

### Supplement 3: Poisson Regression analysis of factors influencing receipt of an antibiotic prescription

Variable (N = 770)	Univariate Regression		Multivariate Regression	
	cPR* (95% CI)	P value	aPR** (95% CI)	P value
<b>Age in years</b>				
Children (< 18 years)	2.8 (2.1-3.9)	< 0.001	1.7 (1.3-2.2)	< 0.001
Adults (18-59 years)	2.0 (1.4-2.7)	< 0.001	1.5 (1.1-1.9)	0.004
Elderly (≥ 60 years)	1 [Ref.]		1 [Ref.]	
<b>Sex</b>				
Male	1.1 (0.9-1.2)	0.51	Excluded	NA
Female	1 [Ref.]			
<b>Level of health facility</b>				
Dispensary	2.5 (2.1-3.0)	< 0.001	1.3 (0.9-1.8)	0.14
Health Centre	2.1 (1.7-2.6)	< 0.001	1.5 (1.1-2.0)	0.009
District Hospital	2.4 (1.9-2.9)	< 0.001	1.5 (1.1-1.9)	0.004
Regional Referral Hospital	1.1 (0.8-1.4)	0.77	1.0 (0.7-1.4)	0.97
National Referral Hospital	1 [Ref.]		1 [Ref.]	
<b>Ownership of health facility</b>				
Public	0.7 (0.6-0.8)	< 0.001	1.2 (1.0-1.4)	0.03
Private	1 [Ref.]		1 [Ref.]	
<b>Department visited</b>				
Inpatient	1.5 (1.1-2.1)	0.007	2.0 (1.2-3.4)	0.01
Outpatient	1 [Ref.]		1 [Ref.]	
<b>Any Procedure/Surgery done</b>				
Yes	1.4 (1.1-1.9)	0.01	1.3 (0.8-2.0)	0.34
No	1 [Ref.]		1 [Ref.]	
<b>Prescriber Qualification</b>				
Clinical Officer/Dental Therapist	3.4 (2.1-5.5)	< 0.001	1.9 (1.2-3.0)	0.005
Assistant Medical/Dental Officer	3.5 (2.1-5.9)	< 0.001	2.0 (1.1-3.4)	0.02
Medical/Dental Officer	2.2 (1.4-3.6)	0.001	1.6 (1.1-2.5)	0.03
Specialist	1.3 (0.8-2.1)	0.27	1.3 (0.8-1.9)	0.25
Consultant	1 [Ref.]		1 [Ref.]	
<b>All medications prescribed using their generic names</b>				
No	1.2 (1.0-1.4)	0.02	1.3 (1.1-1.5)	0.002
Yes	1 [Ref.]		1 [Ref.]	
<b>Was malaria treatment prescribed</b>				
No	0.7 (0.5-0.9)	0.01	1.0 (0.8-1.4)	0.77
Yes	1 [Ref.]		1 [Ref.]	
<b>Presence of injectable formulation in the prescription</b>				
Yes	1.4 (1.1-1.7)	0.003	1.4 (1.1-1.8)	0.004
No	1 [Ref.]		1 [Ref.]	

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Variable (N = 770)	Univariate Regression		Multivariate Regression	
	cPR* (95% CI)	P value	aPR** (95% CI)	P value
<b>Select Diagnostic Codes</b>				
<b>Other disorders of urinary system - N39</b>				
Yes	2.4 (2.1-2.6)	< 0.001	2.4 (2.1-2.8)	< 0.001
No	1 [Ref.]		1 [Ref.]	
<b>Acute and URTI of multiple and unspecified sites - J06</b>				
Yes	1.8 (1.6-2.1)	< 0.001	1.6 (1.3 – 1.9)	< 0.001
No	1 [Ref.]		1 [Ref.]	
<b>Other sepsis - A41</b>				
Yes	1.8 (1.5-2.2)	< 0.001	1.7 (1.2-2.2)	0.001
No	1 [Ref.]		1 [Ref.]	
<b>Acute tonsillitis - J03</b>				
Yes	2.1 (1.9 – 2.4)	< 0.001	2.3 (1.8 – 3.0)	< 0.001
No	1 [Ref.]		1 [Ref.]	
<b>Candidiasis - B37</b>				
Yes	1.9 (1.5 – 2.4)	< 0.001	1.6 (1.2 – 2.1)	0.002
No	1 [Ref.]		1 [Ref.]	
<b>Bacterial infection of unspecified site - A49</b>				
Yes	1.8 (1.3 – 2.4)	< 0.001	2.1 (1.5 – 2.8)	< 0.001
No	1 [Ref.]		1 [Ref.]	
<b>Pneumonia, unspecified organism - J18</b>				
Yes	1.7 (1.3 – 2.4)	0.001	1.5 (0.8 – 2.9)	0.18
No	1 [Ref.]		1 [Ref.]	
<b>Other female pelvic inflammatory diseases - N73</b>				
Yes	1.9 (1.4 – 2.5)	< 0.001	1.7 (1.2 – 2.5)	0.004
No	1 [Ref.]		1 [Ref.]	
<b>Other gastroenteritis and colitis of infectious and unspecified origin - A09</b>				
Yes	1.9 (1.4 – 2.5)	< 0.001	1.4 (0.9 – 2.0)	0.14
No	1 [Ref.]		1 [Ref.]	
<b>Gingivitis and periodontal disease - K05</b>				
Yes	1.7 (1.1 – 2.7)	0.02	1.9 (1.2 – 2.9)	0.004
No	1 [Ref.]		1 [Ref.]	
<b>Cough - R05</b>				
Yes	1.5 (1.1 – 2.1)	0.02	1.0 (0.7 – 1.4)	0.90
No	1 [Ref.]		1 [Ref.]	

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	cPR* (95% CI)	P value	aPR** (95% CI)	P value
<b>Conjunctivitis - H10</b>				
Yes	1.5 (1.0 – 2.1)	0.05	1.6 (1.0 – 2.7)	0.05
No	1 [Ref.]		1 [Ref.]	
<b>Amoebiasis - A06</b>				
Yes	2.2 (2.0 – 2.4)	< 0.001	2.1 (1.5 – 2.9)	< 0.001
No	1 [Ref.]		1 [Ref.]	
<b>Otitis Externa – H60</b>				
Ref	2.2 (2.0 – 2.4)	< 0.001	0.8 (0.2 – 2.7)	0.70
No	1 [Ref.]		1 [Ref.]	
<b>Acute nasopharyngitis (common cold) - J00</b>				
Yes	1.3 (0.9 – 1.9)	0.10	0.7 (0.5 – 1.1)	0.10
No	1 [Ref.]		1 [Ref.]	
<b>Acute pharyngitis – J02</b>				
Yes	1.8 (1.3 – 2.6)	0.002	2.7 (1.1 – 6.3)	0.03
No	1 [Ref.]		1 [Ref.]	
<b>Bacterial pneumonia not elsewhere classified - J15</b>				
Yes	1.8 (1.3 – 2.6)	0.002	1.2 (0.8 – 1.6)	0.30
No	1 [Ref.]		1 [Ref.]	
<b>Unspecified acute lower respiratory infection - J22</b>				
Yes	1.7 (1.1 – 2.7)	0.02	1.5 (1.0 – 2.2)	0.05
No	1 [Ref.]		1 [Ref.]	
<b>Chronic rhinitis, nasopharyngitis and pharyngitis - J31</b>				
Yes	2.2 (2.0 – 2.3)	< 0.001	4.0 (2.4 – 6.4)	< 0.001
No	1 [Ref.]		1 [Ref.]	
<b>Other diseases of upper respiratory tract - J39</b>				
Yes	1.8 (1.3 – 2.6)	0.002	1.1 (0.7 – 1.7)	0.80
No	1 [Ref.]		1 [Ref.]	
<b>Disease of the pulp and periapical tissues - K04</b>				
Yes	2.2 (2.0 – 2.4)	< 0.001	3.4 (2.3 – 4.8)	< 0.001
No	1 [Ref.]		1 [Ref.]	
<b>Impetigo - L01</b>				
Yes	2.2 (2.0 – 2.3)	< 0.001	2.4 (1.2 – 4.7)	0.01
No	1 [Ref.]		1 [Ref.]	

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<b>Cutaneous abscess, furuncle and carbuncle - L02</b>				
Yes	2.2 (2.0 – 2.3)	< 0.001	3.0 (1.9 – 4.9)	< 0.001
No	1 [Ref.]		1 [Ref.]	
<b>Cellulitis - L03</b>				
Yes	2.2 (2.0 – 2.3)	< 0.001	2.4 (1.8 – 3.2)	< 0.001
No	1 [Ref.]		1 [Ref.]	
<b>Cystitis - N30</b>				
Yes	2.2 (2.0 – 2.4)	< 0.001	2.7 (2.1 – 3.5)	< 0.001
No	1 [Ref.]		1 [Ref.]	
<b>Other disorders of bladder - N32</b>				
Yes	2.2 (2.0 – 2.3)	< 0.001	3.5 (2.5 – 4.8)	< 0.001
No	1 [Ref.]		1 [Ref.]	
<b>Infections of genitourinary tract in pregnancy - O23</b>				
Yes	2.2 (2.0 – 2.3)	< 0.001	2.9 (2.1 – 4.0)	< 0.001
No	1 [Ref.]		1 [Ref.]	
<b>Single delivery by caesarean section - O82</b>				
Yes	2.2 (2.0 – 2.3)	< 0.001	1.7 (0.8 – 3.5)	0.18
No	1 [Ref.]		1 [Ref.]	

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