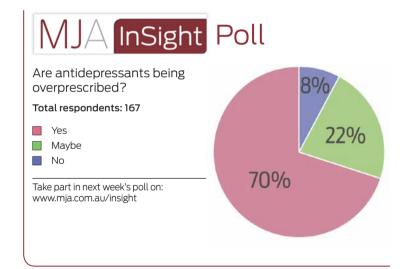


Colonies of Escherichia coli bacteria grown on a Hektoen enteric (HE) agar plate are seen in a microscopic image courtesy of the US Centers for Disease Control and Prevention. US health officials have reported the first case in the country of a patient with E. coli bacteria carrying the MCR-1 gene, an infection resistant to all known antibiotics.

Picture: US Centers for Disease Control and Prevention/Reuters/Picture Media



MJA Podcast



Professor Peter Cameron is Divisional Director of the School of Public Health at Monash University in Melbourne. Dr Ben Beck is a research fellow with the Prehospital, Emergency and Trauma Group within Monash's Department of



Epidemiology & Preventive Medicine. They discuss their coauthored research on trends in traumatic brain injuries in Victoria, published in this issue.

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Wearable sensor measures fitness levels, heart function

Researchers from the University of California-San Diego in the US have developed a wearable patch that can measure biochemical and electrical signals in the human body simultaneously, reports Medical News *Today.* "The device — called the Chem-Phys patch - measures real-time levels of lactate, an indicator of physical activity, as well as the heart's electrical activity. Put simply, the novel technology monitors a person's fitness levels and heart function at the same time, and it is the first device that can do so. The patch is made of a thin, adhesive, flexible sheet of polyester, which the researchers manufactured using screen printing. A lactate-sensing electrode is situated in the centre of the patch, and two electrocardiogram electrodes are situated either side. The researchers found that the data collected by the EKG electrodes closely matched the data collected by a commercial heart rate monitor. Furthermore, they found that the information gathered by the lactate sensor closely matched lactate data collected during increasing physical activity in previous studies."

http://www.nature.com/ncomms/2016/160523/ncomms11650/full/ncomms11650.html

Obesity linked to lower quality of nursing home care

US researchers have found that nursing homes that admitted more morbidly obese residents were also more likely to have more severe deficiencies in care, according to a study published in the Journal of the American Geriatrics Society. Science Daily reports that the study was designed to find out "whether obese older adults were as likely as non-obese elders to be admitted to nursing homes that provided an appropriate level of care". "The researchers examined 164256 records of obese people aged 65 or older who were admitted to nursing homes over a 2-year period. They also examined the nursing homes' total number of deficiency citations and quality-of-care deficiencies to determine the quality of care that the homes provided. The researchers reported that about 22% of older adults admitted to nursing homes were obese. Nearly 4% were considered morbidly obese. Nursing homes that admitted a higher

number of obese residents were more likely to have a higher number of deficiencies."

https://www.sciencedaily.com/releases/2016/05/160531182543.htm

Australians among world's longest-living: WHO

A new report from the World Health Organization says there have been gains in global life expectancy since 2000, with the overall increase of 5 years to a tick over 71 years the fastest rise since the 1960s, and reverses the declines seen in the 1990s. The World health statistics 2016: monitoring health for the Sustainable Development Goals (SDGs) report shows that the greatest increase in life expectancy during 2000-2015 has been in the African region, where it rose from 9.4 years to 60 years, due to reduction in child deaths, progress in malaria control, and better access to HIV antiretrovirals. Globally, the average lifespan of a child born in 2015 is likely to be 71.4 years — or 73.8 years if it is a girl and 69.1 years if it is a boy. The longest life expectancy is in Japan, where children born in 2015 are expected to live 83.7 years, followed by Switzerland (83.4 years), Singapore (83.1 years), Australia (82.8 years), and Spain (82.8 years). Average life expectancy for the United States is 79.3 years. The report also quantifies the causes of death and ill-health that pose significant challenges in meeting the SDGs.

http://www.who.int/gho/publications/world_health_statistics/2016/en/

Beware barbecue brush bristles

Research published in *Otolaryngology* — *Head and Neck Surgery* has investigated the epidemiology of wirebristle barbecue brush injuries. Between 2002–2014, more than 1600 emergency department visits occurred as a result of wire-bristle brush injuries in the US, some of them requiring surgery. According to *Medical News Today*: "While wire grill brushes may be an effective cleaning tool prior to or following a cookout, the bristles can easily fall off and make their way into people's food. If ingested, these little strands of metal can cause some serious injuries to the mouth, throat, and gastrointestinal region. The researchers hope their findings will promote greater awareness among manufacturers, consumers, and healthcare providers of the potential health hazards associated with wire-bristle brushes."

http://oto.sagepub.com/content/154/4/645.abstract

Cate Swannell doi: 10.5694/mja16.n2006





