

## Vax Populi

*"There were 2778 cases of whooping cough...in 1996, compared to 321 in 1995. This year there have already been 2785 cases...Two babies have died since the beginning of 1996, compared with two in the seven previous years."*

It's all too familiar in the past year in Australia to read this type of report. The tragedy of lives lost because of Australia's poor vaccination record. Images of bereaved parents, tragic baby Nathaniel convulsing on prime time television, and threats of financial sanctions against parents who refused to vaccinate their children dominated medicine's year in the media.

The article, though, appeared in New Scientist <sup>1</sup> and originated in the Netherlands. The next sentence was, *"Eighty nine percent of those who caught the disease this year and in 1986 had been vaccinated"*, all under the heading, *"Vaccine Failure"*.

It surprised me that this was not reported in the media in Australia, given the intensity of discussion on vaccination here over the past year. Whooping cough vaccine ineffective? Most newsworthy, one would think.

There were similar epidemics among vaccinated people in the USA <sup>2</sup>, Canada <sup>3</sup> and other European countries <sup>4,5</sup>, and there was no mention of these in the Australian media, either.

Why was this?

In 1997, epidemiologists reported that it is adults and adolescents who are the current source of whooping cough infections and epidemics, rather than unvaccinated children <sup>6,7</sup>. And that whooping cough vaccines are effective for only three to seven years <sup>1,5,6</sup>, meaning that those already vaccinated may need to have booster shots each five years for life.

In Australia last year, we reported that between 1991 and 1994, whooping cough notifications rose by 1500%, despite a constant "vaccination coverage approaching 90%" <sup>8</sup>. A huge increase in whooping cough despite excellent vaccination rates, and entirely at odds with the shock-horror, third-world vaccination rates claimed in the media.

Yet there was not a word in the media.

I believe that as a nation, we have become fearful and suspicious under the present federal government. Conservative orthodoxy reigns, and dissenting views are not well tolerated.

Last year, I was involved in the Quantum two part documentary on vaccination. A number of people involved with Quantum had raised the issue over the year or so

before the show, and all were aware of the importance and sensitivity of the issue. Despite this, the shows caused outrage among those who believed that no view opposing immunisation should be allowed expression. Retribution was swift upon the reporter involved, and the ABC felt the threat to funding most acutely. Since that time, the medical media has proven to be the willing and unquestioning supporters of the vaccination "push".

The result of this has been regrettable in almost every sense. The constant fear campaign, alluding to epidemics somehow perpetrated by unvaccinated children, has taken its toll. It has induced fear in the community, driven a wedge of suspicion about who has or has not vaccinated their children, and has cast blame where none exists.

Unvaccinated children have become the new "Typhoid Marys" in our society. So it may come as some surprise to many to learn that there are over 30,000 adult cases of whooping cough per year in Australia, and that the vast majority of childhood cases and fatalities are due to adult transmission.

In the past year, I have seen two families in which the vaccination status of the child has been used by the father as a negotiating 'chip' in access and property division after marital breakdown. In both cases, the child remained unvaccinated as a result of an informed decision by one or both of the parents. In both cases, the children were very healthy, rarely needing to see a doctor in their first years of life. When the split occurred, the husband used the vaccination status of the child as "evidence" that the mother was unfit to care for the child. In one case, the issue is custody and access. In the other, it is an intimidatory tactic to force the mother to drop her claim in property division.

I have also seen families in which clear and significant adverse reactions to vaccination have occurred within minutes to hours of the shot, yet where the family's GP and specialist have refused to report the adverse reaction to the vaccine.

Almost every month, I have watched the anguish of people who have made a decision not to vaccinate, only to find themselves vilified and ostracised by their own friends and family. The resulting isolation and pressure has led to health problems for them and their children, where none previously existed. It has also led some to vaccinate against their better judgement, others to lie about their children's vaccination status, and still others to seek doctors who will falsify vaccination records.

This is Australia, not China. It is 1997, not 1957.

While the rest of the world tries to deal with the problems which are arising as a result of pertussis vaccination, Australia has committed itself to not only expanding the vaccination program, but penalising any parents who would pause until the issue is clearer. There are many serious questions currently unresolved, not the least of which is the emergence of mutant strains of the

pertussis bacterium, for which vaccination seems to be ineffective. This is far from the only issue, though.

Pertussis vaccination provides only temporary protection against the whooping cough. After three to seven years, the vaccine induced protection is gone, and the person can again be infected with pertussis. In the USA, where pertussis immunisation is compulsory, one eighth of all adults with a cough persisting longer than two weeks were identified as suffering from whooping cough. In Australia, this would suggest that there are around 30,000 adult cases of whooping cough per year. There is less than a fifth that number of cases among children.

The odds are over eighty percent that baby Nathaniel, as well as the babies who are said to have died from whooping cough, caught their infection from an adult, quite possibly from hospital staff <sup>9</sup>.

What is the explanation for this? Most of the adult population today has not been infected with whooping cough in the first decade of life because they were vaccinated at a time when vaccination was effective, and the bacterium had not mutated. While immunity following infection lasts for at least twenty years, and possibly lifelong, immunity following vaccination wanes within three to seven years. Thus, vaccinated people are again susceptible to infection in their twenties and thirties, when they are raising children and are in the workforce. The antibodies have almost disappeared, and not only provide no protection for the adult, they provide no protection for the breastfeeding infant in the first months of life. This is the very period in which the illness can be a catastrophic, sometimes fatal illness, and the period during which vaccination can provide no protection for the child.

As well, most babies are born in hospitals, which happens also to be the place in which whooping cough cases are found. The staff of hospitals are adults who are susceptible to the infection (as a result of waning immunity following their own vaccinations), and are able to pass the infection rapidly throughout a hospital, even though the adults may suffer little more than a cough. As Wright stated <sup>9</sup>, "*Most emergency department staff members have low levels of antibody to pertussis, and may be at risk for acquiring the disease from infected children or adults, with subsequent risk of transmission to susceptible patients*".

There is a question which I have now been asked on many occasions, and is one whose answer may surprise some. Are parents who choose not to vaccinate their child be placing that child at unnecessary risk?

The simple answer is "no", but the reasons why this is so are complex, and require some discussion. The question of whether vaccination in general is good for the community is a different, and unrelated issue.

Firstly, the unvaccinated child is at no higher risk of death or harm than any other child in the first two to four months of life, as the only protection a child receives in this time is from antibodies carried in the mother's breast milk. This

also happens to be the time of greatest risk from complications of whooping cough.

After this period (and assuming that the vaccine is effective in protecting against current strains of whooping cough), the risks of pertussis infection for an unvaccinated child are the same as they are for roughly a quarter of vaccinated children who fail to develop immunity to pertussis despite their vaccination. It is also obvious that the unvaccinated child has zero risk of adverse effects from the vaccination. Thus, in childhood, the unvaccinated has a lower health risk than a quarter of vaccinated children.

This places the child in the middle range of risk, and this may be compared to other actions which parents take regarding risk to their children's health. Let us consider choice of a family car.

Some cars, such as Volvo, clearly provide increased protection and decreased risk to child occupants in case of a car accident (I will enter no philosophical discussion here on the nature of Volvo drivers). Others such as large four wheel drives and the majority of "compact" cars place children at increased risk of death or injury in an accident, by up to a factor of ten times.

How do we approach parents who drive their children around in four wheel drives and compact cars? We accept that choice, because the choice lies within the range of what we as a community consider "acceptable risk". In numerical terms, though, this "acceptable risk" results in the death or permanent injury of hundreds of children a year in Australia - children who most likely would have survived had their parents chosen a Volvo!

We would, however, find it hard to accept parents driving around in a twenty year old rust-bucket with faulty brakes and no seat belts. This has clearly passed to the other side of what is considered "acceptable risk". In medical and statistical terms, we usually place that dividing line somewhere around the line of the highest five to ten percent of risk.

So, the parents who do not vaccinate find their child in the middle fifty percent of risk with regards whooping cough. At least a quarter of vaccinated children are at higher risk (they are unprotected against the illness, and have been through a series of vaccinations, thus carrying the risk of both). This is the equivalent of a family choosing a basic Falcon or Commodore - not perfect, but not too bad either.

There are two utterly distinct groups whose children do not undergo vaccination. Some people fail to vaccinate their children because of poor education, poor knowledge about immunisation, poverty or lack of access to medical care. This group requires education, information, money and access to care so that they can make an informed decision on vaccination.

Parents in the other group, in general, are well educated, have sought out information on vaccination, and have money and good access to medical care. They have chosen not to vaccinate their child(ren) after balancing the information they have gathered - an informed choice.

To consider "non-vaccinators" as a single group is clearly absurd, yet that is what has so far been done, more for political expediency than for any other reason.

It is my own view that educated and informed parents should be left to make choices regarding the health and care of their own children. The work of health authorities is to educate and inform the community so that the best choices can be made, rather than forcing choices on the community. Were this not so, one would have to ask how health risks like junk and fast food, cigarettes, sweets, hotels, poker machines, unprotected sex and even Lotto would still be with us!

In January this year, I submitted a "discussion paper" to the Medical Journal of Australia on a number of issues surrounding the vaccination debate. The response was that it was "inappropriate" for the MJA, and I may like to re-submit it as a letter on just one of the less controversial issues raised. I declined, and expanded the paper to a referenced three thousand word submission, covering as many of the issues as I thought needed to be up for discussion by doctors.

This was reviewed under the process of anonymous peer review, and was subsequently also rejected. This in itself is neither a problem, nor was it unexpected. The arrogance and ignorance of the reviewers comments was, however, unexpected, especially from a journal which prides itself on quality scientific review. The two reviewers appear to contradict each other on a number of points, one claims to be unaware of much of the medical literature on adult pertussis, the other verges on incomprehensible because of atrocious grammar, but both provide a very interesting social perspective about the issue.

The paragraph which I found most remarkable related to my comment that *"alienation and vilification of those who decide not to vaccinate ... [is] reprehensible and profoundly anti-scientific"*. The response was,

*"Placing undue pressure on people to be vaccinated is in the author's opinion reprehensible and "anti-scientific". This is nothing to do with science, but rather tactics. Although education is often touted as the means to promoting healthy behaviour, education and understanding the reasons why people behave as they do does not lead directly to them changing those behaviours."*

Such tactics, designed to achieve a predetermined result, would seem to be at odds with the concepts of informed consent for medical procedures. Remember that the reviewer was presumably a respected expert in the field, relied on by the journal to hold views consistent with those of the medical scientific community.

If one takes the view that this is not a scientific issue, and that all tactics are fair

in inducing a particular type of behaviour, then one must logically hold that opponents of your view are entitled to do the same. For every baby Nathaniel with whooping cough, there are a dozen children whose screaming and fever after their shots would induce the same anguished emotional response from parents. Neither portrayal would provide a reasonable or balanced view, and neither should be employed in any reasonable, rational or scientific debate. Wooldridge's decision to run these manipulative ads represents a nadir in public health and medical science in this country.

The whole issue of whooping cough (and other) vaccination is now far more complex than it was a decade ago. The vast majority of infections now occur in adults who have lost the immunity provided by the vaccinations they received as children. Whooping cough has also changed, and is circumventing our attempted prevention in a way chillingly similar to the way bacteria have defeated antibiotics. Pertussis epidemics are now a fact of life worldwide, and vaccination provides little protection from the epidemic strains.

Balanced against this, whooping cough infection is a very treatable infection if medical care is sought early, and a single infection with the bacterium provides long term immunity to the infected person, and to the breast fed child in those vulnerable first few months of life.

Vaccination is providing ever diminishing returns in whooping cough protection. It is my opinion that the fear of whooping cough epidemic, the mistrust and vilification of parents who choose not to vaccinate, and the (soon to be implemented) withholding of Maternity Allowances and Child Care cash rebates are greater risks to health than the choice to not vaccinate.

Unvaccinated children are neither the cause of the current whooping cough epidemic, nor are they the cause of the reported deaths from whooping cough. In fact, I would go so far as to say that it is my experience that the children whose parents decide against immunisation are healthier than average, and use medical resources less both in childhood and as adults. There are many reasons why this could be so, but at its most basic, it comes down to this: a parent committed enough to read widely, weigh the evidence, and make a decision on behalf of their child is a parent committed to the best health of that child. That commitment, and the diet and lifestyle which flow from it, are good foundations of health for any child, and the benefits accrue over time.

We need an unbiased, prospective study to compare the long term health outcomes of those who decide against vaccination with those who are vaccinated. I would be prepared to bet that the former do better, and cost the community less.

There, I've said it. No doubt I will be damned, but the challenge is before us, and, as they say, the truth is out there.

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