Skills for Human and Animal Health Workers

Attention should be made on recruiting and training of personnel specialized on RPC for both human and animal health since this is a very important operational network. Those workers conduct their outreach activities, community surveillance and directly get involved in implementing the prevention. Good performance of those personnel will reduce the operational costs of the program on the one hand, and will increase the efficiency and effectiveness on the other hand.

At each service delivery point for rabies vaccination, there is at least one doctor, technicians and nurses in charge for examination, counseling, wound management, providing treatment regimen for the patient, vaccination and anti-rabies serum transfusion, monitoring and management of vaccinated patients, investigating dead patients, collaborating with the animal health sector to handle the epidemic reservoir in animals and writing statistical reports. There are over 2,500 full-time and part-time personnel across the country.

Animal health workers directly conduct the rabies prevention in dogs and cats by vaccination, and management of rabies reservoirs in animals.

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Annual training is provided to human and animal health workers who are working in epidemiology department, with focuses on technical contents, investigation, surveillance, management and handling of epidemic reservoirs, and communication. In addition, Training of Trainers (TOT) courses are organized annually. Training is also given to communication staff and personnel from relevant sectors, the active collaborators for the program. Those people working at the rabies vaccination delivery points must attend the training and have their certificates of training.

2.4 Strengthening Surveillance, Control and Effective Management of Rabies

Surveillance, management and handling of rabies infection sources cover the control of dogs, rabies reservoirs in animals, vaccinations for dogs and handling of rabies reservoirs in animals. Although this is of great importance, it has not done well in Vietnam yet. Specifically, since there is no accurate statistics for domestic dogs, dogs are not under control. Thus, it is unable to detect accurate number of dogs which have been given rabies vaccinations, causing surveillance of rabid dogs impossible which then leads to the incomplete management of the rabies reservoir in animals.

Surveillance, management and prophylaxis of people suspected with rabies infection exposure are conducted through setting up a system for injecting rabies vaccination and anti-rabies serum, conducting surveillance of patients with prophylaxis, and investigating of fatalities. The vaccination delivery points should be convenient in order to reduce travel costs for the patient. Early and prompt detection of patients is set up. Each district has 1-2 vaccination delivery points. There are 936 vaccination delivery points in 668 districts. The vaccination delivery points should meet the routine criteria/standards of the MOH in order to create credibility of patients. The criteria include clean injecting room, good storage of equipment and anti-rabies serum providing the patients, patient registration books, patient personal cards, death investigation card, reporting template, reporting regime for periodical accurate information recorded in the log book.

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2.5 Utilization of a New Generation of Rabies Cell Vaccines in a Safe and Effective Manner

In the RPC strategy, vaccine is the key element for achieving the efficiency and effectiveness of the implementation. There are two groups of rabies vaccines: human rabies vaccine and animal rabies vaccine.

As for human rabies vaccine, since 1974, Fuenzalida rabies vaccine had been mainly produced and used in Vietnam for prophylactic treatment of those people who were suspected to have rabies virus infection, which was not really safe and effective. However, due to its cheap cost and affordability for low-income people, this vaccine had been used by most of patients. Since 1992, although Verorab rabies vaccine had been imported in Vietnam, it was used by a few patients only (5%). By September 2007, production and use of Fuenzalida rabies vaccine came to an end and was replaced by Verorab cell rabies vaccine which is used with two WHO-recommended regimes: intramuscular injection and subcutaneous injection. In 2002, a scientific study was conducted to evaluate the safety and antibody response of subcutaneous injection of Verorab rabies vaccine. Patients are also encouraged to follow subcutaneous injection regimen which is cheap that the low-income patient could have more opportunities to be vaccinated with this type of vaccine.

As for animal rabies vaccine for dogs, French-made Rabisin rabies vaccine has been used since 2000. As this is a safe, highly protective and efficient rabies vaccine, it is very useful in creating dog's immunity to rabies.

2.6 Community Communication and Education

This is a very important activity and therefore, it is conducted regularly through various activities from the central level to the provincial, district and commune levels. Main contents and types of this activity include:

- (1) **On TV:** The message is delivered on air repeatedly for 45 seconds mainly during the months when there is a high risk of rabies infection. The 20 minute-long program for basic understanding on rabies infection and preventive measures, "physician for all" program, reportage, dramatized program on children involved in RPC have been aired. Messages and information on rabies are burned into VCD, distributed and used at the local levels as IEC material. Particularly,



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a 2-volume feature movie entitled as "Class-mates" has showed highly effective for the community in collaboration with RPC.

- (2) **On radio:** The knowledge dissemination program has been implemented through the distance educational program. Contest on understanding of rabies has been organized. Thousands of DVDs containing 30 questions and answers on rabies infection and prevention measures have been produced to be used as a communication material, and broadcasted through loud-speaker system in communes and villages.
- (3) **Communication via photos and pictures:** Pamphlets are distributed to patients and households while posters on routine RPC are posted up at vaccination service delivery points and public places. A handbook entitled "Q&A on rabies" is compiled annually and distributed to rabies vaccination service delivery points, local health staff and collaborators conducting community-based communication activities. Particularly, in commune where there is a high prevalence of rabies, those materials are distributed to households. Billboards on RPC are also erected in public places.
- (4) **Direct communication:** Direct thematic talks have been held at meetings and public places. In addition, extra-curriculum activities have been organized for primary and secondary school children as well.

3. Benefits and Outcomes

Benefits have gained from the direction given by the Government and authorities at different levels which has also facilitated a close collaboration in RPC.

Benefit gained from developing rabies vaccination service delivery points is higher number of patients coming for pre-exposure vaccination earlier than in the past, thereby reducing mortality.

Benefits gained from training of full-time and part-time staff include improving the quality of prophylactic treatment, including examination, counseling, and indication of treatment regimen.

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As for benefit gained from good communication, there has been behavior change towards active RPC at different levels of authority and the community, creating better collaboration in RPC. Particularly, the public has raised their awareness and knowledge for themselves and also for the community. As an example, patients learn that they should clean their wounds appropriately, visit the health facility immediately after being exposed to suspected rabies virus, adhere to doctor's indication, and give vaccination to dogs.

Prominent effectiveness recorded between 1996-2007 is that rabies mortality was reduced by over 80% compared with that of during 1991-1995, especially in focused provinces where the mortality was reduced by more than 90% compared with the prior years when the good practices have not been conducted.

During previous years from 1996 to 2007, with modest funding allocated for RPC program (USD 500,000), the effectiveness and efficiency of RPC program activities have been achieved, thanks to the implementation of social mobilization model.

4. Insights and Lessons Learned

Support from the Government and different levels of authorities which include instructions, decrees, and ordinances have been promulgated by the Government, stipulating operational contents and responsibilities for individual ministries, sectors and the public as a whole.

Following the social mobilization model is an inter-sectoral measure to mobilize active involvement of the society. Developing a network of technically qualified full-time staff is required since this pool of staff conduct regular outreach work and perform their task in the most efficient and effective way.

IEC activities with diversified formats and understandable messages for the community are enhanced. During the program implementation, selection of focuses and setting priority should be made such as setting priority for focus provinces, communication, network building.

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5. Recommendations

In order to reach the goal of "Rabies in Vietnam Controlled by 2012 and Eliminated by 2015", Vietnam needs financial support from the Government, international organizations and vaccine companies, and more close cooperation among other sectors, especially between health and animal sectors.

Community participation approach should also be applied to encourage the community and dogs' owners to participate in rabies control program.



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