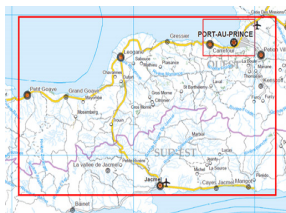
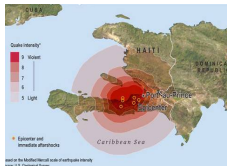


# OPHTHALMOLOGISTS' RESPONSE TO NATURAL DISASTERS

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## INTRODUCTION

- Natural disasters may cause a great devastation to eye care facilities and the structure and organization of primary eye care.
- Aid should begin with an evaluation of eye care facilities and human resources.
- We evaluated Haiti's eye care facilities soon after the January 12<sup>th</sup> 2010 earthquake, and made recommendations to NGOs and other institutions interested in helping out.
- Haiti is in the second largest island in the Caribbean Sea, with a land area of 27.000 Km<sup>2</sup>. It was the first country to declare independence and abolish slavery in America. The estimated population is approximately 9.035.536 millions. Most people (64%) live in the countryside. Forty percent of the population are children under the age of 15. The population dynamic has been characterized by a progressive urbanization, emigration to countries abroad and a shifting population toward the neighboring Dominican Republic.
- In 1999 the causes of death were mainly non-communicable diseases. Diseases of the circulatory system accounted for 39% of the deaths with a valid diagnosis. Malignant neoplasm of the digestive organs, along with tuberculosis and HIV/AIDS, were among the 10 leading specific causes of death.
- The informal sector (mainly women) and the agricultural sector make up 96% of the working class. No services are provided for this informal sector. Government workers have a poorly organized insurance system, while the health of employees in the private sector comes under the responsibility of the Office of Medical Insurance and Maternity.
- It was estimated in 1998 that 7% of the Haitian population had some form of disability, half of them occurring in children under 15 years of age. Blindness was the most frequent disability, occurring in 1% of the population.
- On January 12<sup>th</sup> 2010, a 7.0 degree earthquake hit the central area of the country leaving behind a spectrum of destruction and desolation. It is calculated that over 220.000 people perished from its direct consequences.



Map of Haiti showing the location of the cities visited during the assessment

## METHODS

A team composed by: Dr. Fernando Yaacov Peña (consultant ophthalmologist for CBM and PAHO); Dr. Mike Maingrette (consultant local ophthalmologist for SSI and CNPC); and Ismael Cordero (Clinical Engineer for ORBIS), visited the ophthalmic services facilities in the region most affected by the recent earthquake.

An inventory of all public, NGOs and private eye care services in Port au Prince, Carrefour, Delmas, Petion Ville, Leogane, Petit Goave and Jacmel was made.

Information was gathered from each eye care facility based on information provided during the visit by at least one ophthalmologist or the director. A questionnaire for assessment of eye care facilities provided by the Pan-American Health Organization (PAHO) was used to collect data, when appropriate. During the visit, the team listened to complaints and opinions from the personnel.

Some recommendations were given regarding the equipment's maintenance and storage. Further, advice was given on the organization of outreach programs and the prevention of blindness in Haiti's various regions.



Ruins of eye care facilities

## RESULTS

Cities visited: Port au Prince, Petion Ville, Delmas, Carrefour, Leogane, Petit Goave and Jacmel.

Ophthalmic services assessed: Five sites from governmental institutions; six sites from non-governmental organizations and eight sites in the private sector were evaluated.

## CONCLUSIONS

### 1. Equipment and physical resources:

A significant portion of the ophthalmic equipment and facilities in the areas affected by the earthquake was damaged. This was detrimental to the already impoverished communities with scarce technology and infrastructure. There is little to no coordination or prioritization of donations coming into the country. This leads to inadequate distribution of donated equipments. Further many donors send unrequested items that are not needed or that may not meet the priority requirements.

### 2. Ophthalmic personnel and other human resources:

There are no professionally trained optometrists or ophthalmic assistants. There are approximately 50 ophthalmologists (not including the Cuban team) currently working in Haiti. This number corresponds to 1 ophthalmologist for every 200,000 inhabitants, or 5 ophthalmologists per million people.

One ophthalmologist was killed during the earthquake. At least 30% of the ophthalmologists lost partially or totally their offices, or the eye care facility was destroyed. Some other 50% - 70% are slowly returning to practice. Practically none of the ophthalmologists are doing ocular surgery since the earthquake.

### 3. Ophthalmic practice, community interventions and primary eye care:

None of the eye care facilities had insurance covering the earthquake risk. Cataract remains a major cause of morbidity and blindness. Further, childhood eye diseases leading to blindness such as ophthalmia neonatorum, and vitamin A deficiency remain prevalent.

## RECOMMENDATIONS

We recommend the response to natural disasters such as this earthquake should occur in 3 phases:

- **SHORT TERM. Secure food.** Help ophthalmologists and their families survive, donating food, water, first aid, and supplies.
- **MID TERM. Secure their way of life.** Help them rebuild their ophthalmic practice. Start short term projects aimed at prevention of blindness, training and continued education.
- **LONG TERM. Secure the future generations.** Support Primary Health Care, Primary Eye Care and rehabilitation.

## PLEASE HELP HAITI

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