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High levels of cannabis use persist in Aboriginal communities in Arnhem Land, Northern Territory

K S Kylie Lee, Alan R Clough and Katherine M Conigrave

TO THE EDITOR: Cannabis use is implicated in serious social disruption in many Northern Territory Aboriginal communities.¹ Rising levels of cannabis use were first reported in Aboriginal communities in Arnhem Land in 2002, along with associated concerns about escalating social impacts and mental health effects compounded by other substance use.²

A random sample of 164 people in Arnhem Land initially interviewed and assessed in 2004 were followed up between October 2005 and June 2006. Their cannabis use was measured using health worker assessments and self-reports from interviews. Ethical approval was granted by the NT Health Department, Menzies School of Health Research, and James Cook University.

Despite a modest decline in cannabis use in this population between 2002 and 2004,³ the 2005–2006 data indicate persisting high rates, with 61% of males and 58% of females (aged 13–34 years) using cannabis at least weekly.

In a subsample of 60 cannabis users opportunistically recruited for in-depth interviews in 2005–2006 (37 male and 23 female, aged 13–42 years), 92% of males and 78% of females used cannabis daily; 88% reported cannabis dependence symptoms.

These figures appear to be far higher than national rates, although national data for similar age groups are not available.^{4,5} Research has found that, nationally, 6% of males and 3% of females (aged ≥ 14 years) reported using cannabis in the past week; 18% of males and 13% of females smoked cannabis daily;⁴ and 21% of adults (aged ≥ 18 years) using cannabis were dependent.⁵

Beyond high rates of cannabis use in Arnhem Land communities, we also found local characteristics and perceptions that illustrate the drug's distinctive context of use (Box). Quantities of cannabis used appear to be higher than in the general population; unemployment among users is higher; and violence related to diminished supply is common. One Indigenous community leader described attitudes to cannabis use: "... if there's a bowl of it on the table, it is smoked until gone, morning to night". Interestingly, some respondents reported that using cannabis prevents them from engaging in criminal activity (Box). While key community members may believe that cannabis is a tool for social control — "good for calming down people" — they are increasingly recognising the significant social and mental health problems it causes:

People get chained by [cannabis], they don't go hunting with family... lots of fights when they can't get any... [Cannabis] becomes the boss.

Continued concerns about adverse mental health consequences for Aboriginal people in Arnhem Land who use cannabis seem to be warranted. Cannabis appears to be firmly entwined in these isolated communities in a

manner not seen nationally. High levels of concurrent drug use, particularly tobacco, raise additional health concerns. Resources are urgently needed for prevention programs and targeted interventions for chronic cannabis users and those with psychiatric comorbidity. If these patterns of use continue, the implications for compounding of pre-existing mental illness and the potential mental health burden are disturbing.

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Characteristics and perceptions of cannabis use in Arnhem Land Aboriginal communities (57 males and 49 females, aged 13–42 years*) in 2005–2006 compared with available national data from 1997[†] and 2004[‡]

National ^{4,5}	Arnhem Land*	National ^{4,5}	Arnhem Land*
<i>Number of cones smoked</i>		<i>Per cent unemployed current users / daily users</i>	
3.2 (average per day) [‡]	7.4 (average per occasion)	25.6% [†] / nd	60% / Males, 41%; females, 94%
<i>Concurrent drug use</i>		<i>Motivations for use</i>	
Alcohol (86.2%); stimulants [§] (8.2%–27.9%); none (10.8%); analgesics (6.6%); antidepressants (5.7%); tranquillisers/sleeping pills (4.4%); other (3.9%) [‡]	Tobacco (100%); alcohol, restricted access (40%); kava (15%); petrol (5%) [¶]	nd	Socialisation (tempted, lonely, copying friends); mood altering ("calms me down", "gets me going in the morning", "makes my mind straight"); drug substitution (from alcohol or petrol); prevents criminal activity (stealing or other trouble)
<i>Drug substitution (when cannabis unavailable)</i>		<i>Motivations for ceasing/moderating use</i>	
Alcohol (60.4%); no substitution (34.2%); ecstasy/designer drugs (1.3%); painkillers/analgesics (0.8%); tranquillisers/sleeping pills (0.5%); heroin (0.3%); antidepressants (0.2%); cocaine/crack (0.1%); other (1.1%) [‡]	No substitution (83%); kava (7%); alcohol (5%); petrol (5%) [¶]	nd	Limited supply; starting a family (females); "sick of fighting when cannabis runs out"; "made me sick"; "mind not straight"; expenses and time spent looking for cannabis; employment (males)

* Self-report interview data from an opportunistically recruited sample (using age and sex quotas) of respondents, including people who had never used cannabis as well as current and former cannabis users. † People aged ≥ 18 years. ‡ People aged ≥ 14 years. § Including ecstasy. ¶ There have been no reliable reports of stimulant, benzodiazepine or barbiturate use in these communities. nd = data not available.

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A national survey of medical morning handover report in Australian hospitals

Erwin Loh

TO THE EDITOR: I was not surprised by the results published by Fassett et al¹ regarding clinical handover. Despite being a crucial part of health care, clinical handover has only recently become a topical issue in the clinical governance arena.

In May 2007, the World Health Organization launched the "Nine patient safety solutions" to "help reduce the toll of health care-related harm affecting millions of patients worldwide".² Solution number three relates to "communication during patient hand-overs". Australia is in fact leading the international collaboration on clinical handover through the National Clinical Handover Initiative. This was recently launched by the Australian Commission on Safety and Quality in Health Care to develop and implement standardised solutions to patient safety problems associated with clinical handover.³

At a state level, the Victorian Quality Council conducted a clinical handover survey of Victorian health services in May 2006 to provide an overview of areas of concern relating to clinical handover.⁴ The Council

launched a pilot project in 2007 to look at morning handover processes between junior doctors. Despite these efforts, hospitals are still struggling with the issue of clinical handover at the local level. All health professionals know that clinical handover is good clinical practice, but they need to be provided with the tools to carry it out properly.

Clinical handover, depending on your definition, includes referral letters from general practitioners, discharge summaries from hospitals, as well as handover of clinical information between different shifts, treating teams, wards, health professionals and health services. It makes sense that the process of handover of clinical information be carried out in a standardised format, as the minimum dataset required is consistent for most circumstances. While there is a need for standardisation, health organisations must also be able to devise local innovative solutions that work for them. Information technology can assist in developing a solution to this issue.⁵ For example, different local health services have already developed in-house systems for electronic discharge summaries that are integrated with an electronic health record. While national quality bodies endeavour to develop national standards and tools for clinical handover, local health services must not sit idly and wait for these, but must continue to innovate and provide workable local solutions for their own health professionals. Otherwise, future surveys of clinical handover will continue to show that a problem still exists in relation to this issue.

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Matthew J Fassett, Terry J Hannan,
Iain K Robertson, Steven J Bollipo and
Robert G Fassett

IN REPLY: Our national survey was specifically confined to medical morning handover report, one of many forms of clinical handover.¹ The clinical governance area may have only recently recognised the importance of clinical handover, but it has been a topical issue for many years in the clinical arena, particularly in the United States.² While Australia may be leading the way in international collaborations, our survey suggests that this is not translating into clinical practice. Rather than commissions and councils providing tools and guidelines to carry out clinical handover, clinical leaders need to participate and conduct clinical handover themselves at the local level. From our previous experience with morning report, we provided simple tips on how to implement clinical handover at the local level,³ and

these have been incorporated into Australian Medical Association guidelines.⁴

Information technology can be employed to help with the clinical handover process. However, when using the all-inclusive definition of clinical handover suggested by Loh, this task is complex, as research has shown that information management needs vary significantly between different clinical environments and would require multiple end-user-defined outputs from a standardised data repository.^{5,6}

Clinical handover needs to be implemented from the bottom up (by clinicians) rather than from the top down (by commissions).

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MIMS is not a stand-alone resource

James L Mallows

TO THE EDITOR: I was part of a review of the Therapeutic Goods Administration (TGA)-approved product information (PI) monographs contained in *MIMS (Monthly index of medical specialties) annual* with respect to their poisoning management advice.¹ We looked at the 10 most common

poisonings presenting to Westmead Hospital and another 15 clinically important poisonings as determined by two of the authors, and compared the poisoning management advice given in *MIMS* to a “gold standard” derived from a consensus of five pharmacological resources. For the 25 drugs examined, 14 monographs contained inaccurate information, one contained a recommendation for ineffective treatments, and 14 omitted specific treatments or antidotes. Many of these errors could delay or even prevent patients receiving currently accepted and effective therapies for life-threatening poisonings if *MIMS* were used as the primary resource.

The omission of sodium bicarbonate for ventricular conduction delay and hypotension in amitriptyline, quinine and thioridazine poisonings is particularly problematic. Ventricular conduction delay and hypotension is often refractory to other therapies, and delay in bicarbonate administration could result in avoidable deaths. The recommendation of sodium bicarbonate for ventricular conduction delay and hypotension was included in the TGA-approved monograph for amitriptyline in 1984, but was subsequently removed without qualification in 1990 and remains absent. Cyproheptadine, an important therapy for serotonin syndrome, is not included in the TGA-approved monograph for sertraline, and its delay could result in avoidable morbidity. Atropine for verapamil-induced bradycardia is a simple and intuitive therapy; however, its omission from the TGA-approved monograph could again result in avoidable morbidity and mortality.

We also found potentially dangerous treatments recommended in the TGA-approved monographs not covered by the consensus opinion. These included intravenous amphetamine or intramuscular ephedrine to counter the sedative effects of promethazine poisoning, administration of enteric-coated ammonium chloride tablets to increase urinary excretion in chloroquine poisoning, and forced osmotic diuresis using a urea or mannitol infusion for lithium poisoning. These treatments are out of the Dark Ages, and their use should be considered negligent.

Based on this and other reports in previous editions of the Journal, the TGA-approved PI monographs contain inaccurate, inadequate, out-of-date or potentially dangerous information relating to poisoning management advice, paediatric drug dosages,² drug interactions,³ breastfeeding mothers,⁴ and various

thyroid medications.⁵ How can we use *MIMS* for anything other than simple drug formulation information? Surely, to anyone who wishes to practise up-to-date, safe, evidence-based medicine, the answer must be that we cannot.

It is time for the TGA to take up its role as regulator and insist on updated and accurate PI monographs from the pharmaceutical companies.

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David T Graham

IN REPLY: An article by Stockigt¹ and follow-up correspondence from Mallows raised concerns about the limitations of approved product information (PI).

The purpose of PI needs to be realised. The document is not intended to act as a textbook of medicine or general management of patients, but is intended to contain sufficient information to allow a health professional, in average circumstances, to use the specified medicine safely and to refer to other sources of information and expertise should they be required. The PI covers uses of the medicine evaluated and approved by the Therapeutic Goods Administration (TGA).

The sponsor of the medicine is responsible for maintaining the PI, and the TGA has procedures in place to support their timely updating. On occasions, the TGA initiates reviews of PI when a need is identified.

Health professionals, especially specialists, are important in identifying possible improvements in PI, based on their experience, knowledge or awareness of current medical practice. The TGA encourages physicians who have suggestions to approach the sponsor of the medicine or the TGA.

It is not possible to address in detail the article by Stockigt¹ or the letter by Mal-

lows. The thyroid PI documents have been reviewed by the sponsor companies, and changes have been made where evidence supports this.

However, as indicated above, there are limitations on the role of PI. Mallovs raises the issue of complex management instructions on overdosage, including the specifics of bicarbonate administration for potential metabolic acidosis. The PI documents for the named products do mention that overdose patients are likely to develop such complications, and that they require admission to hospital and management by appropriate specialists; intensive care admission is recommended in several of the documents. It is arguable how much further detail is required. The PI cannot replace careful consideration of the individual circumstances of the patient combined with expert knowledge of patient management.

PIs are complex documents. The TGA is currently considering the format of the PI and whether it can be rearranged to better balance provision of basic messages and more complex material in separate presentations.

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International conferences on rare diseases: initiatives in commitment, patient care and connections

Yvonne A Zurynski, Katie N Reeve and Elizabeth J Elliott

TO THE EDITOR: The recent conference report by Knight and Taruscio highlights the need for a coordinated effort to fill knowledge gaps and improve service provision for Australians with rare diseases.¹ Although, by definition, individual rare diseases occur infrequently, there are about 6000 rare diseases affecting 6%–10% of the population.^{2,3} This equates to 1.2 million Australians, 30 million people in Europe and 25 million in the United States. By comparison, diabetes affects 1.4 million Australians.⁴

It is increasingly acknowledged that low prevalence does not equate to low impact. Rare diseases often have their onset in childhood, continue throughout life, are difficult to diagnose, are disabling, and have significant impact on patients, their families, the community and health services.^{2,5} However, rare diseases receive such scant attention that they have been dubbed “orphan” diseases. Lack of epidemiological and scientific data has hindered development of evidence-based practice, policy and services.

To tackle the problem of rare diseases, the European Union, the US, Canada and New Zealand have established policies and agencies to foster research, and develop resources for clinicians, community information services, and appropriate health facilities. The National Institutes of Health in the US established the Office of Rare Diseases because:

... rare disease research requires the collaboration of scientists from multiple disciplines and the capacity to share access to geographically distributed national research resources and patient populations... knowledge about rare diseases may offer leads for scientific advancement in other rare diseases and in more common diseases.⁶

There is no coordinated national effort or policy in Australia.

Currently, there are 14 national paediatric surveillance units, including the Australian Paediatric Surveillance Unit (APSU), to which paediatricians contribute epidemiological, clinical and outcome data on rare conditions of childhood.⁷ These data inform development of health policy and improved diagnosis and clinical management, and result in the establishment of cohorts, thereby enabling further research.⁷ The APSU is developing information resources for clinicians and the community on rare infections, genetic disorders, mental health conditions and injuries in children. In Australia, the APSU is the only provider of prospective national data on up to 16 rare childhood diseases concurrently, but it receives no ongoing core funding.

Sound evidence is needed to underpin development of policy and services. Sound evidence requires sound research into the causes, management and effects of rare diseases. Australian clinicians, researchers and, most importantly, patients and their families deserve the benefits of a coordi-

nated national plan to address the common burden of rare diseases.

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Drowning and three-wheel strollers

Roger W Byard and Neil Matthews

TO THE EDITOR: In recent years, there has been an increase in the use of highly mobile three-wheel strollers that facilitate parental activities such as jogging. Unfortunately, the very design feature that enables fast transit over uneven ground also makes it possible for unsupervised strollers to move rapidly into situations that may be highly dangerous.

Within the past year in South Australia there have been two separate incidents where infants, one aged 5 months and the other aged 10 months, died after being immersed in the Torrens River. They had both been strapped into three-wheel strollers. In both instances, carers, who had been walking or jogging in the park along the banks of the river, were momentarily distracted — one by a mobile phone call and the other while attempting to use a plastic bag dispenser. The strollers had not had their front wheels

locked or their brakes engaged, or been attached to the carers by wrist straps and so were unrestrained, enabling them to roll rapidly forwards into the water. Police re-enactments confirmed the scenarios described by the carers.

While three-wheel strollers have safety features, such as brakes and sometimes wrist straps, these are not always used. Although consumer organisations have listed a series of recommendations for users of these strollers, this advice is not always being followed. The recommendations include never leaving a child unattended in one of these strollers, always using a wrist safety strap, always engaging the brake when stationary, and locking the front wheel when jogging to prevent swivelling. In addition, specific warnings are issued about stopping on slopes, being distracted by mobile phone calls, and being particularly careful near water, roads and railway lines.¹

Drowning of infants and toddlers in rivers is an uncommon event, with only two cases documented of a total 32 drowning deaths of children under the age of 2 years in South Australia over the 35 years from 1963 to 1998 (rate, 6.25%).² Thus, the occurrence of two drowning deaths within 4 months associated with three-wheel stroller use in parks next to a river is of concern.

While mandatory requirements for safety devices such as parking brakes and tether straps will take effect on 1 July 2008,³ this legislation will have little effect if the devices are not used. Parents and carers must be made aware that infants or toddlers in three-wheel strollers near water are at risk of immersion and drowning. Such warnings should be clearly specified on these products.

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1 Choice. Test: three-wheel strollers. Which ones pass our stringent tests? *Choice* [Internet; subscription only] 2007. <http://www.choice.com.au/viewArticle.aspx?id=104696&catId=100510&tid=100008&p=1&title=Test%3a+Three-wheel+strollers> (accessed Oct 2007).

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Herpes compunctorum: cutaneous herpes simplex virus infection complicating tattooing

Catherine S Marshall, Felicity Murphy,
Shannon E McCarthy and
Allen C Cheng

TO THE EDITOR: A 30-year-old man presented with pain, swelling and discharge from lesions on his left arm. He had undergone extensive tattooing on the arm 3 days earlier at a commercial tattoo operation, where single-use needles were used, with initial drawing of lines followed by additional shading. The patient complained of severe neuropathic pain in the arm, which was greater than would be expected from uncomplicated bacterial cellulitis. He did not give a history of oral or genital herpes and had previously been tattooed without complication. On presentation, the patient had a low-grade fever (37.9°C), a heart rate of 80 beats/min and blood pressure of 130/80 mmHg. He had no neurological deficit.

Vesicular lesions were visible in the region of the tattoo marks, predominantly affecting areas of shading and with minimal spread outside tattooed areas (Box). A bacterial swab of the lesions grew methicillin-sensitive *Staphylococcus aureus*, and a polymerase chain reaction test of vesicular fluid was positive for herpes simplex virus type 1 (HSV-1). The patient was commenced on intravenous flucloxacillin (1 g four times daily) and oral famciclovir (250 mg three times daily). He required ongoing inpatient management for pain relief. Five days after development of the lesions, HSV-1 serology demonstrated positive results for IgM and IgG. An HIV test was negative. The patient's lesions slowly resolved, and he was discharged 7 days after admission.

Most concerns regarding infectious complications of tattooing have focused on transmission of blood-borne viruses, but superficial infections with other pathogens have also been described.¹ The personal care and body art industries are regulated in Australia to minimise the transmission of blood-borne infection,² and most state and territory authorities also publish infection control guidelines.

Herpes dermatitis is often confused with bacterial infection, although co-infection may occur. This distinction is clinically important, as antibiotics and surgical deb-

Vesicular lesions on patient's tattooed forearm



ridement are not usually required for herpetic infections, and herpetic lesions may recur. Secondary herpetic infection complicating skin disease is most commonly associated with eczema (eczema herpeticum) or other skin diseases (Kaposi's varicelliform eruption), and minor skin trauma, such as in herpetic whitlow or herpes gladiatorum.^{3,4} We are not aware of any previous reports of herpetic infection complicating tattoo placement.

The distribution of herpetic lesions in our patient suggested that the needle used for tattoo shading became contaminated with HSV-1 during the course of tattoo placement, but it is also possible that superinfection occurred through damaged skin after the procedure. We propose the term "herpes compunctorum" to describe this condition.

Acknowledgement: We thank forum members at <http://latinforum.org> for Latin grammatical advice.

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Driving assessment and rehabilitation after stroke

Zoe A Allen, Julie Halbert and Lydia Huang

TO THE EDITOR: Helping patients who have had a stroke return to driving when possible should be an important focus in rehabilitation wards. The National Stroke Foundation supports a three-stage approach to assessing ability to drive, comprising physical and cognitive assessment, an off-road driving test and an on-road driving test.¹ Austroads is the association of Australian and New Zealand road transport and traffic authorities, which aims to improve road and road transport outcomes. It provides clear guidelines on criteria for licence and assessment after stroke, but the implementation of these guidelines varies in practice.²

We conducted a review of 53 consecutive patients with a primary diagnosis of stroke admitted to a specialised rehabilitation ward over a 6-month period between January and July 2007. The mean age of the sample population was 77.0 years (SD, 10.7 years), and cognition score (Functional Independence Measure) on discharge was 28.3 (SD, 7.1) (maximum possible score, 35). Each patient completed a survey on driving history. Case notes were reviewed for medical factors associated with admission, any notations about driving, and actions taken regarding driving. Patients were telephoned 6 months after the date of the stroke to determine whether they had resumed driving and, if not, to explore the reasons.

At the time of admission, 26 of the 53 patients held a current drivers licence, a proportion higher than the South Australian state rate of less than 10% for people aged 75 years and over. At the time of discharge, 12 of the 26 patients had their licences cancelled, 11 were referred for medical review after discharge without formal suspension, two were referred for occupational therapy driving assessment, and one was advised not to drive for 6 weeks. At 6 months, only five of the 26 patients (19%) had resumed driving, with one having regained a cancelled licence; six patients cited "lack of confidence" as the reason for not resuming driving.

Reasons for the doctors' decisions regarding driving were poorly documented in the case notes, and the time frame proposed for medical review ranged from 1 to 4 months. Austroads requires a minimum time of 4 weeks post-stroke before patients can resume driving, but does not specify a time

frame for medical or on-road reassessment. Commonly, patients undergoing acute rehabilitation are still within the 4-week period, and assessments regarding return to driving are premature. The low rate of referral to available occupational therapy on-road driving assessment may reflect poor awareness of available hospital resources and online guidelines.

While overseas studies of post-stroke populations indicate a return-to-driving rate between 30% and 58%,³⁻⁵ our rate was 19%. This low rate may represent a lack of formal assessment and driver rehabilitation opportunities. The benefits of formal driving assessment and training are supported by recent studies which found that licensed drivers post-stroke did not have an increased incidence of either car accidents or driving violations.⁶

While most doctors in the rehabilitation ward seemed to have understood the need to address the issue of driving, more formal training in this field is required for doctors.

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¹ National Stroke Foundation. Clinical guidelines for stroke rehabilitation and recovery. 2005. <http://www.strokefoundation.com.au/pages/image.aspx?assetId=RDM38667.5659170602> (accessed Sep 2007).

² Austroads. Assessing fitness to drive. <http://www.austroads.com.au/aftd/index.html> (accessed Sep 2007).

³ Fisk G, Owsley C, Pulley L. Driving after stroke: driving exposure, advice, and evaluations. *Arch Phys Med Rehabil* 1997; 78: 1338-1345.

⁴ Lee N, Tracy J, Bohannon R, Ahlquist M. Driving resumption and its predictors after stroke. *Conn Med* 2003; 67: 387-391.

⁵ Legh-Smith J, Wade D, Hewer R. Driving after a stroke. *J R Soc Med* 1986; 79: 200-203.

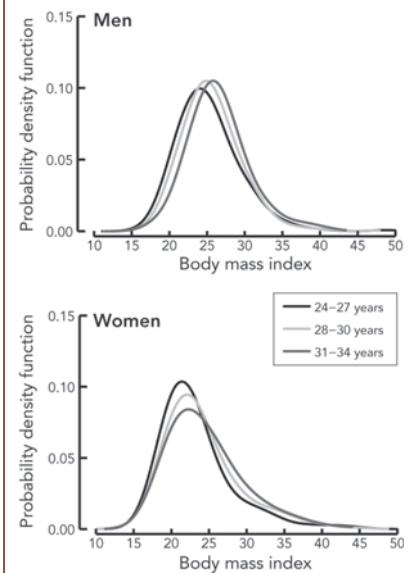
⁶ Akinwuntan A, Feys H, DeWeerd W, et al. Determinants of driving after stroke. *Arch Phys Med Rehabil* 2002; 83: 334-341. □

Correction

Re: "Overweight and obesity from childhood to adulthood: a follow-up of participants in the 1985 Australian Schools Health and Fitness Survey", the letter by Alison J Venn, Russell J Thomson, Michael D Schmidt, Verity J Cleland, Beverley A Curry, Hanni C Gennat and Terence Dwyer, in the 3 September issue of the Journal (*Med J Aust* 2007; 187: 314-315).

The Box showing the distribution of body mass index values for men and women in three different age groups showed two identical graphs of the data for men. The graphs were clearly different in the original submission, but the data supplied were incorrect. The correct graphs are shown here.

Distribution of body mass index values for men and women in three different age groups*



* 24-27 years, 757 men and 854 women; 28-30 years, 767 men and 807 women; and 31-34 years, 673 men and 691 women in the 20-year follow-up of the 1985 Australian School Health and Fitness Survey. ◆