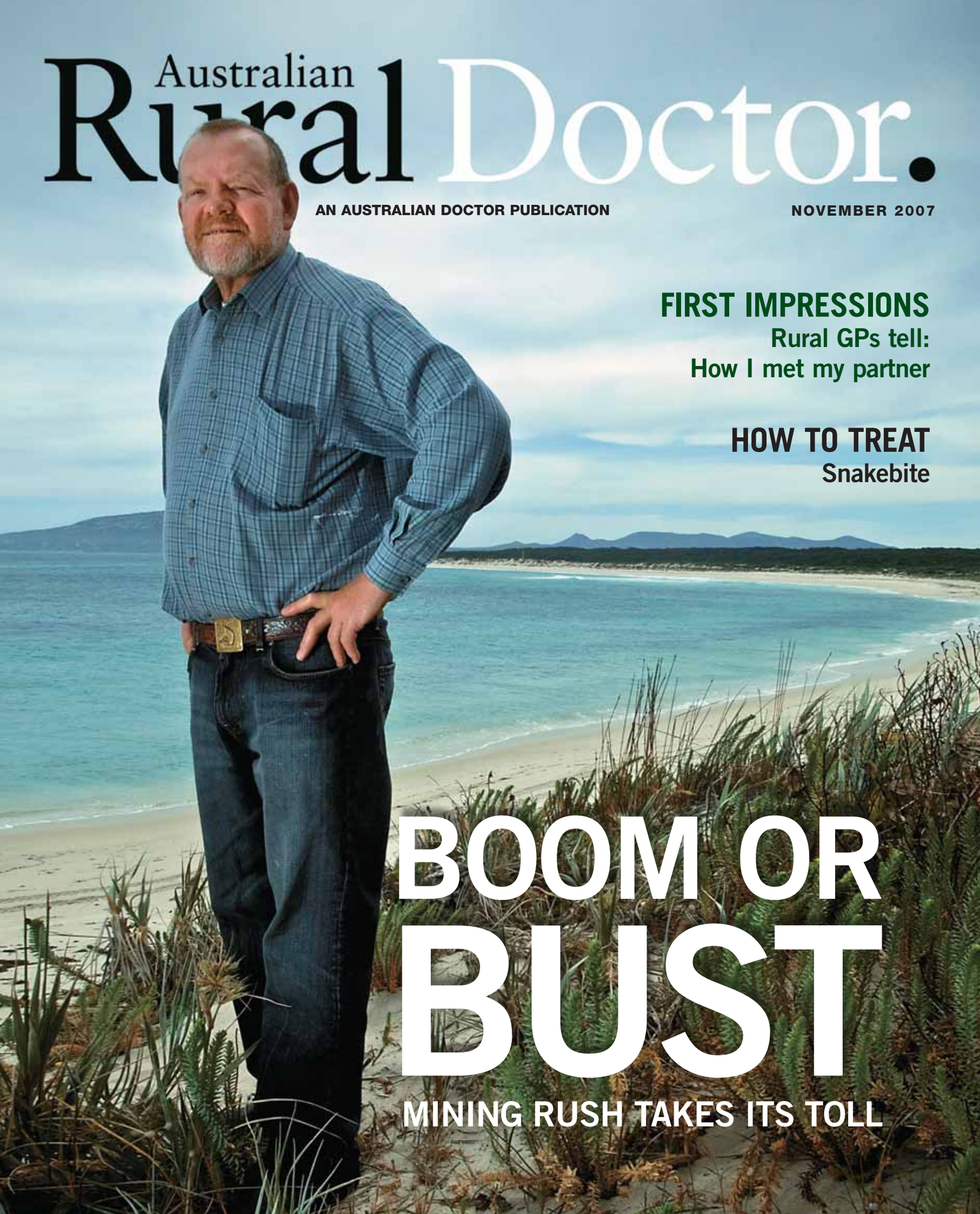

Australian Rural Doctor.

AN AUSTRALIAN DOCTOR PUBLICATION

NOVEMBER 2007

FIRST IMPRESSIONS

Rural GPs tell:
How I met my partner

HOW TO TREAT

Snakebite

BOOM OR BUST

MINING RUSH TAKES ITS TOLL

Australian Rural Doctor.

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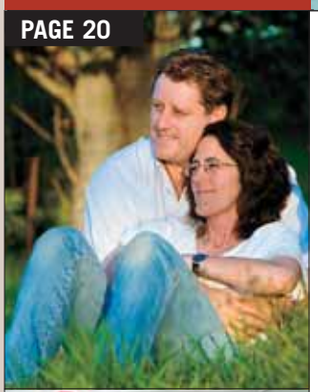
Australian Rural Doctor is published 10 times a year by Reed Business Information, Tower 2, 475 Victoria Ave Locked Bag 2999 Chatswood DC NSW 2067 Ph: (02) 9422 2999 Fax: (02) 9422 2800 Website www.australiandoctor.com.au (Inc in NSW) CAN 000 146 921 ABN 47 000 146 921 ISSN 1449-0048

Australian Doctor.

OUR COVER
Dr Hermanus Lochner, of Hopetoun, WA.

Photo: Evan Collis



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EDITOR'S MESSAGE

Feeling the strain

With Australia's economy riding on the back of the mining boom, remote towns are straining at the sides with development. And their GPs are feeling the pace of change more than most, battling to provide health care for burgeoning populations. Melissa Sweet's report (page 6) focuses on the WA towns of Hopetoun and Ravensthorpe, which are struggling not to bust during the boom.

In a change of pace, and simply for the fun of it, Sophia Russell persuaded four GP couples to tell us how they met. Their answers (starting on page 20) may surprise.

This is the last issue of *Australian Rural Doctor* for 2007. Thank you to the many GPs and their partners who have talked to us during the year. Your stories make this magazine what it is. My best wishes to you and yours for the holiday season and New Year, and please look out for our next issue in February 2008.

Marge Overs, Editor
marge.overs@reedbusiness.com.au

30 LAST YARN
If the mighty Royal North Shore Hospital in Sydney can be left to fall apart, what hope is there for its small rural cousins, asks Dr Vlad Matic.

LETTERS

Not worth the pain

Thank you for the article on accreditation (*Australian Rural Doctor*, October). It was reassuring to know that others are just as frustrated and unimpressed by the process. I am the practice manager and practice nurse for my husband's solo rural practice. We have undergone accreditation this year for the third time and are seriously thinking about not doing it again, despite the carrot of PIP. With luck, my husband will have retired before the next round – indeed it is a catalyst to his retiring.

We have found so many aspects of the standards very prescriptive and, in the scheme of things, they do not enhance patient care or the efficient running of the practice. Doctors are jumping through so many hoops in so many ways. To have this process hanging over your head, always with an increased cost, makes one think, why be a rural GP?

Barbara Newton
Tullamore, NSW

A great read

I have just finished reading the October issue of *Australian Rural Doctor* from cover to cover.

One of our GPs passed it on to me with the message, "You can read this. You might find something interesting, I don't have time." I kept the magazine on my desk and and read it over a couple of days. The GP would walk past my desk, read an article, make a comment and then go on his way, until he had read all the contents.

The reason for this? It has to be the wonderful photography, the articles (funny) that relate to who we are and what we deal with, and just the general concept of an easy-to-read entertaining magazine. Congratulations!

Sonia M Tomlinson
Practice manager
St Elmo Medical Practice,
Inverell, NSW

Menue for change

Rural health care can prompt all manner of dinner party conversations, writes **Dr Peter Rischbieth**, who has a recipe for the next Federal Government.

What is the connection between a federal election and bowel screening?

Apart from the obvious answer, perhaps not much! And while bowel screening is not usually a conversation that crops up over a meal with friends, recently I found myself talking to dinner guests about the Federal Government's National Bowel Cancer Screening Program.

"Whichever party wins government ... the next term will be critical in turning around the unprecedented crisis facing rural health care."

Over a delicious first course, I told them that the program is a great initiative and has real potential to reduce the deaths from bowel cancer in Australia. But over dessert I lamented that the program has become a first-class example of how a promising initiative can be hamstrung by federal-state health care arrangements and the critical shortage of rural health professionals.

The first step is easy enough – those in the appropriate age bracket collect an FOBT sample in the privacy of their home and post it to the laboratory for analysis. However, the trouble occurs when the test comes back positive, as there is often a long and agonising wait for the patient to have a colonoscopy to see whether cancer is present.

Patients in some rural locations are waiting 6-8 months or longer for a colonoscopy at their local hospital. In an ideal world, this relatively quick procedure would be done within weeks of a positive result to ensure any cancer can be treated early.

And because patients must take a laxative preparation before their colonoscopy, it is the sort of procedure that is much better done locally than three hours' drive down the road.

Of course, colonoscopies are only the tip of the iceberg when it comes to the crisis facing rural health care.

Access to a local maternity unit is rapidly becoming a thing of the past in the bush, and there are also an increasing number of cases where rural women have been booked in to deliver at their local hospital but have been turned away at the last minute because of staff shortages.

In other locations, some overworked rural doctors have decided they can no longer provide emergency care at their hospital because an excessive workload has become unhealthy for them and potentially unsafe for their patients.

So what can the next Federal Government do to rectify the situation? The short answer is, a lot!

First, there is a desperate need for a range of new incentives to get and keep more multi-skilled doctors, nurses, midwives and allied health professionals in rural and remote areas.

In a major joint call, RDAA and the AMA have urged the next Federal Government to introduce two rural-specific support incentives for rural doctors, to make rural practice more viable and attractive.

These are a rural isolation payment for all rural doctors (including GPs, specialists and registrars) to reflect the isolation associated with rural practice, and a rural procedural and emergency/on call loading to better support rural procedural doctors (including procedural specialists) who provide obstetric, surgical, anaesthetic or primary emergency on-call service in rural communities.

These supports would make a huge impact on attracting more doctors to the bush at a time when at least 1000 extra doctors are needed immediately in rural Australia to ensure even basic medical coverage.

Second, the next Federal Government must urgently introduce a rural health obligation to ensure all rural Australians have better access to local rural doctors, hospitals and health services, and the state and territory governments must be made to sign up to the obligation before they receive any federal funding under the Australian Health Care Agreements (AHCAs).

Federal funding must also be dramatically increased and quarantined for small rural hospitals in the next AHCAs, and the Federal Government should make these incentive payments available directly to these hospitals for the continuation and reinstatement of the local maternity and other procedural services.

Whichever party wins government on 24 November, the next term will be critical in turning around the unprecedented crisis facing rural health care. RDAA stands ready to assist the next Federal Government in this regard, to (among many other things) get the waiting time for colonoscopies down and the number of rural health professionals up.

The RDAA's Federal Election Position Statement 2007 can be found at www.rdaa.com.au (go to Publications).

PETER RISCHBIETH
is president of the RDAA and a rural doctor in Murray Bridge, SA.

BACKTOBACK

COUNTRY

Dr Cameron Henderson, 58, has spent more than three decades in the same town in north-west NSW and wouldn't want to practise anywhere else. He is married to Jenny, and the couple has two daughters aged 22 and 24, and a 19-year-old son.

Town: Manilla, NSW.
Type of practice: Group/partnership.
RRMA: Four.
How many patients on your books? Thousands.
How long have you been at your practice? 31 years.
Around how many patients do you see in a day? Up to 50.
How many hours do you work in an average week? 40 hours in the surgery over eight sessions. I am also on a one-in-three roster at the hospital, which includes supervising and covering for rural registrars.
How many patients did you see on the busiest day you can remember? More than 50 patients – this is a common occurrence. The difficult aspect of the day is accommodating the booked patients at the consulting rooms and being on call to treat any rural accident or emergency. This creates a constant background psychological pressure of being sharp day and night.
How many weeks' holiday have you had in the past year? Four weeks.
What is your level of involvement in the local hospital? In addition to being on the on-call roster I am a member of the hospital advisory committee.
What is your most memorable day from the past year? Drinking champagne at sunset with the family.
What did you do last Sunday? Pumped water and gardened, in between being on call at the hospital.
What are your hobbies? Farming, grazing and gardening.
If you could work anywhere in Australia, where would you go? I'd stay here.
What is your favourite holiday spot? Wherever the family congregate.

CITY

As well as his general practice work in Adelaide's east, **Dr Andrew Kellie**, 43, is on the board of General Practitioners for Quality, a company that runs a skin cancer clinic and also employs nurses to do health assessments in patients' homes. He and his wife, Kellie, have three sons, aged seven, 13 and 16.

Suburb: Newton, SA.
Type of practice: Group.
RRMA: One.
How many patients on your books? 45,000 (over two sites).
How long have you been at your practice? I was involved in the amalgamation of neighbouring practices three years ago.
Around how many patients do you see in a day? 30-35.
How many hours do you work in an average week? About 50 hours at the surgery or working remotely from home. I do occasional nursing home and home visits.
How many patients did you see on the busiest day you can remember? Fifty or more. When I started in general practice we regularly did 12-hour shifts.
How many weeks' holiday have you had in the past year? About three weeks.
What is your level of involvement in the local hospital? I have admitting rights for general medical patients.
What is your most memorable day from the past year? I usually take my birthday off, but this year I was called in to assist at the emergency Caesarean of one of my patients.
What did you do last Sunday? Converted the sprayers in my garden to drippers.
What are your hobbies? My boys swim and I am president of Payneham Swimming Club.
If you could work anywhere in Australia, where would you go? I'm content here.
What is your favourite holiday spot? Normanville, on the Fleurieu Peninsula in SA.

Compiled by Heather Ferguson

BOOM or bust?

STORY **MELISSA SWEET** PHOTOGRAPHY **EVAN COLLIS**

When Dr Hermanus Lochner first met Hopetoun, it was a sleepy coastal hamlet, whose cheap housing, pretty beaches, bountiful fishing and mild climate explained its popularity with retirees and others seeking a quiet life.

Dr Lochner was soon hooked. He'd been looking for a place to settle since leaving South Africa in 2002, and the peaceful settlement on the south coast of WA seemed just perfect.

But when he moved there in 2003, he never could have guessed the turmoil that was to follow, as the mining boom that has been shaking up communities across the nation struck Hopetoun and neighbouring Ravensthorpe.

In October 2004, BHP Billiton announced its plans for the Ravensthorpe Nickel Project, including a mine and treatment plant, and sparked a construction frenzy that drew thousands of workers to the area over the next few years.

The rapid pace of development would prove challenging for many locals, including Dr Lochner, whose professional endurance was tested to the max by a doubling in his catchment population.

Hopetoun and Ravensthorpe had known mining booms before. Their history shows a pattern of boom and bust, of mines opening and closing, of development stopping and starting. But nothing to compare with this latest rush.

The accommodation market soon gave a dramatic illustration of the laws of supply and demand. Rents and property prices shot up, and there were even reports of garden sheds and garages being let for hefty sums.

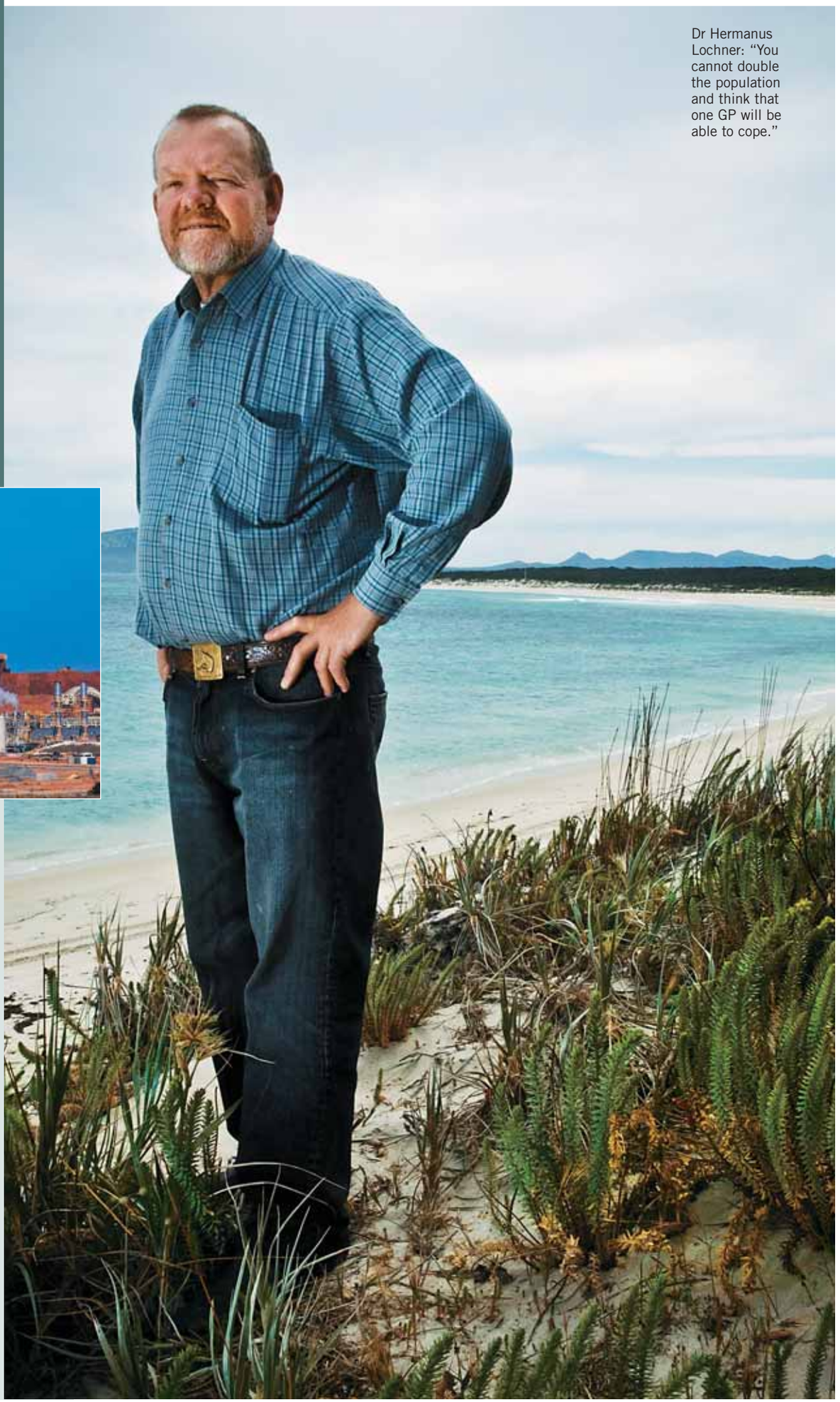
"The saddest part was the people who were renting and who were on the borderline of income, they had to leave town and find somewhere else because the rents went up from $100 to $400 a week," Dr Lochner recalls.

He was lucky to have bought his home before the boom, which saw old asbestos houses, once lucky to fetch $80,000 exchange for $400,000 or more.

It was not only the mine which kept construction workers busy. A new airport, police station and primary school opened, and the town's dirt tracks were tarred. But the inadequacy of local infrastructure was an ongoing frustration for many.

More than 100 new houses were built but plans for others languished on the drawing boards as the local council, state government and developers wrangled over who should pay for sewerage. The lack of power capacity in Ravensthorpe was also a stumbling block to development there.

Rural doctors in mining towns are feeling the strain as the resources boom stretches their resources to the limit.



Dr Hermanus Lochner: "You cannot double the population and think that one GP will be able to cope."

Many services, including the local council, felt the strain: one former shire president estimates the extra council workload cost him more than $100,000 in lost income over five years.

Dr Lochner was also stretched. The only doctor in the area, he already had been busy before the boom, working in practices in the two towns, as well as the Ravensthorpe Hospital.

At the height of the building frenzy, Dr Lochner felt like a rat trapped on a relentless treadmill, never able to get on top of the queues that stretched from early morning until late evening.

The pressure has recently eased, now that the mine construction is

Continued on next page

Hopetoun businessman and ambulance volunteer Darryl Quinn: "I'm giving up my day's work for a mining employee who is getting $1500 to $2000 a week."

Continued from previous page

almost complete and most of the contractors have left town.

"I can tell you it was a nightmare," he says. "After two years of hell, at this point of time, we can look back and say, 'Thank God we've made it'. But there were times I was really, really upset about the whole thing."

While the local shire did what it could and the mine provided some help with fly-in, fly-out locum services, Dr Lochner believes far more planning and effort should have been put into ensuring health services were equipped to cope with the dramatic escalation in demand.

"The mine should have taken on more responsibility for providing health services," he says. "You cannot double the population and think that one GP will be able to cope."

Dr Lochner's job was made even harder because it was so difficult to retain office staff when high wages were on offer elsewhere. "We couldn't compete with the mining sector," he says. "We lost more than 30 staff over a two-year period."

Meanwhile, local businessman Darryl Quinn was also having trouble coping.

Mr Quinn, 59, who moved to the area 11 years ago for a peaceful semi-retirement, found that his furniture shop was suddenly overrun by customers but he couldn't find anyone to serve them.

At the same time, Mr Quinn and other volunteers staffing the local ambulance service were overwhelmed by a sudden doubling of their workload. The mine's ambulance would only take sick or injured workers to the nearest hospital at Ravensthorpe, meaning the local volunteer service often had to then take them to Esperance Hospital – a six-hour return trip.

This meant Mr Quinn and other volunteers losing work or family time. "All these people who come from the city have got no idea that we are volunteers and we don't get paid," says Mr Quinn, who chairs the Ravensthorpe sub-centre of St John's Ambulance.

"I'm giving up my day's work for a mining employee who is getting $1500 to $2000 a week."

Mr Quinn had many frustrating arguments with WA Health Department officials, who repeatedly promised "to look into it".

"I'm starting to call them 'mirrors' because they're always looking into it," he adds.

Mr Quinn is disappointed the WA Government did not cater adequately for the area's burgeoning needs for services. While he knows some locals are not so happy with the changes, he thinks the mine's development has been good for the town, and is hoping to sell his shop for a tidy profit.

"I think progress is progress and you've got to embrace it," he says.

The challenges confronting the Hopetoun district are all too familiar for Dr Felicity Jefferies, CEO of the health recruitment and retention agency, Rural Health West (formerly WA Centre for Remote and Rural Health). The mining boom is putting a huge strain on many rural and remote communities in WA, she says.

Dr Jefferies knows of doctors and other health professionals who've been unable to work because of the lack of childcare in mining towns, which tend to have a high proportion of young families.

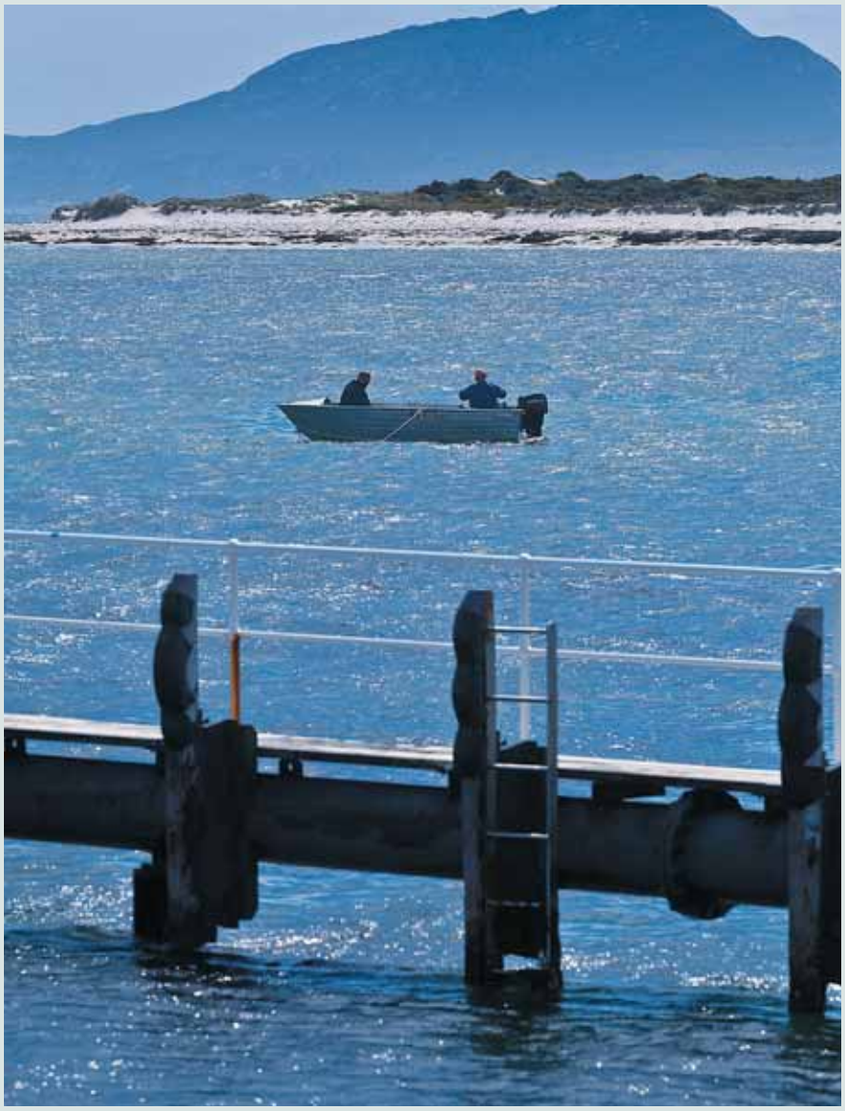
Soaring rents and accommodation shortages also make it difficult for health services to attract and retain staff. "A cleaner working in a hospital doesn't earn enough to rent a house in Karratha, where they're paying $1800 a week to rent a small fibro house," she says.

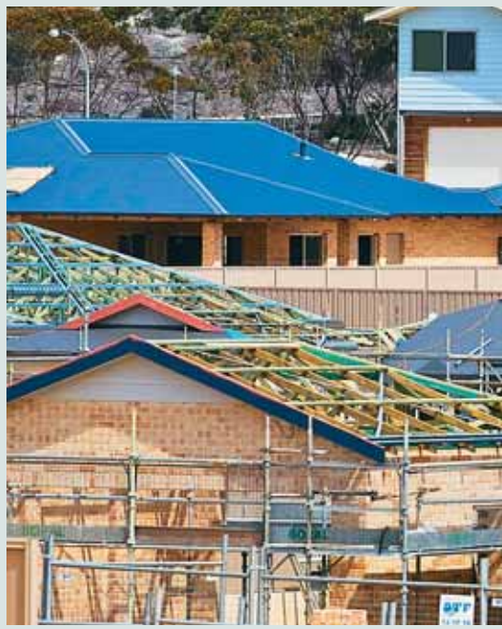
Continued page 10

Portrait of a boom

- **Mining industry profit margins peaked in 2005-2006 at 19.9% compared with 2.3% in 1982/83.**
- **Net profits in 2005/06 increased by 74% to $11,771 million – the highest level since records started in 1977/78.**
- **The total amount of direct and indirect tax liabilities incurred by mining companies in 2005/06 was $7032 million – 120% higher than in 2004/05.**
- **Total employment increased by 19% to 82,588 people in the year to 2005/06.**
- **Australia's export earnings from mineral resources rose to a record $106.5 billion in 2006-07, an increase of more than $15 billion or 17% from 2005-06.**

Sources: Minerals Council of Australia and the Australian Bureau of Agricultural and Resource Economics





From the serenity of a sleepy coastal village (left) to the building frenzy (right), some locals say Hopetoun's atmosphere changed markedly during the mine's construction.

"And you can't get good practice managers or administrative people to work in your practice because the moment you get them up to scratch, they're gone to work in the mines."

Dr Jefferies says the mines' reliance on fly-in, fly-out workers has also been detrimental, affecting the capacity of community groups and the profitability of local businesses.

"Kalgoorlie is a good example of this," she says. "A lot of the shops in the main street are closed. People who fly in and then go back home the next week don't really put anything back into the community."

Such problems are likely to become more common, with industry projections showing scores of new projects on the drawing boards across the country.

Dr Jefferies notes that the Karratha population, for example, is predicted to soar from 15,000 to 50,000 over the next 30 years.

She says those profiting from the boom, including the mining industry and federal, state and local governments, should do more to help the communities affected. "Over the years, we've seen everything taken out of towns and nothing going back," she says.

Similar concerns are raised by Dr Sheilagh Cronin, a GP at Cloncurry in Queensland, who has watched the boom drive up housing costs in her area.

It seems so unfair, she says, that the communities contributing so much to national prosperity are left with poor services and infrastructure, particularly in education and health.

"Mt Isa is one of the biggest lead mines in the world and contributes to the wealth of this state and yet the hospital and the district have been grossly underfunded for years and years," she says.

"Recently Queensland Health has put more money in and there has been a change in the past couple of years, but they've got a lot of catching up to do."

Dr Cronin agrees that the move towards a fly-in, fly-out workforce has been bad for communities. "The days of mining companies building towns have disappeared," she says. "What they do now is build airports."

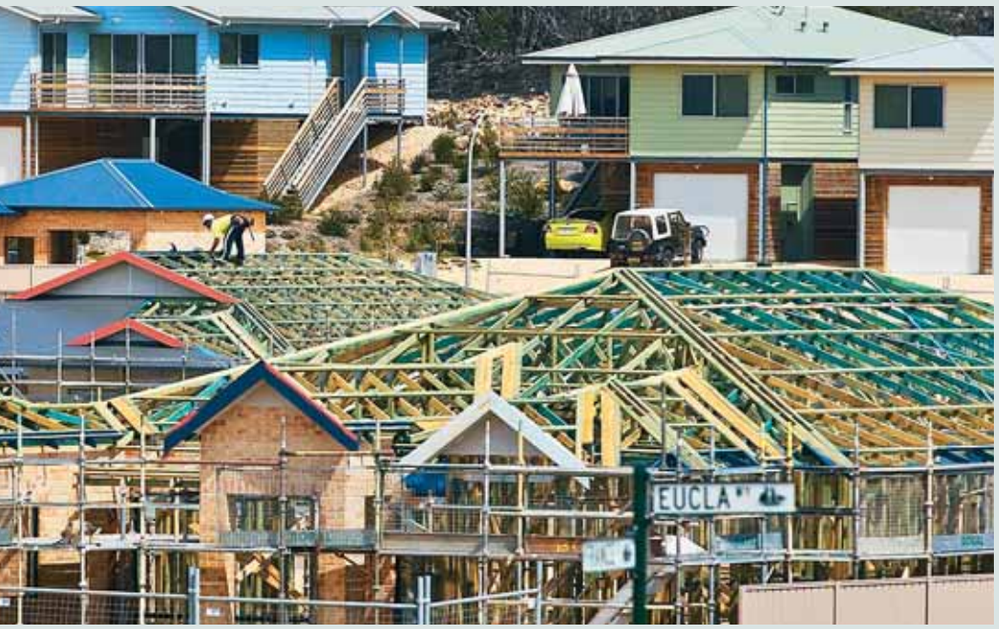
While the industry is funding several important health projects in Mt Isa, Dr Cronin believes companies need to put more back into the local communities supporting their operations.

"At the end of the day, they want their workers to be looked after properly, but they can't expect small communities to take the load and subsidise their operations. The dollars we're talking about are absolute peanuts in the scheme of what they're making."

Such complaints are not news to the industry – the Minerals Industry Council often refers to the importance of maintaining what it calls its "social licence to operate", or "the unwritten social contract with the communities in which it operates".

But the industry is also quick to stress the responsibility of governments.

The council's chief executive, Mr Mitchell Hooke, told a conference last year: "We know we are stripping communities of essential services and personnel attracted to the employment and enterprise opportunities of our businesses, but governments at all levels



"Mt Isa ... contributes to the wealth of this state and yet the hospital and the district have been grossly underfunded for years and years."

DR SHEILAGH CRONIN

are increasingly deferring to minerals companies to be a proxy for governments in providing critical social infrastructure – including housing, medical and ancillary services, utilities, day care, education, even to the point of entertainment and recreation facilities."

Back in Hopetoun, the mining operation is expected to begin full production early next year, with 650 workers and contractors. According to BHP Billiton, about 300 of these already live in the region and another 150 are expected to move there by mid-2008.

The company declined to allow a representative to be interviewed for this article, but said in a statement that Ravensthorpe Nickel had contributed more than $9.5 million capital towards community infrastructure, as well as $120 million to residential land, housing and community amenities for employees.

BHP Billiton had also provided housing for police and teachers, and money for a variety of local groups, including contributing funds to an independent review of medical services.

The secretary of the Hopetoun Progress Association, Ms Jane Waterton, says the company deserves credit for encouraging workers to get involved in the community, but is concerned about the detrimental health and social effects of the 12-hour shifts and onerous working conditions.

"As somebody said to me the other day, 'We're living in this gorgeous piece of the world and we don't see it – we go to work in the dark, we come home in the dark and on our days off, we're stuffed'."

Ms Waterton, 53, moved to Hopetoun from NSW last year after her partner found work at the mines.

"I just love it here," she says. "We have been welcomed with open arms."

But she worries about the impact of development on the local environment.

"With extra people, some of the pristine beauty is going to change," she says. "We've

Continued page 13

Dr Rachel Harvey: the arrangement with Xstrata Coal is a good model.

Long hours at the coalface

At Glenden, a coal town in central Queensland, the days are long and demanding for the local GP, Dr Rachel Harvey. And they are about to get even tougher.

Four hundred new families are due to arrive in the 1500-strong town soon, as a result of the local mine's expansion, and Dr Harvey is wondering how on earth she will cope.

"It's going to stress me out," she says. "There are not enough hours in the day now. I often don't get home before 10 o'clock at night as it is."

Dr Harvey, 39, moved to Glenden a year ago. She loves the town and, with three children herself, the opportunities for socialising with other young families.

Incomes are high and rents are heavily subsidised by the company at about $30 a week. "If you live here, you're on a really good wicket," Dr Harvey says.

Alcohol is a major problem, however. "You've got a whole bunch of young men who have nothing else to do in their spare time and they've got plenty of money, so they sit around and drink," she says.

"The other big problem we have is fatigue. We get a lot of young men in car accidents that are very serious. They finish a 12-hour shift and jump in their car to drive home to Mackay or Bowen."

Dr Harvey speaks highly of Xstrata Coal, which pays a retainer amounting to about a third of her income, and also leases her the surgery and house.

She stresses, however, that the company has no say over how she runs the practice.

"I personally think that this arrangement with the mine should be held up as an example of how mining companies can make a health system work," she says.

"They have recruited the right person, paid the right amount of money, and provided the right resources. If I request extra resources or time off, there's never a problem with that. If I say, 'I want to run a quit smoking program', they will subsidise it."

However, Dr Harvey has few kind words for state and federal governments, which she believes are neglecting their responsibilities. She struggles to find services to help patients with mental health or domestic violence problems, and feels Medicare does not properly remunerate her, especially for emergency work.

"The government has a lot to answer for," she says.

Dr Sue Kitchin says Karratha is a great place to raise a family.

Lovely place, but few

In many respects, Karratha is a wonderful town to raise a family, says Dr Sue Kitchin, who has had two babies since moving to WA's north-west almost three years ago.

As with many mining towns, there are plenty of other young families. "It's an amazing community," says Dr Kitchin, 33. "Being a mum, it's fabulous, there are lots of play groups and support."

But on another level, there is also a staggering lack of support for families. Dr Kitchin, 33, who works part time at the Dampier Medical Centre, saw many who were terribly affected by the temporary closure of Karratha Hospital's maternity services earlier this year.

Expectant women were flown out at 36 weeks to Port Hedland or Perth, putting big pressure on families, Dr Kitchin says.

She has first-hand experience of the lack of childcare. If strings hadn't been pulled, she wouldn't have been able to return to work after maternity leave this year, despite the area's crying need for doctors, because she couldn't find a place for her children.

Another critical issue is the lack of mental health

services

services. "Mental health is a huge issue up here because you've got people on shift work, doing fly-in, fly-out, and you do see a lot of relationship difficulties. It's very hard to get an appointment for someone who needs to be seen acutely."

Dr Kitchin says it can be disheartening for doctors when many of their patients are getting more money and support from their employers than they are.

"If you work for one of the big mining companies, you're getting a minimum of six figures, your housing provided, subsidised air con, and other allowances like family flights to Perth," she says. "For the medical staff who come up with the Health Department, there's no equality."

The mining boom has also made it difficult for practices to retain staff, especially when houses routinely sell for more than $800,000 and rents can reach more than $2000 per week.

"There are a lot of people who can't afford to stay here," she says. "We've lost a lot of small businesses."

Despite all the drawbacks, Dr Kitchin has no regrets about her move to a mining mecca. "I actually love being here," she says.

Continued from previous 11

already lost a large amount of bush for the housing and that's a real pity. People say that's progress but sometimes progress isn't progress."

Ms Alison Bell, who moved to Hopetoun from Brisbane to take up a job as community nurse several years ago, is another who laments the destruction of bushland. She also believes the new subdivisions are not sympathetic to the local character.

Ms Bell, 43, says the town's atmosphere changed markedly during the mine construction.

She was one of many locals who stopped frequenting the pub, which changed from being a friendly community venue to a rough booze barn with regular fights.

The mine changed more than Ms Bell's social life. She saw that her partner, Dr Hermanus Lochner, was overrun with work and needed her help, so she left the hospital to work with him as a practice nurse.

"It was a very stressful few years," she said. "We had a dispensary and when you have an extra 3000 people on your door, even if they didn't want medical services, they wanted medicines."

While Ms Bell thinks most locals have probably come to terms with the mining development, she is not one of them. "I was quite happy the way things were," she says.

Hopetoun practice nurse Alison Bell: "With extra people, some of the pristine beauty is going to change."

Snakebite – part one

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Photos courtesy of Peter Mirtschin, Venom Supplies.

We live in a country with some of the most diverse venomous creatures in the world and none is more feared or notorious than our highly venomous snakes. Snake venom is made up of a complex mixture of toxic and non-toxic substances, mostly proteins. Effects of Australian venom are usually species specific, but in general include:

- neurotoxins
- procoagulants
- anti-coagulants
- rhabdomyolysins
- haemolysins (weak).

Snake venom neurotoxins

Australian snakes produce neurotoxicity through toxins that target both presynaptic and postsynaptic neuromuscular junctions. Depending on the snake species, there may be more than one toxin targeting a component of the neuromuscular junction. The toxin's activity may also involve more than one mechanism, but different toxins and targets all have the common purpose of producing paralysis.

Some species, such as the taipan, have both pre- and post-synaptic neurotoxins in their venom, while others, like death adders, only have post-synaptic neurotoxins. All neurotoxins aim to produce the same result – paralysis of the victim – so the visible and detectable effects of neurotoxins in the snakebite patient are generally the same. However, the means differ and the treatment needed for varying snakebites, and the risks to patients, can be very different.

Procoagulants

There are four different classes of prothrombin-activating toxins that are defined by their need for blood cofactors (ie, platelet phospholipids, Ca2+ and/or factor V). Not all snakes have procoagulant venoms, however, and they are notably absent from the venoms of death adders.

The consequence of abnormal prothrombin activation is a depletion of available fibrinogen resulting in consumption coagulopathy and incoagulable blood.

Tiger snakes are found in the temperate areas of southern Australia, and are particularly large and venomous in Tasmania.

Disseminated intravascular coagulopathy is the dominant clinical outcome and is the cause of the bleeding from mucosal membranes and venepuncture sites, prolonged clotting times and haematemesis.

Anticoagulants

The true anticoagulants bind to Factor IX and Factor X and produce anticoagulation without concurrent fibrinolysis. These toxins are typically phospholipases A2 (PLA2) and may also be involved in collagen-induced platelet aggregation.

Bleeding may be a clinical feature, but is usually not as significant as that seen following prothrombin activation by procoagulants.

Snake-venom-induced myotoxicity

Many neurotoxic phospholipase A2 toxins are also potent myotoxins that are destructive to skeletal muscle tissue. Venom-induced myonecrosis involves the disruption of the individual muscle cell plasma membranes and a disorganisation of the muscle fibres.

These effects can result in rhabdomyolysis and myoglobinuria arising from elevated serum myoglobin level, as tissue damage progresses.

Some experts postulate that renal failure in snakebite is secondary to myoglobinuria, but others postulate a direct neurotoxin.

Although we have arguably the most venomous snakes in the world, mortality from snake bite in Australia is not as high as other countries, such in Papua New Guinea. The higher mortality is thought to be due to a number of factors including:

- poor teaching of appropriate first aid and use of traditional treatments
- poor medical facilities
- increased exposure to venom (people tend to walk barefoot at times such as dawn when snakes are most active)
- lack of access to reliable and effective diagnostic tools and to safe and dependable antivenoms.

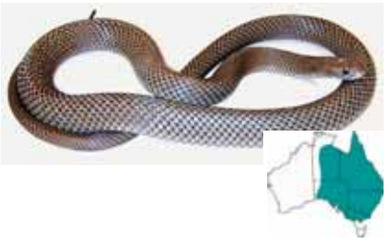
CASE HISTORY

Jack, 11, presents to your local emergency department after telling his mother he has been bitten on the foot by a snake. Wearing only thongs, he was playing with friends in the local scrub land when he accidentally stepped on the snake. His mother applied a pressure immobilisation bandage and brought him to you for treatment. Jack is clinically well. How would you manage him?

Case outcome, page 18

Snakes of major medical importance

Common or eastern brown snake (*Pseudonaja textilis*)



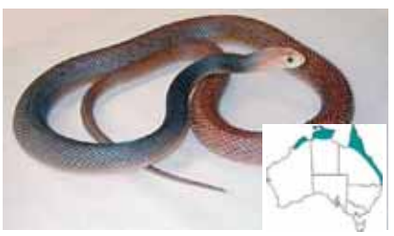
Snakes of the genus *Pseudonaja*, which also contains the dugite (*P affinis*) and the gwardar (*P nuchalis*), are found throughout mainland Australia and are responsible for most snakebite deaths in this country. Coagulation disturbance and neurotoxicity are common in brown snake bites. Myolysis is not a feature of brown snake envenomation, although renal failure may develop as a result of direct nephrotoxicity or disseminated intravascular coagulation.

Tiger snake (*Notechis scutatus*)

Tiger snakes are found in the temperate areas of southern Australia, including Tasmania, where they are particularly large and venomous. Identification of tiger snakes by the presence of stripes is unreliable, since they vary with the seasons and the maturity of the snake.

There is also an unstriped black species (*N ater*) and several other venomous and non-venomous Australian snakes may also be striped. Features of tiger snake envenomation include neurotoxicity (caused by pre-synaptic and post-synaptic neurotoxins), coagulopathy and rhabdomyolysis.

Taipan (*Oxyuranus scutellatus*)



This aggressive and highly venomous snake is found along the coast of northern Australia from Brisbane to Darwin. It has the largest fangs and is the longest venomous Australian snake.

The clinical syndrome includes neurotoxicity, coagulopathy and rhabdomyolysis. Before the development of an antivenom in 1955, any clinically envenomed taipan bite was almost invariably fatal.

Fierce snake (*Oxyuranus microlepidotus*)

Also known as the western or inland taipan or the small-scaled snake, this snake produces the most toxic venom of any snake worldwide. Although its supposed range is limited to a small area of western Queensland, there have been historical reports of it venturing well outside this area, including into northern NSW and as far as northern SA. The true current range is unknown.

Black snake (*Genus pseudechis)*

Mulga or king brown snake

This genus includes the large mulga or king brown snake (*Pseudechis australis*) and the red-bellied black snake (*P porphyriacus*), as well as Collett's snake (*P colletti*), the blue-bellied black snake (*P guttatus*) and the Papuan black snake (*P papuanis*).

The mulga snake has the largest recorded venom output of any snake and is found throughout Australia, except in Victoria, Tasmania and the most southern parts of WA. The name "king brown" snake may lead to confusion and to the incorrect use of brown snake antivenom, and is therefore best avoided.

Mulga snake venom contains myotoxins, procoagulants and possibly neurotoxins.

The red-bellied black snake, while still dangerous, is somewhat less venomous than many other Australian snakes.

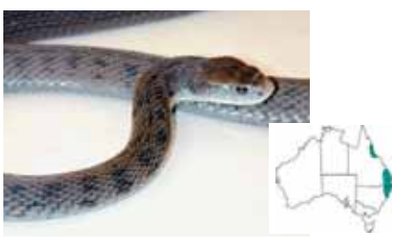
Its bite may cause coagulopathy, neurotoxicity and myolysis, but no deaths have been confirmed. Its range covers eastern Australia, but not Tasmania.

Copperhead (*Austrelaps superbus*)

This snake is limited to Victoria, Tasmania, the western plains of NSW and possibly the southern parts of SA. It is the only venomous snake found above the snowline. It produces copious amounts of venom with neurotoxic, pro-coagulant and myolytic activity but rarely causes fatalities. Its bite may be effectively treated with tiger snake antivenom.

Rough scaled snake (*Tropidechis carinatus*)

Also called the Clarence River snake, this hostile snake is found only in isolated pockets along the coast of Queensland and northern NSW. Its venom contains myolytic, coagulant and neurotoxic components.



Death adder (*Acanthophis spp*)

The death adder, which is found throughout Australia with the exception of Victoria and Tasmania, is readily identified by its short squat appearance. Unlike most snakes, the death adder will not necessarily retreat from humans and may therefore be more easily trodden upon or disturbed by the unwary. Its venom contains a post-synaptic neurotoxin, with negligible coagulant or myolytic activity.

Making the diagnosis

Given the size of snakes and the sometimes dramatic circumstances surrounding snakebite, it may seem that the diagnosis of snakebite should be obvious.

Although this is often the case, snakebite occasionally goes unrecognised by the patient and hence by his or her attending physician, leading to delayed or incorrect diagnosis and treatment.

Reasons for this include:

- The bite itself may not be dramatic or painful as most Australian venomous snake fangs are small at 3-6mm long (although the taipan's fangs may reach 13mm).
- Australian snake venom generally causes little local pain or tissue destruction. Occasionally this means the bite is unrecognised or mistaken for a scratch or an insect bite or sting. There have been a few fatalities and patients sent home incorrectly because the clinician did not think the suspected bite site was consistent with a snake bite. Examination of the bite site itself usually reveals small punctures or scratches, with little surrounding tissue reaction. The bite site may be difficult to see, and may be overlooked if the patient is unable to identify the bitten area.
- Patients who are unable to give a clear history of snakebite are more likely to be misdiagnosed. Such patients include children, confused or comatose patients and people who are intoxicated. In addition, amateur herpetologists keeping venomous snakes illegally may be reluctant to present for medical help, may present late and may provide incomplete or spurious information.

HOME TRUTH

- Identification of snakes is often unreliable: polyvalent antivenom should be used if the type of snake cannot be identified in all areas of Australia apart from Tasmania, where both tiger snake and copperhead bite may be successfully treated with tiger snake antivenom, and Victoria, where bites should be treated with combined tiger/brown snake antivenom.

Features suggestive of snakebite

Location

Snakebite most commonly occurs outdoors. Typical snake country includes long grass, bushland, hay sheds (where rodents attracts snakes) or moist swampy areas. Snakebite can also occur in suburban areas and occasionally in the home. It has even happened in a hospital bed!

Identification

Correct identification of the offending snake will aid in the choice of the appropriate antivenom and alert clinicians to particular features characteristic of envenomation by that type of snake.

However, identification of snakes by the general public or by hospital staff is frequently unreliable, as scale appearance and colour are variable within species and many species may be confused on superficial inspection. Sometimes, the snake is not seen, or is only glimpsed in retreat.

If there is any doubt as to the identification of the snake, the bite should be treated as if the snake were unidentified, that is with a snake venom detection kit and if necessary with combined tiger/brown antivenom in Victoria, with tiger antivenom in Tasmania and with polyvalent antivenom in all other Australian states and in PNG

In Tasmania, the only venomous snakes of clinical importance are the tiger snake and the copperhead, both of whose bites may be successfully treated with tiger snake antivenom.

For all other areas of Australia, as well as Papua New Guinea, polyvalent antivenom should be used if the type of snake cannot be identified.

In cases of snakebite involving zoo staff, herpetologists or other experienced snake handlers, the snake's identity may be known (although this cannot always be relied upon, particularly in the case of enthusiastic amateurs).

Identifying a tiger snake by the presence of stripes is unreliable, as the stripes vary with the season and age of the snake. Also, as above, some tiger snakes are unbanded.

Children

Due to their inquisitive and fearless nature and tendency to play outdoors, children are at risk of snakebite, and are more likely to sustain multiple bites when they encounter snakes.

Combined with their lower body weight, this means that children may be more quickly and severely affected by snakebite.

PRESENTATION

Symptoms and signs of envenomation may include:

- **EARLY (within 30 minutes)**
  - headache, nausea/vomiting, abdominal pain
  - coagulopathy
- **LATE (within several hours)**
  - cranial nerve palsies (ptosis, ophthalmoplegia, dysarthria, dysphonia, dysphagia)
  - limb and truncal weakness
  - respiratory failure
  - haemorrhage
- **VERY LATE (delayed presentation, wrong/inadequate treatment)**
  - prolonged paralysis
  - renal failure
  - uncontrollable haemorrhage

Investigating suspected snakebite

THE GEMS

- Correct diagnosis of snakebite may be delayed because the bite may not be dramatic or painful, and snake venom generally causes little local pain or tissue destruction.
- Identification of snakes is often unreliable: polyvalent antivenom should be used if the type of snake cannot be identified in all areas of Australia apart from Tasmania, where both tiger snake and copperhead bite may be successfully treated with tiger snake antivenom.
- Children are more likely to sustain multiple bites and may be more quickly and severely affected by snakebite than adults because of their lower body weight.
- The combination of neurological disturbance and evidence of defibrination in a patient with an appropriate history is strongly suggestive of severe envenomation.

In managing the patient with suspected snakebite, it is necessary to establish whether significant envenomation has occurred and to attempt to identify the type of snake involved. A significant proportion of venomous snakebites don't result in envenomation. The use of antivenom should be reserved for those cases with clinical or pathologic evidence of envenomation.

Snake venom detection kit

This is a rapid two-step EIA (ELISA) test used to select the most appropriate antivenom. Swabs from the bite site are the best sample for use in the CSL Snake Venom Detection Kit. (To order a kit, call CSL on 1800 008 275, cost $275.) The patient's clothing may be swabbed for venom and samples of blood or urine may also be used, although the results may be less reliable than those obtained from the bite site, especially if the urine is collected soon after envenomation has occurred.

Large quantities of venom at the bite site may occasionally lead to difficulty in interpreting the results of the test, since the large amount of venom will tend to "overwhelm" the kit producing positive results in more than one well.

Swabs from the bite site are the best sample for use in the CSL Snake Venom Detection Kit.

Careful attention to the instructions provided with the kit, particularly with regard to reading times, and sometimes dilution of the venom sample, will minimise this problem.

The presence of venom at the bite site is not in itself an indication that systemic envenomation has occurred, nor can its absence be used to exclude envenomation.

Clotting studies

- INR/PT, APTT, ACT, D-dimer, X-FDP, fibrinogen.
- In remote areas where sophisticated clotting tests are unavailable, a 20WBCT test can be performed. This is a simple effective test of envenomation, where whole blood is placed in a glass container/bottle, left untouched for 20 minutes out of direct sunlight, and then reassessed to see if it has clotted. If the blood has not clotted, the patient has a coagulation problem and the likelihood of envenomation is high.

Creatine kinase

- indicating myolysis.

Urinalysis

- haemoglobin, myoglobin.

Other tests include:

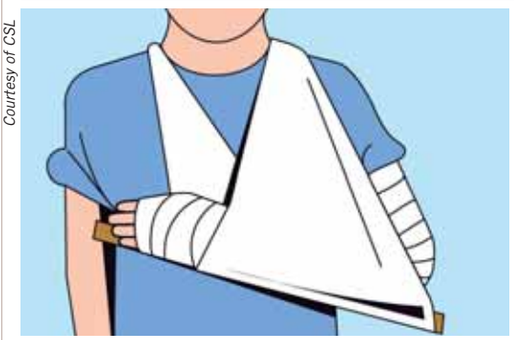
- renal function: may be impaired secondary to myoglobinuria or other mechanisms
- WCC: usually only mildly elevated. A significantly raised WCC may indicate other pathology.

Next issue: First aid and hospital treatment for snakebite

DIFFERENTIAL DIAGNOSIS OF VENOMOUS SNAKEBITE

- non-venomous snakebite
- bite or sting by other venomous creature (arthropod, including spider, octopus, jellyfish)
- CVA
- ascending neuropathy, eg Guillain-Barre syndrome
- AMI
- allergic reaction
- hypoglycaemia/hyperglycaemia
- drug overdose
- closed head injury

The combination of neurological disturbance and evidence of defibrination in a patient with an appropriate history is strongly suggestive of severe envenomation.



Courtesy of CSL

A pressure immobilisation bandage.

CASE OUTCOME

From page 15

A snake venom detection kit using a swab from the bite site tests positive to the Tiger snake well. Jack's blood tests, taken shortly after presentation, are within normal limits. The pressure immobilisation bandage is taken down and Jack is observed for 12 hours for any clinical features suggestive of envenomation. He remains clinically well and repeat blood tests are normal. Jack is discharged with advice about wearing proper footwear when playing in scrubland.

Mad as a cut snake. Bush Tales, page 27

First impressions

From a near crash-landing in India to courtships at medical school, four rural GP couples tell SOPHIA RUSSELL how they first met.

Fate has been doubly kind to Dr Duncan Mackinnon, 47, and his wife Sue, 45, who met when their plane crash-landed in India.

Town: Bega, NSW
Met in: New Delhi, India
Together for: 14 years
Children: Katie, 13, Kirsty, 11, James, 10, and Anna, 8

Duncan:

I was 29 and had been studying in the UK. I was flying home to Australia for my brother's wedding when we first met.

As the Air India jumbo jet was coming into New Delhi for our stopover, I looked out the window. The wing was on fire and burning incredibly quickly. Seconds after that, the wings fell off, and the plane came to a screeching halt on the runway.

The chute went down and we were taken to the airport from the tarmac. There were only five other Europeans in the plane, and that's when I met Sue. She was one of the five.

I noticed that Sue had a very different haircut. It was just extraordinary – it looked like an Afro. When we flew to Australia, I swapped seats with the person next to her for a while and had a chat. It was wonderful to listen to someone who really loved the Australian country. Sue had a really insightful attitude to life, and that really impressed me.

Surprisingly enough, we were booked on the same return flights two weeks later so we met again, in the cafeteria area. She was there with her friend saying goodbye; my family was seeing me off.

We weren't near each other on the flight back, but we did catch up when the plane refueled in Singapore and exchanged numbers.

We dated for a while in the UK but went our separate ways. Thankfully, five months after our exams passed, Sue sent me a stinking letter saying, "You said you'd get into contact and you haven't", so I made the call.

That was 14 years ago, and it was the best move of my life. We moved to Australia together in 1996. She's been terrific. And to think, if the plane had lost its wing only 30 seconds earlier, we both wouldn't be here today.

Sue:

I was flying to Australia because I had a boyfriend in Bourke. On the plane, I mostly remember seeing the flames come out of the engine, but I wasn't brave enough to press the air hostess button!

When I first met Duncan, I thought he was a bit smooth for me. When we got off, we were on the side of the airfield and everyone was watching the plane burn.

By the time we got into the terminal we were laughing. I think that's a very English response to anything. People were passing out behind us and the air doctor was checking them out, but we didn't notice.

We spent time on the rest of the flight together and I thought: "Gosh, he's really nice." Later in Australia I met up with the chap I'd gone out with and we mutually decided it wasn't going to work.

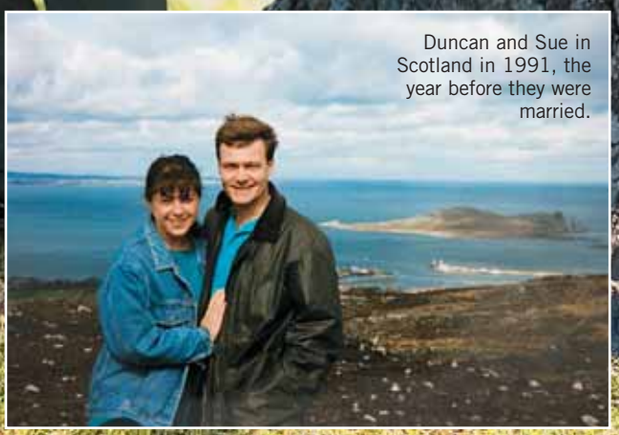
Back in the UK, we started dating while I was studying midwifery in Yorkshire. Before we married, Duncan and I had two years of big ups and downs, but since we got married, I've never looked back. This sounds very old fashioned, but essentially he's a very decent, godly person. Plus, of course, he's funny and sexy and I fancied him!

Continued next page

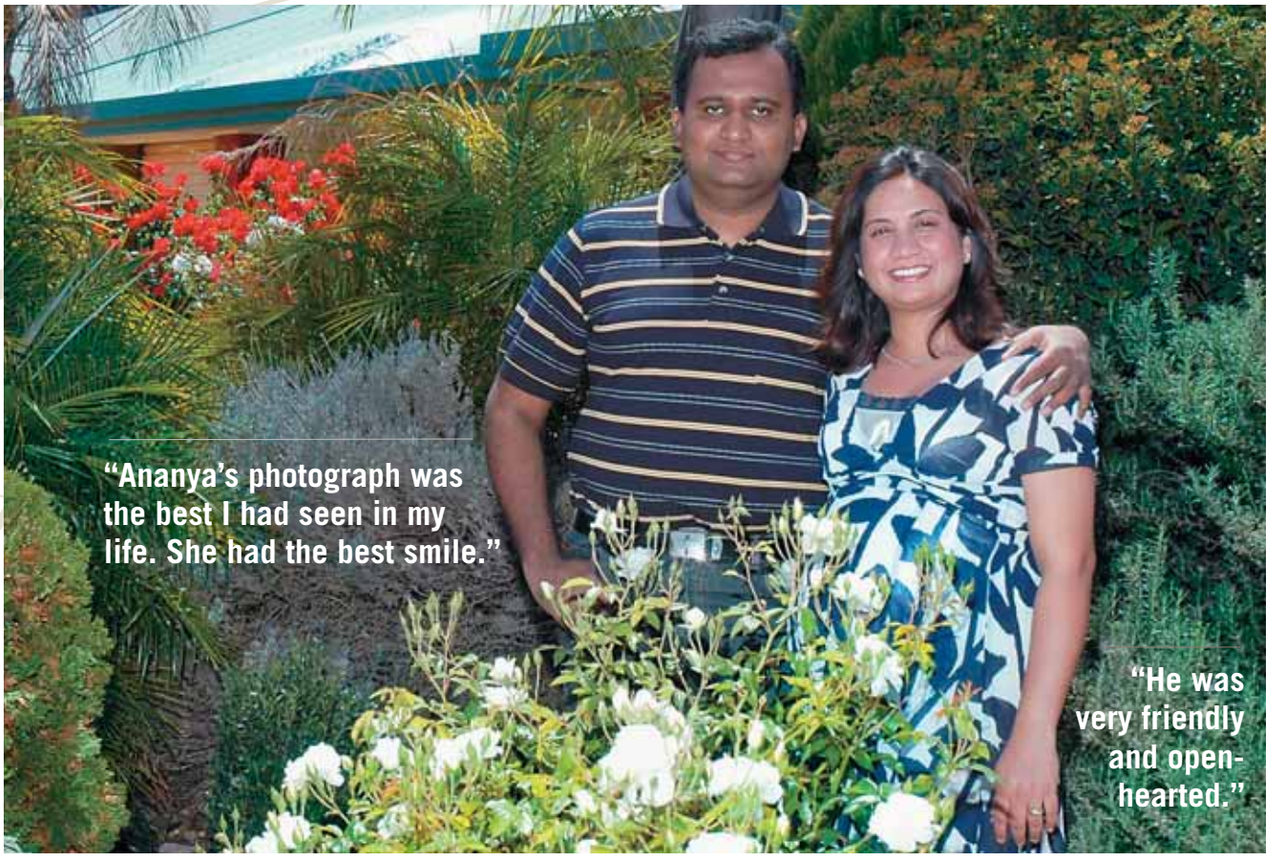
Ean Hargreaves

"Sue had a really insightful attitude to life, and that really impressed me."

"I thought he was a bit smooth for me."



Duncan and Sue in Scotland in 1991, the year before they were married.



Cam Cap

Their marriage was arranged, but that didn't stop Dr Pradeep Vijayanand, 30, and Dr Ananya Arthashri, 26, taking their time to make sure the match was right.

Town: Port Augusta, SA
Met in: Bangalore, India
Together for: three years
Children: expecting their first child as *Australian Rural Doctor* went to press

Pradeep:

My parents had always wanted me to marry a doctor. I'm not sure why; I wasn't as particular. They met another couple at a wedding, and came to know they had a daughter who was studying medicine and doing her internship. They sent me a photograph of her, and a photograph of mine was given to their family to have a look.

Ananya's photograph was the best I had seen in my life. She had the best smile. That's what took me. I was doing my thesis in Manipal on the west coast of India at the time, so I took a couple of days off to travel about 500km to Bangalore to see her.

I was quite nervous. I had to prepare myself; I went on a crash diet, bought a couple of new clothes. We eventually met at her sister's place in Bangalore. It was more of a family get-together, as our parents were there. We were then given some privacy and spoke to each other for an hour or so. Then we thought: "All right, we'll see how it goes."

In Indian tradition most marriages are arranged, but there is a lot of freedom for the couple to decide if they want to marry or not. We are able to talk to each other and even go out on a couple of dates. We can take our time to say yes or no.

For me, Ananya was the only person who I saw in this way and it was love at first sight. She was quite like-minded. We got engaged about a month and a half after we met, then we had a long courtship of almost seven months.

Every month, I would come down from the place I was studying, and she would come down from Tumkur (in southern India) where she was studying, to meet in the city. We would have two days of dating, watching movies and getting to know each other.

We got married in Bangalore after I finished my studies. Then in April 2006, we moved to Australia.

There are lots of things I like about my wife. The care and love that we share, I treasure that most in our relationship.

Ananya:

I was very nervous about meeting him for the first time. I was not prepared for marriage then; I was studying and I wasn't thinking about a serious relationship.

But he was very friendly and open-hearted. He was also quite open about his ideas and he was not very imposing. He gave me enough time and space to decide if I liked him or not. Gradually I started liking him more and thought: "Okay, this is the person I want to spend my life with."

We're expecting a baby any day now, and I'm very excited about our first child. Pradeep gives me enough freedom to do what I like – in my career or day-to-day life. I am a very independent person with strong ideas, so that is important to me. At the same time, he expects the same from me. I wouldn't want a very controlling kind of a husband. More than anything, he's quite loving and caring.

Pradeep and Ananya in Bangalore in 2004.

Jeff Dawson

Sue and Chris at Sue's sister's wedding in 1987.

Dr Sue Page, 46, and Dr Chris Mitchell, 44, met at Newcastle University. Their marriage has revolved around rural medicine – Sue is a former RDAA president and Chris is the chairman of the RACGP rural faculty.

Town: Lennox Head, NSW
Met in: Newcastle, NSW
Together for: 22 years
Children: Robert, 15, Sarah, 13, Kate, 9.

Sue:

I wasn't actually looking for a boyfriend. My family didn't have any money and I was trying to work my way through uni. I couldn't help but notice his personality – he was not somebody to sit still, nor was he somebody to be quiet.

We were in the same study group for a couple of years. He was actually going out with somebody else for a lot of the time that I knew him. In our final year in 1985, he asked me out and my immediate response was, "what about this other woman?". He was appalled because he had stopped going out with her about 18 months before and thought if I was even remotely interested, I would have noticed that.

Our first date was in Newcastle; we bought takeaway pizza from a great little place with a painting of Gough Whitlam riding a shell like Botticelli's *The Birth of Venus*, and took the pizza down to the beach on the night of the winter solstice.

A lot of things impressed me about Chris. Quite apart from the fact that he had more energy than anyone, he was constantly asking questions and very interested in everything around him.

I also had two dogs, blue cattle dog crosses, and the elder of the two had been abused as a puppy so was very touchy with people, in particular with blokes. What impressed me was that she actually liked him!

Sometimes I'd leave the dogs in the car with the window partly down when I was grabbing something from uni, and then I'd take them down to the beach. On one occasion, I came back and they were already wet and sandy, because Chris had already taken them out of the car, taken them for a run and put them back in again. That was cool.

Chris has got an amazing mind. He's designed not only our practice, but also our house. He just comes up with ideas of how he'd like it to look. He wants to make a good environment around our family. He's very family oriented.

Chris:

I thought she was really good looking and I wanted to ask her out, but the only place I could think of taking her to was to a park in Hamilton.

She brought one of her male flat mates with her and I thought: "This isn't too great." Once I worked out they weren't an item, I was brave enough to ask her out again. Our next date was the winter solstice.

She was a really hard worker and always super bright. But the thing that was most impressive – or scariest – about Susie was that she had these two incredibly fierce dogs. One was called Max and the other was Dog.

I was probably a hit with Susie because they didn't chase me away like they did with all the other boys!

We've been married for 20 years. Susie is a great friend as well as a fantastic life partner. She listens more than she gives advice but when she gives advice, it's always really good and people should listen to it.

Warren Clarke

Samiha and Ayman in Alexandria, Egypt, on the day he proposed.

Continued from previous page

After meeting at university in Egypt, Dr Samiha Azab, 39, and Dr Ayman Shenouda, 44, now run a large practice together in Wagga Wagga, in south-west NSW.

Town: Wagga Wagga, NSW
Met in: Cairo, Egypt
Together for: 22 years
Children: none

Ayman:

The first thing that attracted me to Samiha was that she was beautiful and her skin was lovely – it had such a nice colour. But what really impressed me about her was that she had a really strong character, but was very feminine at the same time. I'm not saying this as a rule, but someone who is very confident and knows what they're doing is very attractive.

It was 1985 and we were both studying medicine in Cairo, Egypt. We had the same group of friends and we used to spend a lot of time together in a big group outside of classes.

I talked to Samiha's sister about her and asked for advice. She said, "don't talk to me, talk to her", so I asked Samiha to go out for dinner with me. I had to prepare for it. Like a teenage boy, it took me a few days to think of what to say and rehearse. She reacted very well and I was so surprised.

We had dinner at the Holiday Inn – a five-star hotel in Egypt, close to the Pyramids. It was fantastic. We had a fancy dinner and kissed for the first time in the carpark. And it just kept on going from there.

Some of our friends expected it to happen, as they could see that we were growing closer. Some were jealous, as other boys were always looking at her. We went out for about three-and-a-half years before I asked her to marry me. When you ask someone out in Egypt, the intention is to marry. It's not like proposing, but once you get into the relationship, the understanding is that it's longstanding.

I love the same things about her now that I did when I first met her – she's quite independent but so feminine and cuddly when she needs to be.

The more we have supported each other, the more we have matured in our relationship and our thinking.

Samiha:

Ayman noticed me when I was with some friends, but I'd known him from before. He was the most handsome man in our year, the smartest and the focus of everyone.

One night, while we were out for drinks at a nightclub for our friend's birthday, he came over and said, "Could we get to know each other a little bit more?" I thought he was very brave to come and drag me away from my friends. I was very impressed.

I told my mum after 18 months of dating that Ayman and I were going out, and she said she knew from the beginning. We thought our families didn't notice that we were going out, but they did and were keeping it quiet. We thought we were so smart.

We were in Alexandria when he proposed, on his knees in a garden near an old castle. I also caught my first fish during that trip. Before that, it was one thing we never enjoyed with each other; only Ayman liked fishing.

Ayman is very honest and straight to the point. He's just a very natural man, very at ease with himself. That's what I love about him.

For love of art and the bush

Dr Jane Weyand, 59, who has been a GP in Dubbo in central west NSW for 17 years, loves her rural retreat.

The first time I knew rural practice was for me ... was when I did six months as a rural registrar locum for the RACGP in central western NSW. I went to many places, including Lake Cargelligo, Boorowa, Baradine and Warren. They were mostly one-doctor towns, which was a good learning experience because I had to ring a hospital if I wanted advice. This consolidated my interest in rural communities. It became a practical choice and one that several local doctors encouraged. I soon realised that I had found my niche in rural practice. I was quite good at it and loved it.

My path to rural practice was ... clear. Because I came from the land, I knew I wouldn't go to the city. I was born in western NSW and brought up in the Wagga district. I am fourth-generation rural person. I can't think of a better place to live than the country. My husband, Olaf, and I live on a 10ha block 12km out of Dubbo, with nobody but our dogs, some friendly birds and kangaroos.

I would like to tell the Federal Health Minister ... that rural communities are losing lots of medical services. The hospitals need more staffing, funding and specialist services. There is a particular need for improved oncology and obstetric services. Rural GPs will only be able to continue if they have quality support in these areas.

The patient I most remember ... was a small child in the pediatric ward at Port Moresby General Hospital, in Papua New Guinea. I was doing a case study and spent time with the child and his mother. He was admitted with TB and died overnight when chicken pox spread through the ward. Now when I do vaccinations on children, I think of him and how something like chicken pox can kill little children. I especially think that when parents say they don't want their children to be immunised. I've seen how vulnerable some children in Third World countries are. We are fortunate that vaccination and health of children is generally good in Australia, and I don't think people realise that.

"Because I came from the land, I knew I wouldn't go to the city ... I am a fourth-generation rural person. I can't think of a better place to live than the country."

Dr Jane Weyand: "My husband, Olaf, and I live on a 10ha block with nobody but our dogs, some friendly birds and kangaroos."

Colleagues say ... I am committed. Registrars say I support them.

The time I came close to walking out of general practice was ... never. It's a privilege to be a GP in rural Australia.

The future of general practice ... is moving firmly towards preventive health. There will be big hurdles with the problems predicted for the younger generation with obesity, diabetes, depression and the medical implications of global warming. These issues will be challenging, but at the same time a source of long-term interest and satisfaction for the next generation of GPs.

I spend my lunchtimes ... usually talking work with my registrar or staff. I also choose this time to do hospital or aged care visits.

When I am not working I ... enjoy reading and gardening in our lovely bush retreat. Olaf and I are keen travellers. Olaf is Dutch and we've travelled extensively in France and Italy. I'm interested in other cultures and my husband is interested in languages. I also have an interest in art. I've spent eight years doing a diploma in fine art. It's quite a demanding course, especially when you're working full time.

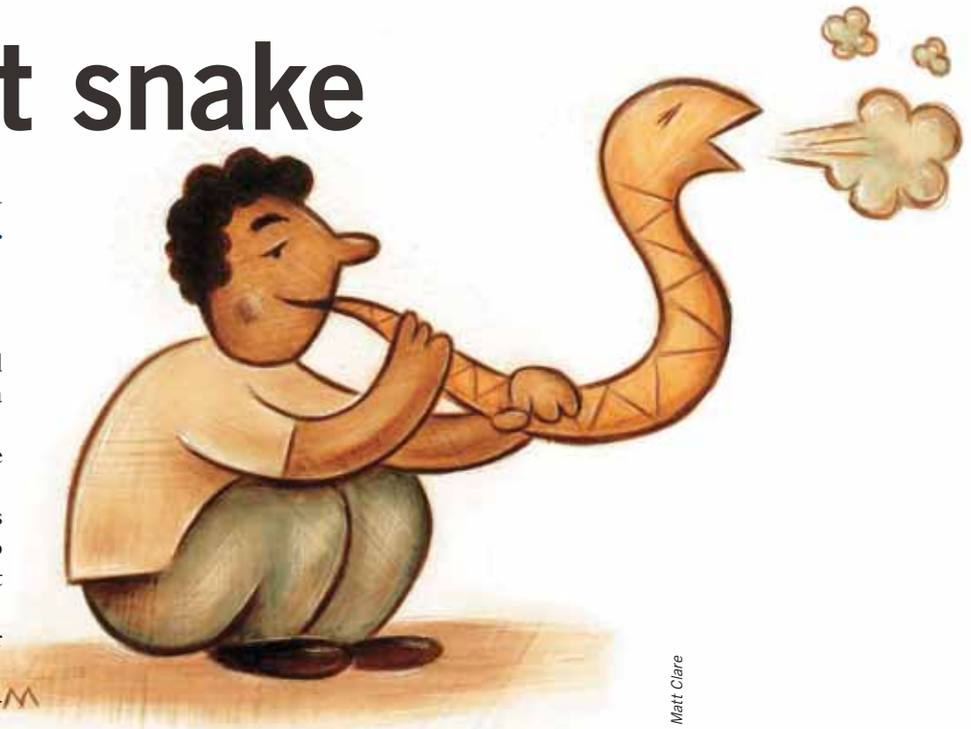
The most satisfying thing in my life is ... that I have a career that is varied and stimulating, and which I thoroughly enjoy. This is a great luxury in life.

In 10 years I hope to be ... living in the country, probably retired but taking time to further my interest in fine art and travel. I'd love to go to Florence in Italy. It's a big city, but it has a warmth about it, the culture and colours. To see a region I've never seen before, I'd like to go to South America.

Interview by Sophia Russell

Mad as a cut snake

Snakebite is a risk in the bush, but you can't always blame the reptile, Heather Ferguson writes.



Matt Clare

Dr Maxine Percival recalls the story of an intoxicated fellow who was driving home one night when he saw a run-over snake on the side of the road.

While the man was not her patient, the story of the snake became the stuff of legend.

"It was a 1.3m western tiger snake so it was quite aggressive," says Dr Percival, from Moree in north-western NSW. "The man tried to kick the snake off the road and it latched onto his foot and wouldn't let go, so he grabbed it by the throat and it bit him on the hand."

The man eventually freed himself from the snake with his other hand and headed for hospital.

Once in casualty the nursing staff bandaged the bites and immobilised his limbs. The doctor on duty finally arrived and took a history from the man, who was clearly intoxicated but no worse for wear from his encounter.

The drama intensified when the doctor asked what sort of snake bit him. The patient said, "As a matter of fact, doctor, I brought it with me."

Dr Percival said the man shook up a bag he had with him and out slithered the snake, which "was really quite mad at this stage" – and the doctor, nurse and assistant leapt on top of a nearby bed.

A pathology technician working nearby heard the commotion and, fortunately, proved less fearful of snakes than the rest of the medical staff.

"He got a rock from outside and dropped it on the snake's head," Dr Percival says.

The patient fared better than the snake; a venom study revealed he had not been envenomated.

It was Christmas Eve around seven years ago and Dr Christian Rowan was on call in Mungindi, on the NSW-Queensland border.

It wasn't long before he was called to the hospital – a brown snake had bitten a man and he was on his way to the hospital.

After an hour, an Aboriginal man finally arrived with a large mob of his family members.

"He was a bit sluggish on his feet but he was intoxicated," Dr Rowan says. "So I was a bit sceptical about whether he had been bitten or had invented it."

Examination revealed puncture marks on the man's wrist and a snakebite kit came up positive for brown and copperhead snake. Dr Rowan began emergency management, including pressure bandages and a drip, and organised for his transfer to Toowoomba.

"By this stage he was looking like he had been envenomated," Dr Rowan says. "He was quite sick by the time he was retrieved and required a number of doses of antivenom."

After the patient had been safely evacuated, Dr Rowan noticed the man's niece was looking unwell. He admitted her to hospital after a random blood sugar test revealed a reading of 28.

The next morning he returned to the hospital to check on the niece and to report that her uncle was doing well.

It was then that the story behind the snakebite came out.

The group had been sitting around a campfire and the man was holding the snake, which was wrapped around his wrist.

"They were smoking 'whoopy weed' and tried to give some to the snake," says Dr Rowan, who is now the medical superintendent of the Oakey Hospital in Queensland. "But, as the niece tells it, the 'stupid snake wasn't interested'."

Happily for the snake, it wasn't punished for its tough stance on drugs. The drunken group eventually headed for a local riverbank where the snake was let go. ●

Off Duty

Compiled by **Heather Wiseman**

TOP FIVE

Five reasons I'd make a bad politician...

Dr James Finn, 40, is a GP at Dirranbandi, in south-east Queensland. With the federal election campaign in full swing, he has realised he'd hate to be a politician. "It's a damn hard way to make a living," he says.

1. I've never mastered 'just-on-time' delivery. After 11 years in government, John Howard and Peter Costello delivered the biggest tax cuts in history on the first day of the election campaign. Impeccable timing. I only ever run late or early.

2. I'd giggle inappropriately, particularly when reminded that the two most senior cabinet ministers are Tony Abbott and Peter Costello.

3. I'd never find time to exercise. The PM runs a trillion-dollar economy and power walks every morning. Tony Abbott runs the complex health portfolio, is an elite-level mountain bike rider and has a physique like a bag of walnuts. I am a busy GP and risk Greenpeace rolling me back into the sea if I head to the beach.

4. I can't ignore insults. In April I sat in on question time at Parliament House, when Julie Bishop called Kevin Rudd "a naughty, naughty boy". He laughed, with his back turned to her while talking to Julia Gillard. I couldn't do that.

5. I'm not highly evolved. Malcolm Turnbull and Kevin Rudd are both multi-millionaires who pursue self-actualisation by serving their fellow man through the political process. I pursue food and shelter by serving my fellow man through the medical process.

LIFE'S LITTLE TRIUMPHS

Hats off...

... Dr James Bushell, 41, who remains a die-hard kite surfer, despite a nasty encounter with a metal fence post that de-gloved his knee.

Dr Bushell, a GP at Millicent in SA, says the accident only happened because he was sleep deprived after being on call but couldn't resist the call of waves and wind.

"The wind was howling, so I thought, 'Bugger it, I'm going to treat myself to a windsurf'," he says. "Stupid me – I put the kite up and realised it was too windy."

Being tired, he wasn't quick enough to release himself. He was swept off the beach and over the sand dunes, before being thrown against a star picket propping up a tree.

He caught his breath, checked his neck, and then discovered a hole in the leg of his wetsuit.

"I put my hand in and pulled all the skin back over the knee cap," he says. "I'd totally de-gloved it."

Since the accident in January, he has been running every morning and working out in the gym, gearing up for serious kite surfing action over Christmas.

"There's nothing like it; the freedom and feeling the power in your arms. You get addicted to the buzz," he says.

"There's such an adrenaline rush when you do a really big jump, miles high, and a perfect landing. When it goes off perfectly, you feel so good."

HALF BETTER

RURAL DOCTORS' SPOUSES SHARE A MEMORABLE STORY.

When Daisy Hussein moved to Queensland from Fiji about three years ago, it seemed likely that celebrating the end of Ramadan would be a lonely affair.

But Daisy wasn't worried that she and her husband, Dr Abbas Hussein, were the only Muslim people in town.

When it came time to break their fast, she announced to staff and patients at the surgery: "Today is my festival and I don't have any friends or family here, so I would like to celebrate with you."

Daisy, who is Fijian Indian, dressed in her traditional clothing and presented home-made sweets, rich with powdered milk, sugar syrup, dried fruit and almonds.

Surgery staff and a few fortunate patients have been excited about celebrating the end of Ramadan ever since.

"I was thrilled that they showed an interest in my culture and liked the food," Daisy says. "I felt like I was among my family."

She was particularly moved by the reaction to her clothing, as patients and staff kept touching her costume and commenting on how beautiful she looked.

Adrenalin rush: kite surfer Dr James Bushell, of Millicent, SA.

"I FELT LIKE I WAS AMONG FAMILY."

Lester Dawson

SHELF LIFE

Dr Roslyn Bayliss, 51, is a GP at Toormina, on the NSW mid-north coast. She says she's an unsophisticated reader who loves to use reading as an escape for half an hour before sleep. "I try to save the hard-to-put-down ones until holidays, to avoid too many late-night sessions."

Saving the best

***My Sister's Keeper* by Jodi Picoult**
I didn't want to read this book, which is about genetic selection to provide parts for an older sibling. I expected it to upset me, be full of cliches and simplify a difficult ethical situation. Instead, it was intelligent, moving, sensitive and thought provoking.

***One for the money* series by Janet Evanovich**
Bounty hunters Stephanie Plum and Ranger, and Joe Morelli, a cop, are memorable characters who thread (or should I say barge) their way through this series. This is pure quality trash; funny, warm and witty, laced with murder, mystery and plenty of sexual tension.

***Back Roads* by Tawni O'Dell**
With his father dead and his mother in prison for killing him, Harley, a teenager, struggles to care for his three younger sisters. Disturbing and powerful, this is one of the most memorable books I've ever read.

***Year of Wonders* by Geraldine Brooks**
This is based on a real story about a village in England that chose to quarantine itself after being struck by the Bubonic Plague in 1666. It's surprisingly uplifting, compassionate and full of hope, despite the morbid subject matter.

All books written by Dean Koontz
Koontz is the only author whose books I read more than once. His storylines are close enough to being believable, despite often offering a pseudoscientific explanation for the apparent supernatural. His characters are psychologically or physically flawed, but warm.

CAPTURE THE MOMENT

It's easy to take great photos on holidays – whether you're on a beach near home and or far away in an exotic location.

To get you in the mood, Dr Graham Morgan, of Sussex Inlet, NSW, has provided this holiday snap, although 'snap' doesn't do it justice. He took the photo last December while on an expedition ship that left from Argentina and explored the Antarctic Peninsula for 12 days.

His photo shows a group of Gentoo penguins coming ashore on Peterman Island, ready to feed their young. "Antarctica is a magical place where the weather can change in an instant and no one really knows what will happen next," Graham says. "It is a constantly unfolding spectacle that never fails to amaze and surprise."

While it may be hard to match the quality and setting of Graham's photo, we'd love to see any of your holiday snaps that capture the moment.

WIN

Send us your best holiday photo with 100 words about the story behind the photo – and you'll be in the running for your choice of a case of wine or a book voucher to the value of $150. The photo can be of a person or a place – it's up to you.

How to enter:
Just e-mail or post the photo to *Australian Rural Doctor*, with your 100-word description. We'll publish the best contribution each month.

Send your photo and words to:
Marge Overs, Editor,
Australian Rural Doctor,
Locked Bag 2999,
Chatswood DC, 2067,
or email to
marge.overs@reedbusiness.com.au

The sad decline

If the mighty Royal North Shore Hospital can be left to fall apart, what hope is there for its small rural cousins, asks Dr Vlad Matic.

If you ever feel like expressing opinions on issues that aren't in your field of expertise, like me, you'll most likely be cautious or qualify your opinion. This same humility doesn't seem to encumber our politicians.

Here in NSW, the health minister is trying to sound rational while explaining why an elderly lady was placed in a storeroom at Royal North Shore Hospital or why a patient miscarried in the hospital toilet.

I don't know the patients or the circumstances so I'm not willing to express an opinion.

However, I would like to ask a few questions, based on my long experience with RNSH – as a student, a patient and visitor.

All the years I walked around that health factory, I was always impressed by the cleanliness, by the happy elderly ladies (amusingly called hospital escorts), who'd greet you in the foyer that was decorated with fresh flowers.

At night, while doing the "blood runner" job, I'd pause and look at the city skyline, harbour lights and endless suburbia and feel proud that I was contributing to such a fine institution.

There was a large overworked central building and some outbuildings, several nice gardens and a reasonable cafeteria. I knew most of the staff and students and many patients by name.

Parking was a bit of an issue in the paddock but the charge was minimal and the blokes at the gate were always friendly.

Recently I went to a meeting at RNSH and was greeted by a boom gate not a person, and had to pay for parking and buy my car back a few hours later. I didn't mind because I liked the flash new car park and felt that the hospital must be building bigger and better facilities, so a parking charge seemed reasonable.

I was amazed at the quality new buildings, which I thought were additions to the campus – only after I saw the RNS Private Hospital sign did I get uneasy.

Walking instead towards the main public hospital building, I nearly cut my hand on a rusty railing. Getting closer to the main building, I felt very sad. The glass was dirty and the forecourt, which used to hum with people and the interplay of the multitude of emotions and conversations that attach to a large hospital, was now lifeless and filthy.

Matt Clare

Through the doors, the foyer was cramped, with no greeting desk, no escorts and no flowers. The elevators were lined with blue plastic and masonite, with graffiti etched into the panel next to the door.

I got out on the top floor and looked out through more filthy glass – and again felt sad. The meeting room was decrepit and tired.

I couldn't concentrate on the business at hand, as I was too busy formulating my questions to the minister, questions such as, "Minister, when did it become economically necessary to stop cleaning the windows and the grounds and not repairing rust on railings? Minister, at what point did this hospital become miserable? Minister, is this the blueprint for all hospitals under your care? Minister, if this is what has happened to a premier medical and teaching facility, how long before it happens to the little hospital in Walgett?"

And probably my most scary questions: "Minister, at what point did the divide between public and private health become so wide and so noticeable? What chance has my economically disadvantaged but disease-burdened population got of being treated in a clean hospital, with fresh flowers and tidy gardens, and will they ever see the view through clean windows and at night appreciate the immensity of our biggest city, our society and our potential?"

It's a scary time for health care, despite the economic facts. Our currency seems to know no ceiling, our minerals can't be dug out and sold quickly enough, more than 19 out of 20 able persons are employed, every day brings a record profit announcement from a large corporation; and we are rich enough to worry about our environment and our ecological footprint, yet we don't seem to ensure that the poorest and the sickest, who have no shares, no minerals, no jobs, no future and no escape, are cared for to the best of our ability when unwell and helped to access the wealth when well. ●

I thank you all for reading my column, taking the time to listen to my diatribes, facilitating my monthly catharsis and for your kind emails, faxes and messages.

I wish each and every one of you and your families the very best of the season, happy holidays, Merry Christmas or the equivalent in your religion or as your God permits, and hope that you all enter the New Year with hope, health and happiness.

VLAD MATIC
is a GP in Walgett in western NSW.
E-mail him at vmatic@bigpond.com

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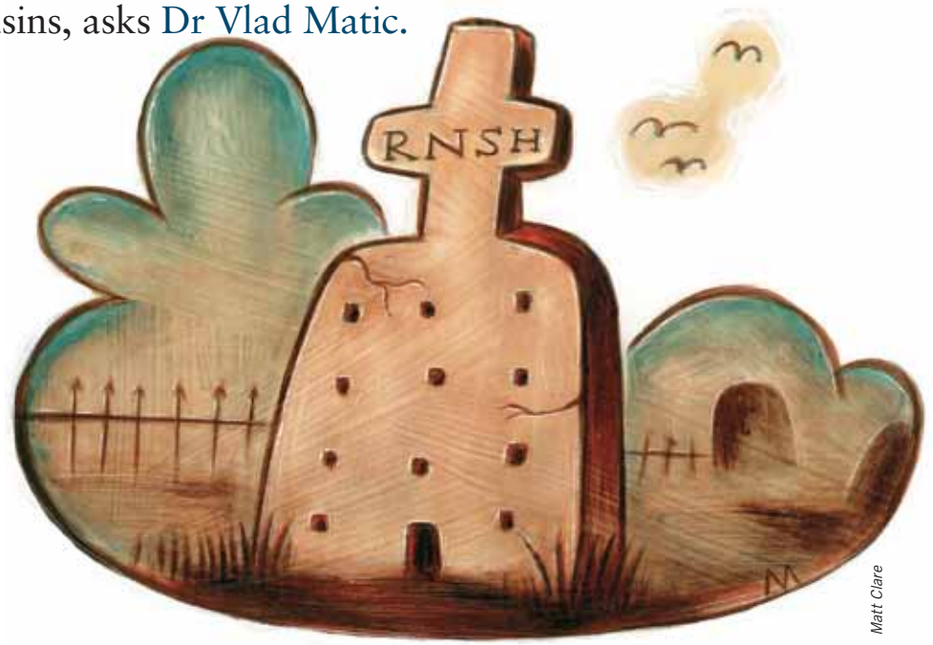

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