

Professor Peter Collingnon and Nikki Turner on Swine Flu vaccines as interviewed by Kathryn Ryan on “Nine to Noon” programme on National Radio on Wednesday 28 April 2010

To listen to the interview go to:

<http://www.radionz.co.nz/national/programmes/ninetonoon/20100428>

[KR = Kathryn Ryan; PC = Peter Collingnon; NT = Nikki Turner]

KR. Is it children and the vaccination of children that is particularly in the spotlight here?

PC. It is, because there seems to have been a fairly high adverse rate including some serious adverse reactions, at least in Western Australia on the available data, from children receiving this vaccine which has in it a component that acts against swine flu.

KR. Can I be clear about that – is it last year’s strain of the swine flu that it immunises against? If you want to be protected against this year’s expected coming strain, is that going to be a different vaccine and not necessarily available freely?

PC. Well what happened after swine flu last winter in both NZ and Australia there was a lot of activity in trying to make a vaccine and the early part of that vaccine was trialed in children in Australia in October last year and the results published in January. The vaccine was rolled out for most of this year already and called PanVax Junior.

What happens when the seasonal influenza vaccine comes along, they put into it what they think are likely to circulate in the following winter in the southern hemisphere and in this case swine flu is thought to still likely circulate this winter, possibly in lower numbers than last year, and so that component that protected you against swine flu was put into the trivalent or seasonal flu vaccine.

Now I actually think that it is entirely a sensible thing to do because it is one of the more predictable ones that might circulate, although we are not always right with our predictions. But what worries me about rolling this out to the entire population as distinct from just risk groups, particularly in Australia and New Zealand, we tended to target those more at risk of getting influenza. But this particular year at least in Australia there was a trying to target everybody in the community, including quite young children. And the problem with them is that there is really a lack of data, particularly in children under the age of three in immunising them against influenza.

I think that is particularly a problem if you are trying to then target the whole population without risk factors so that their risk of actually dying is fairly low. Last winter in Australia if you were under the age of 30 your chance of dying

from swine flu was less than 1 in a million if you didn't have any risk factors like heart disease or lung disease

KR The vulnerable groups to the flu are primarily the elderly. I think we had around 400 flu deaths on average most years and that's to do with ordinary seasonal flu just overwhelming more vulnerable groups and often the elderly, right?

PC. The main group that seems to die from influenza or get very sick from influenza are the elderly and it's because proportionally they have more underlying heart disease and lung disease. Flu from any type is the straw that can break the camel's back. So if you can protect against that, that's a good idea if you are in those risk groups.

One of the problems even with seasonal flu vaccine if you look at it over a number of years it is probably only 50% effective which means it is no where near as good as any of the other excellent vaccines we have – tetanus, etc and the other problem is that you have to have it every year.

KR. The use of the vaccine on children – what percentage of Australian children have had an adverse reaction after receiving FluVax, and how does that sit against the normal rate of adverse reactions.

PC. The problem is that we don't know the answer to that because there really hasn't been any ongoing - or any what we call - prospective collecting of data. What we do know from the swine flu studies that were published by the manufacturer CSL earlier this year, is about a third of children who received the lower dose that was set at the time, developed a fever and the fever was quite high - more than 38.5 degrees in about 15% of those. There are other side effects as well that people had such as vomiting and malaise, etc.

My view is that the one problem we've got with rolling out these vaccine, and particularly when it was put into the seasonal vaccine, there was no testing really on children at all to know what the rates of adverse reactions are, we just assumed it would be like every other year and even that data I might say is sketchy.

KR And that's part of the problem, because it is an annual vaccine that has to be changed each year there is not time to do the sort of testing that you are talking about.

PC. Well I think there is time if you do it in a different way. My own view is that you can't test obviously everybody who is going to get vaccinated. But given that there is just poor data internationally particularly on young children, and they seem to have more effects than people who are older. I would think in Australia for instance, we should set it up that there is 20 GP practices who have practice nurses, they all get injected and the parents are given a card to fill and they are followed up for a week or two and get all that information. What it means is that at least you have good information in a timely fashion on say the first 5,000 or 10,000 people who are injected before you roll it out to

hundreds of thousands or millions of people or children. That way if you see any red flags - like look we're seeing fevers in a third of children which is unusual - then you do something about it. Because the trouble with fevers in a proportion of people, they get seizures or convulsions and that seems to be what happened in Western Australia. Probably about 1 in 500 children who received the vaccine had a febrile convulsion or seizure due to the temperature. If we had had actually some prospectively or good collected data that was timely, we might have prevented at least a lot of those others from getting it. Because in the first 1000 or 2000 people we would have seen, hey look there's already four people who have had high fevers and had seizures, therefore how about we look at this more carefully and don't continue to roll it out.

KR Can I be clear whether those children were seen to be - for one reason or another - in that risk group and therefore a good idea to get the flu jab? Why were they being immunised?

PC. One of the backgrounds to this is that about five years ago in Western Australia there were four or five children who died from seasonal influenza. They probably died of a bacterial secondary infection. In fact that is one of the issues with influenza - I don't think it is the influenza that kills most people it is actually the bacterial secondary infection that we need to spot and treat earlier. The government there made a decision to roll out at no cost to all children the seasonal flu vaccine. So there is a much higher uptake in WA because they have had a programme for a number of years.

But it still brings up the issue, we need better surveillance system than we have got now. What we rely now on is doctors and nurses and pharmacists reporting something if they think it is associated with the vaccine, and if it is severe because you go to hospital.

We need an earlier and a better system than that. It tends to underestimate the extent of the problem. If you are relying on these voluntary recall and people thinking there is an association. We need a prospective large group where everybody who gets the vaccine is followed, not just those who may or may not have had a side effect from the vaccine.

KR. What happened with FluVax here? This was the vaccine that GPs in Australia and in NZ were warned not to use.

Nikki Turner

FluVax has been used in New Zealand. It was used as one of the earlier seasonal vaccines that we used. Now we have supplies of two other different vaccines in the country - Vaxigrip and Influvax. So the NZ MOH advised last week not to use FluVax in children under 5 in view of the Australian concerns.

KR Does that make any sense? Is there any difference between the vaccines?

NK Having said that, they are all very similar formulations. I think it would be surprising to see that there was a difference between the different vaccines. I think that because NZ has got very little FluVax left in the country, it was a very sensible thing for the NZ MOH to say in light of the Australian concerns.

KR In that case should the same concerns or awareness be made available about giving the vaccine to children under 5 full stop.

NT We know that febrile convulsions do occur in children and flu vaccines do cause high fevers. And the international clinical data as my colleague has just said varies, showing the incidence of fevers with children anywhere from 10% up to 60% after flu vaccines. So we are aware that febrile fever occurs after flu vaccines particularly in children under 3. So it is a risk/risk ratio of recognising that when you use a flu vaccine with a child, particularly with a child under 3, they have a high likelihood of getting a fever. Some children, approximately 2 – 4 % of all children do get febrile convulsions with any fever. So this is a known problem that NZ has with any illness that causes a fever. The NZ recording system at this stage did not show an increased recording of febrile convulsions. As my colleague has already said this is a passive recording system, that we record what is informed. But what we do know is fevers are expected from flu vaccines and febrile convulsions occur.

KR So what you are saying is that there is no indication so far that it is higher than the normal rate of adverse events.

NT There is no indication in NZ so far. NZ has a different strategy from Australia, too. The NZ strategy is to target children who are considered at high risk of flu.

KR. Who are they?

NT. Well in NZ from the data we have to date the children at high risk of flu are those with chronic illnesses, particularly respiratory and neurological such as things like cerebral palsy or breathing problems and also children who come from areas of poverty. And what we did see last year was particularly high rates in Maori and particularly in Pacific children.

So NZ this year is targeting children who are considered at high risk of flu. You may not be aware but there were at least 3 flu deaths in children under 5 last year, and that was just directly to flu. There may be many more related to the complications such as pneumonia after the flu. You get the flu and then you run on and get the pneumonia after that. Also we had more than 200 hospitalisations of children under 5 last year.

KR Are more parents immunising? And what are their doctors saying to them simply because the vaccine is more available? Or is it the at risk groups that are primarily being vaccinated?

NT It is the at risk groups that are primarily being vaccinated because that is where the subsidised vaccine is. However parents who choose to vaccinate

their healthy well children are not necessarily discouraged as well. The profile knowing that the vaccine can cause fever should be discussed, and I believe is discussed as part of the informed consent procedure. That vaccines do cause fevers in many children and children who have a tendency to febrile convulsions one needs to be aware of this issue.

Obviously that's the same problem if they go on to get the flu, in fact worse, or any other viral illness. You need to be aware that febrile convulsions are a problem for many children who have any sort of febrile illness.

KR. In your view does the benefit of the vaccine outweigh the risks in younger people, and have we got it pitched about right here?

NT I think for what we would call high risk children clearly it has. When you look at the rates of influenza, the hospitalisation rates, and death rates I feel we would be ethically unacceptable not to offer flu vaccine to protect these children.

KR. However, it sounds like with a good deal of warning advice about the possible effects of fever. And people being thoroughly informed and obviously monitoring their kids pretty closely.

Yes, I think that people need to be aware of any febrile illness with children. Often febrile convulsions run in families so many families are aware of this. But it is very very scary.

KR. What do you do when it happens?

NT Well it is tricky because a febrile convulsion is caused as the fever rises. So the problem is that it is very hard to know when the fever is about to rise. So it is hard to prevent the fever. So for people to be aware that it is a very terrifying sight but well healthy children managed well do not come to harm from febrile convulsions. You look after the child well, you make sure they don't come to harm while they are fitting. They're usually very brief fits. It is very important that if the fit is prolonged for more than a few minutes you call an ambulance. It is very important that you find out the cause of the febrile convulsion and not just assume it was the vaccine. It may be that the child has a much more severe illness going on. And if people say oh it was the vaccine that caused the fever, but it is very important that they get checked out. That is there no other underlying reason for the fever which might be much more malicious.

KR 800,000 New Zealanders so far vaccinated with the flu vaccine this year. For many people it is an economic decision it is not wanting to be ill for a period of time. What protection, though, against which strain of swine flu and is there a misunderstanding about the strain of swine flu that has been included in this vaccine.

NT The swine flu from last year is the strain in this vaccine.

KR So for what might hit this year, there is not protection and you would need a separate vaccine and that is not openly available, is it?

NT The swine flu strain has yet not mutated in the world and what we have seen in the southern hemisphere in the early cases is the same strain as last year. So the best predictions to date are looking appropriate that the swine flu has not mutated. The strain in circulation, the cases we have picked up, are the same as last year. So to date the vaccine is looking appropriately for what we are expecting to see. NZ has yet to see their flu season, so this the best predictions we have got to date.

KR Would you vaccinate a well not at risk young child against the flu?

NT It is not a black and white issue. It is a case by case issue. If I had a child who had a tendency to severe high fevers with illnesses and was likely to be exposed to influenza, then I think the vaccine would be of benefit to that child.

KR. Thank you Nikki Turner. Back to Professor Peter Collingnon. You are actually also questioning the response world-wide of the H1N1 vaccinations, are you not?

And lets face it health authorities were stuck in the tricky position of damned if they do and damned if they don't depending on what happened with the swine flu what do you believe is the appropriate action from here by authorities in respect of this flu strain?

PC Well, my major criticism of authorities about the swine flu last winter, is that yes, it was quite appropriate to take all the steps they did initially when it looked as if it was a virus with a very high mortality rate – 5% was what was originally reported from Mexico – that when it became apparent very early on that the mortality rate for the vast majority of people was probably even lower than seasonal influenza, then I was a bit surprised that plans didn't change. Because one of the plans in a lot of countries was to quickly manufacture a vaccine and send it out to the whole population. As Nikki said there are people who do need to get vaccinated, those in the increased risk group but I think that is quite a different issue when you are trying to target the whole population. Because, for instance with young children we just don't have enough data to answer these questions. If we could show that when we immunise 10,000 people we stopped nearly all of them getting influenza, and none get to hospital and hardly any of them got side effects. But we just don't have that data. My view is that this idea of rolling out vaccines to millions and millions of people and particularly in engaged groups that seem to have more of a reaction. I think we need better studies so we are not asking the same question next year and the year after. We need prospectively collected data in large numbers of people so we can answer these questions and better inform parents so that they know yes, these are the risks but these are the benefits, and here you can even quantify it in numbers.