### **Good Intentions**

While the intention of your article *The Case* for Vaccination (June) was clear – that a greater percentage of the population should accept vaccination for their own personal health and the health of the public – it's also clear to you and me that those who resist its benefits are not fully aware of the nature of the diseases and the devastation that vaccination avoids.

For example, measles is believed by the public to be a mild disorder. When there are few cases present in the population, this view is reinforced. My generation know of the misery that it causes many children and parents. We know of the disaster that can afflict newborns (deafness and blindness) if the pregnant mother has rubella (German measles). The sporadic nature of the infection was always a concern and, as you point out, the speed of modern transport would cause mass epidemics if vaccinations were not now available.

I would like you to describe the real clinical, everyday experience – with pictures – of mumps, whooping cough, measles, rubella, diphtheria, hepatitis, cervical cancer, tetanus and viral meningitis. All these and more are now controllable and vaccination, along with safe water, sewerage and quality food, are the prime reasons for our large population growth and (relative) health.

Alan R. McKenzie, FRCS, FRACS, Northland

## **Clear Thinking**

Thank you, Joanna Wane, for putting so succinctly and pithily the problems with the



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thinking that goes on in anti-vaccination circles, and the dangers we face if it catches on. You have done a brilliant job in this article, and I can only hope for more of this kind of clear thinking, writing and action.

Amanda Cole, Dunedin

### Sense and Folly

Regarding the almost science-worshipping June editorial (*Good Science*) I would like to quote a passage I stumbled upon in an old medical book: "Science means knowledge. But the science of any day is never ultimate knowledge, and is apt to be pushed off the board by the science of tomorrow. And always we admire and extol it: yet looking back, the science of many days seems to have been but a seesaw of sense and folly."

Diane Willcock, Hamilton

#### Selective Science

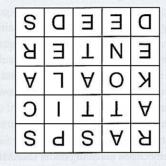
As a parent from the anti-immunisation camp, I really resent being painted as either an airy-fairy marijuana smoker or as someone who turns the issue of vaccination into an intellectual debate to massage my ego.

Then I'm told that my decision is putting other children at risk. Whoa, back the truck up. If you think immunisations work, then how can I put your children at risk? Well, you say, those too young to be immunised are in danger. Can jabbing stop your child from carrying bacteria or viruses in their nose or throat, intestines, or on their skin? The answer is no, it can't.

In fact, those who choose to immunise could be endangering my children. Some vaccines are responsible for outbreaks of the very disease they are supposed to prevent. In Russia between 1998 and 2005, 91 cases of vaccine-associated paralytic poliomyelitis (VAPP) were recorded.

It is known that live polio virus can be excreted by those who have had the vaccine and this can continue for months and even (see puzzles, page 120)





King Henry IV, Part I. Northumberland's son, in Shakespeare's 15. Hotspur, the Earl of went on to retain this title until 1968. 11. Clark McConachy (1895-1980). He Vehicle - Jour-wheel drive. 10. Recreational Active and Agnetha Fältskog. 9. Anni-Frid ("Frida") Lyngstad 8. The cello. Z Speaking in tongues. 6. Pont de l'Alma. he has his own eponymous label. bought out Yves St Laurent. Now 5. He worked for Gucci, which later 4. Jonathan Coleman. 3. Just one - Fidelio. Douglas's economic rescue plan. earlier as one element in Roger introduced the tax only three years the same administration that had cent to 12.5 per cent. This was government raised it from 10 per 2. 1989, when the fourth Labour Hamilton, who took his own life. the perpetrator of the horror, Thomas along with two adults, one of whom was 1, 1996 (March 13); 16 children died

Whiz Quiz Answers

years in some rare cases.

In the late 1980s, an outbreak of paralytic poliomyelitis in Oman "suggested that a substantial proportion of fully vaccinated children had been involved in the chain of transmission".

Some immunisations give you other diseases. For example, the MMR vaccine which was given in the late 1980s through to the early 1990s. Numerous studies worldwide showed a significant number of people contracted meningitis as a result of being vaccinated, and that particular product was eventually withdrawn from the market. It is interesting to note that this was around the time of the major meningitis outbreak in New Zealand. Will we ever be told if the two were linked?

Are flu jabs keeping winter colds away? Canadian authorities don't think so. A study released in September 2009 found that seasonal flu vaccines increased the risk of contracting swine flu (H1N1).

Would the introduction of retroviruses into our children's bodies be good for health? Probably not, as they are associated with cancer and HIV. A recent study showed that the measles vaccine is contaminated with avian leucosis virus. Rotavirus vaccine contains simian retrovirus and porcine circovirus. It is not yet known what effects these viruses will have in the human body.

Experts must think these risks are worth taking, to protect us from disease. But do vaccines even work? One way that vaccine effectiveness is assessed is by measuring the presence and amount of antibodies in blood. This supposedly determines whether the vaccine works. However, the journal *Vaccine* states: "It is known that, in many instances, antigen-specific antibody titres do not correlate with protection."

What you have read here is not supposition or opinion; it is data from published studies easily found on the internet. Although you can bet that at your local GP there will be no mention of VAPP, animal viruses or useless vaccines in their shiny brochures.

# Toni Reid, Auckland

Although Toni Reid's letter and the following response are lengthy, we felt both deserved space in this important debate. Dr Nikki Turner, Director, Immunisation Advisory Centre, University of Auckland, replies:

Toni Reid's letter about immunisation contains many factual and logical fallacies, a few which I would like to address. No



Iron lungs jammed into a Boston hospital in 1955 during a worldwide polio epidemic.

vaccine is 100 per cent protective and, for some vaccines, protection wanes over time.

While a few vaccines such as tetanus only offer individual protection, the majority of the childhood vaccines work because the more people vaccinated in the population, the less the disease is able to spread – measles, for example, has been eliminated in many countries by getting vaccination rates high. Unvaccinated children can carry the organism in their throats and spread it to vulnerable people, for example, pregnant women and infants too young to be fully vaccinated.

The MMR vaccine referred to as causing meningitis has a mumps strain that in rare cases led to increased incidence of mumps brain inflammation (encephalitis). This vaccine was never used in New Zealand. However, this has no relationship whatsoever to our meningococcal meningitis outbreaks (a bacterial disease) which is a completely different disease from mumps (a viral disease).

A Canadian study suggested there could be a link between previous seasonal flu vaccines and increased risk of contracting swine flu. Several more studies since have been unable to confirm this link.

This is a good example of a healthy scientific process creating hypotheses and then undertaking ongoing research to prove or disprove them.

The Canadian authorities continue to run a national immunisation programme, including influenza vaccine, based on the current best international evidence.

Viruses (including retroviruses and many others) are widespread in the environment, in all of us, and in every biological product. For example, the recently discovered porcine circovirus in the rotavirus vaccine is a wellknown virus in our food chain that we are likely to be consuming on a regular basis with no safety concerns.

It's important to understand viruses and how they interact with humans and the environment and what the safety issues are with each virus. Our regulatory authority, Medsafe, understands biological products and reviews the quality-control processes in the production; we have high-quality vaccines with an excellent safety record.

The oral polio vaccine (OPV) in rare cases – approximately one in 2.5 million cases – can cause paralytic polio (VAPP). But OPV has been an extraordinarily effective vaccine, with polio nearly eliminated from the world.

However, once NZ recognised we had no polio in the country, the very rare but devastating risk from this vaccine then became unacceptable. Therefore, in 2002, we switched to the inactivated polio vaccine that does not cause this side-effect.

There is a range of methods used to measure vaccine effectiveness. Antibodies are not one of these. Vaccine effectiveness is assessed by comparing disease in vaccinated and unvaccinated people.

Plucking isolated statements out of context from published data on the internet to back up personal world-views is not the scientific approach – assessment of vaccine safety relies instead on careful reviews of all the data from the disease prevalence within each country's context, and ongoing surveillance data.

For further scientific references, do ask your local GP or ring the University of Auckland advisory phone line, 0800 466-863. +