

Table S6. Deviance and p-value analysis in sequential construction of age, period, and cohort models for the states in the South and Southeast regions of Brazil.

Models	Df ^a	Residual deviance	p (> Chi)
Paraná			
Age	99	1321.65	
Age-drift ^b	98	603.75	<0.0001
Age-cohort	95	498.79	<0.0001
Age-period-cohort	92	357.69	<0.0001
Age-period	95	465.03	<0.0001
Age-drift ^c	98	603.75	<0.0001
Rio Grande do Sul			
Age	99	1668.02	
Age-drift ^b	98	581.78	<0.0001
Age-cohort	95	557.60	<0.0001
Age-period-cohort	92	402.35	<0.0001
Age-period	95	436.75	<0.0001
Age-drift ^c	98	581.78	<0.0001
Santa Catarina			
Age	99	449.29	
Age-drift ^b	98	337.92	<0.0001
Age-cohort	95	288.56	<0.0001
Age-period-cohort	92	222.17	<0.0001
Age-period	95	272.83	<0.0001
Age-drift ^c	98	337.92	<0.0001
Espírito Santo			
Age	99	399.26	
Age-drift ^b	98	257.97	<0.0001
Age-cohort	95	247.32	<0.0001
Age-period-cohort	92	185.04	<0.0001
Age-period	95	194.75	<0.0001
Age-drift ^c	98	257.97	<0.0001
Minas Gerais			
Age	99	1675.28	
Age-drift ^b	98	630.99	<0.0001
Age-cohort	95	543.58	<0.0001
Age-period-cohort	92	493.70	<0.0001
Age-period	95	570.67	<0.0001
Age-drift ^c	98	630.99	<0.0001
Rio de Janeiro			
Age	99	1453.96	
Age-drift ^b	98	900.29	<0.0001
Age-cohort	95	735.40	<0.0001
Age-period-cohort	92	498.60	<0.0001
Age-period	95	764.12	<0.0001
Age-drift ^c	98	900.29	<0.0001
São Paulo			

Age	99	6131.26	
Age-drift ^b	98	2072.19	<0.0001
Age-cohort	95	1811.57	<0.0001
Age-period-cohort	92	1523.47	<0.0001
Age-period	95	1770.21	<0.0001
Age-drift ^c	98	2072.19	<0.0001

^aDegrees of freedom; ^blinear trend for the logarithm of age-specific rates, which is equal to the sum of the period and cohort slopes ($\beta L + \gamma L$), where βL and γL are the period and cohort linear trends, respectively; ^clongitudinal age trend, which is the sum of age and period slopes ($\alpha L + \beta L$), where αL and βL are the age and period linear trends, respectively.