

## Supplementary Material

### **Disease and economic burden of infections in hospitalised children in New South Wales, Australia**

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## Appendix: Supplemental Figures and Tables

Appendix Table S1 ICD-10-AM codes for infections

<b>Infection</b>	<b>ICD-10-AM code(s)*</b>
Appendicitis	K35.x, K36.x, K37.x
Cellulitis	H05.01, H60.1, K12.2, L03.x, L98.3, N48.22, N73.0, N73.1, N73.2
Cervical lymphadenitis	L04.0
Meningitis	A01.01, A02.21, A17.0, A20.3, A27.81, A32.1, A39.0, A42.81, A50.41, A51.41, A52.13, A54.81, A69.21, A87.x, B00.3, B01.0, B02.1, B05.1, B06.02, B26.1, B27.02, B27.12, B27.82, B27.92, B37.5, B38.4, B57.41, D86.81, G00.x, G01.x, G02.x, G03.x
Osteomyelitis	A01.05, A02.24, A54.43, H05.02, M46.x, M46.3, M46.4, M46.5, M86.x
Pneumonia	A01.03, A02.22, A37.01, A37.11, A37.81, A37.91, A50.04, A54.84, B01.2, B05.2, B06.81, B77.81, J09.x, J10.x, J11.x, J12.x, J13.x, J14.x, J15.x, J16.x, J17.x, J18.x, J84.11, J84.2, J85.1, J95.851, P23.x

Pyelonephritis	N00.x, N05.x, N10.x, N11.x, N12, N13.6, N15.1
Sepsis or severe sepsis (with/without septic shock)	A02.1, A22.7, A26.7, A32.7, A40.x, A41.x, A42.7, A54.8, B37.7, P36.x, R65.2, T81.44, O85.x, R65.1, R57.2
Septic arthritis (including joint infections)	M00.x, M01.x
Urinary tract infections	N30.0, N34.1, N35.1, N37.x, N39.0, N99.52, P39.3, O86.2

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Appendix Table S2 Proportion (in percent with binomial 95% confidence intervals) of coded infection among  $N = 339,077$  admissions in New South Wales, Australia, July 2016 – June 2019.

	Proportion (%) of all coded infections									
FY	Pneumonia	Appendicitis	Cellulitis	UTI	Sepsis	Pyelonephritis	Meningitis	Osteomyelitis	Cervical lymphadenitis	Septic arthritis
2016-17 ( $N=8777$ )	2897 (33.01)	1778 (20.26)	1419 (16.17)	1020 (11.62)	422 (4.81)	382 (4.35)	339 (3.86)	262 (2.99)	145 (1.65)	113 (1.29)
2017-18 ( $N=9694$ )	3568 (36.81)	1789 (18.45)	1369 (14.12)	1022 (10.54)	567 (5.85)	426 (4.39)	427 (4.40)	239 (2.47)	154 (1.59)	133 (1.37)
2018-19 ( $N=10277$ )	4059 (39.5)	1893 (18.42)	1338 (13.02)	1151 (11.2)	491 (4.78)	392 (3.81)	390 (3.79)	263 (2.56)	161 (1.57)	139 (1.35)
2016-19	10524	5460 (19)	4126	3193	1480	1200 (4.17)	1156	764 (2.66)	460 (1.60)	385

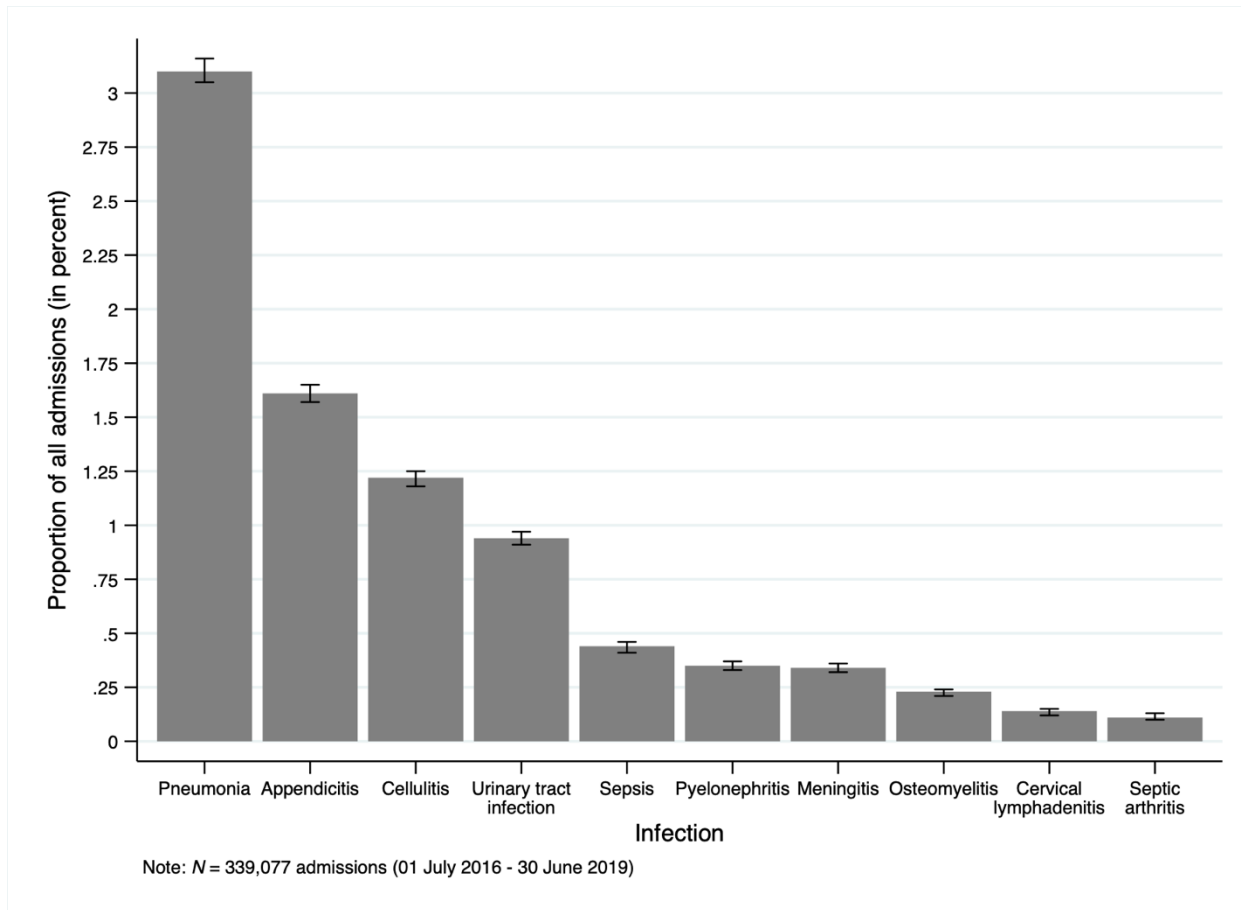
(N=28748	(36.61)		(14.35)	(11.11	(5.15		(4.02)			(1.34)
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Appendix Table S3 Generalised Linear Model Goodness-of-Fit Akaike and Bayesian Information Criteria Estimates with a Gamma Distribution and Log Link Function ( $n=28,748$ )

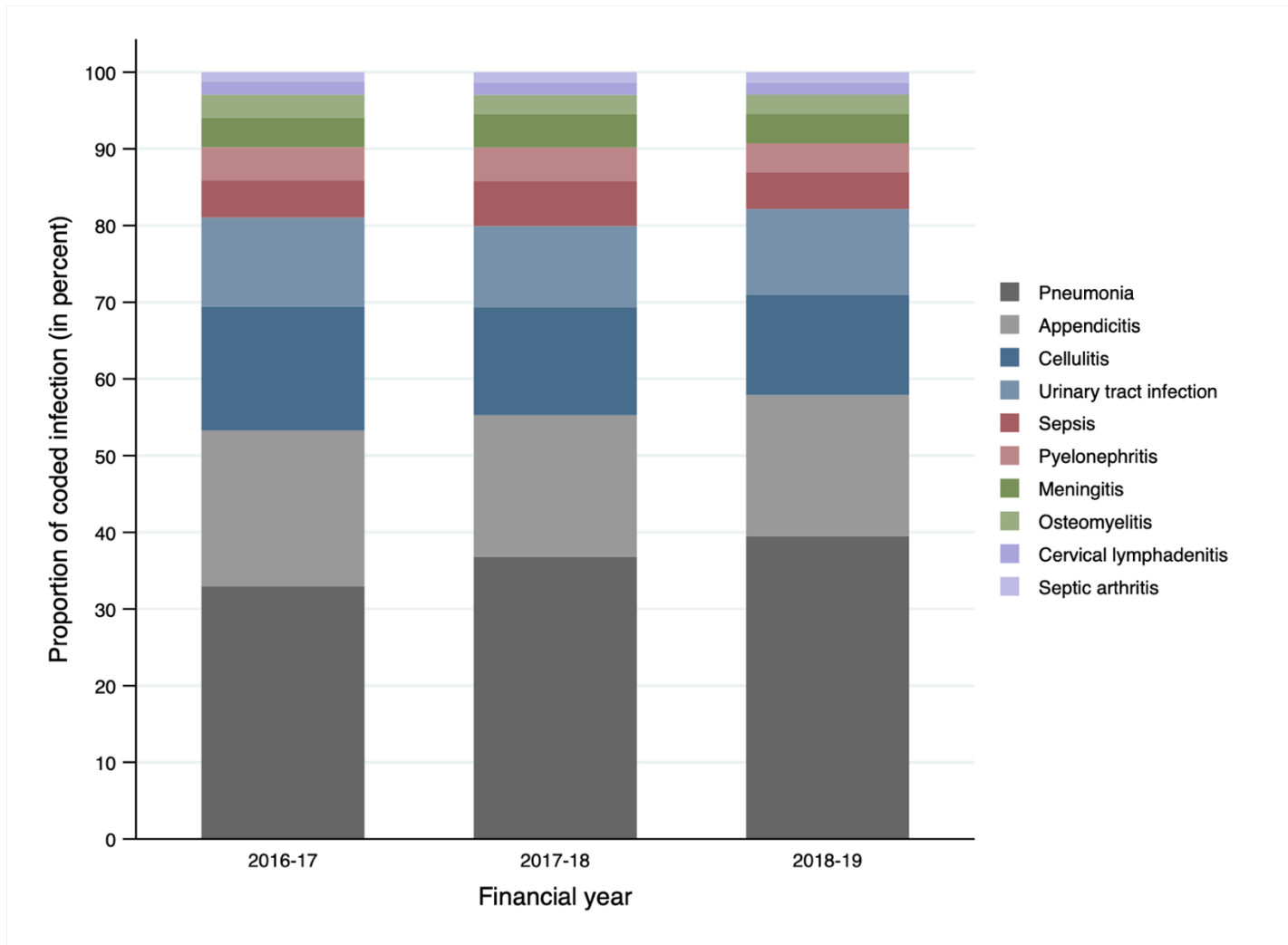
	GLM model estimates				
Covariate	AIC	BIC	Deviance residual	Pearson residual	Log likelihood
<i>Continuous independent covariate</i>					
<b>Bed-days</b>	19.46841	-284769.2	10346.52559	9798.380112	-279836.8649
<b>Age (in years)</b>	20.04352	-268235.7	26879.98495	81522.54957	-288103.5946
<i>Binary categorical independent covariate</i>					
<b>Paediatric hospital status</b>	19.94123	-271176.5	23939.2781	46988.90593	-286633.2411
<b>ICU admission status</b>	19.89929	-272382.1	22733.60312	39361.57182	-286030.4036

<b>Indigenous status</b>	20.04512	-268189.9	26925.80855	80377.34999	-288126.5064
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AIC, Akaike information criterion; BIC, Bayesian information criterion; GLM, generalised linear model; ICU, intensive care unit

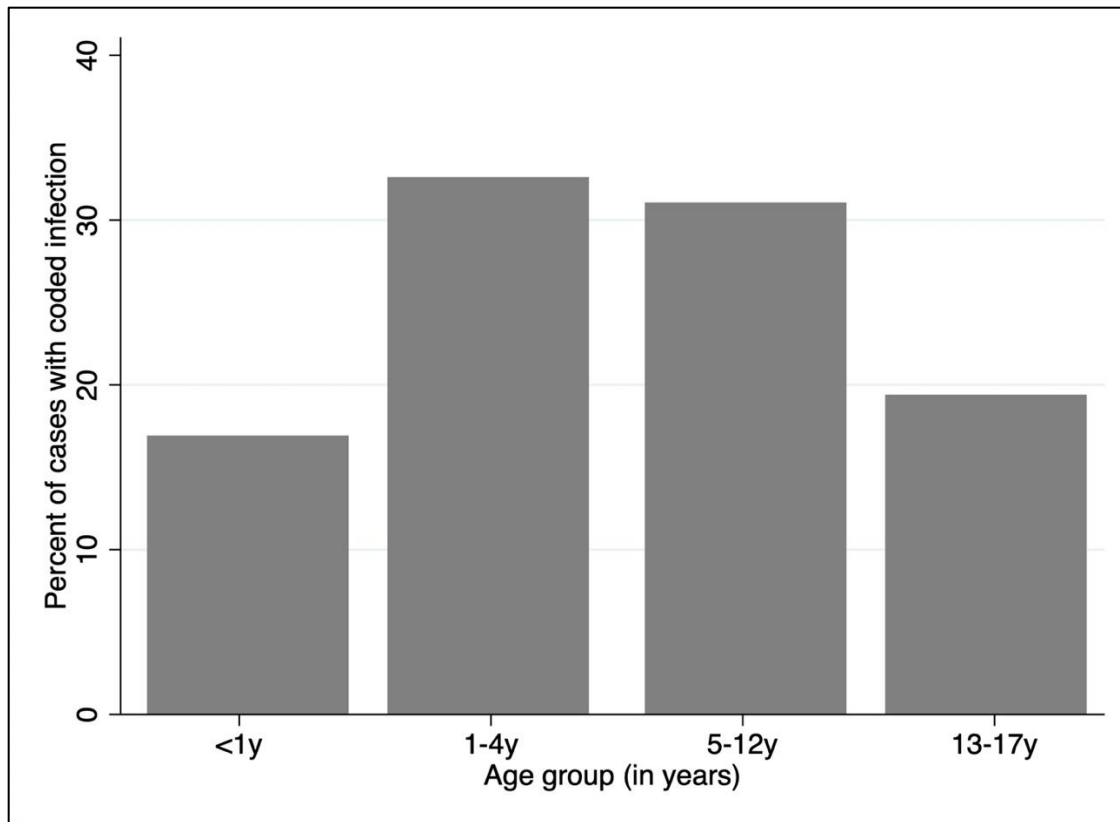


Appendix Figure S1 Proportion (percentages with binomial 95% confidence intervals) of coded infection among  $N = 339,077$  admissions in New South Wales, Australia, July 2016 – June 2019.



Appendix Figure S2 Percentage of coded infection as a proportion of all coded infection admissions stratified by financial year





Appendix Figure S3 Percentage of coded infection by age group (in years)

Age group <1y:  $4,866/28,748 = 16.93\%$  of coded infections

Age group 1-4y:  $9,373/28,748 = 32.6\%$  of coded infections

Age group 5-12y:  $8,932/28,748 = 31.07\%$  of coded infections

Age group 13-17y:  $5,577/28,748 = 19.4\%$  of coded infections