Here's to your (version of) good health

Who's healthy?

A picture of health, is Darryl. He radiates fitness. Decked out in the latest Lycra suit, astride his bike, drink bottle to mouth. If that were Gatorade he was drinking, they could put him in an ad for the stuff.

Darryl is the bike club's best rider at 40. He has never smoked and is only a light drinker. He keeps to a varied and low fat diet and always checks out perfectly with his regular health screening as prescribed to guard against what we call risk factors--high levels of blood pressure, blood cholesterol, body weight etc. Not to mention his full sun protection measures and safe driving practices. With his amount of physical activity, he's a rare egg. Close to 60% of Australian adults don't even have enough to get a health benefit from it.

The picture gets better. Darryl has never missed a day's work in the high powered job that he thrives on. Illnesses bounce off him and if he ever starts to get a cold, which is once every few years, he shakes it off within a day. And he is mentally strong. Even when his sister died in a freak accident he grieved, he wept, but he didn't stop. He coped so well that the rest of his family felt they could turn to him when it got too much for them.

And the story goes even further. Darryl comes from a very long living line. His mother's parents are still alive in their 90s and his father's dad died recently aged 91, leaving a widow of the same age.

But healthy is not how Darryl sees himself. At least not at this moment on his bike. 'I've been a bit off the pace lately'.

'Off the pace?'

'Yeah, I'm way below my PB for the 40k ride. My pulse rate's up a bit to 50 and my recovery rate's poor. Checked out my Vo2max the other day and it was below par. Think I might be coming down with something.'

So that's Darryl's version of truly good health. Could it be that he's read the World Health Organization's definition of health as 'a state of complete physical, mental and social well being and not merely the absence of disease or infirmity'? The cynical reader may assume that's the kind of state we can only think we're reaching at Nimbin. Others may feel it's the only test we can stand by.

This raises questions about what we mean by the term healthy, how we measure good health and the standards we set for it.

So who's truly healthy?

To explore this more, let's look at some of Darryl's friends.

First there's Craig, aged 55 and a fellow club member. He's not a star like Darryl but he looks after himself pretty well. He doesn't get sick very often and he too comes from a healthy line of people. He's slightly on the heavy side but then about 60% of adults weigh too much, with over 20% being obese. Craig's real worry is that his cholesterol has been up for a year or so. Very up, actually, and though he chose to start on a healthy diet and stuck to it he'll probably have to go on to tablets now as well. (You might say he's in good company because about 50% of Australian men and women have cholesterol levels that can be regarded as high and at least in need of a better diet.)

Is Craig healthy, then? Although he feels and functions fine like Darryl, he has a problem that just might be blocking up his arteries badly.

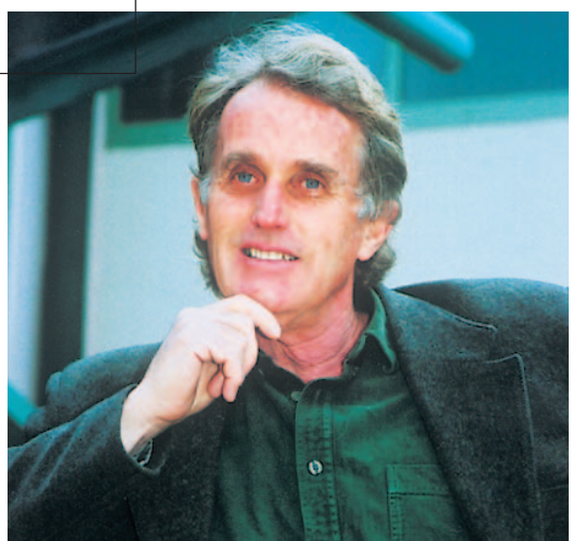
Darryl's old classmate Sally-Anne is another story. She's not into bike riding like the other two and admits she's not as fit as they are. For her, life is short for all of us no matter how you look at it. She likes to party and doesn't believe in taking herself too seriously: 'I don't like to stress or obsess too much.' But she walks for an hour every day, doesn't have a bad diet, almost always feels healthy and passes her health checks with what she calls flying colours. And she really does seem happy.

Pity she smokes. Like close to 20% of adults and almost a quarter of other women in their twenties.

Can we say Sally-Anne is healthy? Unlike with Craig, basic checks don't show that her system has a problem yet. She may be one of those rare smokers that seem to have no symptoms. But it depends on how closely we can look. Some tests like that for blood cholesterol can be done with little fuss. The picture may look very different if we viewed the insidious damage being done by what's in the cigarette smoke to Sally-Anne's mouth, gullet, lungs, her arteries everywhere and the organs they supply.

Then there's Darryl's partner Joelene. She's been a gold medal

Dr Paul Magnus,
AIHW Medical Adviser



winner in swimming and has a similar healthy profile to Darryl. She also has two above-knee artificial legs as a result of a traffic accident when she was ten. But Joelene's so-called problem isn't a problem if you ask her. If told she might be counted in the disability part of a report on the national burden of disease and injury, she would be outraged. So would many of her friends with various disabilities, some with disabilities more marked than her own and who may or may not choose to play sport. Joelene does not have a disease. And although she's had what can be termed a loss of body structure, she lives independently with no help and is able to participate in the full range of areas of life. For her, her problem was a once-only period. History. She has fully compensated for it. She will live to be 100 and feel good with it. In what sense is she unhealthy? Because she doesn't have 'complete' physical functioning in the sense that it would have been better if she had kept her legs? But then if she had, she may well be in worse health now. She might not have become so health and fitness conscious, might she?

And last there is the disturbing case of Kath, who reached only 64. She came through on every score and was renowned for her fitness. She emerged from her last check-up saying her doctor told her she was in top form and would live forever. She played her regular game of squash the next day and dropped dead. An autopsy showed one of her heart's main arteries had been critically blocked. The blocked area had thrown a big clot and her heart couldn't survive the massive and sudden cut to its blood supply.

This tragic story is mercifully rare — especially for a woman her age. But we all know it happens. Kath had never had a symptom, at least not one that anyone knew of. The day before her death, was she healthy when her artery surely wasn't?

So let's summarise the notions of good health embodied in the profiles given here. Except maybe for Darryl himself, most of us would agree that none of our cast is healthier than him in conventional terms. He has no symptoms, good test results and no known behaviours or features that put him at special risk of future illness. If we could check out all his organs and systems we'd find them in top order, with plenty of reserve. He is resilient in body and mind. In short, he *feels and functions well and is in condition to keep doing so for a long time.*

We may not be so sure about cholesterol Craig and smoking Sally-Anne. They aren't necessarily in condition to stay well for so long. There is also a question arising from the case of Joelene with her artificial legs–the notion of 'compensated' good health. And would this extend to someone who takes a medication to replace a deficiency? And further to people taking drugs like blood pressure lowering tablets that don't in any simple way replace a deficiency and can have strong side effects? But in any case, many would argue that Joelene's just as healthy as Darryl.

Finally, how far do we take our concept of what it is to be healthy? What if Darryl and the rest lived in a country that was about to be overthrown and plunged into totalitarian rule? Where they could be shot for saying the wrong thing or merely forced into crowded refugee camps without sewerage or running water. Or what if they all worked in the same company and stood in acute fear of losing their jobs soon in a country that would allow huge inequalities in both wealth and opportunities for education and employment?

Before we can be called truly healthy, do we have to be in an *environment* that's healthy and in a condition to remain so?

A need for personal balance?

Having said all this, are some of us in danger of getting it all out of balance? (Here I'm not talking about the obvious needs of people around the world who are disadvantaged, below par or seriously sick. I probably mean the 'worried well' who tend to write and read pieces like this one.)

It can be a little demanding, can't it? Are we going to make it so hard for anyone to be rated healthy that the word loses its meaning? As technology, other medical science and especially genetics advance, we'll be able to probe more and more secrets of the body and the personal and social factors that affect it. Fascinating stuff for the medical profession. More and more risks will be put in our faces and they'll far outpace the solutions. Still, more and more 'interventions' will present themselves.

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We'll be able to invoke against every risk and screen for every this and that at every age. Maybe we'll be able to calculate that our usual route A to work carries twice the accident risk of route B, even when both risks are actually very small. You could really start to worry about that.

We may well keep living longer and livelier. Few would argue against that hope. But will we also keep raising the bar and worrying? Perhaps you can't be healthy unless you're within a couple of standard deviations of organ and performance PBs every week. Plus, you may need a PELE (**p**ersonal **e**stimated **l**ife **e**xpectancy, given to our parents when we're born) close to that of the highest socioeconomic group, or to our parents or grandparents—whichever is the best. And you may also need a good health EXPLORE score: the **e**xtended **p**ersonal **l**ist **o**f **r**isk **e**stimates, a thousand of them. What a present for our parents on the day we're born!

Is Darryl genuinely healthy in his obsession? Does he have something to learn from the more easy-going Sally-Anne (apart from her smoking habit)? Are some of us using the pursuit of perfect health as a proxy for the order, control and meaning that we feel we need more of in our lives? And even for judging others so we feel superior?

Is it human nature to never be satisfied or is this just another twentieth and twenty-first century epidemic we need to conquer?

A hierarchy of 'healthiness' that we can measure?

To measure 'healthiness' we could first ask ourselves whether good health is:

1. The absence of physical and mental symptoms? This would apply to our entire cast.
2. As for (1) but also the presence of physical and mental vigour? The whole cast again.
3. As for (2) but also with no detected risk factors? Only Darryl, Joelene and Kath, not Craig and Sally-Anne.
4. As for (3) but also with evidence of healthy underlying organs and body systems? Kath and Sally-Anne may not have passed.
5. As for (4) but also living in a 'healthy' and 'health promoting' physical and social environment? Looking good so far for Darryl and Joelene.

If we took something along these lines as a rough guide to the healthy side of health, could we measure the elements to get population levels? That would be very difficult to do fully. Of course the idea of risk and protective factors, known as determinants when applied to populations, has long been used. It is presented in frameworks used by the AIHW and the National Health Performance Committee (NHPC), among many others. And the International Classification of Functioning, Disability and Health (ICF) deals with the concepts relating to people like Joelene, among many others. In other words the ICF can be used as a framework to think about health in terms of structural and functional impairments, activity limitations and/or restrictions on participation. (The International Classification of Diseases (ICD), true to its name, focuses on ill-health rather than on degrees of good health.)

We can regularly measure levels of factors, such as smoking and physical activity, that are covered by self-reports through major national survey programs like the National Health Survey series run by the ABS. But it seems to be another thing to get a similar program going for physical measures, especially blood samples for factors such as cholesterol and glucose. In principle we could obtain physical information that acts as a guide to the health of our lungs, kidneys and liver, for example, with relatively simple breathing, urine and blood tests. But other tests, for example to look at the inner linings of our lungs and arteries, would be unacceptably invasive.

There's also a problem with how we could combine the information about self-reported health and risk factors in a way that is meaningful and not misleading about an individual and hence about populations. For example heart disease risk factors like 'high blood pressure' and 'high blood glucose' are fairly arbitrarily defined by cut-off points. The effect is that such factors do not necessarily carry an equal risk of developing heart disease. It follows that different combinations of risk factors can carry different levels of total heart risk. We are able to say, for example, that in 1995 over 80% of Australian adults had at least one of the cardiovascular risk factors of smoking, high blood pressure, physical inactivity, and excess weight. This gives a very crude guide to the size of the problem for health promotion purposes. But even when we become a little more precise by 'stratifying' the population according to any two risk factors, any three, and so forth, the guide remains crude.

from the Inside

Dental Statistics and Research Unit

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Kaye Roberts-Thomson has been a member of the DSRU since 1998. She works on oral health of Aboriginal and Torres Strait Islanders, oral health and access to dental care of young adults and oral health indicators. Kaye graduated in dentistry from The University of Melbourne, and received her Master of Public Health from The University of Adelaide.

Dana Teusner has been with the DSRU since 1999 and has worked principally on dental labour force research projects, collections, and publications.

Loc Do, a recent member, is a dentist trained in Vietnam. Loc undertook the analysis of the East Timor National Oral Health Survey 2001, a contracted project supported by AusAID. He also conducted two consecutive Dental Satisfaction Surveys (2001 and 2002) among Hospital Contribution Funds Limited members.

Anne Sanders joined the DSRU in 2002. Her educational background is in adult education and the health and social sciences. Prior to commencing a research degree on the topic 'social determinants of oral health', she worked as a dental therapist with the South Australian Dental Service for nine years. Her current research projects include explaining social inequality in population oral health, and examining the effectiveness of a preschool enrolment program on reducing the prevalence of untreated caries in children commencing school.

Jane Harford is the DSRU's newest recruit. She has a background in public health, health policy and health economics. Jane is working on a series of discussion papers on topics that include strengthening a public health/primary care approach to oral health; the impact of various funding arrangements, including government subsidies on oral health service delivery and oral health status; and access to and priority setting in oral health care services.

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