



## ECHO/ISDR good practices for resilient communities

### Developing a Health Training Program to Prepare for Volcanic Eruptions in Colombia and Ecuador

A DIPECHO Project, executed by The Pan American Health Organization/World Health Organization

#### Summary

#### Country/ies of implementation of the Action

Ecuador and Colombia. In Ecuador, the provinces of Pichincha, Chimborazo, Tungurahua, Sucumbios, and Napo. In Colombia, the departments of Nariño, Caldas, Risaralda and Quindío.



#### Principal objective

To reduce risk by better preparing the vulnerable populations in the areas most affected by volcanic eruptions in Ecuador and Colombia. In this case, preparedness means the reinforcement of the coping capacity of the health

sector at the national, sub-national and municipal level in both selected countries. These improvements are critical to the establishment of a better preparedness program, and to the exchange of technical experiences between Ecuador and Colombia.

### Specific objective

Strengthening the technical capacity of the health sector in both selected countries to respond to volcanic eruptions, through the development and dissemination of training materials on health preparedness, a “train the trainers” program for health professionals at the national, sub-national and municipal levels, and training of members of existing disaster response teams (EOCs).

1.1.1.

1.1.2. Problem statement

Together, Ecuador and Colombia have the highest number of active volcanoes in Latin America. History in those countries is plagued with examples of volcanic eruptions that have caused dramatic human and economic losses with a significant impact on the development of the affected populations, such as the Nevado del Ruiz eruption in 1985 in Colombia, and the eruptions of the Guagua Pichincha, Tungurahua and Reventador volcanoes in recent years in Ecuador.

Both Ecuador and Colombia have established health emergency plans for disasters and are developing health preparedness plans for volcanic eruptions, given their high risk of volcanic eruptions. Nonetheless, post-disaster evaluations of lessons learned following volcanic eruptions have revealed gaps and weaknesses that call for special attention. There is an obvious need for health staff to work with updated technical instruments and tools that respond to national and local realities. Plentiful experiences and expertise exist in this area, but remain to be synthesized and analyzed in a way that can be applied effectively in practice. Nor have lessons learned through several recent emergencies been integrated into the existing health system. Furthermore, the frequent mobility among technical health staff is a reality that calls for continuing training and education programmes.

The accumulated experiences and the existing information on measures and health actions that must be taken when facing volcanic eruptions, and the lack of technical materials for training for the Andean countries, create the need to develop, disseminate and use the proposed materials. The training will improve the preparedness level of the health personnel in the vulnerable communities and of the EOCs.

The project aims to eliminate part of these weaknesses and encourage an exchange of experiences and knowledge between both countries, and between communities that share the same volcano eruption vulnerability.

### Principal activities

1. **Production and distribution of a technical guide and multimedia training material for health preparedness for volcanic eruptions, designed for health professionals in damage assessment, epidemiological surveillance, environmental health, communication, mental health and mitigation.**
2. **Design and development of a special module for decision-making: a multimedia modeling tool with an emergency volcanic eruption scenario that will make it possible to exercise decision-making through a series of tests and practical exercises. The module will be supported with a selected collection of electronic documents based on the direct experience accumulated in the region in the last 25 years.**
3. **Workshops for trainers on health preparedness for volcanic eruptions, with participants in each country at national, sub-national and municipal levels.**
4. **Training of health professionals in a minimum of 25 EOCs (disaster response teams) in each country, at the sub-national and municipal levels, making use of the simulation.**

**Regarding the production of the materials, we would like to highlight:**

- The open and participative approach to the development of the training materials, with a large number of organizations from a variety of sectors from national, departmental, provincial, and local levels.**
- Existing interest in simulation as a training tool, which introduces an innovative method for working with Emergency Operations Committees. The challenge is to achieve the correct balance between the technologically complex, the practical, and the pedagogical aspects of this device.**

#### **Beneficiaries:**

- **Particularly, but not limited to, the staff of the Ministries of Health and of health services networks (e.g., hospitals and health centers), Red Cross staff, humanitarian NGOs, water systems companies, at national, sub-national and municipal level located in high-risk areas.**
- **Emergency Operations Committees in the principle high-risk areas of each country.**
- **Technical staff responsible for water supply and sanitation services.**
- **Universities, NGOs, and other disaster-related organizations that have or are interested in developing training programs in these areas, will be able to access and make use of training material relevant to the reality of these two countries.**
- **Communities in areas at risk of volcanic eruption (the material will be able to be used in the design and evaluation of health prevention and preparedness activities relevant to volcanic eruptions).**