

# Country Summary: Sierra Leone

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## 1 Intro

These estimates are created using the BB8 model with Admin 2 estimates using a RW1xICAR interaction model with area-specific random slopes.

Sierra Leone has 5 Admin 1 areas and 16 Admin 2 areas.

All uncertainty intervals displayed in subsequent figures are 95% intervals.

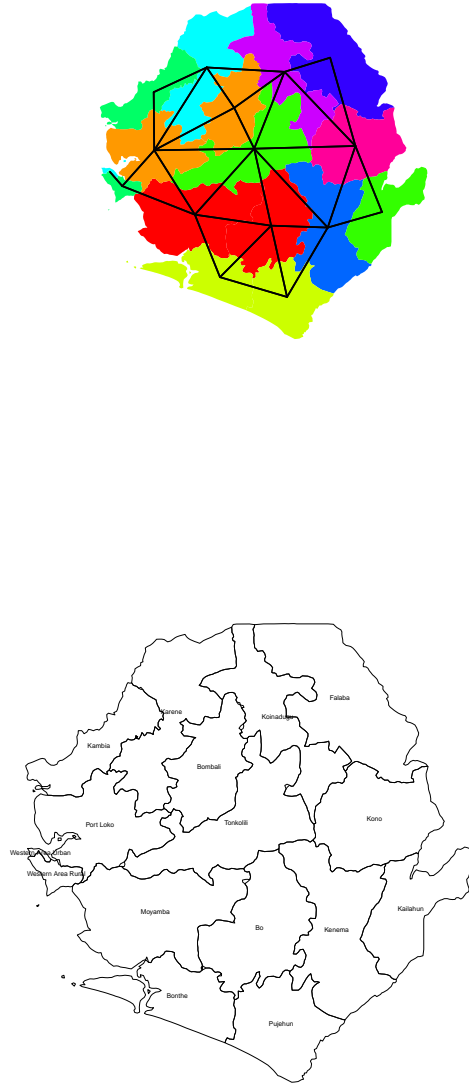


Figure 1: Top: The neighborhood structure of Admin 2 areas. Bottom: The names of Admin 2 areas.

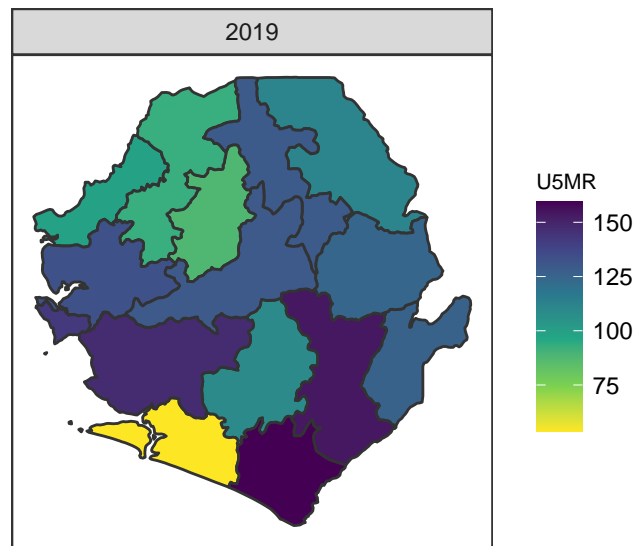


Figure 2: Median estimates of U5MR (deaths per 1000 children) in 2019.

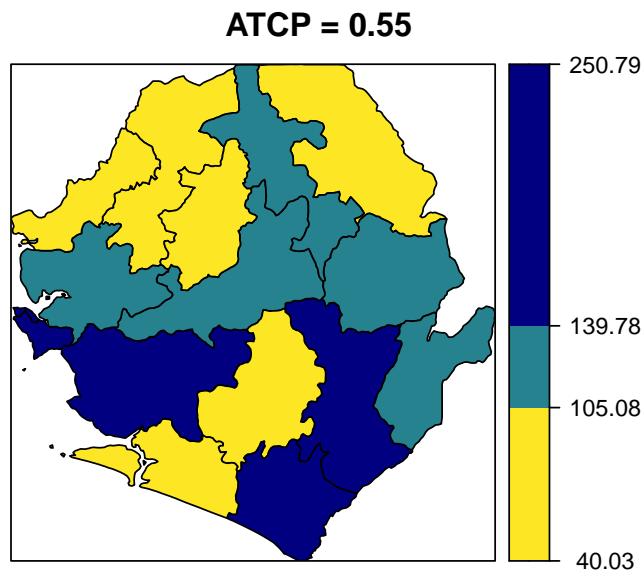
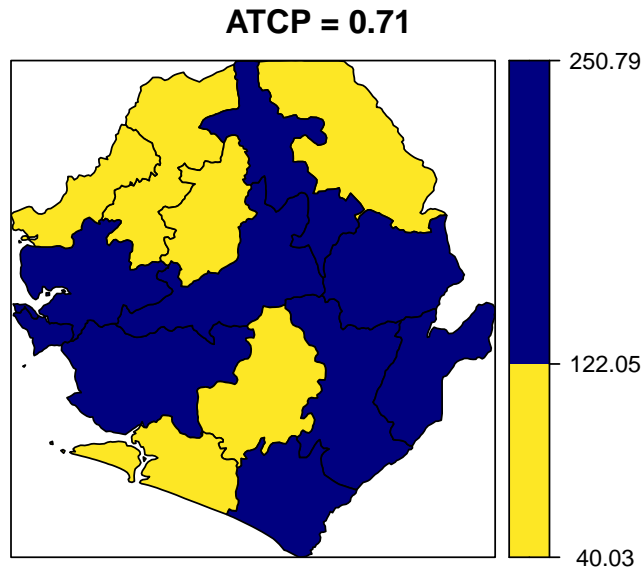


Figure 3: Expression of uncertainty of U5MR (deaths per 1000 children) based on the average true classification probability (ATCP) in 2019.

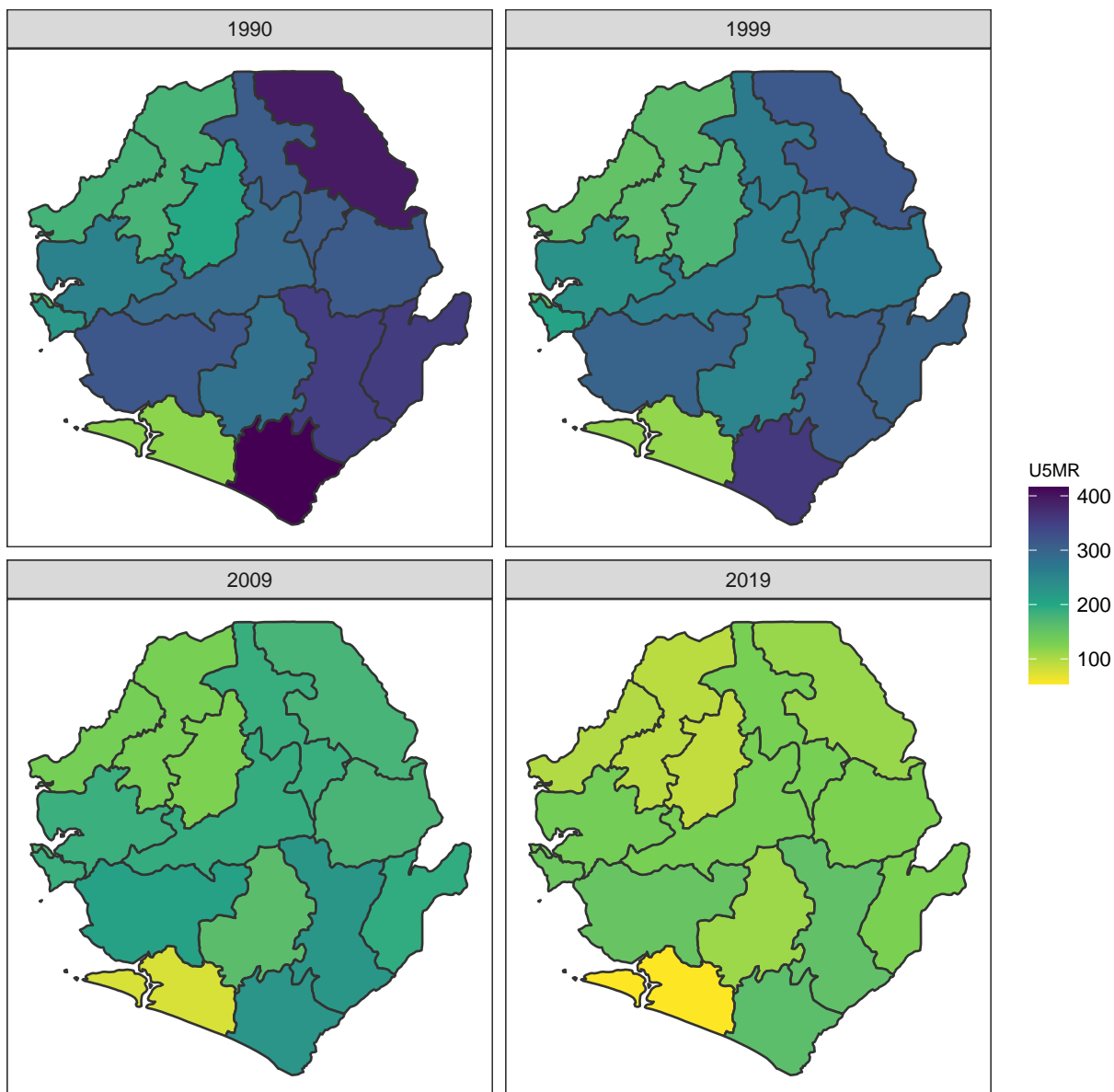
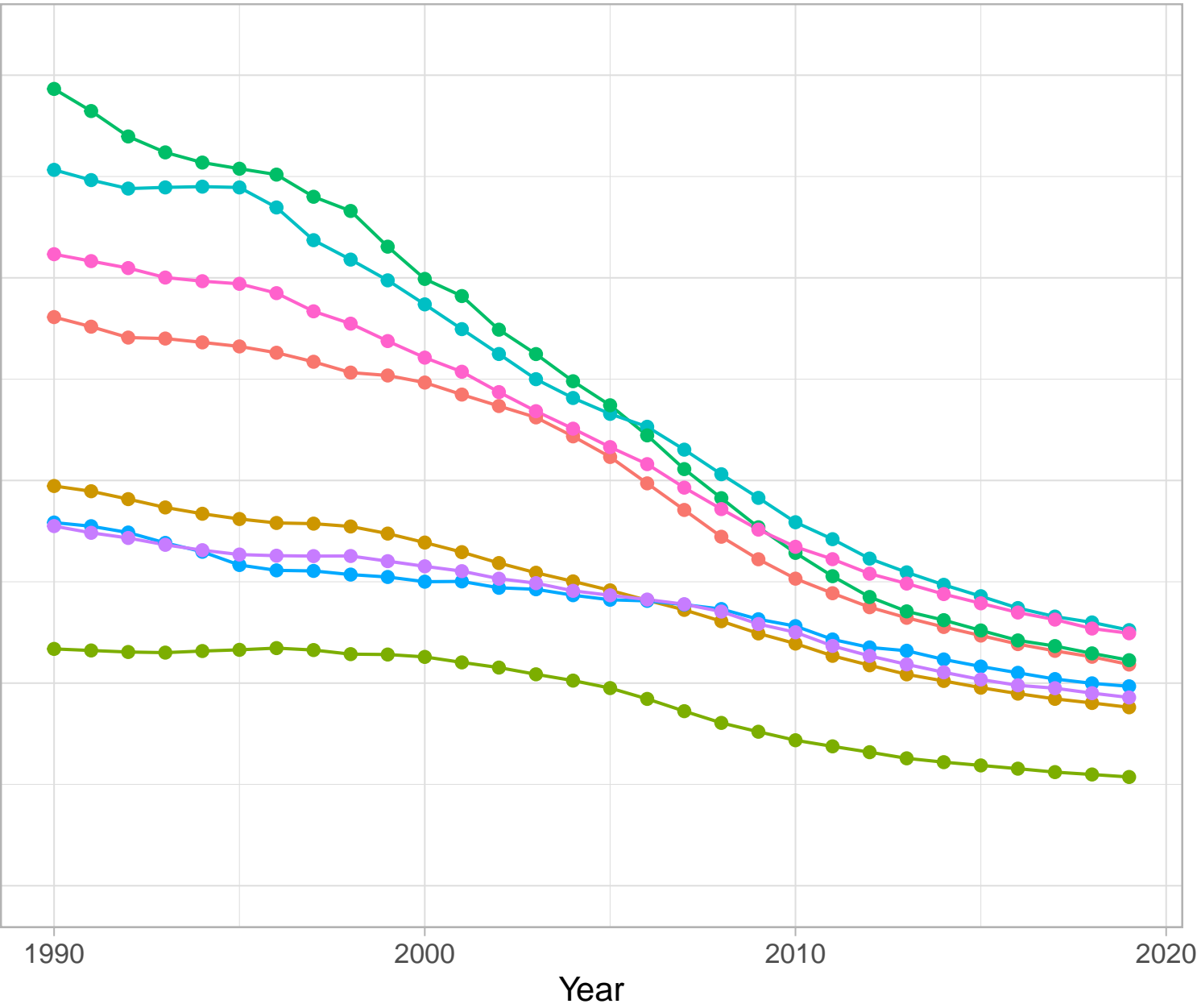


Figure 4: Median estimates for selected years.

# Sierra Leone

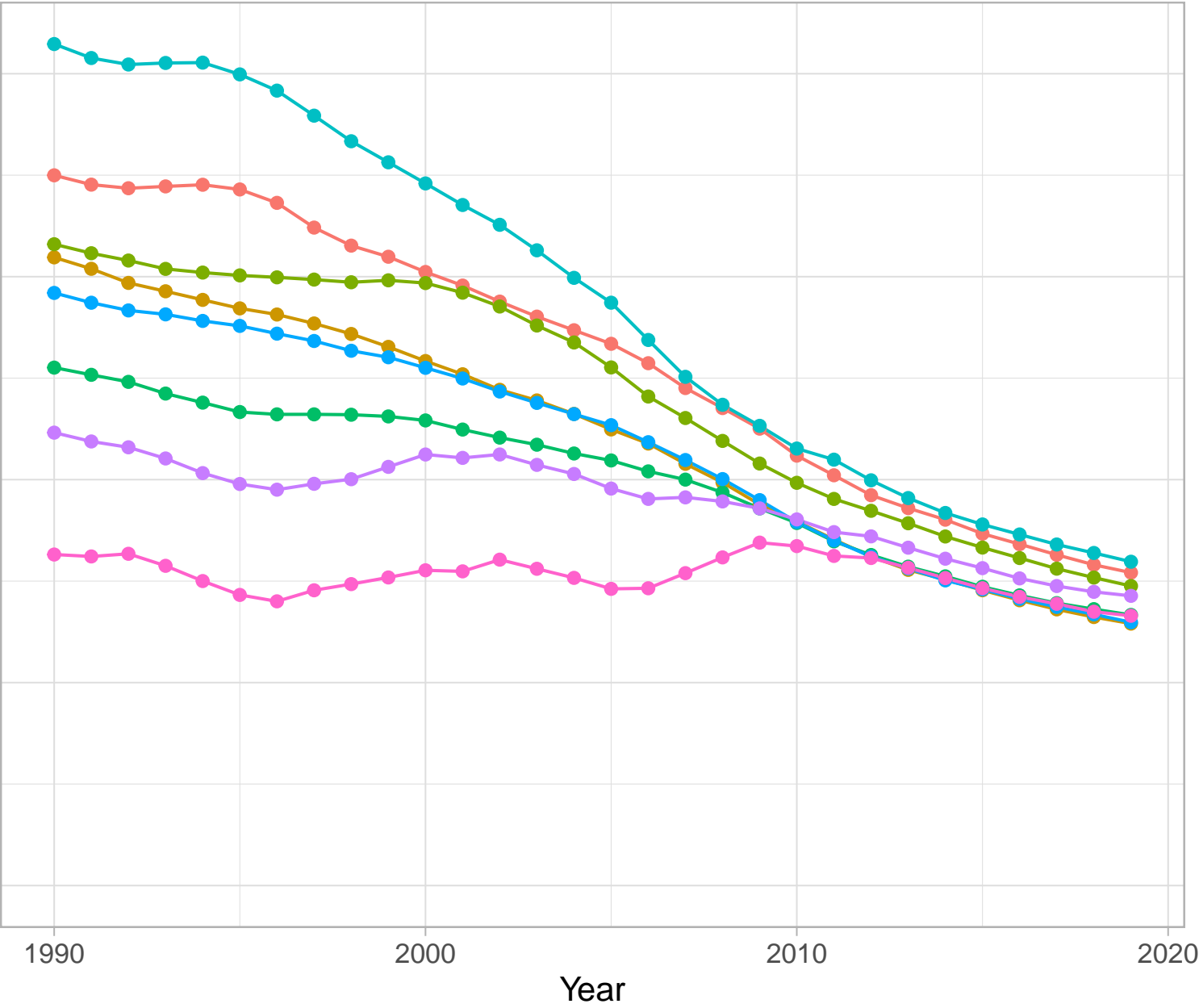
U5MR: deaths per 1000 live births



- Bo
- Bombali
- Bonthe
- Falaba
- Kailahun
- Kambia
- Karene
- Kono
- Konde

# Sierra Leone

U5MR: deaths per 1000 live births



- Kenema
- Koinadugu
- Moyamba
- Port Loko
- Pujehun
- Tonkolili
- Western Area Rural
- Western Area Urban

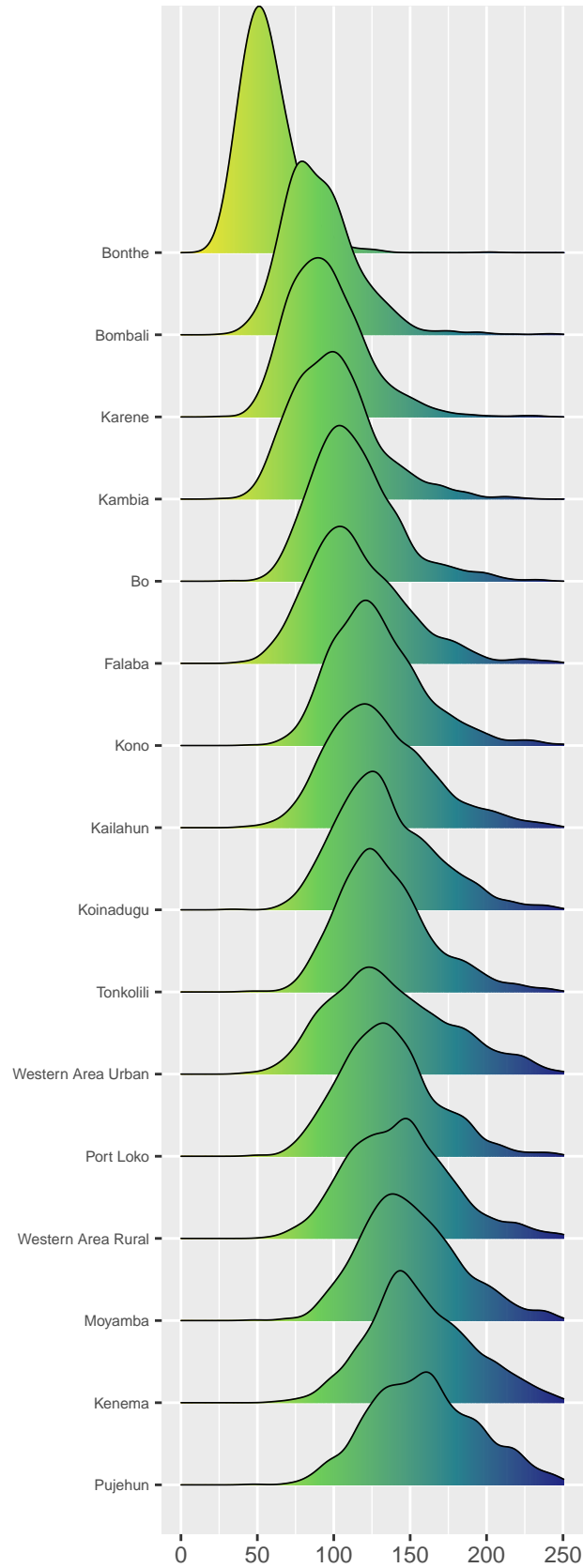


Figure 5: Posterior distributions of U5MR (deaths per 1000 children) in 2019. Areas are ordered by median estimated U5MR in 2019.



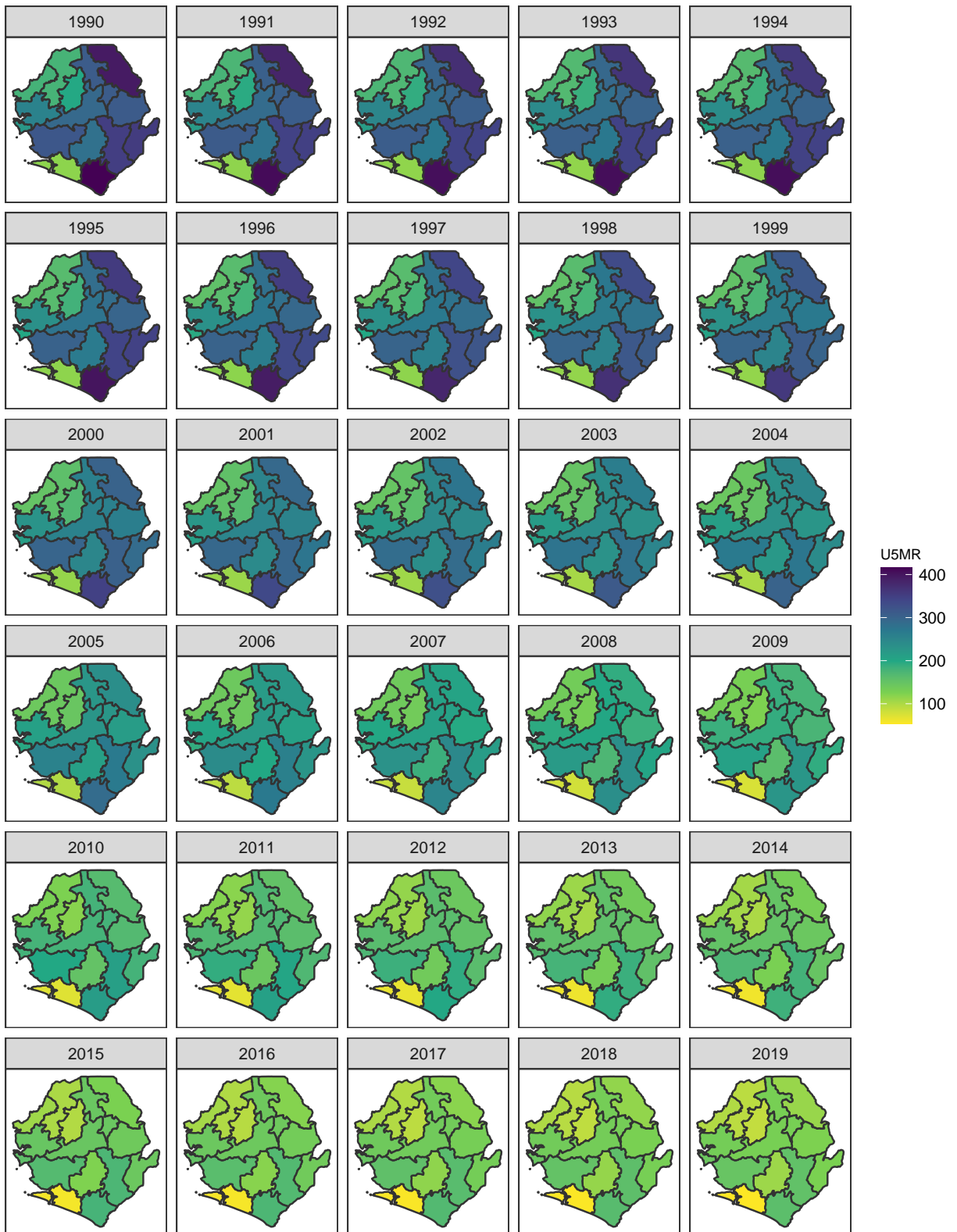


Figure 6: Posterior medians of U5MR (deaths per 1000 births) by Admin 2 area and year.

## 2 National Survey Data

Survey	Urban	Rural	Total
2013	158	277	435

Table 1: Number of clusters by urban/rural designation by survey for Sierra Leone.

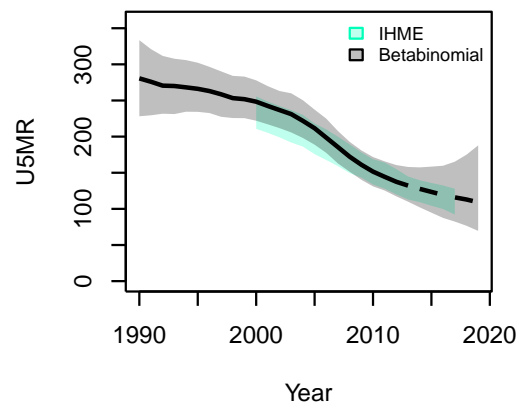
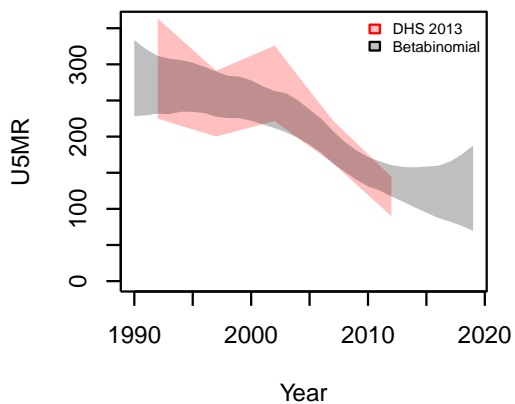
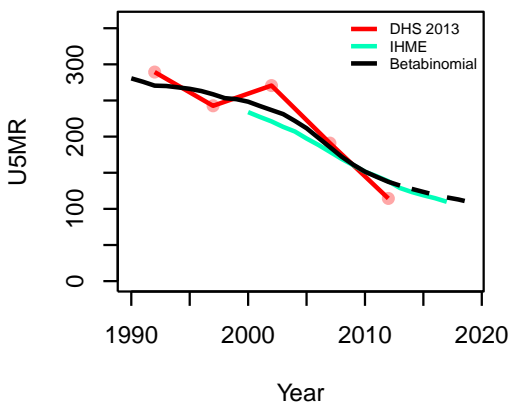
Age	No. Deaths	No. Agemonths
0	1952	44148
1-11	3360	434948
12-23	1382	420260
24-35	813	392559
36-47	402	363283
48-59	211	337840

Table 2: Numbers of agemonths and deaths by age for DHS 2013.

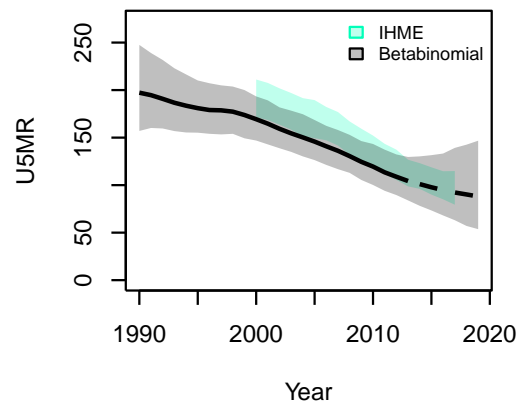
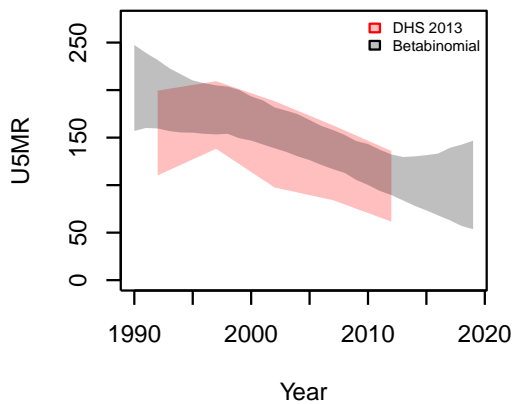
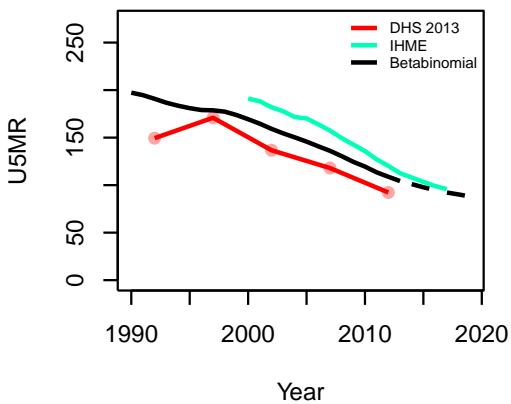
### 3 Admin 2 Figures

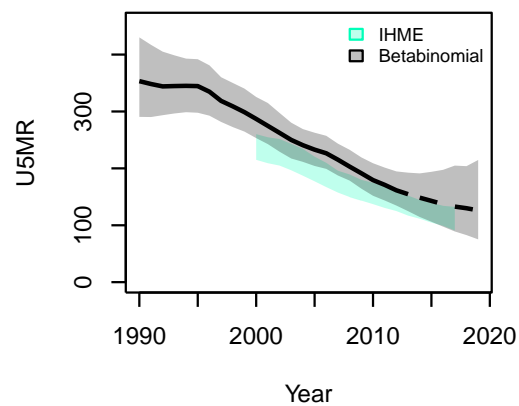
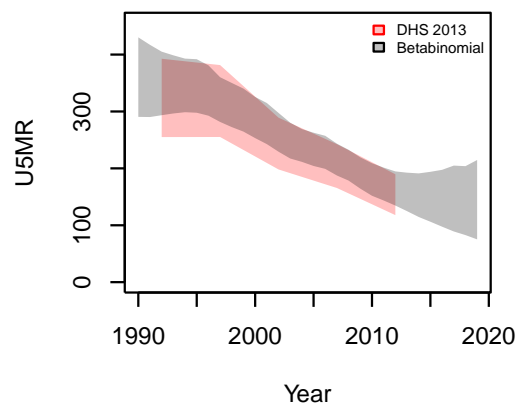
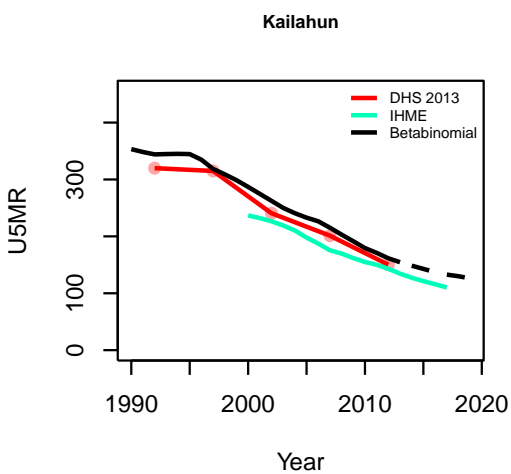
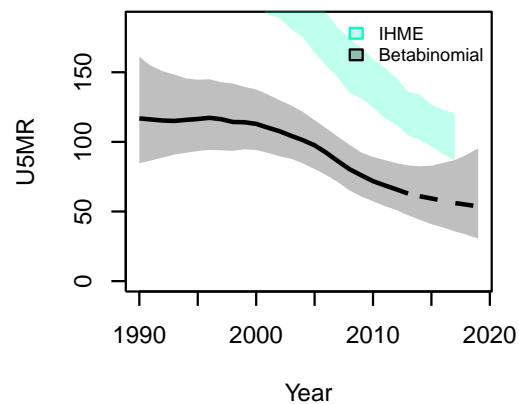
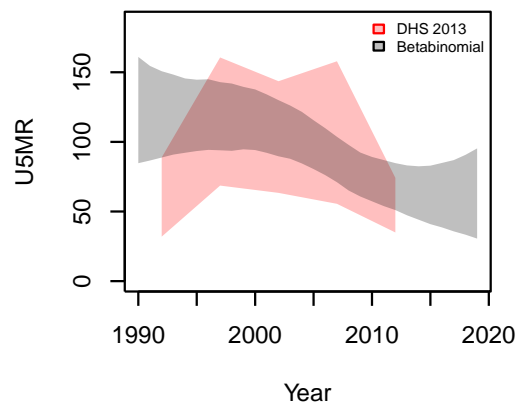
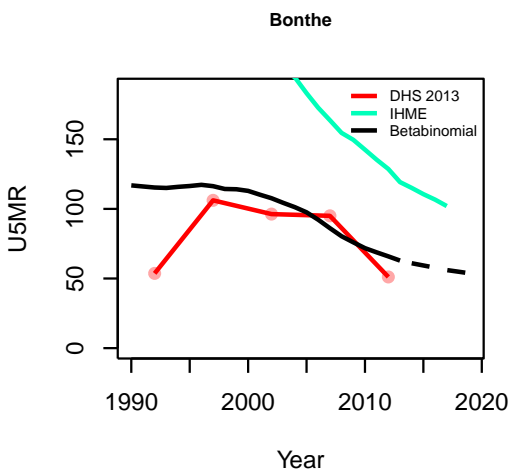
The following few pages have estimates by area across time with underlying data included. There are six admin areas per page. Colored lines with circular points and light grey uncertainty bands are 5-year survey-weighted estimates of U5MR for years 1990–1994 up to 2015–2019 depending on survey timing. For a survey that ends in the middle of a 5-year period, we plot the estimates at the mid-point of the years in that interval for which the survey provides data. Black lines and corresponding intervals represent posterior medians and 95% uncertainty intervals respectively for the betabinomial model.

Bo

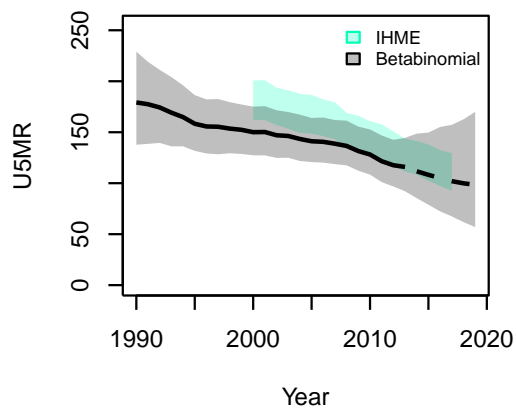
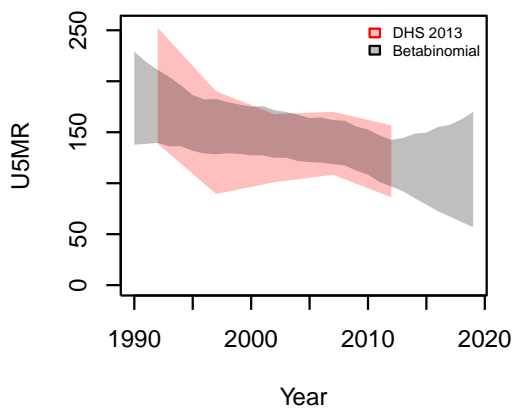
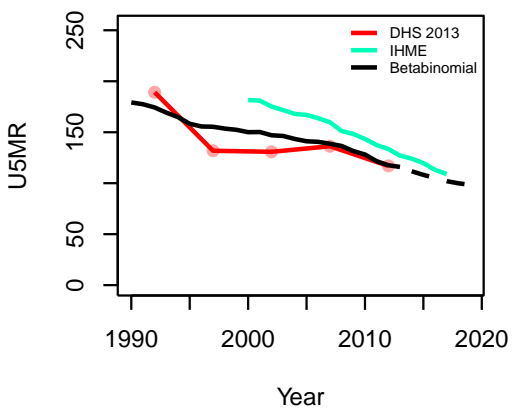


Bombali

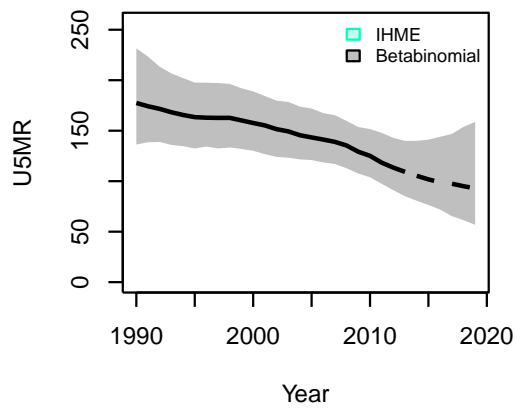
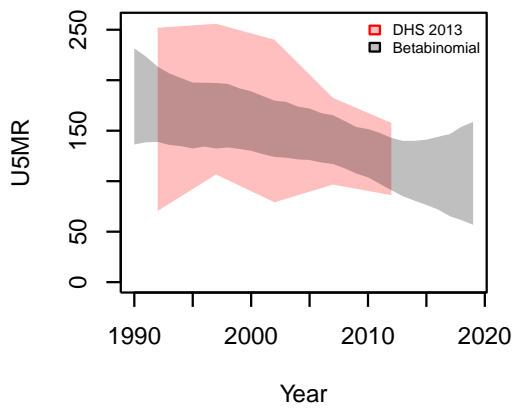
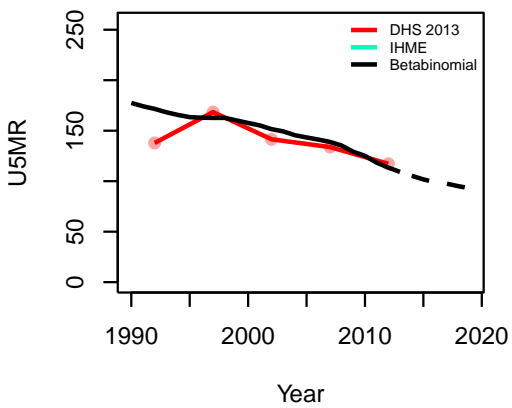




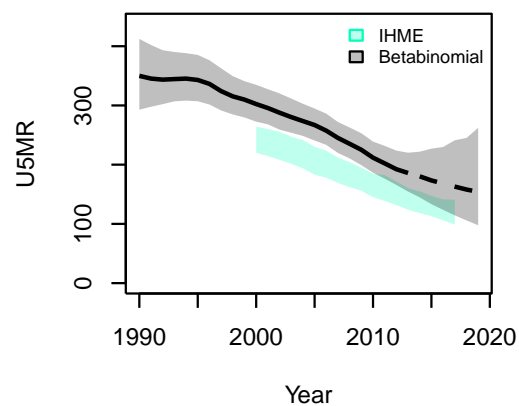
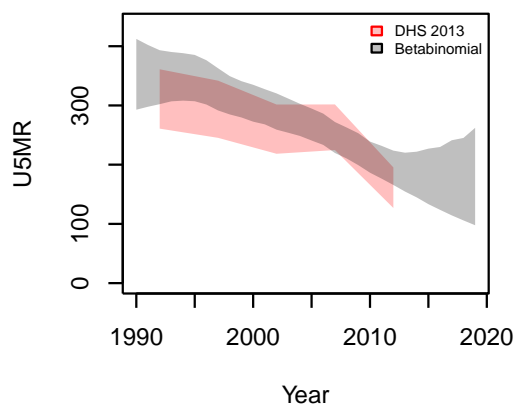
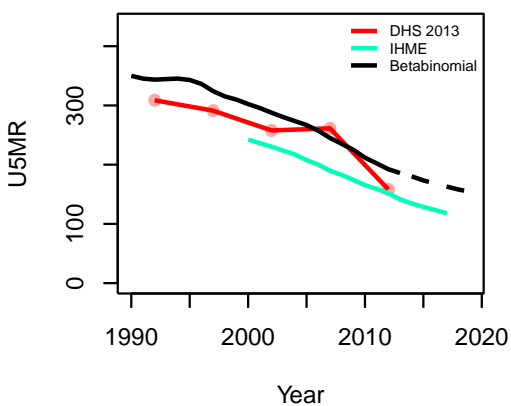
Kambia



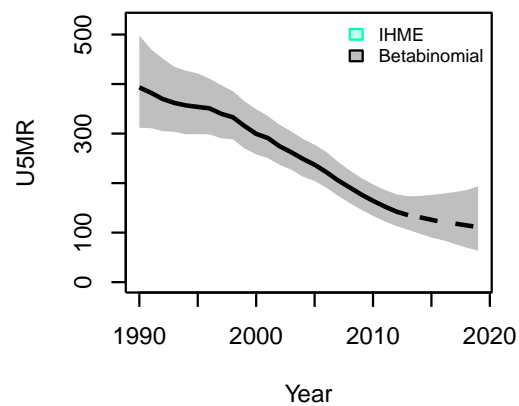
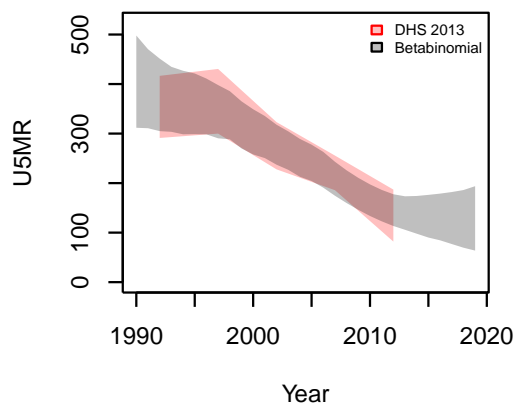
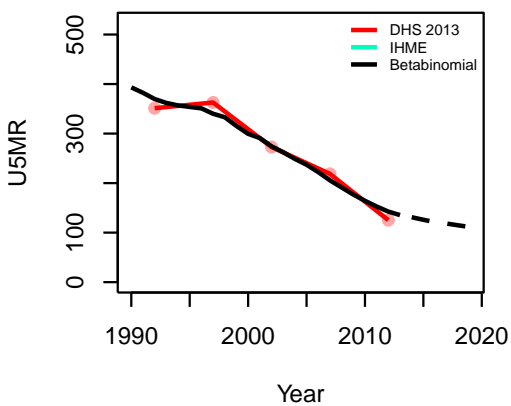
Karene



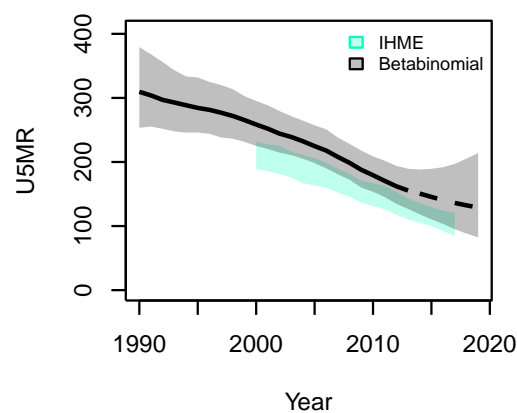
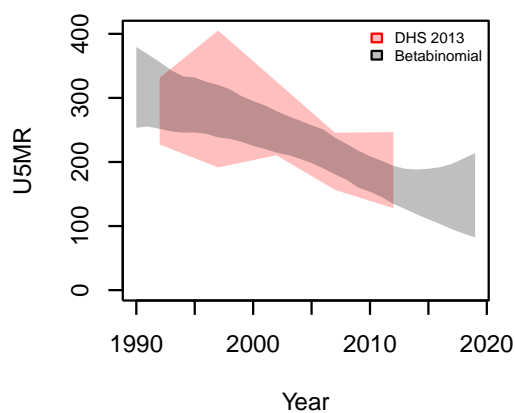
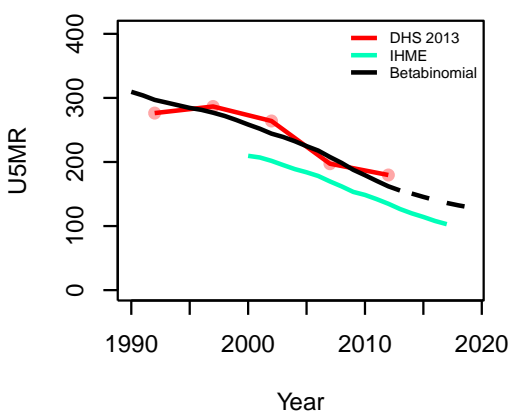
Kenema



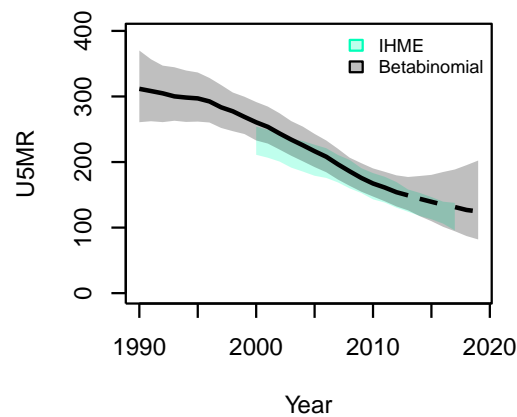
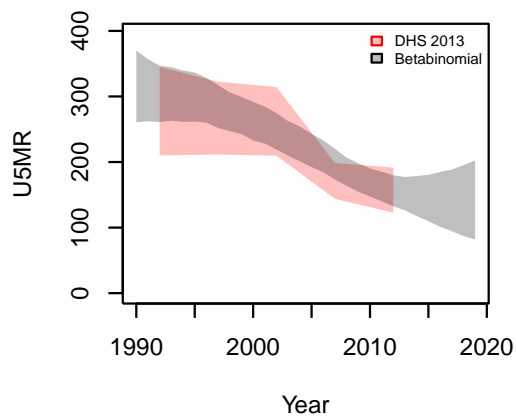
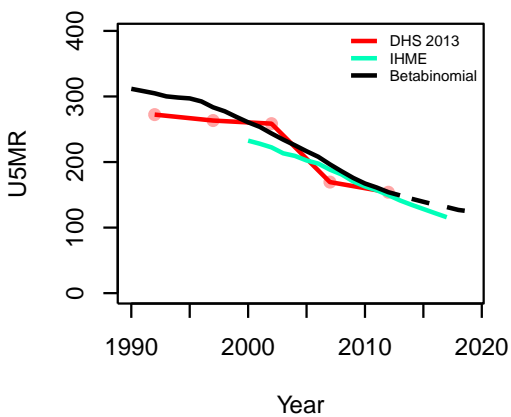
Falaba



Koinadugu

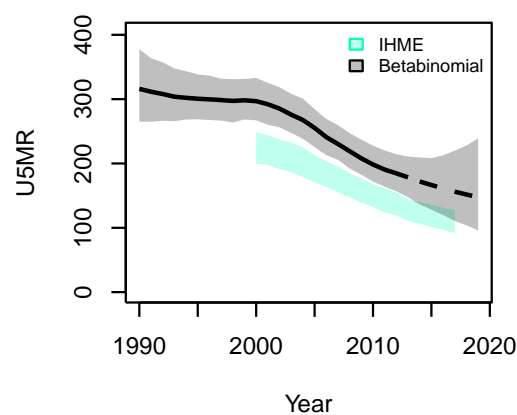
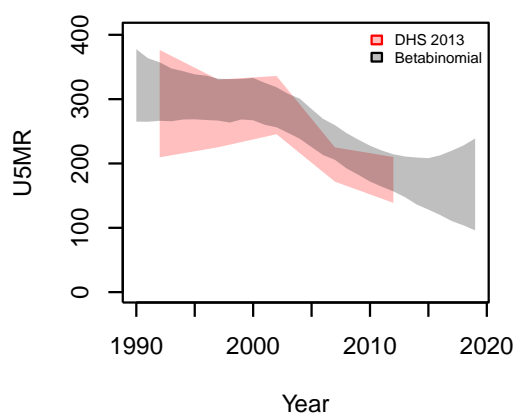
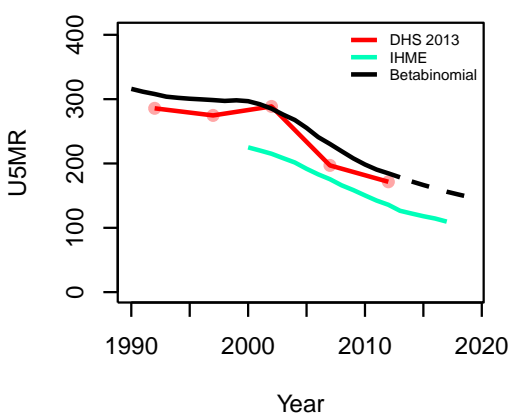


Kono

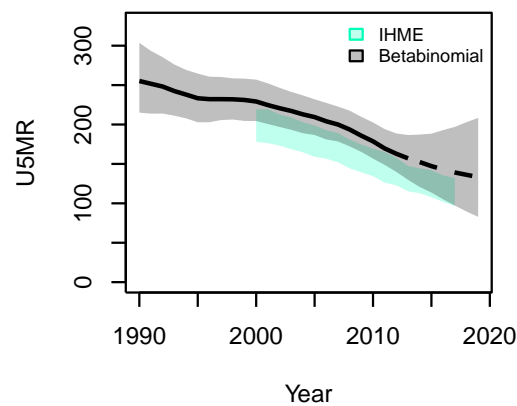
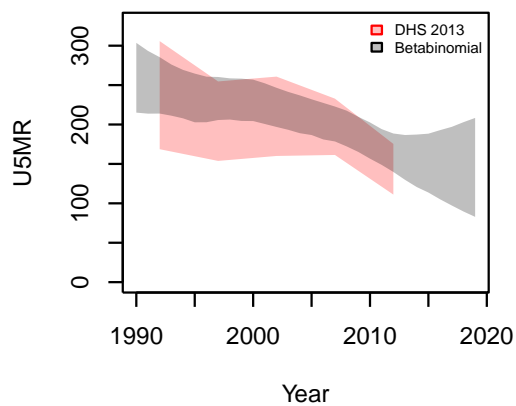
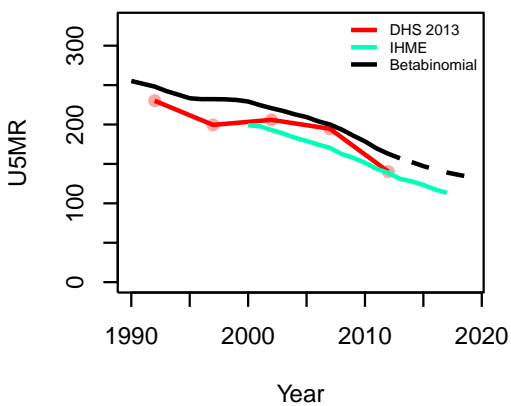




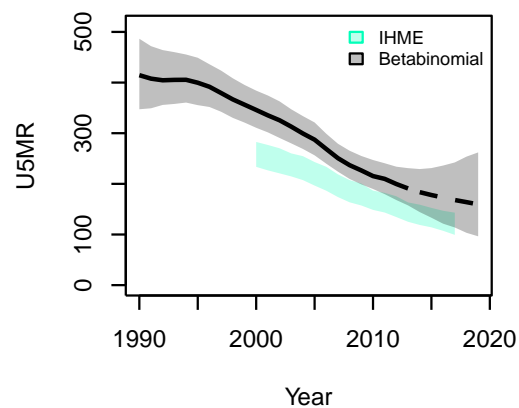
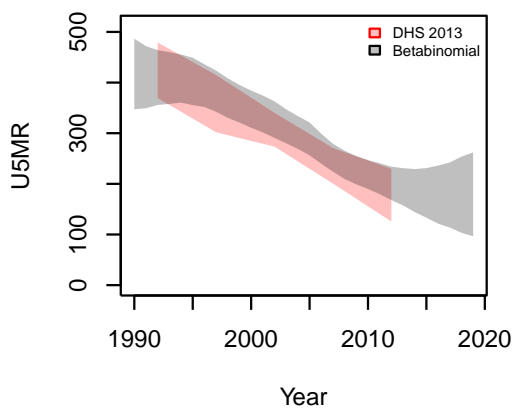
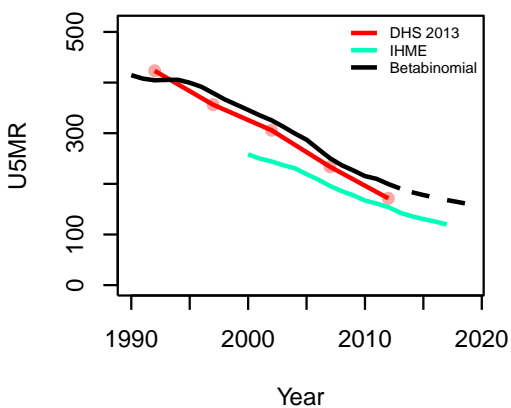
Moyamba



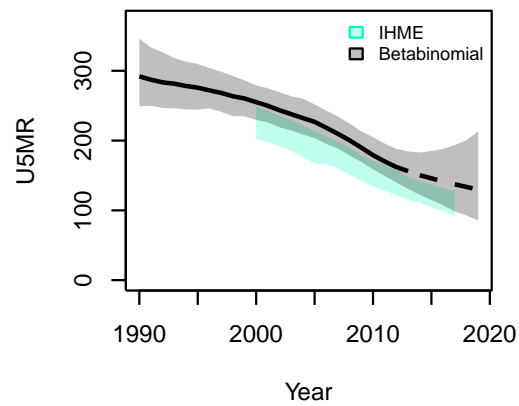
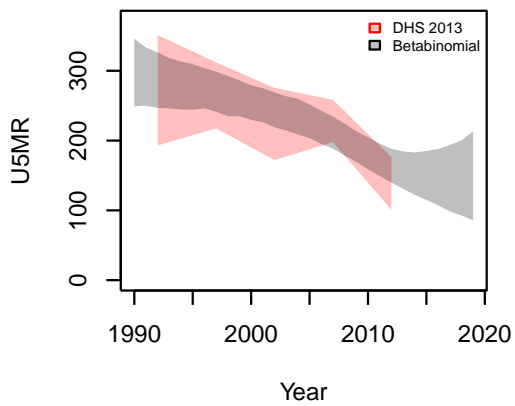
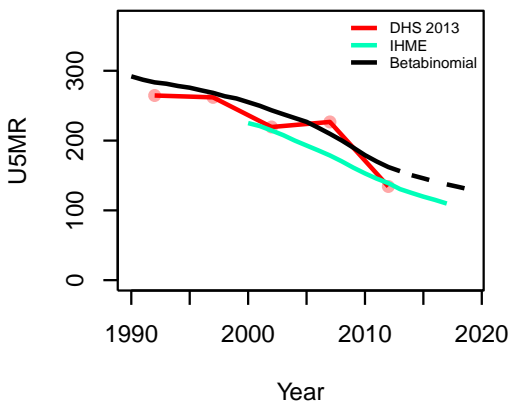
Port Loko

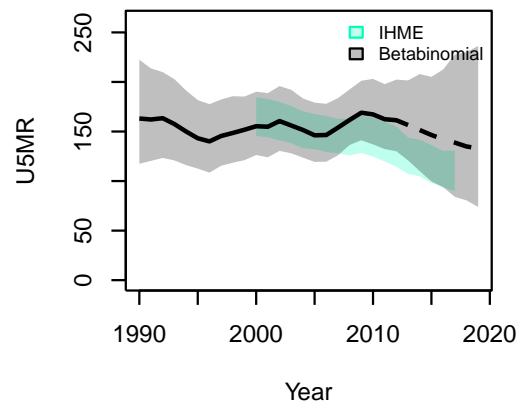
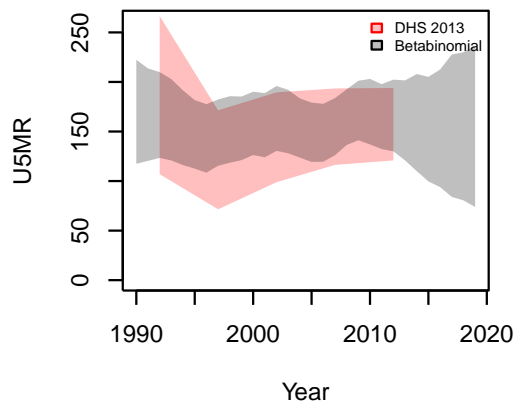
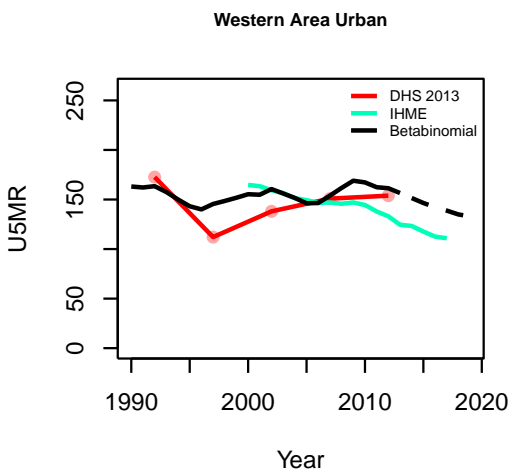
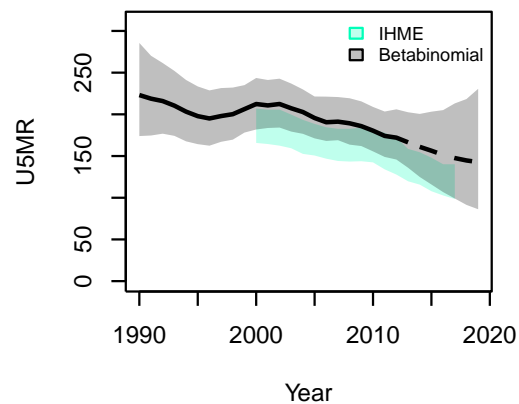
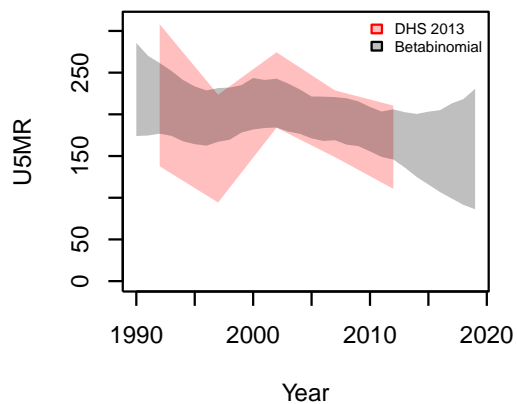
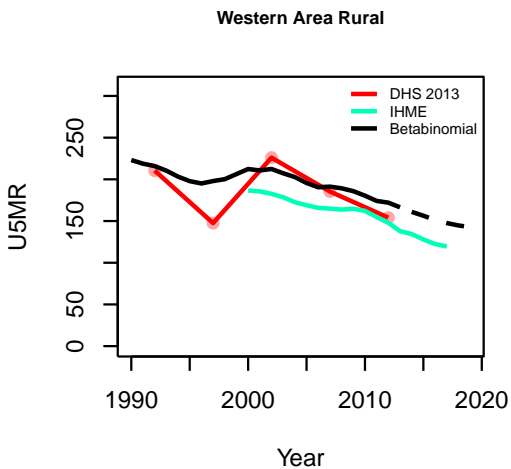


Pujehun



Tonkolili





## 4 National Figures and Results

	Median	Interval	Median- Bench	Interval
0	44.10	(39.7,50.2)	45.40	(41.1,51.4)
1-11	6.60	(5.9,7.3)	6.80	(6.1,7.5)
12-23	3.10	(2.8,3.5)	3.20	(2.9,3.6)
24-35	2.00	(1.8,2.3)	2.10	(1.8,2.3)
36-47	1.10	(0.9,1.3)	1.10	(1,1.3)
48-59	0.60	(0.5,0.7)	0.60	(0.5,0.8)

Table 3: Monthly hazards in terms of 1000 children by age band for national, unstratified model for Sierra Leone.

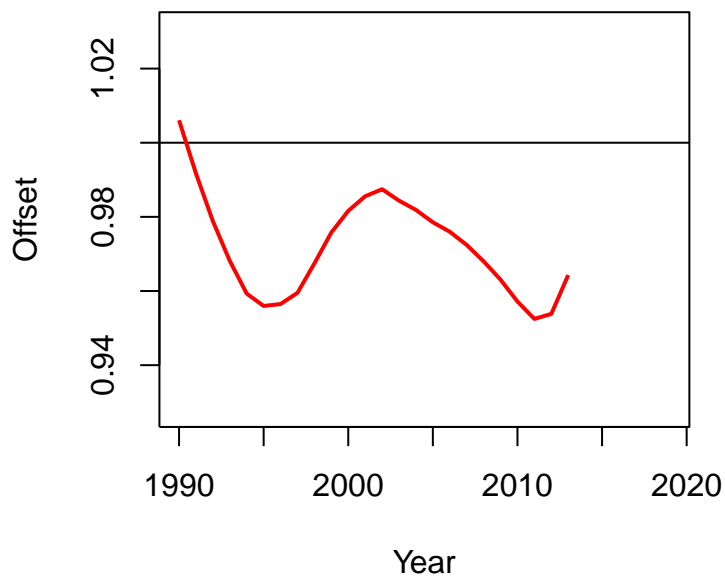


Figure 7: Benchmark offsets:  $BENCH(t) = U5MR^*(t)/U5MR(t)$  where  $U5MR^*(t)$  is modeled estimate and  $U5MR(t)$  is UN-IGME estimate.

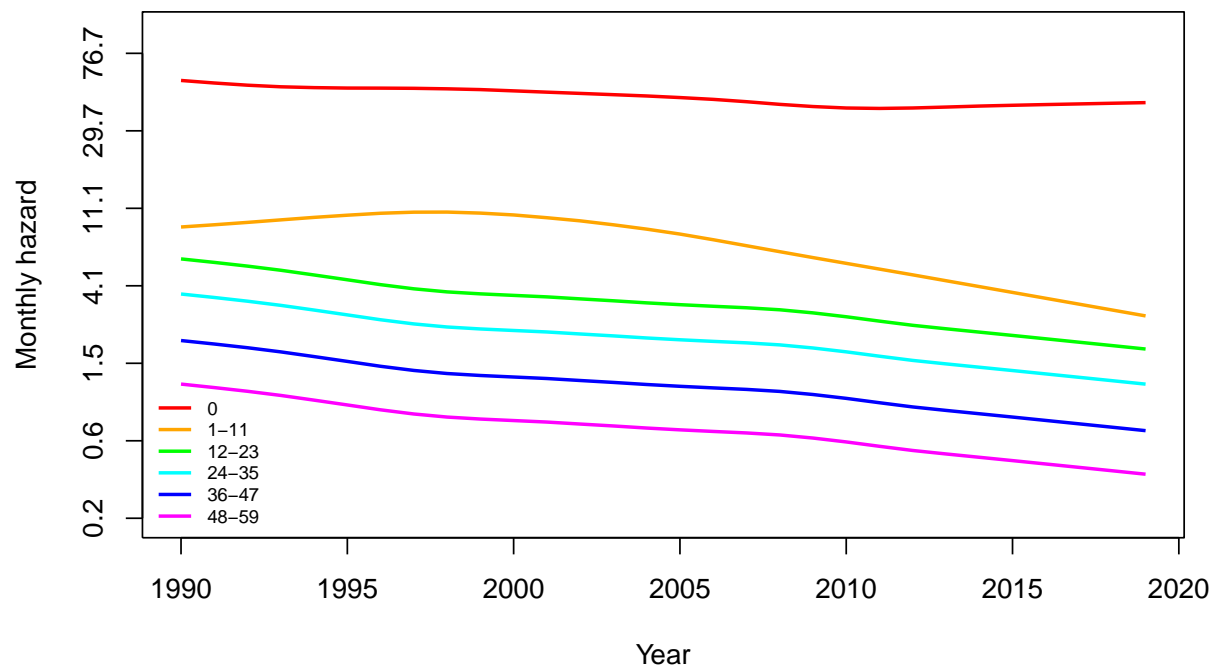


Figure 8: Monthly hazards of death in terms of U5MR (number deaths per 1000 children) by agebands.

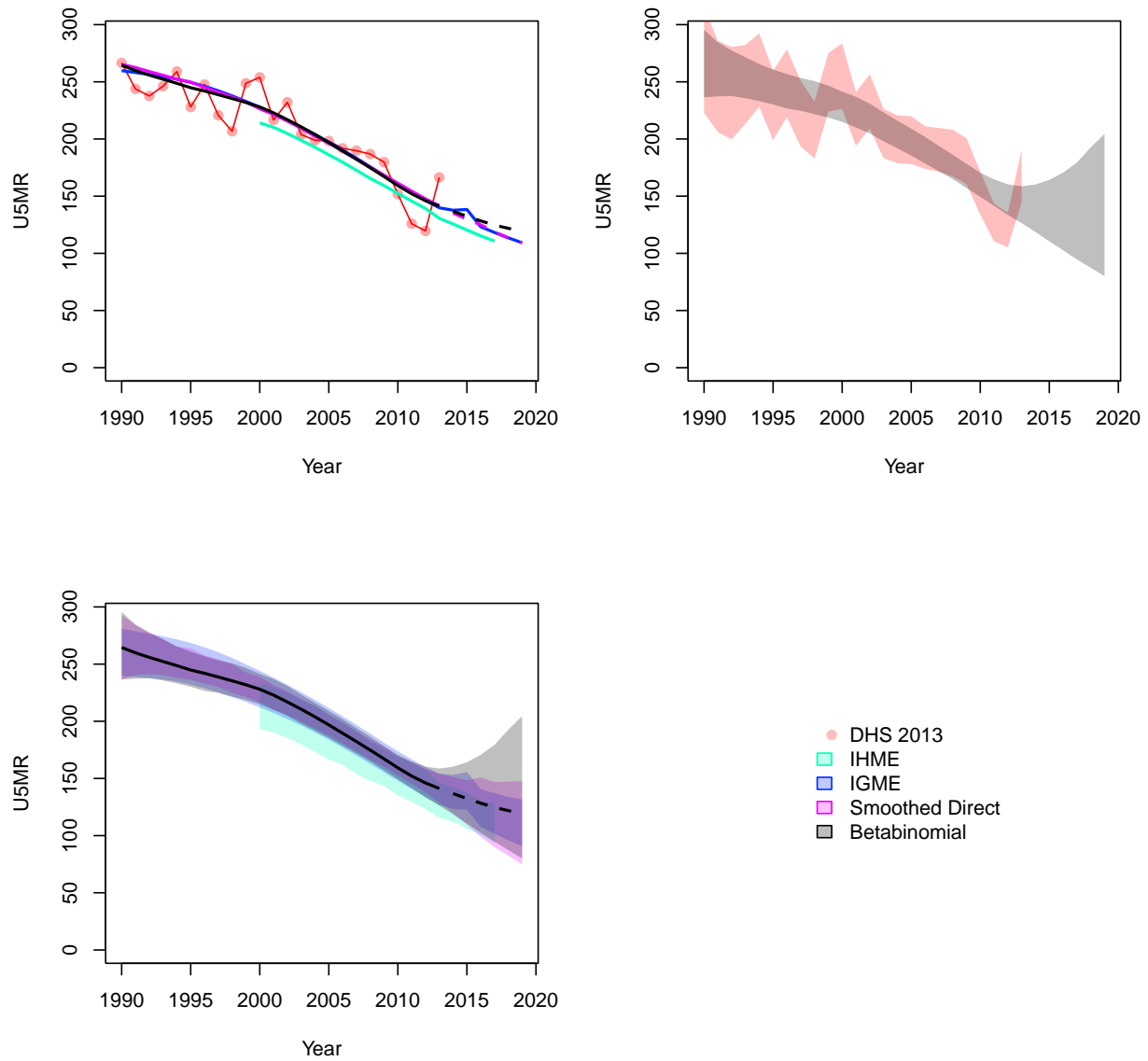
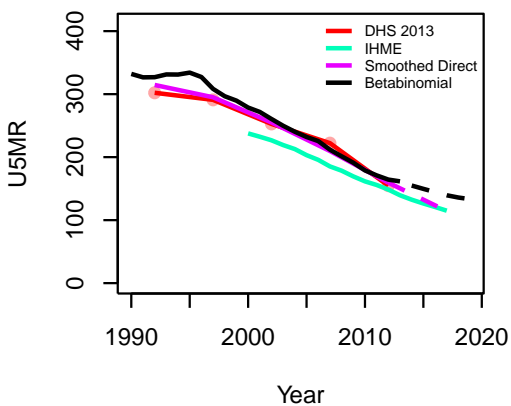


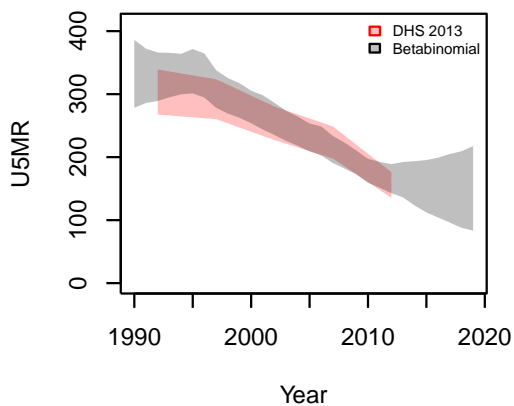
Figure 9: Benchmarked U5MR rates per 1000 live births. Top: DHS direct estimates with national trends from IHME GBD, UN-IGME, Smoothed Direct and Betabinomial estimates. Middle: 95% uncertainty intervals for DHS data. Bottom: IHME GBD, UN-IGME, Smoothed Direct and Betabinomial estimates with for the unstratified model. 95% uncertainty intervals

## 5 Admin 1 Figures

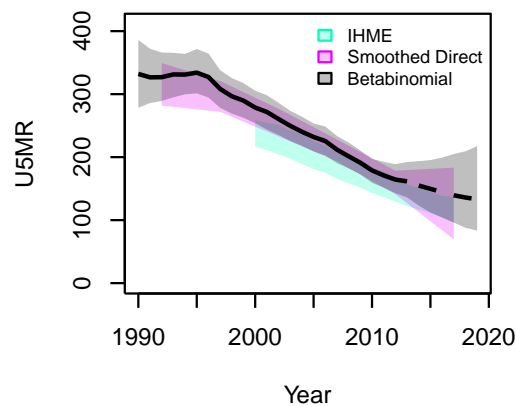
Eastern Province



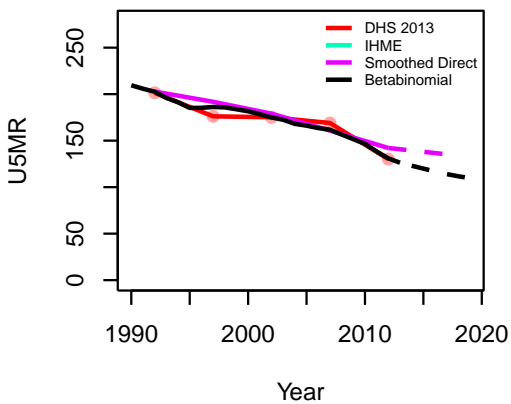
Eastern Province



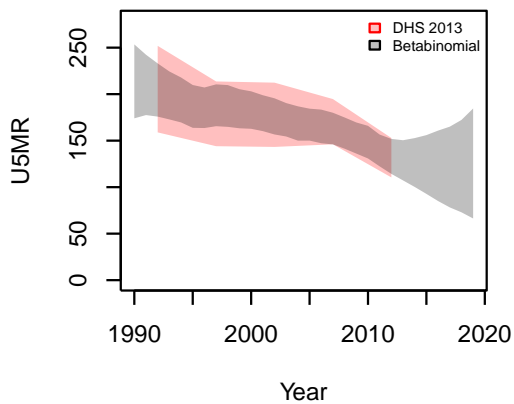
Eastern Province



Northwestern Province



Northwestern Province



Northwestern Province

