

Immunisation: Making a choice for your children

2012



Citation: Ministry of Health. 2012. *Making a Choice for your Children*.
Wellington: Ministry of Health.

Published in August 2012 by the Ministry of Health
PO Box 5013, Wellington 6145, New Zealand
ISBN 978-0-478-39369-9 (print)
ISBN 978-0-478-39370-5 (online)
HP 5527

This document is available at:
www.health.govt.nz



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Foreword

Immunising our children against vaccine preventable diseases not only protects them but also others in the community, those who cannot be immunised or have low immunity.

Immunisation is not compulsory in New Zealand. It's important that parents and caregivers make an informed choice for their child. However, if parents decide not to vaccinate, they should be aware that this decision has far-reaching consequences, for example, children who are not fully immunised may

be required to stay home from school in a measles outbreak.

This booklet includes stories from parents who chose to delay or not get their children vaccinated against measles because of concerns about the measles, mumps and rubella (MMR) vaccine. Many years later, during the 2011 outbreak, their children became very sick with measles. These families and a university student describe what having measles is like, and medical officers of health give their perspective.



Measles can make people seriously unwell

Measles is a highly contagious viral infection and can be more serious than people may realize.

In the 2011 outbreak, more than one in six people who caught measles needed hospital treatment. One in three people with measles develop complications including ear infections, pneumonia or diarrhoea.

It's not just babies and young children who can get measles – older children, teenagers and adults who are not fully immunised are also at risk.

Immunisation is the best protection

Immunisation is the best way to protect you and others from the disease. The measles, mumps and rubella (MMR) vaccine protects against these diseases and it's free for any New Zealander who needs it. More than 90 percent of people are protected with one dose of MMR. This increases to 95 percent, if people have two doses.

Who should be immunised?

MMR is given in two doses, normally at 15 months and four years of age. Before the introduction of the measles vaccination programme in 1969, people were likely to have gained immunity by having been exposed to measles in the community. However, everyone born from 1 January 1969 should have had two doses of MMR vaccine. This is required to get full protection against measles.

Myths about the MMR vaccine

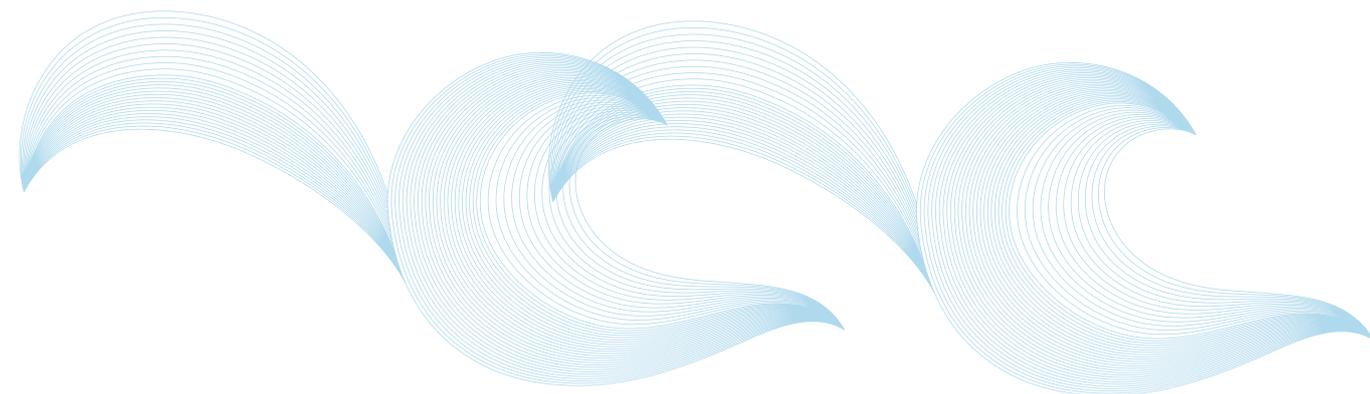
Despite the seriousness of measles and the effectiveness of the MMR vaccine in protecting against it, many parents worldwide became concerned about giving this vaccine to their child after misleading claims in the 1990s that it could be linked to autism and inflammatory bowel disease.

The claims and the researchers who made them were later thoroughly discredited but it has taken a long time for parents' concerns about this vaccine to be allayed. In the booklet, Hamilton mother Ally Edwards-Lasenby says these concerns led to her decision not to vaccinate her son against measles when he was a baby. Ally says she regretted not having revisited that decision and the information she based it on, when her son had to be hospitalised after catching measles in 2011.

For more information

The Immunisation handbook 2011 has answers to common concerns about the MMR vaccine and immunisation.

The handbook is available at www.health.govt.nz/publication/immunisation-handbook-2011



Family count themselves lucky after measles experience

Despite her son being very unwell and spending time in hospital, Leah Hughes is grateful that her family escaped as well as they did when measles came into their home.

Leah and Andrew Hughes' fourth child, Cameron (9), was one of the first children to get measles at Oratia School during the outbreak there in 2011. While it was worrying enough for him to have the illness, the family was very concerned for his 15-year-old sister Emma who was on maintenance treatment for Acute Lymphoblastic Leukaemia. Children with low immunity, in this case from having chemotherapy, have a much higher chance of serious complications from measles including a 50 percent risk of dying from it.

'We first started to worry about how sick Cameron was getting on the Friday. We took him to the doctor and they said it was probably something viral,' Leah says.

On Monday, Cameron woke with a rash covering him from head to toe and the Hughes' GP confirmed he had measles. As a result, the couple had to take Emma to Starship Hospital for immunoglobulin to give her some protection against the illness.

They also told Oratia School that Cameron had measles and were asked to keep their 11-year-old daughter Tayla at home because she hadn't completed her measles, mumps and rubella (MMR) vaccinations.

Cameron's condition continued to deteriorate and Leah was struggling to keep his temperature under 40°C. 'He was really lethargic and grizzled a lot and his temperature was just so high.'

After a night of high fevers and vomiting, Leah took Cameron to Starship Hospital on Tuesday morning, where he stayed for the day while he was given fluids.

'I knew how quickly children can get dehydrated because of looking after Emma through her



chemotherapy treatment. I slept in his room on the Monday night and was up all night with him.'

On Thursday, six days after he got sick, Cameron began to feel a little better but it was another week before he could return to school. Tayla was also away from school for a fortnight while she waited for her second MMR vaccination to take effect.

'I really regret not getting all their vaccinations done. Cameron was born in Australia and I was going to do it when we got back to New Zealand. Emma and Jade had all theirs but we needed to do it for the other two,' Leah says.

She said she didn't get the children vaccinated in Australia because the system was different and she wasn't as sure about the vaccinations her children would receive.

'I regret not doing it. I do. Unfortunately, it was the choice I made at the time. We're booking Cameron in to have all of his shots now. He could have had measles a lot worse with other side effects and Emma could have been even sicker.'

Leah says she heard of several people who were upset that they had had to take time off work because their unimmunised children were not allowed to attend school during the outbreak: 'They really are the lucky ones. If their kids had got measles they would have been off for longer and had a sick child. I think immunisation is the only way to go. People have a right to make choices but with my daughter being sick and knowing what it could do to her, I think it's really important.'

Get immunised and eliminate measles

Auckland Medical Officer of Health Richard Hoskins spent most of 2011 trying to stamp out measles from his community, after two separate outbreaks made more than 595 people ill in Auckland and many other parts of New Zealand.

Auckland Regional Public Health Service team members, including Dr Hoskins, worked many thousands of hours tracing the contacts of sick people to reduce the spread of the illness.

As well as finding and isolating any new cases, they were looking for any vulnerable contacts, such as children with cancer, who would be more likely to get seriously ill and need special care.

At times during the outbreaks, parents also had to be asked to keep unimmunised children at home to stop them from spreading the disease if they got sick.

So much work for something that Dr Hoskins says wouldn't have happened if there was a higher rate of immunisation in New Zealand.

'Our immunisation rate for babies is getting better but it's not high enough overall and there is a whole generation of adults where it was far too low. The problem is that there are still enough people who are not immune for measles to really take hold like it did last year.

'In the first outbreak in 2011, a child came back from the UK and went to a school where about 70 parents had elected not to immunise their children.'

Six children and one adult, all of whom had not been immunised, were infected by the first child and the outbreak was under way, with more than 30 new cases of measles in the worst week.

'At the end of the day we have had hundreds of people who didn't need such a significant illness and all the other things it entails – lost days at school, weeks away from work, not being able to go to the school ball . . .' Dr Hoskins says.

'On top of that, there are all the unimmunised children who were not able to go to school and the

parents that had to stay home from work to look after them.'

While measles can be a mild to moderate illness for most people, the Auckland Regional Public Health Service team don't regret the many hours they have spent reducing its spread.

'Most people make a full recovery from it but not everyone does and we don't need it wrecking even a few lives,' Dr Hoskins said.

When he was a medical student in the 1970s and 1980s Dr Hoskins remembers visiting a psychopaedic hospital that included patients who were permanently brain damaged from measles.

'One of our biggest problems is that as a society we don't have a collective memory of measles. You often hear people saying, "I got measles as a kid and it didn't hurt me," but most of us born before 1969 had measles before we were five and don't remember what it was like. And it's so long ago that many of our parents don't either.

'No one in New Zealand has died of measles since 1991 but if outbreaks such as those in 2011 continue to occur it is only a matter of time before it happens again.'

Several people in Auckland spent relatively long periods of time in hospital in the 2011 outbreaks, with many more visiting hospitals and after-hours clinics to be checked and rehydrated.

'All of our measles cases in recent years can be traced back overseas. The next cases will come in that way too,' Dr Hoskins says.

'The best thing we can do is to eliminate measles from New Zealand and the globe through immunisation, just as we did with smallpox. If anyone wasn't vaccinated as a baby and they were born after 1969, it's free and never too late.'



Measles scare prompts immunisation rethink

Ally Edwards-Lasenby says driving across Hamilton to Waikato Hospital, with her son seriously ill with measles, was the most frightening car trip of her life.

'We'd been at the doctor's surgery and they were so concerned about the way Cameron was looking they told me to drive him to hospital because it would be quicker than getting an ambulance,' she says.

'Cam was very, very sick. I didn't realise you could even get that sick from measles. He had almost every possible symptom that could be related to it – runny nose, cough, temperature, white spots inside the mouth, conjunctivitis and a head-to-toe rash.'

In the four days since he had become unwell, Cameron (13 ½) had developed a full body rash, had stopped eating and drinking and was so unwell when he got to Waikato Hospital that medical staff struggled to give him intravenous fluids as his veins were collapsing.

'I saw my big 13 ½ year old, who's taller than me, slowly disintegrating before my eyes and wasn't able to do anything. I thought "this happens to other people not my baby". I just didn't realise that measles could do that,' Ally says.

Cameron was kept in isolation at the hospital to protect other children and after three days of 'fantastic nursing care' was able to go home. It was another four or five days before he started eating again and, despite being on antibiotics, then developed a cough and chest infection.

A month after he became sick, Cameron was able to return to school but struggled for some time with full days. When this story was written it had been three months since Cameron had become unwell and he had still not regained the seven kilos he had



lost while he was ill. 'It is really fortunate that he was so strong and healthy before he got sick,' Ally says.

Ally had decided not to have Cameron immunised against measles, mumps and rubella when he was a baby because she thought the vaccination could increase the chance of him having autism.

'I made an informed decision based on the information I had at the time but the research has been proven to be invalid. I should

have gone back to check it but I never followed up,' she says.

Because of Cameron and other Te Awamutu College students getting measles in 2011, she says her GP contacted all of the parents in his practice that had made the same decision as her and many of them had decided to immunise their children.

'By sharing our experience with people I hope I can create an awareness of the importance of immunisation. I wouldn't hesitate given what we have been through.'

Cameron's illness prompted Ally to quickly have her second son Paul (14 ½) vaccinated with his second MMR immunisation. A niece was also brought up to date with her immunisations, along with some of the boys' friends.

'Because I am an early childhood teacher I had to be tested to see if I was immune or I could have placed other families in jeopardy. Luckily I was immune but Cameron's Dad couldn't visit him in hospital because we didn't know about his immunity,' Ally says.

'We also contacted everyone Cam had been in touch with and as far as we know he didn't pass it on.'

Although Cameron is now immune to measles, he is still having all of his vaccinations, including MMR to protect him from mumps and rubella. 'After all this, we don't want him having those too,' Ally says.

Measles like ‘flu on crack’ student says

Nineteen-year-old Felicity Lyme says having measles was like having food poisoning and every other illness she had experienced rolled into one.

‘It was like flu on crack. I felt terrible. If I wanted things I couldn’t move and had to get help; I was having hallucinations and every bone in my body hurt,’ she says.

Felicity caught measles from her Auckland-based brother Jacob when he visited his family in Wellington during one of the Auckland measles outbreaks in 2011.

No-one initially suspected that Jacob, and later Felicity, had measles as both of them had been vaccinated as babies during the Queensland measles outbreak in the early 1990s.

Up to 95 percent of people are protected against measles once fully immunised but because it is not 100 percent, there are some rare cases when immunised people can get the disease.

Between them Felicity and her brother unwittingly exposed others to measles on four planes, at university, at a university hall of residence and at their workplaces.

‘At my work they sent everyone home who couldn’t prove they were immunised and all of the students in my lectures had to be told that I had measles,’ Felicity says.

‘Some people at work complained about having to go home but perhaps they should have been immunised. Mine failed but that’s not normal. It’s not enforced here but I think everyone should be immunised,’ Felicity says.

While Jacob was sick enough to spend a night in Auckland Hospital, measles hit Felicity even harder. She says she first felt ‘fluish’ when she was driving Jacob to the airport but decided to go ahead with a planned trip to see friends at Otago University.

Over the next few days she became increasingly unwell until, after returning home to Wellington, she woke one morning covered in a rash.



‘I had been checking on her through the night and she was extremely ill with a high fever,’ her mother Camilla Bourne says. ‘I put her in the car and rushed her into hospital thinking it was either measles or meningitis.’

Felicity says she was having difficulty breathing, her neck was aching, she had koplik spots in her mouth (the telltale sign of measles) and she was having so much difficulty swallowing she couldn’t drink anything.

‘I was hallucinating a lot and didn’t know where I was. They were terrifying hallucinations about dying or being crushed. I felt like something was constantly on my chest,’ she says.

At one point Camilla called Felicity’s grandfather, who is a doctor, to tell him that Felicity might need to be intubated or artificially assisted to breathe and he warned her that Felicity might not recover. ‘It was really frightening. I hadn’t realised that measles could be life threatening,’ Camilla says.

Even after she improved a little, Felicity had difficulty seeing, which meant she couldn’t read or watch TV. ‘I had thought after a few days I’d be better but unlike the flu or a cold, I didn’t know when I would be ok. I couldn’t even get up to go to the bathroom by myself. I was utterly dependent, completely useless.’

After three days in hospital Felicity's temperature, which had been around 41°C, stabilised and she convinced hospital staff to let her go home.

'The nurses at Wellington Hospital were great, absolutely wonderful. I don't think there is a hospital in the world that could have done better,' she says.

At the time of writing it had been three months since Felicity had measles but her lowered immunity meant she had developed a tooth infection soon after leaving hospital and she had been sick with a number of viruses. She had managed to keep up with her studies but said she still didn't feel like her usual self. 'Measles really is the most horrible thing,' she says.



Immunisation choice has far-reaching consequences

During the measles outbreak at Christchurch Boys' High School in 2009, a number of distraught parents called Canterbury Medical Officer of Health Dr Ramon Pink asking why their unimmunised children had been prevented from attending school.

The answer was simple. Unimmunised children can increase the spread of measles by getting it themselves and passing it to others.

If they are kept away from school and other public places during a measles outbreak they and the wider community are safer.

While he accepts that it is a civil liberty to choose not to immunise your child, Dr Pink says that there can be serious consequences from that decision.

Along with the potential to get measles and experience some of the major side effects of the disease, being unimmunised during a measles outbreak can mean lengthy periods away from school for the child and hardship for parents who need to work.

'One student during the Christchurch Boys' High School outbreak was off school about nine weeks, causing great distress to his mother, who hadn't appreciated the downstream effects of not having him immunised,' Dr Pink says.

'Living in a developed western nation, there is a false sense of security in thinking that whatever we decide, health services will be

there to take care of the consequences. Measles is a serious illness that, no matter what we do, can sometimes have serious complications including pneumonia, ear infections that lead to hearing loss, brain damage and even death,' he says.



'Because we haven't seen the impact of a measles epidemic since the 1990s, when some people were left with lifelong disabilities and others died from it, many of us seem to have forgotten how devastating it can be.'

Dr Pink's answer to getting all children protected from measles and other vaccine preventable diseases is to ensure accurate information about the importance of immunisation reaches across generations from grandparents to new parents.

One piece of false information that he thinks still needs to be fully dispelled is a false claim of a link between the measles, mumps and rubella (MMR) vaccine and autism.

'This paper was thoroughly discredited but there are a number of older children and teens that remain unimmunised as a result of it.'

'Vaccination is as important to a long and healthy life as exercise and good nutrition,' he says.

Measles takes toll on top athlete

When Paula Sullivan's son Tom* was a baby, she and the people she socialised with didn't place a high value on immunisation.

'It just wasn't the cool thing to do. Some people thought it was better for babies to get illnesses and build up their immunity that way. We read up on it and thought we'd do it later but just got caught up in life and never did,' Paula says.

Sixteen years later in 2009, Tom, a top athlete, caught pandemic H1N1 influenza and then measles during an outbreak among his classmates at Christchurch Boys' High School.

'He was just about to go to New Caledonia on a French exchange when he got the flu,' Paula says. 'He had this terrible cough and then developed a rash. My husband and I looked up the rash on the internet and realised he had measles.'

Paula and Chris Sullivan quickly arranged for Tom to see their GP. Tom had a blood test and it was later confirmed he had measles. They also contacted a local medical officer of health because they knew people Tom had been in contact with would need to be warned.

Tom's brother William (9) and sister Emma (18), who were also unimmunised, were given emergency immunoglobulin to prevent them from getting sick and they were not allowed to attend school or university for two weeks to avoid the possibility of them spreading measles.

Meanwhile, Tom's condition continued to deteriorate. His fever became hard to control, 'his pulse rate was enormous', he was vomiting regularly and was in pain, Paula says.

'My big 16-year-old asked if I could sleep on the couch in his room because he just felt so bad. That night was very frightening. We just couldn't keep his fever down and he was moaning in his sleep.'

After a second night of no sleep and Tom's fever still high, Paula took him to Christchurch's 24-hour after hours surgery to see if they could help him. He spent the day at the surgery receiving intravenous fluids and by about 6 pm had recovered enough to go home.

'One of the few things he said to me in those days was that we had to sponsor a child to help them get immunised because he didn't think anyone should have to go through this,' Paula says.

It was four days before Tom's condition began to improve and it took another two weeks before he could get back to school. Pandemic H1N1 influenza and the measles had, however, taken a toll on his fitness, he had an ongoing cough and he lost his place in his sports team.

Paula says it was impossible for him to keep up his intense training because of his cough and general tiredness.

It took him another six months to fully recover, finding all aspects of life harder than before he became sick. By the end of the year he had decided that he had reached his peak in his sport and would drop back a level.

'Having the measles was just such an assault on his system. It was just the most frightening, alarming thing. Not having the children immunised was the most foolish decision. It could have cost us our son's life,' Paula says.

'I really wondered if he was ever going to be well again. It was really scary, with so much guilt about the decision we had made.'

The Sullivan family is now up to date with their immunisations. Tom is in year 13, has recovered his health and is looking forward to life after secondary school.

* The family interviewed for this story asked that their names be changed to protect their privacy.

