

Donors pledge more than US\$ 120 million to aid hurricane-hit Caribbean islands

International donors have pledged at least US\$120 million in aid after a series of hurricanes devastated swathes of the Caribbean, damaging housing, government buildings and many hospitals and clinics leaving health-care systems struggling to cope.

As donations poured in daily and more aid was pledged in October, humanitarian organizations and governments in the region said they were starting to rebuild damaged, and in some cases decimated, economies and infrastructures. They said, however, more aid may be needed as the full extent of the damage becomes clear.

The worst-hit countries were Grenada, where Hurricane Ivan damaged 90% of homes and 70% of the country's health facilities, and Haiti, where more than 2000 people died in flooding from Tropical Storm Jeanne.

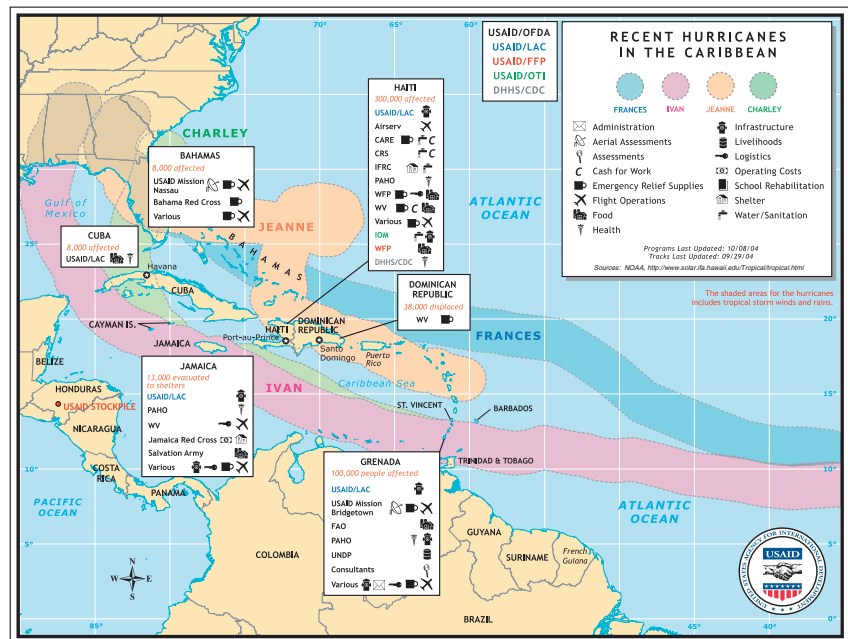
In Haiti, international agencies said they were providing health care to the people in the storm-hit region around the north-western city of Gonaïves to combat diarrhoea, minimize the risk of malaria, typhoid and dengue made worse by stagnant water, and replace health services that were halted or disrupted by the storm.

Ivan and Jeanne which struck in September followed on the heels of Charley and Frances, which lashed the Bahamas and other parts of the Caribbean in August.

United Nations appeals for Grenada and Haiti for damage wrought by Ivan and Jeanne have brought in about US\$ 20 million for the two countries so far.

The United States has pledged a total of US\$ 121.8 million in aid to the region, US\$ 21.8 million of it already delivered. Contributions from Canada, the European Union, Japan and other nations have also been pledged, according to ReliefWeb, a web site run by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA).

The Organization of American States said it was collaborating with The World Bank on a US\$ 13 million Emer-



Map shows the path of four storms and the devastation they wrought across the Caribbean.

gency Recovery and Disaster Management Project for Haiti.

Governments in the region and humanitarian organizations have called for tens of millions of dollars in reconstruction aid.

“As a result of careful preparation, health systems in some islands — Jamaica and Cuba, for example — were not as badly affected as had been feared,” said David Nabarro, head of WHO’s Health Action in Crisis in Geneva.

“However, people in Haiti and Grenada suffered heavily, and systems were badly disturbed,” Nabarro said.

Ivan killed several people as it swept past Venezuela, Barbados and Trinidad & Tobago, caused torrential rains and flooding and several deaths in Panama, and damaged the main health facility on Union Island in the Grenadines, according to the Pan American Health Organization (PAHO), WHO’s regional office, and other agencies. The storm also damaged health facilities in the Dominican Republic and caused damage estimated at US\$ 4 million to hospitals and clinics in Grenada, PAHO said.

“Not every year is going to be crazy but most years will be busy. The news is not good for the Caribbean.”

Stanley Goldenberg, a meteorologist with the Hurricane Research Division of the US National Oceanic Atmospheric Administration.

Lashed by torrential rains and winds of 225 kph, Grenada reported 37 deaths and at least 380 injured in the first days after Ivan. One hospital was left nonfunctional but most health facilities on the island were operating by mid-October including 20 of 26 health stations. PAHO said that many facilities were under tarpaulin roofs in October and cold-chain storage for vaccines was still a problem.

Ivan also hit the Cayman Islands but officials there said the health infrastructure of this overseas territory of the United Kingdom had not been destroyed. The main hospital in the capital Georgetown was built to hurricane standards and held up under winds “strong enough to fling coconuts against the windows”, one PAHO doctor said. The UK Department for International Development, PAHO and other aid agencies have provided storm relief, as well as doctors and paramedics.

Haiti was hit by Jeanne as heavy rains swept topsoil down the surrounding deforested mountains and flooded Gonaïves and other nearby towns, killing more than 2000 people. More than

half of the area's population of 200 000 cannot afford basic health care and rely on aid. Continuing unrest on the strife-torn island is hampering relief efforts, which are even more urgently needed after the storms.

Poor water quality was one of the main health concerns in all the flooded areas of Haiti and other storm-hit countries because of the increased risk of diarrhoea, malaria, typhoid and dengue, among other diseases, humanitarian agencies said.

"The risk of epidemics remains a serious concern because latrines and sewers have been flooded, leaving people without access to clean drinking water," the Red Cross said in an 18 October report on recovery efforts in Haiti.

"The main hospital in the town of Gonaïves and over 90% of the private clinics were damaged by the disaster. Stagnant flood waters remain in the streets, still covered in mud and debris," the Swiss-run agency said, adding that clean-up will take eight to 10 months.

PAHO is monitoring rates of diarrhoea and respiratory infections, two of the leading causes of death in Haiti. CARE, a nongovernmental organization that combats poverty worldwide, and the Red Cross said the level of diarrhoea seems stable, though David Dofawa, heading Haiti's Red Cross efforts, has noted a slight increase in respiratory infections.

The Haitian Health Ministry, with WHO/PAHO, the United Nations Children's Fund (UNICEF), nongovernmental organizations and other groups, has established emergency health centres staffed by 70 international doctors. The Canadian Government and Norwegian Red Cross are running a 100-bed field hospital that the Red Cross set up after the storm. The temporary hospital's equipment will be donated and transferred to Gonaïves's hospital once that is repaired.

Stanley Goldenberg, a meteorologist with the Hurricane Research Division of the US National Oceanic Atmospheric Administration, said that since 1995 a normal, periodic warming in the North Atlantic has more

than doubled the annual number of major Atlantic hurricanes. During this "active cycle", more storms develop in the tropical Caribbean, leading to a fivefold increase in the number of hurricanes there. This pattern could last another five to 30 years, he said.

"Not every year is going to be crazy but most years will be busy," Goldenberg said. "The news is not good for the Caribbean." ■

Theresa Braine, *Mexico City*

Drive to produce more long-lasting insecticidal mosquito nets for malaria

International efforts are under way to step up production of new long-lasting insecticidal mosquito nets which falls far short of the massive demand, experts say.

The new nets, which were first developed in the 1990s but have only recently become more readily available, provide fresh hope for preventing malaria, the number one killer of children aged under-five in Africa.

Production has increased and more money is there to buy them, but experts say major obstacles to delivering treatment are supply, distribution and red tape.

In an unprecedented meeting last month, humanitarian and health agencies

working in malaria control linked up with the private sector to discuss ways of speeding up production and distribution of these improved insecticidal mosquito nets.

Members of the Roll Back Malaria Partnership including WHO and the United Nations Children's Fund (UNICEF) organized the two-day event in Johannesburg, South Africa with the Rockefeller Foundation and USAID NetMark Plus, a US government initiative to fight malaria in Africa.

The new net retains insecticide for the life of the net, which can be four years or more. This is a major improvement on existing insecticidal mosquito

nets, which needed to be re-treated every 6–12 months.

High levels of re-treatment, however, have proved very difficult to achieve in Africa, partly due to the cost of insecticide but also because of a lack of proper organization. According to WHO less than 20% of nets there are re-treated.

"Those who expected people in poor rural areas to take the initiative to re-treat their mosquito nets have been proven wrong", said Dr Allan Schapira, coordinator of the strategy and policy team in WHO's Roll Back Malaria Department.

"In East Asia this is organized by the public health services but in most areas in Africa re-treatment has been left to individuals," Schapira said.

Of the one million deaths annually from malaria, 90% are in Africa and are mostly among young children and pregnant women. A systematic review found that using insecticidal nets is a highly effective way to reduce childhood mortality and morbidity from malaria (Cochrane Database Syst Rev 2004; (2): CD000363).

One of the targets set at the Abuja Summit in April 2000, a key meeting of the Roll Back Malaria Partnership of humanitarian agencies and governments, was to have 60% of populations at risk sleeping under insecticidal nets by 2005.

However, the Africa Malaria Report produced by the Roll Back Malaria Partnership in 2003 found that although 15% of children under five years old were sleeping under a net, only 2% were sleeping under an insecticidal mosquito net (www.rollbackmalaria.org).

UNICEF estimates that 30–40 million long-lasting insecticidal nets are required annually for the next five years to meet demand. At the moment only 13 million are being produced each year.

UNICEF's Regional Director for Eastern and Southern Africa, Per Engebak said: "Our goal is to save lives. Every 30 seconds, a child dies of malaria, a life that could be saved with an insecticidal net. A quantum leap in production will help us save millions and also enable the private sector to do good business."

Several long-lasting nets are currently under development and two products were approved by WHO last year. Long lasting insecticidal nets are subject to assessment by the WHO Pes-

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