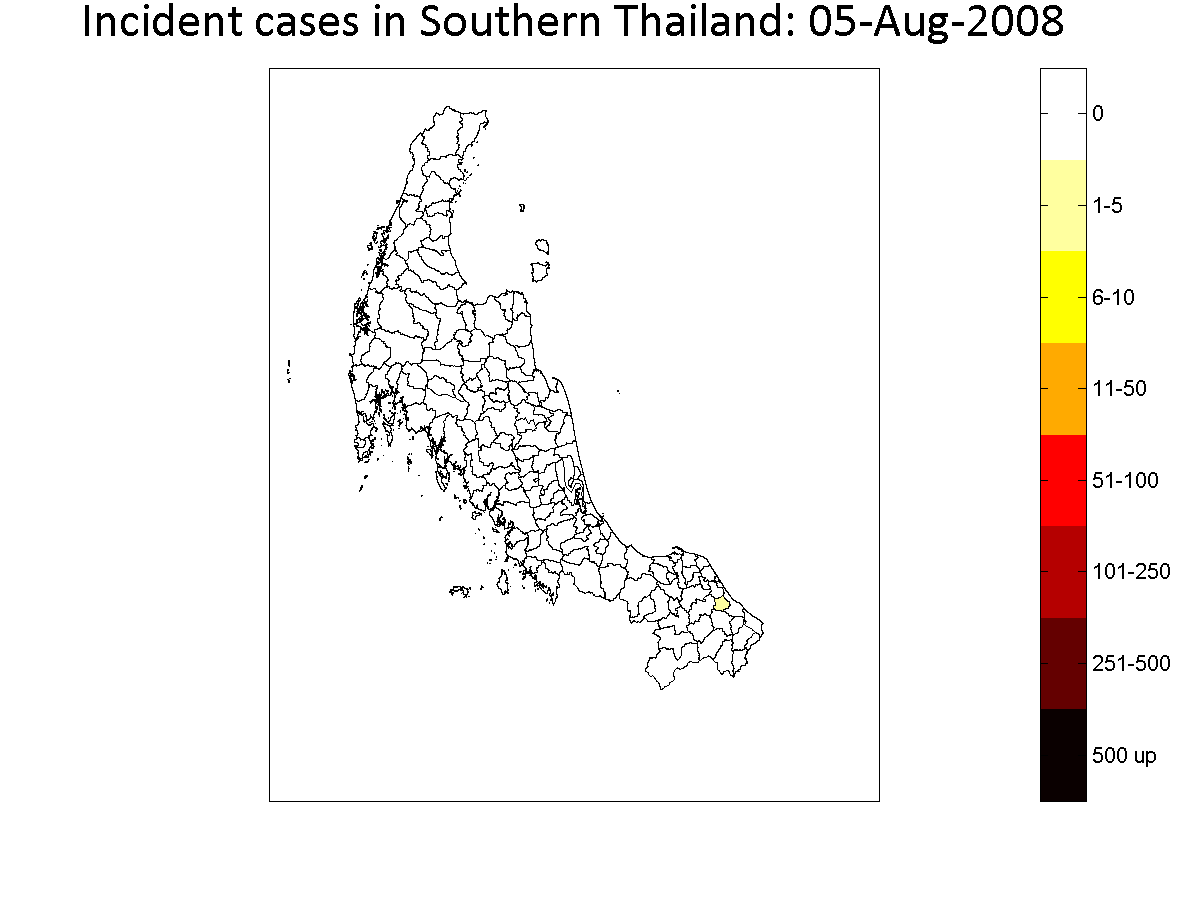
**Supplemental Table S1.** Maximum log-likelihood estimator (MLE) of HP model with one LDT events.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **District (LDT event)** | **MLE** | **Onset (week)** | **Total Cases** | **DoS** |
| BanTaKhun, Surat Thani | -64915.33 | 38 | 235 | >2 |
| Lamae, Chumphon | -69479.27 | 39 | 112 | >2 |
| Takua Thung, Phang Nga | -57336.49 | 40 | 194 | >2 |
| Thalang, Phuket | -70927.30 | 40 | 1735 | >2 |
| Ao Luek, Krabi | -60894.14 | 41 | 390 | >2 |
| Kathu, Phuket | -55900.33 | 40 | 344 | >2 |
| Waeng, Narathiwat | -70251.73 | 8 | 371 | 2 |
| Mai Kaen, Pattani | -56129.07 | 6 | 124 | 2 |
| Ratsada, Trang | -76619.35 | 37 | 23 | >2 |
| YanTaKhao, Trang | -81484.72 | 37 | 198 | >2 |
| Chawang, Nakhon Si Thammarat | -71859.29 | 41 | 775 | >2 |
| Kanchanadit, Surat Thani | -67441.14 | 42 | 511 | >2 |
| Cho-airong, Narathiwat | -58087.80 | 7 | 209 | 2 |
| SabaYoi, Songkhla | -69877.75 | 15 | 3689 | >2 |

**Supplemental Table S2.** Coefficients of the HP model with driving distance, [] with no LDT events and with the set of 3 best-fit LDT events.

|  |  |  |
| --- | --- | --- |
| **Coefficients** | **The model (HP)** **without LDT events** | **The model (HP)** **with 3-LDT events** |
| **Value (95% CI)** | **Value (95% CI)** |
|  | 0.662 (0.661 – 0.664) | 0.580 (0.577 - 0.583) |
|  | 14.168 (14.134 – 14.202) | 1.160x10-5 (1.155x10-5 - 1.165x10-5) |
|  | -13.198 (-13.167 - -13.230) | -13.666 (-13.601 - -13.731) |
|  | -51.391 (-51.268 - -51.514) | -7.280(-7.245 - -7.314) |
|  | -178.516 (-178.087 - -178.944) | -53.498 (-53.245 - -53.751) |
|  | 10.156 (10.131 – 10.180) | 15.332 (15.259 - 15.404) |



**Supplemental animation:** The spread of CHIKV across Southern Thailand over the course of the epidemic from August 2008 to December 2010.