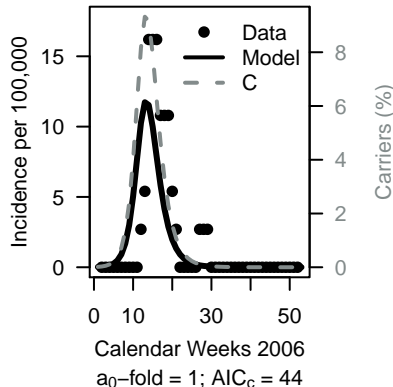
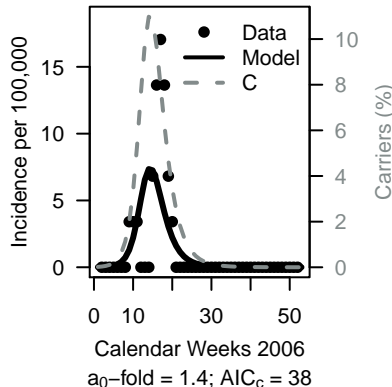
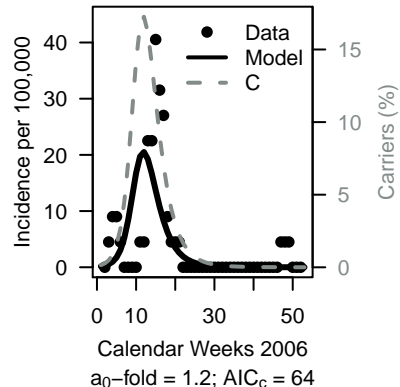
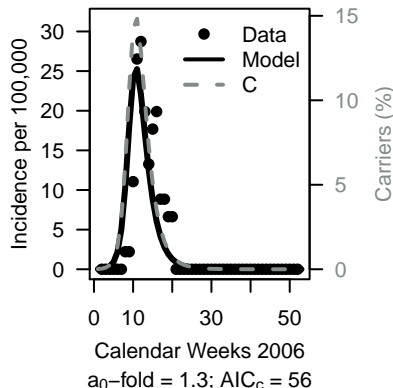
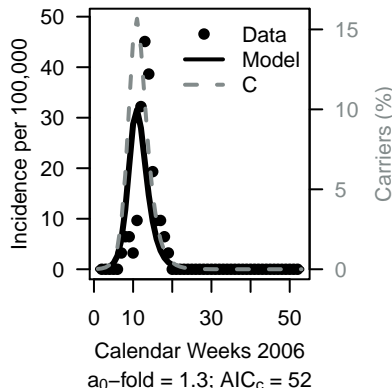
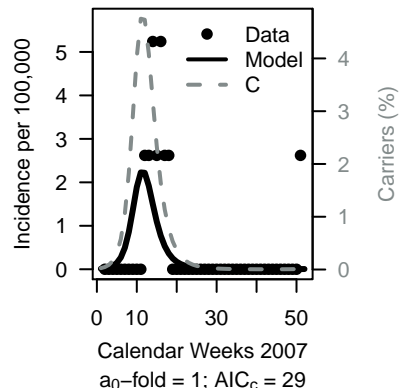
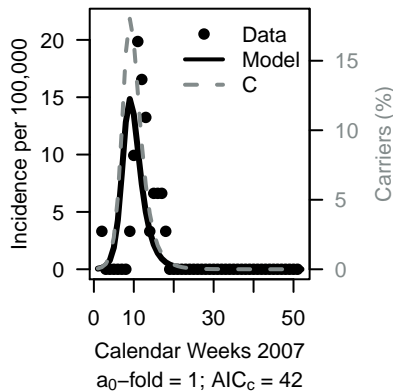
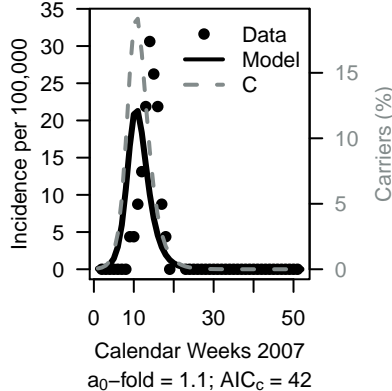
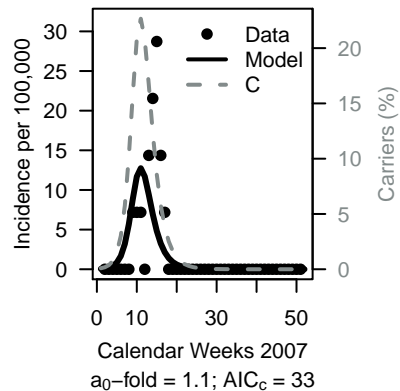
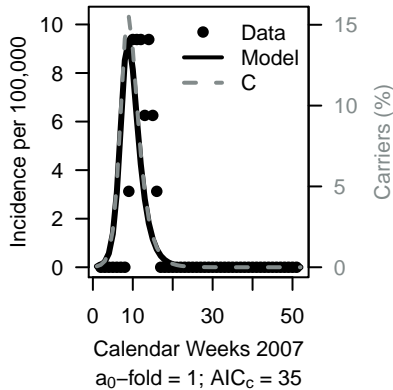
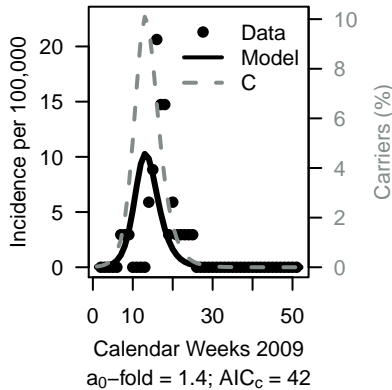
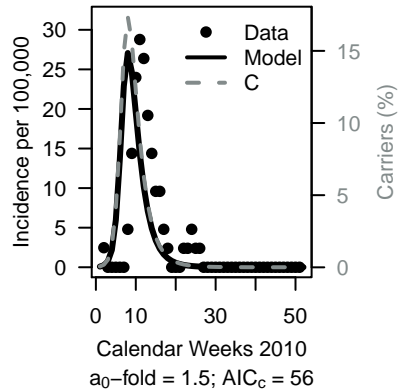
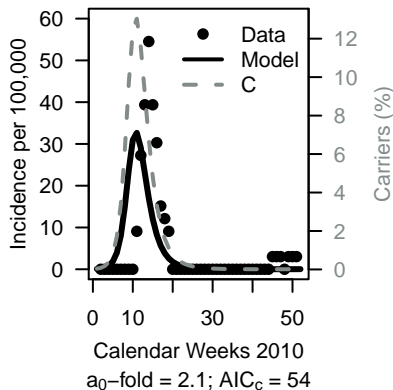
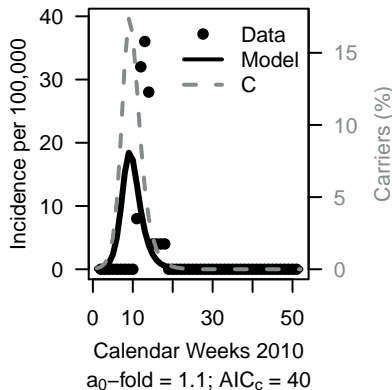
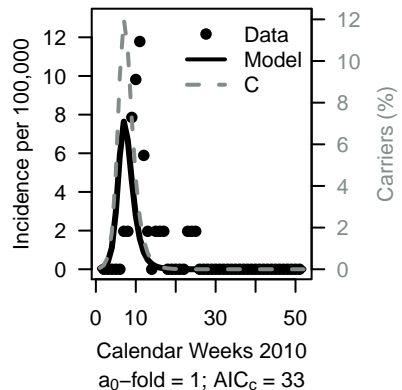
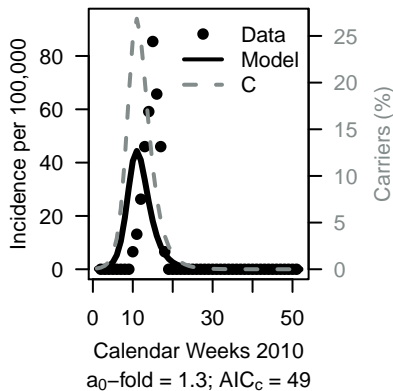
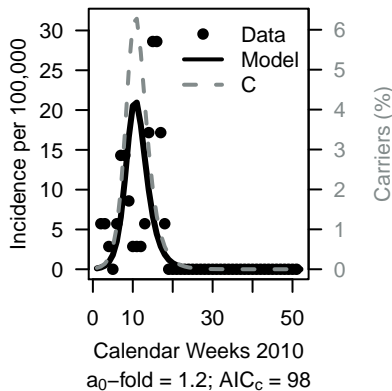
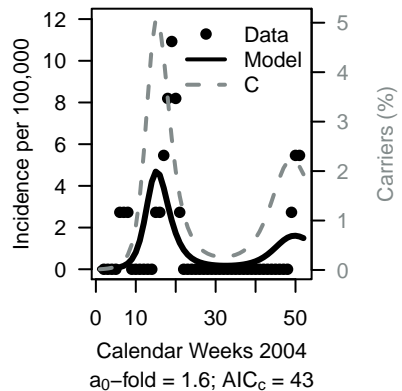
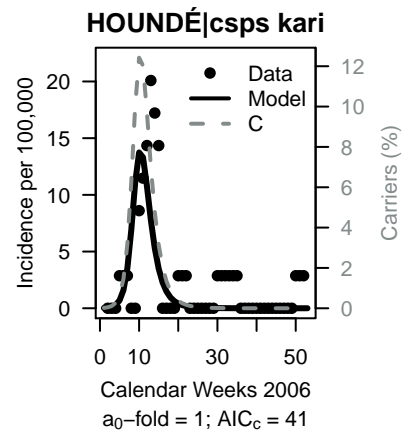
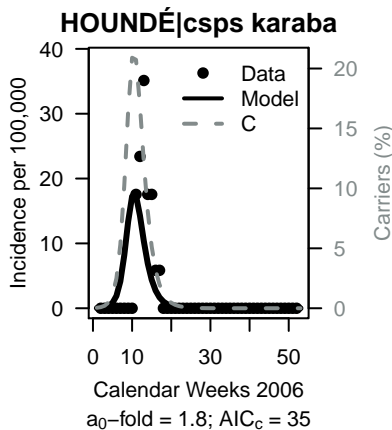
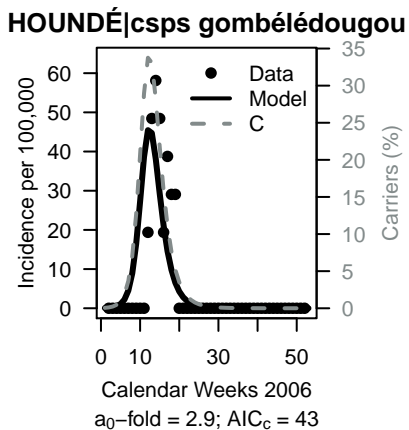
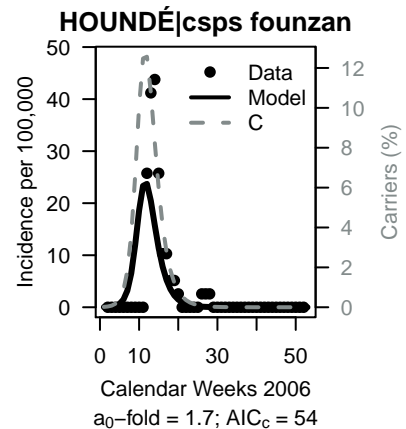
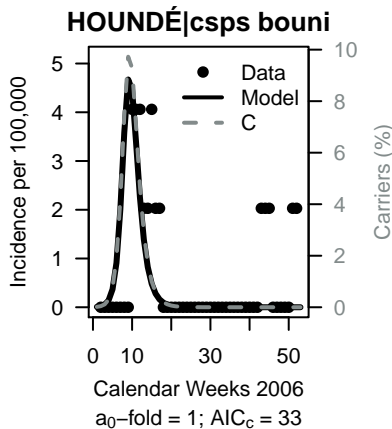
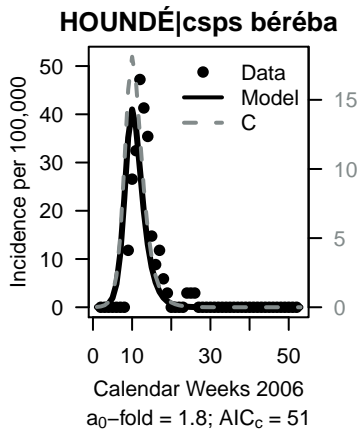
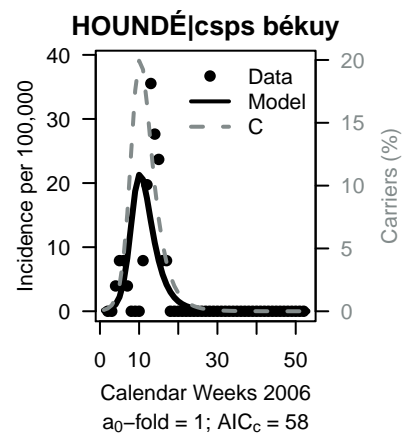
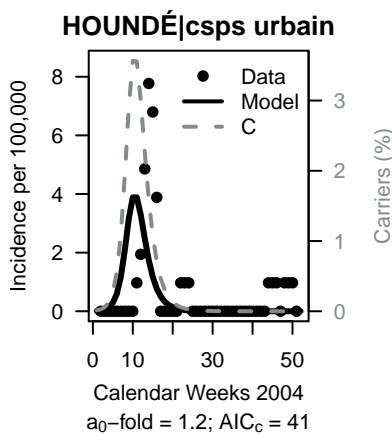
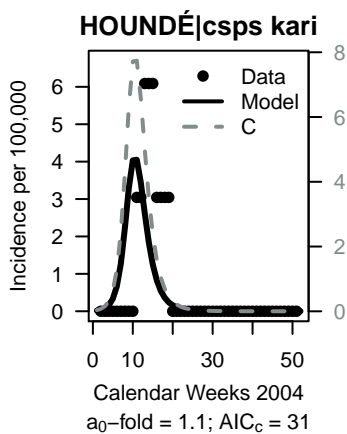


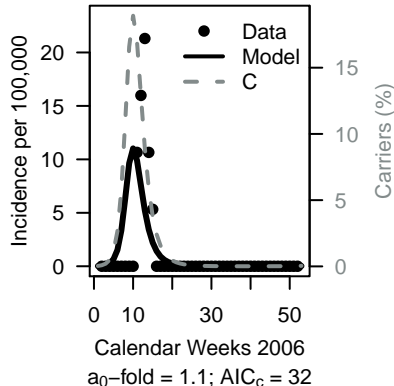
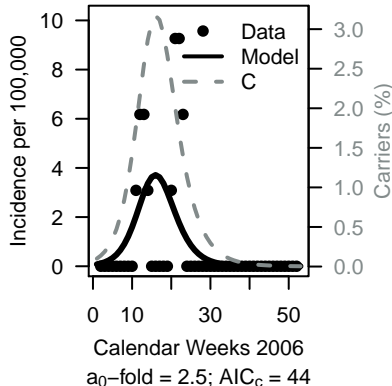
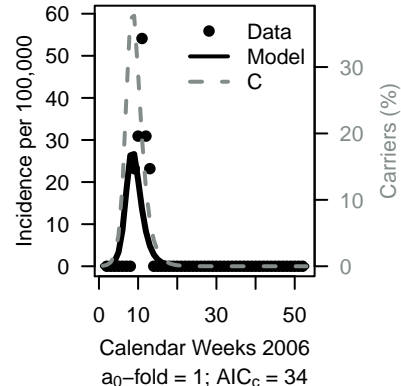
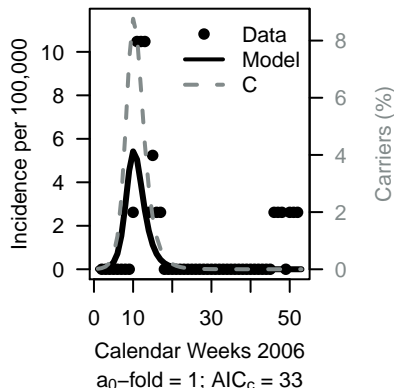
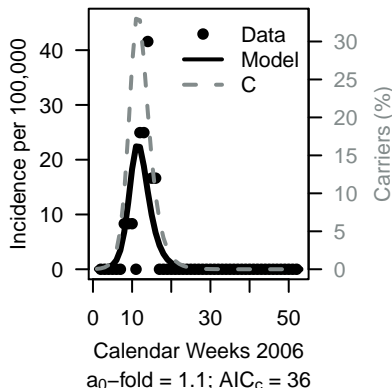
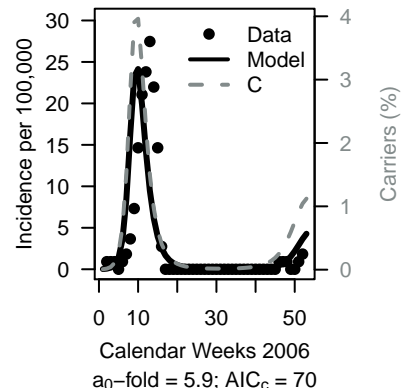
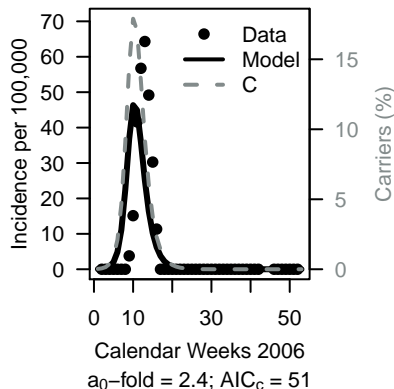
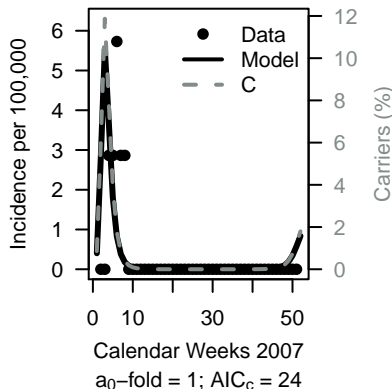
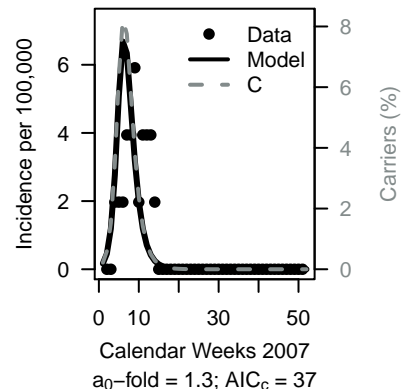
Results of model estimations using a poisson maximum likelihood approach.

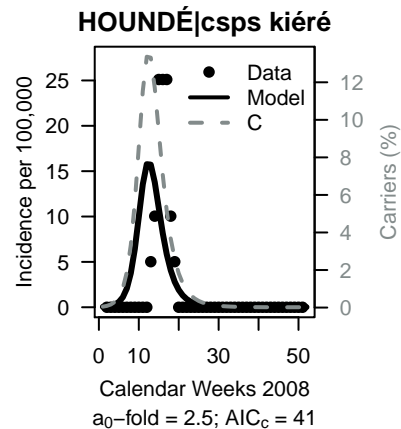
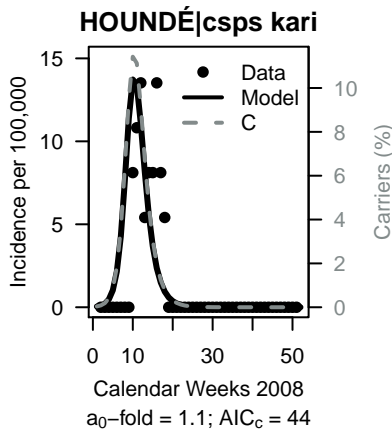
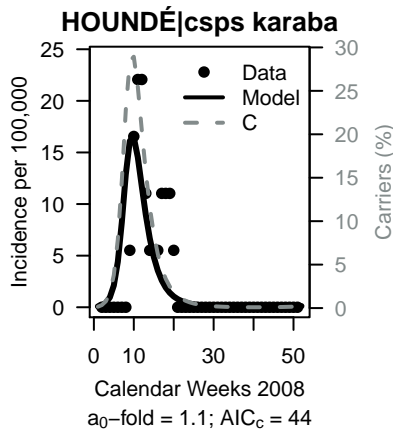
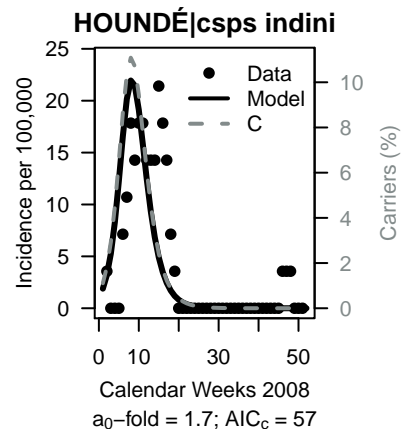
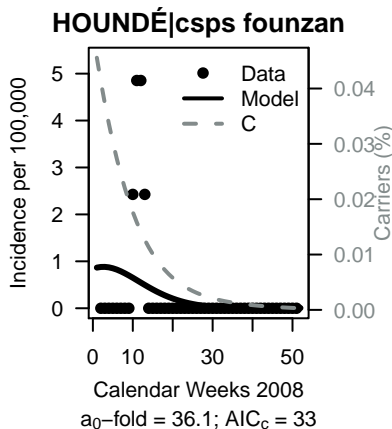
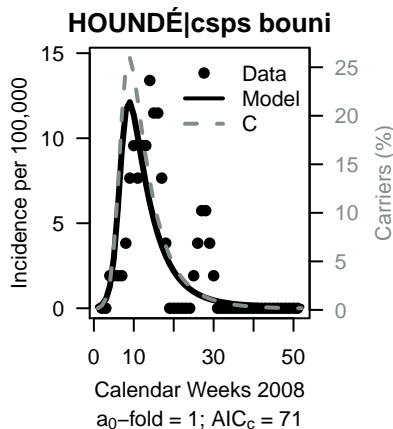
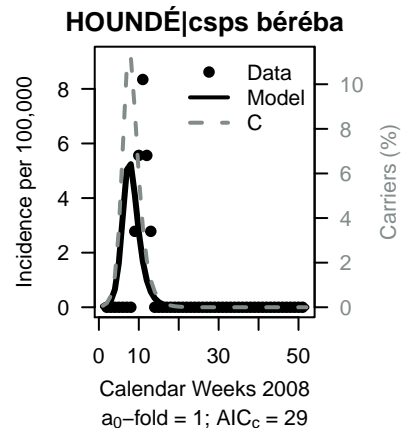
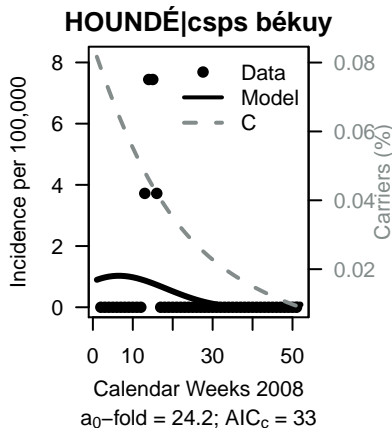
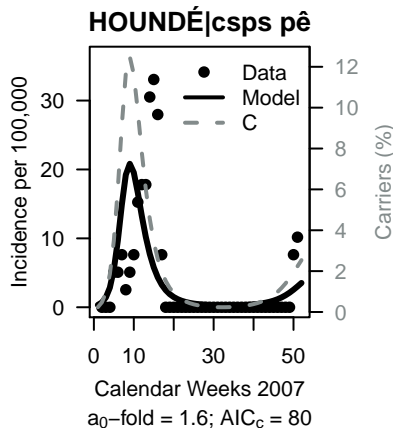
Figure 1. Model1—"inv" trajectories matching plots of simulated and observed (weekly) data, for 64 health center-years with complete data, across four health districts of Burkina faso (2004–2010).

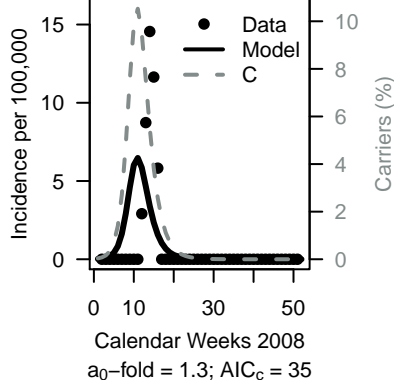
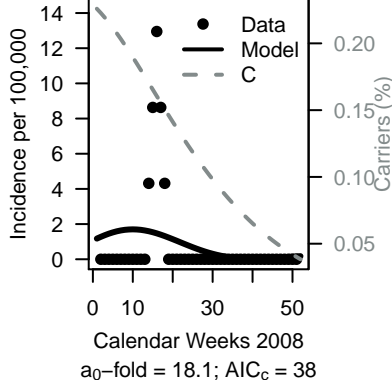
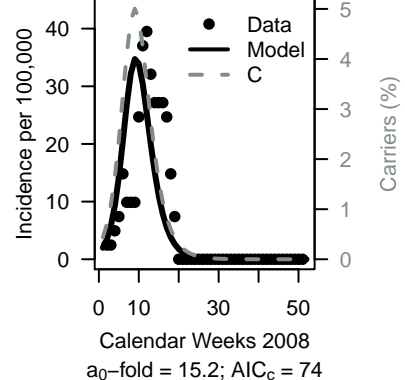
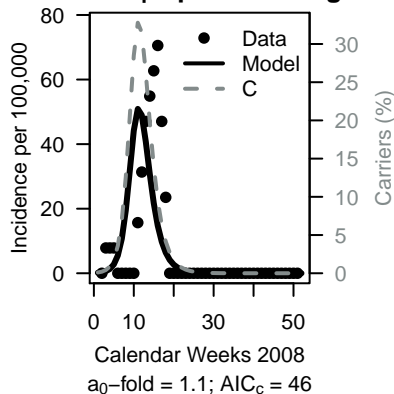
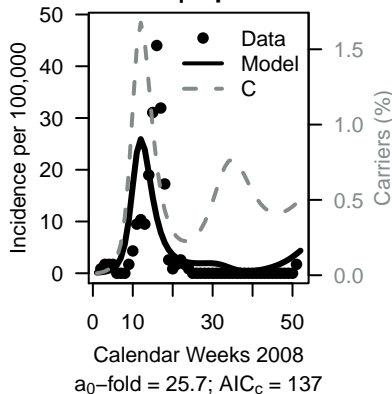
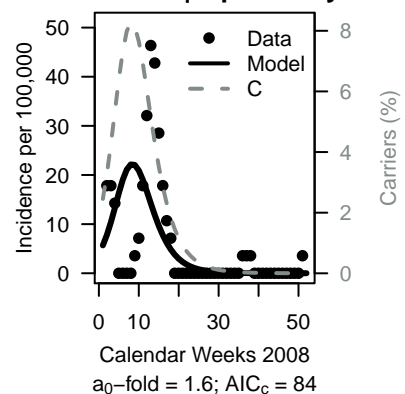
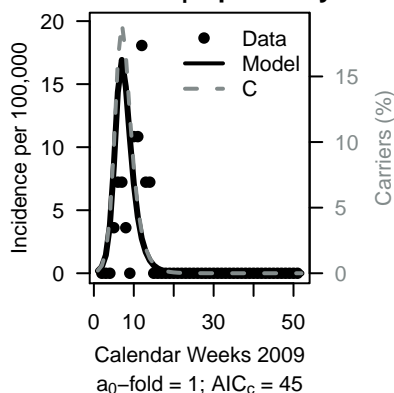
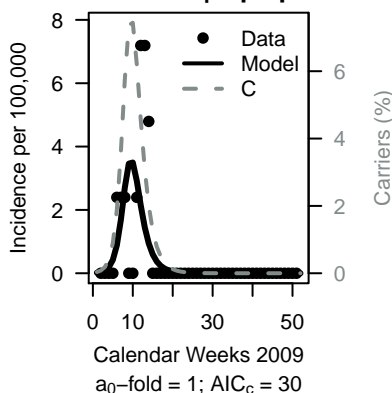
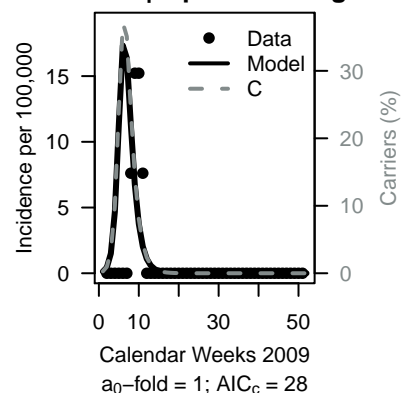
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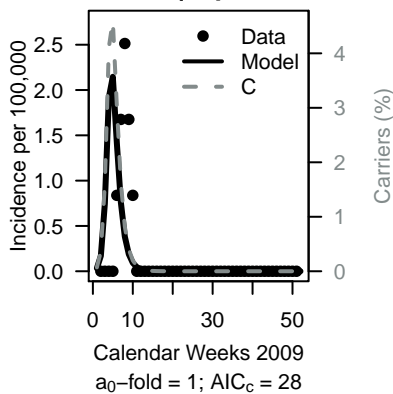
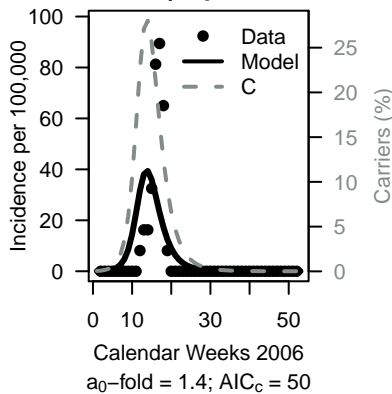
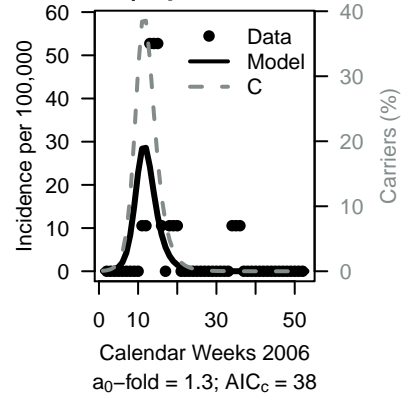
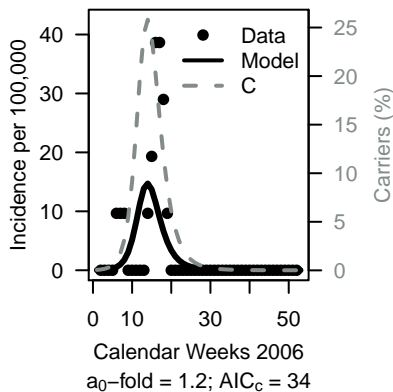
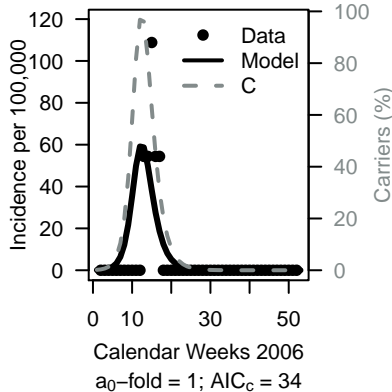
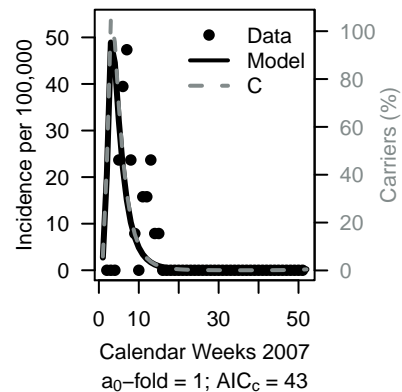
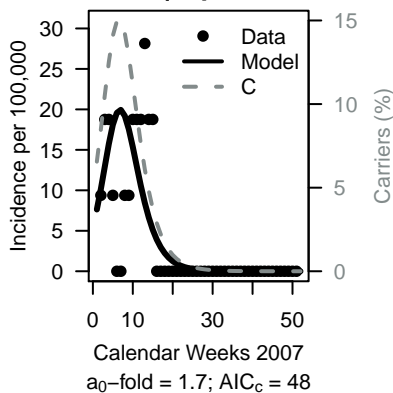
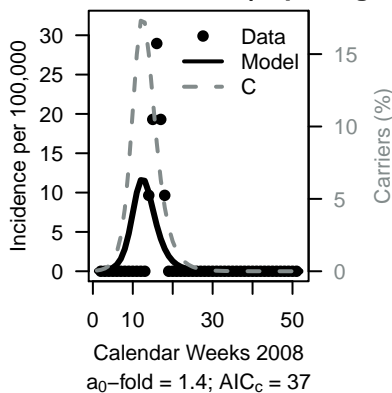
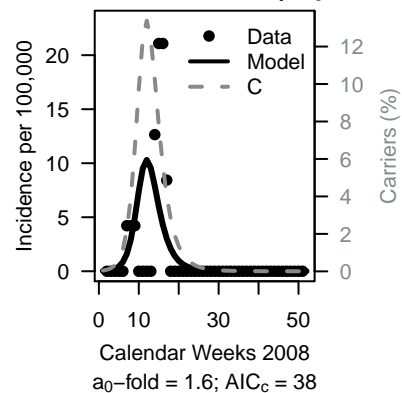
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HOUNDÉ|csps kiéré**HOUNDÉ|csps koti****HOUNDÉ|csps maro****HOUNDÉ|csps pê****HOUNDÉ|csps sebedougou****HOUNDÉ|csps urbain****HOUNDÉ|csps wakuy****HOUNDÉ|csps béréba****HOUNDÉ|csps bouni**



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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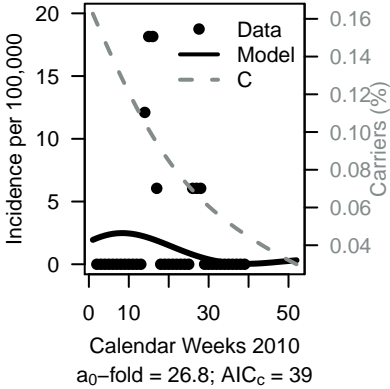
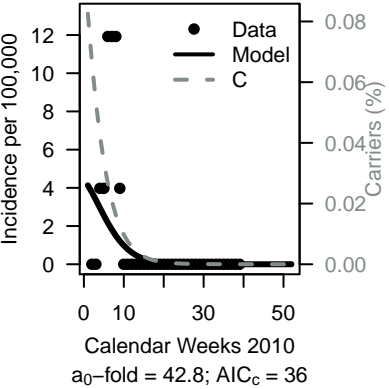
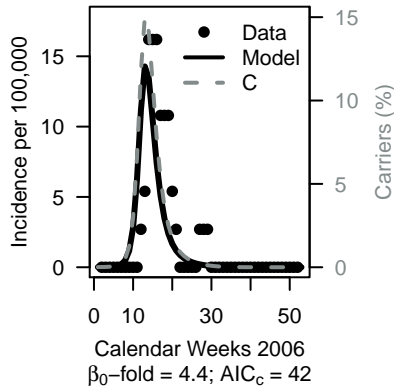
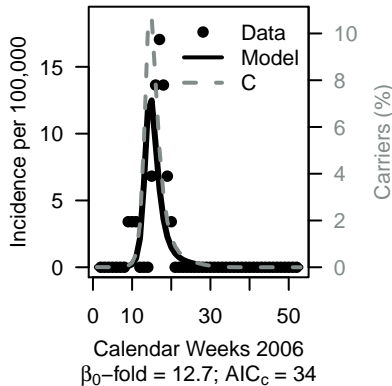
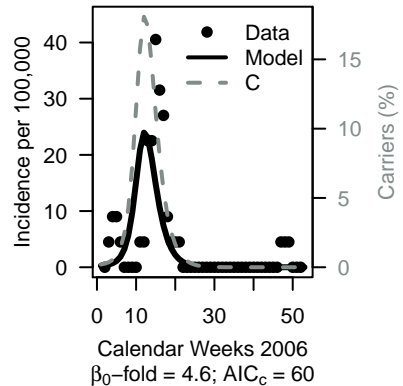
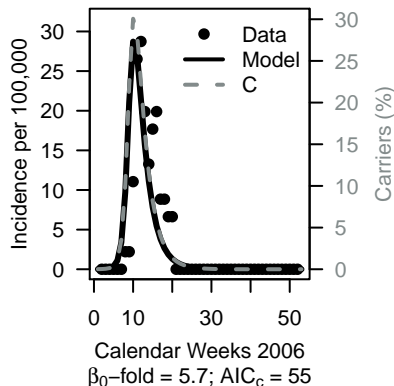
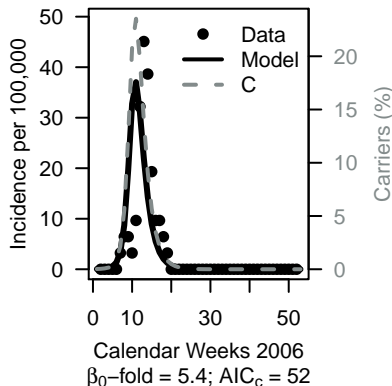
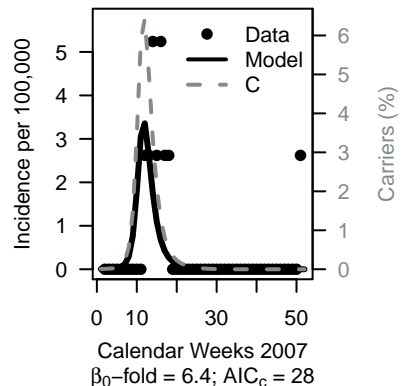
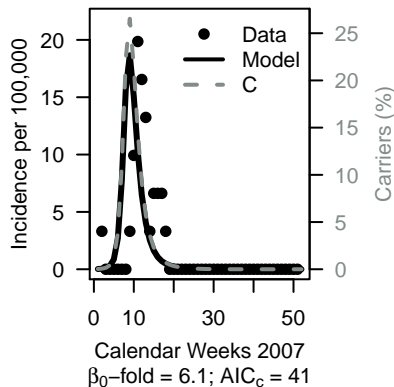
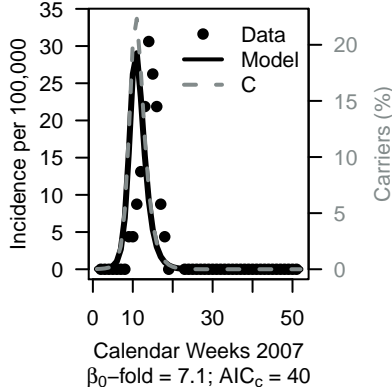
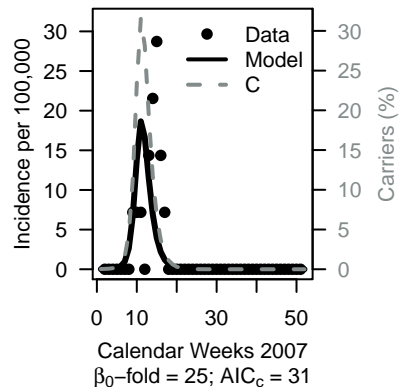
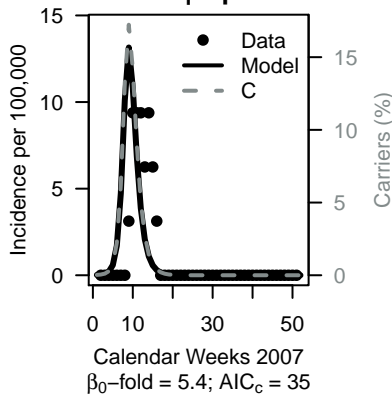
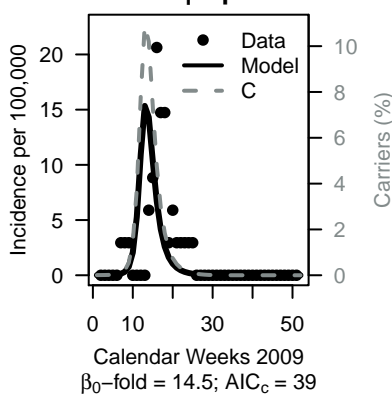
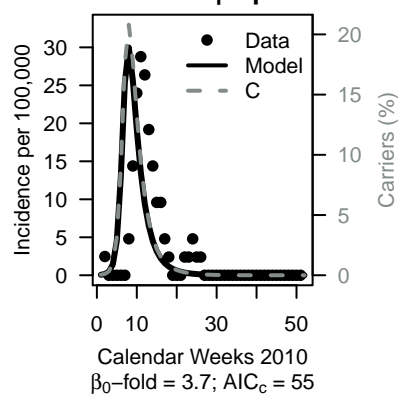
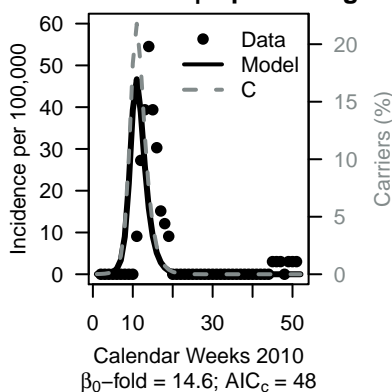
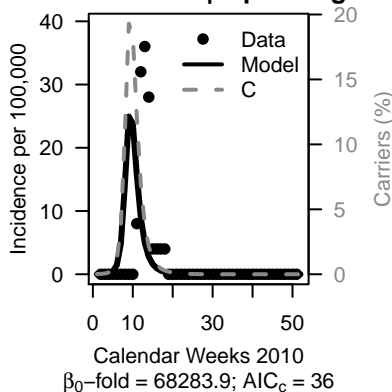
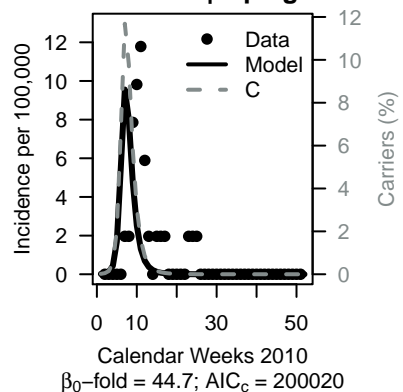
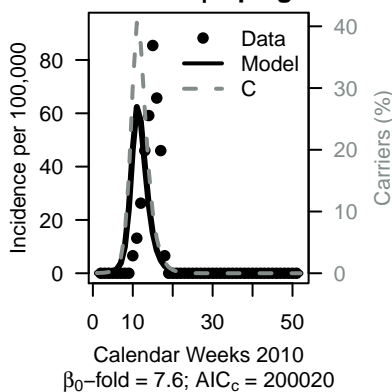
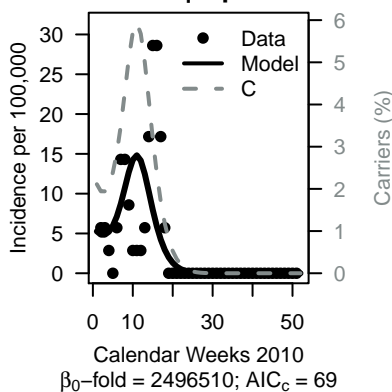
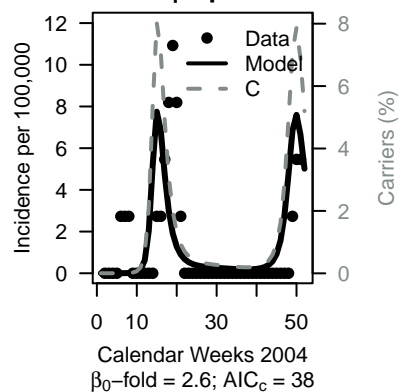
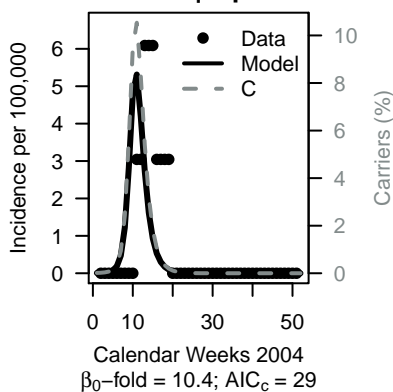
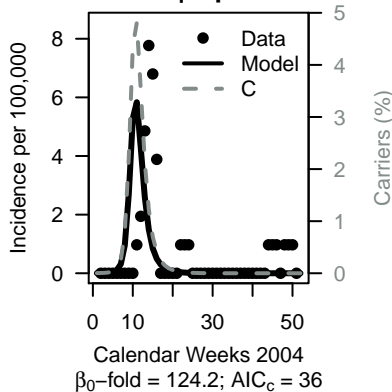
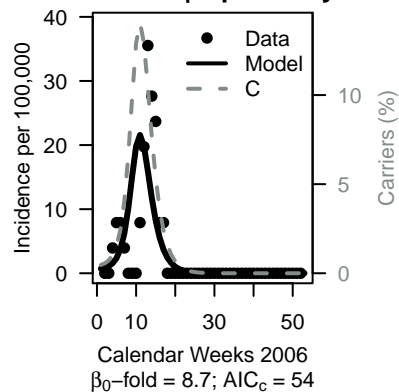
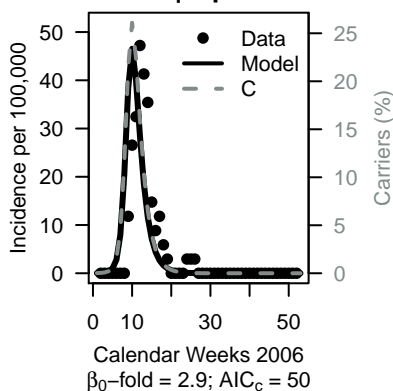
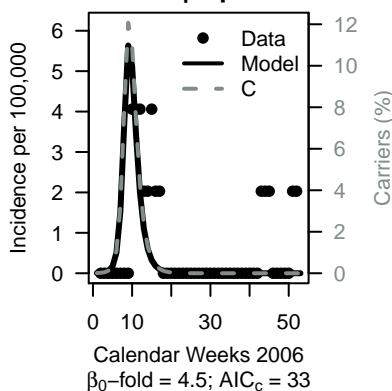
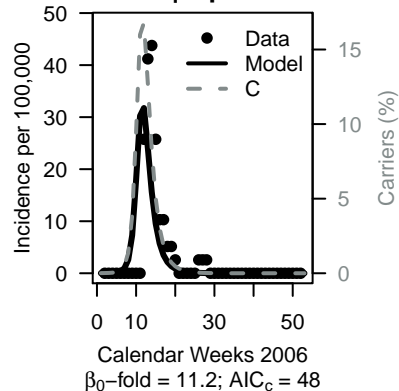
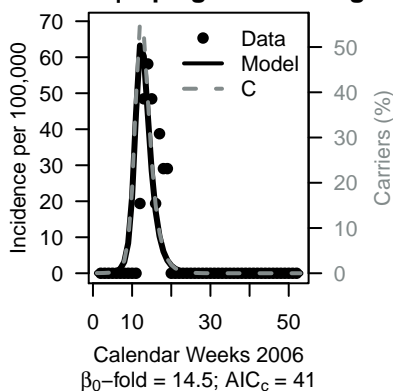
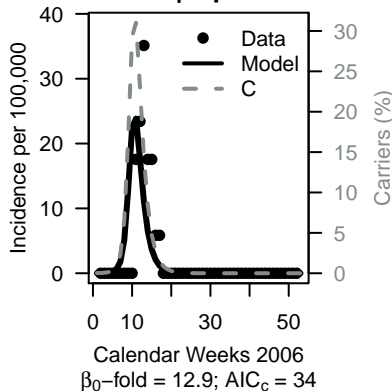
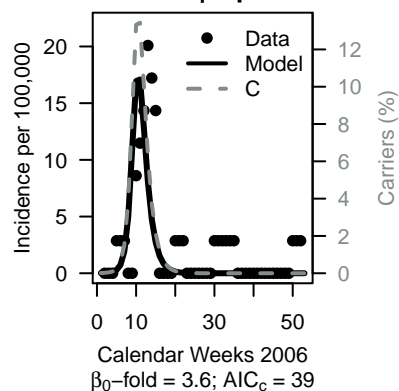
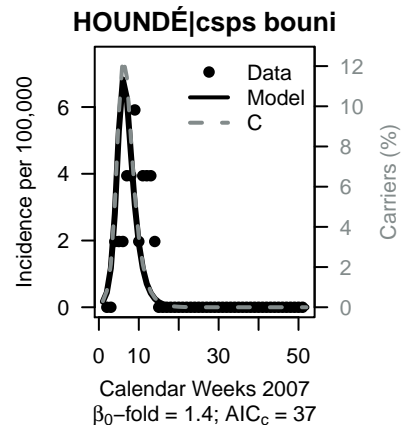
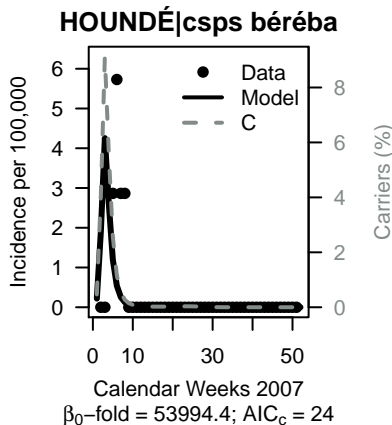
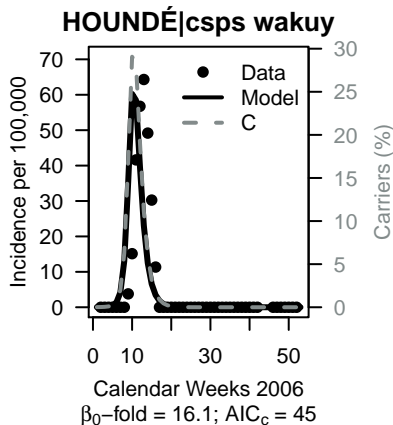
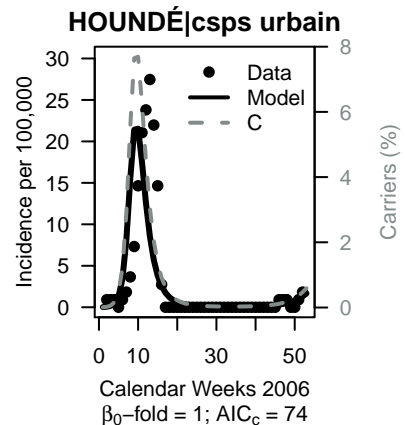
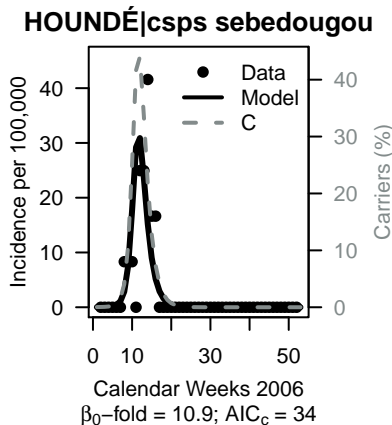
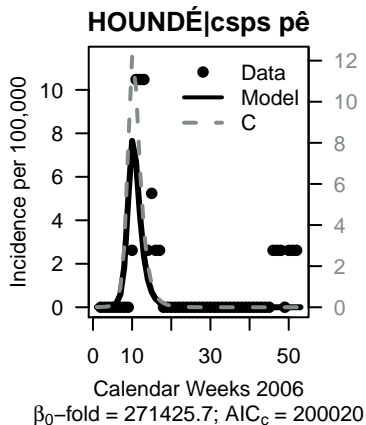
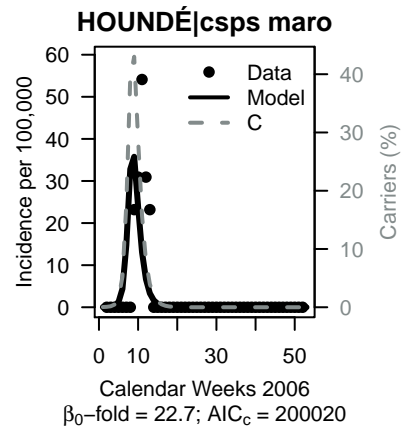
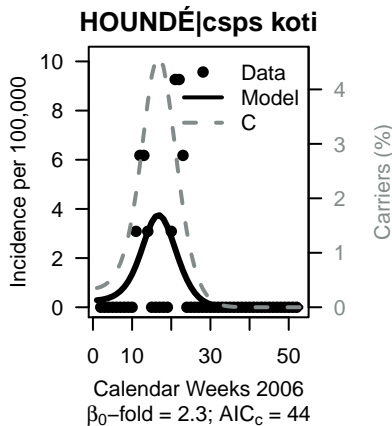
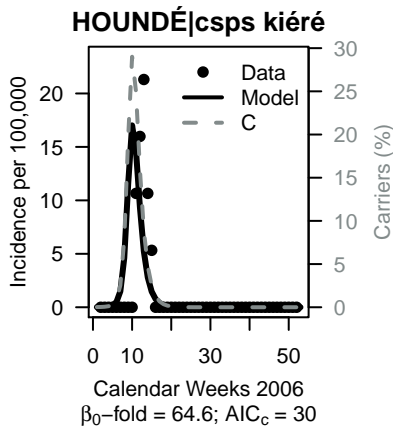


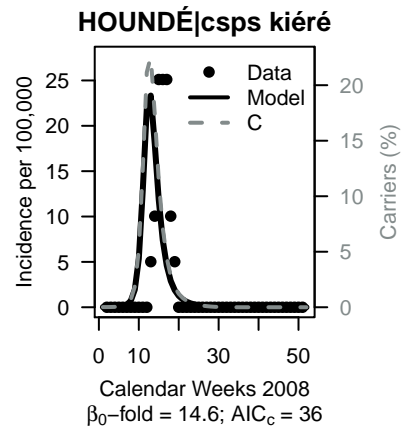
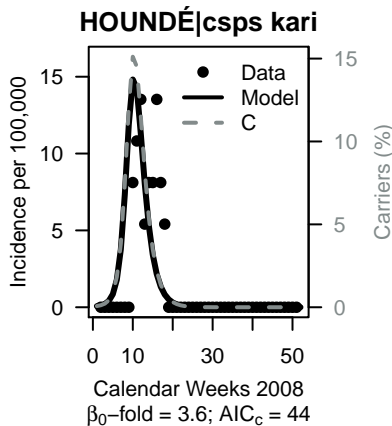
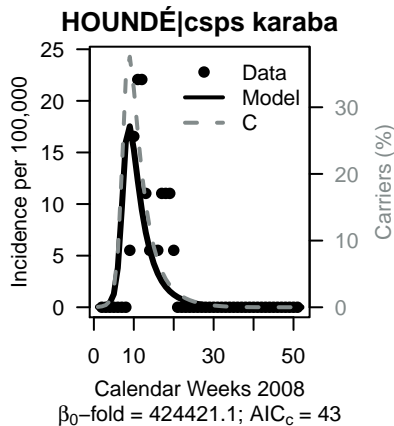
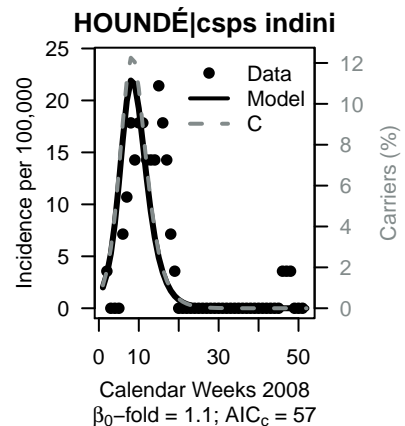
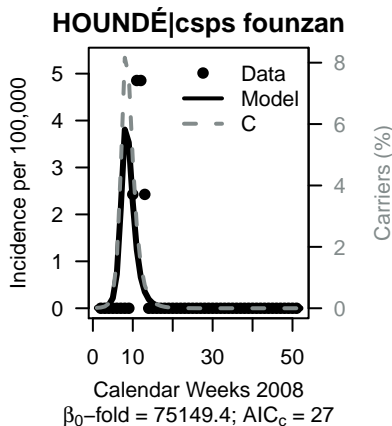
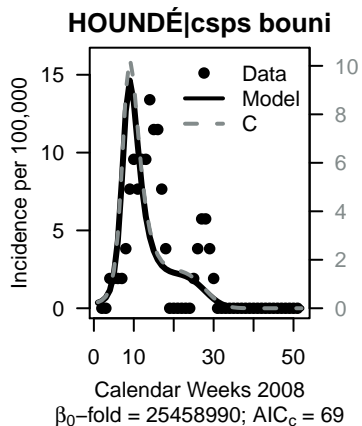
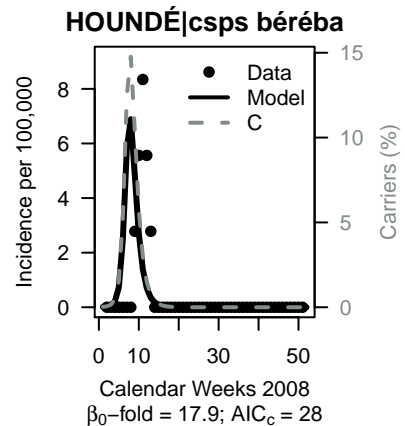
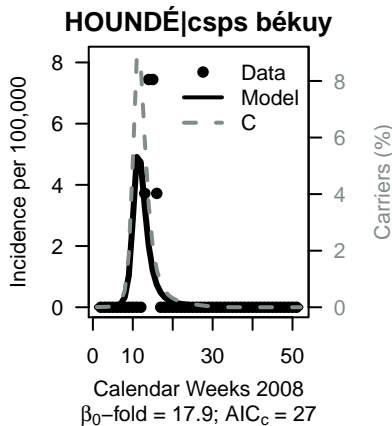
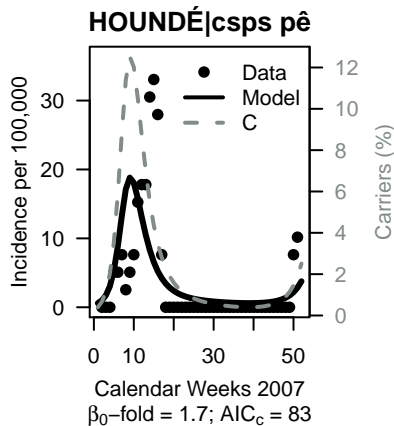
Figure 2. Model2—"transm" trajectories matching plots of simulated and observed (weekly) data, for 64 health center–years with complete data, across four health districts of Burkina faso (2004–2010).

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**

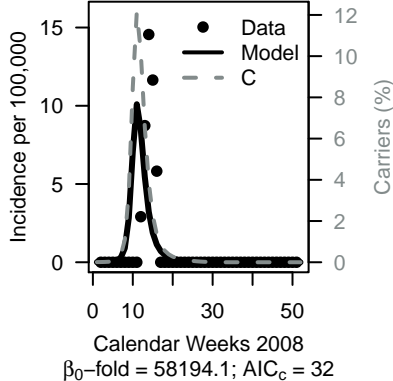
SEGUENEGA|csps kossouka**SEGUENEGA|csps kossouka****SEGUENEGA|csps bema****SEGUENEGA|csps berenga****SEGUENEGA|csps bouga****SEGUENEGA|csps gambo****SEGUENEGA|csps goubré****SEGUENEGA|csps kossouka****HOUNDÉ|csps founzan**

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

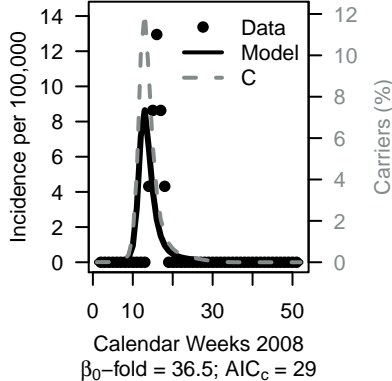




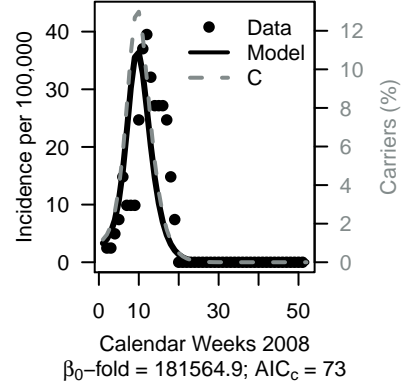
HOUNDÉ|csps koti



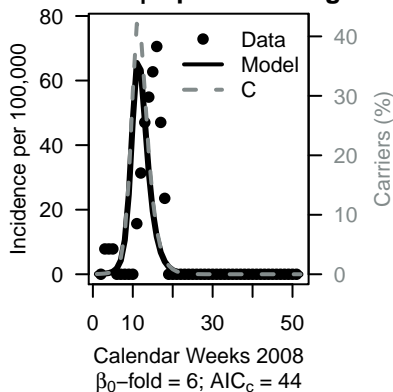
HOUNDÉ|csps kouloho



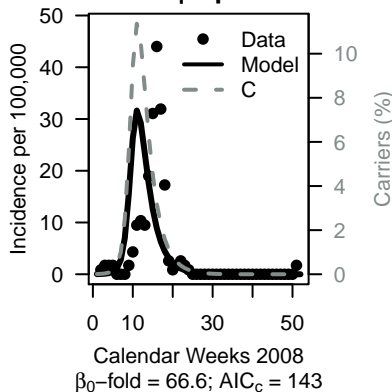
HOUNDÉ|csps pè



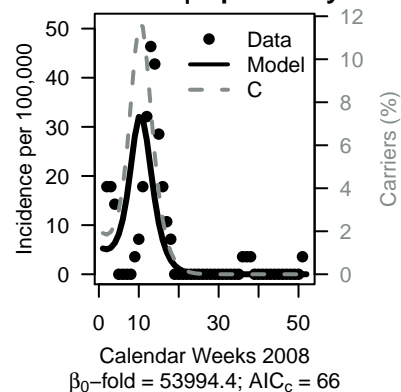
HOUNDÉ|csps sebedougou



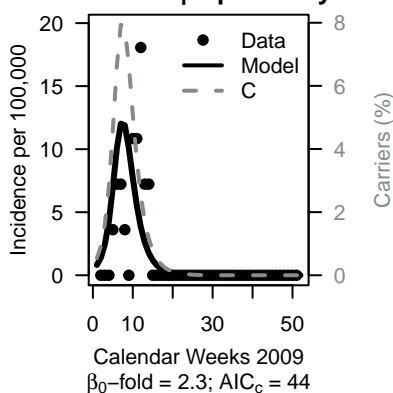
HOUNDÉ|csps urbain



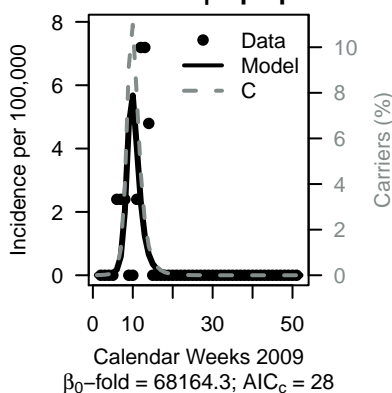
HOUNDÉ|csps wakuy



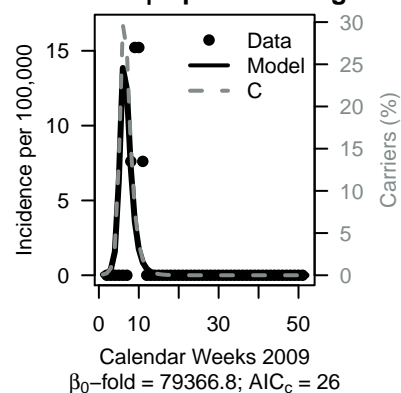
HOUNDÉ|csps békuy

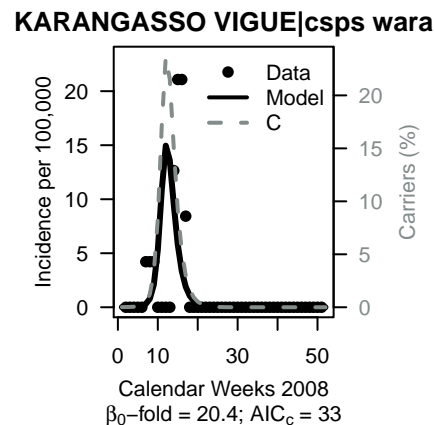
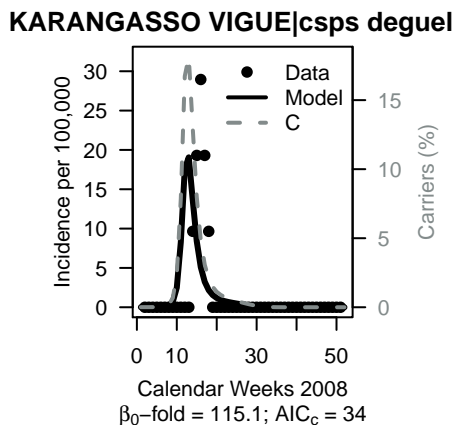
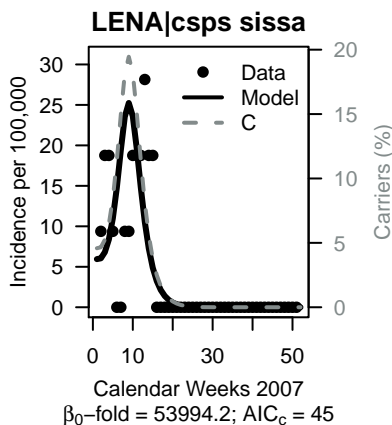
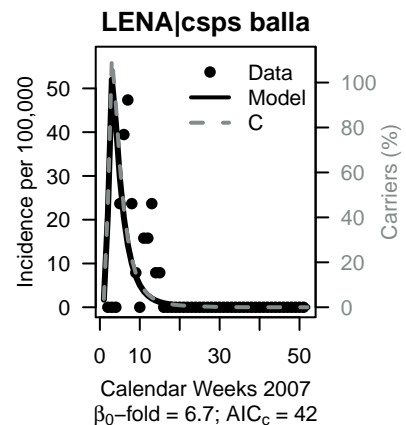
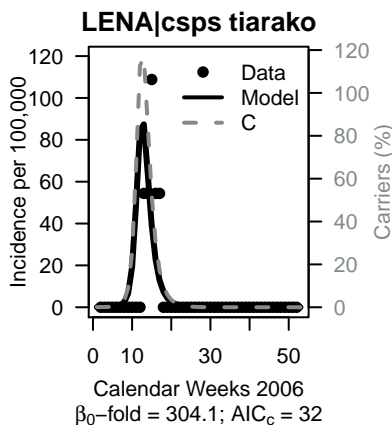
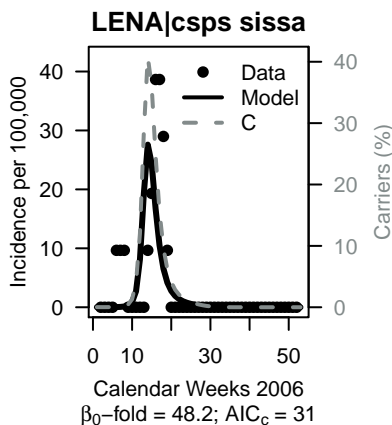
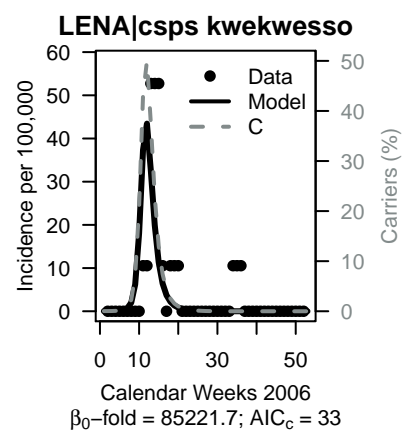
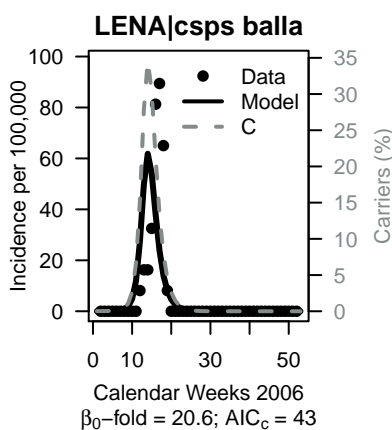
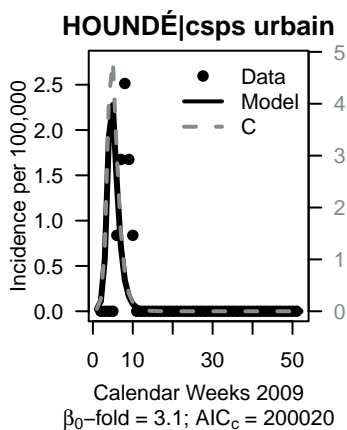


HOUNDÉ|csps pè



HOUNDÉ|csps sebedougou





KARANGASSO VIGUE|csps wara KARANGASSO VIGUE|dispe dioss

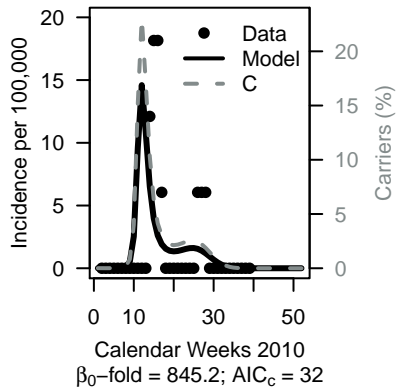
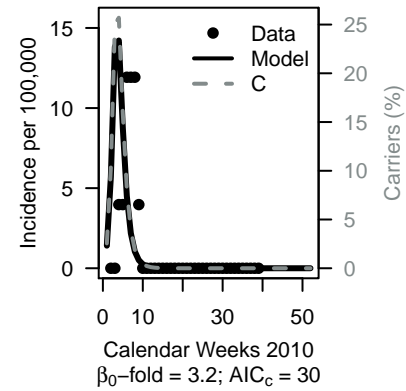
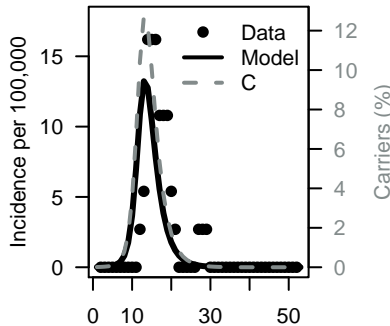
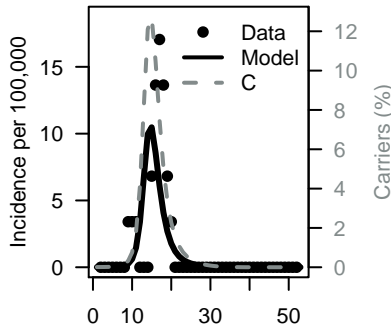


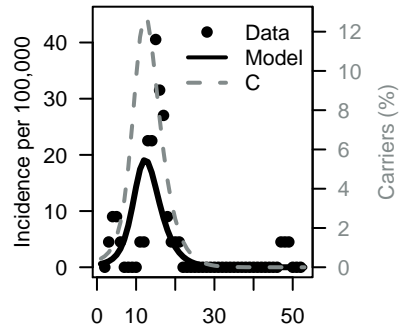
Figure 3. Model3—"inv-transm" trajectories matching plots of simulated and observed (weekly) data, for 64 health center-years with complete data, across four health districts of Burkina faso (2004–2010).

SEGUENEGA|csps bema

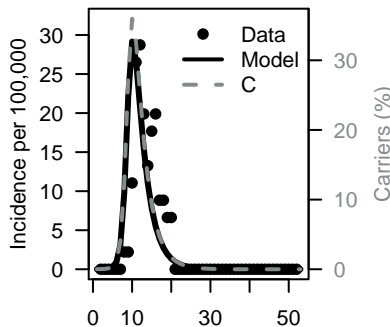
Calendar Weeks 2006
 $a_0\text{-fold} = 1$; $\beta_0\text{-fold} = 2.6$; $AIC_c = 45$

SEGUENEGA|csps berenga

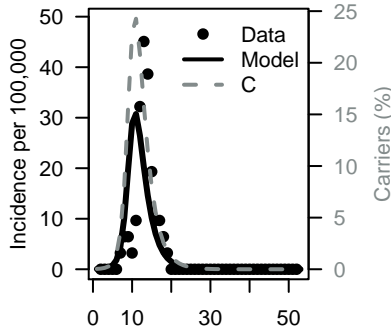
Calendar Weeks 2006
 $a_0\text{-fold} = 1.6$; $\beta_0\text{-fold} = 3.8$; $AIC_c = 38$

SEGUENEGA|csps bouga

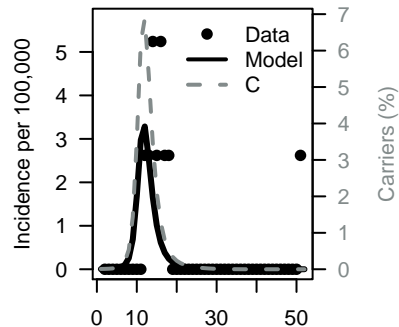
Calendar Weeks 2006
 $a_0\text{-fold} = 1.2$; $\beta_0\text{-fold} = 2.8$; $AIC_c = 64$

SEGUENEGA|csps gambo

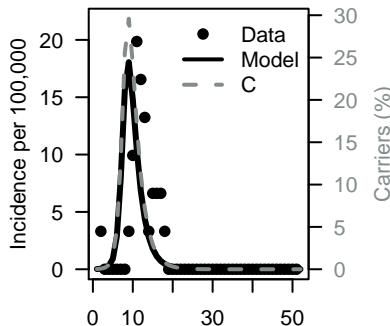
Calendar Weeks 2006
 $a_0\text{-fold} = 1.5$; $\beta_0\text{-fold} = 21.2$; $AIC_c = 58$

SEGUENEGA|csps kossouka

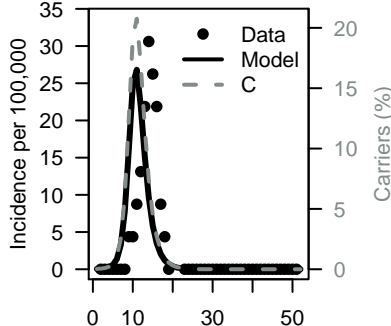
Calendar Weeks 2006
 $a_0\text{-fold} = 1.2$; $\beta_0\text{-fold} = 3.7$; $AIC_c = 57$

SEGUENEGA|csps bema

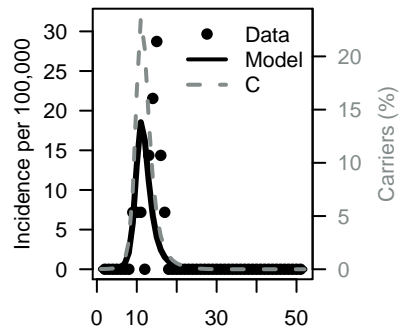
Calendar Weeks 2007
 $a_0\text{-fold} = 1$; $\beta_0\text{-fold} = 4.6$; $AIC_c = 31$

SEGUENEGA|csps berenga

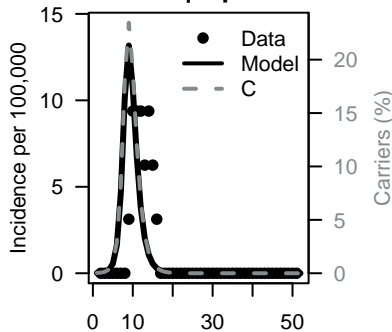
Calendar Weeks 2007
 $a_0\text{-fold} = 1$; $\beta_0\text{-fold} = 11.3$; $AIC_c = 44$

SEGUENEGA|csps bouga

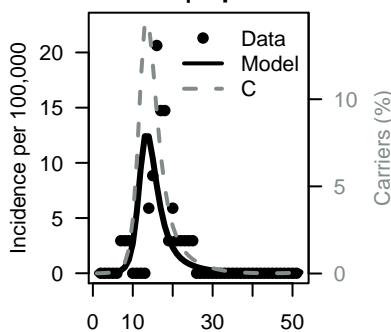
Calendar Weeks 2007
 $a_0\text{-fold} = 1.1$; $\beta_0\text{-fold} = 3.6$; $AIC_c = 43$

SEGUENEGA|csps goubré

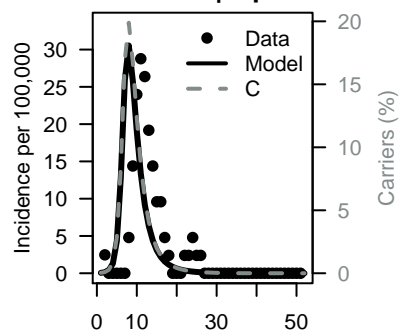
Calendar Weeks 2007
 $a_0\text{-fold} = 1$; $\beta_0\text{-fold} = 561667.7$; $AIC_c = 34$

SEGUENEGA|csps kossouka

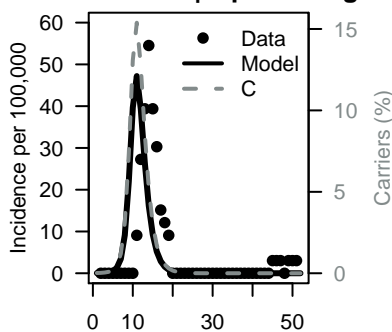
Calendar Weeks 2007
 a_0 -fold = 1; β_0 -fold = 6.6; $AIC_c = 38$

SEGUENEGA|csps kossouka

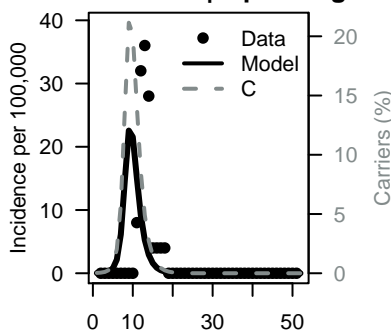
Calendar Weeks 2009
 a_0 -fold = 1; β_0 -fold = 3.1; $AIC_c = 45$

SEGUENEGA|csps bema

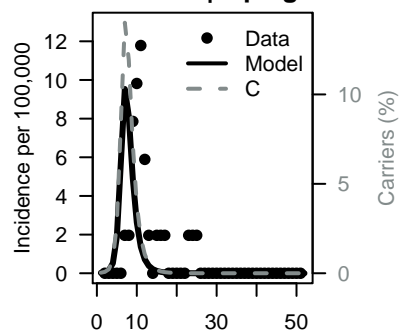
Calendar Weeks 2010
 a_0 -fold = 1.1; β_0 -fold = 4.8; $AIC_c = 58$

SEGUENEGA|csps berenga

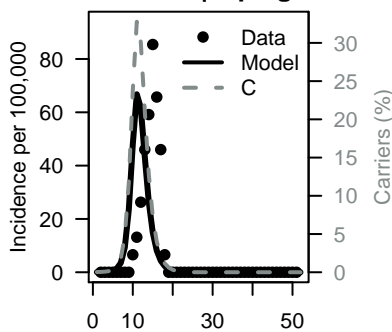
Calendar Weeks 2010
 a_0 -fold = 2.7; β_0 -fold = 9.7; $AIC_c = 51$

SEGUENEGA|csps bouga

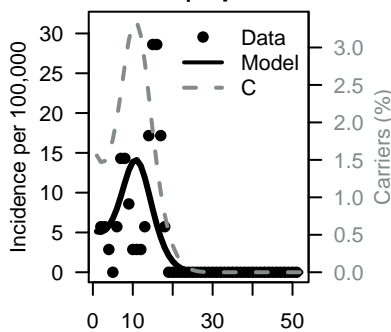
Calendar Weeks 2010
 a_0 -fold = 1.1; β_0 -fold = 12.2; $AIC_c = 40$

SEGUENEGA|csps gambo

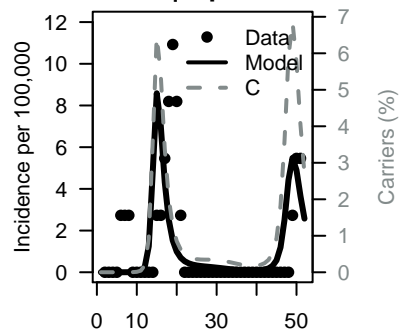
Calendar Weeks 2010
 a_0 -fold = 1; β_0 -fold = 21.3; $AIC_c = 200022$

SEGUENEGA|csps goubré

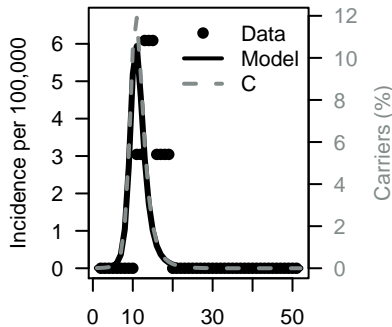
Calendar Weeks 2010
 a_0 -fold = 1.8; β_0 -fold = 8.2; $AIC_c = 46$

SEGUENEGA|csps kossouka

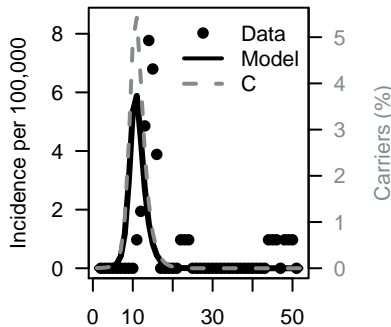
Calendar Weeks 2010
 a_0 -fold = 2.2; β_0 -fold = 9169119; $AIC_c = 72$

HOUNDÉ|csps founzan

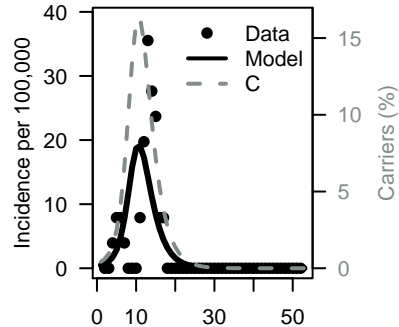
Calendar Weeks 2004
 a_0 -fold = 2.9; β_0 -fold = 3.5; $AIC_c = 40$

HOUNDÉ|csps kari

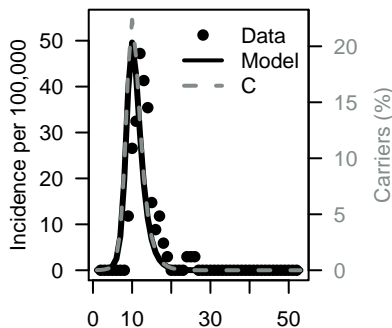
a_0 -fold = 1; β_0 -fold = 9.5; $AIC_c = 32$

HOUNDÉ|csps urbain

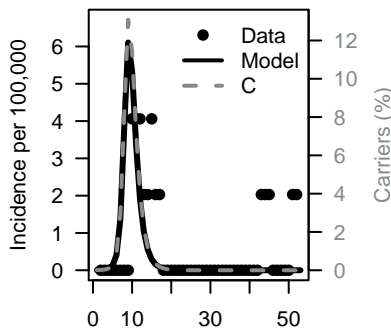
a_0 -fold = 1; β_0 -fold = 12.3; $AIC_c = 39$

HOUNDÉ|csps békuy

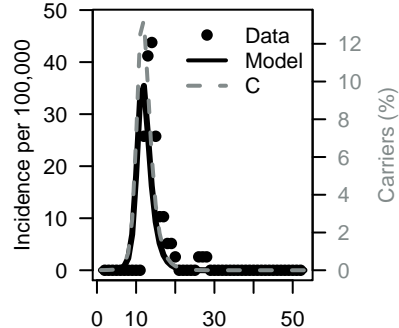
a_0 -fold = 1; β_0 -fold = 2.8; $AIC_c = 59$

HOUNDÉ|csps béréba

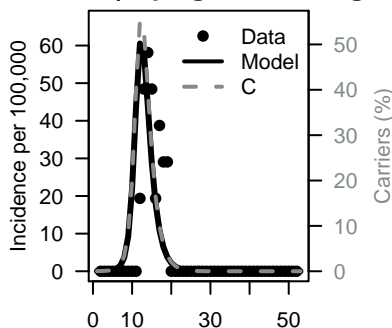
a_0 -fold = 1.7; β_0 -fold = 3.5; $AIC_c = 53$

HOUNDÉ|csps bouni

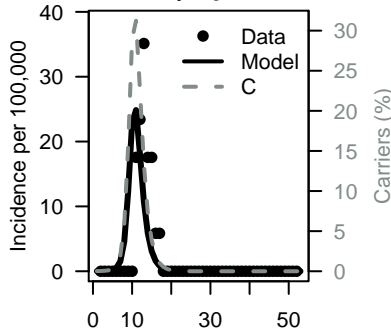
a_0 -fold = 1; β_0 -fold = 96995.8; $AIC_c = 36$

HOUNDÉ|csps founzan

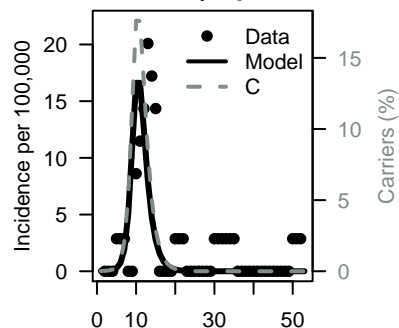
a_0 -fold = 2.4; β_0 -fold = 148.9; $AIC_c = 50$

HOUNDÉ|csps gombéléDougou

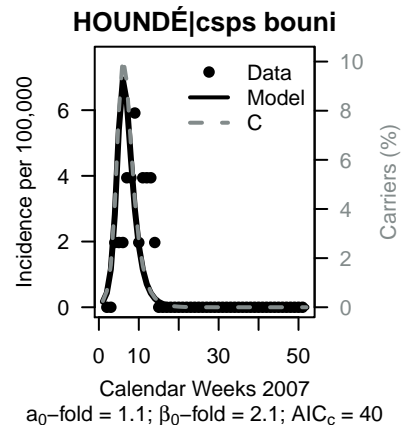
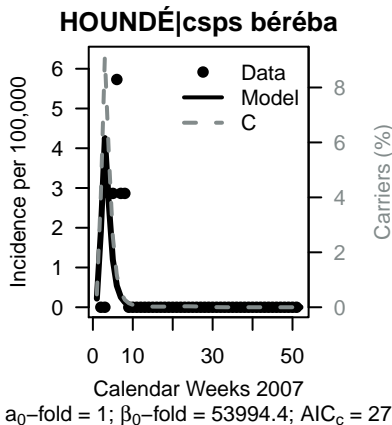
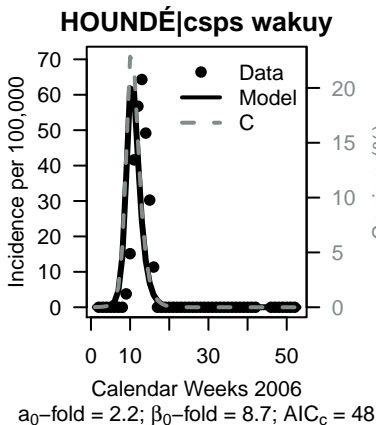
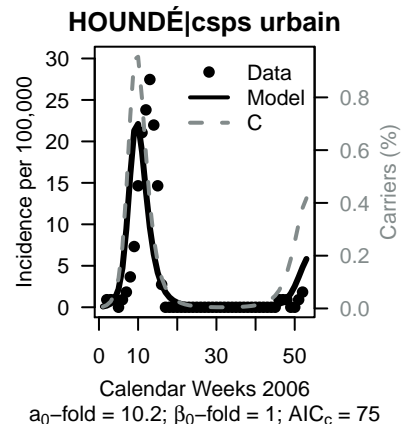
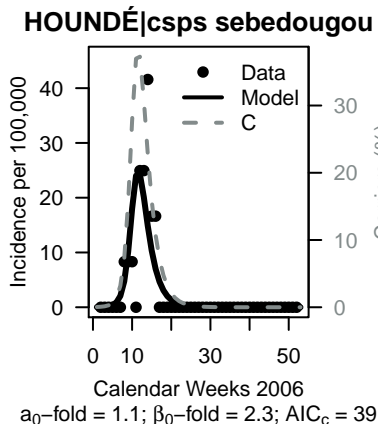
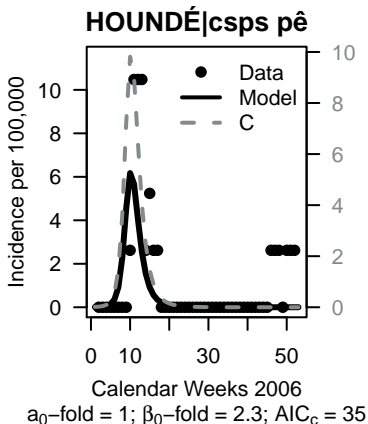
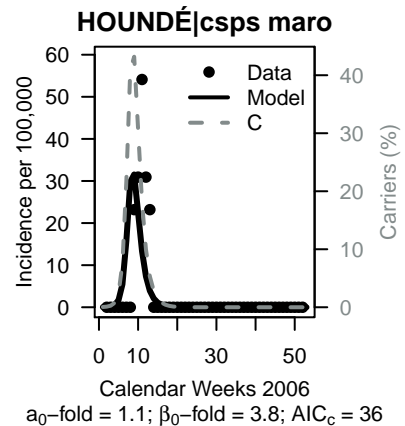
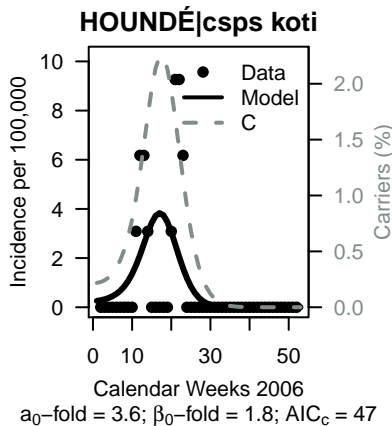
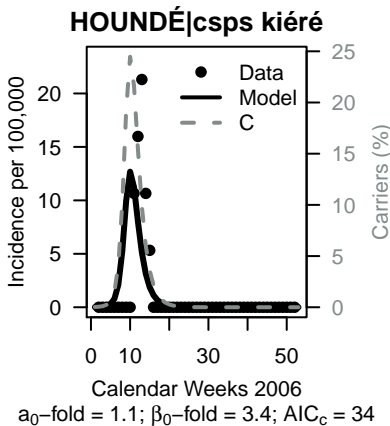
a_0 -fold = 1; β_0 -fold = 7.1; $AIC_c = 44$

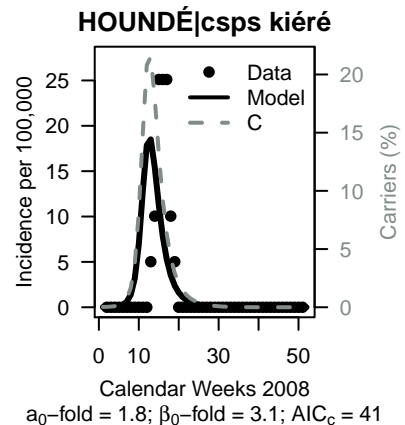
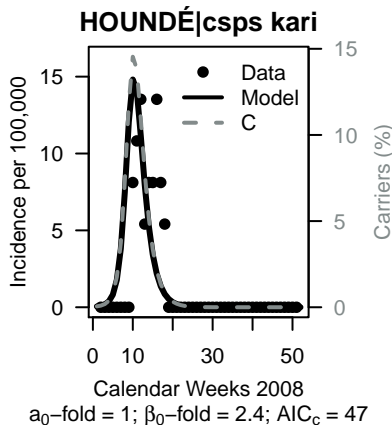
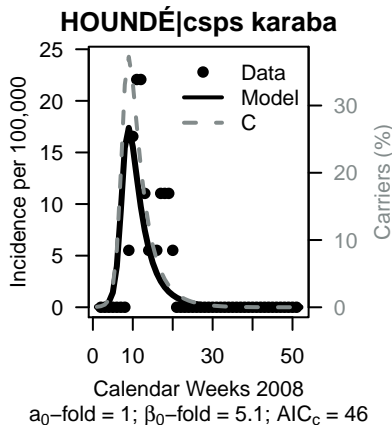
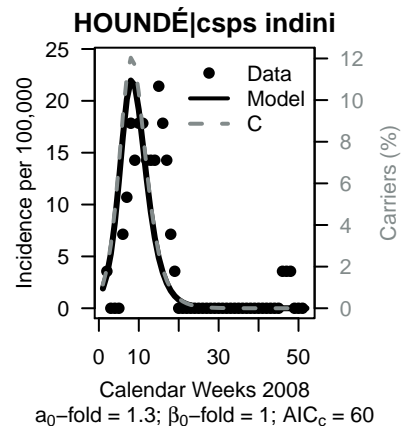
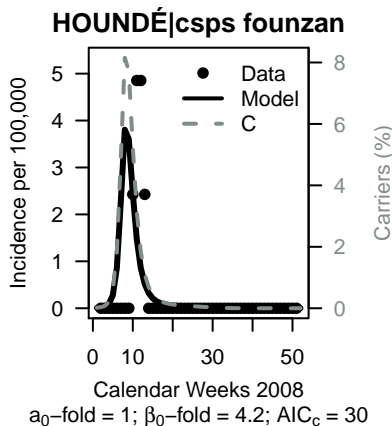
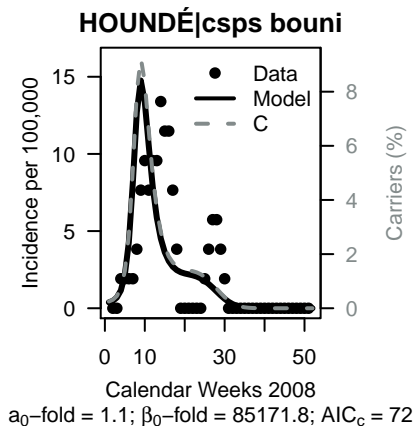
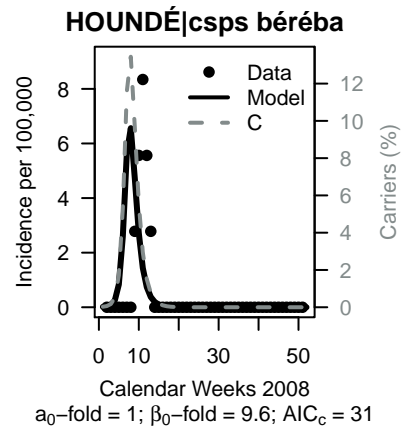
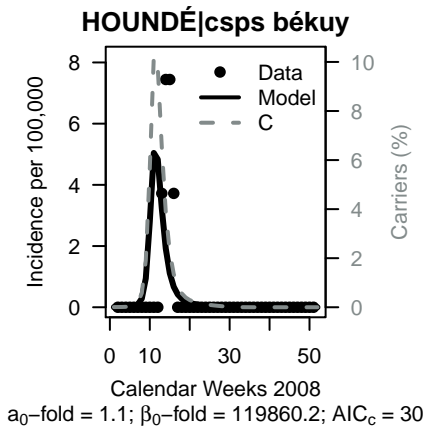
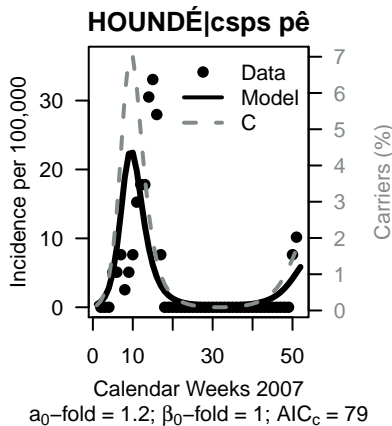
HOUNDÉ|csps karaba

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

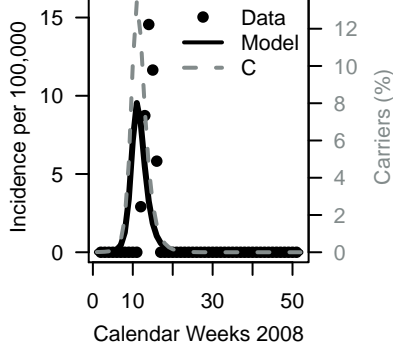
HOUNDÉ|csps kari

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



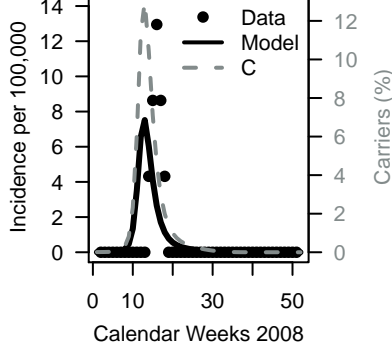


HOUNDE|csps koti



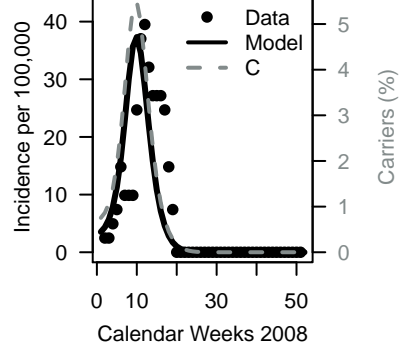
a_0 -fold = 1.2; β_0 -fold = 14; AIC_c = 35

HOUNDE|csps kouloho



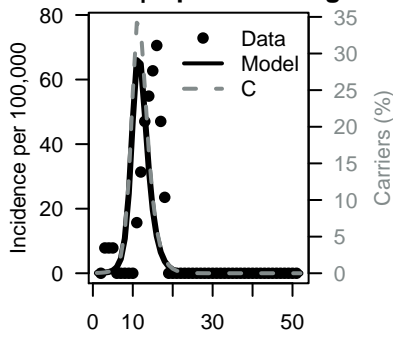
a_0 -fold = 1.2; β_0 -fold = 7.3; AIC_c = 32

HOUNDE|csps pê



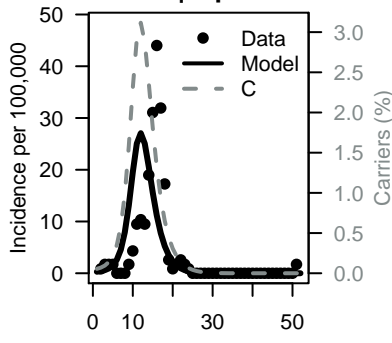
a_0 -fold = 5.7; β_0 -fold = 15.4; AIC_c = 75

HOUNDE|csps sebedougou



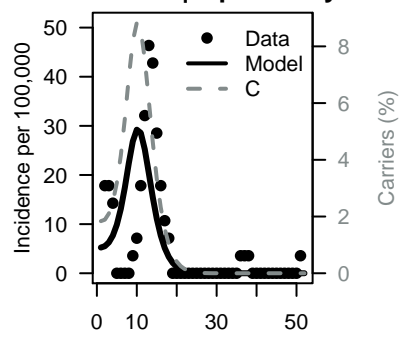
a_0 -fold = 1.4; β_0 -fold = 4.4; AIC_c = 47

HOUNDE|csps urbain



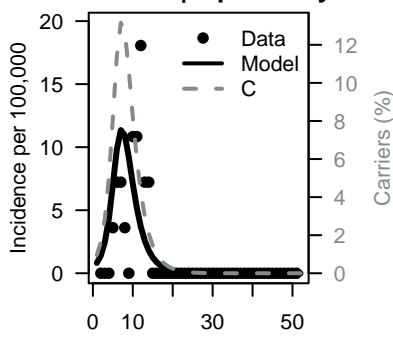
a_0 -fold = 7.7; β_0 -fold = 5.1; AIC_c = 135

HOUNDE|csps wakuy



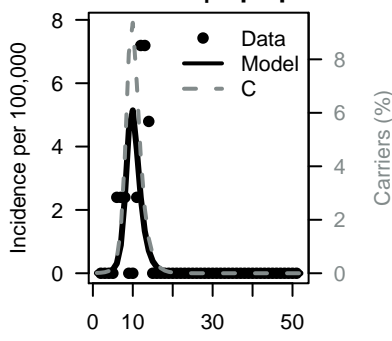
a_0 -fold = 1.5; β_0 -fold = 70728.2; AIC_c = 72

HOUNDE|csps békuy



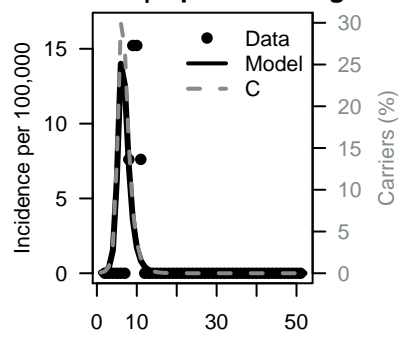
a_0 -fold = 1; β_0 -fold = 4; AIC_c = 47

HOUNDE|csps pê

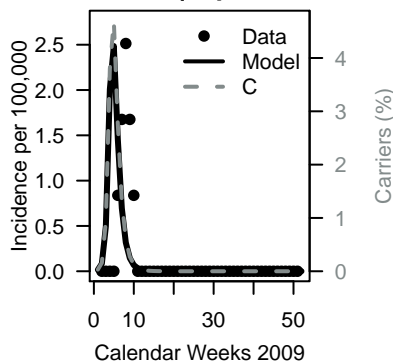
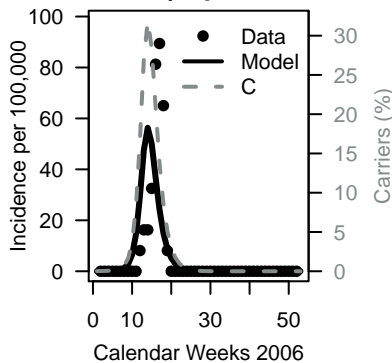
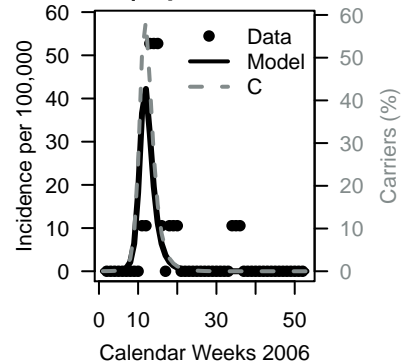
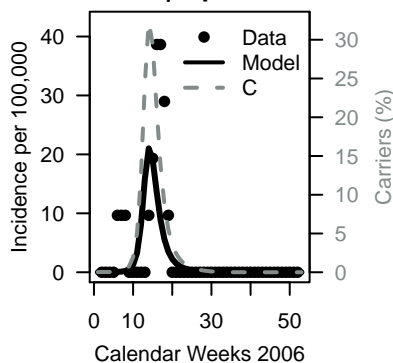
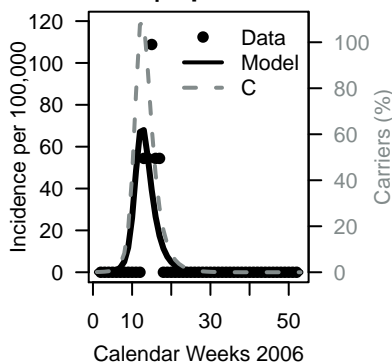
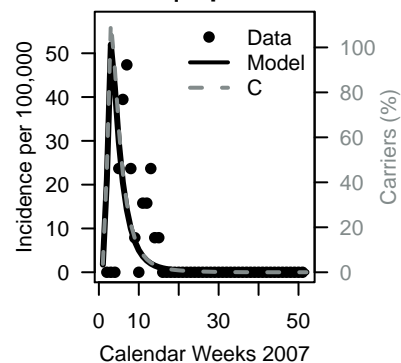
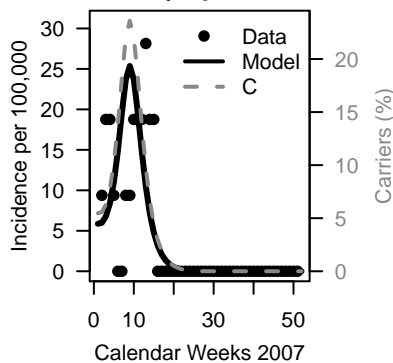
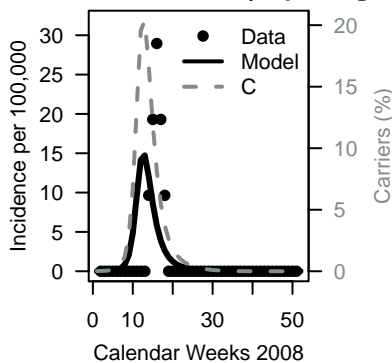
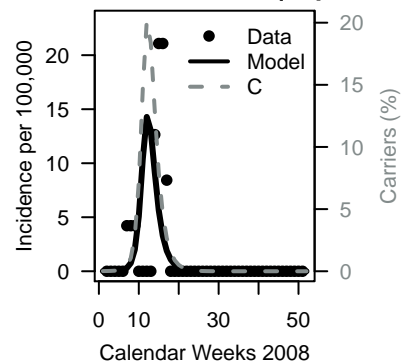


a_0 -fold = 1.1; β_0 -fold = 369371.7; AIC_c = 32

HOUNDE|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

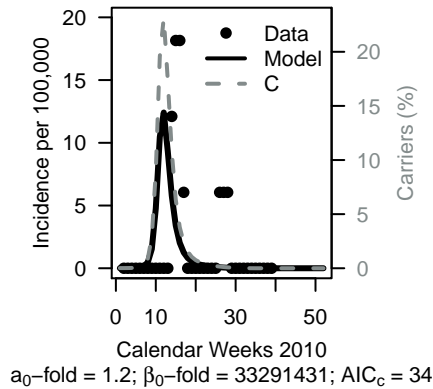
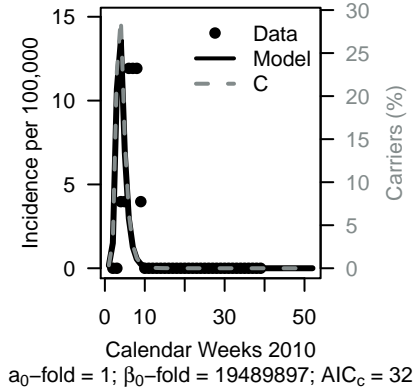


Figure 4. Distribution of parameters estimates and models performance stats, for 64 health center–years with complete data, across four health districts of Burkina faso (2004–2010).

