

## International

### NZ earthquake – surge in premature births



Christchurch, New Zealand – As many as 240 people likely died in New Zealand's devastating earthquake on 22 February, but health services have also been stretched coping with a different problem – a surge in new life. Canterbury district health director David Meates said there had been a 'real pressure' to deal with births after the 6.3 magnitude tremor, and that premature babies packed out Christchurch Hospital's neonatal unit. 'Earthquakes do tend to hurry things along for those intending to deliver,' said Meates of the surge in births, which saw some 76 maternity patients hospitalised in the days after the quake.

So many births followed the deadly jolt that some babies had to be transferred to North Island hospitals while Christchurch Hospital put out a call for extra midwives from across the country. An even greater spike was seen after last September's 7.0 level tremor, when 21 babies were born at the hospital in the following 24 hours, a record number for a Saturday. 'It's just one of those things. You could blame it on the full moon or the high tide. I think anecdotally people go into survival mode,' Canterbury midwifery director Samantha Burke told local media. Christchurch woman Jo Blackman visited her midwife just hours before the earthquake and was told not to expect her baby for a few more days. When the tremor struck, all she could think about was rushing through her shuddering house to reach her 2-year-old son, Josh. 'I didn't even think about the pregnancy – I just wanted to get to Josh,' Blackman told Fairfax newspapers. 'Then when my husband got back and we were looking at a few cracks in the house I suddenly felt my contractions.'

Baby Alyssa was born at 7.30 pm as frantic searches continued for survivors in central Christchurch and as hundreds of injured people were tended on surrounding floors.

'It was just good to have a healthy baby girl born into the world when so many others were experiencing suffering and loss,' she said. Among those who went into labour during the quake was the sister of New Zealand soccer captain Ryan Nelsen. Nelsen is making his way home to Christchurch, hoping to help in the recovery after gaining permission from his Blackburn Rovers.

### Flu viruses 'can make dangerous hybrids'

The H1N1 swine flu virus is compatible with a bird flu virus that is endemic in poultry in Asia and they can produce hybrid viruses packed with greater killing power, Chinese researchers warned on Tuesday. The scientists made 127 hybrid viruses by mixing genes of the H1N1 and the avian H9N2 virus in a laboratory, and eight of the hybrids turned out to be more virulent than either parents when tested in mice. The H1N1 pandemic of 2009 turned out to be milder than feared and human infections of H9N2 in China in the past are not known to have caused severe disease. But the experts said their hybrid offspring, or 'reassortants', cannot be casually dismissed. 'The main message is that the H1N1 can combine in certain ways with the H9N2 to create reassortants and some of the viruses had an increased pathogenicity compared with the parent viruses in mice,' lead author Jinhua Liu, of the College of Veterinary Medicine at the China Agricultural University in Beijing, wrote in an e-mail to Reuters. Liu and his colleagues, who published their findings in the *Proceedings of the National Academy of Science*, warned in their paper: 'The possibility of novel pandemic strains being generated from reassortment between avian H9N2 and H1N1/2009 influenza viruses exists.' Flu viruses have eight gene segments and one of the segments is called the PA gene. Interestingly, all eight dangerous hybrids carried the PA gene belonging to the H1N1 parent virus.

The eight hybrid viruses caused severe pneumonia, oedema and haemorrhaging in infected mice, the experts wrote. Liu said

their findings underscored the importance of monitoring hybrid viruses that arise from the H9N2 and H1N1. The H9N2 is prevalent in China and large antibody surveys in the past found that between 13.7% and 37.2% of people sampled had prior infections by the H9N2.

'We should decrease the chance of infection with the two viruses in a (single) host', Liu wrote in his e-mail. Experts believe that a classic way for hybrid viruses to form is when different viruses meet and 'marry' inside a single host, swapping genes. Humans and animals, such as pigs, can be efficient 'mixing vessels'. Some scientists believe the pandemics of 1958 and 1968 occurred in such a fashion, killing up to two million and one million people worldwide, respectively.

### France sends 'massive' aid to Libya

France will send two planes full of medical aid to the Libyan city of Benghazi, held by opponents of Muammar Gaddafi, marking the start of a humanitarian operation, Prime Minister Francois Fillon said last month.

'In a few hours two airplanes will leave for Benghazi at the request of the French government with doctors, nurses, medical equipment, and it will mark the start of a massive humanitarian aid operation for the people in the liberated territories,' Fillon said in an interview. Opponents of the Libyan leader have taken control of Benghazi, the country's second city, and leading citizens have set up committees to act as a local authority and run services. Since the uprising against Gaddafi's rule erupted on 17 February he has lost control of the east of the country, where Benghazi is located, and of several other major towns, though his loyalists still control the capital, Tripoli.

## Africa

### Dissidents 'denied care' in Zimbabwe

Prison authorities in Zimbabwe have ignored court orders for 12 activists accused of planning an Egyptian-style uprising against President Robert Mugabe to receive medical treatment for torture-inflicted injuries, their lawyer said last month.

The dozen accused were part of a larger group of around 45 lawyers, students and trade

unionists raided by police on 19 February during a private meeting on the situation in Egypt, during which they were watching a DVD of news clips of the unrest. All now stand accused of treason, which carries the death penalty. They have been in custody for 10 days and complained of various abuses and torture. A Harare magistrate was told that the 12 were lashed on the soles of their feet with broomsticks by secret police interrogators attempting to force them to admit they were plotting Mugabe's overthrow by mass demonstrations. He halted the hearing and ordered that they be examined and treated, and for a report to be submitted when the court reconvened. However, the men were not treated, beyond being given general painkillers, their lawyer Rose Hanzu said. Human rights lawyers say there has been a spate of arrests around the country for alleged political offences since the overthrow of Tunisian strongman Zine El Abidine Ben Ali. Mugabe has been in power for 31 years, presiding over a country which descended into economic chaos and hyper-inflation, and widespread intimidation, brutality and killings after the presidential election of 2008.

## South Africa

### Cape 'cash-for-kidney' scandal probed

Health MEC Theuns Botha has confirmed the police's Commercial Crimes Unit is investigating Cape Town doctors implicated in a 'cash-for-kidneys' scandal and threatened to withdraw the health licences of hospitals implicated. National police spokesman Colonel Vish Naidoo said: 'This investigation started in 2003. We have never once said it was over.'

This follows reports in which leading Durban vascular surgeon Professor John Robbs blew the lid off the scandal in which the kidneys of poor Brazilians and Israelis were harvested for rich, terminally ill Israeli clients. Robbs, Dr Neil Christopher, Dr Mahadev Naidoo and Professor Ariff Haffjee face charges of fraud, conspiracy to commit fraud and contraventions of the Human Tissues Act. The high-profile specialists maintain they are innocent and also victims of the scam. Robbs said operations were performed in Cape Town at Netcare's City Park Hospital (Christiaan Barnard Memorial) and Groote Schuur's private hospital.

Netcare, which operates the hospitals, has not commented following Robbs' interview. Botha said Robbs' statement was not new and that it had been a 'spill-over' from the case at Durban's Commercial Crimes Court. He confirmed the police were investigating alleged illegal procedures performed in Cape Town and Johannesburg. The Health Professions Council of SA was also looking into the case. Spokesperson Lize Nel said its professional conduct investigation would resume once all criminal cases had been concluded. UCT's Surgery Department Head, Professor Dell Kahn, said a decade ago it was 'common knowledge' that transplants were conducted on Israelis in Cape Town, Durban and Johannesburg. He said doctors performing the operations were taking advantage of loopholes in the Human Tissues Act which prohibits transplants between people who were not related. 'Way back some of the nuances in the act were vague. Ten years ago there wasn't strict control on transplants for non-family members,' said Kahn. This loophole was subsequently closed when a medical committee was established to verify whether transplant recipients were related to donors. Professor Brian Rayner, head of the nephrology and hypertension unit at Groote Schuur Hospital, said it was difficult for Israelis suffering terminal kidney failure to get transplants. The country had legal and religious issues with harvesting the organs of brain-dead people, and thus organ transplants were not happening on the same scale in Israel as in South Africa. Rayner said his understanding was that these doctors were told to stop by senior people but they claimed that the people were related. 'I was at City Park Hospital and saw these patients and they were (clearly) not related. It was quite clear that the one man was a South American and the other an Israeli,' said Rayner. As a result of the controversy, fewer people were willing to donate their kidneys and it was frustrating that the case had taken this long to prosecute. 'It's a blot on South Africa's reputation; two-thirds of people have refused to donate kidneys because of mistrust,' said Rayner. National Prosecutions Authority spokesman Mthunzi Mhaga said no cases 'under consideration' in the Western Cape had been brought forward by the SAPS.

### Billions pumped into health care

Government has set aside over R8 billion from the Health Department's budget of

R113 billion towards boosting hospital facilities that will see the phasing in of the National Health Insurance Scheme (NHI). The scheme, which is expected to revolutionise the health sector in South Africa, was one of the far-reaching resolutions taken at the ruling African National Congress Polokwane elective conference in December 2007. Officials say it is aimed at improving the primary health service across the country.

Delivering this year's R979 billion budget in Parliament, Finance Minister Pravin Gordhan said R1.2 billion will go towards the introduction of 'family health care teams, R2.9 billion to improve health facilities and medical equipment and R1.4 billion for improved district-based maternal and child health services'. About 1.7 billion has been allocated to the new Health Infrastructure Grant, which will be used to build and maintain health infrastructure. Government envisages that the NHI will be phased in over the next 14 years.

Gordhan said government's expenditure on the comprehensive HIV conditional grant will amount to R26.9 billion over the next 3 years, based on an increase in the number of people on treatment from 1.2 million this year to 2.6 million in the next 2 years. 'The phasing in of the NHI will require substantial reforms to address imbalances across the public and private sectors and expand health professional training,' he said, adding that the financial and organisational implications of the reforms were being jointly addressed by both the Health Department and National Treasury.

### MEC tackles payment backlogs at hospitals

The Gauteng Health Department last month said that it has plans to deal with payment backlogs to contractors at provincial hospitals. MEC Ntombi Mekingwe said a number of functions handled by the Gauteng Shared Services Centre (GSSC) will return to the department and hospital CEOs.

Non-payments have previously resulted in poor maintenance and hospitals running out of essential medical supplies and food. Mekingwe said negligence and bad management will not be tolerated. 'I think people closer to those facilities must be

accountable to the issues that happen at their own level because, really, if you are a manager you must be able to give answers and reasons why certain things happen in a particular way,' said Mekgwe.

### **Hoax calls cost N West R5.5 m a month**

Hoax emergency calls cost the North West R5.5 million a month, the province's health department said last month. 'The huge volume of prank calls means that the emergency personnel who should be attending accident scenes or preparing themselves for genuine incidents, are often tied up with malicious

false alarms,' said departmental spokesperson Tebogō Lekgethwane. In December, the department received 11 113 emergency calls, of which 1 850 turned out to be 'someone's idea of a practical joke,' he said. Most were in the Ngaka Modiri Molema district with 1 258, followed by the Dr Kenneth Kaunda district with 510.

### **Limpopo public health system on verge of collapsing**

Various stakeholders say the provincial public health system in Limpopo has collapsed almost entirely. Cosatu, the South African Council of Churches as well as health

professionals have pointed to a chronic shortage of medicine as well as a lack of basic equipment. The Junior Doctors Association (Judasa) in the province says there have been many avoidable deaths in hospitals across the province as a result of the said shortage and maladministration. These and other bodies have repeatedly called for the sacking of health MEC Mariam Segabutla, who was eventually fired last month. Judasa say they are hoping the new MEC will turn the situation around.

**CHRIS BATEMAN**

## **SINGLE SUTURE**

### *Explosive death for 'resistant' MRSA*

An antibody that causes MRSA bacteria to explode rather than divide brings hope for a universal vaccine.

MRSA – the highly antibiotic-resistant form of *Staphylococcus aureus* – kills about 20 000 people in the USA alone each year. Although a small number of antibiotics work against MRSA, the bacterium continually evolves resistant strains.

Edward Schwartz and colleagues at the University of Rochester Medical Center in New York have identified an antibody which targets a protein in MRSA called glucosaminidase (GMD). This has a key role in breaking down the cell wall, enabling the bacterium to divide.

The protein is genetically identical to all strains of *S. aureus*, so a vaccine that targets GMD could potentially be universal.

The team grew MRSA in culture alongside the GMD antibody. Bacteria exposed to it either fused into long chains or exploded, significantly inhibiting growth of the culture.

*New Scientist*, 22 January 2011, p. 17.