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11 April 2019

Cade Pellett

By email:fyi-request-9833-1681d8be@requests.fyi.org.nzRef:H201901384 and H201901428

Dear Cade

Response to your request for official information

Thank you for your requests for information under the Official Information Act 1982 (the Act) on 12 April 2019 and 15 April 2019 for:

"I'm doing some research on the contraction and the death rates from Typhoid Fever [Diphtheria, Whooping cough, and Scarlet Fever] in NZ from as far back as our records show [and] ...the Mortality and Morbidity data for Varicella (Chickenpox) from 1970's to current for the whole of NZ."

Information held by the Ministry of Health (the Ministry) relating to your requests is attached to this response. Please note that 2015 is the most recent year for which this data is currently available. Finalising mortality and morbidity data takes several years as there are a variety of data quality processes involved before this information is published. Generally, provisional data becomes available around two years after the end of the year. As such, 2016 data is expected to be provisionally available in mid-2019. Additional contextual information is also noted in the data tables.

The Ministry data warehouse only includes mortality and hospitalisation data from 1988 onwards. Due to this, the data supplied has been sourced from the Ministry of Health Publication series. Hospitalisation data from 1875 to 1977 was not published.

I trust that this information fulfils your request. Under section 28(3) of the Act you have the right to ask the Ombudsman to review any decisions made under this request.

Yours sincerely

Shayne Hunter Deputy Director-General Data and Digital

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Table 1. Morbidity data (Source: Hospital and Selected Morbidity data) Publicly funded bospital discharges for selected conditions as a primary diagnosis

Publicly funded hospital	uischarges ic	sciected conditions as a primary alagnosis												
ICD10 Code	ICD-9 Code	Year	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
A01	002	Typhoid	12	19	12	10	9	27	N/A	N/A	N/A	2	11	14
A36	032	Diphtheria	6	0	0	0	0	7	N/A	N/A	N/A	0	0	0
A37	033	Whooping cough	63	42	144	107	58	221	N/A	N/A	N/A	254	130	41
A38, J02.0, J03.0	034	Streptococcal sore throat and scarlet fever	56	44	58	66	48	64	N/A	N/A	N/A	57	41	46
B01	052	Chickenpox	77	67	93	77	112	111	N/A	N/A	N/A	82	72	55
ICD10 Code	ICD-9 Code	Year	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
A01	002	Typhoid	9	8	5	7	6	30	4	18	13	1	9	17
A36	032	Diphtheria	0	0	0	0	0	0	0	0	0	0	0	1
A37		Whooping cough	39	570	137	17	63	339	79	11	59	127	328	130
A38, J02.0, J03.0	034	Streptococcal sore throat and scarlet fever	43	57	53	78	55	38	72	81	82	90	68	89
B01	052	Chickenpox	58	61	53	86	53	68	63	69	97	88	95	128
		-												
ICD10 Code	ICD-9 Code	Year	1993	1994	1995	1995/96	1996/97	1997/98	1998/99	1999/2000	2000/01	2001/02	2002/03	2003/04
ICD10 Code A01	ICD-9 Code 002	Year Typhoid	1993 3	1994 16	1995 13	1995/96 8	1996/97 15	1997/98 18	1998/99 13	1999/2000 14	2000/01 25	2001/02 26	2002/03 19	2003/04 24
	002		3 0		13 0					14 1			19 0	
A01	002 032	Typhoid	3	16 0 44	13	8	15	18	13				19	24 0 142
A01 A36	002 032 033 034	Typhoid Diphtheria Whooping cough Streptococcal sore throat and scarlet fever	3 0	16 0	13 0	8 0	15 0	18 0	13 0	14 1	25 0	26 1	19 0	24 0
A01 A36 A37	002 032 033 034	Typhoid Diphtheria Whooping cough	3 0 107	16 0 44	13 0 181	8 0 548	15 0 198	18 0 59	13 0 78	14 1 352	25 0 360	26 1 150	19 0 128	24 0 142
A01 A36 A37 A38, J02.0, J03.0 B01	002 032 033 034 052	Typhoid Diphtheria Whooping cough Streptococcal sore throat and scarlet fever Chickenpox	3 0 107 143 239	16 0 44 175 201	13 0 181 142 169	8 0 548 141 156	15 0 198 171 154	18 0 59 209 164	13 0 78 215 262	14 1 352 216 222	25 0 360 251 193	26 1 150 266 299	19 0 128 264 265	24 0 142 305 325
A01 A36 A37 A38, J02.0, J03.0 B01 ICD10 Code	002 032 033 034 052 ICD-9 Code	Typhoid Diphtheria Whooping cough Streptococcal sore throat and scarlet fever Chickenpox Year	3 0 107 143 239 2004/05	16 0 44 175 201 2005/06	13 0 181 142	8 0 548 141 156 2007/08	15 0 198 171 154 2008/09	18 0 59 209 164 2009/10	13 0 78 215 262 2010/11	14 1 352 216	25 0 360 251 193 2012/13	26 1 150 266 299 2013/14	19 0 128 264 265 2014/15	24 0 142 305 325 2015/16
A01 A36 A37 A38, J02.0, J03.0 B01 ICD10 Code A01	002 032 033 034 052 ICD-9 Code 002	Typhoid Diphtheria Whooping cough Streptococcal sore throat and scarlet fever Chickenpox Year Typhoid	3 0 107 143 239 2004/05 25	16 0 44 175 201 2005/06 22	13 0 181 142 169 2006/07 60	8 0 548 141 156 2007/08 24	15 0 198 171 154 2008/09 32	18 0 59 209 164 2009/10 37	13 0 78 215 262 2010/11 32	14 1 352 216 222 2011/12 41	25 0 360 251 193	26 1 150 266 299	19 0 128 264 265	24 0 142 305 325 2015/16 61
A01 A36 A37 A38, J02.0, J03.0 B01 ICD10 Code	002 032 033 034 052 ICD-9 Code 002	Typhoid Diphtheria Whooping cough Streptococcal sore throat and scarlet fever Chickenpox Year	3 0 107 143 239 2004/05	16 0 44 175 201 2005/06 22 2	13 0 181 142 169 2006/07	8 0 548 141 156 2007/08	15 0 198 171 154 2008/09	18 0 59 209 164 2009/10	13 0 78 215 262 2010/11	14 1 352 216 222 2011/12	25 0 360 251 193 2012/13	26 1 150 266 299 2013/14	19 0 128 264 265 2014/15	24 0 142 305 325 2015/16
A01 A36 A37 A38, J02.0, J03.0 B01 ICD10 Code A01	002 032 033 034 052 ICD-9 Code 002 032	Typhoid Diphtheria Whooping cough Streptococcal sore throat and scarlet fever Chickenpox Year Typhoid	3 0 107 143 239 2004/05 25 0 242	16 0 44 175 201 2005/06 22	13 0 181 142 169 2006/07 60	8 0 548 141 156 2007/08 24	15 0 198 171 154 2008/09 32	18 0 59 209 164 2009/10 37	13 0 78 215 262 2010/11 32	14 1 352 216 222 2011/12 41	25 0 360 251 193 2012/13	26 1 150 266 299 2013/14	19 0 128 264 265 2014/15	24 0 142 305 325 2015/16 61
A01 A36 A37 A38, J02.0, J03.0 B01 ICD10 Code A01 A36	002 032 033 034 052 ICD-9 Code 002 032 033	Typhoid Diphtheria Whooping cough Streptococcal sore throat and scarlet fever Chickenpox Year Typhoid Diphtheria	3 0 107 143 239 2004/05 25 0	16 0 44 175 201 2005/06 22 2	13 0 181 142 169 2006/07 60 0	8 0 548 141 156 2007/08 24 0	15 0 198 171 154 2008/09 32 0	18 0 59 209 164 2009/10 37 0	13 0 78 215 262 2010/11 32 2	14 1 352 216 222 2011/12 41 0	25 0 360 251 193 2012/13 74 1	26 1 150 266 299 2013/14 42 1	19 0 128 264 265 2014/15 40 1	24 0 142 305 325 2015/16 61
A01 A36 A37 A38, J02.0, J03.0 B01 ICD10 Code A01 A36 A37	002 032 033 034 052 ICD-9 Code 002 032 033 034	Typhoid Diphtheria Whooping cough Streptococcal sore throat and scarlet fever Chickenpox Year Typhoid Diphtheria Whooping cough	3 0 107 143 239 2004/05 25 0 242	16 0 44 175 201 2005/06 22 2 2 89	13 0 181 142 169 2006/07 60 0 60	8 0 548 141 156 2007/08 24 0 47	15 0 198 171 154 2008/09 32 0 108	18 0 59 209 164 2009/10 37 0 134	13 0 78 215 262 2010/11 32 2 100	14 1 352 216 222 2011/12 41 0 273	25 0 251 193 2012/13 74 1 398	26 1 150 266 299 2013/14 42 1 169	19 0 128 264 265 2014/15 40 1 112	24 0 142 305 325 2015/16 61 0 1

Hospitalisation data from 1975-1977 was not published

Data changes from calendar years to financial years in 1995/1996

Financial year runs from 1st July to 30th June

Released under the Official Information Act 1982

Table 2. Mortality data (Source: Mortality and Demographic data)

Deaths registered in 1968 - 1999

Year	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
052 Chickenpox	3	1	6	4	5	3	2	0	0	2	2	0	1	0	1	1
033 Whooping cough	1	0	0	1	3	0	0	0	0	0	2	0	0	1	0	0
032 Diphtheria	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
034 Streptococcal sore																
throat and scarlet fever	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0
0020 Typhoid	0	0	0	0	2	0	0	0	1	0	0	1	0	0	0	0
Year	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
052 Chickenpox	1	0	0	0	0	1	1	0	4	2	0	0	1	0	0	1
033 Whooping cough	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
032 Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
034 Streptococcal sore																
throat and scarlet fever	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
0020 Typhoid	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deaths registered in 2000-																
Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015

Ye	ar 20	000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
B01 Chickenpox		2	1	4	0	2	1	3	1	0	1	2	3	2	1	0	0
A37 Whooping cough		1	1	1	0	1	1	0	0	0	0	1	0	2	2	0	1
A36 Diphtheria		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A38 Scarlet fever		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A01 Typhoid	(0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1968-1999 uses ICD9 code

2000-2015 uses ICD-10-AM code

Published mortality data is currently only available up to 2015

Year refers to the year the death is registered, this maybe different to the year the death occurred