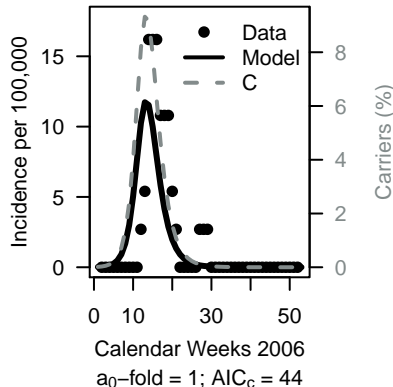
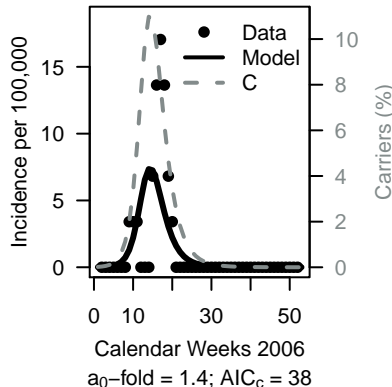
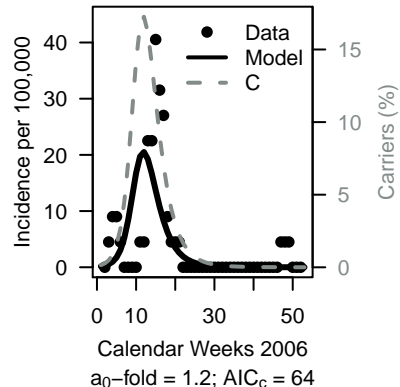
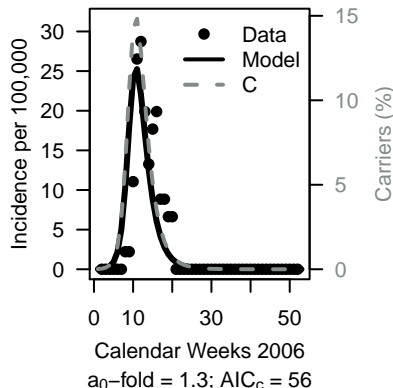
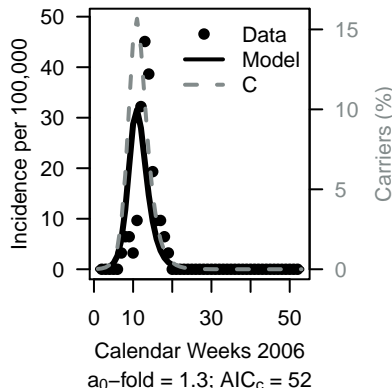
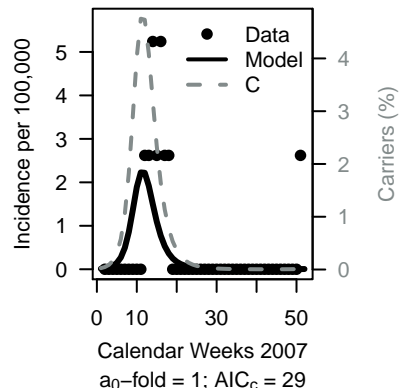
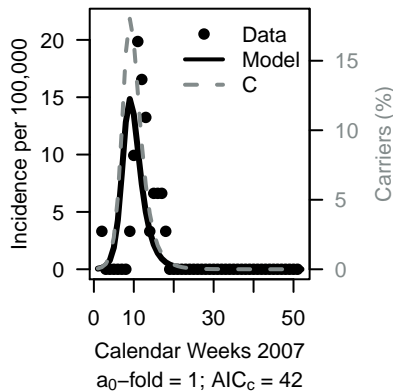
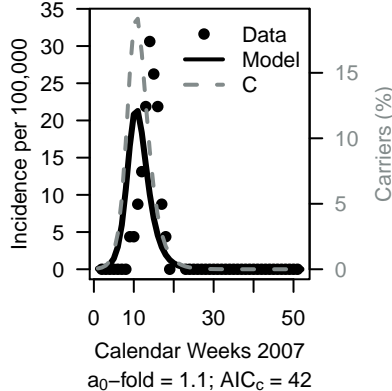
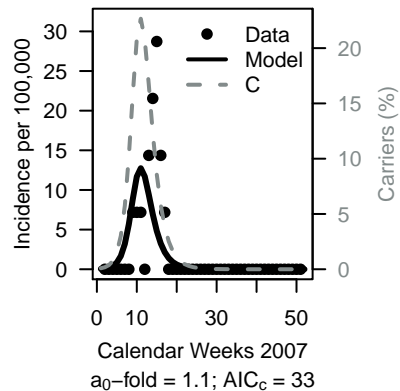
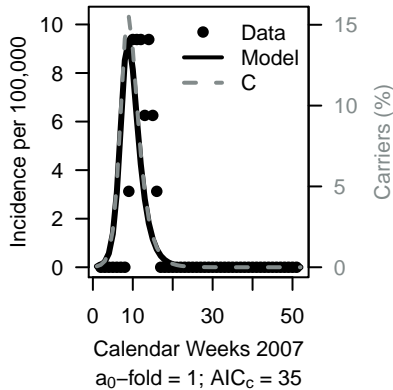
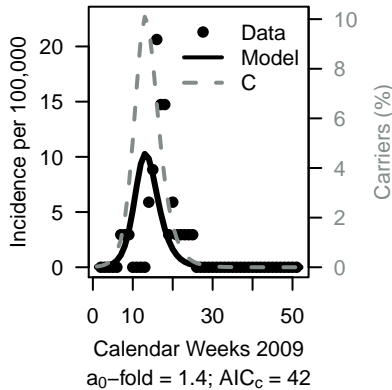
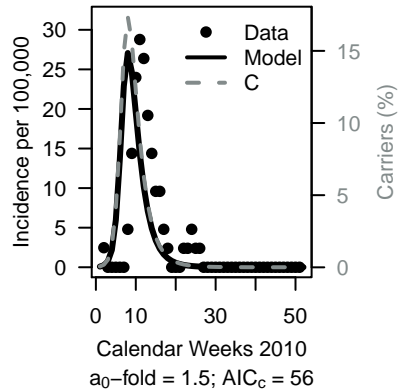
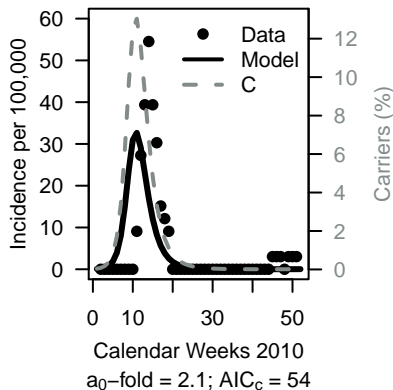
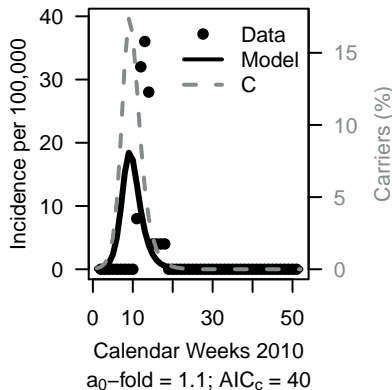
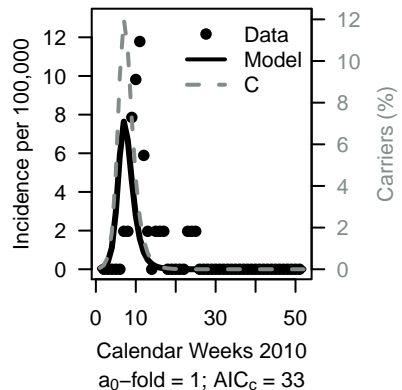
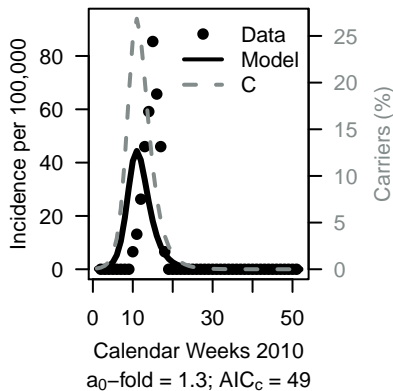
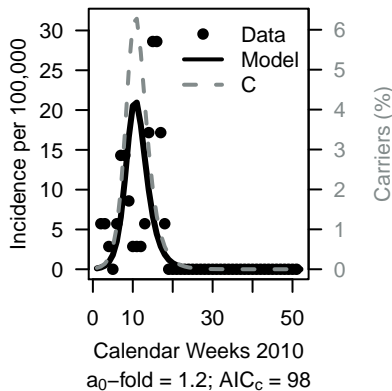
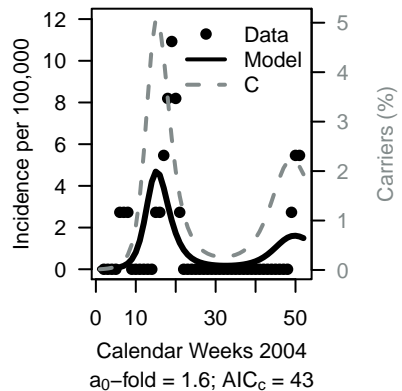
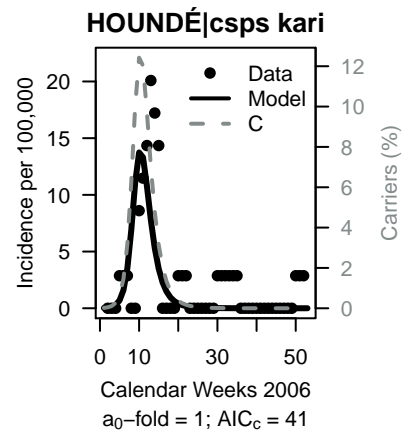
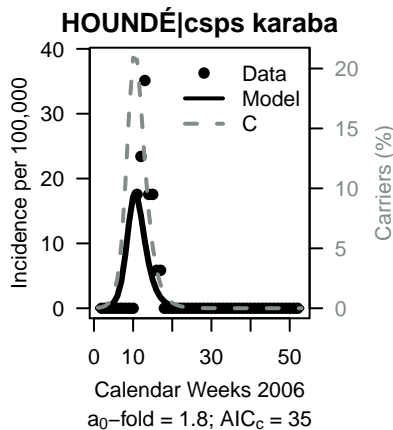
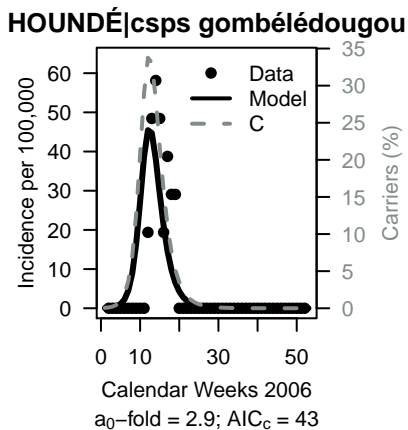
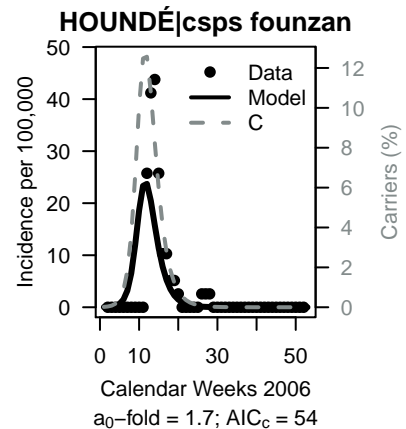
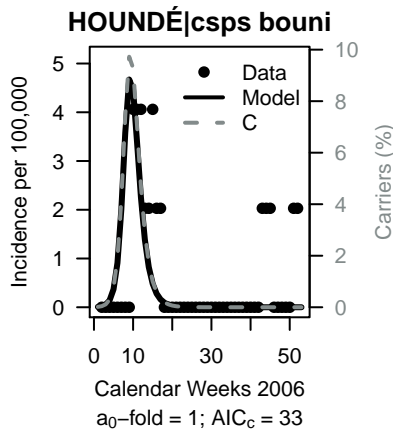
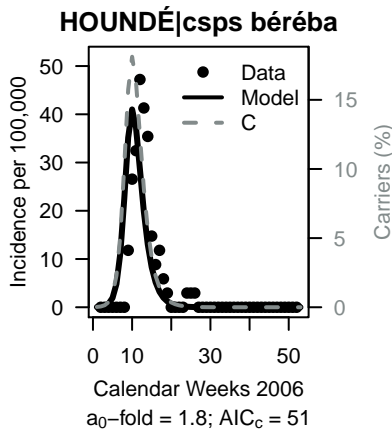
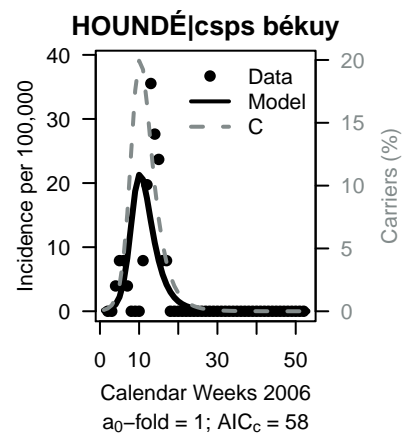
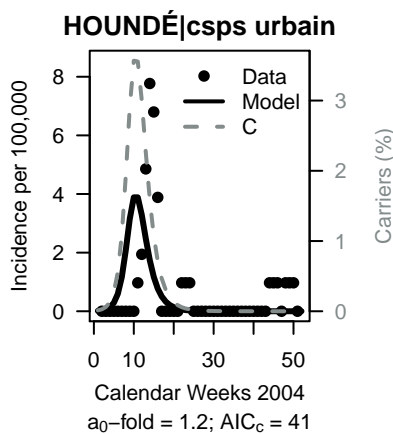
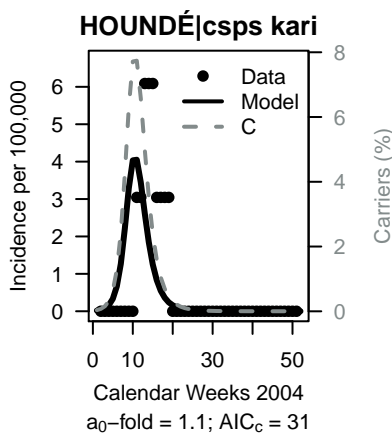


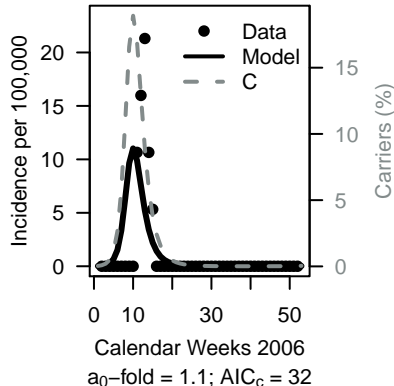
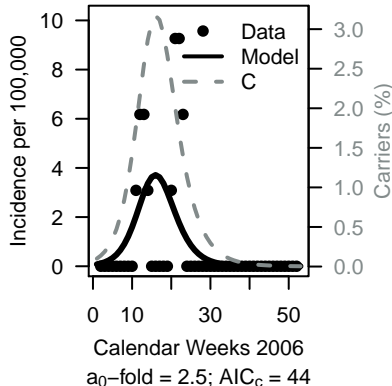
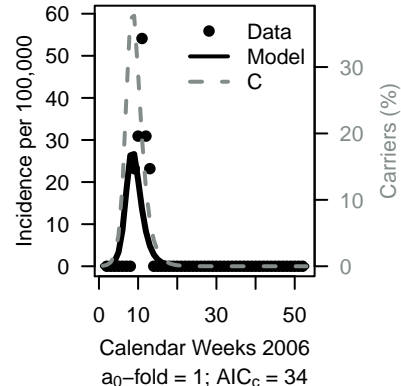
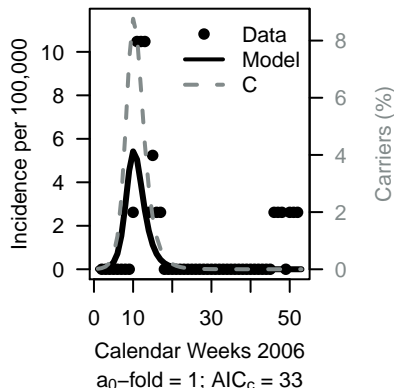
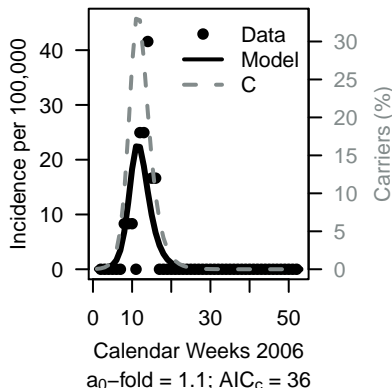
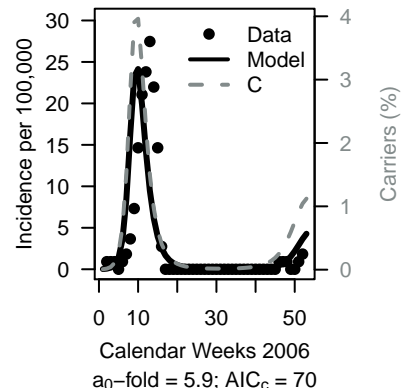
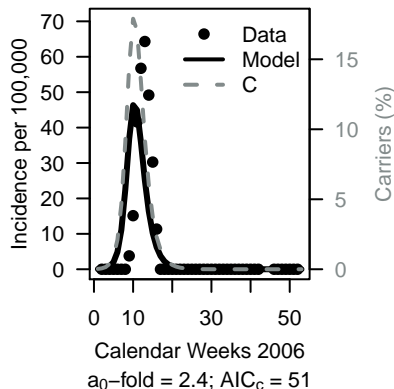
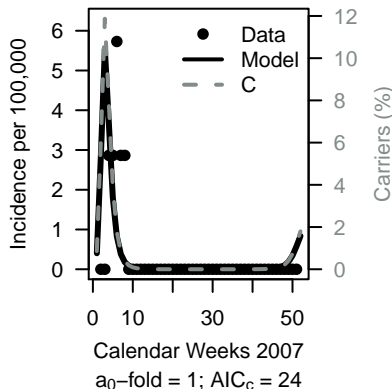
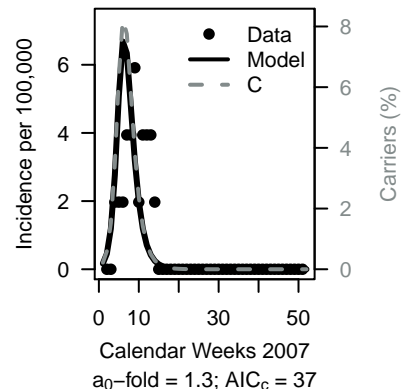
Results of model estimations using a poisson maximum likelihood approach.

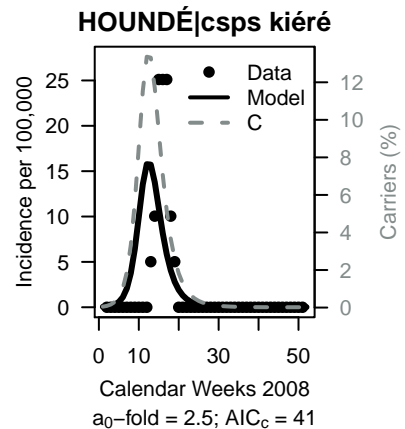
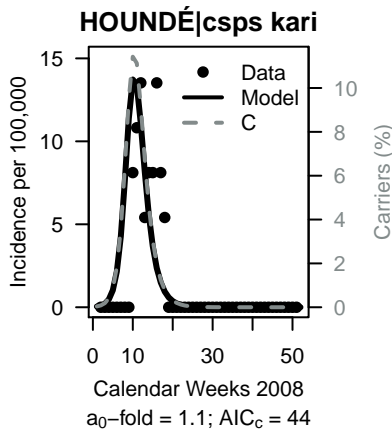
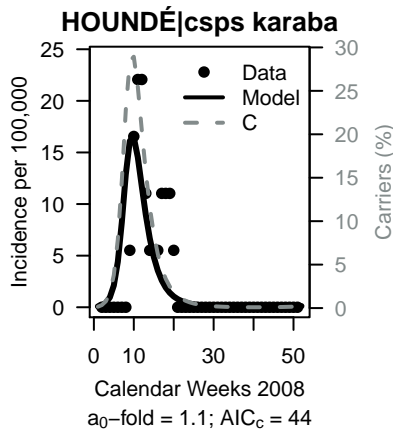
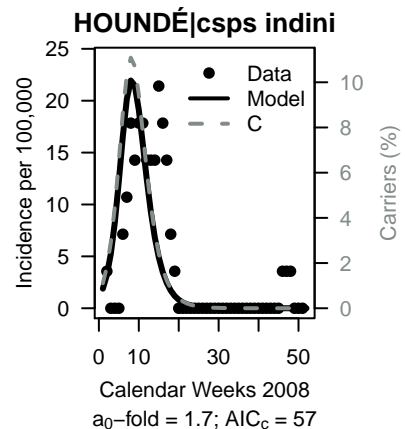
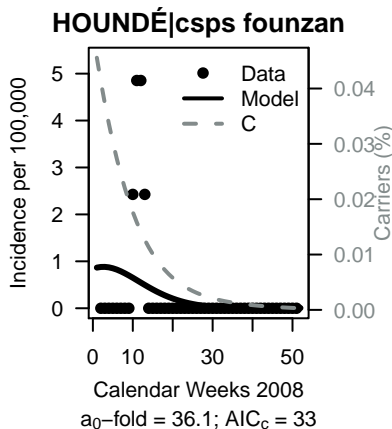
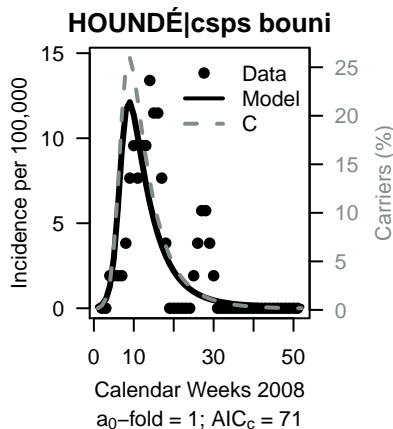
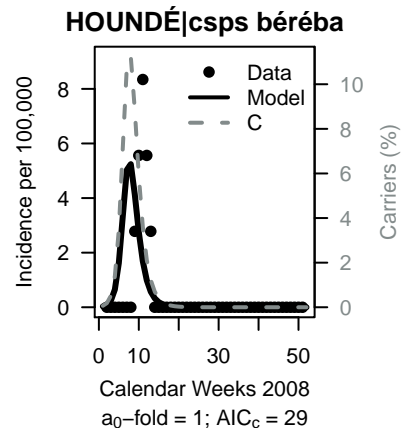
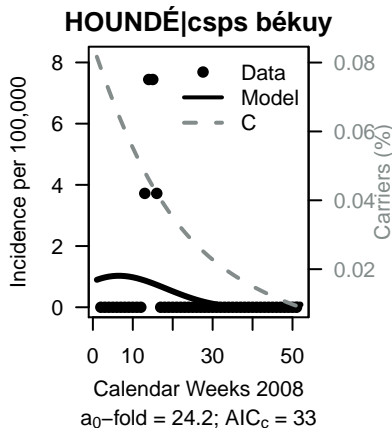
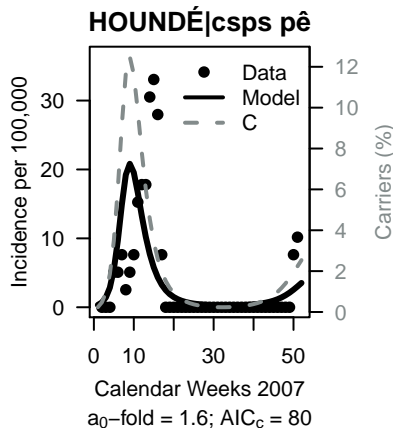
Figure 1. Model1—"inv" trajectories matching plots of simulated and observed (weekly) data, for 64 health center–years with complete data, across four health districts of Burkina faso (2004–2010).

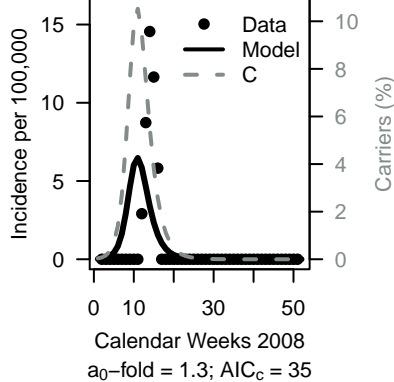
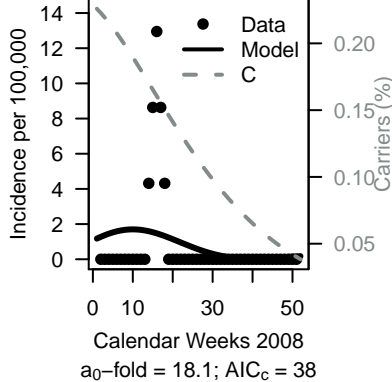
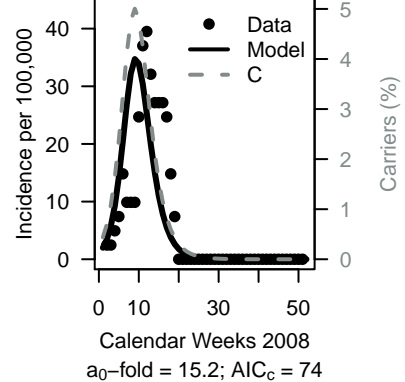
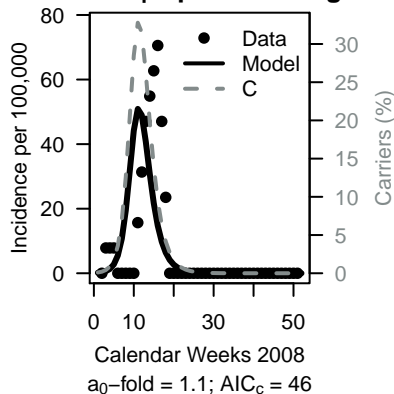
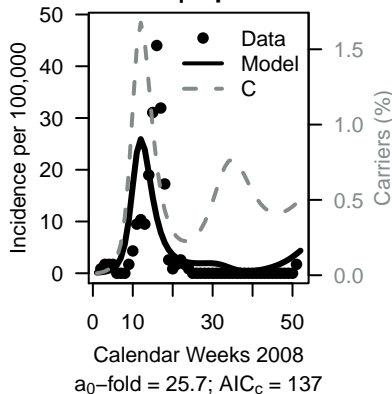
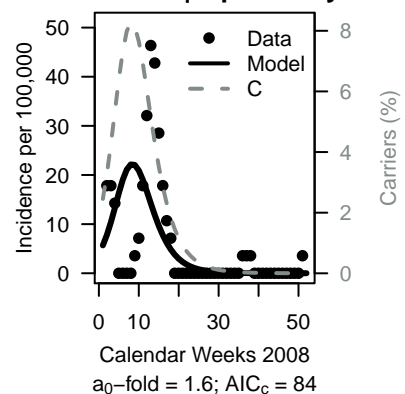
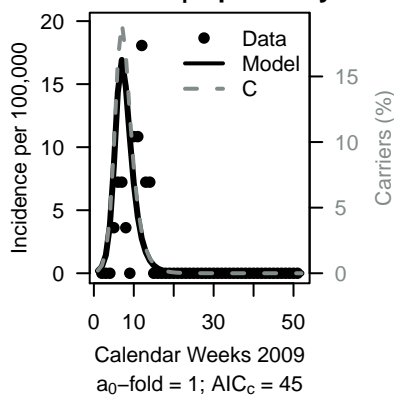
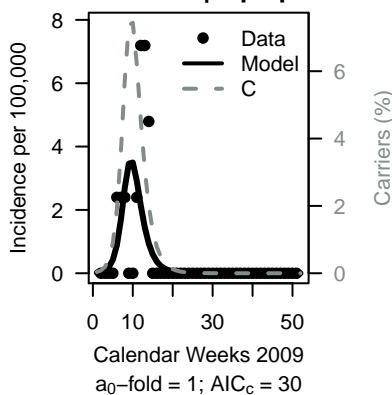
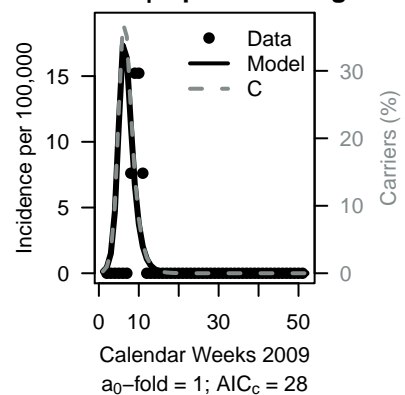
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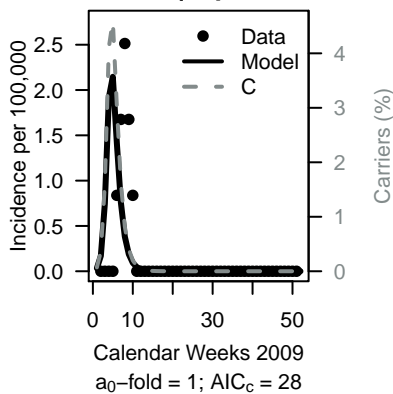
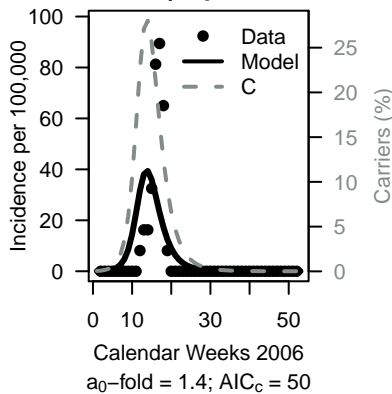
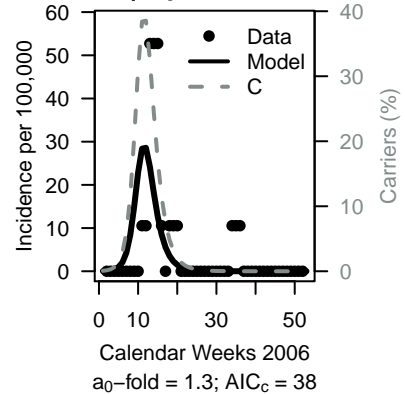
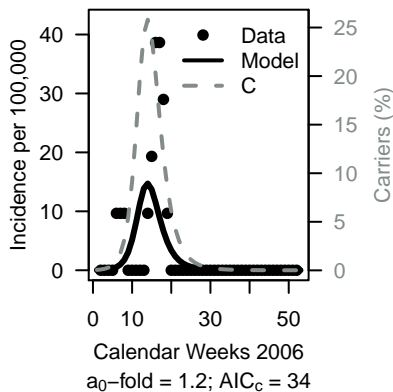
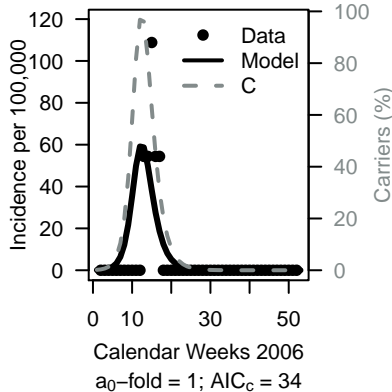
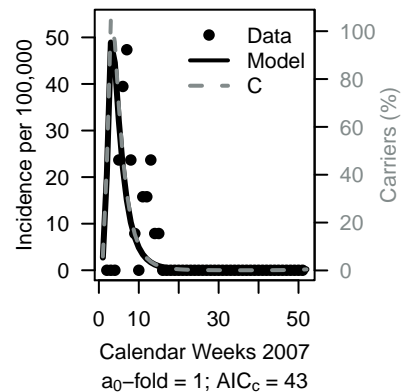
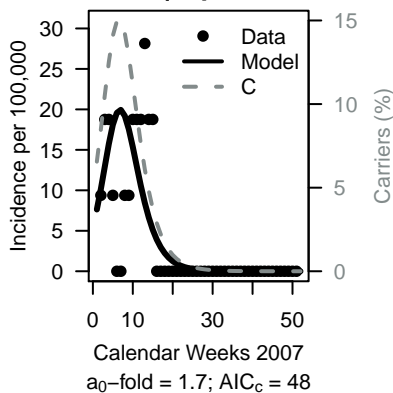
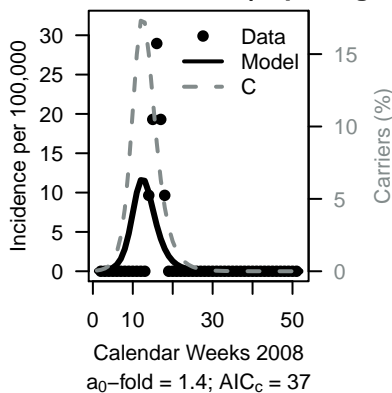
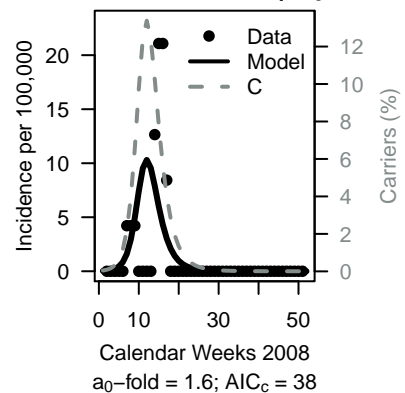
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HOUNDÉ|csps kiéré**HOUNDÉ|csps koti****HOUNDÉ|csps maro****HOUNDÉ|csps pê****HOUNDÉ|csps sebedougou****HOUNDÉ|csps urbain****HOUNDÉ|csps wakuy****HOUNDÉ|csps béréba****HOUNDÉ|csps bouni**



HOUNDÉ|csps koti**HOUNDÉ|csps kouloho****HOUNDÉ|csps pê****HOUNDÉ|csps sebedougou****HOUNDÉ|csps urbain****HOUNDÉ|csps wakuy****HOUNDÉ|csps békuy****HOUNDÉ|csps pê****HOUNDÉ|csps sebedougou**

HOUNDÉ|csps urbain**LENA|csps balla****LENA|csps kwekwesso****LENA|csps sissa****LENA|csps tiarako****LENA|csps balla****LENA|csps sissa****KARANGASSO VIGUE|csps deguel****KARANGASSO VIGUE|csps wara**

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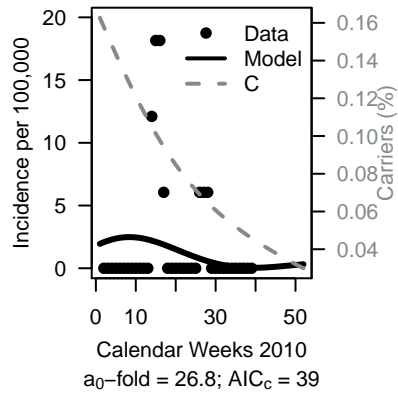
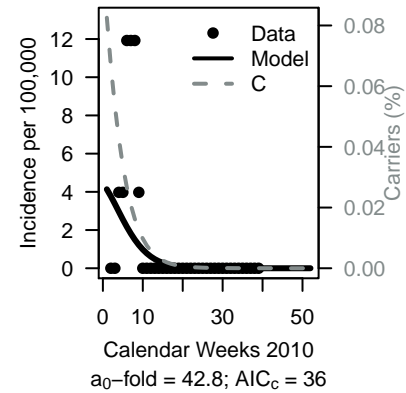
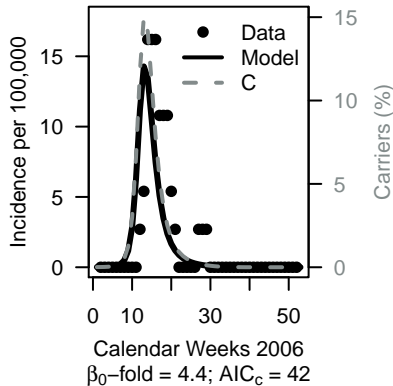
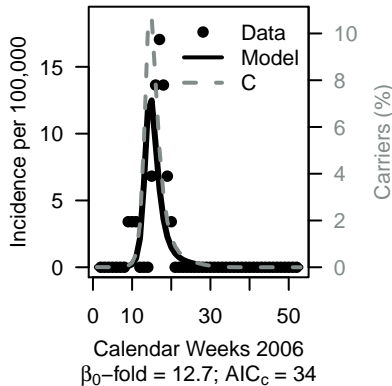
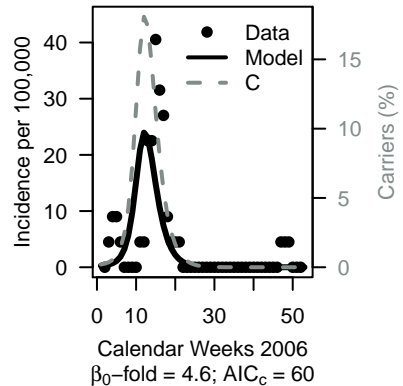
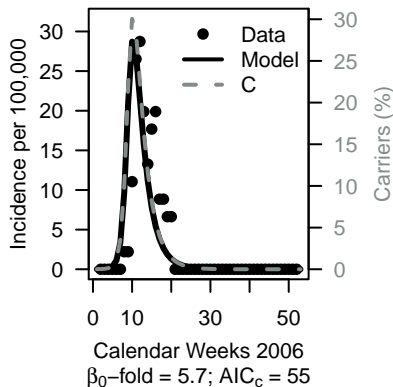
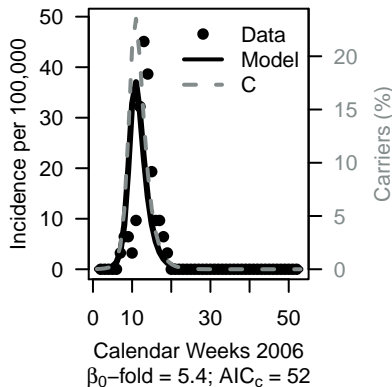
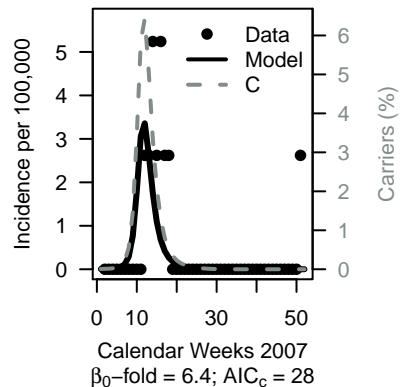
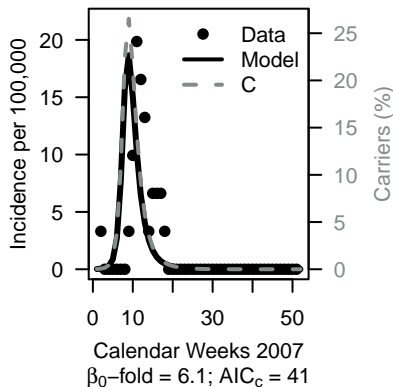
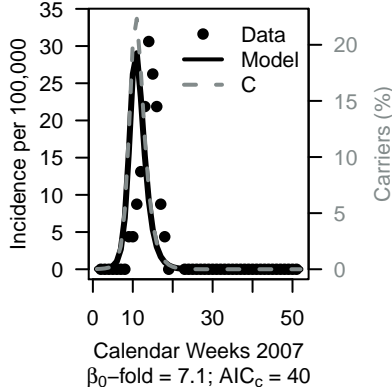
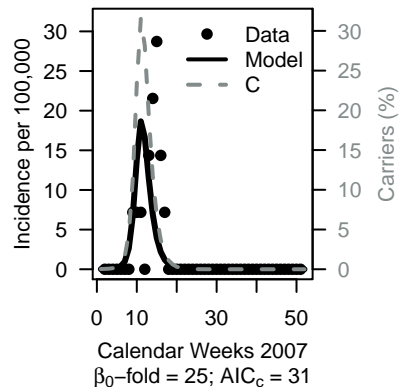
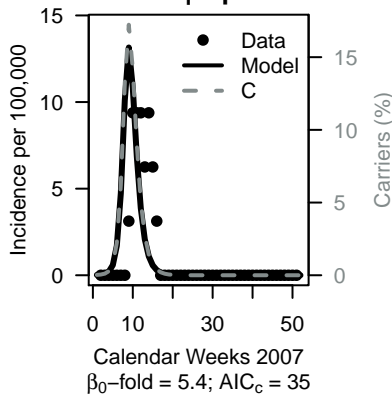
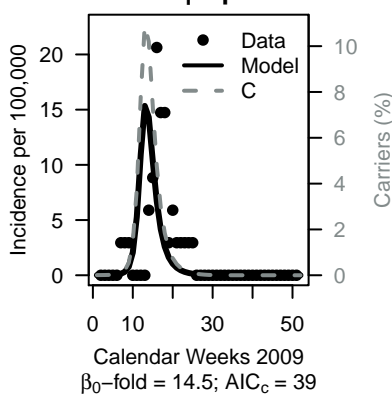
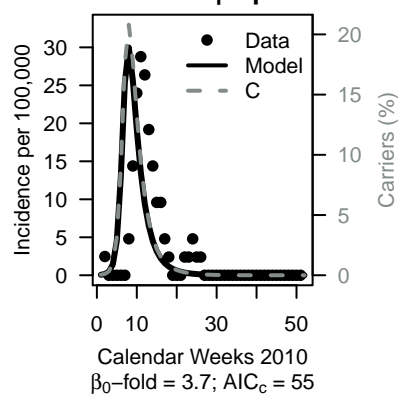
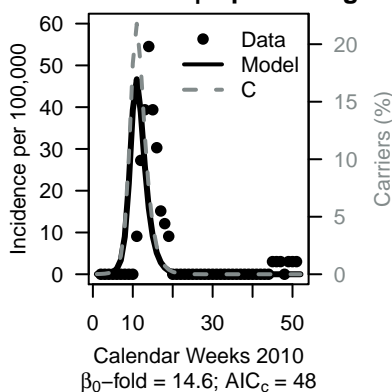
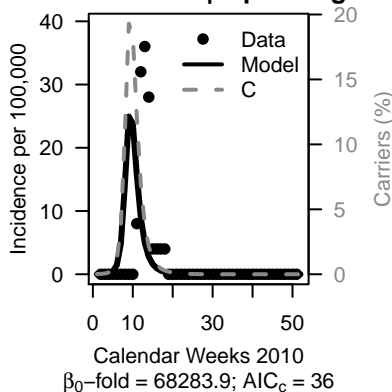
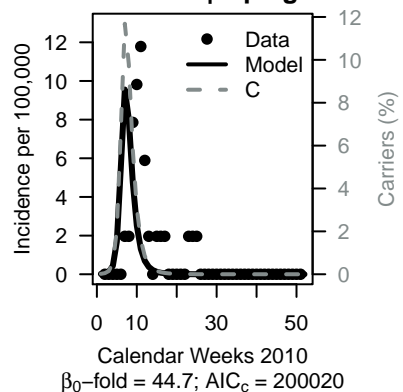
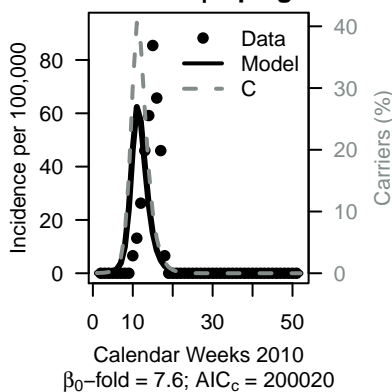
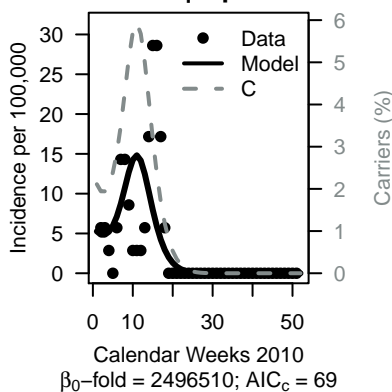
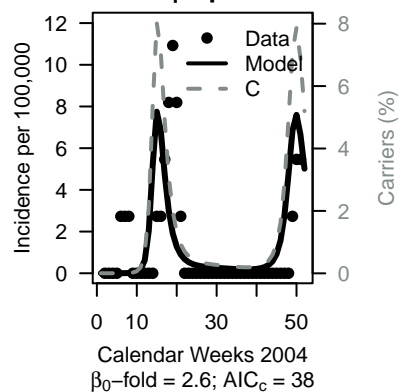
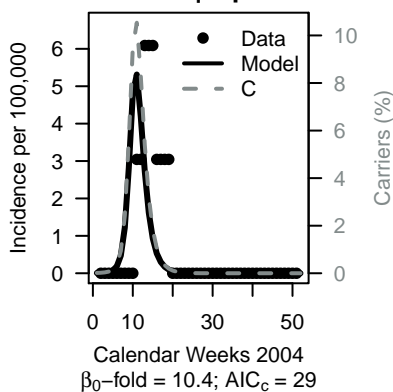
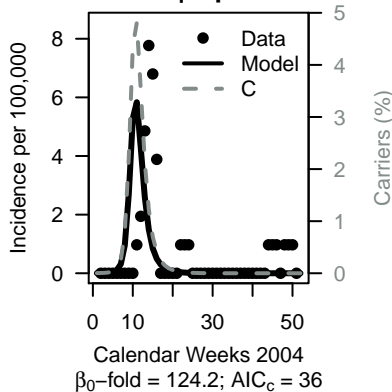
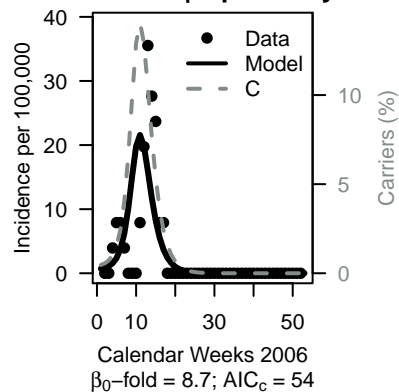
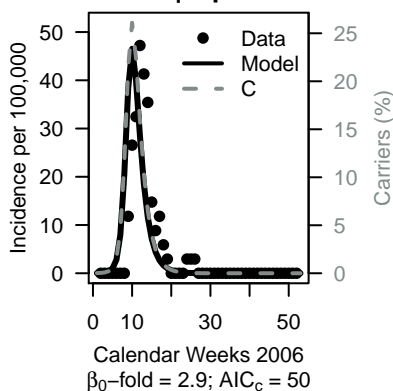
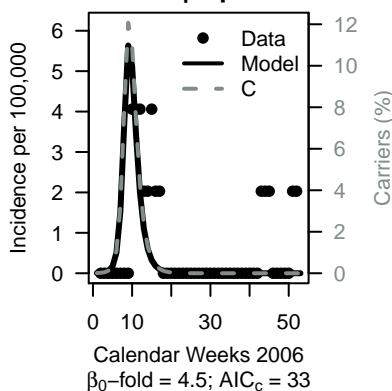
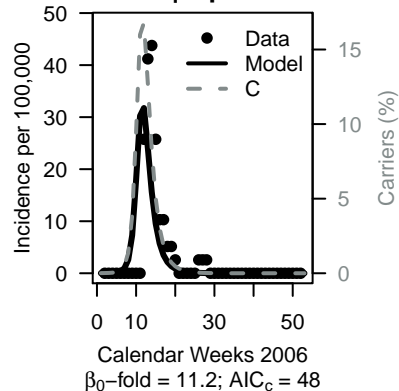
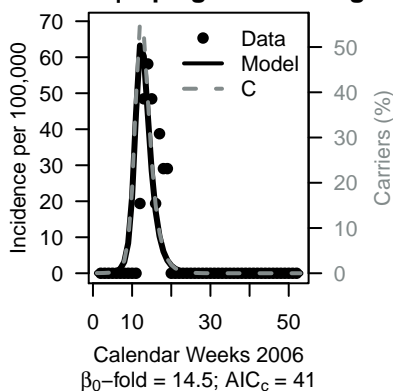
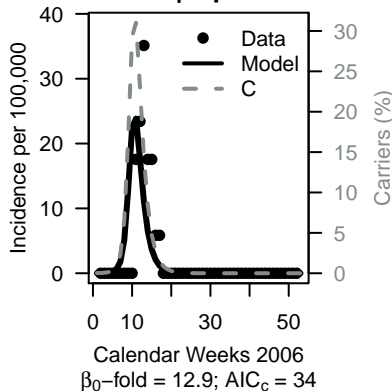
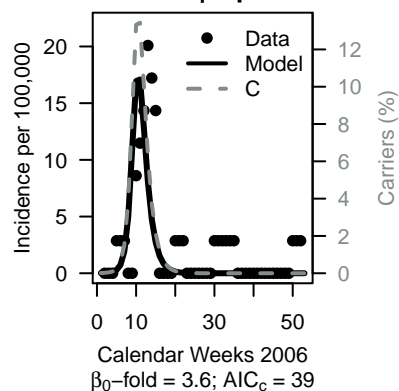
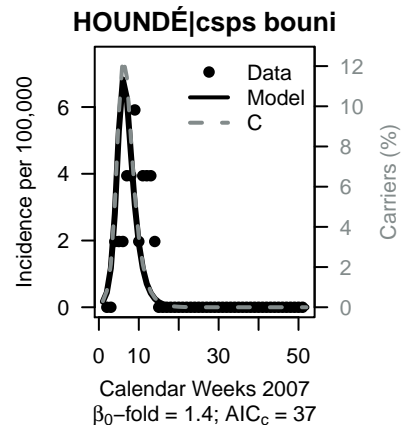
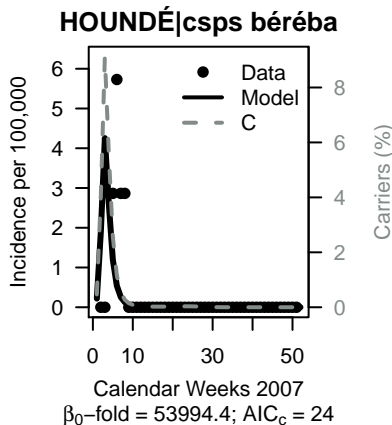
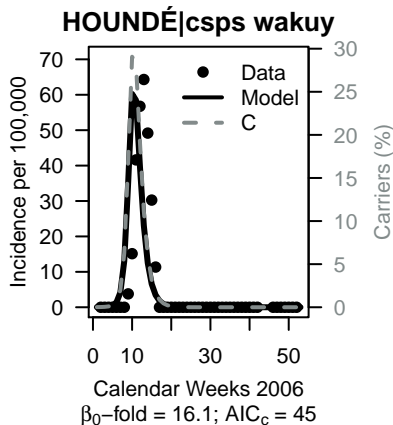
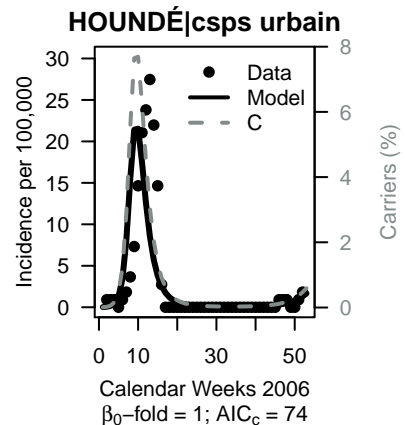
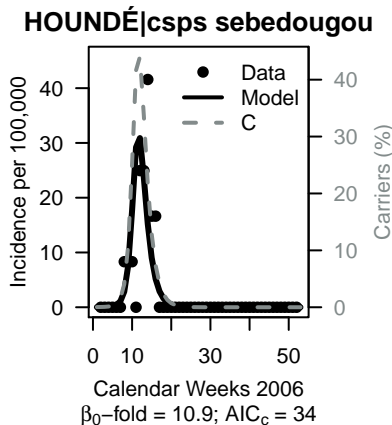
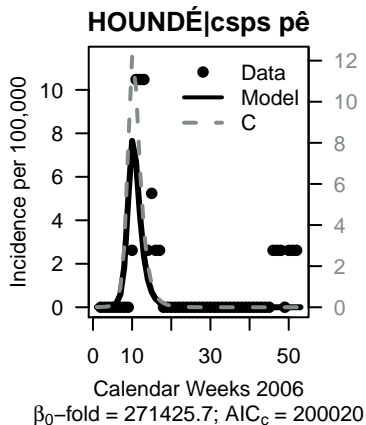
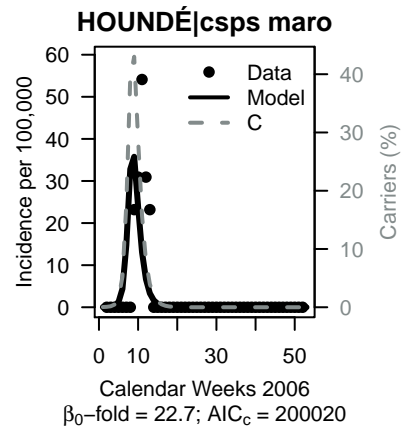
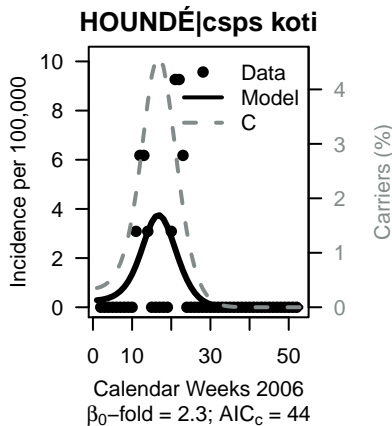
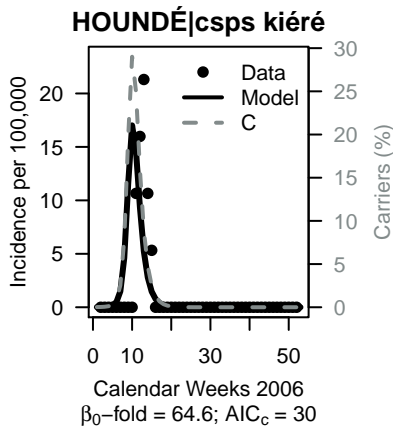


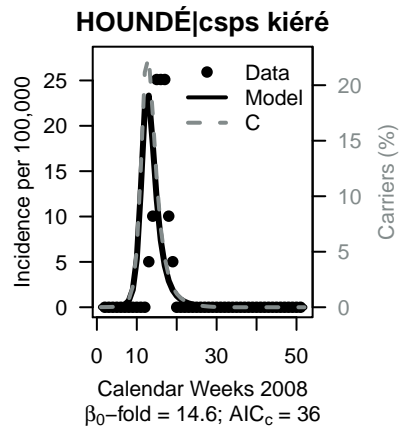
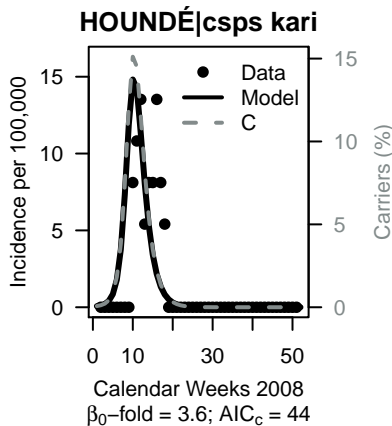
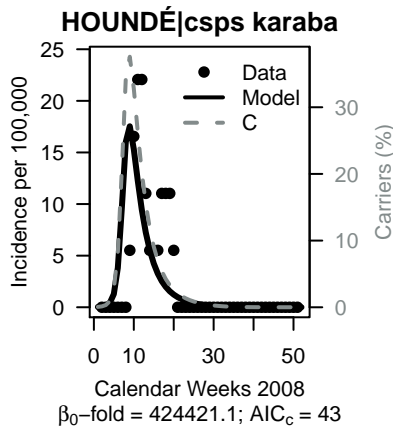
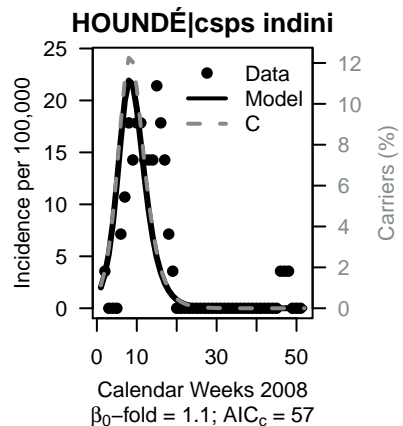
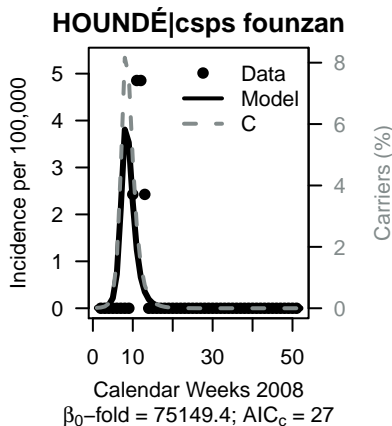
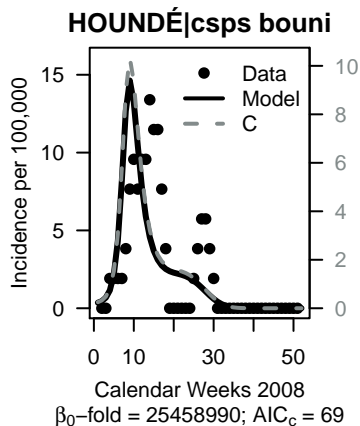
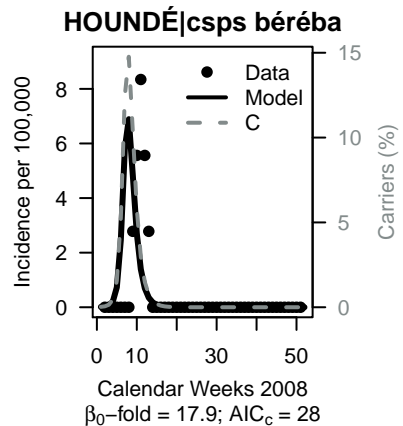
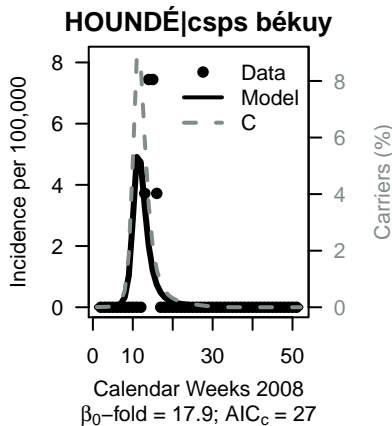
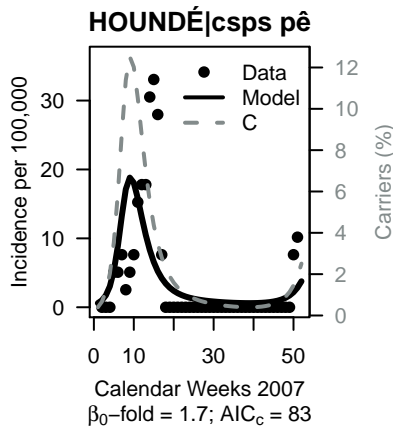
Figure 2. Model2—"transm" trajectories matching plots of simulated and observed (weekly) data, for 64 health center–years with complete data, across four health districts of Burkina faso (2004–2010).

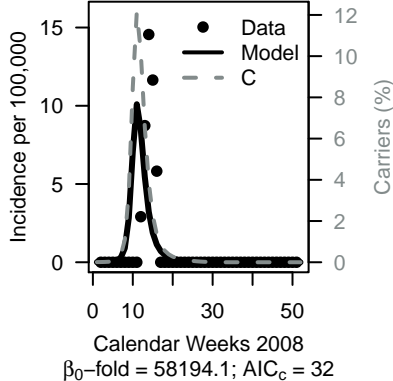
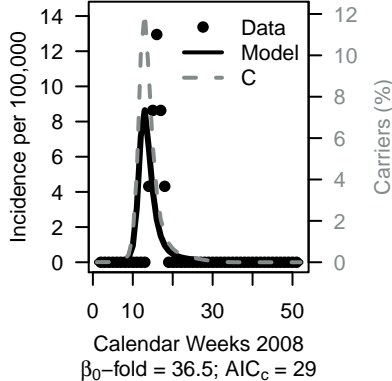
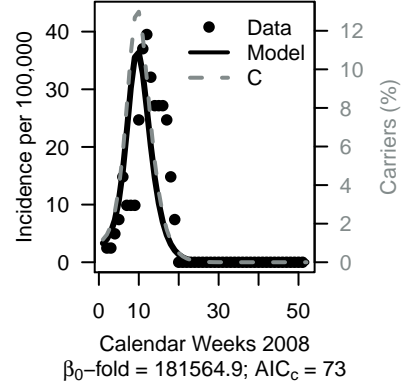
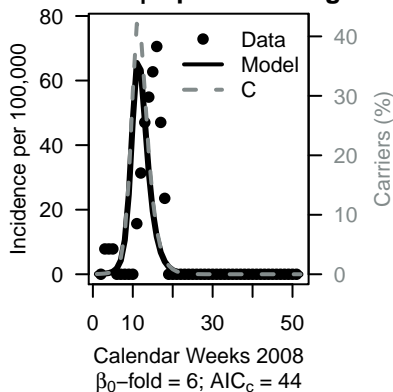
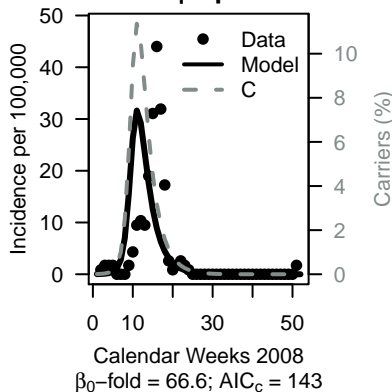
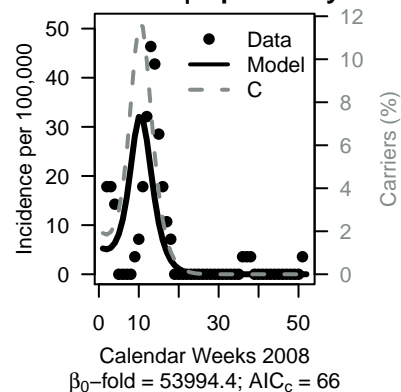
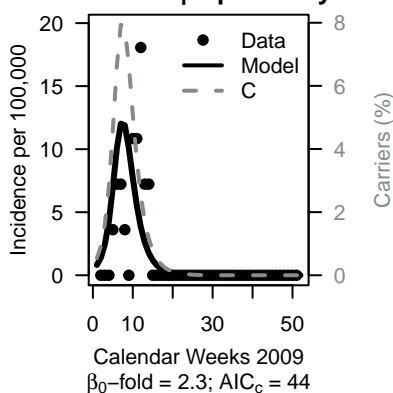
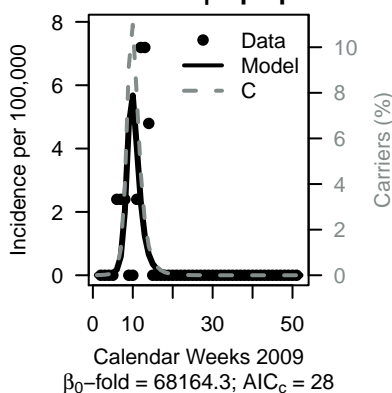
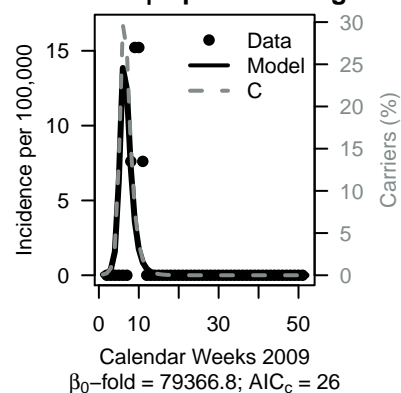
SEGUENEGA|csps bema**SEGUENEGA|csps berenga****SEGUENEGA|csps bouga****SEGUENEGA|csps gambo****SEGUENEGA|csps kossouka****SEGUENEGA|csps bema****SEGUENEGA|csps berenga****SEGUENEGA|csps bouga****SEGUENEGA|csps goubré**

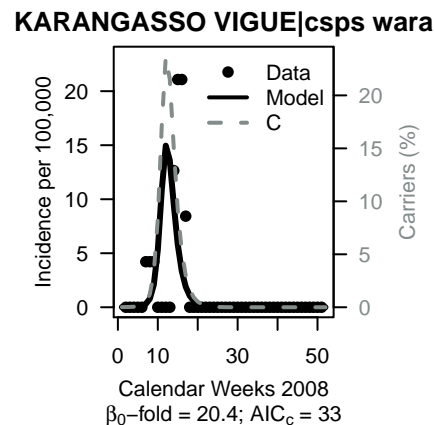
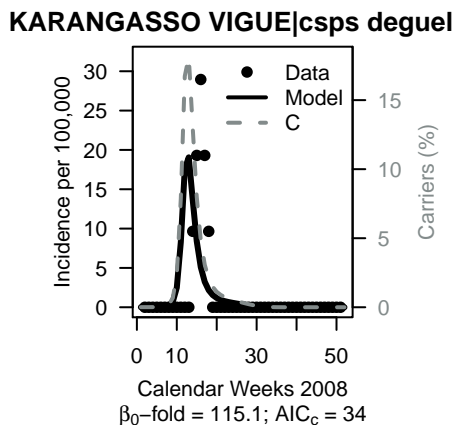
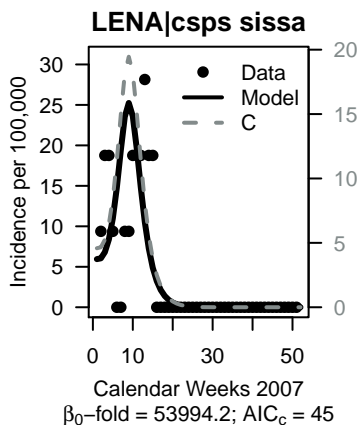
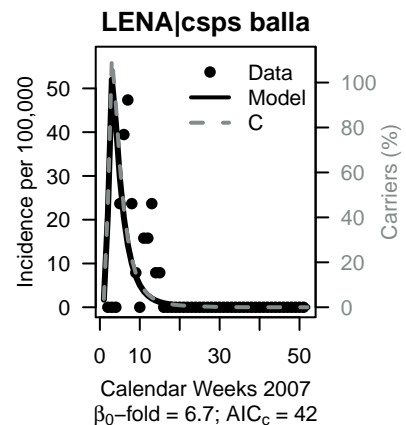
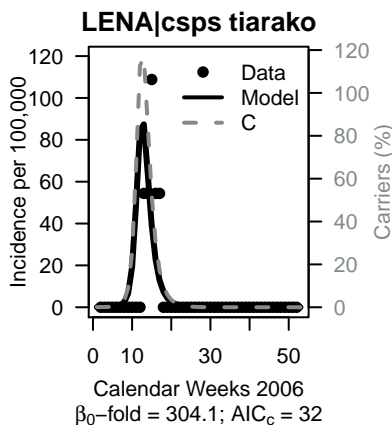
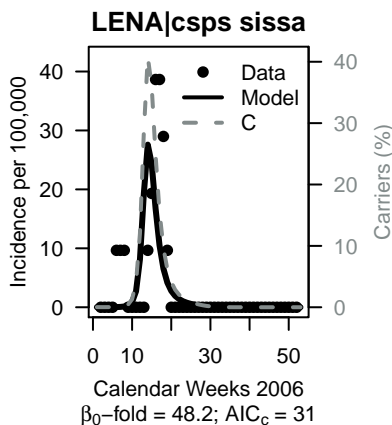
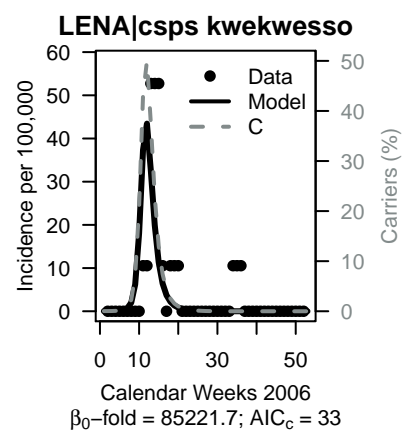
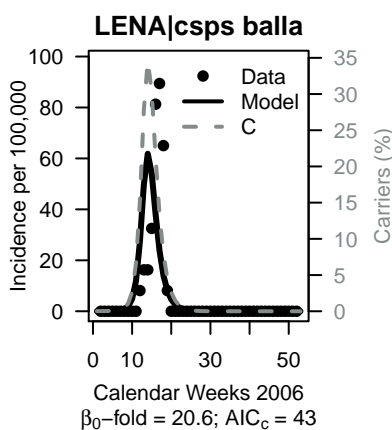
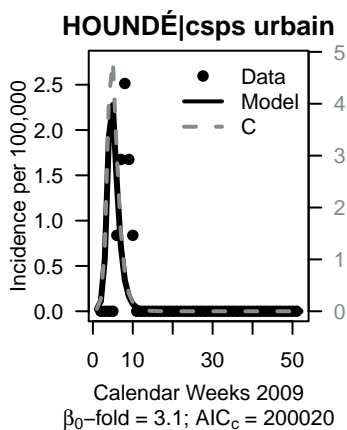
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HOUNDE|csps kari**HOUNDE|csps urbain****HOUNDE|csps békuy****HOUNDE|csps béréba****HOUNDE|csps bouni****HOUNDE|csps founzan****HOUNDE|csps gombéléDougou****HOUNDE|csps karaba****HOUNDE|csps kari**





HOUNDÉ|csps koti**HOUNDÉ|csps kouloho****HOUNDÉ|csps pè****HOUNDÉ|csps sebedougou****HOUNDÉ|csps urbain****HOUNDÉ|csps wakuy****HOUNDÉ|csps békuy****HOUNDÉ|csps pè****HOUNDÉ|csps sebedougou**



KARANGASSO VIGUE|csps wara KARANGASSO VIGUE|dispe dioss

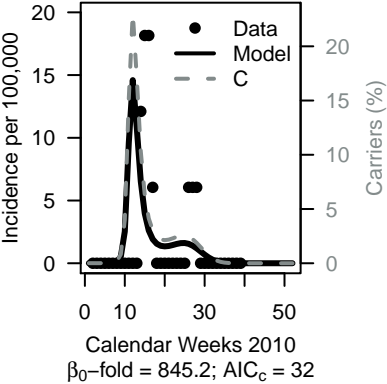
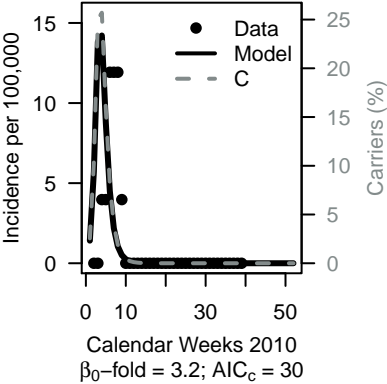
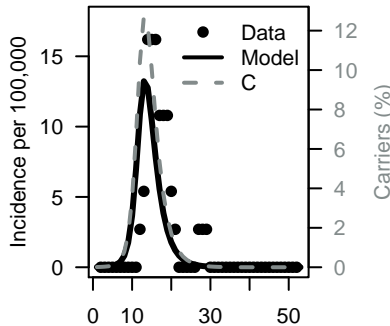
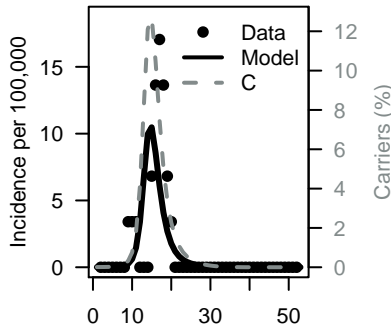


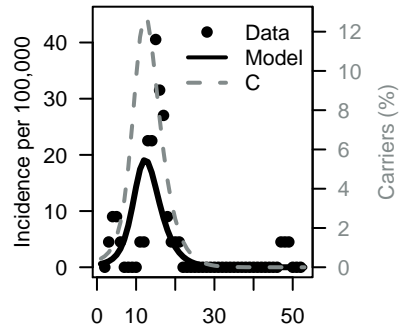
Figure 3. Model3—"inv-transm" trajectories matching plots of simulated and observed (weekly) data, for 64 health center-years with complete data, across four health districts of Burkina faso (2004–2010).

SEGUENEGA|csps bema

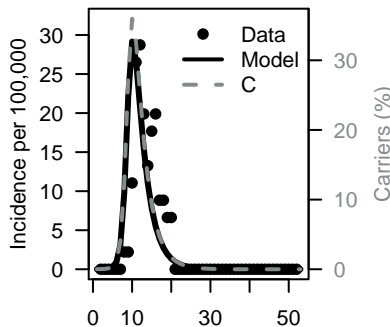
Calendar Weeks 2006
 $a_0\text{-fold} = 1$; $\beta_0\text{-fold} = 2.6$; $AIC_c = 45$

SEGUENEGA|csps berenga

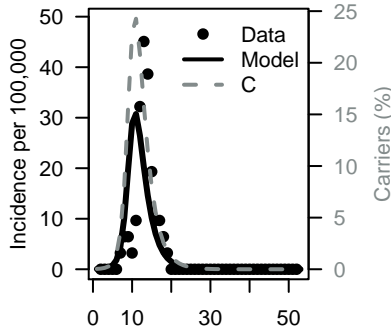
Calendar Weeks 2006
 $a_0\text{-fold} = 1.6$; $\beta_0\text{-fold} = 3.8$; $AIC_c = 38$

SEGUENEGA|csps bouga

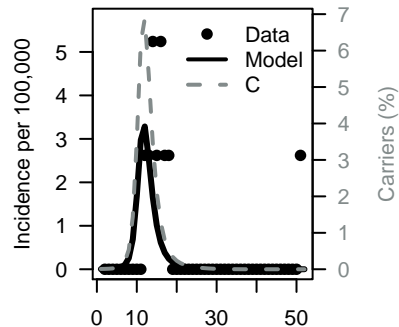
Calendar Weeks 2006
 $a_0\text{-fold} = 1.2$; $\beta_0\text{-fold} = 2.8$; $AIC_c = 64$

SEGUENEGA|csps gambo

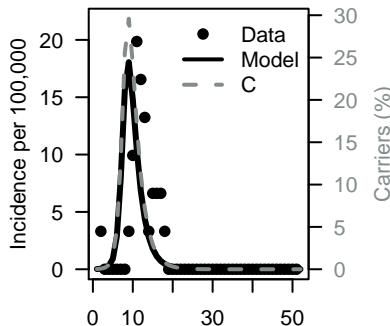
Calendar Weeks 2006
 $a_0\text{-fold} = 1.5$; $\beta_0\text{-fold} = 21.2$; $AIC_c = 58$

SEGUENEGA|csps kossouka

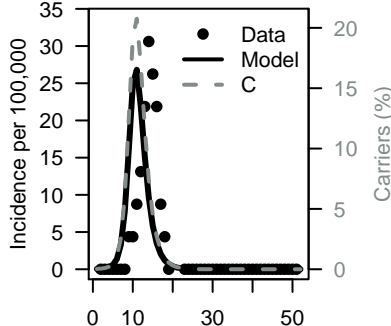
Calendar Weeks 2006
 $a_0\text{-fold} = 1.2$; $\beta_0\text{-fold} = 3.7$; $AIC_c = 57$

SEGUENEGA|csps bema

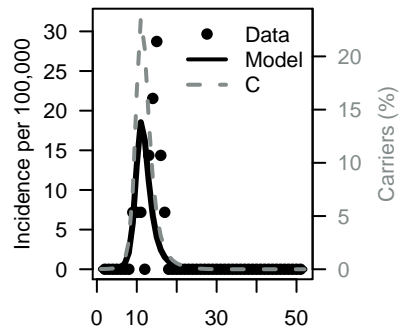
Calendar Weeks 2007
 $a_0\text{-fold} = 1$; $\beta_0\text{-fold} = 4.6$; $AIC_c = 31$

SEGUENEGA|csps berenga

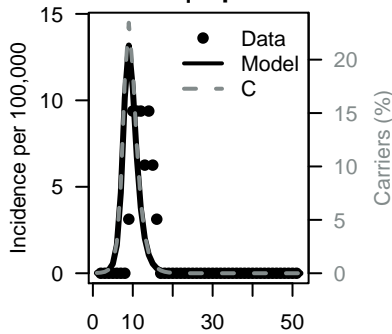
Calendar Weeks 2007
 $a_0\text{-fold} = 1$; $\beta_0\text{-fold} = 11.3$; $AIC_c = 44$

SEGUENEGA|csps bouga

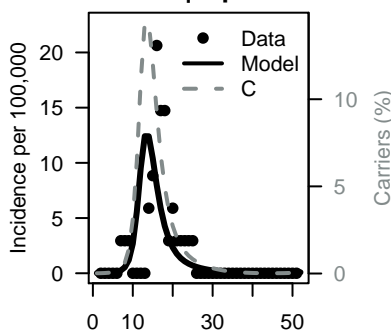
Calendar Weeks 2007
 $a_0\text{-fold} = 1.1$; $\beta_0\text{-fold} = 3.6$; $AIC_c = 43$

SEGUENEGA|csps goubré

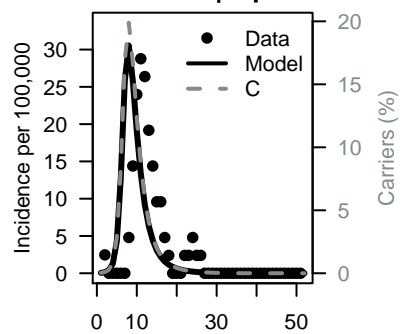
Calendar Weeks 2007
 $a_0\text{-fold} = 1$; $\beta_0\text{-fold} = 561667.7$; $AIC_c = 34$

SEGUENEGA|csps kossouka

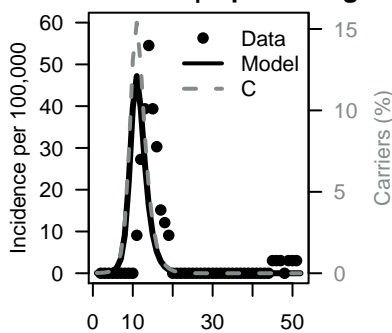
Calendar Weeks 2007
 a_0 -fold = 1; β_0 -fold = 6.6; $AIC_c = 38$

SEGUENEGA|csps kossouka

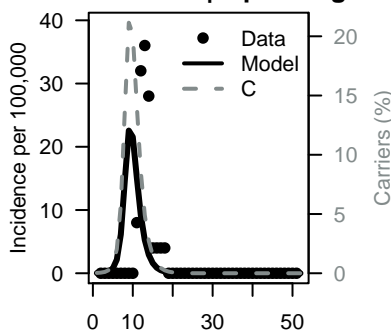
Calendar Weeks 2009
 a_0 -fold = 1; β_0 -fold = 3.1; $AIC_c = 45$

SEGUENEGA|csps bema

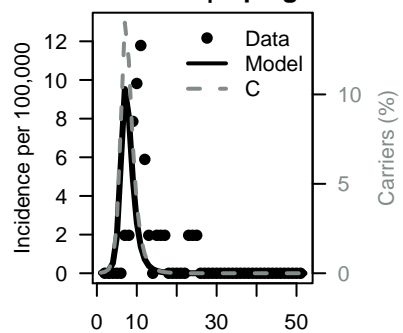
Calendar Weeks 2010
 a_0 -fold = 1.1; β_0 -fold = 4.8; $AIC_c = 58$

SEGUENEGA|csps berenga

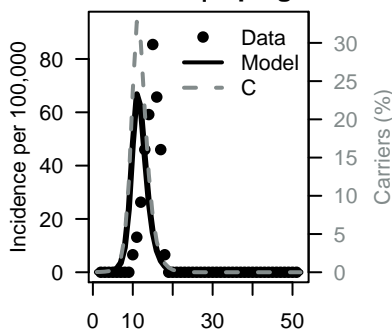
Calendar Weeks 2010
 a_0 -fold = 2.7; β_0 -fold = 9.7; $AIC_c = 51$

SEGUENEGA|csps bouga

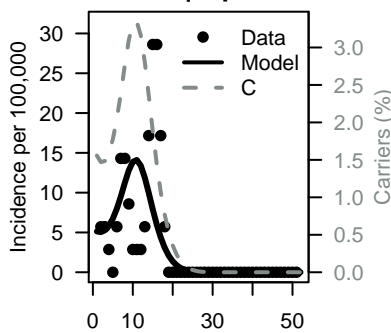
Calendar Weeks 2010
 a_0 -fold = 1.1; β_0 -fold = 12.2; $AIC_c = 40$

SEGUENEGA|csps gambo

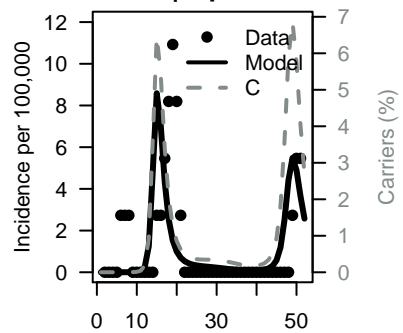
Calendar Weeks 2010
 a_0 -fold = 1; β_0 -fold = 21.3; $AIC_c = 200022$

SEGUENEGA|csps goubré

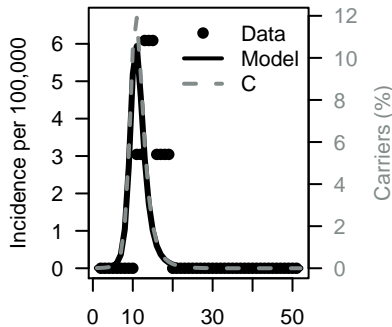
Calendar Weeks 2010
 a_0 -fold = 1.8; β_0 -fold = 8.2; $AIC_c = 46$

SEGUENEGA|csps kossouka

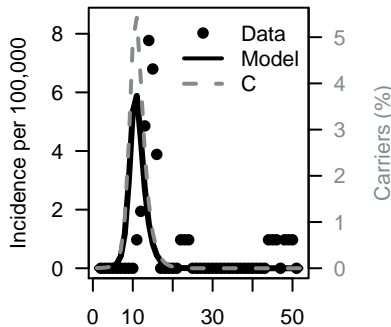
Calendar Weeks 2010
 a_0 -fold = 2.2; β_0 -fold = 9169119; $AIC_c = 72$

HOUNDÉ|csps founzan

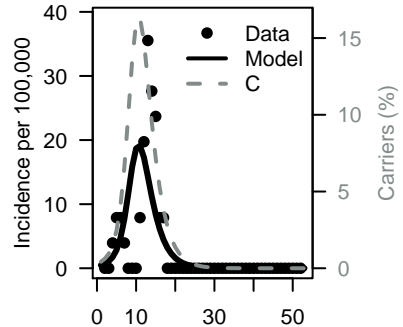
Calendar Weeks 2004
 a_0 -fold = 2.9; β_0 -fold = 3.5; $AIC_c = 40$

HOUNDÉ|csps kari

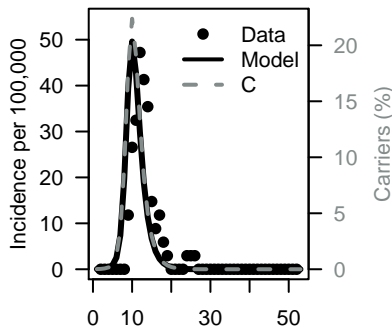
a_0 -fold = 1; β_0 -fold = 9.5; $AIC_c = 32$

HOUNDÉ|csps urbain

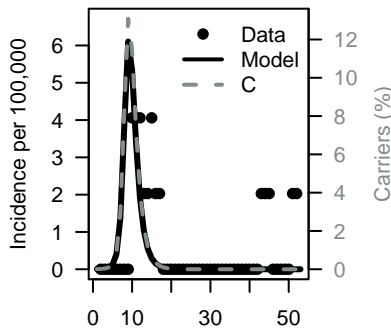
a_0 -fold = 1; β_0 -fold = 12.3; $AIC_c = 39$

HOUNDÉ|csps békuy

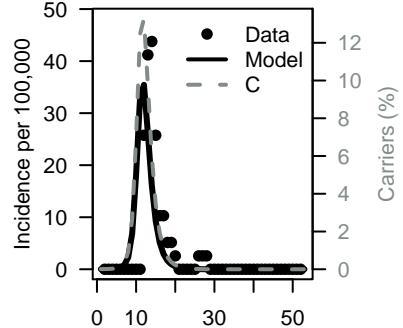
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HOUNDÉ|csps béréba

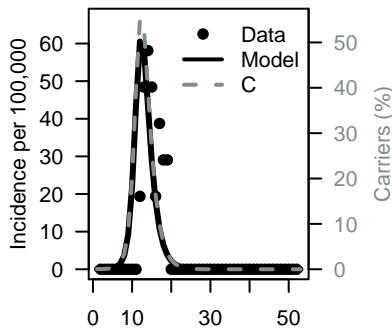
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HOUNDÉ|csps bouni

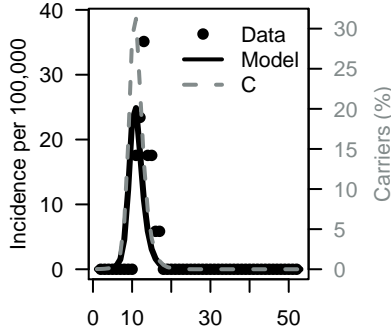
a_0 -fold = 1; β_0 -fold = 96995.8; $AIC_c = 36$

HOUNDÉ|csps founzan

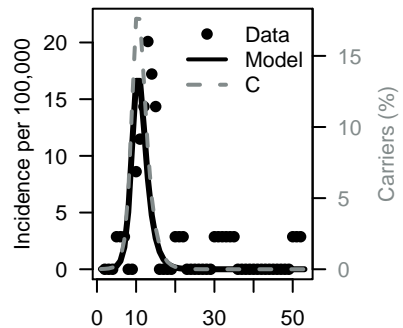
a_0 -fold = 2.4; β_0 -fold = 148.9; $AIC_c = 50$

HOUNDÉ|csps gombéléDougou

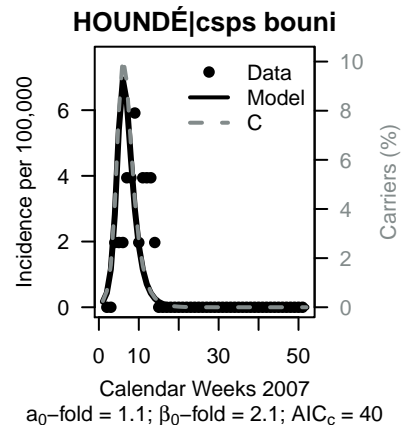
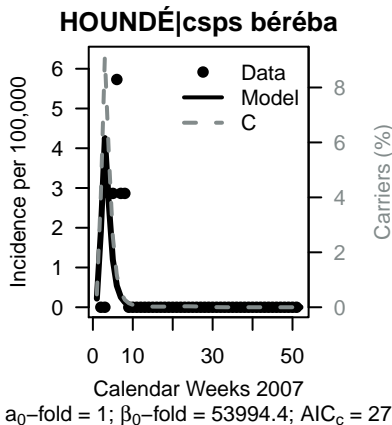
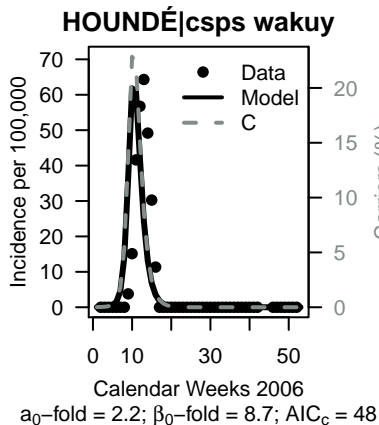
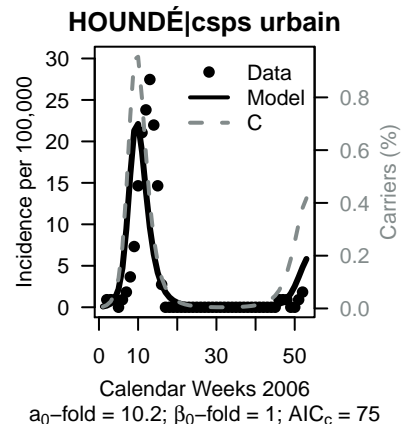
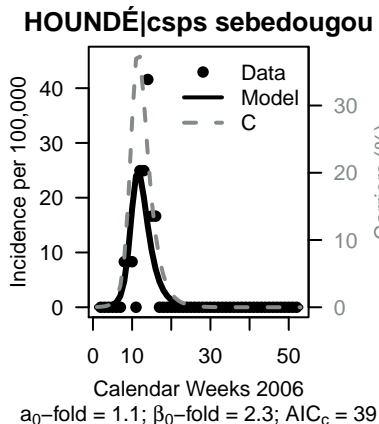
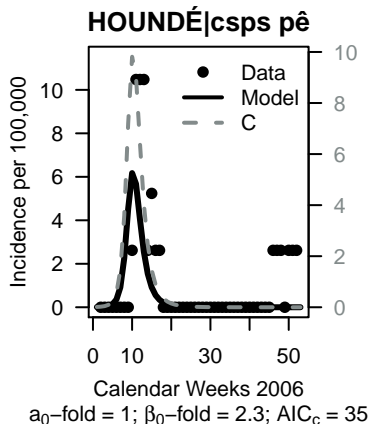
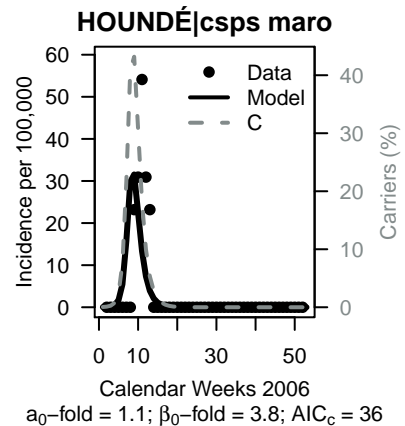
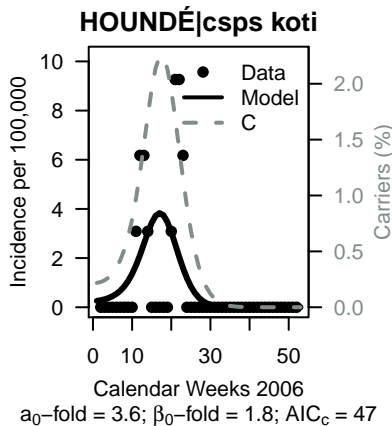
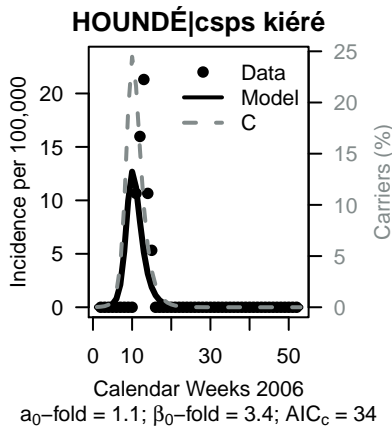
a_0 -fold = 1; β_0 -fold = 7.1; $AIC_c = 44$

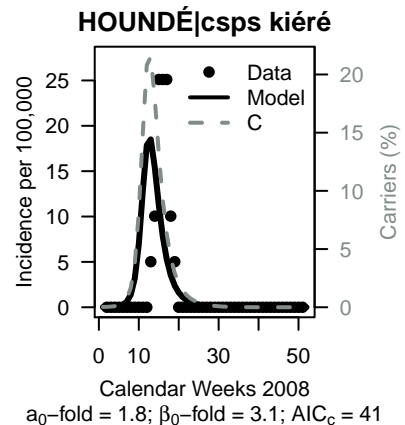
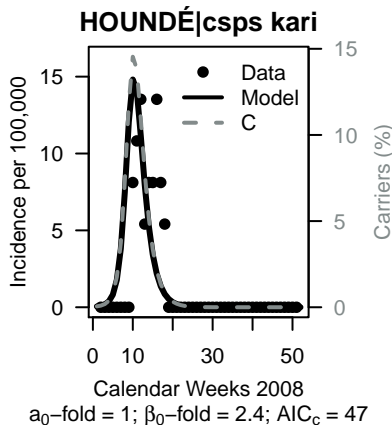
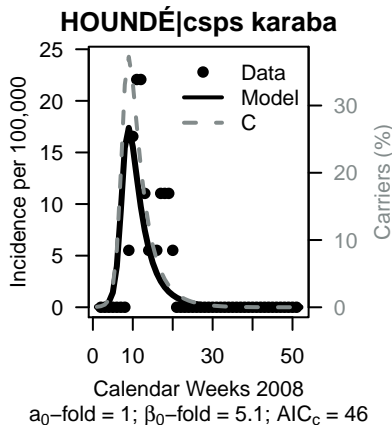
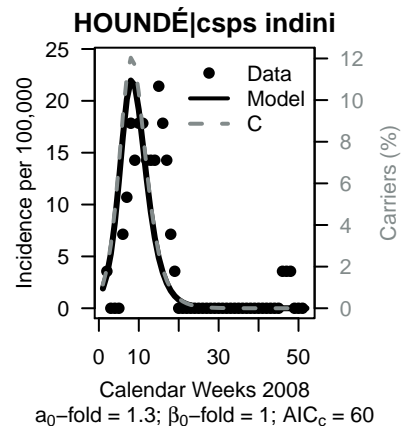
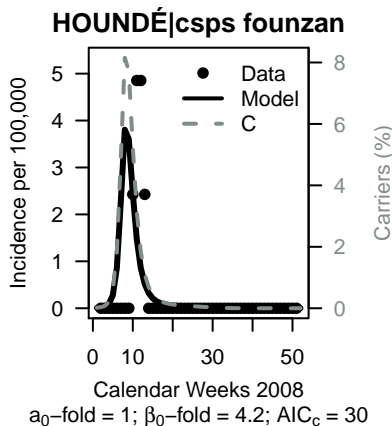
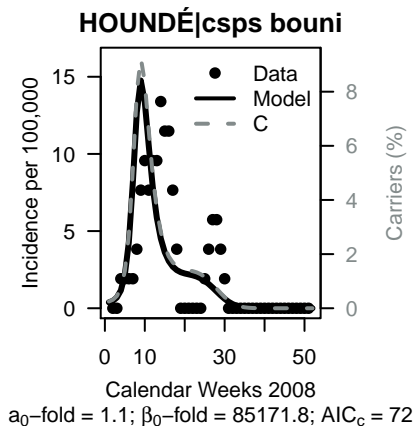
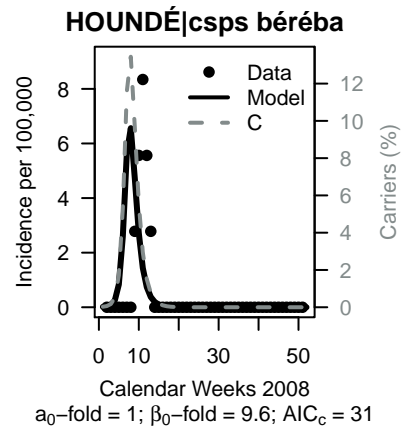
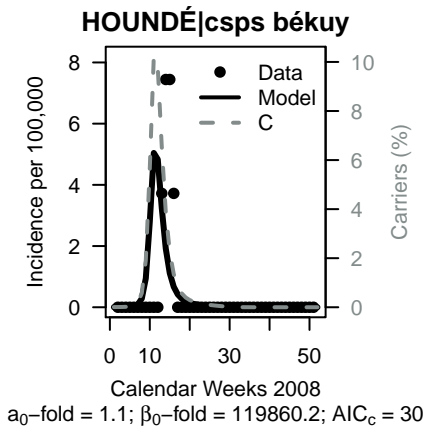
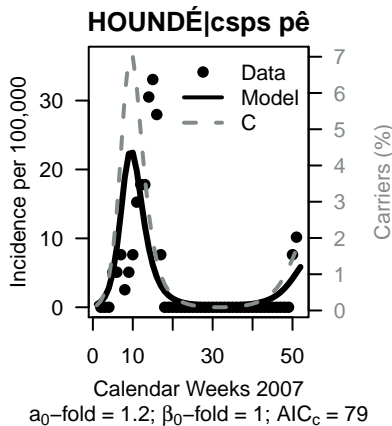
HOUNDÉ|csps karaba

a_0 -fold = 1.3; β_0 -fold = 16.9; $AIC_c = 36$

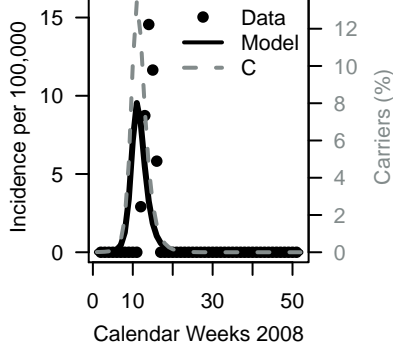
HOUNDÉ|csps kari

a_0 -fold = 1.1; β_0 -fold = 3.2; $AIC_c = 42$



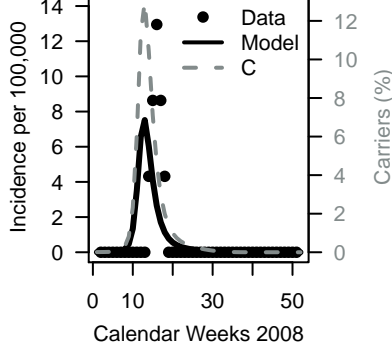


HOUNDÉ|csps koti



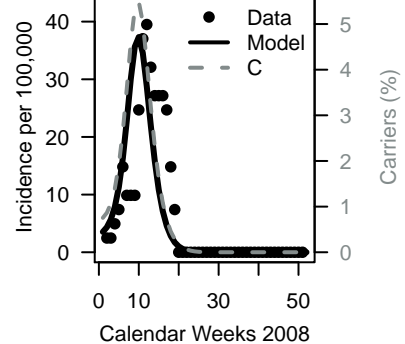
a_0 -fold = 1.2; β_0 -fold = 14; AIC_c = 35

HOUNDÉ|csps kouloho



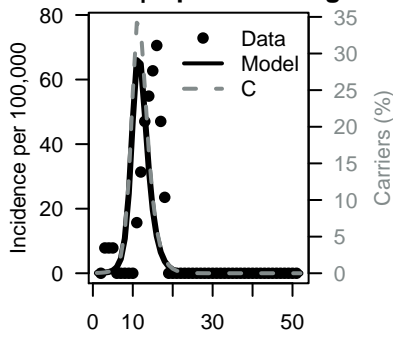
a_0 -fold = 1.2; β_0 -fold = 7.3; AIC_c = 32

HOUNDÉ|csps pê



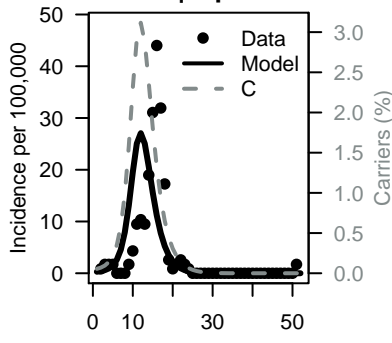
a_0 -fold = 5.7; β_0 -fold = 15.4; AIC_c = 75

HOUNDÉ|csps sebedougou



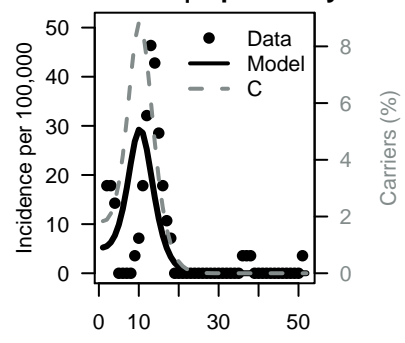
a_0 -fold = 1.4; β_0 -fold = 4.4; AIC_c = 47

HOUNDÉ|csps urbain



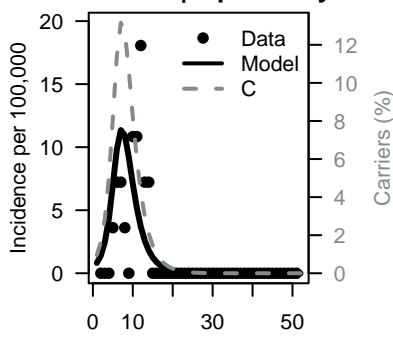
a_0 -fold = 7.7; β_0 -fold = 5.1; AIC_c = 135

HOUNDÉ|csps wakuy



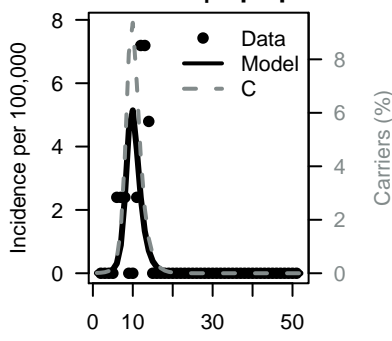
a_0 -fold = 1.5; β_0 -fold = 70728.2; AIC_c = 72

HOUNDÉ|csps békuy



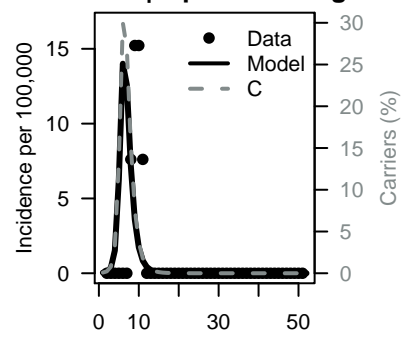
a_0 -fold = 1; β_0 -fold = 4; AIC_c = 47

HOUNDÉ|csps pê

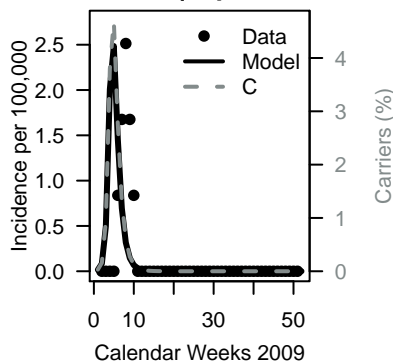
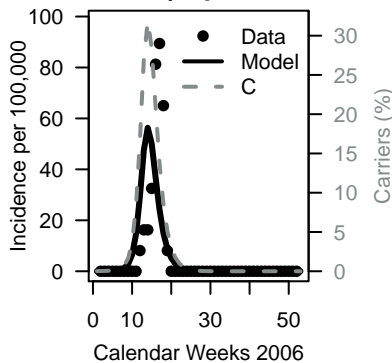
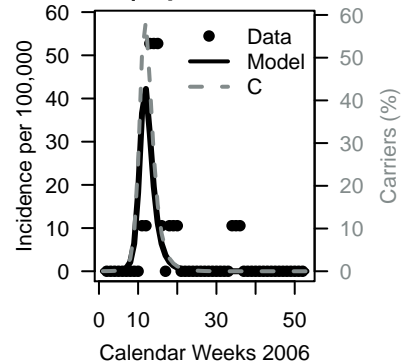
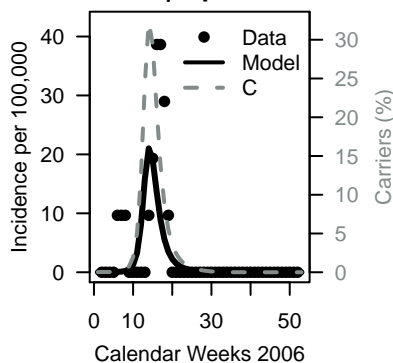
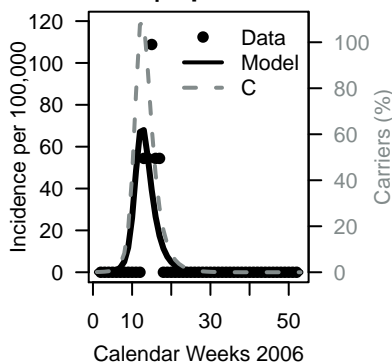
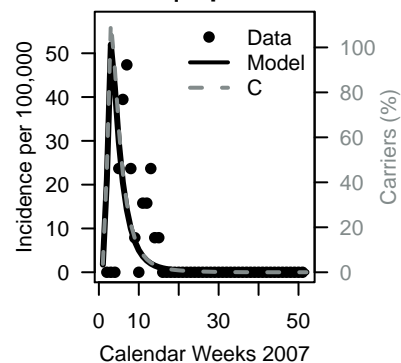
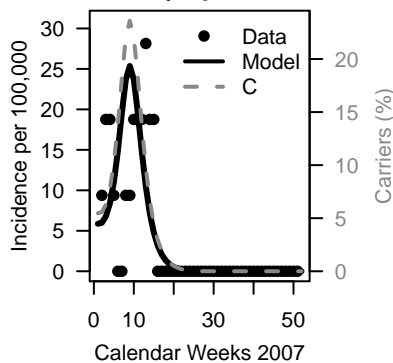
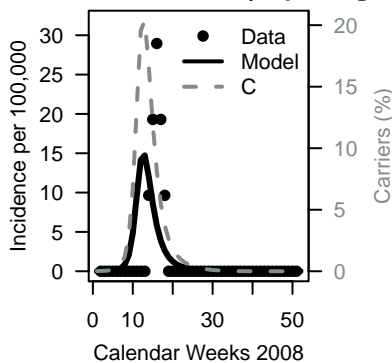
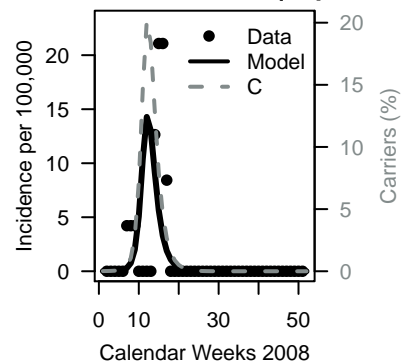


a_0 -fold = 1.1; β_0 -fold = 369371.7; AIC_c = 32

HOUNDÉ|csps sebedougou



a_0 -fold = 1; β_0 -fold = 119346; AIC_c = 29

HOUNDÉ|csp_s urbain**LENA|csp_s balla****LENA|csp_s kwekwesso****LENA|csp_s sissa****LENA|csp_s tiarako****LENA|csp_s balla****LENA|csp_s sissa****KARANGASSO VIGUE|csp_s deguel****KARANGASSO VIGUE|csp_s wara**

KARANGASSO VIGUE|cspw wara KARANGASSO VIGUE|dispe dioss

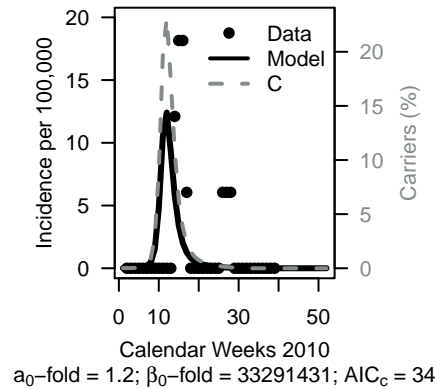
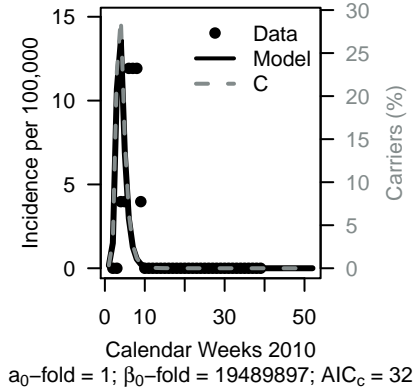


Figure 4. Distribution of parameters estimates and models performance stats, for 64 health center–years with complete data, across four health districts of Burkina faso (2004–2010).

