

## Torrential Rains and Flooding in the Dominican Republic and Haiti

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**Map of the affected area**

### Situation in the Dominican Republic

Santo Domingo, the capital of the Dominican Republic, has been severely affected. The Dominican Republic National Emergency Commission has declared a red alert in the region around Jimaní, the capital of the province of Independencia, and a yellow alert for the rest of the country.



**Jimaní's main street**

The rising waters from the Jimaní River swept away homes, cut utility lines and prevented rescuers from reaching the hardest-hit regions. Civil defense officials in both countries have been evacuating families to higher ground. The hospital in Jimaní was flooded and patients were transferred to another facility. Telephone communications with Jimaní have been severed and the area has no access to drinking water or electricity.

### Health Situation

In Jimaní, the municipality most affected to date, the Melenciano General Hospital was flooded, equipment was damaged and there was a substantial loss of medical supplies. Patients had to be transferred to La Fortaleza.



**Main hall at the  
emergency department of  
Jimaní's Hospital**

The municipality has been left without telephone service, drinking water, electricity and to date, is only accessible by land through La Descubierta. Rescue personnel, small aircraft and ambulances have arrived from nearby provinces and Santo Domingo. The water supply is expected to be reestablished in five days and presently, water is being distributed to the affected population by tanker trucks.

Potential public health risks from a disaster of this type include changes in existing patterns of morbidity, potential changes in the ecosystem



**Fence surrounding  
Jimaní's Hospital**



**Soley river bed**

(vectors), population displacement and deterioration in drinking water and basic sanitation systems and health infrastructure.

The epidemiological surveillance system must be strengthened to allow quick detection of disease outbreaks among the affected population and initiate control measures. Entomological surveillance must also be strengthened to reduce risk factors leading to vector-borne diseases and appropriate control measures must be defined.

Currently, the most pressing tasks involve strengthening the capacity of the provincial health authorities and health centers to deal with potential disease outbreaks common to this type of disaster and implementing health promotion, information, education and communication initiatives directed at the population in temporary shelters and those living in affected areas in order to reduce health risks.

### **Summary of the health situation in the province of Independencia**

The province of Independencia, together with the province of Pedernales, forms part of the southeast border of the Dominican Republic with Haiti. Jimaní is the municipal seat of this province and has a population of 42,538. Fifty-eight percent of the population lives in urban areas and 42% in rural areas. The province covers 2,000 km<sup>2</sup>, with a population density of 21.2 inhabitants per km<sup>2</sup>. In Independencia, 82% of households are classified as living in poverty; 32% of the population over 12 years of age is illiterate.

Prior to the disaster, 72% of the population had easy access to water, with 78% having access to drinking water. However, only 47% were serviced by regular garbage collection—a figure considered extremely low and a high-risk factor for human health.

Through April 2004, the province of Independencia had reported 37 cases of malaria, compared with 17 during the same period in 2003—a rise associated with an outbreak shared with several neighboring provinces. Thanks to appropriate interventions, the incidence of malaria was reduced, however, flooding increases the risk of transmission of the disease. There was a very low incidence of dengue in the province of Independencia during 2004—only three cases of classic dengue were reported. During 2003,

33 cases were reported.

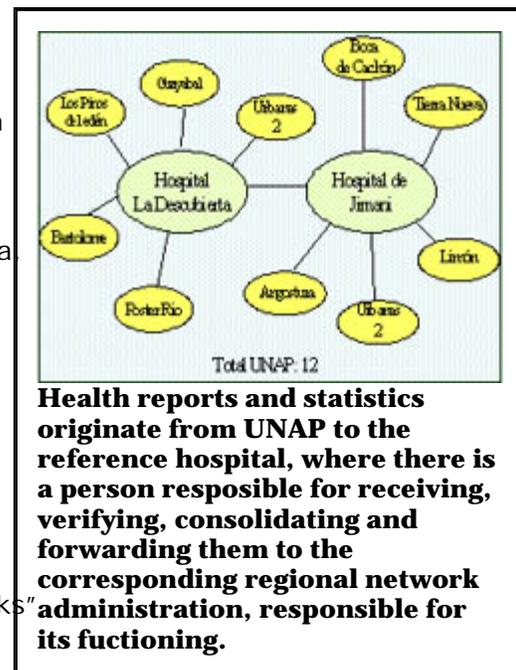
With regard to vaccine-preventable diseases, only one case of diphtheria was reported in 2004. Coverage for the DPT vaccine reached 95.6% for the first dose; it dropped to 81% for the second and only 53% received the third dose. As for the polio vaccine, 98.5% received the first dose, 72% the second, and only 34% the third. Vaccine coverage for measles is 95% and the BCG is 97%.

In 2003, there were 31 reported cases of tuberculosis, similar to morbidity during the previous two years. Detection rates, however, are low, and given the current post-disaster conditions, efforts should be stepped up to detect the disease in patients presenting respiratory syndromes so they can be treated and transmission can be halted. No cases of meningococcal meningitis or leptospirosis have been reported in 2004, although the risks of the emergence of both diseases are increasing.

## The Health Services Network in Region IV of the Dominican Republic

Four provinces make up Health Region 4 in the Dominican Republic: Independencia, Pedernales, Barahona y Bahoruco.

These provinces contain eight service provider networks, called "micronetworks" that link the Primary Care



Units (UNAPs, denoted in yellow) with their respective reference hospitals. Jimani belongs to the "Lago Enriquillo" micronetwork, made up of 12 UNAPs and the Jimani Hospital (40 beds) and the La Descubierta Hospital (20 beds—a hospital that currently has no medical specialists available). Both of these general hospitals are ill suited to resolve

complex health problems. These cases are referred by the micronetwork hospitals (Jimani and La Descubierta) to the Jaime Mota Regional Hospital located in Barahona

## **Analysis of Resources and Needs for the Health Response**

Following are the most important aspects considered in the evaluation of local capacity and needs for the health response:

- **Health services:** access to services, human resources available, redistribution of personnel, preparedness of services, communications and radiocommunications systems, ambulances, mobile units, equipment, information systems, service networks, references and counterreferences.
- **Control and surveillance:** vector control, epidemiological surveillance, immunization program, zoonoses, foods, communicable and noncommunicable diseases, etc.
- **Education:** health promotion, community participation and development, hygiene, communications, etc.
- **Risk management:** contingency plans, hospital plans, early warning systems, SUMA.
- **Mental health:** psychosocial support to affected population and health personnel.
- **Environmental health:** water supply, surveillance and control of water quality, excreta disposal, solid waste management; management of corpses, shelter assessment, primary environmental needs.
- **Supplies and medicines:** inventory of supplies, biological needs, supplies and medicines, diagnostic and reactive equipment, according to epidemiological profile.

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**The Dominican Republic's National Emergency Commission's [website](#) has additional information in Spanish.**

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