

Changes in malaria indices between 1999 and 2007 in The Gambia: a retrospective analysis

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	Slope (b)	SE of b	p value
Malaria admissions			
1999–2007	–0.109	0.01	<0.0001
1999–2003	–0.007	0.04	0.95
2004–2007	–0.162	0.05	0.002
Malaria slides			
1999–2007	–0.157	0.01	<0.0001
1999–2003	–0.058	0.04	0.19
2004–2007	–0.234	0.06	<0.001
Malaria deaths*			
1999–2007	–0.47	..	<0.0001
1999–2003	–0.25	..	0.05
2004–2007	–0.31	..	0.015
Non-malaria admissions			
1999–2007	–0.043	0.003	<0.0001
1999–2003	–0.037	0.007	<0.0001
2004–2007	–0.022	0.014	0.130
Malaria-negative slides			
1999–2007	–0.013	0.006	0.047
1999–2003	0.025	0.015	0.113
2004–2007	0.002	0.022	0.929

Significance of linear trends in numbers over different periods in Fajara indicates that most decrease in malaria has occurred since 2003. We used a linear model to fit the data before and after 2003, and tested a null hypothesis that the number of malaria admissions, positive slides, and deaths remained unchanged for the study period. Dependent variables (malaria admissions and malaria-positive slides) were log-transformed and the residuals of these associations were normally distributed apart from malaria deaths for which the distribution remained highly heteroscedastic, hence we used a non-parametric test to measure the association (Spearman's r). The analyses of admissions and slides incorporated adjustment for monthly rainfall during the study period. Yearly rainfall was not correlated (Spearman's r correlation coefficient, p value) with the number of malaria admissions per year ($r=0.16$, $p=0.66$), number of malaria-positive slides per year ($r=0.46$, $p=0.20$), or number of malaria deaths per year ($r=0.46$, $p=0.20$). *Spearman's r was used to measure the association for malaria deaths.

Webtable: Linear regression on Fajara malaria admissions, malaria-positive slides, malaria deaths, non-malaria admissions, and malaria-negative slides from 1999 to 2007