

relief efforts in Sumatra and Pacific islands

International, which has sent a medical team to the affected area, says that “emergency systems at the hospital failed, even though the hospitals regularly conducted mock drills. Patients are being treated in the hallways due to overcrowding, and an open air morgue has been set up outside the hospital.”

Fadela Chaib, a WHO spokeswoman, said that the health department of Sumatra has opened two mobile hospitals in the affected region and that more than 150 doctors have been deployed but are encountering problems in accessing those affected.

Healthcare personnel have also been dispatched to the region to monitor the emergence of epidemics, she said. A large number of medical teams have been sent by many governments and charity groups from around the globe.

Médecins Sans Frontières said that it has sent emergency medical teams from Australia, Japan, and Europe, including three nephrologists, to carry out dialysis to treat

people with crush syndrome, a condition in which muscle tissue damaged by severe internal injury may release massive quantities of toxins into the bloodstream and lead to kidney failure.

The UN children’s agency, Unicef, said that it is providing assistance to 50 000 families, including 40 000 hygiene kits, water pumps, and water storage equipment.

International relief has also been mobilised to help the victims of the tsunami that struck Samoa, American Samoa, and Tonga on 29 September. The tsunami, which was triggered by an 8.3 magnitude undersea earthquake, resulted in the deaths of 176 people and left 32 000 injured or homeless.

UN agencies, private relief organisations, and medical teams from Australia and New Zealand are helping the authorities with the deployment of personnel and supplies.

Potential health risks in the coming days include typhoid, cholera, and diarrhoea.

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Landslides buried villages in Padang Pariaman district after the earthquake in Sumatra

ADEK BERRY/EP/GETTY IMAGES

Hot-pink bras, cracked knuckles, and bar room brawls are winners at the Ig Nobel awards

Jeanne Lenzer BOSTON

To the delight of the packed crowd at the 19th annual Ig Nobel prize ceremony at Harvard University, one of the winners reached inside the top of her dress and whipped out her hot-pink bra that doubles as a face mask. Another winner raised his hands high for the audience to see the results of cracking the knuckles of his left hand for more than 50 years.

The ceremony, sponsored by the *Annals of Improbable Research*, awarded prizes in 10 fields for “science that first makes you laugh—and then makes you think.” Ten laureates of the real Nobel prize handed out the awards—a large pair of dice—to the winners, who came from four continents at their own expense to receive their awards.

Dice were selected to symbolise this year’s theme of “risk.” Members of the “Big Bank Opera” performed skits of Wall Street money manipulators in swanky bars where they figure out ways to squeeze profits from a collapsing economy.

The theme was further underscored by the Ig Nobel winners themselves. The public health prize went to the inventor of the bra face mask, Elena Bodnar, director of the Trauma Risk Research Institute in Chicago.

Dr Bodnar, a native Ukrainian, was a medical student in 1986 at the time of the Chernobyl disaster. She said that bra face masks might have dramatically reduced the amount of iodine 131 that Chernobyl residents inhaled. The audience roared with laughter as she placed a hot-pink brassiere gas mask over the deeply flushed face of Paul Krugman, the 2008 Nobel economics laureate.

Dr Bodnar told the audience that a single bra, which converts into two masks, is easy to use. “It takes only 25 seconds [for a woman] to use this protective personal device: 5 seconds to remove, convert, and put on her own



Dr Elena Bodnar was prompted to develop her mask by the Chernobyl tragedy in her native Ukraine

mask and 20 seconds to look around and wonder which lucky man she will save with the second mask,” she said.

The medicine prize went to Donald Ungar, an immunologist from California, who twice a day cracked the knuckles of his left hand but not of his right hand to learn whether his mother’s dire warning that knuckle cracking would cause arthritis was true. As he held his hands up for all to see, Dr Ungar said he could not see any difference between the fingers of either hand.

Forensic scientists from Switzerland won the peace prize for determining which is riskier: bashing a colleague over the head with a full or an empty bottle of beer. Stephan Bollinger, head of the department of forensic medicine at the Institute for Forensic Medicine in Bern, smashed an empty bottle of ale over his own head while accepting his award. He later told the *BMJ* that he used a prop bottle that smashed easily because “the neurosurgeons told me I might come out pretty badly otherwise.” It turns out that empty and full beer bottles can break a human skull, but empty bottles are actually more dangerous.

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ALEXEY EISENANNALS OF IMPROBABLE RESEARCH