

Recommendations recap

A summary of coronial recommendations and comments
made between 1 October 2013 and 31 December 2014



OFFICE OF THE
CHIEF CORONER
OF NEW ZEALAND

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Coroners have a duty to identify any lessons learned from the deaths referred to them that might help prevent similar deaths happening in the future. In order to publicise these lessons, the findings and recommendations of most cases are open to the public.

Recommendations Recap identifies and gives web links to summaries of all coronial recommendations that have been made over the relevant period. We also include any summaries of responses to recommendations from agencies and organisations that we receive.

This edition of Recommendations Recap is a 'catch-up' issue covering findings released by a coroner between the period from 1 October 2013 to 31 December 2014. It is divided into 3 parts:

- part A consists of 60 coronial cases where recommendations have been made between 30 October 2013 and 28 February 2014
- part B consists of 76 coronial cases where recommendations have been made between 1 March 2014 and 31 July 2014
- part C consists of 60 coronial cases where recommendations have been made between 1 August 2014 and 31 December 2014.

This issue features 2 case study reports on deaths related to topical issues. Part A features a case study report on deaths where immunisation might have acted as a preventative public health tool. Part B features a case study on deaths related to the Christchurch earthquake. The case studies contain the key statistics relating to these deaths, an outline of the issues involved and the legal framework surrounding the issues. It also summarises other recommendations made by coroners following these types of deaths.

Disclaimer: The précis of coronial findings through the NZLII website have been produced by Legal and Research Counsel of the Office of the Chief Coroner, with the best efforts made to accurately summarise the circumstances, findings and recommendations made by the coroner in each case. Despite this, they are not exact replications of coronial findings. Access the original finding if you want to refer to it formally.

Note that summaries of circumstances and recommendations following self-inflicted deaths may be edited to comply with restrictions on publication of particulars of those deaths, as per section 71 of the Coroners Act 2006. Similarly, the contents of summaries and recommendations may be edited to comply with any orders made under section 74 of the Act.

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Part A (1 October 2013 to 28 February 2014):

Recommendations

Child deaths	
Case number CSU-2012-CCH-000830 2014 NC CorC 5	Catch Words
	Whooping Cough, Vaccination, Premature Delivery, Aged 6 Weeks
	Link to summary and recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/5.html
Case number CSU-2013-HAM-000242 2014 NZ CorC 7	Response from Ministry of Health
	Response pending
	Catch Words
	Complications of Rotavirus, 4 1/2 Months, Vaccination
Case Number CSU-2013-AUK-000355 2013 NZ CorC 163	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/7.html
	Response
	N/A
Case Number CSU-2013-AUK-000355 2013 NZ CorC 163	Catch Words
	Drowning, Autism, Aged 5 Years, WandaTrak Tracking System
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2013/163.html
Case Number CSU-2013-HAM-000110 2013 NZ CorC 154	Response
	N/A
	Catch Words
	Acute Placental Abruption, Post-Pregnancy, Screening for Pre-Eclampsia
Case Number CSU-2013-HAM-000110 2013 NZ CorC 154	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2013/154.html
	Response from the Royal New Zealand College of General Practitioners
	See link above
Drugs/Alcohol/Substance Related	
Case Number CSU-2013-WGN-000483 2014 NZ CorC 17	Catch Words
	Acute Alcohol Toxicity, Drinking Culture, Rapid Consumption of Alcohol in Excess
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/17.html
Case Number CSU-2010-DUN-000177 2014 NZ CorC 37	Response
	N/A
	Catch Words
	Acute Pulmonary Aoedema, Overdose of Drugs, Addiction
Case Number CSU-2010-DUN-000177 2014 NZ CorC 37	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/37.html
	Response
	N/A

Case Number CSU-2011-WGN-000673 2013 NZ CorC 185	Catch Words Acute Drug Toxicity, Methadone Programme, International and Domestic Airport Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/185.htm Response N/A
Case Number CSU-2009-PNO-000471 2013 NZ CorC 187	Catch Words Anabolic Steroids and Dietary Stimulants, Physical Exercise, Online Sales, Drug Free Sport New Zealand, Testing Regimes Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/187.html Responses from Ministry of Health and New Zealand Security Association See link above
Case Number CSU-2012-CCH-000090 2013 NZ CorC 191	Catch Words Cardiac Arrhythmia, Methadone and Amitriptyline, Prescription, Addiction Service Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/191.html Response from the Nelson Marlborough District Health Board See above link
Case Number CSU-2010-WGN-000476 2013 NZ CorC 208	Catch Words Complications of Drug Overdose, Anxiety, Eating Disorder, Multi-Disciplinary Team Risk Management Plan upon Discharge from Hospital Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/208.html Response from the Chief Executive Officer of Hutt Valley District Health Board Response pending
Case Number CSU-2011-DUN-000349 2013 NZ CorC 144	Catch Words Seizure Disorder, Clozapine Toxicity, Complications of Chronic Treatment-Resistant Schizophrenic Disorder, National Guidelines Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/144.html Response N/A
Fall	
Case Number CSU-2011-WGN-000669 2014 NZ CorC 11	Catch Words Fracture, Fall from Bed in Hospital Wing, Health and Safety Investigation Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/11.html Response Recommendations undertaken prior to release of Coroners Findings

Case Number CSU-2010-WGN-000580 2013 NZ CorC 162	Catch Words Alcohol, Sitting on Edge of Balcony Rail Outside Apartment, Wide Railing, Availability of Alcohol, Youth Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/162.htm Response N/A
Case Number CSU-2012-DUN-000508 2013 NZ CorC 137	Catch Words Tourist, Climbing, Mount Aspiring National Park, Severe Injuries, Enhanced Signage, Review of Safety Aspects Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/137.html Response from Department of Conservation Recommendations undertaken prior to Coroners Findings
Fire-Related	
Case Number CSU-2011-AUK-001608 2014 NZ CorC 8	Catch Words House fire, New Zealand Housing, Smoke Alarms, Ethiopian Coffee Ceremony Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/8.html Response N/A
Case Number CSU-2009-WGN-000224 2013 NZ CorC 153	Catch Words Motor Vehicle Fire, Manic-Depressive Disorder, Guidelines for Compulsory Treatment Orders Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/153.html Response N/A
Health Care Issues	
Case Number CSU-2011-WHG-000160 2014 NZ CorC 1	Catch Words Meningococcal, Youth, Effect of Antibiotics Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/1.html Response N/A
Case Number CSU-2011-WGN-000607 2013 NZ CorC 184	Catch Words Septicaemia, Care Issues, Engagement with Family Concerns Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/184.html Response N/A

Case Number CSU-2011-AUK-001393 2013 NZ CorC 186	Catch Words
	Stroke, Blood Clot, Recent Pregnancy, Role of Junior Doctor
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/186.html
	Response N/A
Case Number CSU-2011-CCH-001178 2013 NZ CorC 139	Catch Words
	Bronchopneumonia, Infection with <i>Legionella longbeachae</i> , Gardening, Diagnosis and Treatment
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/139.html
	Response N/A
Case Number CSU-2010-AUK-001250 2013 NZ CorC 140	Catch Words
	Cardiac Arrhythmia, Implantable Cardioverter Defibrillator Failure, Contradictory or Misleading Instructions, Process for Non-Routine Appointments
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/140.html
	Response from the Auckland District Health Board See link above
Natural Causes	
Case Number CSU-2012-CCH-000265 2014 NZ CorC 3	Catch Words
	Epilepsy, Communal Residence, Lock on Bathroom
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/3.html
	Response N/A
Case Number CSU-2012-HAM-000586 2013 NZ CorC 155	Catch Words
	Asthma, Cardiac Arrest, Aged 9, Education of Public
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/155.html
	Response from the Asthma Foundation and the West Coast Health Clinic See above link
Case Number CSU-2011-WGN-000104 2013 NZ CorC 131	Catch Words
	Unrecognised Lymphoblastic Leukaemia, Down Syndrome
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/131.html
	Response from parties after provisional findings and response from Ministry of Health and Director of Mental Health See link above

Self-Inflicted	
Case Number CSU-2011-WGN-000217 2013 NZ CorC 159	Catch Words
	Butane Toxicity, Aged 16, CYFS, Young Adults
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2013/159.html
Case Number CSU-2010-CCH-000196 2013 NZ CorC 178	Response
	N/A
	Catch Words
	Compulsory Treatment Order, Psychotic History, Systems and Documentation Issues, Sexual Misconduct
Case Number CSU-2010-CCH-000807 2013 NZ CorC 179	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2013/178.html
	Response from Canterbury District Health Board
	No response received
Case Number CSU-2010-CCH-000807 2013 NZ CorC 179	Catch Words
	Major Depressive Disorder, Access to Specialised Units
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2013/179.html
Case Number CSU-2010-CCH-000807 2013 NZ CorC 179	Response
	N/A
Transport-Related	
Case Number CSU-2013-WGN-000106 2014 NZ CorC 9	Catch Words
	Motor Vehicle Crash, Wet Conditions, Elevated Speed, Overtaking Car
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/9.html
Case Number CSU-2013-ROT-000206 2014 NZ CorC 10	Response
	N/A
	Catch Words
	Motor Vehicle Crash, Acute Cardiac Failure while Driving, Licensing of Drivers
Case Number CSU-2013-ROT-000206 2014 NZ CorC 10	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/10.html
	Response
	N/A
Case Number CSU-2010-WGN-000319 2014 NZ CorC 12	Catch Words
	Motorbike Crash into turning Taxi
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/12.html
Case Number CSU-2010-WGN-000319 2014 NZ CorC 12	Response from Minister of Land Transport
	No response received

Case Number CSU-2012-HAM-000360 2014 NZ CorC 4	Catch Words
	Motorbike Crash, Tyre Issues
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/4.html
	Response from New Zealand Transport Agency See above link
Case Number CSU-2011-AUK-000444 2013 NZ CorC 156	Catch Words
	Cycling, Hit a Rock on Road, Head Injury
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/156.html
	Response from New Zealand Transport Agency See above link
Case Number CSU-2010-AUK-001482 2013 NZ CorC 157	Catch Words
	Cycling, Collision with Open door of Parked Car, Run over by Oncoming Vehicle
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/157.html
	Response from New Zealand Transport Agency See above link
Case Number CSU-2012-WGN-000037 2013 NZ CorC 158	Catch Words
	Cycling, Collision with Motor Vehicle
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/158.html
	Response from New Zealand Transport Agency and the Wellington City Council See above link
Case Number CSU-2010-WGN-000105 2013 NZ CorC 161	Catch Words
	Motor Vehicle Accident, Aged 16 Years, One of Six Passengers, 'Drifting', Recent Resealing
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/161.html
	Response N/A
Case Number CSU-2013-HAS-000119 2013 NZ CorC 180	Catch Words
	Quad Bike Accident, Towing Trailer, No Warning Signage, Condition of Bike and Trailer
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/180.html
	Response N/A
Case Number CSU-2013-HAM-000153 2013 NZ CorC 182	Catch Words
	Motor Vehicle Crash, Fail to Stop at Stop Sign, Round About Recommendation
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/182.html
	Response from the New Zealand Transport Agency See above link

Case Number CSU-2013-PNO-000137 2013 NZ CorC 183	Catch Words Train Accident, Pedestrian, Fencing, KiwiRail Should Develop Protocol for Independent Investigations Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/183.html Response N/A
Case Number CSU-2013-PNO-000393 2013 NZ CorC 189	Catch Words Motor Vehicle Crash, Speed, Signage of Safety Advice Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/189.html Response N/A
Case Number CSU-2012-CCH-000095 2013 NZ CorC 190	Catch Words Pedestrian, Alcohol, Dark Clothing, Unlit Road, Warrant of Fitness, Headlights Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/190.html Response N/A
Case Number CSU-2010-WHG-000079 2013 NZ CorC 192	Catch Words Kaikohe Speedway, Aged 15 Years, Motor Vehicle Crash, Medical Coverage, Equipment and Grading Protocol Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/192.html Response N/A
Case Number CSU-2012-CCH-000121 2013 NZ CorC 193	Catch Words Motorbike Crash, Aged 19 Years, Super Bike Championship, Timaru International Motor Raceway, Airfence, Policies for Frictional Resistance Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/193.html Responses received from South Canterbury Car Club and South Canterbury Motorcycle Club See above link
Case Number CSU-2013-WGN-006931 2013 NZ CorC 203	Catch Words Motor Vehicle Crash, Possible Medical Event, Aged 91 Years, No Barriers to Sea Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/203.html Response from Hutt City Council See above link
Case Number CSU-2013-PNO-000092 2013 NZ CorC 206	Catch Words Motor Vehicle Crash, Narrow Road with Cliff, Police Notification Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/206.html Response N/A

Case Number CSU-2013-HAM-000072 2013 NZ CorC 133	Catch Words Run over by Tractor, Gathering Firewood on Farm, Riding on Footplate, Appropriate use of Equipment Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/133.html Response N/A
Case Number CSU-2010-CCH-000140 2013 NZCorC 145	Catch Words Motor Vehicle Crash, Round About to Aid Adjustment of Speed, Projects Decreasing Volume of Traffic, Delay in Project Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/145.html Response from the New Zealand Transport Agency See above link
Case Number CSU-2011-AUK-001070 2013 NZ CorC 146	Catch Words Pedestrian, Hit by Bus, Head Injuries, Intensive Care and Emergency Medicine Communities Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/146.html Response N/A
Case Number CSU-2012-ROT-000167 CSU-2012-ROT-000168 CSU-2012-ROT-000169 2013 NZ CorC 148 2013 NZ CorC 149 2013 NZ CorC 150	Catch Words Motor Vehicle Crash, 3 Tourists killed, No Seatbelts, Rumble Strips Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2013/148.html http://www.nzlii.org/nz/cases/NZCorC/2013/149.html http://www.nzlii.org/nz/cases/NZCorC/2013/150.html Response N/A
Water-Related (General)	
Case Number 2014 NZ CorC 13 CSU-2013-CCH-000109	Catch Words Drowning, Following Medical Event Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/2.html Response N/A

Water-Related (Recreational Fishing/ Boating)

Case Number CSU-201-CCH-001085 2014 NZ CorC 13	Catch Words
	Sole Crew Member, Fishing Vessel Capsize, Inadequate Life Jacket
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/13.html
	Response from Maritime New Zealand and Minister of Transport No response received
Case Number CSU-2011-AUK-001425 CSU-2011-AUK-001415 CSU-2011-AUK-001399 2014 NZ CorC 14 2014 NZ CorC 15 2014 NZ CorC 16	Catch Words
	Drowning, Attempting to Set Fishing Net, No Life Jackets, Signage
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/14.html
	http://www.nzlii.org/nz/cases/NZCorC/2014/15.html
	http://www.nzlii.org/nz/cases/NZCorC/2014/16.html
	Response N/A
Case Number CSU-2011-AUK-001416 2014 NZ CorC 18	Catch Words
	Drowning, Net Fishing, Swept out to Sea, No Life Jackets, Signage
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2011/18.html
Case Number CSU-2011-WGN-000616 2013 NZ CorC 160	Catch Words
	Drowning, Spear-fishing, Diving
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2013/160.htm
Case Number CSU-2013-HAM-000276 2013 NZ CorC 181	Catch Words
	Drowning, Fishing on Wharf, Night Fishing, Lighting of Wharf, Guard Rails, Availability of Flotation Devices
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2013/181.html
	Response from Waikato District Council See above link
Case Number CSU-2011-PNO-000466 2013 NZ Cor C 151	Catch Words
	Drowning, Fishing Boat Leak, No Flares or Light Source, Life-Jackets Not Worn, Education in Respect of Emergency Equipment
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2013/151.html
	Response N/A

Work-Related (Agriculture)

Case Number	Catch Words
CSU-2013-ROT-000112	Crushing, Fertiliser Spreader Crash, Seatbelt
2014 NZ CorC 6	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/6.html
	Response
	N/A

Work-Related (Other)

Case Number	Catch Words
CSU-2009-WHG-000101	Zion Wildlife Gardens, Attack by Tiger, Difficulties of Compliance with a Complex
2013 NZ CorC 188	Regulatory Framework, Engagement between Agencies, Comparison with United Kingdom Approach
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2013/188.html
	Response
	N/A

Case Number	Catch Words
CSU-2010-AUK-001527	Installing Pink Batts, Fall from Movable Scaffolding, Head Injury, Compliance with
2013 NZ CorC 138	Safety Guidelines
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2013/138.html
	Response
	N/A

Case study: Immunisation

This case study looks at deaths where immunisation might have acted as a preventative public health tool.

Immunisation-related deaths at a glance as at 28 February 2014

Coroners have made specific comments and recommendations about immunisation-related deaths that have occurred since 2011. The following section outlines these cases and the comments and recommendations, and any responses received.

Background

Immunisation is one of the preventative health measures supported by the New Zealand Government, second only to clean water access in worldwide importance.¹ The World Health Organization (WHO) estimates that from 3 to 6 million lives are saved by immunisation each year and promotes administration of vaccines around the world based on the “common sense principle that it is better to keep people from falling ill than to treat them once they are ill.”² The 2013 (NZ) Immunisation Health Report notes the positives of the current immunisation levels, but also makes it clear that there is considerable room for improvement.³

The government’s priority goal for immunisation was timely completion of vaccination schedules and “achieving full immunisation of 95 percent of eight month olds by the end of 2014”.⁴ New Zealand has a low vaccination rate compared to the Organisation for Economic Co-operation and Development (OECD) standards, as shown by the rate of measles vaccination falling below the 90 percent eradication target from 2000 to 2010, placing New Zealand 33rd out of 35 developed countries.⁵

The Immunisation Health Report that recently surveyed 1500 parents found that 96 percent vaccinate to some degree and of those who think vaccines are safe, 98 percent vaccinate.⁶ Evidence gathered for this report concluded that 4 percent of parents do not vaccinate at all, which matches statistics in the 2011 Select Committee Report.⁷

The legislative and regulatory framework

The Coroners Act 2006 – Decision whether to open and conduct an inquiry

In deciding whether or not to open and conduct an inquiry, a coroner must think about: whether or not the death appears to have been natural; whether it is a result of the actions or inactions of any other person; the existence of any allegations, rumours, suspicions or public concern; and the extent to which drawing attention to the circumstances of the death may reduce the chances of similar deaths..⁸

The effect of these provisions is that for deaths caused by a disease with a readily available vaccine, a coroner is likely to open and conduct an inquiry following these deaths, and where appropriate may make recommendations targeted at preventing deaths in similar circumstances in the future.

¹ Health Select Committee “*Inquiry into How to Improve Completion Rates of Childhood Immunisation*” (Ministry of Health, Health Report Number 20120196, 2011) at 9; The Meningitis Foundation “*Immunisation Health Report*” (Pfizer 2013) at 5.

² Ministry of Health “*Immunisation Handbook*” <www.moh.govt.nz> (Wellington, 2011); The Meningitis Foundation, above n 1 at 9.

³ The Meningitis Foundation, above n 1, at 15, 17.

⁴ The Meningitis Foundation, above n 1, at 2.

⁵ Professor Sir Peter Gluckman “How to Improve Completion Rates of Childhood Immunisation – Briefing to Parliamentary Health Select Committee 2010”, at 2.

⁶ The Meningitis Foundation, above n 1, at 7.

⁷ Health Select Committee, above n 1, at 27; The Meningitis Foundation, above n 1, at 7.

⁸ Coroners Act 2006, s 4 (2) (b).

The immunisation framework

The Health (Immunisation) Regulations 1995 were introduced to promote the immunisation of children and encourage informed choices by parents.⁹ They set out the role of early childhood centres and primary schools to ask caregivers to provide immunisation certificates and to compile a register of immunised children.¹⁰ Caregivers must meet these requirements, but regulations do not limit the right to be enrolled.¹¹

There is a National Immunisation Schedule specifying funding provisions and advisable ages for immunisation.¹² The Ministry of Health Immunisation Handbook 2014 supports immunisation providers, praising improvements and coverage but encouraging increased efforts to reach herd immunity levels. It recognises that conversations with health professionals affect parents' attitudes, and guidance is provided to ensure these are likely to have positive outcomes.¹³

The Code of Health and Disability Services Consumers' Rights includes the right to be fully informed, to make an informed choice and to give informed consent.¹⁴ The New Zealand Bill of Rights Act 1990 provides everyone with the right to refuse medical treatment and the right to have freedom of religion, beliefs and opinions.¹⁵ These laws underpin many of New Zealand's social practices and accepted norms, protecting the right of parents to refuse to immunise their children.

Other considerations

There is international recognition of the fact that indigenous populations have higher morbidity and mortality than the general population from diseases which can be prevented by vaccination.¹⁶ This observation is reflected in New Zealand statistics, with the Select Committee Report 2011 noting that there are "significant inequities for many of New Zealand's most vulnerable children" as demonstrated by the Māori uptake of only 64 percent in Auckland and Counties Manukau.¹⁷ Generally there have been some gains in the immunisation rates of Māori children (up from 68 percent to 85 percent of under two year olds) and with the recent HPV programme achieving equity for Māori and Pacific women.¹⁸ This equity gap however has been consistently seen over the last 20 years, particularly in lower socio-economic areas, and has been directly linked to the higher incidence of preventable diseases amongst Māori.¹⁹

Four percent of parents oppose immunisation and of those who do not vaccinate their children, 45 percent questioned the safety and 8 percent doubted the effectiveness.²⁰ The Select Committee Report in 2011 acknowledged "rare but significant reactions" to vaccines, but made it clear that the committee believed the benefits outweigh the disadvantages.²¹ Sir Peter Gluckman (current Science Advisor to the Prime Minister) proposes that opposition to vaccination stems from "lack of trust in the scientific process and a lack of public appreciation of relative risk and benefit".²²

The research for the Immunisation Health Report revealed that only 87 percent of parents had their children "fully vaccinated", and of those, 19 percent do not strictly follow the National Schedule outlining the appropriate age and repeats of vaccinations (increasing to 50 percent in people who do not fully vaccinate).²³ There is evidence that the delays in immunisation have contributed to the current whooping cough epidemic in New Zealand.²⁴

Younger parents are more likely to be in the group that questions vaccine safety, with an 80 percent vaccination rate compared with 89 percent for people over 25.²⁵ Statistics note that 1 in 10 parents would like more access to information, with these more

⁹ Health (Immunisation) Regulations 1995, reg 3.

¹⁰ Regulations 4, 5, 8, 9.

¹¹ Regulations 6, 12.

¹² Ministry of Health "New Zealand Immunisation Schedule" <www.health.govt.nz>.

¹³ Ministry of Health, above n 2.

¹⁴ Code of Health and Disability Services Consumers' Rights 1996, rights 6, 7.

¹⁵ New Zealand Bill of Rights Act 1990, ss 11, 13, 15, 20.

¹⁶ Gluckman, above n 5, at 2.

¹⁷ Health Select Committee, above n 1, at 8.

¹⁸ At 8.

¹⁹ Cameron Grant, Nikki Turner and Rhys Jones "Eliminating Ethnic Disparities in Health through Immunisation: New Zealand's Chance to Earn Global Respect" (13 March 2009) 122 NZMJ 10 at 10.

²⁰ The Meningitis Foundation, above n 1, at 19.

²¹ Health Select Committee, above n 1, at 8.

²² At 4.

²³ The Meningitis Foundation, above n 1, at 7.

²⁴ At 12.

²⁵ The Meningitis Foundation, above n 1, at 8.

likely to be younger or located in rural areas.²⁶ Some parents believe that the diseases no longer exist and there is no need to vaccinate against them, but their misunderstanding of herd immunity may lead to poor decision-making.²⁷ Although 90 percent of parents think that vaccines are safe,²⁸ this is inadequate to reach herd immunity levels.

Recommendations made by New Zealand coroners

CASE NUMBER

CSU-2009-AUK-000932

DATE OF FINDING: 1 November 2011

CIRCUMSTANCES

Zachary Gravatt, born 3 July 1987 and 22 years of age at the time of his death, died from *Neisseria meningitidis* infection (meningococcal septicaemia – C-strain disease). Zachary was admitted to the Auckland City Hospital on 8 July 2009.

COMMENTS MADE BY CORONER HB SHORTLAND

- I. There has been a heightened media campaign raising the awareness of meningococcal disease, particularly the C-strain. The Gravatt family have been tenacious in lobbying for a greater awareness of this fatal disease. They have questioned medical authorities about the availability of accepted vaccinations and the accompanying educational information with it.
- II. In the TV One current affairs programme *Close Up* on 15 April 2011, Dr John Holmes, for the Ministry of Health, made an appearance after the unfortunate death of Penelope Lake, a teenager from Wellington. Dr Holmes outlined in that interview some of the issues and difficulties associated with this disease. One of those issues was the education and availability of a vaccination for the C-strain. In my view the media coverage did raise the awareness of meningococcal disease in the context of the public's unawareness of the available resources associated with the disease.
- III. In a recent situation, the Northland District Health Board [NDHB] embarked on a publically-funded programme of vaccination for the meningococcal C-strain.
- IV. At a media briefing on 16 September 2011, the NDHB made reference to their concerns around the rising numbers of those with the C-strain disease. Dr Claire Mills, one of the senior members of the NDHB Public Health Unit, confirmed the Northland situation had risen to a level considered serious and warranting a publically-funded vaccination programme.
- V. It must be noted that the Northland situation is either the exception to the rule or the pioneer in this initiative. To date it is the only District Health Board in New Zealand currently undertaking such a project.
- VI. The programme targets young children, teenagers and young adults most at risk of this disease. The campaign aims to vaccinate approximately 85 percent of Northlanders aged from 12 months to under 20 years of age. The programme is envisaged to run for approximately 10 weeks ending 16 December 2011.
- VII. All children and young people in schools will be offered free vaccination starting with high schools. Children 12 months to the five year age group will be offered a vaccination through their GPs. Those youth not in school and under 20 years of age will also be vaccinated from their GPs and/or special clinics set up in the area.
- VIII. Dr Claire Mills in the media release on 16 September 2011 indicated the vaccine to be used is Meningitec®. She goes on to say this vaccine has a very good safety record and has been used extensively in Europe, the UK and in Australia since 1999. The vaccine does not contain live bacteria and therefore it is not possible to get the disease from the vaccine. The vaccine provides protection after about 10 days and is considered to be between 90% and 95% effective.
- IX. Dr Mills said: "Meningococcal disease can be difficult to diagnose and anyone with symptoms should seek medical attention without delay, as early treatment is very important. If, despite earlier treatment, your condition deteriorates, don't hesitate to seek medical attention again."
- X. The important issue to note was to, firstly, recognise the seriousness of the disease in this area at this time by identifying who was most at risk. Then the decision to embark on a campaign to immunise with good public relations, good communication and effective educational releases involving the schools, clinics etc.

²⁶ At 8.

²⁷ At 20.

²⁸ At 8.

- XI. The effectiveness of the campaign would turn on parents, caregivers, schools and other related influences supporting it. The campaign has been generally well received.

RECOMMENDATIONS MADE BY CORONER B SHORTLAND

I accept and endorse the recommendations submitted by the interested parties. The parties agreed that the following recommendations should be accepted by this Court:

I. Early warning scoring system for assessing physiological instability

- a. The Royal New Zealand College of General Practitioners develop and propagate an objective tool for assessing physiological instability, which integrates multiple physiological markers.
- b. A national clinical working group for the New Zealand ambulance sector develop and promulgate an objective tool for assessing physiological instability, which integrates physiological markers.
- c. That the ADHB present Zachary's case and the early warning system apparently adopted by the ADHB to the Chief Medical Officers of the other 19 District Health Boards (DHBs) with a recommendation that the DHBs adopt a system for escalation of care for physiological instability, which integrates multiple physiological markers.
- d. That the tools developed and adopted under recommendations (I)–(III) include a reference to the fact that where a patient presents with influenza-like illness or symptoms, together with markers of physiological instability, bacterial sepsis should be included in the differential diagnosis.
- e. That ADHB uses Zachary's case for teaching during implementation of the early warning system.

II. Information regarding influenza-like illness and possible bacterial sepsis

- a. That the Ministry of Health (MoH) communications and guidelines regarding influenza-like illness, whether routine or in response to an influenza outbreak, include the caution that other illness, notably bacterial sepsis, may present with similar symptomology as influenza. In the absence of a cough or sore throat, a differential diagnosis of influenza-like illness should also include possible bacterial sepsis until proven otherwise.

III. Protocol for pre-hospital parenteral antibiotics

- a. That the Royal New Zealand College of General Practitioners initiate a national working group to develop a protocol for the administration of pre-hospital parenteral antibiotics.
- b. That the protocol includes the signs and symptoms of suspected bacterial sepsis and indicators for the taking of blood culture samples, in patients without hemorrhagic rash.
- c. That the Royal Australian College of Physicians and the national clinical working group for the New Zealand ambulance sector be included amongst those invited to participate in this working group.

IV. Immunisation Policy

- i. That the MoH updates its immunisation guidelines and communications to medical practitioners and consumers to ensure the inclusion of the option of vaccination for meningococcal C disease.
- ii. The University of Vice Chancellors Committee request that all universities amend the advice they give students regarding vaccination; and that the advice to students includes information regarding the option of vaccination for meningococcal C disease.
- c. That the MoH identifies what other institutions or groups present an increased risk of contracting meningococcal disease and ensure that these institutions or groups provide advice regarding options for vaccination for meningococcal C disease. Some of these groups would include boarding schools and sports academies where there are live-in situations.
- d. That the Australasian College of Emergency Medicine amends its immunisation policy to specify which vaccine-preventable diseases are included in its advice to offer immunisation to emergency medicine health care workers.
- e. That the MoH reviews at the earliest opportunity the cost benefit of a publically-funded vaccination programme for meningococcal C and undertakes appropriate consultation, including with consumers.
- f. It should be noted that the Northland DHB has already undergone a publically-funded programme and the issue whether this should be extended to the other 19 DHBs remains a decision in those respective Boards and the MoH.

V. Post-incident response protocol

- a. That the MoH review its quality improvement guidelines and workbooks in light of Zachary's case in order to include specific triggers or indicators for review where there is no identified adverse incident.
- b. That ADHB present a summary of Zachary's case to the Chief Medical Officers of the other 19 DHBs with a recommendation that they review their quality and safety structures in order to include specific triggers or indicators for review where there is no identified adverse incident.

VI. Activation of "code red"

- a. That nursing and junior medical staff be reminded of the criteria for the activation of a code red and be encouraged to do so when they become concerned about a patient's wellbeing rather than delaying the decision to make the call.
- b. To some extent the activation of a code red is part and parcel of the use of a scoring system for identifying physiologically unstable patients as discussed in early warning scoring system.

CASE NUMBER

CSU-2013-HAM-000242

DATE OF FINDING: 7 February 2014

CIRCUMSTANCES

Mason Te Tatere Rangi Ataahua Katipa-Gillies (Baby Mason) of Te Kauwhata died, four and a half months old, on 18 June 2013 at Waikato Hospital of complications of rotavirus gastroenteritis.

On 16 June Baby Mason became unwell and experienced diarrhoea, and then the next day he was unable to keep his formula down so he was given a mixture of sugar and water to drink. By the evening his condition had progressively worsened; he looked very dehydrated and his breathing had become laboured. His family called an ambulance, which took him to Waikato Hospital. Though Baby Mason initially seemed to settle, he stopped breathing half an hour into the journey from his rural home to the hospital. The ambulance stopped at Taupiri so they could perform CPR and try to ventilate Baby Mason. The resuscitation attempts continued throughout the rest of the journey and once he had arrived at hospital, but they were ultimately unsuccessful.

The cause of death was confirmed to be complications of rotavirus gastroenteritis, a highly infectious viral gastroenteritis the symptoms of which, diarrhoea and vomiting, can lead rapidly to dehydration. Infants under 6 months old are particularly vulnerable to dehydration. At the time of his death Baby Mason was fully vaccinated, and had the rotavirus vaccine been part of the vaccination schedule it is likely that this death could have been prevented. He was well-cared for by his family, and it seems that they did not notice his dehydration until it was too late.

He arrived at hospital 90 minutes after leaving his home, and an hour after his heart stopped. It is assumed that St John staff complied with protocol when they stopped at Taupiri and that the level of care given to Baby Mason was satisfactory, though the coroner received no evidence on this matter. As ambulance officers were never able to re-establish heart rhythm after it stopped, it is not considered that any possible delay contributed to Baby Mason's death.

COMMENTS OF CORONER JP RYAN

I. I note that the Ministry of Health intends to incorporate the rotavirus vaccine into its funded immunisation schedule in July 2014, and I endorse that action as a positive step to reduce the chance of further deaths occurring in similar circumstances.

II. Without any hint of criticism but rather with the intention of promoting the development and implementation of best practice in every case, it may be of value for St John to review the actions of staff in this particular case, with regard to compliance with its procedures and to satisfy itself that the time taken to transport Baby Mason from Taupiri to Waikato Hospital was reasonable in the circumstances of that case.

RECOMMENDATIONS OF CORONER JP RYAN

To: The Chief Executive, Ministry of Health

I. That all agencies involved in promoting community education around the dangers associated with any form of gastroenteritis in infants continue their efforts to educate carers of infants on: (a) preventing dehydration, (b) detecting the signs of dehydration, (c) providing urgent treatment to rehydrate, (d) having on hand and using correctly prepared oral rehydration solutions, and (e) when to seek medical assistance.

II. That the Ministry disseminate this recommendation to all other agencies involved in such community education.

CASE NUMBER

CSU-2012-CCH-0000830

DATE OF FINDING: 27 January 2014

CIRCUMSTANCES

Alaya-Reign Faalilo Ma'anaima (Baby Alaya-Reign) died, 6 weeks old, on 10 November 2012 at Christchurch Hospital of whooping cough.

Baby Alaya-Reign was delivered 6 weeks premature as her mother became ill. She then spent a week in the Neonatal Intensive Care Unit (NICU) before being discharged home. On 28 October 2012, she started having bouts of coughing and experiencing some cyanosis (turning blue). On 1 November 2012, at age 5 weeks, she was admitted to Christchurch Hospital and transferred to the High Dependency Unit (HDU). She tested positive for the bacteria associated with whooping cough and was treated with antibiotics. At this time her father also started showing the symptoms of whooping cough. Over the next week her condition worsened, and by 7 November 2012 she began having periods of apnoea (periods in which she stopped breathing). She was then transferred to the NICU and though arrangements were made to transfer her to Starship Children's Hospital in Auckland, her continually worsening condition made the transfer impossible and it had to be cancelled. She died on the 10th day of her hospital admission.

Whooping cough is a highly transmissible infectious disease. A routine childhood immunisation campaign began in New Zealand in 1960 to halt its spread. There is currently a free vaccination programme offered to children, with the first injection happening at age 6 weeks. When Baby Alaya-Reign contracted the infection she was not yet old enough to be vaccinated. To help not-yet immunised babies from coming into contact with the infection, from 1 January 2013 a free whooping cough vaccination has been offered to expectant mothers in their third trimester. Cocooning (vaccinating all close contacts of a new baby) is a chance to prevent babies from contracting whooping cough, but vaccination of fathers is not funded.

COMMENTS OF CORONER SP JOHNSON

I. I accept the opinion of the Chair of the New Zealand Child and Youth Mortality Review Committee, a paediatrician who gave expert evidence in the inquiry, on what is needed to prevent more deaths like Baby Alaya-Reign's:

- a. Continuation of the work to achieve high levels of timely vaccination coverage. The National Immunisation Health Target and National Immunisation Register are valuable tools and the situation in New Zealand continues to improve.
- b. Improvement of health promotion and social marketing, such that all pregnant women know the importance of whooping cough vaccine.
- c. Strengthening of systems for delivery of whooping cough vaccine in the last third of pregnancy. For example routine referral of all women to their general practice for vaccination at 28 weeks gestation for vaccination. Such a visit would also provide a chance for vaccination of the unborn infant to be discussed.
- d. Awareness that the impending birth of an infant is a good time for all household contacts to review vaccination status, receive vaccination or booster doses.
- e. An emphasis placed on good basic precautions to keep people with coughs away from babies, and the use of prophylactic antibiotics if exposed to whooping cough or suspected whooping cough.

RECOMMENDATIONS OF CORONER SP JOHNSON

To: The Ministry of Health's Immunisation Team

- I. It gives serious consideration to the expert opinion of the Chair of the New Zealand Child and Youth Mortality Review Committee of what is needed to prevent further whooping cough deaths in babies too young to be vaccinated or not yet vaccinated.
- II. Together with the Health Promotion Agency, it promotes another campaign which strongly shows the public the risks of whooping cough in babies, the ways to reduce the spread of it and the benefits of uptake of the vaccine, in particular by pregnant women and other people close to an upcoming new baby.
- III. It considers funding vaccination of fathers and other adults who will have close contact with a new baby.
- IV. It develops (or continues to develop) consistent systems to support high levels of vaccine coverage in the third term of pregnancy in all parts of New Zealand.

Part B (1 March 2014 to 31 July 2014): Recommendations

Adverse effects or reactions to medical/surgical care	
Case Number CSU-2012-PNO-000202 2014 NZCorC 66	Catch Words Rest home, medication error, blister packs of medication, distracted staff member, need to promptly call for medical assistance Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/66.html Response N/A
Case Number CSU-2012-ROT-000340 2014 NZCorC 85	Catch Words Catheter for administration of chemotherapy drugs (PortaCath), Improperly placed PortaCath, failure of medical professionals to recognise error Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/85.html Response from Bay of Plenty District Health Board See above link
Case Number CSU-2010-ROT-000228 2014 NZCorC 86	Catch Words Referral to hospital by GP, failure to recognise hernia and bowel obstruction, no urgent surgical referral, no review of condition for 27 hours, systemic errors, recommendations of Health and Disability Commissioner, consultant cover Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/86.html Response from Bay of Plenty District Health Board See above link
Aged care	
Case Number CSU-2010-CCH-000881 2014 NZCorC 72	Catch Words Un-witnessed fall, fall prevention, non-slip socks Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/72.html Response from Ministry of Health See above link
Child Deaths	
Case Number CSU-2013-HAM-000141 2014 NZCorC 46	Catch Words Newborn, death post-birth, unrelated to pregnancy or delivery issues, accurate timekeeping in hospitals Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/46.html Response from Bay of Plenty District Health Board See above link

Case Number CSU-2008-WGN-000880 2014 NZ CorC 112	Catch Words Eight month old, child in care, stomach bug and diarrhoea causing severe dehydration, recognising dehydration, Child Youth and Family Gateway Assessment scheme Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/112.html Response N/A
Deaths in custody	
Case Number CSU-2013-PNO-000602 2014 NZCorC 111	Catch Words Death from terminal illness, ability to locate next of kin Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/111.html Response N/A
Diving, scuba diving, snorkelling	
Case Number CSU-2011-WHG-000230 2014 NZCorC 67	Catch Words Scuba diving, drowning, emergency procedures, buoyancy compensating device, sufficient remaining air Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/67.html Response N/A
Drugs/ Alcohol/ Substance Related	
Case Number CSU-2012-WGN-000477 2014 NZCorC 74	Catch Words Alcoholism, Alcoholism and Drug Addiction Act 1969, unwillingness to engage with social services, support programmes Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/74.html Response from the Acting Director-General of Health See above link
Case Number CSU-2012-HAS-000154 2014 NZCorC 82	Catch Words Clozapine, alcohol, taken recreationally, unmarked pills, strong adverse reaction to clozapine Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/82.html Response N/A

Electrocution	
Case Number CSU-2011-CCH-000399 2014 NZCorC 94	Catch Words
	Workplace death, lack of earthing, central database of electrical records, residual current devices, periodic inspection
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/94.html
Case Number CSU-2012-DUN-000427 2014-NZCorC 110	Response from Electrical Workers Registration Board and WorkSafe NZ
	See above link for Electrical Workers Registration Board, WorkSafe NZ response pending
	Catch Words
	Work related, communication issues, process failures
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/110.html
	Response from PowerNet
	See above link
Fall	
Case Number CSU-2013-DUN-000276 2014 NZCorC 27	Catch Words
	Bowen Falls, accidental fall, tourist death, adequate signage
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/27.html
	Response
	N/A
	Catch Words
	Alcohol consumption, accidental fall, head injury
Case Number CSU-2013-CCH-000369 2014 NZCorC 24	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/24.html
	Response
	N/A
Case Number CSU-2012-CCH-000732 2014 NZCorC 65	Catch Words
	Fall from ladder, working at home
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/65.html
	Response
	N/A
Fire-Related	
Case Number CSU-2011-WHG-000146 2014 NZCorC 26	Catch Words
	House fire, smoke inhalation, cigarette as cause of fire
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/26.html
	Response
	N/A

Health Care Issues	
Case Number CSU-2012-WGN-000122 2014 NZCorC 30	Catch Words Bowel obstruction, referral to hospital, communication between hospital staff and family members Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/30.html Response N/A
Case Number CSU-2012-AUK-000412 2014 NZCorC 31	Catch Words Colchicine toxicity, excessive use of pain medication, agency and organisation awareness of risks of colchicine toxicity Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/31.html Response from the Best Practice Advocacy Centre (BPAC) See above link
Case Number CSU-2011-CCH-000876 2014 NZCorC 50	Catch Words Bowel surgery, post-surgery, failure to identify bowel ileus, listening for bowel sounds, improvements to practice and training Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/50.html Response No response received
Case Number CSU-2012-CCH-000301 2014 NZCorC 62	Catch Words Delirium, administration of halperidol, physical restraint, opportunities for learning Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/62.html Response N/A
Case Number CSU-2013-DUN-000203 2013 NZCorC 58	Catch Words Pain relief after surgery, after discharge from hospital, multiple pain medications, lack of warning about concomitant use, Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/58.html Response N/A
Case Number CSU-2011-WGN-000668 2014 NZCorC 77	Catch Words Chest injury, detecting injuries after a fall, medical facility not an emergency department, adequacy of signage to this effect Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/77.html Response from Chief Medical Officer of the Capital and Coast District Health Board See above link

Case Number CSU-2014-DUN-000035 2014 NZCorC 108	Catch Words Care following motor vehicle crash, remote area, decision to use ambulance or helicopter, Coroner satisfied that care appropriate Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/108.html Response N/A
Homicide/ Interpersonal Violence	
Case Number CSU-2012-WGN-000449 2014 NZCorC 19	Catch Words Assault causing death, manslaughter conviction, previous violent events in same area, CCTV footage, liquor bans, lighting Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/19.html Response N/A
Labour or pregnancy related	
Case Number CSU-2010-AUK-001509 2014 NZCorC 48	Catch Words Global hypoxic ischaemic brain injury, sphyxia during birth, destruction of placenta, communication issues between medical staff Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/48.html Response from Waitemata District Health Board Response pending
Mental health issues	
Case Number CSU-2012-WHG-000176 2014 NZCorC 22	Catch Words Death from natural causes, clozapine use, combination of clozapine and alcohol consumption, prescription of clozapine to heavy consumers of alcohol Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/22.html Response from the Chief Medical Officer of the Northland District Health Board The Mental Health Team will comply with the recommendations to make available the results of the review to the Directors of the Area Mental Health Services in all of the District Health Boards.
Case Number CSU-2013-PNO-000198 2014 NZCorC 29	Catch Words Accidental drowning, intellectual disability, level of care provided, discharge from care, access to support services after turning 18 years old Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/29.html Response from NMDHB See above link

Natural Causes

Case Number	Catch Words
CSU-2013-CCH-000470 2014 NZCorC 59	Stroke at home, calls for help, Housing NZ welfare checks, Police attendance, no entry to the property by Police
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/59.html
	Response from Housing New Zealand
	See above link

Natural Disasters

Case Number	Catch Words
CSU-2011-CCH-000177 CSU-2011-CCH-000225 CSU-2011-CCH-000244 CSU-2011-CCH-000254 CSU-2011-CCH-000255 CSU-2011-CCH-000262 CSU-2011-CCH-000268 CSU-2011-CCH-000553 2014 NZCorC 38 – 2014 NZCorC 45	Canterbury Earthquake 2011, building collapse, CTV Building, search and rescue response, communication difficulties, no link between difficulties and deaths, formalisation of disaster victim identification processes, collaboration between different emergency response and search and rescue agencies, lessons to be learned from response to Canterbury Earthquake
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/38.html http://www.nzlii.org/nz/cases/NZCorC/2014/39.html http://www.nzlii.org/nz/cases/NZCorC/2014/40.html http://www.nzlii.org/nz/cases/NZCorC/2014/41.html http://www.nzlii.org/nz/cases/NZCorC/2014/42.html http://www.nzlii.org/nz/cases/NZCorC/2014/43.html http://www.nzlii.org/nz/cases/NZCorC/2014/44.html http://www.nzlii.org/nz/cases/NZCorC/2014/45.html
	Response from the New Zealand Fire Service and the Ministry of Civil Defence and Emergency Management
	See above link

Police Pursuits/ Deaths in Police Custody

Case Number	Catch Words
CSU-2011-HAS-000072 2014 NZCorC 88	Police pursuit, shot by Police, shotgun pointed at Police, Independent Police Conduct Authority Investigation found some police actions unreasonable, adequacy of Police training for armed stops, what warnings given when Police use firearms
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/88.html
	Response from the Commissioner of Police
	See above link

Recreational/ Leisure Activities

Case Number CSU-2011-AUK-000802 2014 NZCorC 54	Catch Words BMX track, fall from BMX bike, responsible rider, purely accidental Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/54.html Response N/A
Case Number CSU-2012-WGN-000390 2014 NZCorC 69	Catch Words Mountain biking, forestry track, collision with vehicle Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/69.html Response N/A
Case Number CSU-2012-DUN-000456 2014 NZCorC 80	Catch Words Skydiving, twisted parachute, collision with ground, adequacy of equipment, audible altimeter, inspections of equipment Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/80.html Response N/A
Case Number CSU-2012-ROT-000415 2014 NZCorC 84	Catch Words Cycling, cycling race, undiagnosed hypertrophic cardiomyopathy, medical testing for professional cyclists, Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/84.html Response N/A
Case Number CSU-2014-WHG-000083 2014 NZCorC 87	Catch Words BMX track, fall from mountain bike, responsible rider, purely accidental, education, consideration of fencing the BMX track Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/87.html Response N/A
Case Number CSU-2013-CCH-000613 2014 NZCorC 113	Catch Words Mountaineering, fall, Aoraki Mount Cook, descent by skis, checking of equipment Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/113.html Response N/A

Case Number CSU-2012-CCH-000901 2014-NZCorC 114	Catch Words
	Motorcycle crash, motorbike race, volunteers
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/114.html
	Response from Motorcycling New Zealand
	See above link
Self-Inflicted	
Case Number CSU-2011-WGN-000386 2014 NZCorC 36	Catch Words
	Young person suicide, lack of formal psychiatric assessment, community discussion of suicide
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/36.html
	Response from Wairarapa District Health Board
	No response received
Case Number CSU-2011-AUK-000582 2014 NZCorC 78	Catch Words
	Young person suicide, methylphenidate prescription (Ritalin), drug screening, key worker support for family members
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/78.html
	Response from the Medical Council of New Zealand
	This response relates to issues covered by non-publication orders and is therefore not uploaded to NZLII.
Case Number CSU-2012-HAS-000305 2014 NZCorC 79	Catch Words
	Not ruled a suicide, availability of mental health telephone help lines
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/79.html
	Response from the Ministry of Social Development and Ministry of Health
	See above link
Sudden Unexpected Death in Infancy (SUDI)	
Case Number CSU-2011-WHG-000246 2014 NZCorC 25	Catch Words
	Possible positional asphyxia, bed-sharing, parental fatigue, endorsement of SUDI prevention messages
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/25.html
	Response
	N/A
Case Number CSU-2012-WGN-000174 2014 NZCorC 28	Catch Words
	Bed-sharing, general awareness of asbestos (no proven link to this death), endorsement of SUDI prevention measures
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/28.html
	Response
	N/A

Case Number CSU-2011-ROT-000277 2014 NZCorC 63	Catch Words Prone sleeping, sleeping on a pillow, endorsement of SUDI prevention messages Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/63.html Response N/A
Case Number CSU-2012-ROT-000066 2014 NZCorC 64	Catch Words Bed-sharing, bed-sharing with other young child, endorsement of SUDI prevention measures Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/64.html Response N/A
Transport-Related	
Case Number CSU-2011-WGN-000188 2014 NZCorC 35	Catch Words Motorcycle, Intersection design, Roothing, Karo Drive, State Highway network Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/35.html Response N/A – feedback incorporated during the inquiry process
Case Number CSU-2012-CCH-000130 2014 NZCorC 20	Catch Words Motor vehicle crash, unsafe vehicle, vehicle ordered off road, Police powers to confiscate vehicle, proposed amendment to legislation Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/20.html Response from Ministry of Transport See above link
Case Number CSU-2012-DUN-000515 2014 NZCorC 32	Catch Words Motor vehicle crash, alcohol, seatbelt use Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/32.html Response N/A
Case Number CSU-2012-WGN-000215 2014 NZ CorC 34	Catch Words Motorcycle, momentary lapse of concentration, no other contributing factors Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/34.html Response N/A
Case Number CSU-2013-CCH-000161 2014 NZ CorC 21	Catch Words Bicycle vs car, cyclist listening to loud music, cannabis use, high visibility clothing for cyclists, obligations of road users, relationship between cyclists and motor vehicles Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/21.html Response N/A

Case Number CSU-2013-CCH-000328 2014 NZCorC 33	Catch Words
	Motor vehicle crash, alcohol, condition of road, possibility of adding fog lines
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/33.html
	Response from the New Zealand Transport Agency See above link
Case Number CSU-2012-WGN-000171 CSU-2012-WGN-000172 2014 NZCorC 55 2014 NZCorC 56	Catch Words
	Motor vehicle crash, two vehicle crash, State Highway One, alcohol, lack of warrant of fitness, unlicensed driver, off-ramp design
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/55.html http://www.nzlii.org/nz/cases/NZCorC/2014/56.html
	Response from the New Zealand Land Transport Agency See above link
Case Number CSU-2013-HAM-000438 2014 NZCorC 76	Catch Words
	Motor vehicle crash, State Highway 22, repainting road markings
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/76.html
	Response from New Zealand Transport Agency See above link
Case Number CSU-2014-DUN-000037 2014 NZCorC 81	Catch Words
	Motor vehicle crash, one lane bridge, Maitere Bridge 1, adequacy of signage
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/81.html
	Response from Southland District Roadway Authority See above link
Case Number CSU-2011-CCH-000665 2014 NZCorC 83	Catch Words
	Motor vehicle crash, truck and trailer, Otira Gorge, "brake fade", vehicle in inappropriate gear, electronic records for Certificates of Fitness
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/83.html
	Response from Road Transport Forum Response pending (referred on to more appropriate agency)
Case Number CSU-2013-DUN-000145 2014 NZCorC 109	Catch Words
	Motor vehicle crash, modified four wheel drive vehicle, oversize tires, underinflated tires, alcohol, signage, equipment of emergency responders
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/109.html
	Response from the New Zealand Transport Agency See above link

Water-Related (General)

Case Number CSU-2012-WGN-000085 2014 NZCorC 23	Catch Words
	Drowning, did not meet the threshold for suicide, possible accidental fall into sea, adequacy of care
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/23.html
Case Number CSU-2010-WHG-000015 2014 NZCorC 49	Catch Words
	Drowning, Ahipara Beach, rip, signage, safety information, safety arrangements at other beaches in the region
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/49.html
Case Number CSU-2013-ROT-000021 2014 NZCorC 53	Catch Words
	Drowning, Waikato River, swimming, river currents
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/53.html
Case Number CSU-2013-HAM-000526 2014 NZCorC 57	Catch Words
	Drowning, Waikato River, undertow, adequacy of warning signs,
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/57.html
Case Number CSU-2011-WHG-000251 2014 NZCorC 68	Catch Words
	Drowning, Uretiti Beach, crabbing, exceeding capabilities
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/68.html
Case Number CSU-2013-PNO-000623 CSU-2013-PNO-000624 2014 NZCorC 51 2014 NZCorC 52	Catch Words
	Drowning, small boat, crayfish pot retrieval, lifejacket use
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/51.html http://www.nzlii.org/nz/cases/NZCorC/2014/52.html
	Response
	N/A

Water-Related (Recreational Fishing/Boating)

Case Number CSU-2013-PNO-000623 CSU-2013-PNO-000624 2014 NZCorC 51 2014 NZCorC 52	Catch Words
	Drowning, small boat, crayfish pot retrieval, lifejacket use
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/51.html http://www.nzlii.org/nz/cases/NZCorC/2014/52.html
	Response
	N/A

Case Number CSU-2012-CCH-000303 2014 NZCorC 61	Catch Words Jetboat, Waimakariri River, grounded boat, injuries sustained when attempting to free boat, methods of emergency communication Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/61.html Response N/A
Case Number CSU-2012-CCH-000759 2014 NZCorC 73	Catch Words Drowning, Rakaia River mouth, fishing, personal flotation device, adequacy of signage Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/73.html Response N/A
Case Number CSU-2012-WGN-000458 2014 NZCorC 75	Catch Words Drowning, small boat, lifejacket use, Maritime Rule 91, legal requirement to carry lifejackets in small boats, proposed amendment to rules, compulsory wearing of lifejackets in small boats Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/75.html Response from the Minister of Transport See above link
Work-Related (Agriculture)	
Case Number CSU-2013-DUN-00052 2014 NZCorC 60	Catch Words Farm, spraying, crushed by vehicle, handbrake failure, risks of exceeding weight limits for vehicles, enforcement regimes for light commercial vehicles, emergency beacons or non-return policies when undertaking remote work Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/60.html Response from WorkSafe New Zealand Response pending
Work-related (other)	
Case Number CSU-2013-DUN-000092 2014 NZCorC 47	Catch Words Tree-felling, stump-removal, winching, hit by stump, safe practice Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/47.html Response N/A
Case Number CSU-2012-AUK-000826 2014-NZCorC 116	Catch Words Run over, truck driver, work place death Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/116.html Response N/A

Case study: Christchurch earthquake

At 12.51pm on 22 February 2011 a magnitude 6.1 earthquake struck the city of Christchurch in the South Island of New Zealand. The earthquake caused major damage to the city and surrounding areas and killed 185 people. It was the largest single loss of life in New Zealand since the Mt Erebus disaster of 1979. This case study is not intended as a complete account of the earthquake but instead focuses on the involvement of coroners and the operation of coronial processes in the aftermath.

Challenges in the aftermath

In the normal coronial process, a body is found, reported to the coroner, and identified at the scene or at the mortuary. Then, if necessary, a coroner will authorise a post-mortem to help determine the cause of death. This takes place at a mortuary typically attached to a hospital. The body would then be released to the family for funeral arrangements. The events of the Christchurch earthquake caused extreme difficulties in following this normal process. Some of these difficulties are listed below:

- The Police who normally attend deaths as the agents of the coroner were, as a frontline emergency service, faced with a massive number of tasks, including maintaining order and helping rescue injured people.
- Telephone and cellular services were damaged in the earthquake and the remaining services struggled to cope as people tried to contact emergency services or family. When calls to report deaths to the coroner could get through, the significant number of deaths challenged resources.
- Hospital facilities in the city were damaged and were prioritised for the injured. The normal mortuary facilities would have been unable to cope with such a large number of fatalities.
- Many of the deceased were killed in building collapses, fires, falling masonry or other physical trauma. This meant it was very difficult to identify each deceased – one of the coroner's roles – as the deceased were often not visually identifiable.
- As a standard part of the coronial process coroners must establish an accurate cause of death. For many of the earthquake victims this needed a post-mortem and the number of deaths made this a logistical challenge.
- Services around the country had to be maintained to deal with the non-earthquake deaths that continued to be reported.

The coronial response

The Chief Coroner designated himself as the coroner to whom all earthquake deaths should be reported. The Chief Coroner travelled to Burnham to oversee procedures. In the first 48 hours one of the Christchurch coroners – Coroner Johnson – provided the very first response by establishing contact with Police and establishing the identity of the first 8 bodies in the Christchurch mortuary.

This was soon bolstered by the Chief Coroner designating a group of coroners to take on different roles: a small group of coroners held the many identification hearings, another coroner based in Auckland oversaw the file management for all 185 deaths, and another coroner was designated to hear any inquests.

The solutions to these challenges saw liaison between Coronial Services, the Defence Force, the Fire Service, Police, Civil Defence and many other agencies. By 25 February 2011 a temporary mortuary had been established at the Burnham Military Camp, approximately 30 kilometres outside of Christchurch. Large refrigerated shipping containers were converted to temporary mortuary holding facilities. As bodies were discovered in the city they were transported to Burnham. Post-mortems began on 25 February 2011. With the support of additional pathologists, at times 24 post-mortems were performed each day.

Many of the deceased took a significant time to identify. Coroners were mindful that families wanted loved ones back but were also aware of the risks of rushing the process and adding to families' grief if mistakes were made.²⁹ Coroners held formal

²⁹ Coroner Johnson interview

identification hearings in which they would hear and consider the evidence supporting the establishment of identification. The first of these hearings began on 27 February 2011.

Evidence about identity was gathered using a process of ante-mortem and post-mortem reconciliation. Information known about a person before their death was compared to the unidentified body. The best evidence was DNA evidence but the testing took time. Fingerprints and comparison of dental records were also used. In addition, physical qualities (height and weight), distinguishing features like tattoos and jewellery were compared with the deceased. Coroners considered further circumstantial evidence such as the fact a person worked in a particular building and the body was found in that building.

The bodies were not released to families until a coroner was satisfied the identity had been established. By May 2011 nine bodies were still unable to be forensically or visually identified. This number tallied with nine people who had not been seen since the earthquake. Circumstantial evidence strongly supported the fact that the bodies were these people. An inquest was held to formally record the fact these nine people had died. A coroner later identified five of the nine using information that included dental records, anthropological evidence and personal property details. Although the remaining four people have been declared to have died in the earthquake, their remains have never been identified.

CTV Building Coronial Inquiry

The immediate coronial response to the earthquakes focused on the identification of the deceased. As that process was completed the focus shifted to what form any coronial inquiry into the deaths would take. As with any death reported to the coroner there was the need to consider what other complementary investigations were taking place.

Royal Commission

The Canterbury earthquakes were the subject of a Royal Commission chaired by Justice Cooper. The terms of reference were extensive but focused the Commission on the reasons for the collapse of buildings in the Christchurch central business district and changes that could be made to building standards. The terms of reference specifically forbade the Commission from focusing on issues of (among other things) the emergency response in the aftermath of the earthquakes.

In a decision about the jurisdiction of the Royal Commission Justice Cooper declined an application to inquire into the actions of emergency services in relation to the CTV Building. His Honour wrote that “[t]he Coroner has already stated that he will conduct an inquiry into these issues if the Royal Commission does not have jurisdiction. The ... effect of this decision is that the way will now be clear for the Coroner to proceed with that inquiry.”³⁰ The differing scopes of the Royal Commission and the coronial inquiry is a good example of how the coronial jurisdiction complements other investigations.

The reports of the Royal Commission can be found online at canterbury.royalcommission.govt.nz

Coronial inquiry

The CTV Building was at 247 Madras Street, Christchurch. It was 6 storeys high and contained several businesses, including a language school, a local television station and a counselling service. The building’s destruction was described as “pancaking” – that is, the floor slabs collapsed down on top of one another.³¹ As well as the extreme structural damage a fire broke out that burned for several days. 115 people died in the CTV Building collapse. It was the single largest loss of life in the earthquake. Telecommunication evidence showed that at least 8 people survived the initial collapse. These people were Dr Tamara Cvetanova, Ezra Medalle, Jessie Redoble, Mary Amantillo, Emmabelle Anoba, Rika Hyuga, Chang Lai and Rhea Sumalpong. They made phone calls or sent text messages to family members telling them they were trapped. None of these 8 survived.

Coroner Gordon Matenga held an inquiry and inquest into the deaths of the 8 people who initially survived the collapse. The inquiry and inquest was to “entail an examination of the emergency response, the role (if any) the response may have played in the deaths of [the 8 people] and what can be learned to avoid the occurrence of similar deaths in the future.”³² In addition, in a general sense, the findings applied to all 115 deaths, though questions about why the building collapsed were reserved for the Royal Commission.

³⁰ Royal Commission of Inquiry into the building failure caused by Canterbury earthquakes, decision of Justice Cooper (Chairperson), 7 March 2012 at [15].

³¹ *An inquiry into the deaths of Tamara Cvetanova and others* Coroners Court Christchurch CSU-2011-CCH-000225, 25 March 2014 (“Findings”) at [8].

³² Findings at [3].

Findings into the deaths in the CTV Building

Emergency response to the CTV Building after the initial collapse was undertaken by a number of organisations, including NZ Police, New Zealand Fire Service (NZFS) and Urban Search and Rescue (USAR). Members of the public also helped with rescue and recovery efforts. It was clear from the evidence that the scope and magnitude of the damage sustained from the earthquake was unknown to arriving response teams. Communication was difficult between staff and rescue organisations and there was no established chain of command internally and externally within the organisations that attended the scene.

During the inquest a family member of one of the deceased expressed his concerns about the rescue efforts. Mr Cvetanov gave evidence about his actions after the earthquake and his efforts to find his wife, Dr Cvetanova. She had contacted him via mobile phone confirming that she was alive and trapped with other people in the building. Mr Cvetanov made several attempts to find his wife himself as well as trying to engage the help of rescue staff. Mr Cvetanov outlined a number of concerns in relation to the rescue effort. These included the slow response by NZ Police, NZFS and USAR, delaying, equipment, communication and management of the emergency response.

In response to these concerns Coroner Matenga heard evidence from the attending rescue staff. The coroner found no evidence to support the contention that Police, USAR or NZFS delayed or were slow in responding to pleas for help from Dr Cvetanova. They were aware that she was alive but trapped beneath the rubble and were doing what they could reasonably do to find and rescue her.

Regarding the delaying the coroner noted that emergency authorities faced a number of difficult decisions. There was an active fire underneath the rubble that threatened the trapped people. Pumping water into the rubble would put out the fire but might risk drowning the trapped people. Lifting away collapsed layers of the building (delaying) was necessary to find people but doing so would feed more air to the fire. Delaying also risked causing small collapses in other parts of the building.³³ Coroner Matenga found that in the end the correct decision was made.³⁴

Time was of the essence. It was necessary to commence the delaying process at that early stage and to make use of heavy machinery that was available. This decision was made based on the experience and judgement of these men who were risking their lives and the lives of others, to save lives. The delaying proceeded with care and caution.

In the early hours of the emergency response at the CTV building the evidence clearly showed that limited tools and equipment were available. More equipment arrived as other USAR teams arrived. With the deployment of more USAR teams there were issues with getting the equipment transported from outside Christchurch. These included some USAR teams flying to Christchurch without their equipment due to the only available New Zealand Defence Force (NZDF) transport being too small, and delays in flight departure due to the equipment stowage not meeting International Air Transport Association (IATA) guidelines.³⁵ As a result some arriving USAR teams didn't have the equipment they needed to undertake rescue operations. The coroner noted that since the earthquake the NZFS and NZDF had met to discuss deployment arrangements, including conducting loading exercises and discussing transport requirements.

Communication was hampered by the loss in contact with communication centres, and when this contact was regained, the channels were extremely busy and congested. This created difficulties in that units deployed to help with rescue operations were unaware of what had happened and the extent of the damage. This contributed to an uncoordinated response between all the units in the area.

Regarding the leadership structure at the scene, the Coordinated Incident Management System (CIMS) required the establishment of an incident control point (ICP). An ICP would have contributed to more effective deployment, collation of

³³ Findings at [47]-[49].

³⁴ Findings at [49].

³⁵ Findings at [104]-[106].

intelligence, coordination between different areas of the CTV Building rescue efforts, and a sense of order and confidence. This did not happen. In addition, no United Nations Disaster Assessment and Coordination (UNDAC) team was brought in. An UNDAC team helps coordinate international relief. The coroner found that an UNDAC team “would have provided more leadership on the ground ... at the CTV Building” by freeing up other key NZFS personnel, although it is impossible to say whether this may have led to more live rescues.³⁶

The coroner’s view was that the Police, USAR, fire-fighters and members of the public were doing all they could in a difficult situation to rescue people and save lives. The rescue efforts of the people who worked at the CTV Building were outstanding, courageous and selfless and they saved a number of people. The rescuers could not save everyone but they expended every effort and resource that was available to them to try to do so. More people, more resources, better communication and a better structure would, based on the evidence, have improved the situation overall and may have improved the chances of saving more lives. However, the coroner was not satisfied to the standard needed that such improvements would have resulted in actually finding and saving the lives of those people who were trapped in the CTV Building, or created a reasonable prospect of finding them and saving their lives. Accordingly, the coroner found that the search and rescue efforts did not contribute to the deaths of Dr Cvetanova, Ezra Medalle, Jessie Redoble, Mary Amantillo, Emmabelle Anoba, Rika Hyuga, Chang Lai and Rhea Sumalpong.

Recommendations arising

Coroner Matenga made several recommendations as a result of his inquiry. These were:³⁷

- NZFS continue work commenced to establish a Memorandum of Understanding between NZFS, NZDF, Air New Zealand and DHL to ensure that the requirements of each organisation are clearly expressed, to ensure the expeditious deployment of USAR teams when required and undertake joint training exercises to ensure the requirements are understood;
- NZFS arrange for USAR technicians to undertake the "Dog man" course to receive specialist training in the use of heavy machinery (including cranes) in search and rescue work;
- NZFS arrange for USAR technicians to undertake and maintain IATA certification;
- For all major disasters where international assistance is sought or accepted, it become the default position that a request be made to United Nations for the assistance of an UNDAC team;
- NZFS, in conjunction with the Civil Defence Emergency Management Group, develop and undertake joint exercises with such Light Response Teams that have been established by local authorities (but with emphasis on areas where the risk of building collapse is high following a significant event – such as Auckland, Wellington and Christchurch) to better understand their capabilities and to ensure the best use of this resource;
- NZFS develop a standard operating procedure following an earthquake event for all on-duty NZFS personnel, in the affected area to follow, prior to deployment;
- NZFS and NZ Police develop and undertake further training in incident management and to emphasise the need to co-operate to establish an Incident Control Point and an Incident Controller in the USAR environment;
- The Ministry of Civil Defence and Emergency Management give consideration to amending the CIMS model to provide for the situation where there are multiple sub-incidents, it is a role of the overall Incident Controller to ensure that incident control of a sub-incident has been determined.

Coroner Matenga also made the following comment:³⁸

I mention the significant contribution made by NZDF in allowing NZDF facilities at Burnham to be used to establish a temporary mortuary and provide a place for the teams of police, Pathologists, Dentists, CSU staff and others that were needed to assist Coroners in our responsibility to identify the deceased and return them to their families. The Burnham facilities were ideal and provided a model which I understand is now being considered internationally. I invite the Ministry of Civil Defence and Emergency Management and the Ministry of Justice to formalise, as much as possible, arrangements with NZDF and develop a contingency plan to use NZDF facilities throughout the country, (but with emphasis on areas where the risk of building collapse is high following a significant event such as Auckland, Wellington and Christchurch) in this way.

³⁶ Findings at [125].

³⁷ Findings at [154].

³⁸ Findings at [155].

The Ministry of Civil Defence and Emergency Management provided an update on the progression of Coroner Matenga's recommendations. It stated:

- The Ministry of Civil Defence and Emergency Management has noted the recommendation in relation to UNDAC teams.
- The Coordinated Incident Management System (CIMS) was reviewed in 2014 and a new version was published on www.mcdem.govt.nz. The revised version provides for controllers at single incident, multiple incident and higher levels of response, and describes their respective roles and relationships.
- The National Civil Defence Emergency Management Plan Order 2015 (clauses 52–56) states the objectives, principles and roles of the New Zealand Defence Force as a support agency in emergencies. It includes provision for the coordination of New Zealand Defence Force assets at the local and national level.

The New Zealand Fire Service provided an update on the progression of Coroner Matenga's recommendations. It stated:

- The Fire Service has entered into Memorandums of Understanding with the New Zealand Defence Force and Air New Zealand to formalise the arrangements for the deployment of USAR.
Early discussions with DHL led the Fire Service to believe DHL did not have the ability to move cargo in the configuration and content USAR required. However since the successful INSARAG [International Search and Rescue Advisory Group] classification of USAR (10 March), the Fire Service has reengaged with DHL and positive progress is being made.
The Fire Service has also engaged with two other freight forwarding companies to explore deployment options and the criteria needed to achieve the Regional Air Cargo Carriers Association recognition. This is designed to raise the “awareness and comfort” airlines within our region can have about USAR’s ability to [meet] minimum cargo standards.
USAR has also carried out joint training exercises with Chatham Air and NZDF load masters from Ohakea and Hobsonville air bases.
- Twenty USAR personnel have completed the ‘dogman’ course.
- Eleven USAR personnel completed IATA certification in September 2013. Re-certifications and arrangements are underway to ensure reclassification in late 2015.
- The Fire Service’s USAR Operations Manual details that, in conjunction with the Department of Prime Minister and Cabinet and the Ministry of Civil Defence and Emergency Management, consideration will be given to making a request of the United Nations for an UNDAC team, where other international assistance has been requested.
- The Fire Service has completed joint exercises with local authority and Red Cross Light Response Teams, including NZ Red Cross and Ministry of Civil Defence and Emergency Management training exercises at the Fire Service National Training Centre in Rotorua.
The Ministry of Civil Defence and Emergency Management is re-evaluating and undergoing a registration process of response teams. Further training is planned on the completion of this registration process.
- [Regarding the recommendation to develop a standard operating procedure following an earthquake for all on duty NZFS personnel in the affected area to follow prior to deployment] a draft process is in place and will be formally added to the USAR operations manual and USAR policy documents. It is also included in station Emergency Response Plans.
- Fire Service and NZ Police commanders have exercised together during numerous all-of-government exercises and major events as follows:
 - Exercise Guardian 2014
 - Exercise Resolution 2014
 - Cricket World Cup 2015, Under-20 Football World Cup 2015
 - Mines Rescue protocol working party (ongoing)

NZ Police is now presenting case studies and incident command presentations at the Fire Service Tactical Command and Strategic Command course. This gives all officers and commanders an understanding of each organisation’s role.

USAR has established internationally accepted roles using the INSARAG methodology equivalent to the Incident Control Point and Incident Controller within the working environment. The Incident Controller is the Task Force Leader, and the Incident Control Point is established within the command tent of the Base of Operations. These roles and corresponding functions are exercised regularly.

In a domestic USAR deployment, the USAR function is a sector within the command and control function as detailed within the recently updated Coordinated Incident Management System Manual (version 4).

Part C (1 August 2014 to 31 December 2014):

Recommendations

Adverse Effects or Reactions to Medical/ Surgical Care	
Case Number	Catch Words
CSU-2012-DUN-000410	Complications, Existing Medical Condition, Communication with Family
2014 NZCorC 147	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/147.html
	Response
	N/A
Aviation Accident	
Case Number	Catch Words
CSU-2010-PNO-000285	Small Aircraft Collision, Overhead Join Manoeuvre, Flight Instructor and Student
2014 NZCorC 103	Link to Summary and Recommendations
2014 NZCorC 104	http://www.nzlii.org/nz/cases/NZCorC/2014/103.html
	http://www.nzlii.org/nz/cases/NZCorC/2014/104.html
	Response
	N/A
Case Number	Catch Words
CSU-2008-WGN-000393	Paraparaumu Aerodrome, Small Aircraft Collision, Helicopter versus Fixed Wing Craft,
CSU-2008-WGN-000397	Air Traffic Circuits In Opposite Directions, Civil Aviation Rules Part 139, Proposed
CSU-2008-WGN-000398	Amendment
2014 NZCorC 135	Link to Summary and Recommendations
2014 NZCorC 136	http://www.nzlii.org/nz/cases/NZCorC/2014/135.html
2014 NZCorC 137	http://www.nzlii.org/nz/cases/NZCorC/2014/136.html
	http://www.nzlii.org/nz/cases/NZCorC/2014/137.html
	Response from the Civil Aviation Authority
	See above link
Care Facilities	
Case Number	Catch Words
CSU-2013-AUK-000936	Compulsory Treatment Order, Self-Medication error, Multiple co-morbidities
2014 NZCorC 118	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/118.html
	Response from the Te Kotuku Te Rangi Charitable Trust
	No response received

Child Deaths	
Case Number CSU-2013-AUK-001397 2014 NZCorC 89	Catch Words
	Aged 12 years, Upturned Quad Bike, Farm
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/89.html
Case Number CSU-2014- AUK-000341 2014 NZCorC 99	Response
	N/A
	Catch Words
	Aged 3 months, Shared Sleeping Arrangement
Case Number CSU-2012-WHG-000098 2014 NZCorC 105	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/99.html
	Response
	N/A
Case Number CSU-2011-HAS-000013 2014 NZCorC 107	Catch Words
	Aged 3 months, Sibling access to sleeping infant
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/105.html
Case Number CSU-2011-HAS-000013 2014 NZCorC 107	Response
	N/A
	Catch Words
	2 years old, Unwell Child, General Practitioner, Hawkes Bay Hospital
Case Number CSU-2011-HAS-000013 2014 NZCorC 107	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/107.html
	Response
	N/A
Case Number CSU-2013-AUK-000144 2014 NZCorC 124	Catch Words
	Aged 18 months, Struck by vehicle, Driveway
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/124.html
Case Number CSU-2013-AUK-000144 2014 NZCorC 124	Response
	N/A
	Catch Words
	Two years and 10 months old, Child At Home, Child Wandered Off, Found Drowned
Case Number CSU-2013-DUN-000255 2014 NZCorC 138	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/138.html
	Response
	N/A
Case Number CSU-2013-DUN-000196 2014 NZCorC 139	Catch Words
	22 months old, Child At Home, Farm, Child Wandered Off, Adequate Fencing Of Water Hazard
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/139.html
Case Number CSU-2013-DUN-000196 2014 NZCorC 139	Response from WorkSafe NZ
	Response pending

Deaths in Custody	
Case Number CSU-2013-CCH-000603 2014 NZCorC 140	Catch Words
	Natural Causes, Protocols For Police Investigations in Corrections Facilities
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/140.html
	Response
	N/A
Drugs/Alcohol/Substance Related	
Case Number CSU-2013-DUN-000375 2014 NZCorC 96	Catch Words
	Tramadol, Unintentional Overdose
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/96.html
	Response
	N/A
Case Number CSU-2012-WGN-000534 2014 NZCorC 100	Catch Words
	17 years old, CYPF Guardian Order, Prescription Medications, Unintentional, Cough Medication
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/100.html
	Response from the Ministry of Social Development
	Response incorporated into findings – see above link
Case Number CSU-2012-DUN-000286 2014 NZCorC 115	Catch Words
	Methotrexate, Prescription Error
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/115.html
	Response from the Pharmacy Council of New Zealand
	See above link
Case Number CSU-2012-AUK-000889 2014 NZCorC 119	Catch Words
	Opiate Toxicity, Complex Mental Health and addiction history, Long term care, Absent without leave notification
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/119.html
	Response from Auckland District Health Board
	No response received
Fall	
Case Number CSU-2013-DUN-000229 2014 NZCorC 95	Catch Words
	Hospital death, Fall, Elderly, Multiple co-morbidities
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/95.html
	Response from the Southern District Health Board
	See above link – steps already taken at time of recommendations release

Case Number CSU-2013-CCH-000513 2014 NZCorC 145	Catch Words
	Alpine fall, Mount Cook/ Aoraki, Crampons/ Ice Axes, Experience
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/145.html
	Response from the Department of Conservation See above link
Case Number CSU-2013-DUN-000264 2014 NZCorC 158	Catch Words
	Avalanche, Remarkables, Fall
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/158.html Response N/A
Case Number CSU-2012-CCH-000918 2014 NZCorC 141	Catch Words
	Bush Terrain, Track Clearing, Falls, Personal Locator Beacon
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/141.html Response from Federated Mountain Clubs of New Zealand See above link
Case Number CSU-2013-CCH-000142 2014 NZCorC 143	Catch Words
	Released From Police Custody, Fall Into Drainage Waterway, Level Of Intoxication, Police Ability To Assess Intoxication
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/143.html Response from New Zealand Police See above link
Case Number CSU-2013-CCH-000511 2014 NZCorC 144	Catch Words
	Aoraki Mount Cook, Tasman Saddle Hut, Experienced Mountaineer, Lost Footing, Powder Snow and "Bulletproof" Ice
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/144.html Response from Department of Conservation and Federated Mountain Clubs of New Zealand See above link
Health Care Issues	
Case Number CSU-2013-AUK-000576 2014 NZCorC 122	Catch Words
	Prescription, Quinine, Documented Adverse Reaction, General Practitioner
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/122.html Response N/A

Case Number CSU-2013-AUK-000144 2014 NZCorC 123	Catch Words
	Asthma Attack, Resuscitation
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/123.html
	Response N/A
Case Number CSU-2013-CCH-000631 2014 NZCorC 146	Catch Words
	Misreading of Dosage Medication Chart, Terminal Condition Hastened
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/146.html
	Response from Nurse Maud Hospital See above link
Case Number CSU-2012-CCH-000460 2014 NZCorC 148	Catch Words
	Cardiac Tamponade, Infusion of Fluids into Pericardial Cavity, Systemic Issue
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/148.html
	Response N/A
Case Number CSU-2013-DUN-000065 2014 NZCorC 157	Catch Words
	Haemorrhage, Unstable Patient Scoring System, Communication between Junior and Senior Doctors
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/157.html
	Response N/A
Case Number CSU-2012-AUK-001419 2014 NZCorC 142	Catch Words
	Myocardial Infarction, Anti-Coagulation Therapy, Haemorrhagic Complications
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/142.html
	Response N/A
Labour or Pregnancy Related	
Case Number CSU-2012-CCH-000545 2014 NZCorC 129	Catch Words
	Breech Position, Issue of Consent to Caesarean Section, Birth Asphyxia
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/129.html
	Response from Canterbury District Health Board No response received

Mental Health Issues

Case Number	Catch Words
CSU-2010-HAM-000039 2014 NZCorC 131	Escaped Mental Health Patient, Homicide, Voluntary Inpatient, Climbed Fence, Adequacy of Physical Barriers at Hospital, Section 111 of the Mental Health (Compulsory Assessment and Treatment) Act 1992, Powers of Nurse to Detain Voluntary Inpatient
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/131.html
	Response from the Chief Executive of the Ministry of Health and Director of Mental Health
	No response received

Natural Disaster

Case Number	Catch Words
CSU-2013-PNO-000270 2014 NZCorC 127	Landslide, Dwelling, Convergence drainage, Light Construction
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/127.html
	Response from Tasman District Council
	See above link

Police Pursuits

Case Number	Catch Words
CSU-2011-AUK-000023 2014 NZCorC 152	Motor Vehicle Crash, Youth Facility, Child Youth and Family, Issue over Contact Phone Number for Family, Absconding in the Christmas Period
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/152.html
	Response from Youthlink, Commissioner of Police and Ministry of Social Development
	Response pending

Recreational/ Leisure Activities

Case Number	Catch Words
CSU-2013-CCH-000259 2014 NZCorC 132	Amateur Rally Event, Vehicle Crash, Death of Driver, RallySafe System, Course Design, Communication With Drivers, Safety Planning
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/132.html
	Response from MotorSport NZ
	See above link

Self-Inflicted	
Case Number CSU-2012-CCH-000260 2014 NZCorC 101	Catch Words
	Inpatient, Depressive Disorder, Canterbury District Health Board, Documentation
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/101.html
	Response from the Canterbury District Health Board No response received
Case Number CSU-2014-AUK-000809 2014 NZCorC 151	Catch Words
	Intentional Airplane Crash in Water, Obligations of Medical Practitioners Notifying when Pilot Unfit to Fly
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/151.html
	Response N/A
Transport-Related	
Case Number CSU-2012-CCH-000346 2014 NZCorC 91	Catch Words
	Single Motor Vehicle Crash, Youth driver, Alcohol, Rugby Club
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/91.html
	Response N/A
Case Number CSU-2014-HAM-000130 2014 NZCorC 106	Catch Words
	Motor vehicle, Rock Landslide
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/106.html
	Response from the New Zealand Transport Agency See above link
Case Number CSU-2012-AUK-001139 2014 NZCorC 102	Catch Words
	Pedestrian Struck by Train, Level Crossing
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/102.html
	Response N/A
Case Number CSU-2012-DUN-000471 CSU-2012-DUN-000472 2014 NZCorC 125 2014 NZCorC 126	Catch Words
	Motorbike, Collision, Foreign National Driver of Car
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/125.html http://www.nzlii.org/nz/cases/NZCorC/2014/126.html
	Response from the Minister of Transport See above link

Case Number CSU-2012-CCH-000107 2014 NZCorC 128	Catch Words
	Motor Vehicle, National Park Road, Speed Signage
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/128.html
	Response from the Department of Conservation These recommendations have been accepted by the Department of Conservation.
Case Number CSU-2012-WHG-000094 2014 NZCorC 149	Catch Words
	Motorbike Crash, Drug Influence, Condition of Bike
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/149.html
	Response N/A
Case Number CSU-2012-WHG-000217 2014 NZCorC 150	Catch Words
	Struck by Motor Vehicle, following Drinking at Military Camp, State Highway
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/154.html
	Response N/A
Case Number CSU-2012-CCH-000096 2014 NZCorC 154	Catch Words
	Struck by Motor Vehicle, following Drinking at Military Camp, On State Highway
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/154.html
	Response N/A
Case Number CSU-2011-CCH-001187 CSU-2011-CCH-001188 2014 NZCorC 133 2014 NZCorC 134	Catch Words
	Motor Vehicle Collision, Car versus Campervan, Tourist Driver, Road Markings, Regulation of Rental Vehicles, Safety Programmes for Visiting Drivers
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/133.html http://www.nzlii.org/nz/cases/NZCorC/2014/134.html
	Response from the New Zealand Transport Agency See above link
Water-Related (General)	
Case Number CSU-2014-DUN-000014 2014 NZCorC 153	Catch Words
	Drowning in Pond, Water Safety, Infant
	Link to Summary and Recommendations http://www.nzlii.org/nz/cases/NZCorC/2014/153.html
	Response N/A

Water-Related (Recreational Fishing/ Boating)

Case Number CSU-2013-DUN-000035 2014 NZCorC 93	Catch Words
	Drowning, Dinghy, No lifejacket
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/93.html
Case Number CSU-2013-PNO-000480 2014 NZCorC 97	Catch Words
	Yacht, No lifejacket, Rescue Helicopter, Winching
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/97.html
Case Number CSU-2012-AUK-001577 2014 NZCorC 117	Catch Words
	Drowning, 10 foot Dinghy, capsized, Lifejacket not fitted properly
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/117.html
Case Number CSU-2013-DUN-000250 2014 NZCorC 121	Catch Words
	Fly Fishing, Waders, Lifejackets, Gravel Crust Formations, River, Remote location
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/121.html
Case Number CSU-2013-DUN-000288 2014 NZCorC 120	Catch Words
	Cold Water Immersion, Home Built Boat, Lake, No Auxiliary Motor
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/120.html
Case Number CSU-2011-AUK-001095 2014 NZCorC 156	Catch Words
	Drowning, Fishing Boat, Inadequate Lifejackets
	Link to Summary and Recommendations
	http://www.nzlii.org/nz/cases/NZCorC/2014/156.html

Work-Related (Agriculture)

Case Number CSU-2012-DUN-000465 2014 NZCorC 90	Catch Words Tractor, Roll, Steep terrain, Roll Over Protection Structure (ROPS) in situ, Not wearing seatbelt
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Link to Summary and Recommendations

<http://www.nzlii.org/nz/cases/NZCorC/2014/90.html>

Response

N/A

Case Number CSU-2012-WHG-000022 2014 NZCorC 155	Catch Words Tractor Crash, No Seatbelt
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Link to Summary and Recommendations

<http://www.nzlii.org/nz/cases/NZCorC/2014/155.html>

Response

N/A

Case Number CSU-2013-DUN-000055 2014 NZCorC 130	Catch Words Tractor Crash, No Seatbelt, Descending Steep Slope
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Link to Summary and Recommendations

<http://www.nzlii.org/nz/cases/NZCorC/2014/130.html>

Response

N/A

Work-Related (Other)

Case Number CSU-2013-CCH-000213 2014 NZCorC 98	Catch Words Cutting Tool, Obsolete and Oversized Disc fitted, No Safety Guard
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Link to Summary and Recommendations

<http://www.nzlii.org/nz/cases/NZCorC/2014/98.html>

Response

N/A

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