

Country Summary: Mali

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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.

Mali has 9 Admin 1 areas and 50 Admin 2 areas.

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

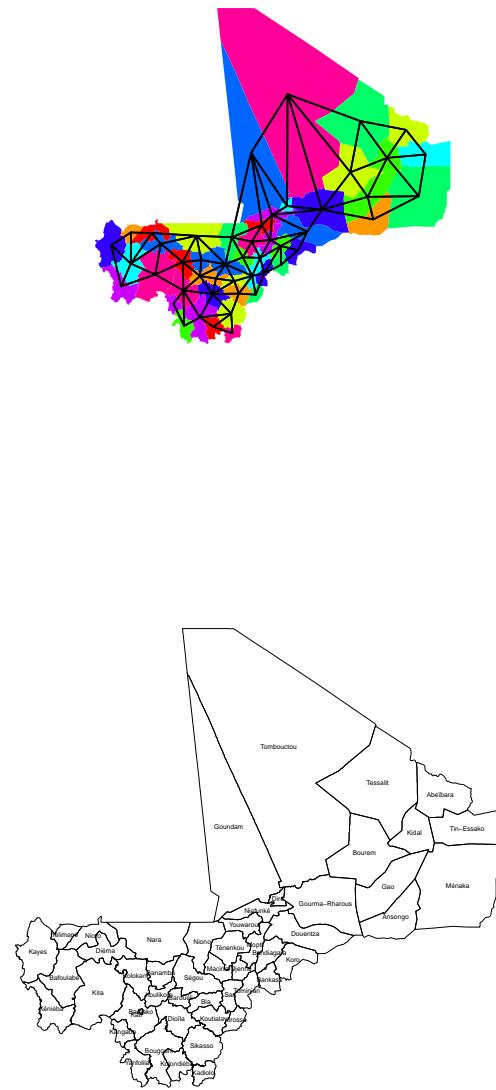


Figure 1: Top: The neighborhood structure of Admin 2 areas. Bottom: The names of Admin 2 areas.

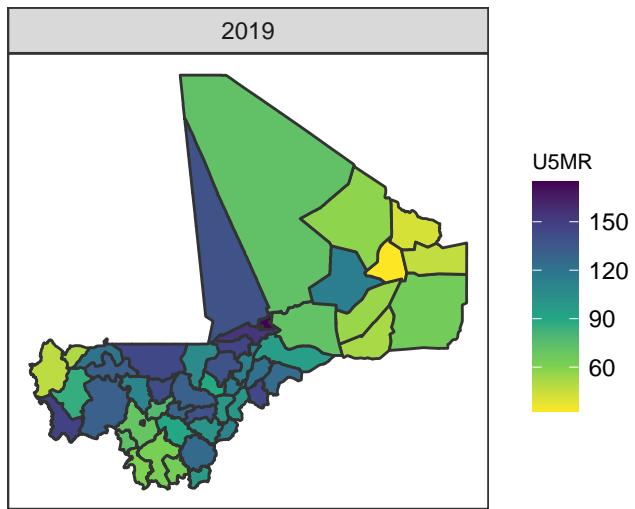
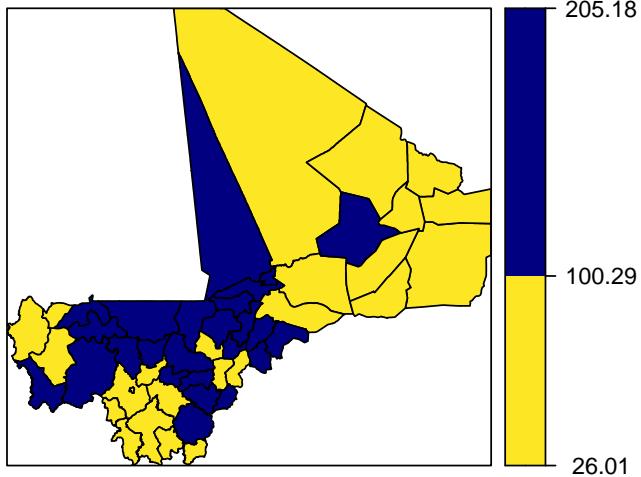


Figure 2: Median estimates of U5MR (deaths per 1000 children) in 2019.

ATCP = 0.85



ATCP = 0.73

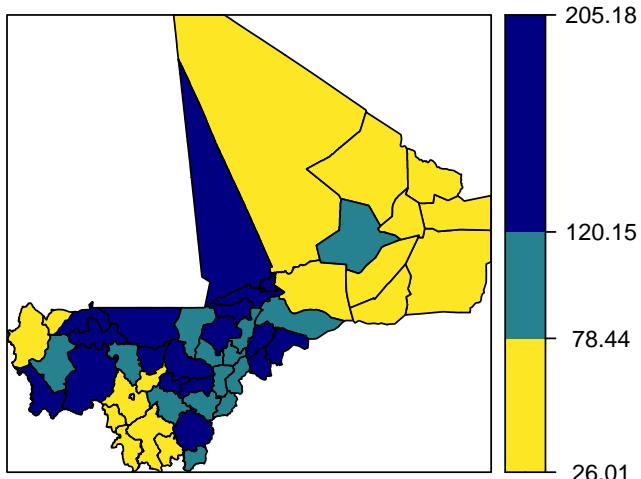


Figure 3: Expression of uncertainty of U5MR (deaths per 1000 children) based on the average true classification probability (ATCP) in 2019.

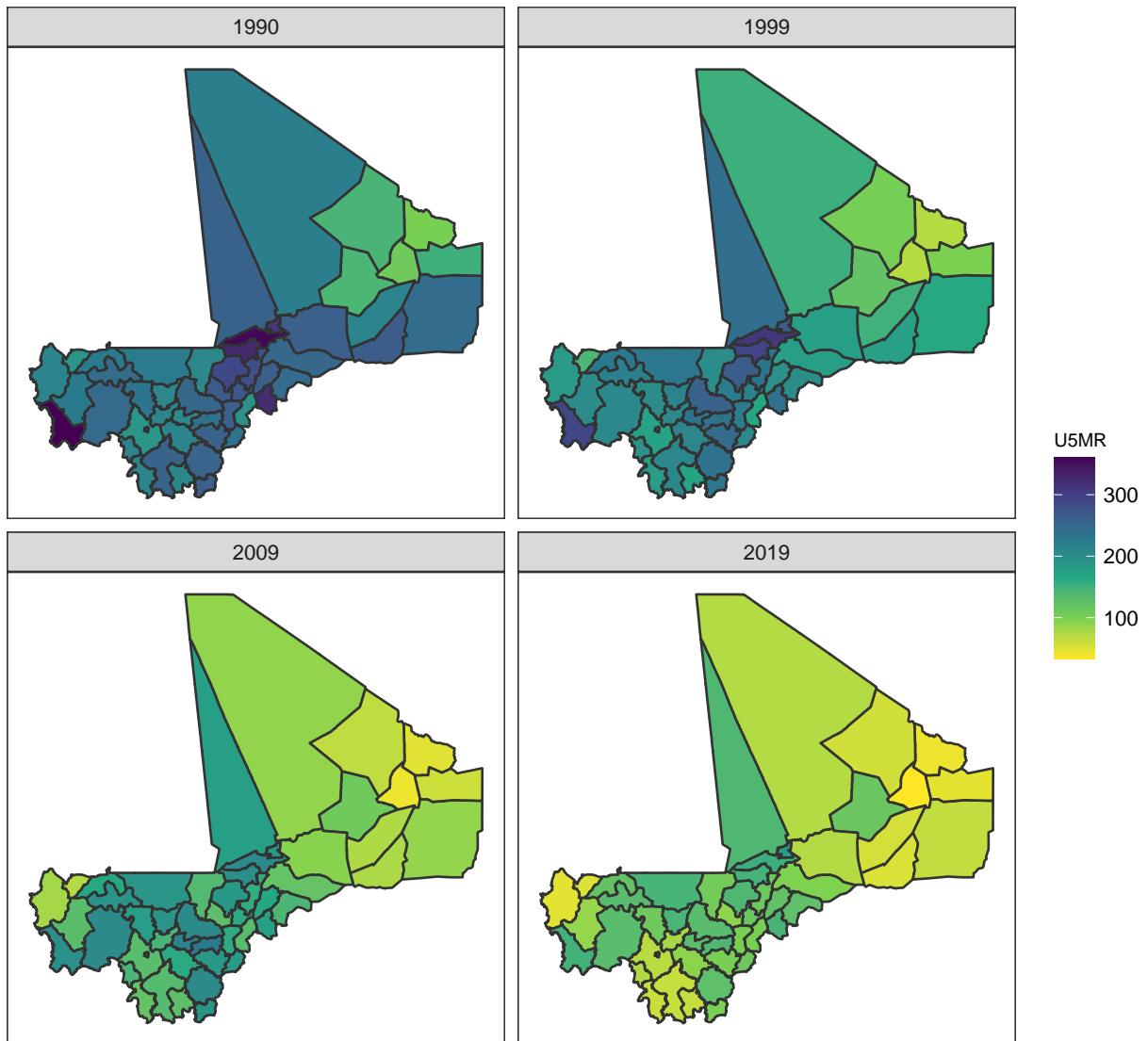
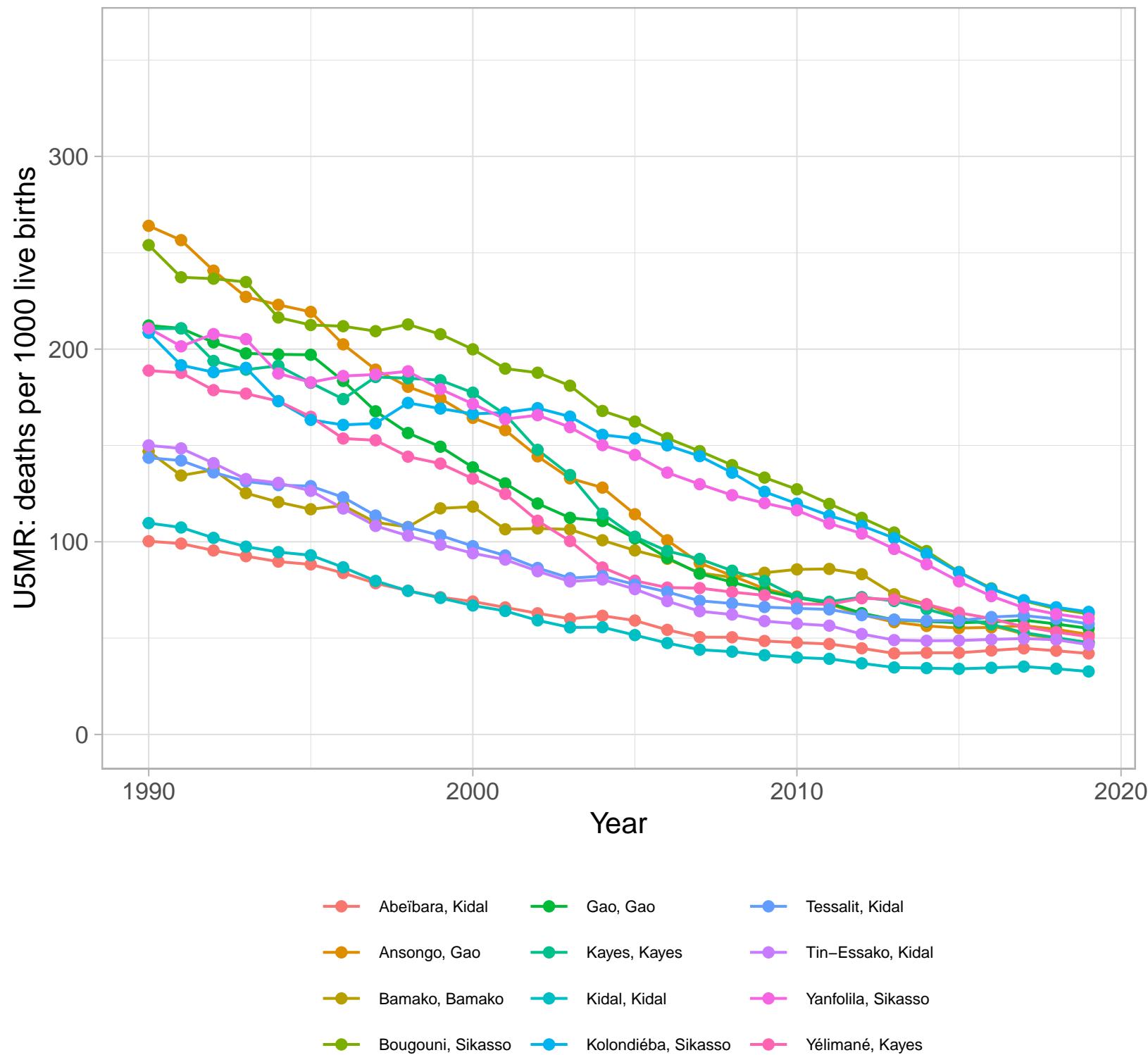
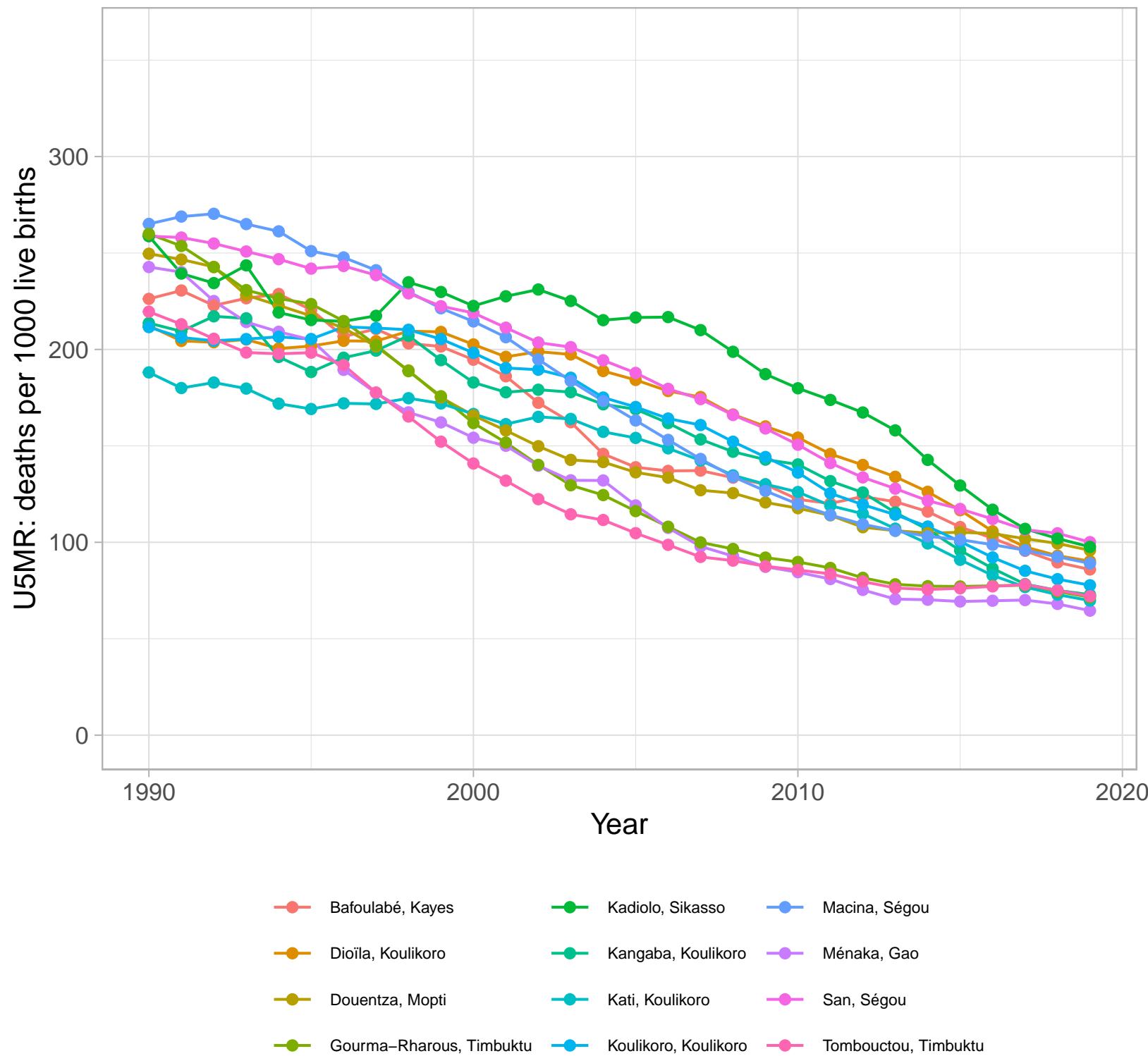


Figure 4: Median estimates for selected years.

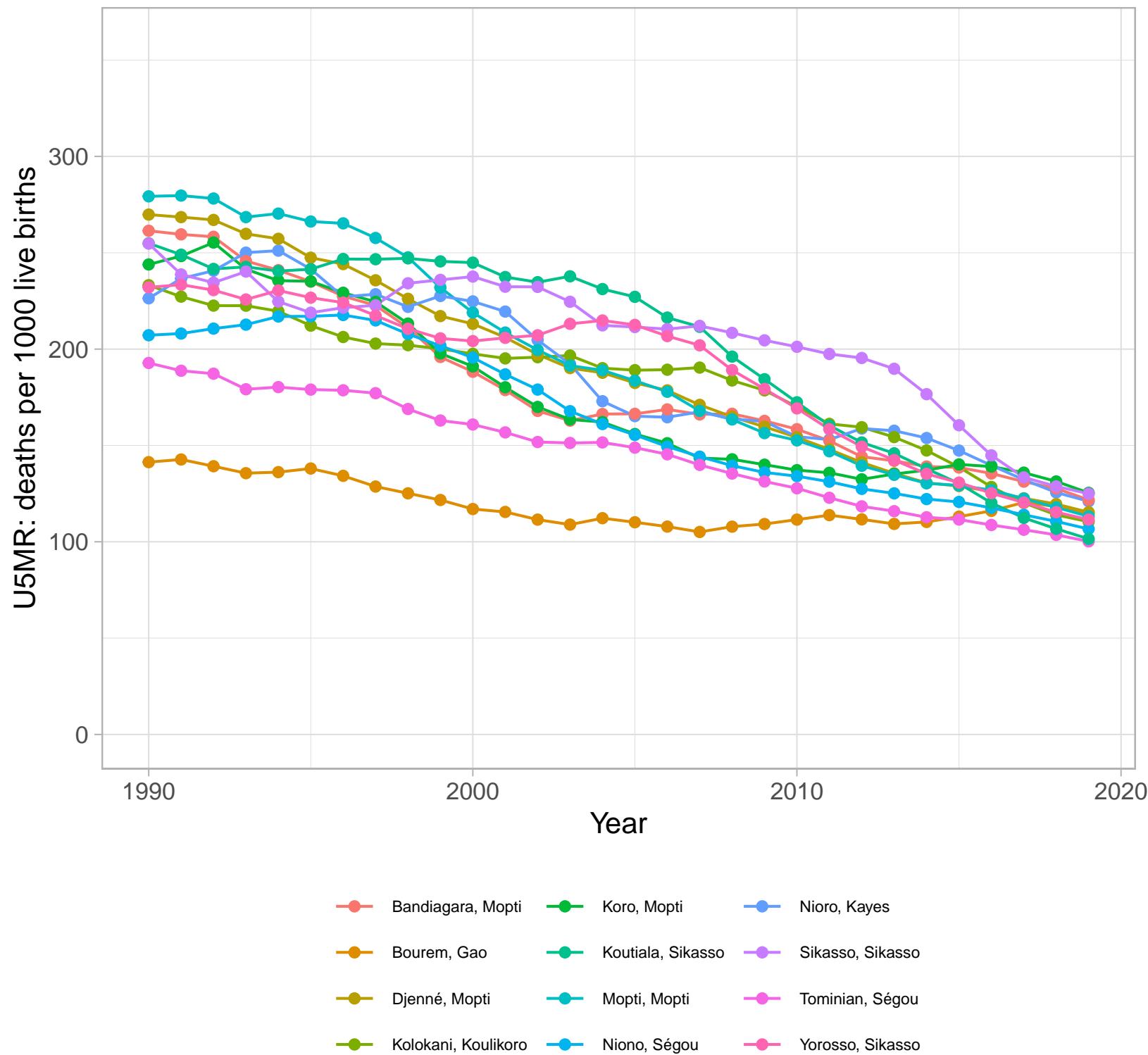
Mali



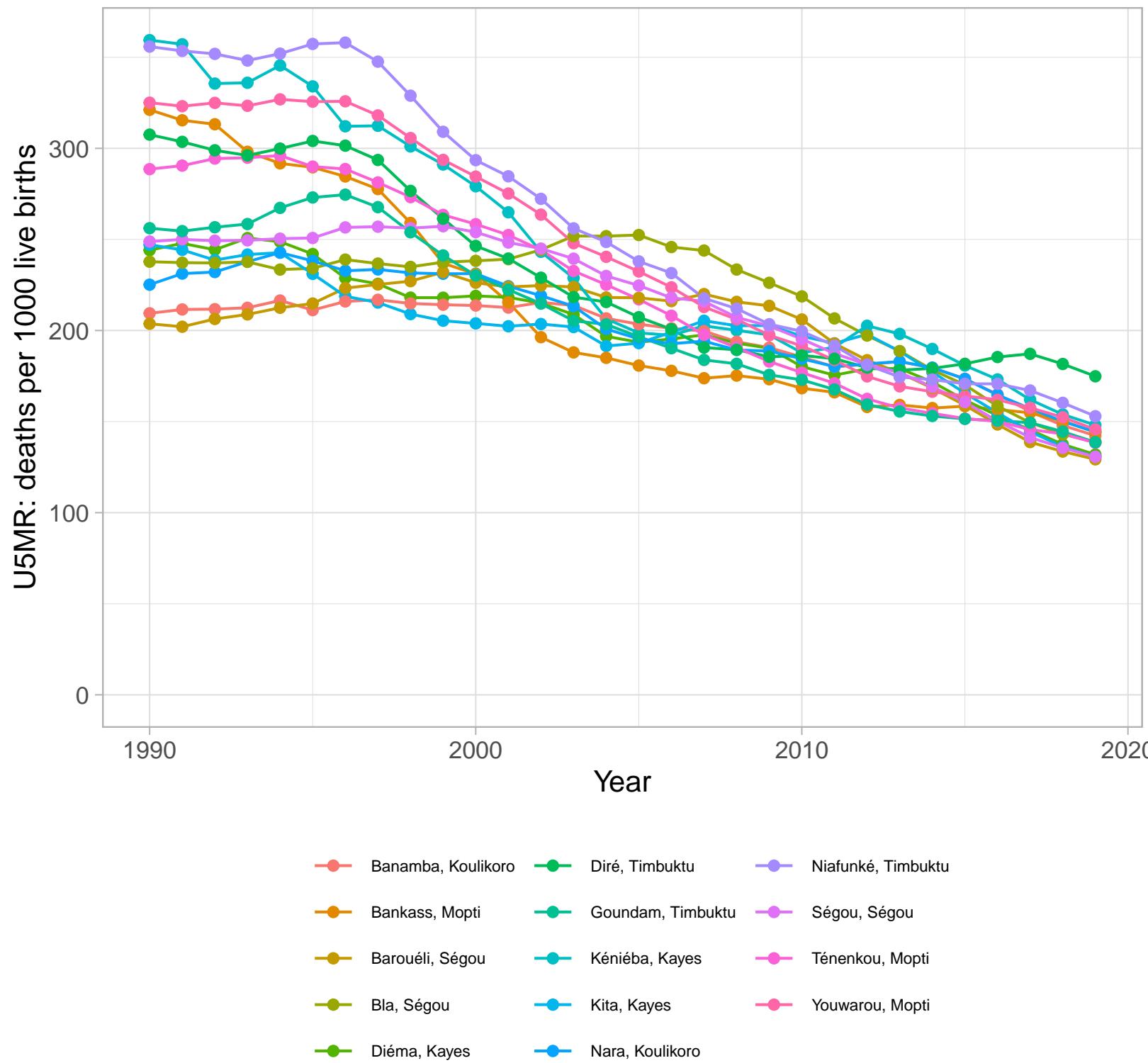
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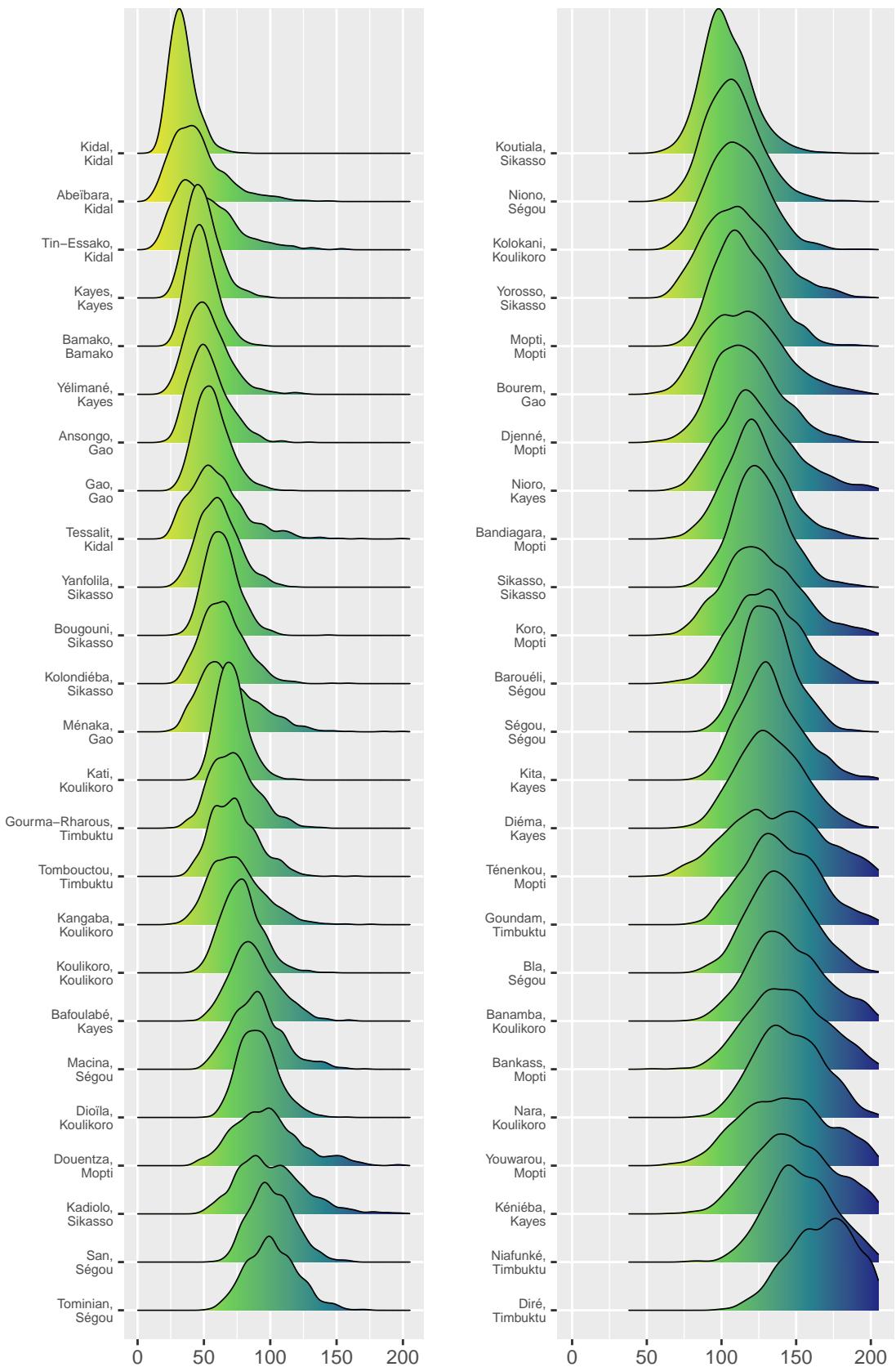


Figure 5: Posterior distributions of U5MR (deaths per 1000 children) in 2019. Areas are ordered by median estimated U5MR in 2019.

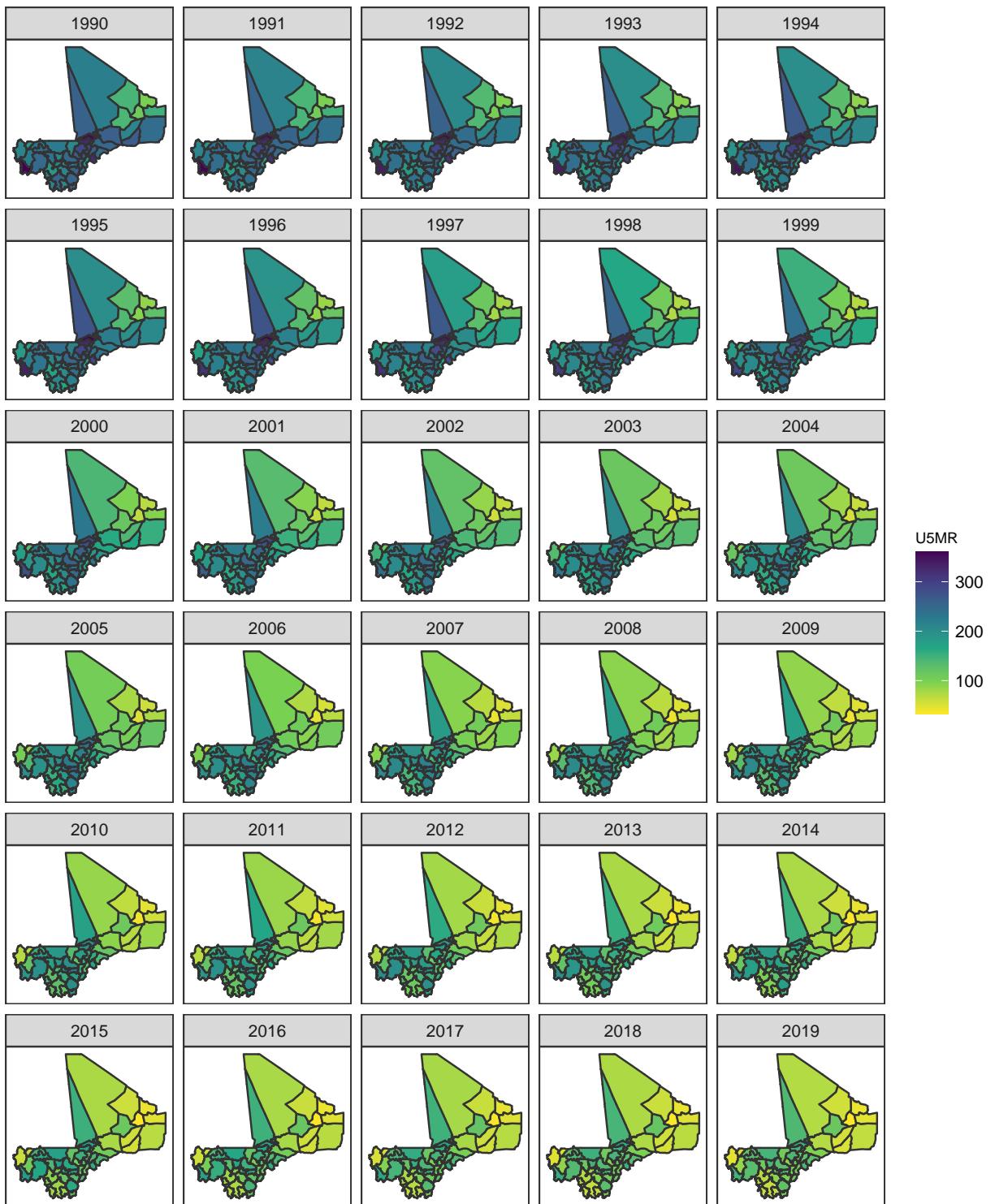


Figure 6: Posterior medians of U5MR (deaths per 1000 births) by Admin 2 area and year.

2 National Survey Data

Survey	Urban	Rural	Total
1995-96	118	182	300
2001	129	270	399
2006	145	260	405
2012-13	116	297	413
2018	94	234	328

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

Age	No. Deaths	No. Agemonths
0	1219	31877
1-11	961	322381
12-23	522	320560
24-35	599	294161
36-47	301	268776
48-59	150	245546

Table 2: Numbers of agemonths and deaths by age for DHS 2018.

Age	No. Deaths	No. Agemonths
0	1318	32136
1-11	919	322919
12-23	324	325008
24-35	518	302279
36-47	257	277494
48-59	109	253930

Table 3: Numbers of agemonths and deaths by age for DHS 2012-13.

Age	No. Deaths	No. Agemonths
0	2373	41375
1-11	2183	407599
12-23	1381	399639
24-35	1306	371225
36-47	686	339651
48-59	334	315693

Table 4: Numbers of agemonths and deaths by age for DHS 2006.

Age	No. Deaths	No. Agemonths
0	1987	28904
1-11	1596	280375
12-23	1101	276059
24-35	947	262916
36-47	555	245893
48-59	259	230235

Table 5: Numbers of agemonths and deaths by age for DHS 2001.

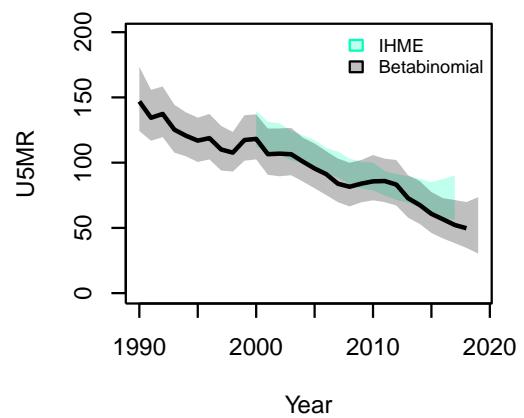
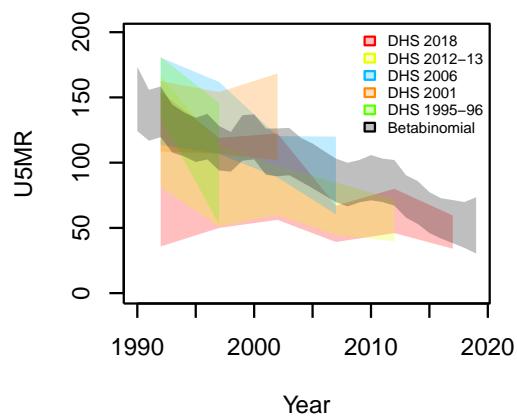
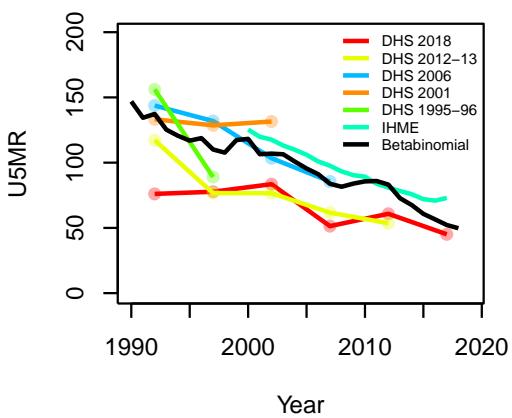
Age	No. Deaths	No. Agemonths
0	773	12718
1-11	795	126316
12-23	500	127567
24-35	474	123792
36-47	287	116812
48-59	118	111417

Table 6: Numbers of agemonths and deaths by age for DHS 1995-96.

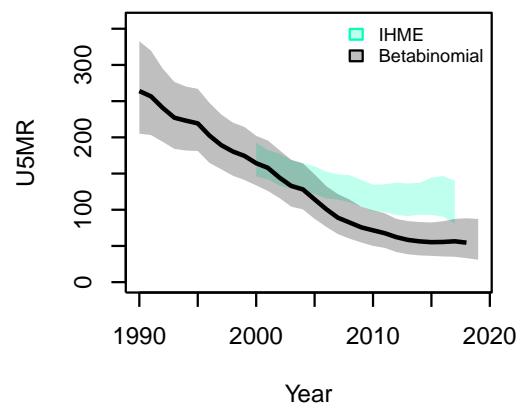
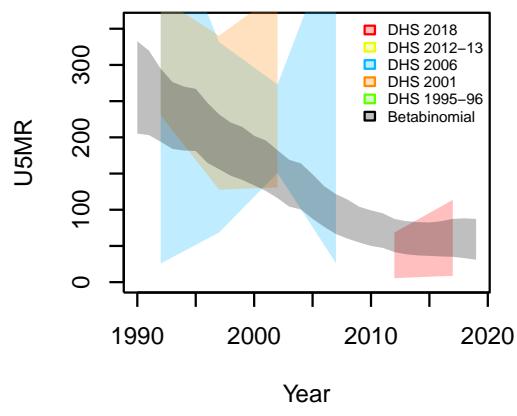
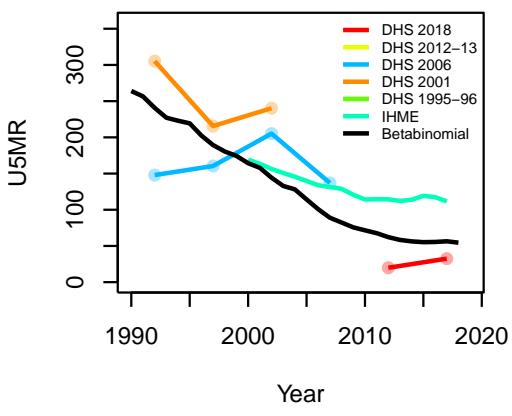
3 Admin 2 Figures

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.

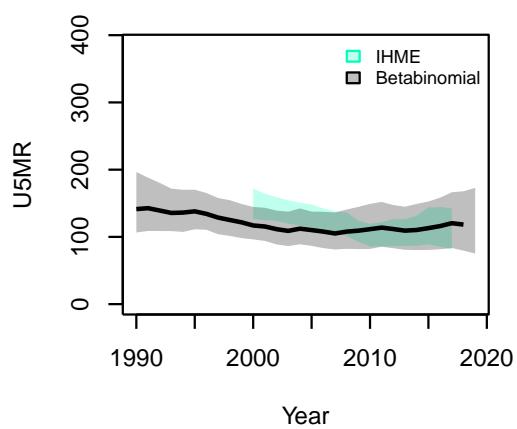
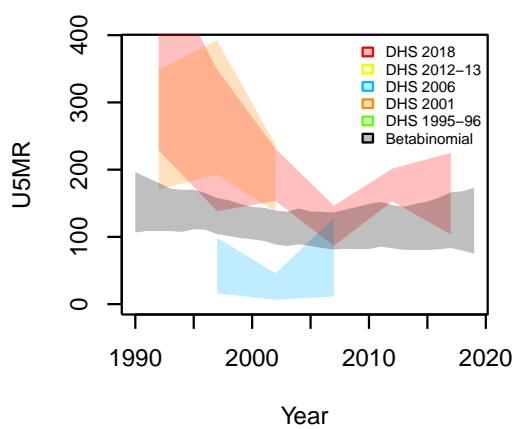
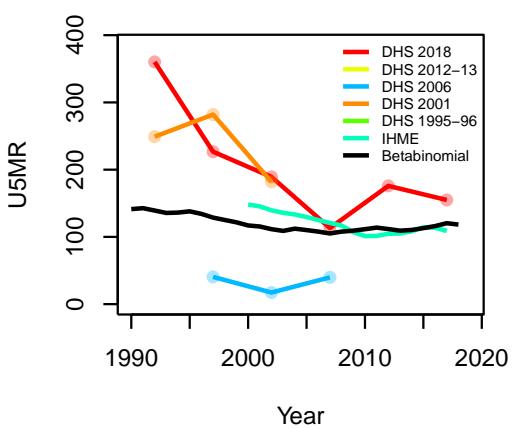
Bamako, Bamako



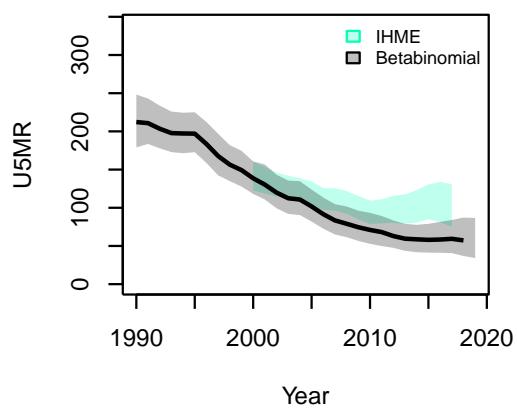
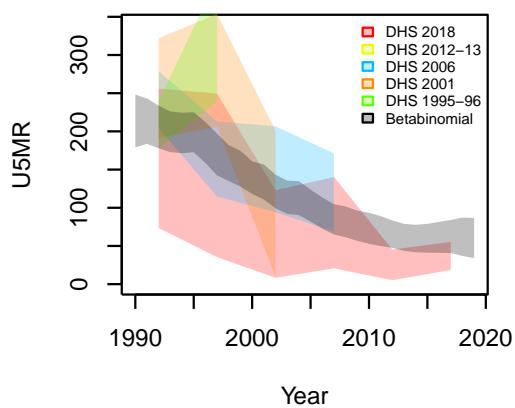
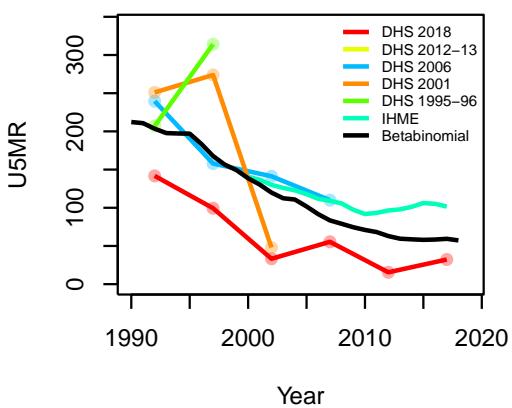
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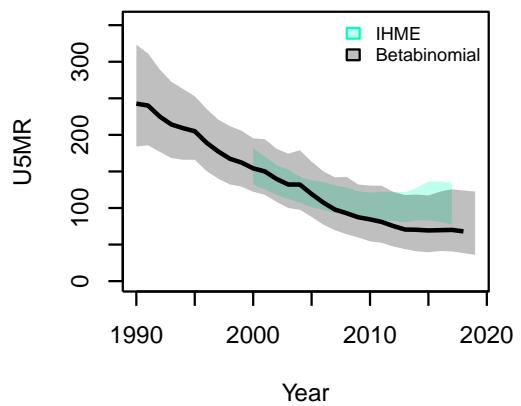
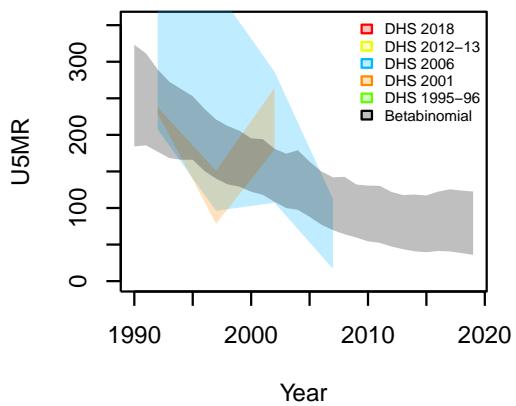
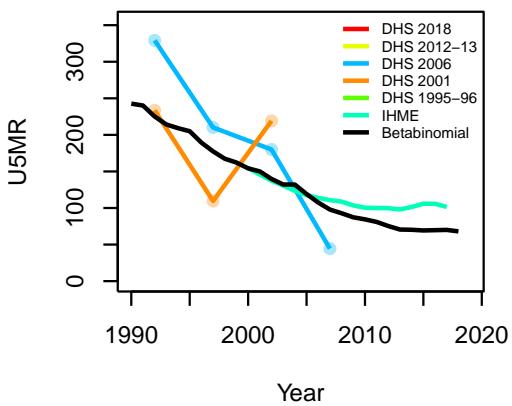
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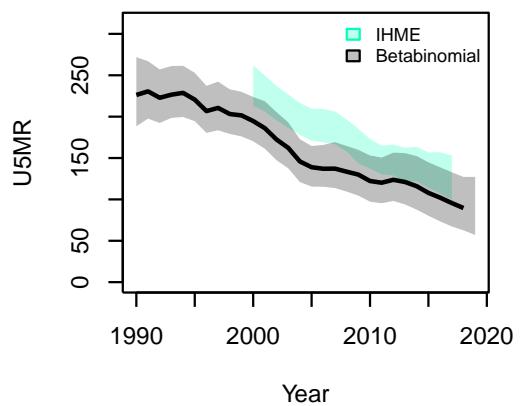
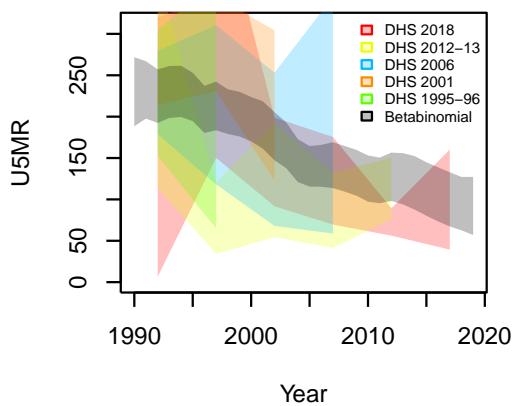
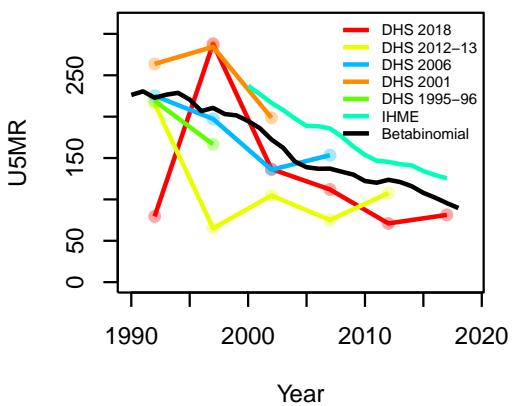
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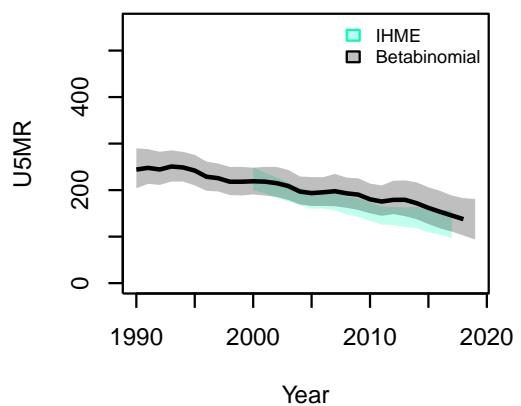
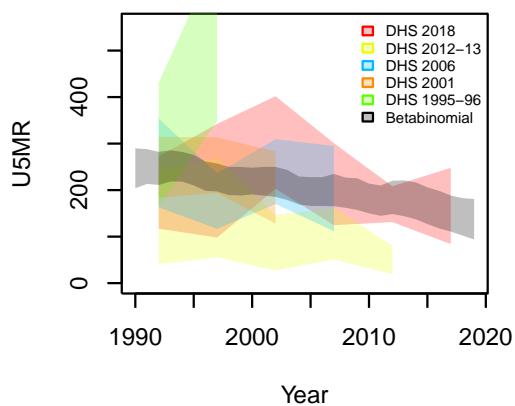
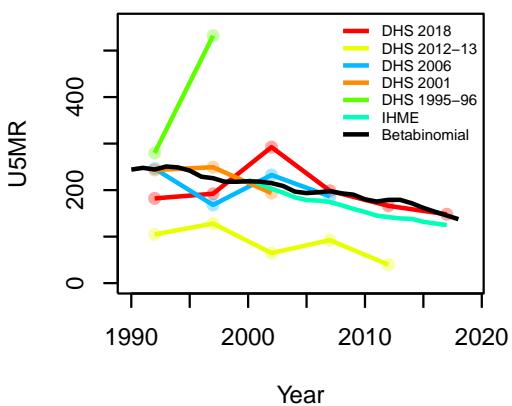
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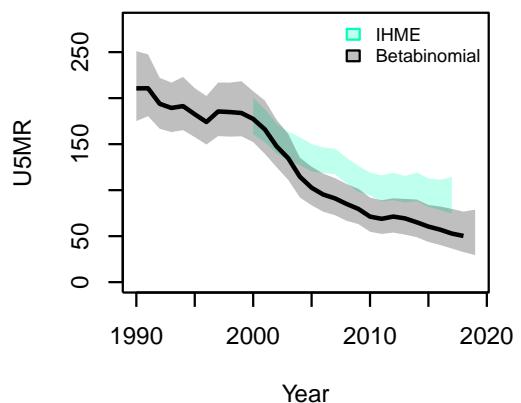
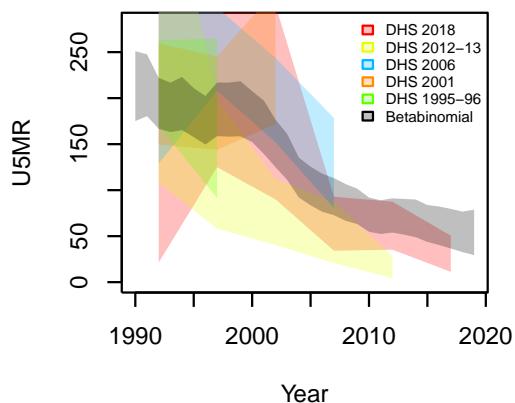
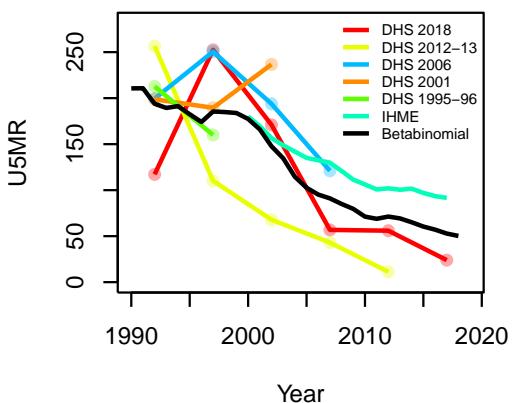
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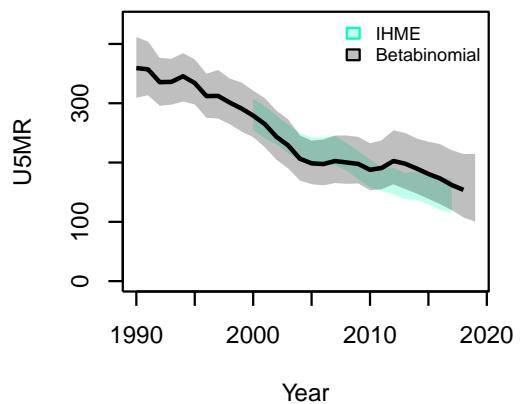
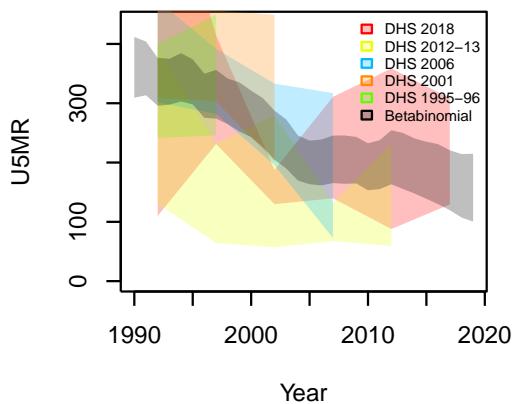
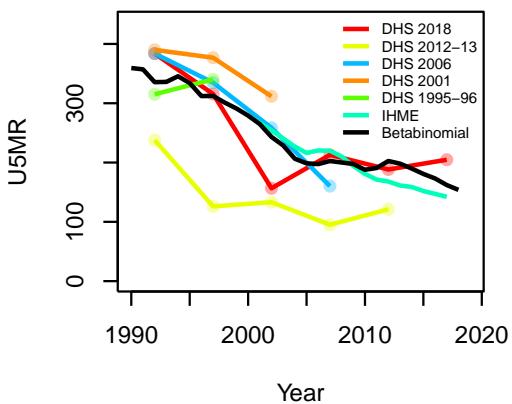
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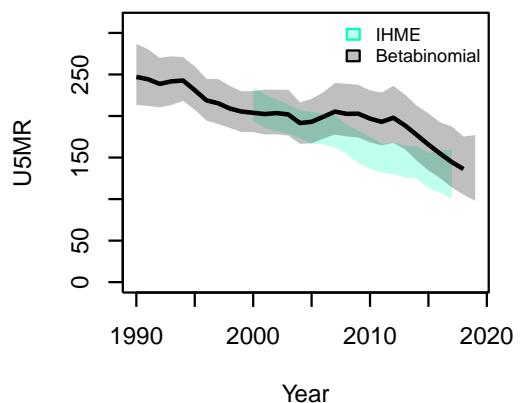
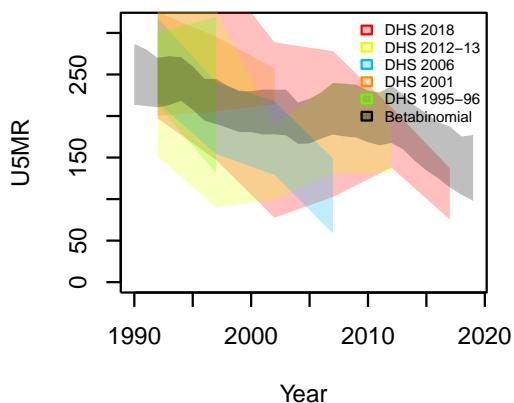
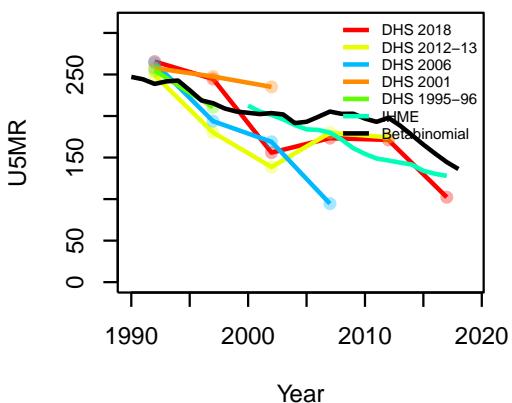
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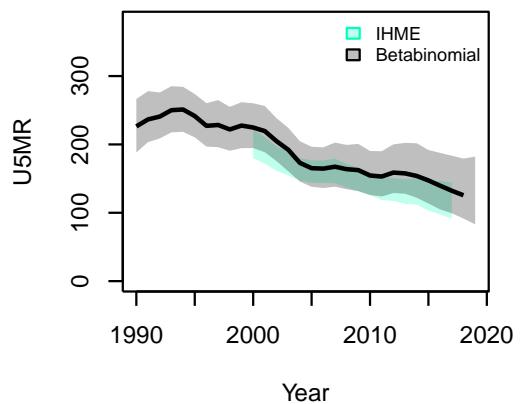
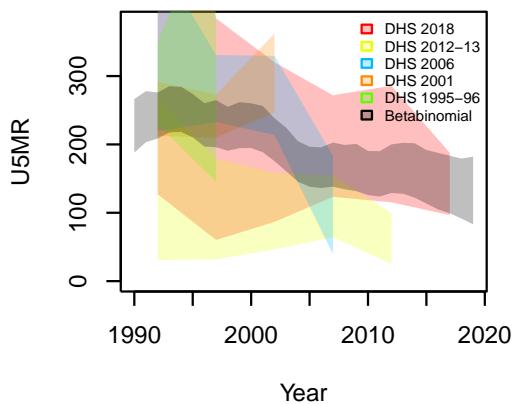
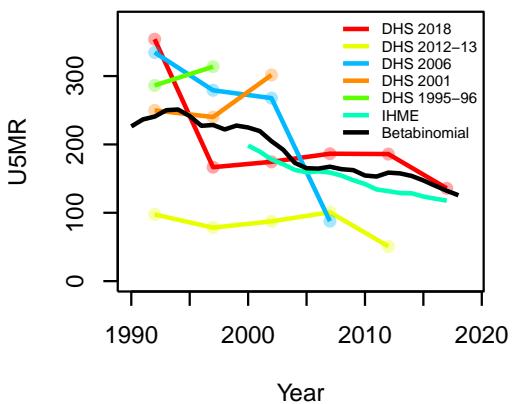
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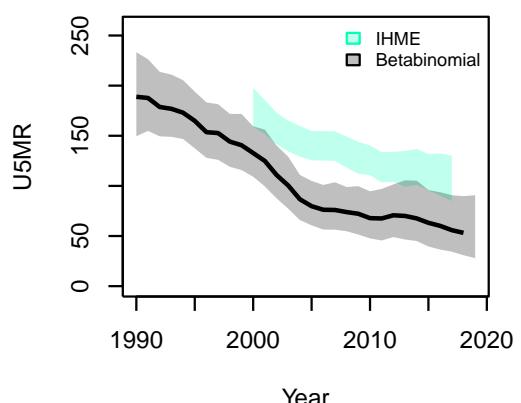
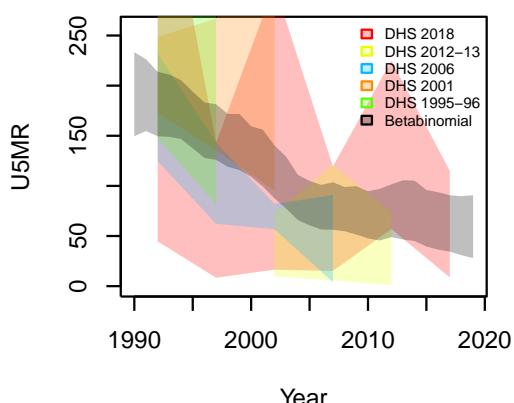
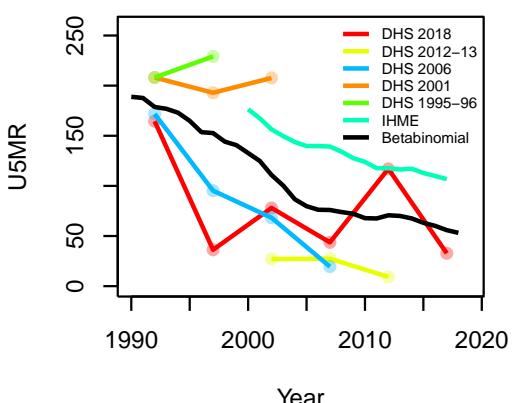
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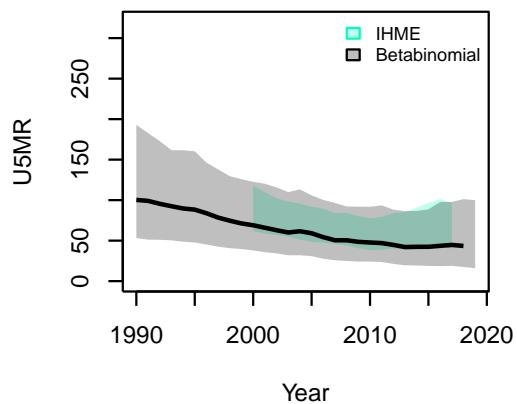
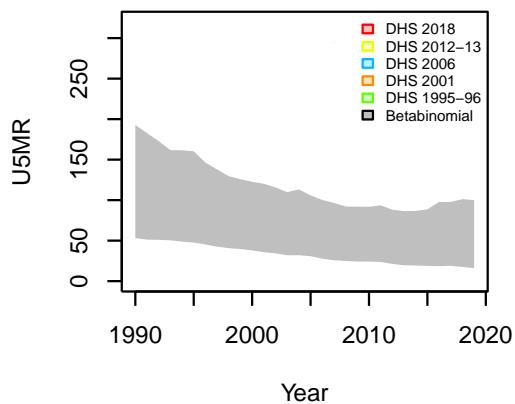
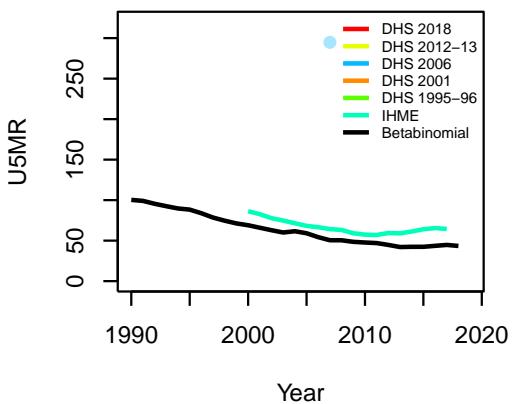
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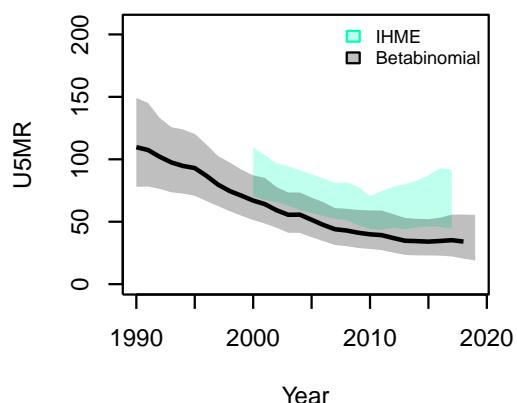
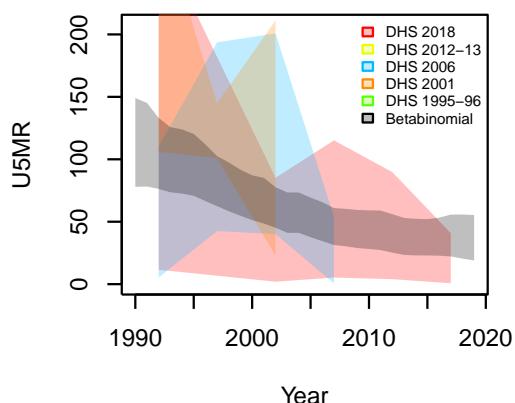
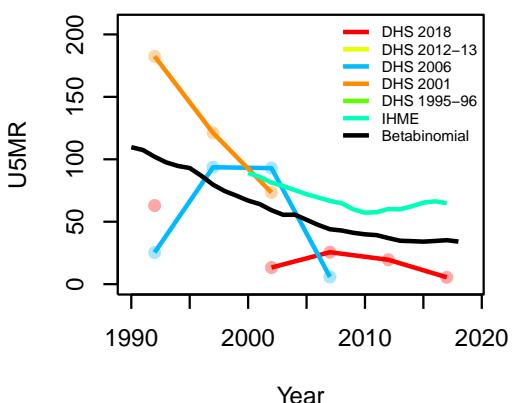
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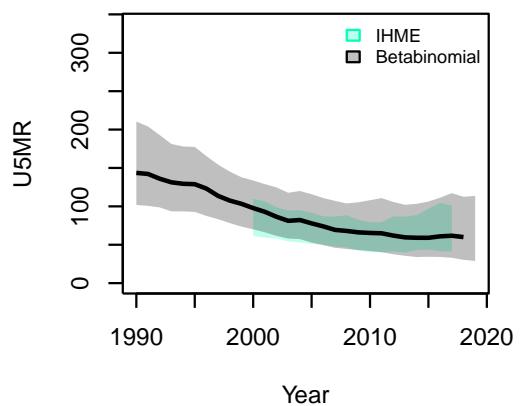
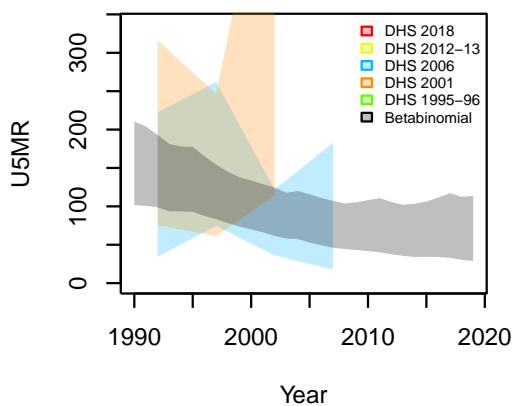
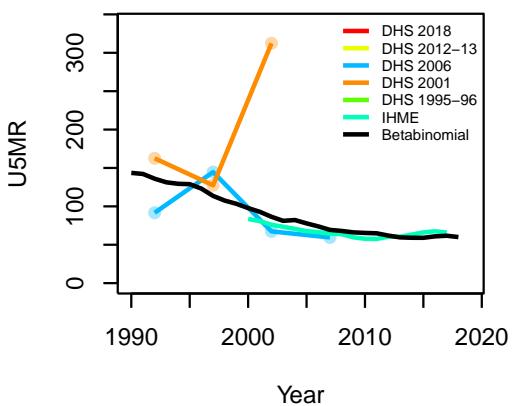
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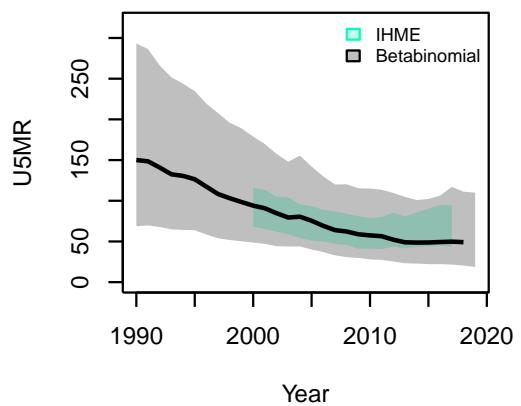
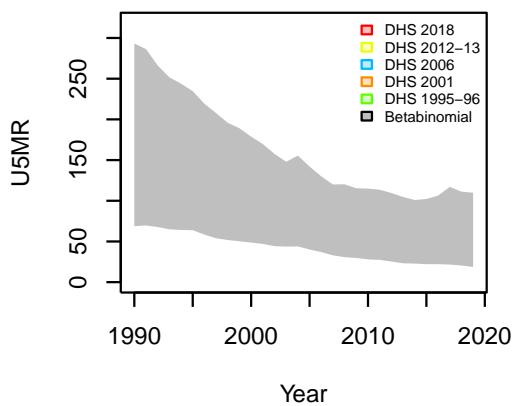
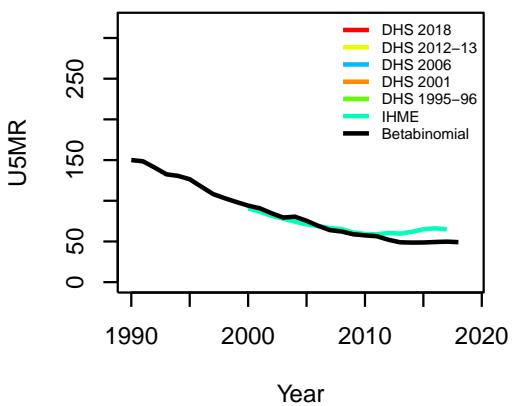
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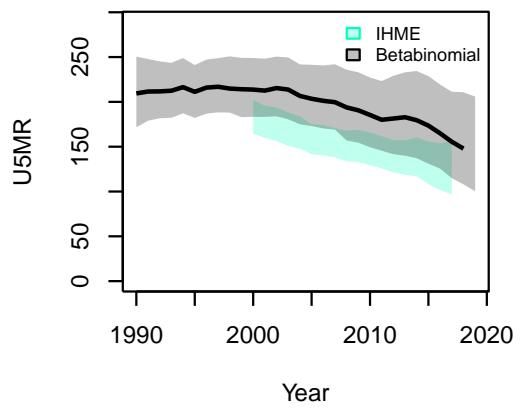
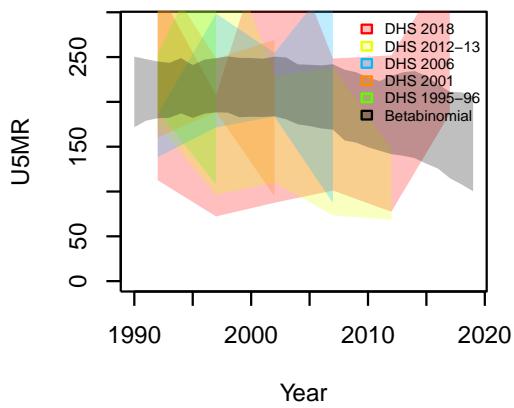
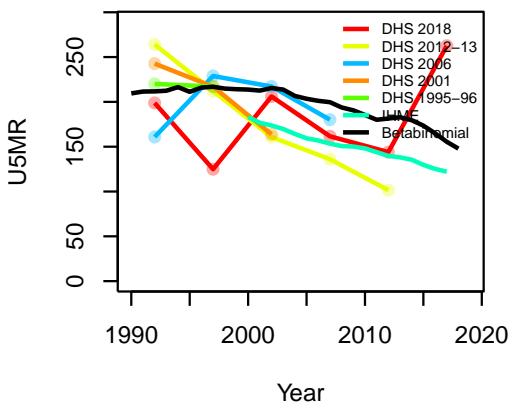
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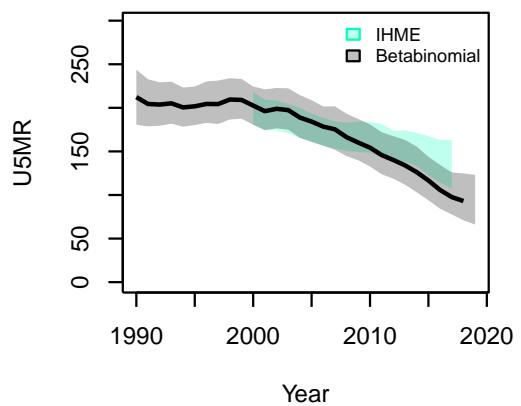
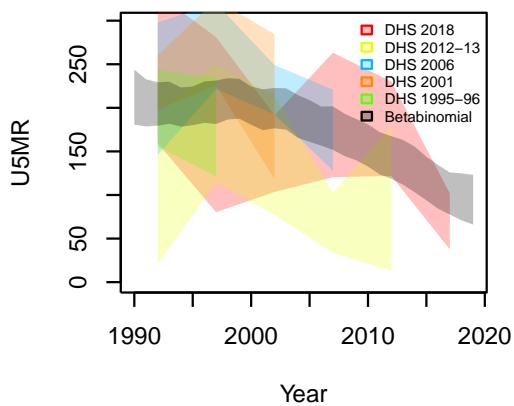
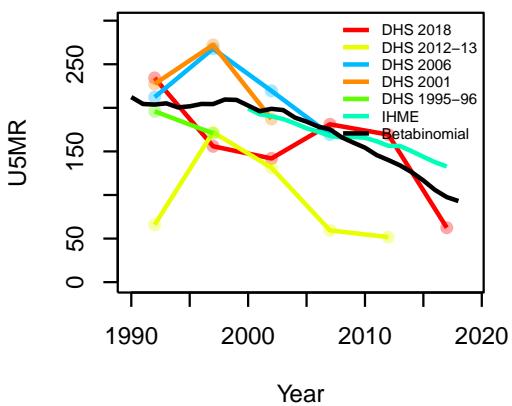
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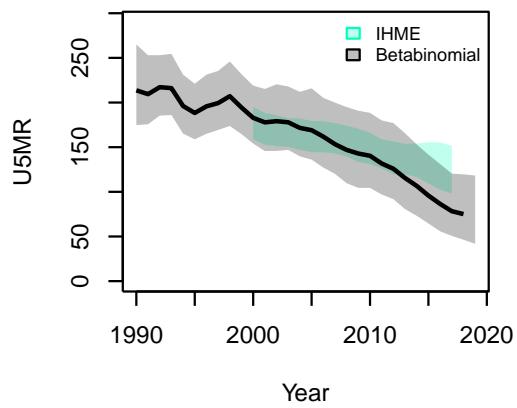
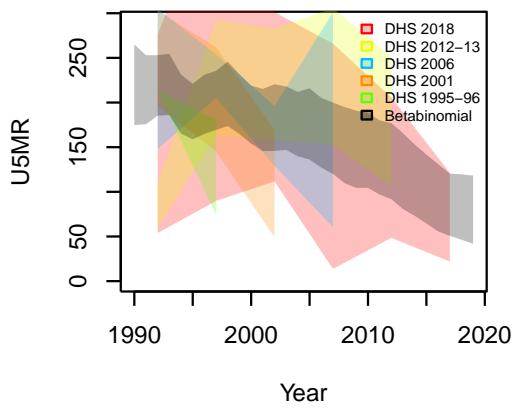
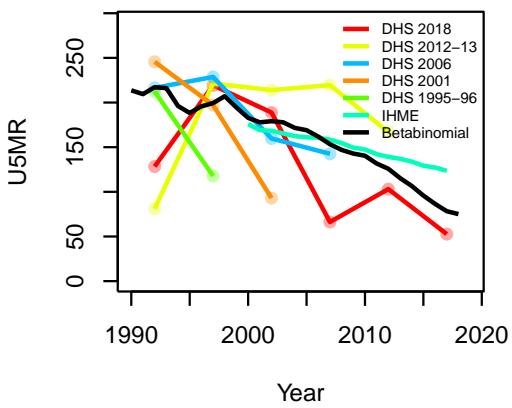
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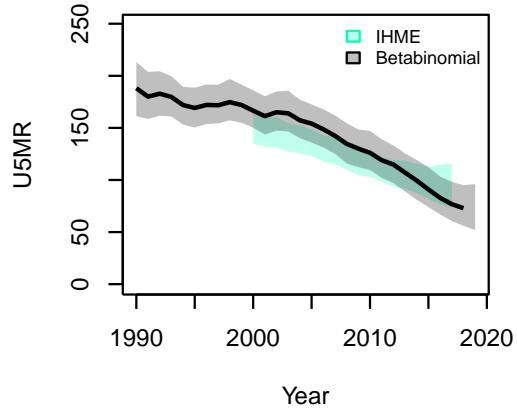
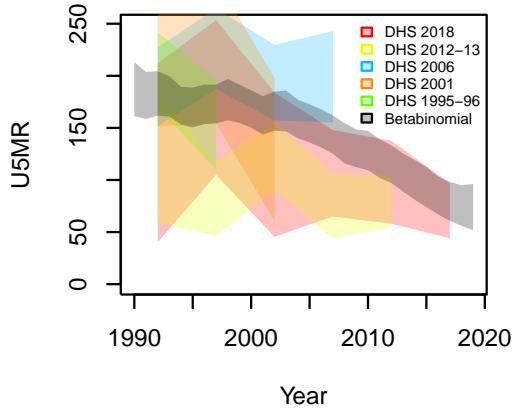
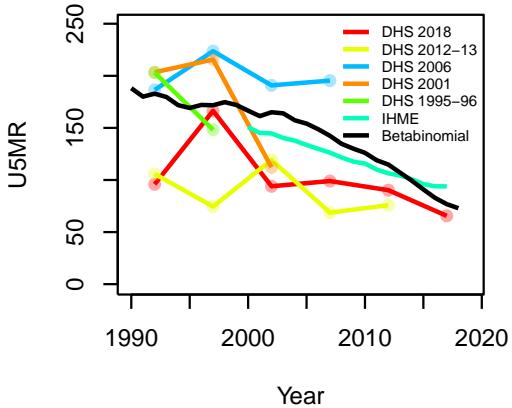
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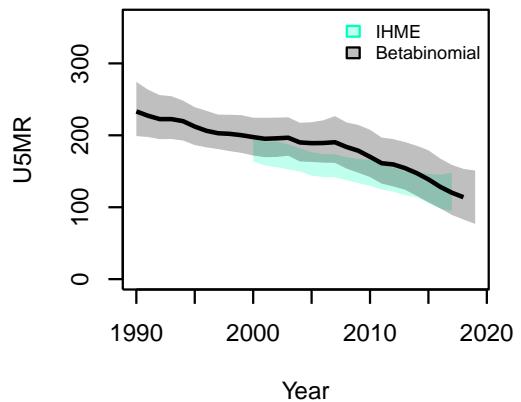
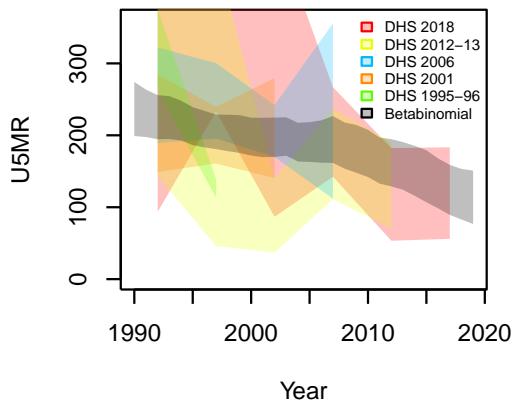
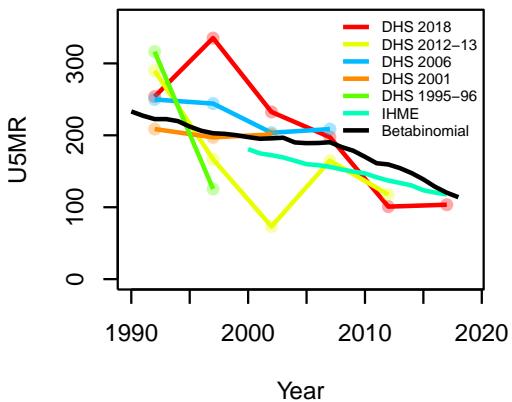
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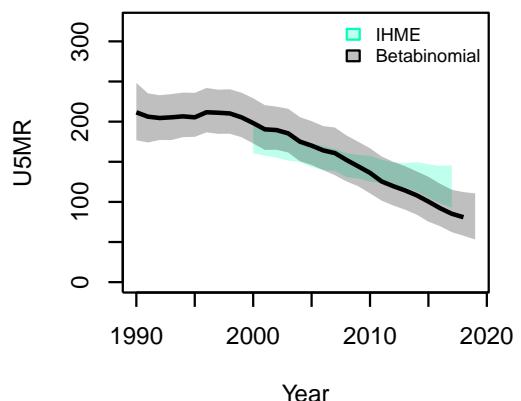
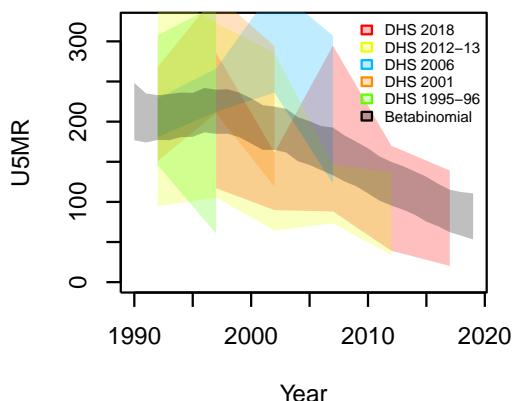
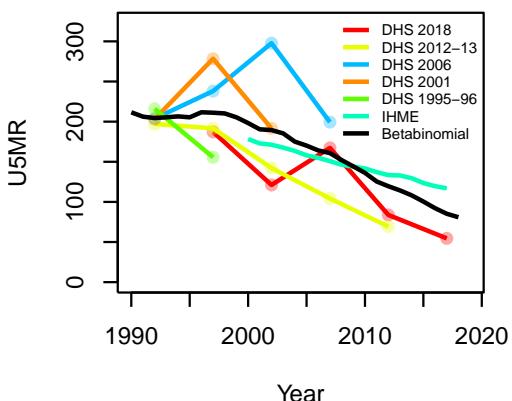
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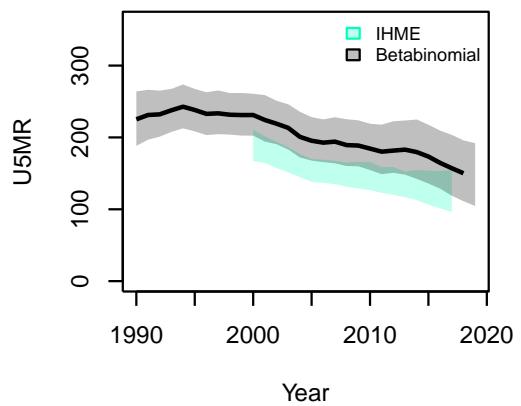
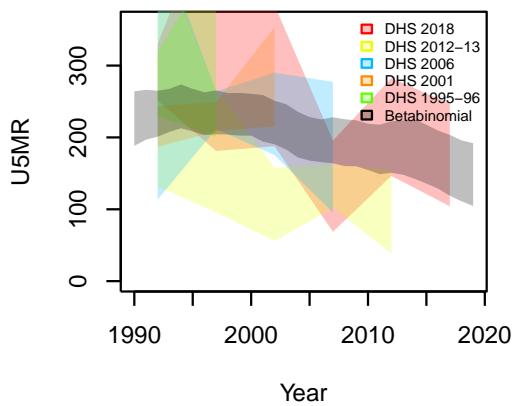
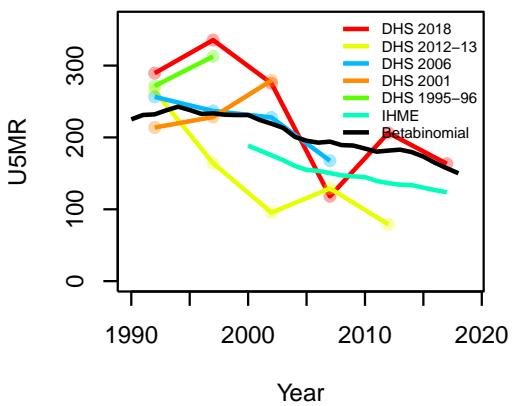
Kolokani, Koulikoro



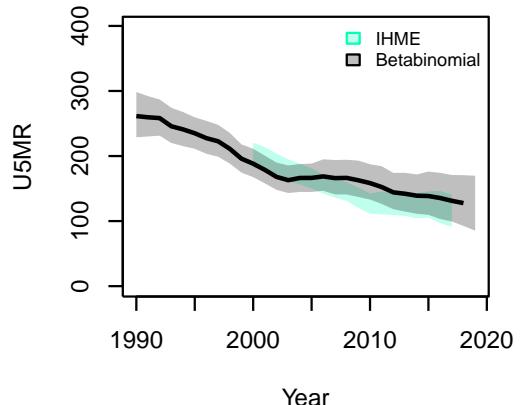
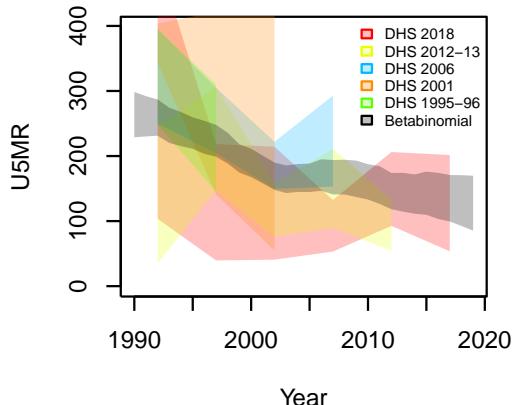
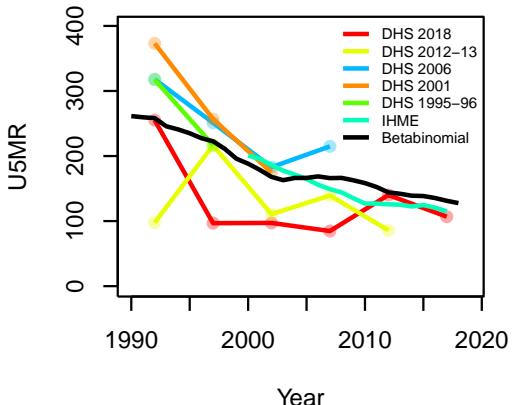
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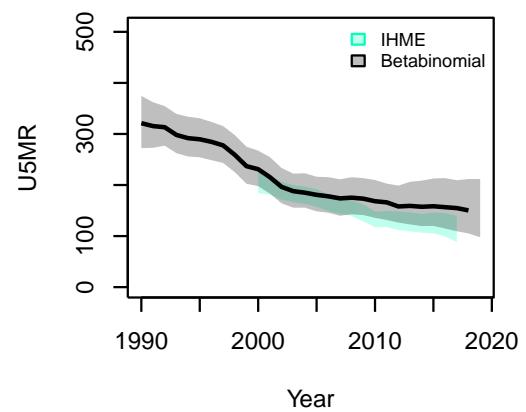
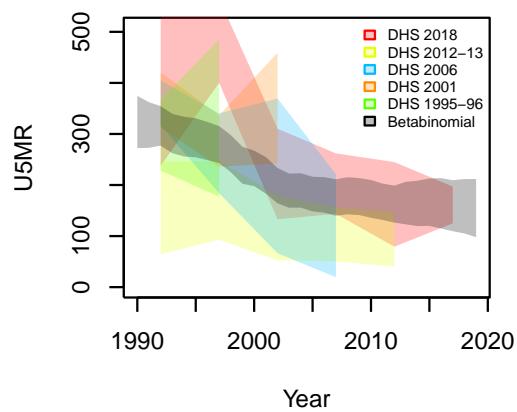
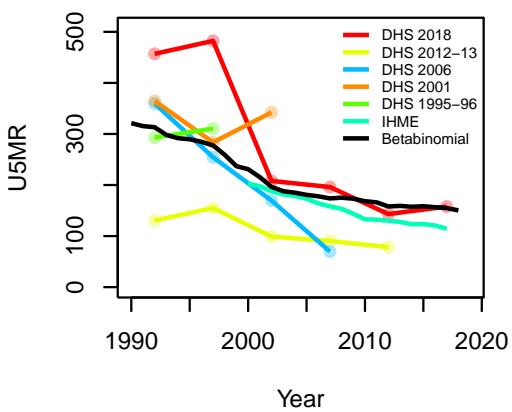
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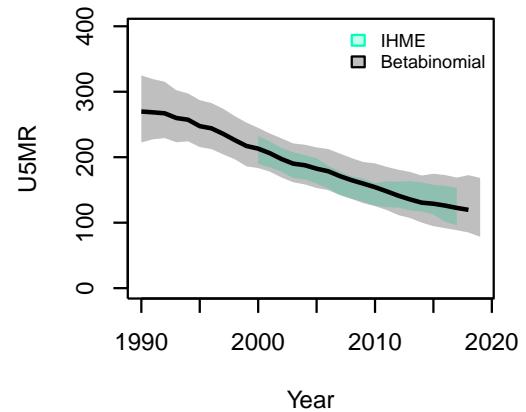
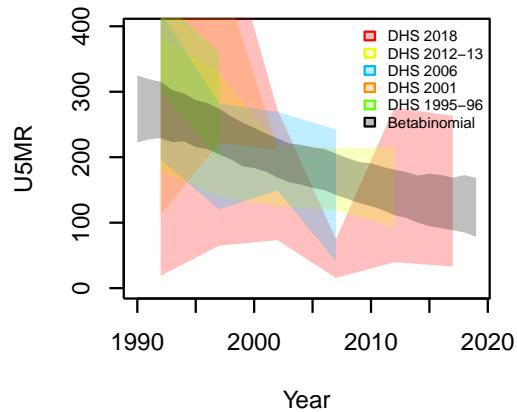
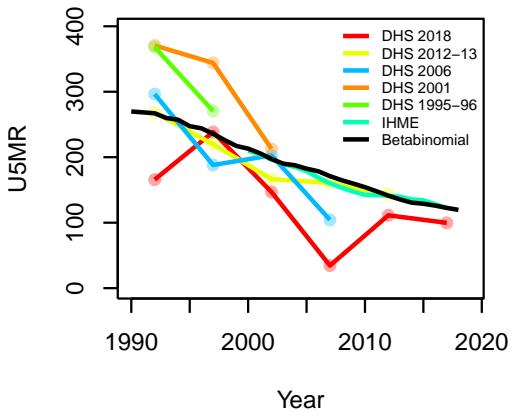
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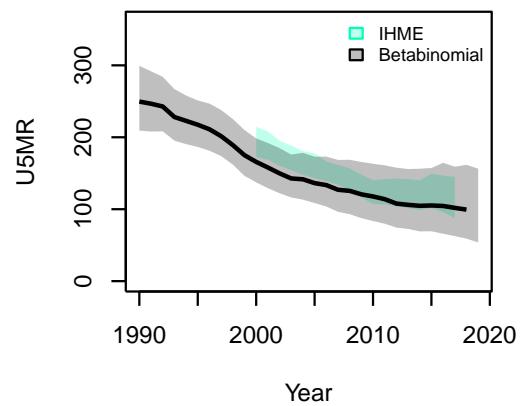
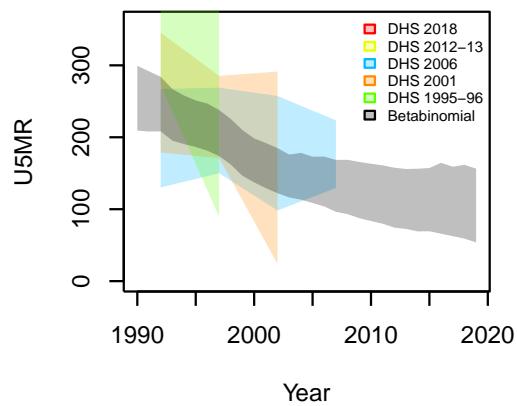
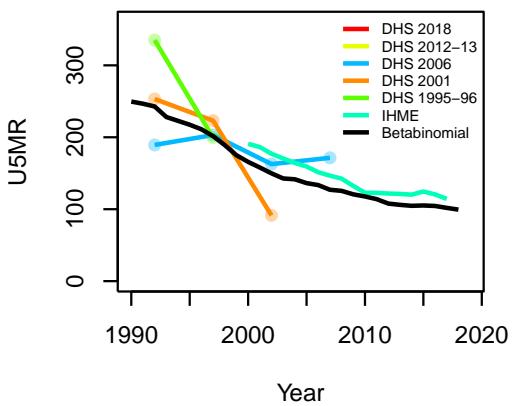
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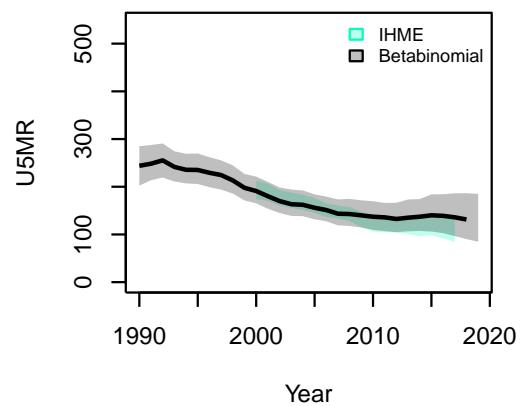
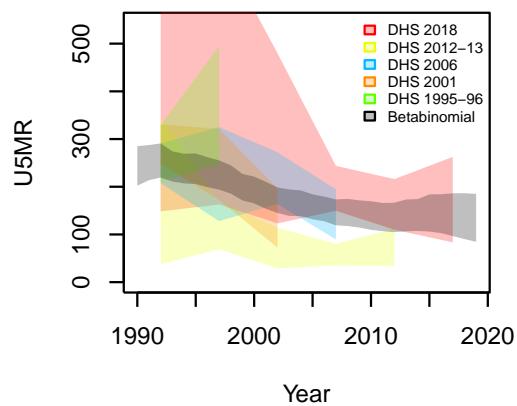
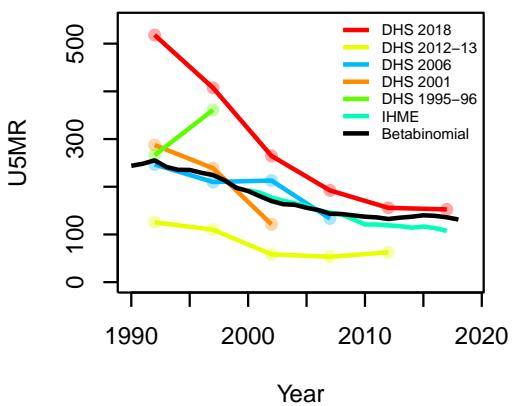
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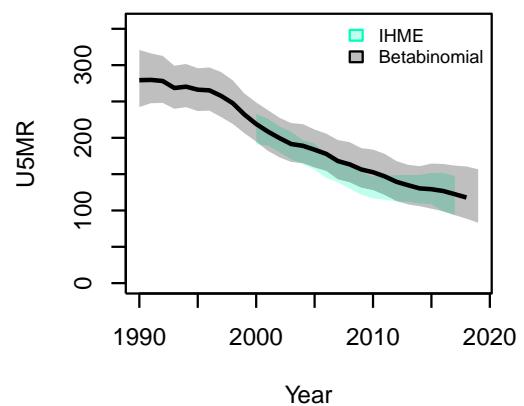
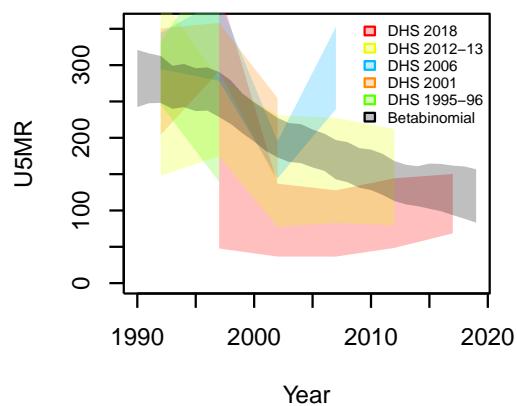
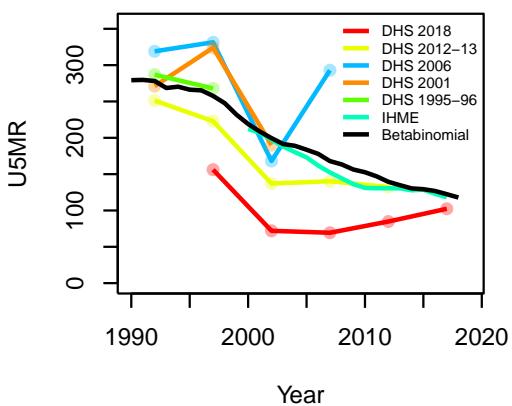
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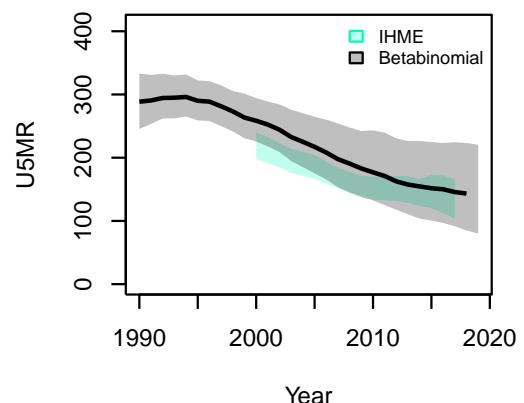
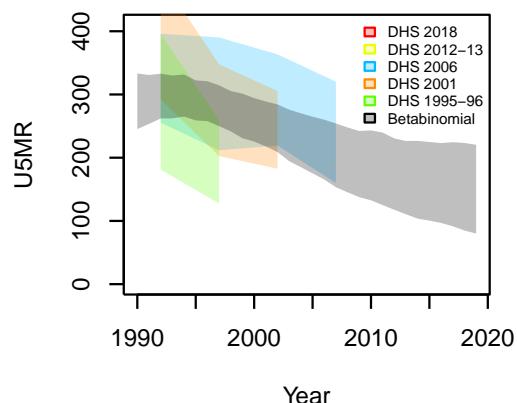
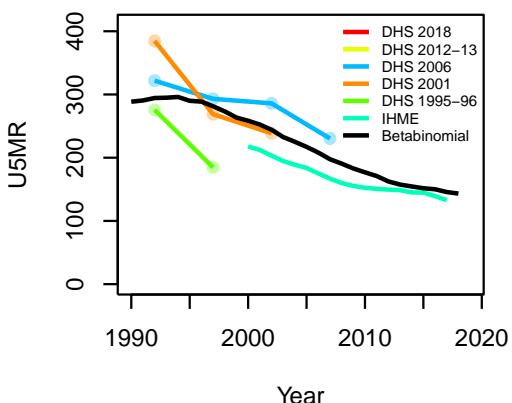
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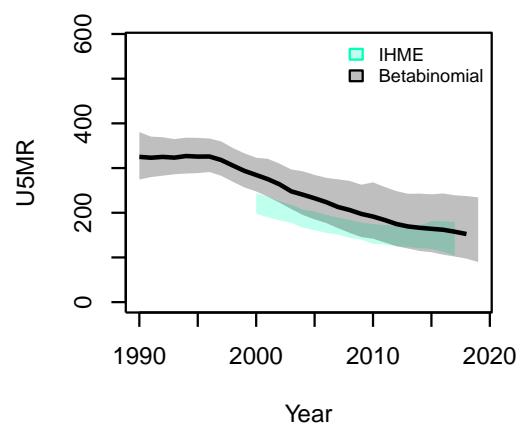
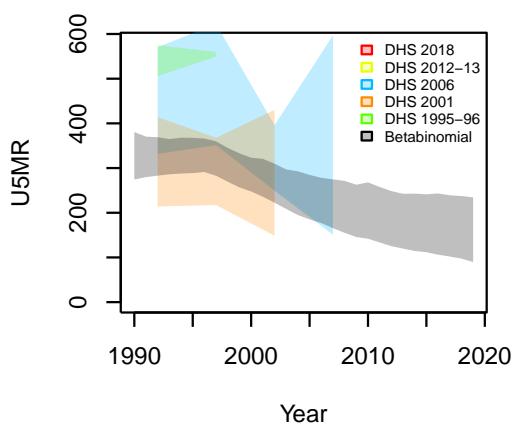
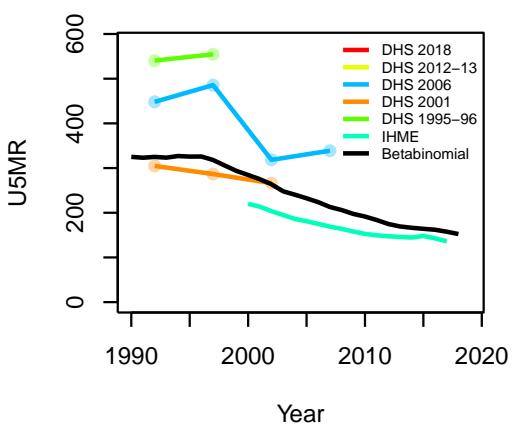
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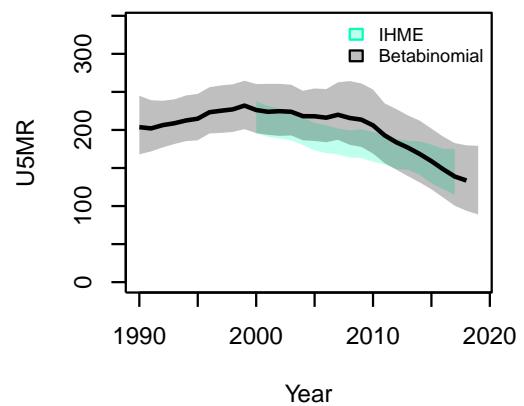
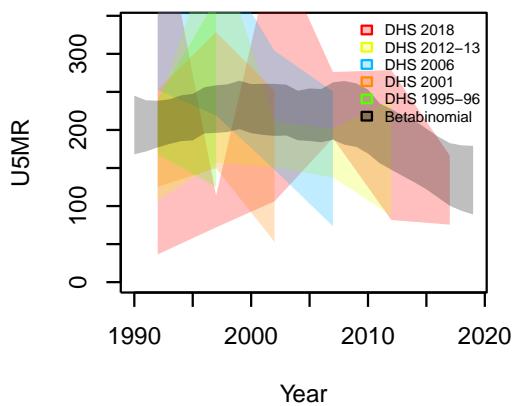
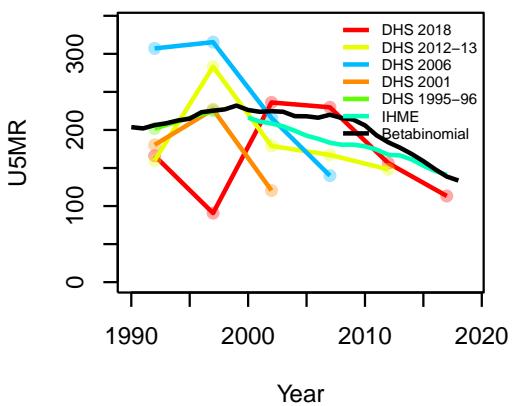
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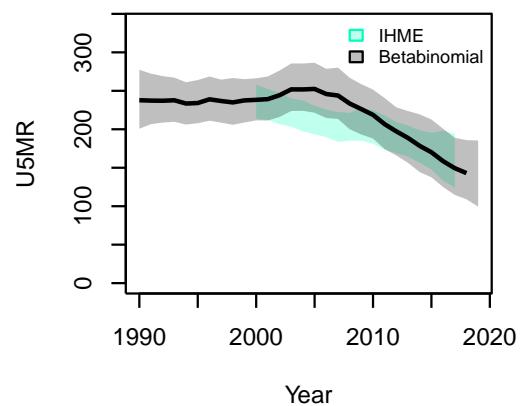
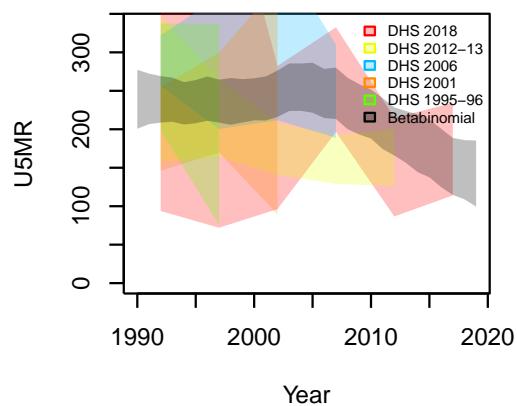
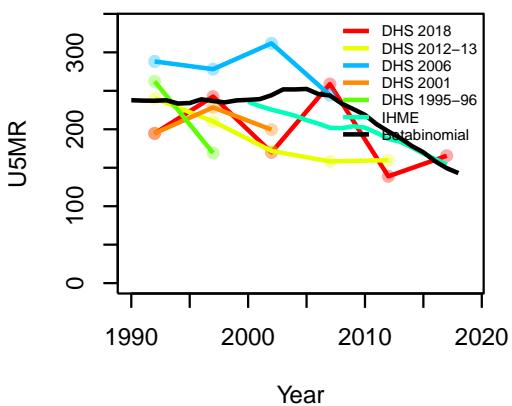
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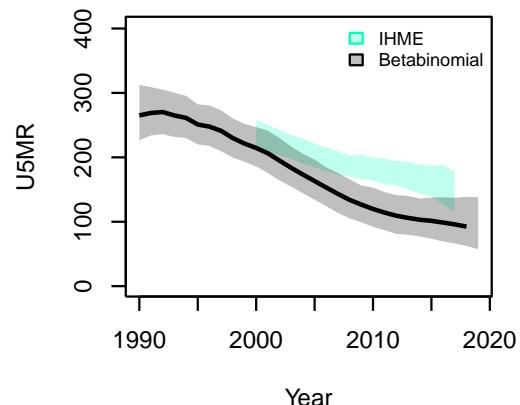
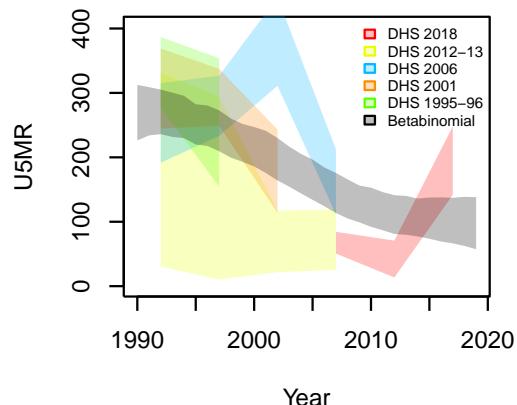
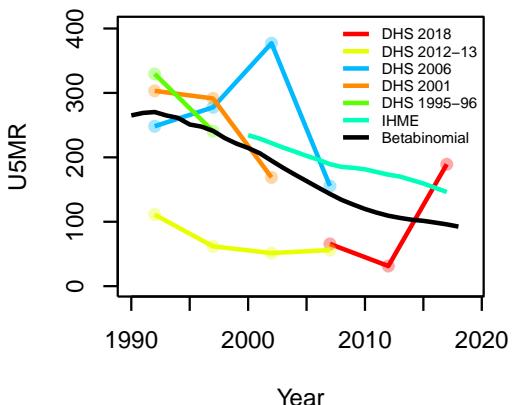
Barouéli, Ségou



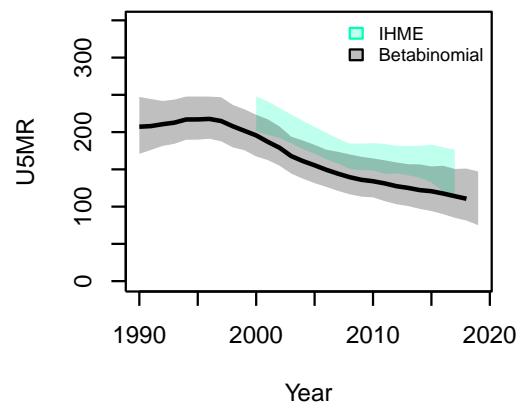
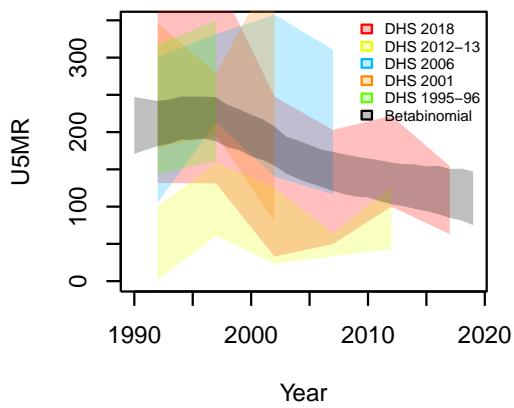
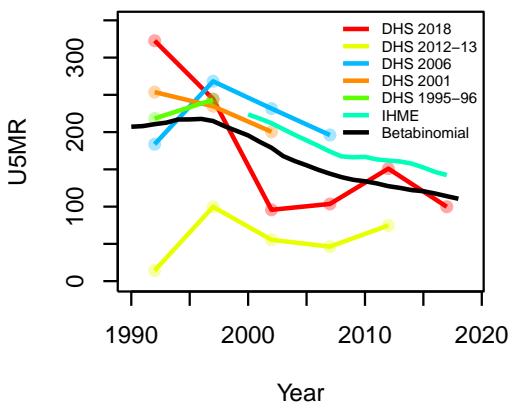
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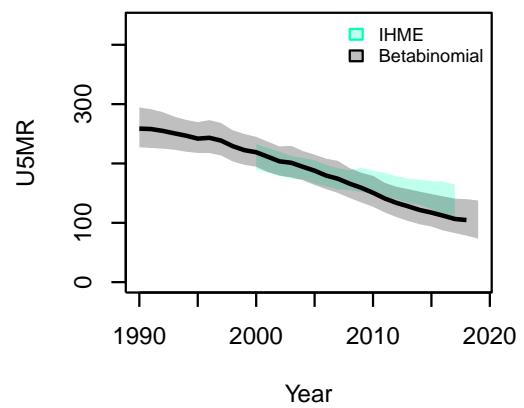
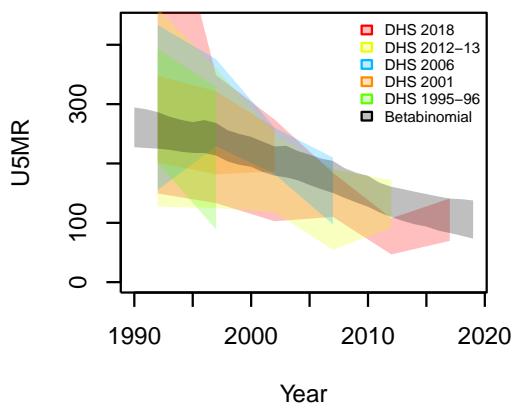
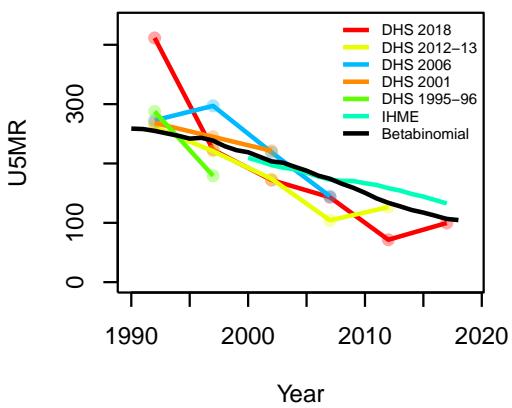
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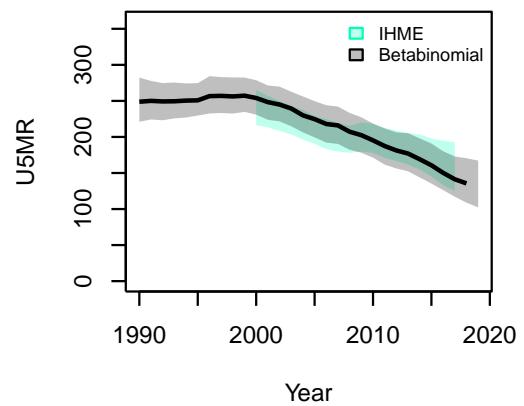
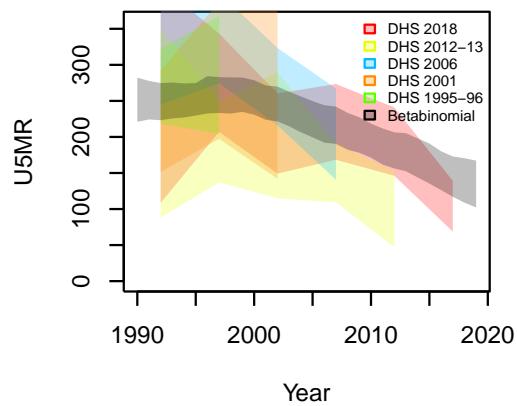
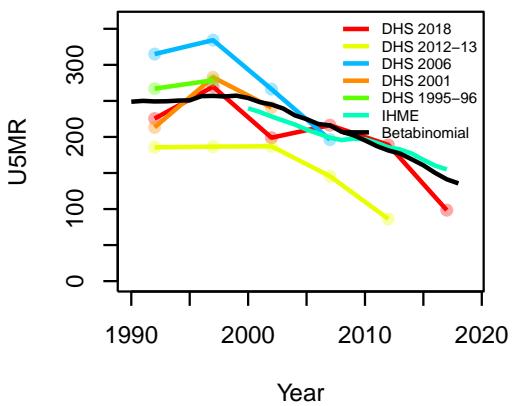
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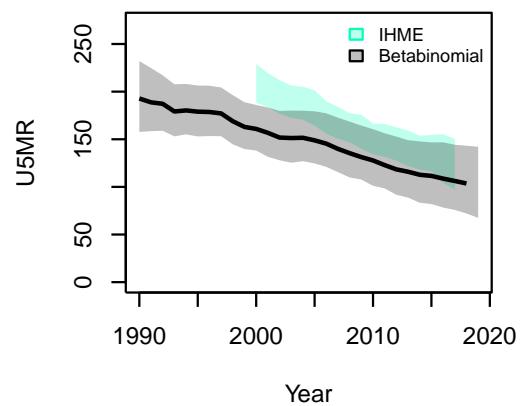
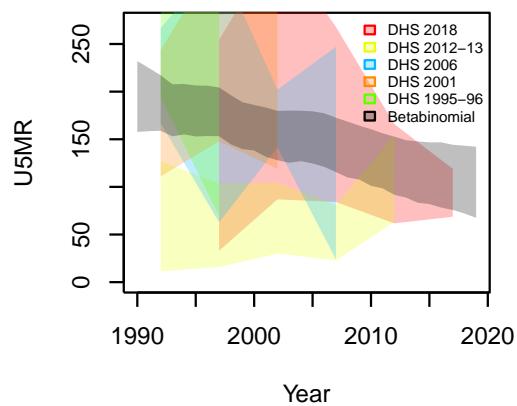
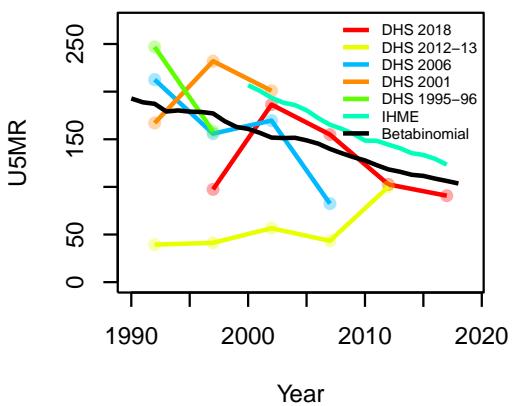
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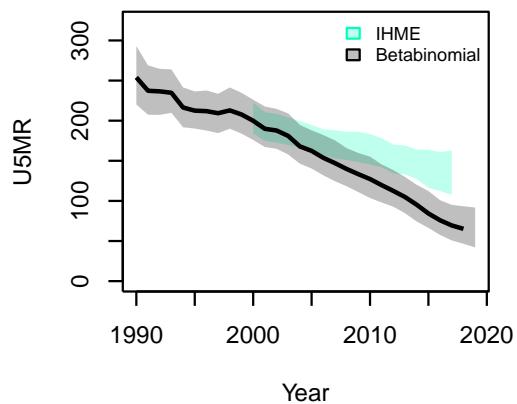
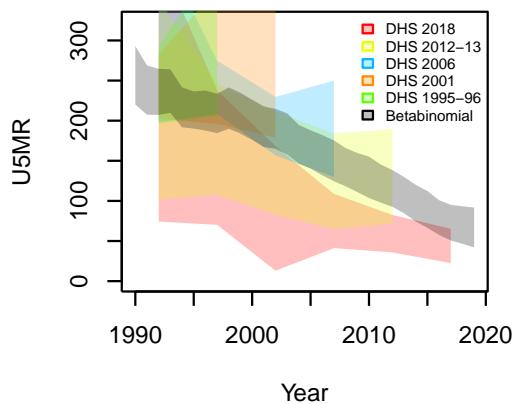
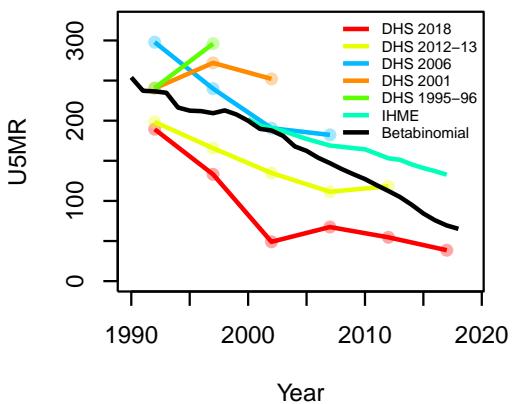
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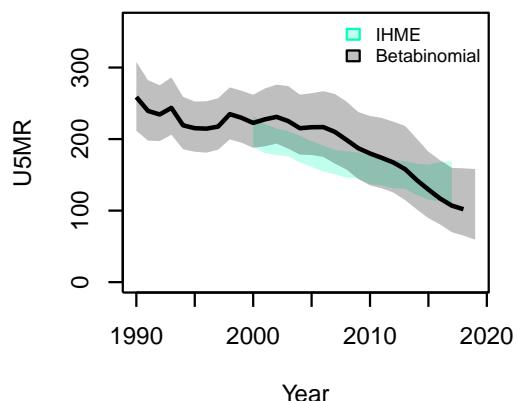
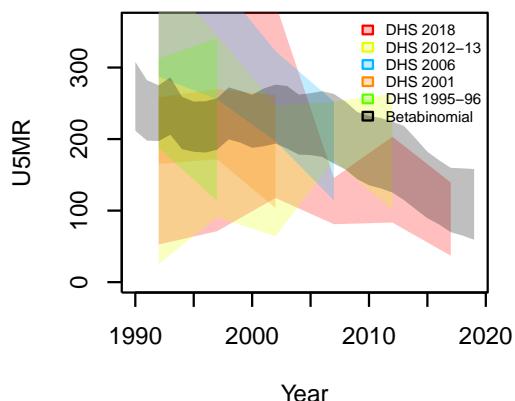
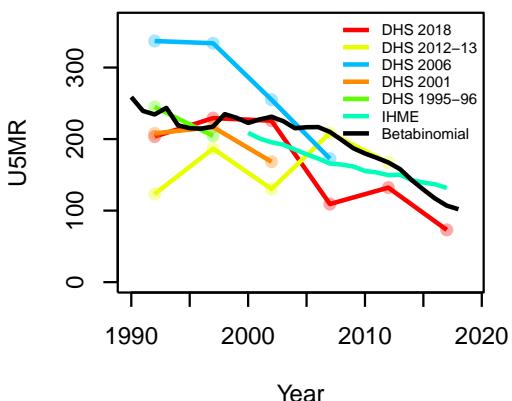
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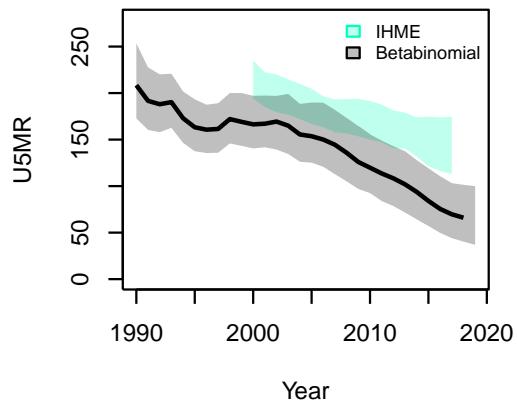
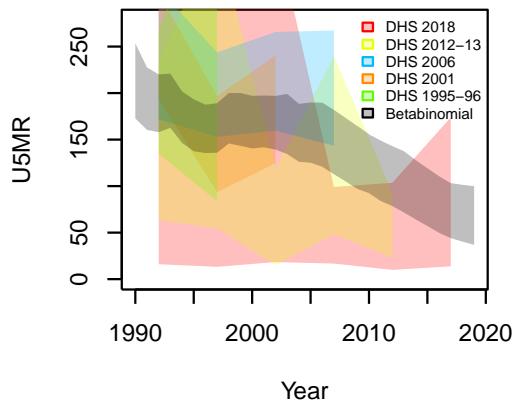
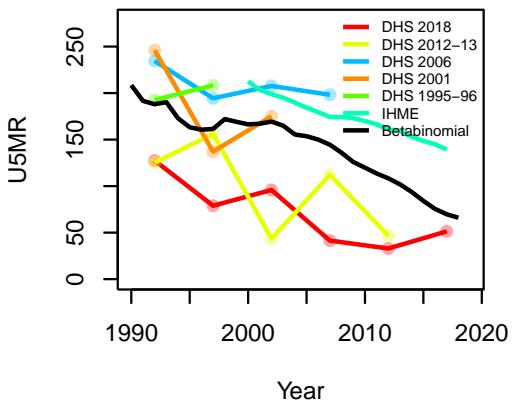
Bougouni, Sikasso



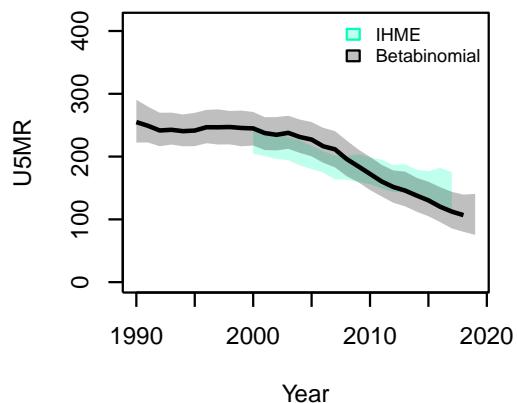
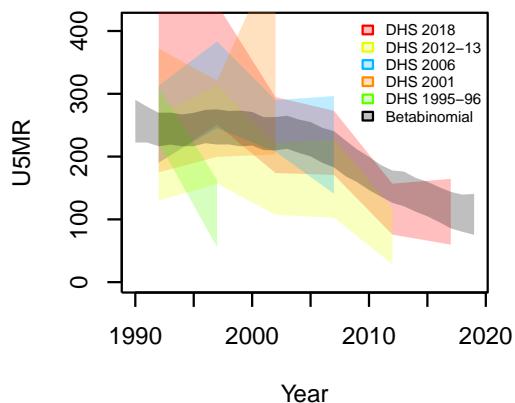
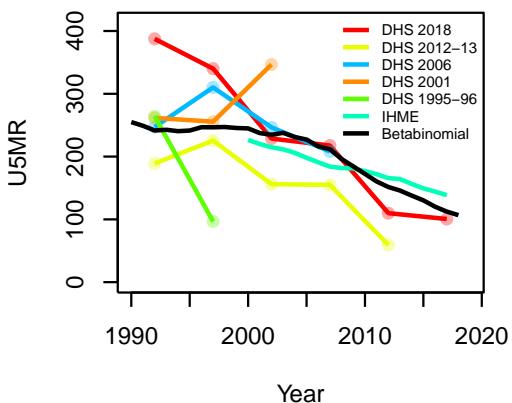
Kadiolo, Sikasso



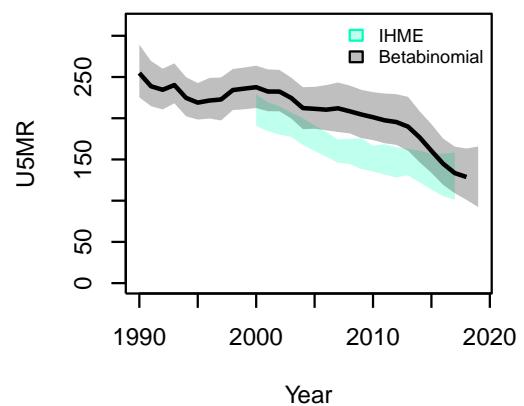
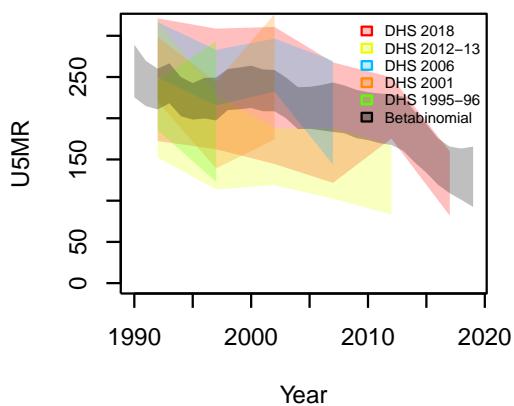
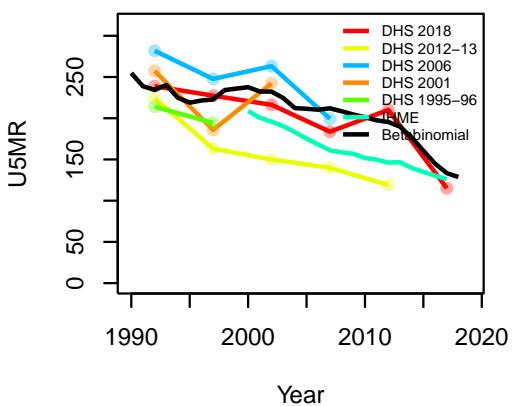
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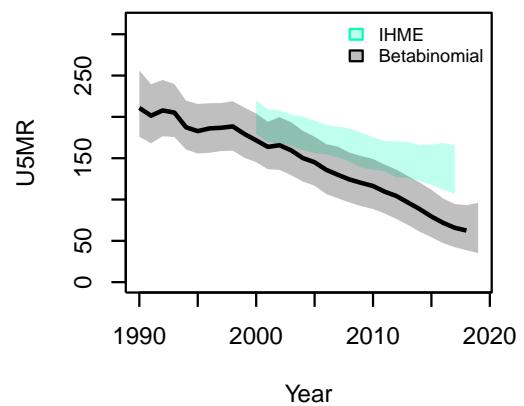
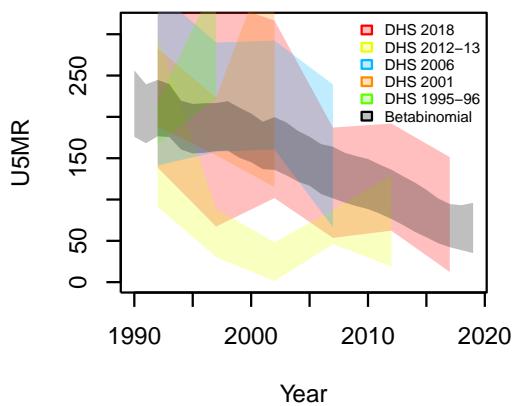
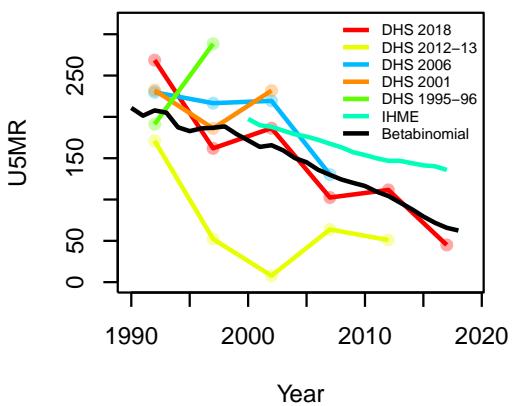
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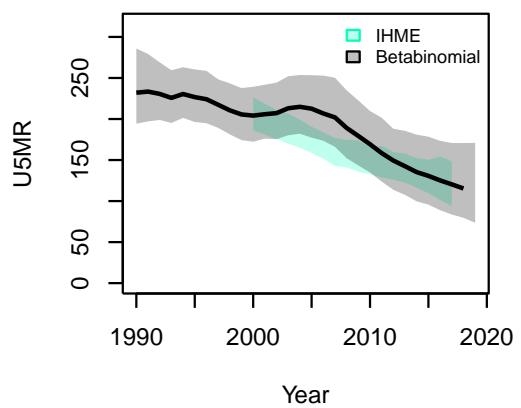
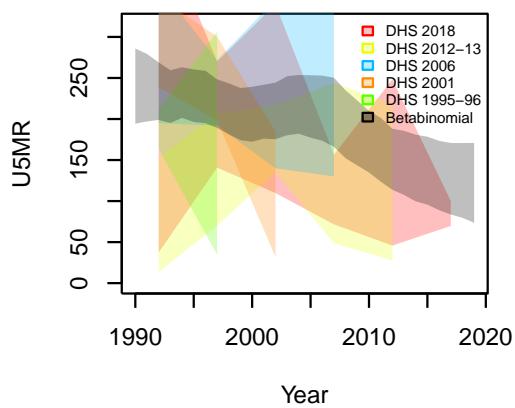
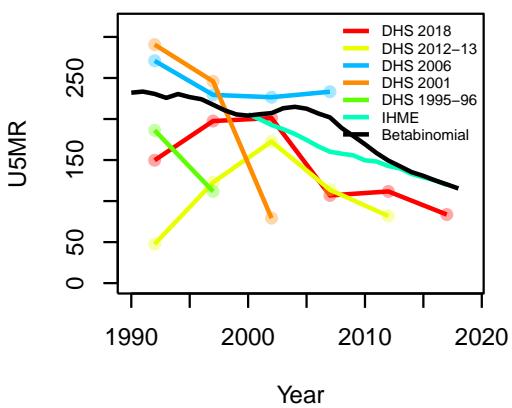
Sikasso, Sikasso



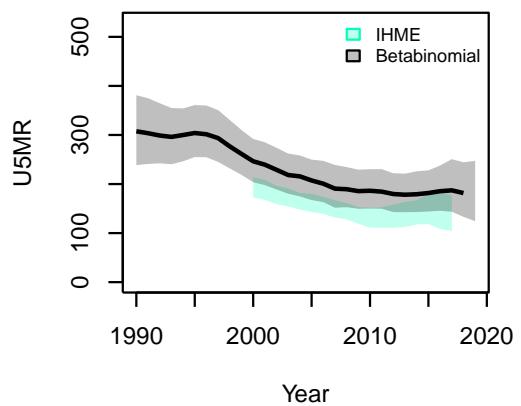
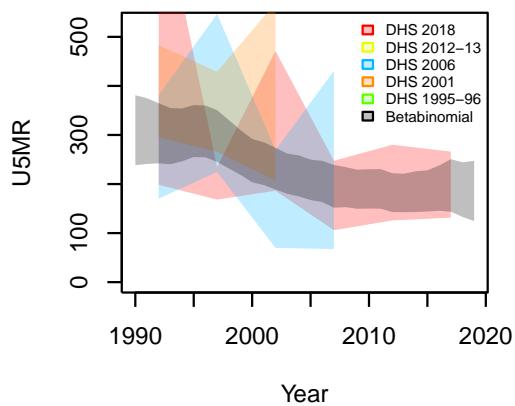
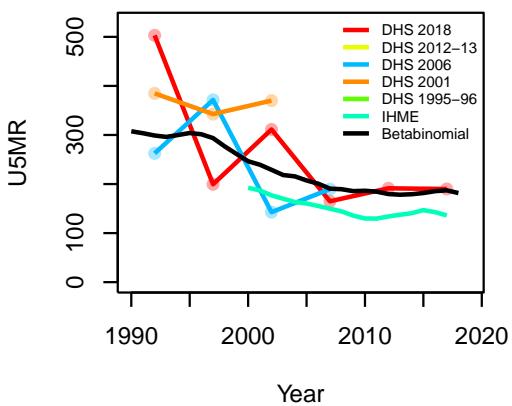
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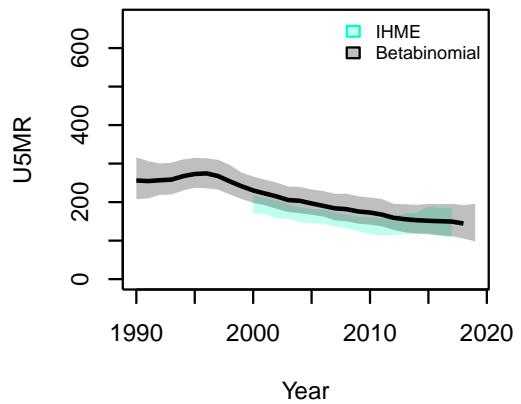
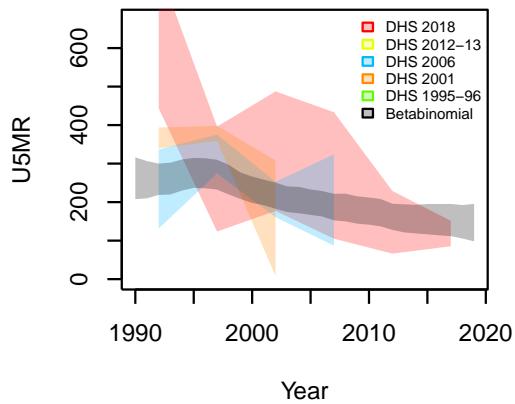
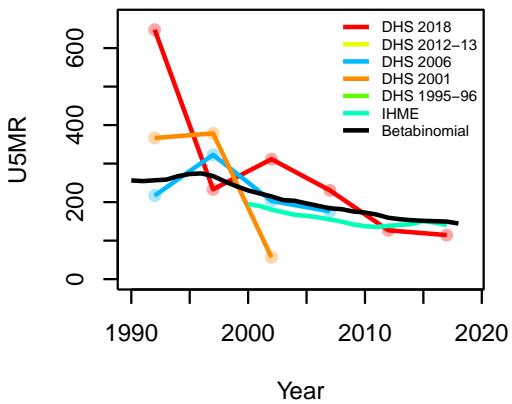
Yorosso, Sikasso



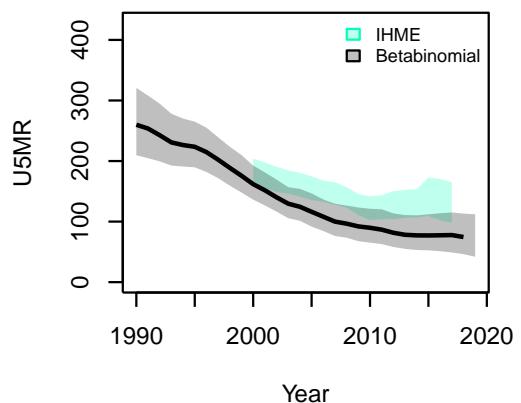
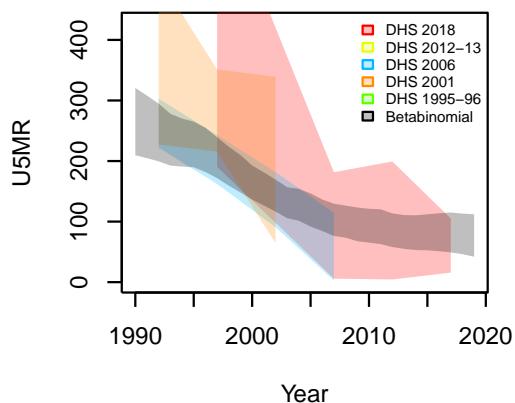
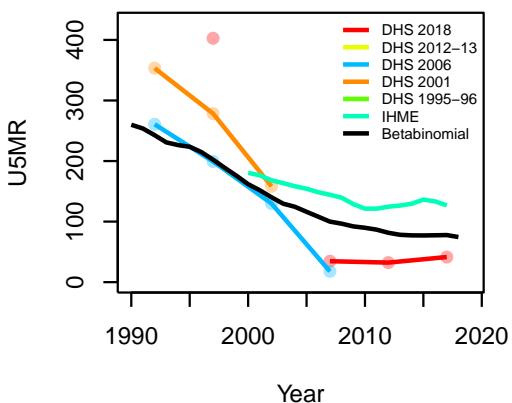
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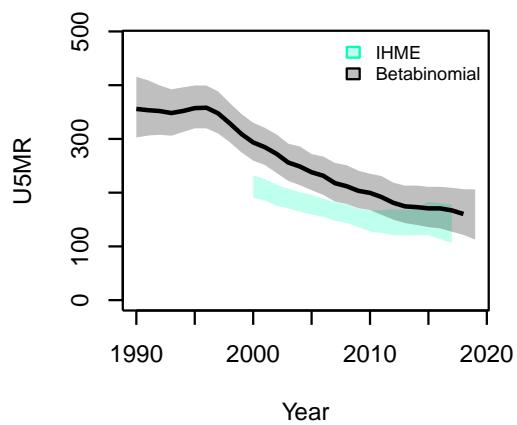
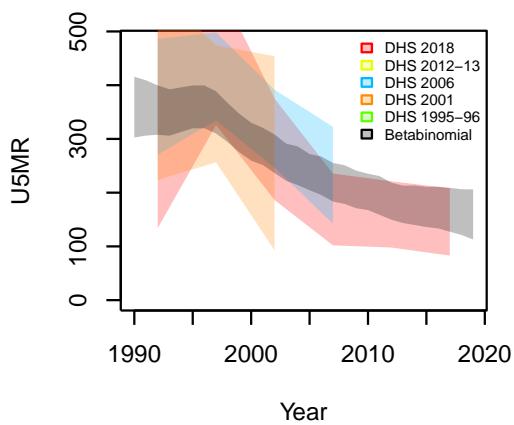
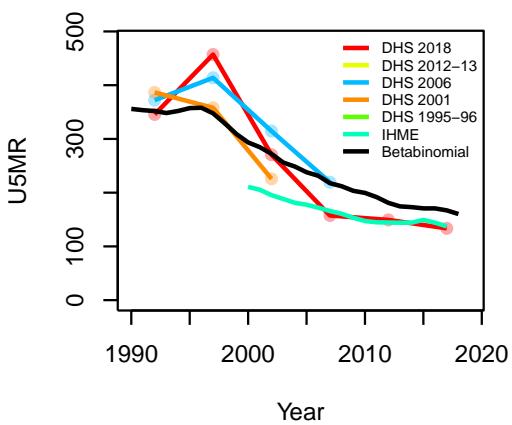
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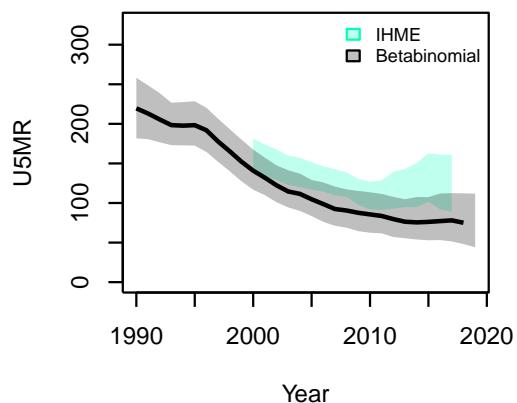
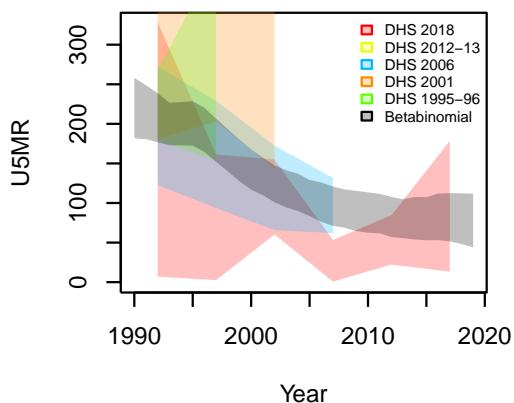
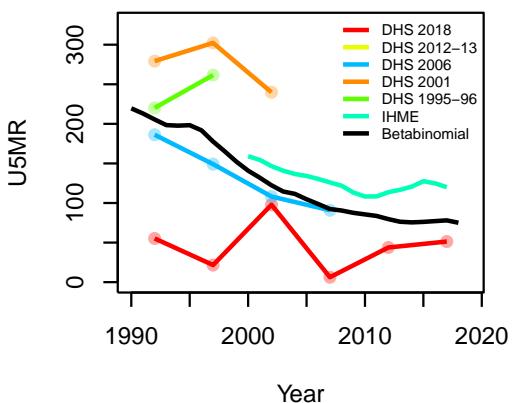
Gourma-Rharous, Timbuktu



Niafunké, Timbuktu



Tombouctou, Timbuktu



4 National Figures and Results

	Median	Interval	Median- Bench	Interval
0	45.60	(44,47.2)	47.20	(45.6,48.8)
1-11	3.50	(3.4,3.7)	3.70	(3.5,3.8)
12-23	2.10	(2,2.2)	2.20	(2.1,2.3)
24-35	2.30	(2.2,2.3)	2.30	(2.2,2.4)
36-47	1.30	(1.3,1.4)	1.40	(1.3,1.5)
48-59	0.70	(0.6,0.7)	0.70	(0.7,0.8)

Table 7: Monthly hazards in terms of 1000 children by age band for national, unstratified model for Mali.

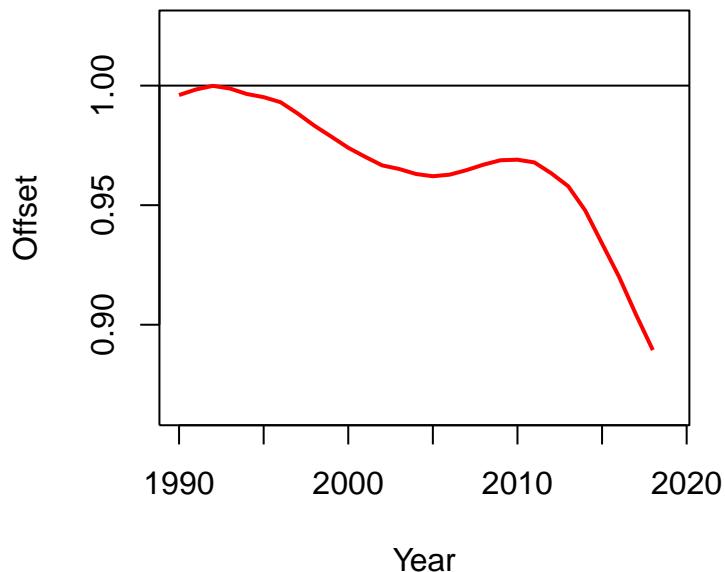


Figure 7: Benchmark offsets: $BENCH(t) = U5MR^*(t)/U5MR(t)$ where $U5MR^*(t)$ is modeled estimate and $U5MR(t)$ is UN-IGME estimate.

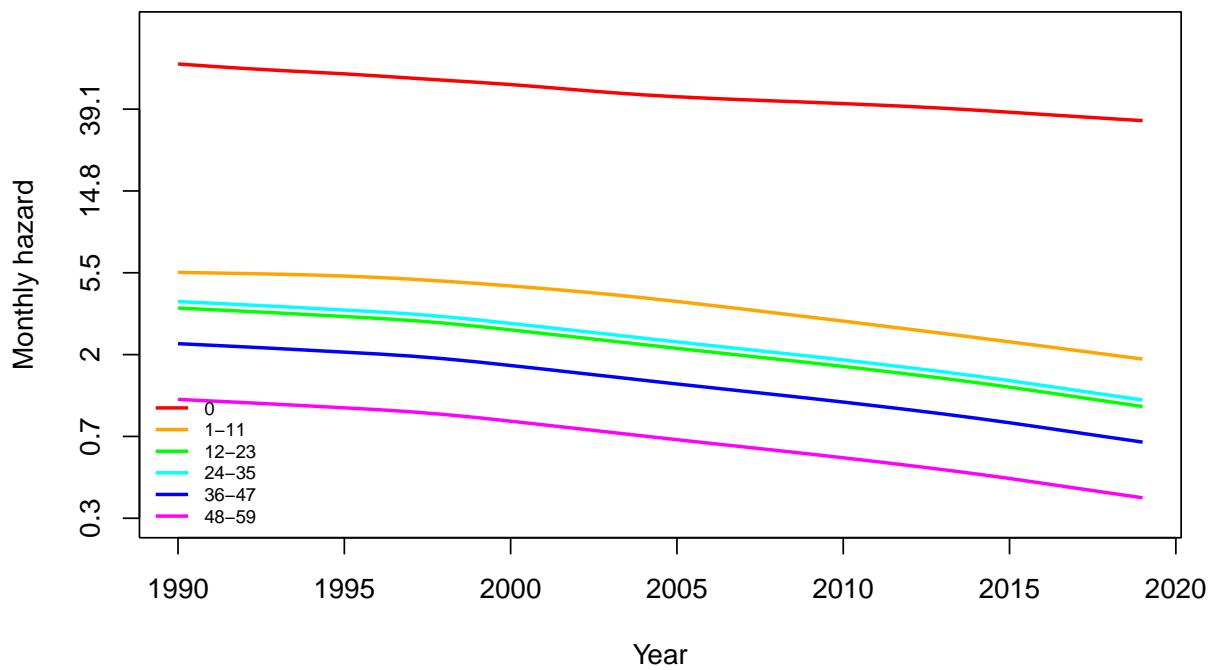


Figure 8: Monthly hazards of death in terms of U5MR (number deaths per 1000 children) by agebands.

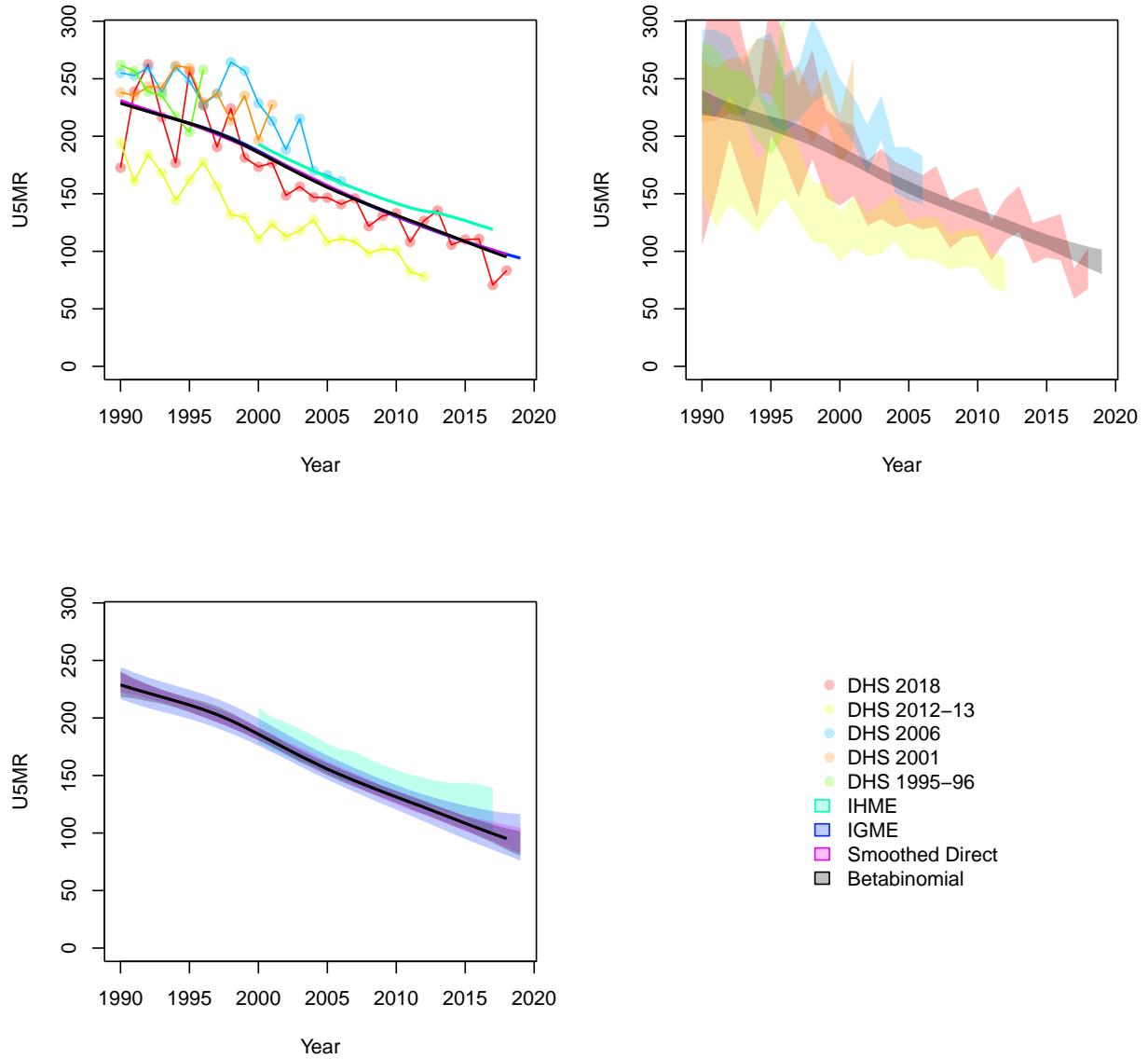
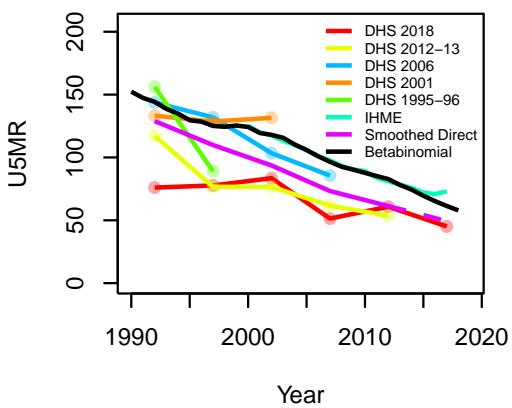
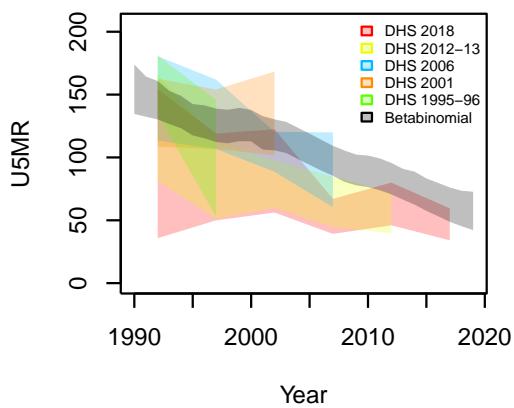
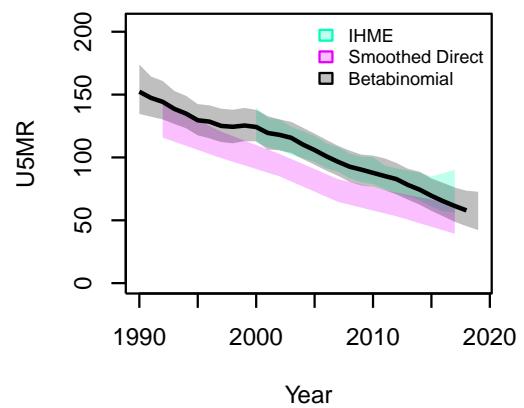
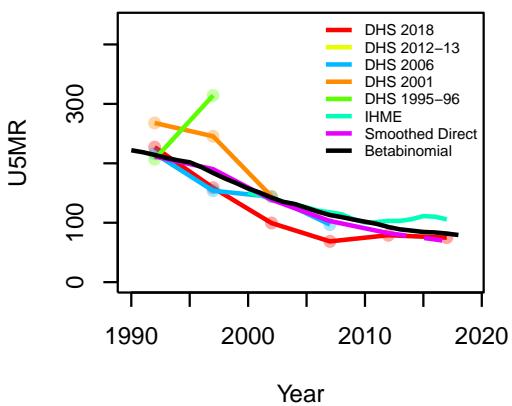
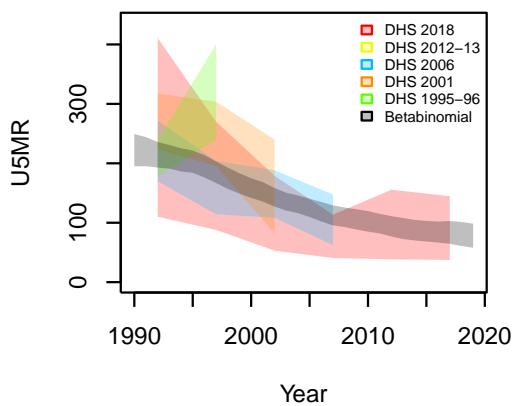
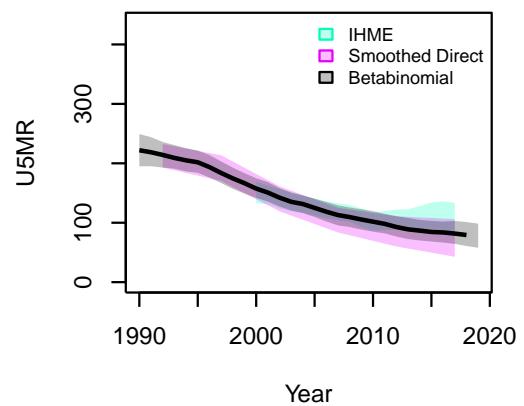
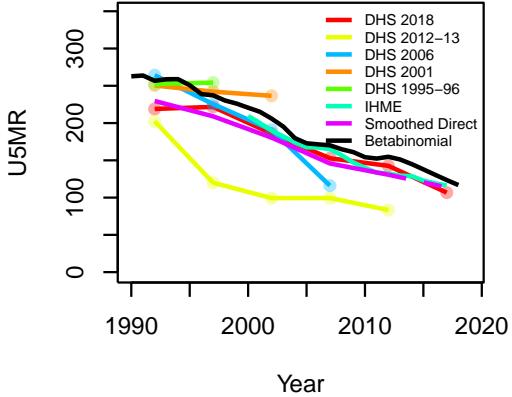
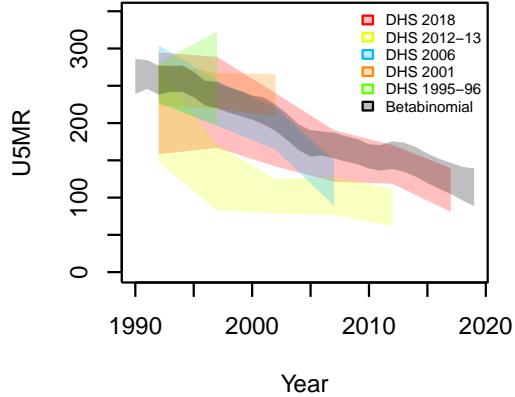
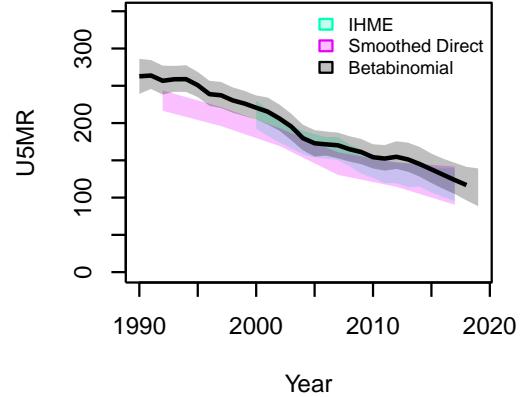
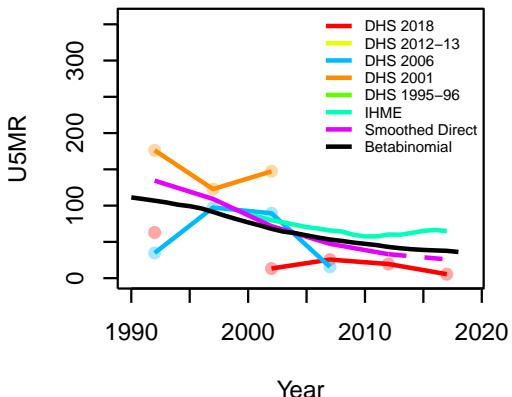
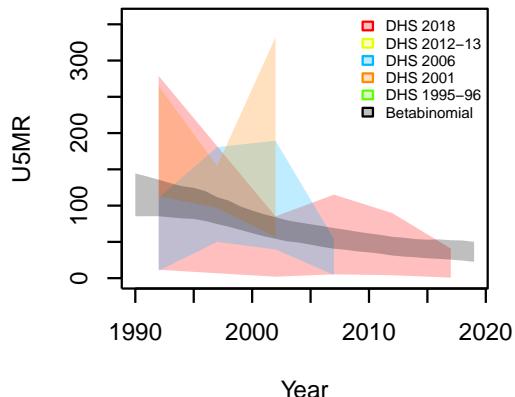
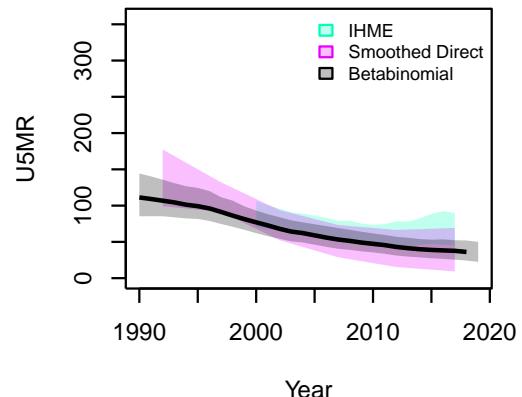


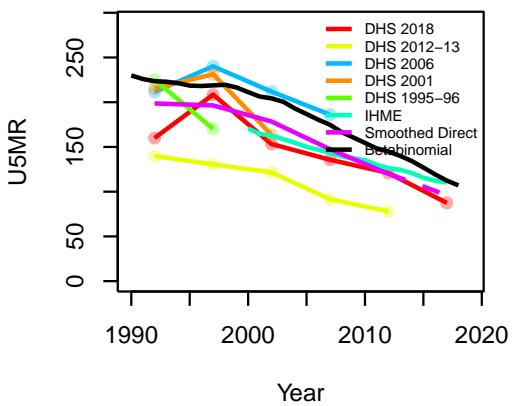
Figure 9: Benchmarked U5MR rates per 1000 live births. Top: DHS direct estimates with national trends from IHME GBD, UN-IGME, Smoothed Direct and Betabinomial estimates. Middle: 95% uncertainty intervals for DHS data. Bottom: IHME GBD, UN-IGME, Smoothed Direct and Betabinomial estimates with for the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

5 Admin 1 Figures

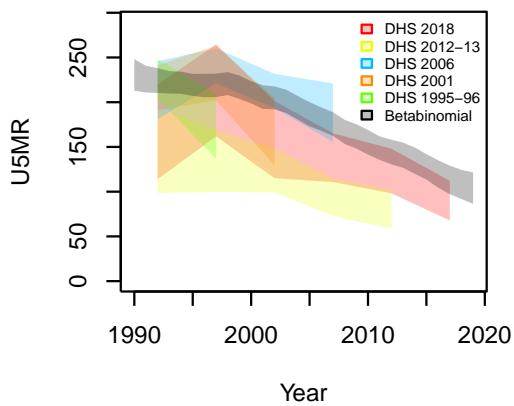
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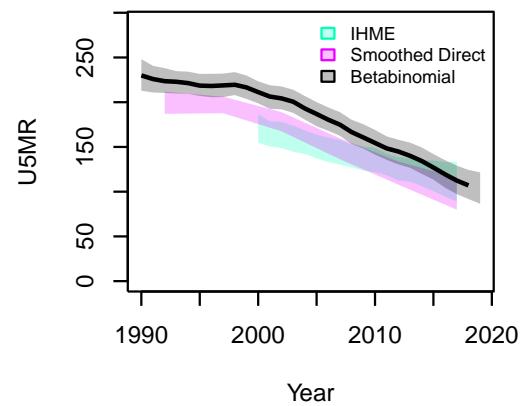
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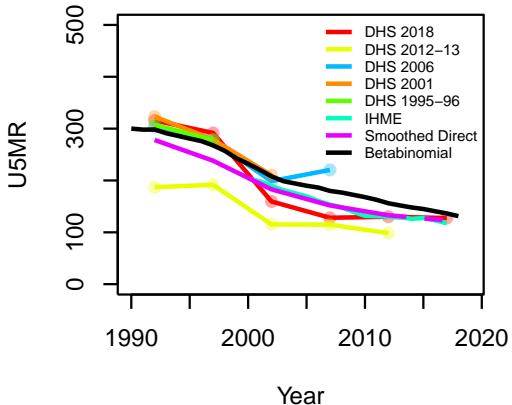
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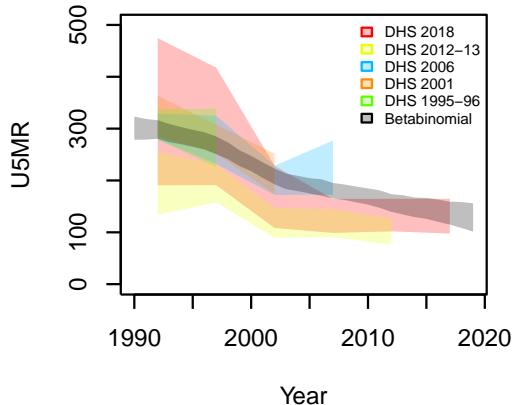
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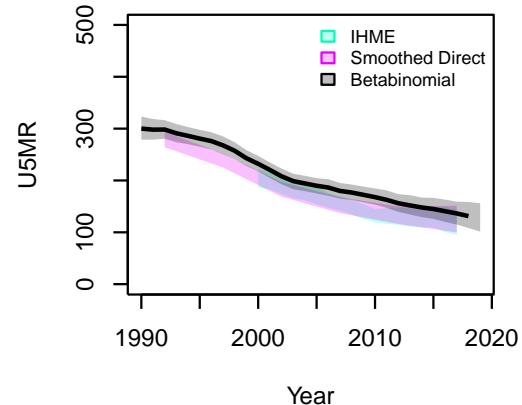
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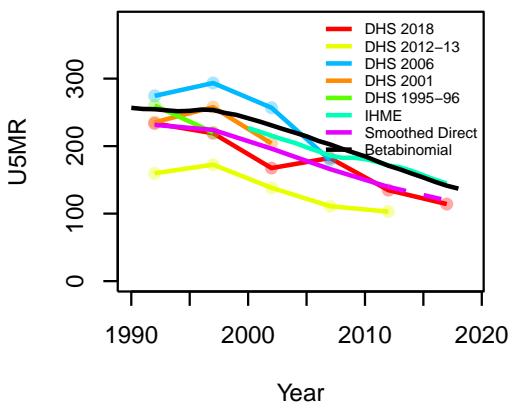
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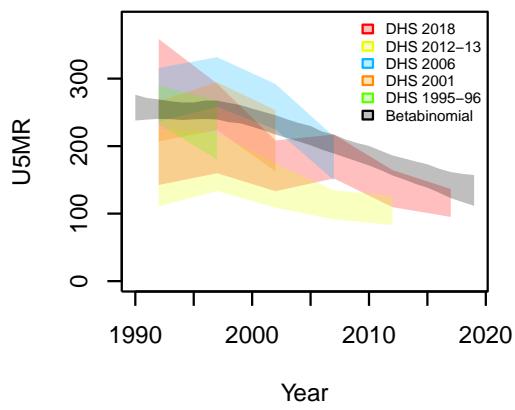
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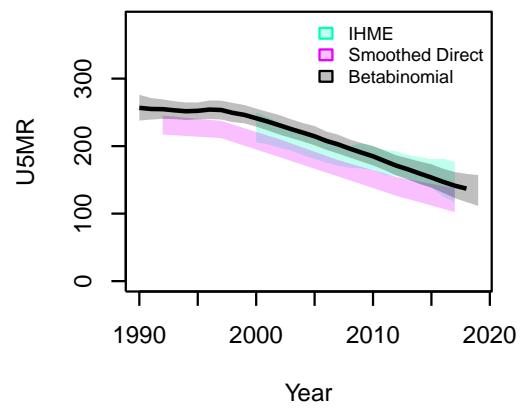
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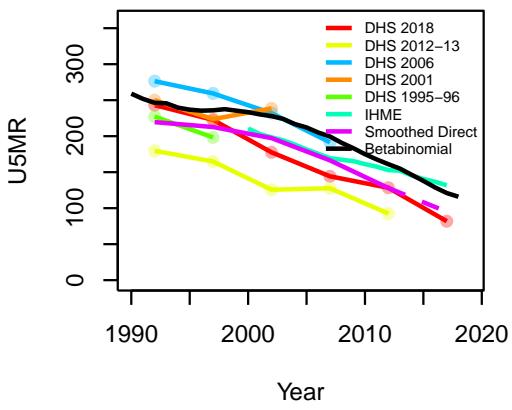
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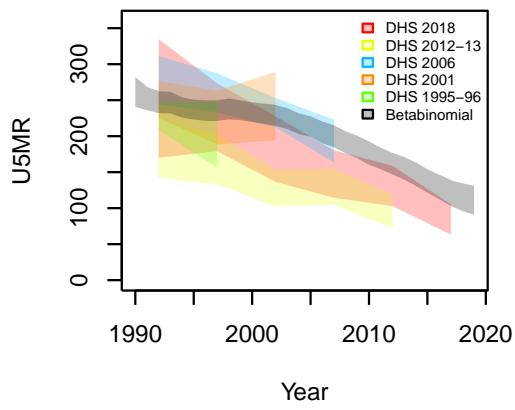
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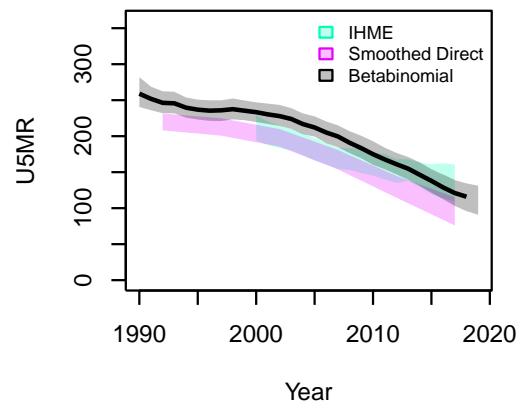
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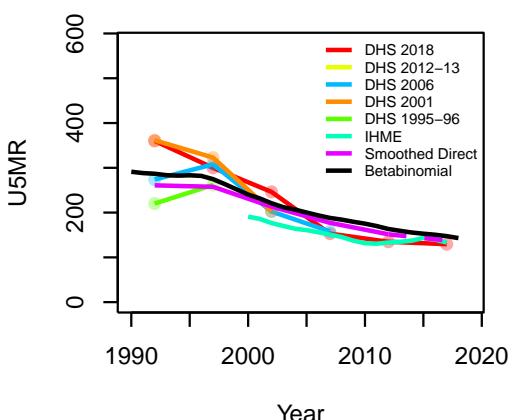
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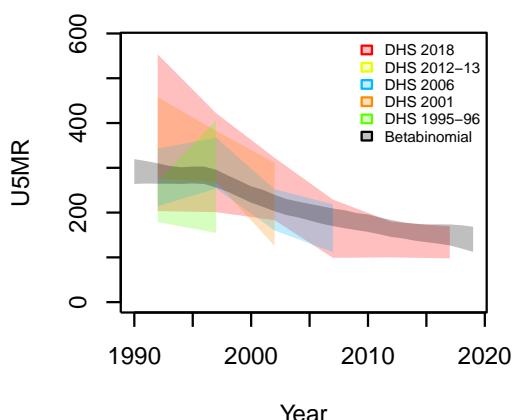
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Timbuktu



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