

Country Summary: Rwanda

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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.

Rwanda has 5 Admin 1 areas and 30 Admin 2 areas.

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

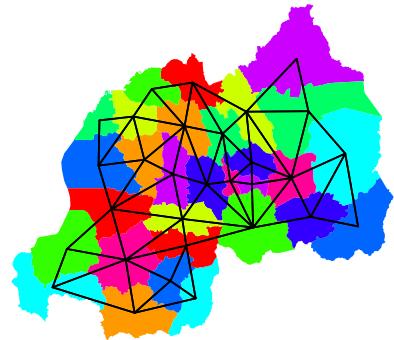


Figure 1: Top: The neighborhood structure of Admin 2 areas. Bottom: The names of Admin 2 areas.

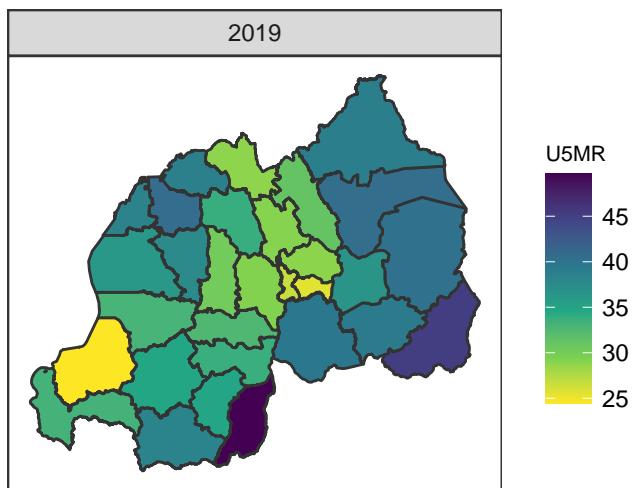


Figure 2: Median estimates of U5MR (deaths per 1000 children) in 2019.

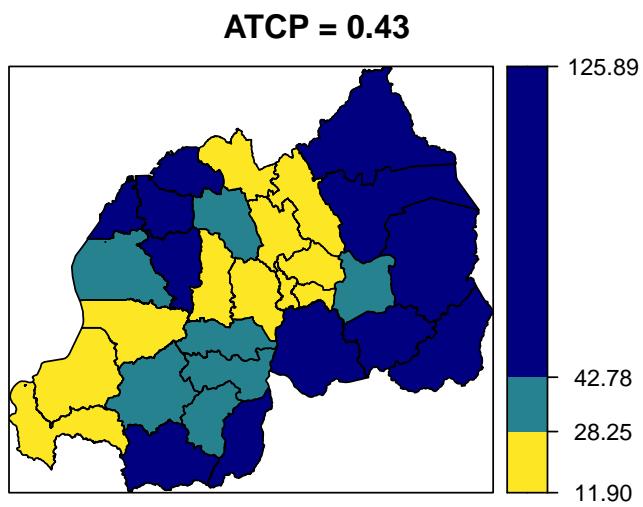
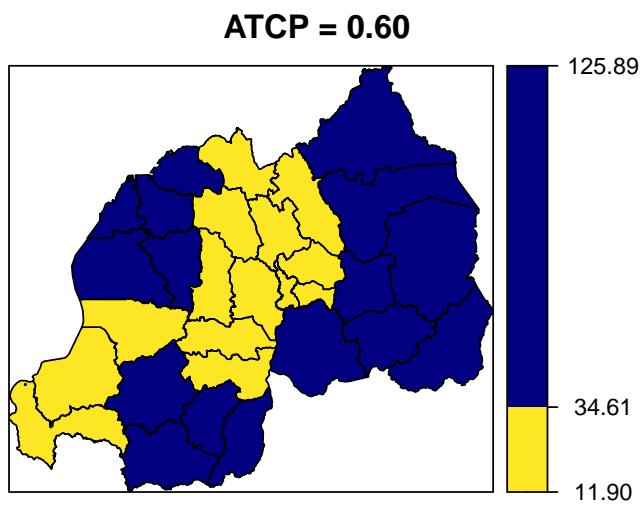


Figure 3: Expression of uncertainty of U5MR (deaths per 1000 children) based on the average true classification probability (ATCP) in 2019.

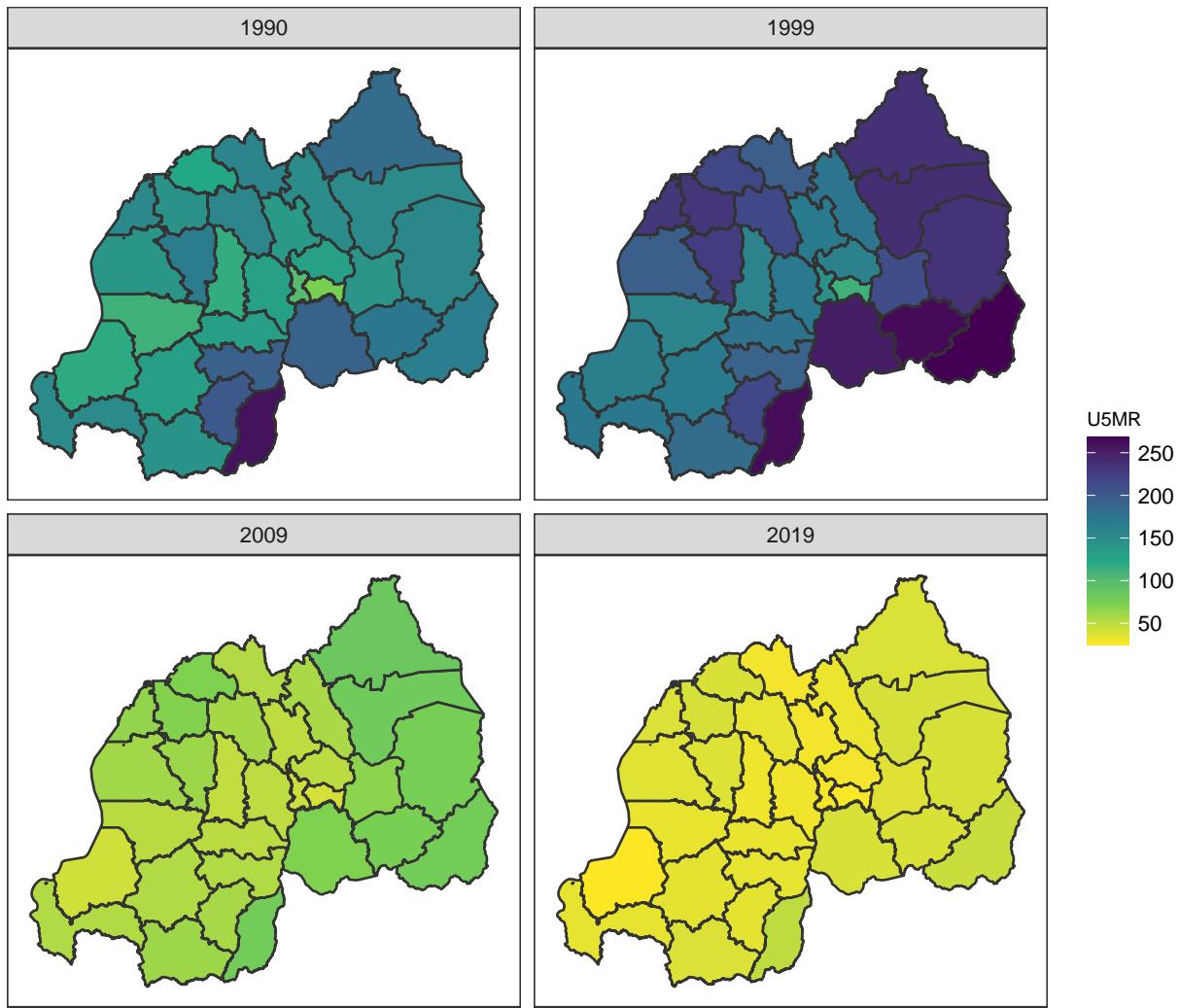
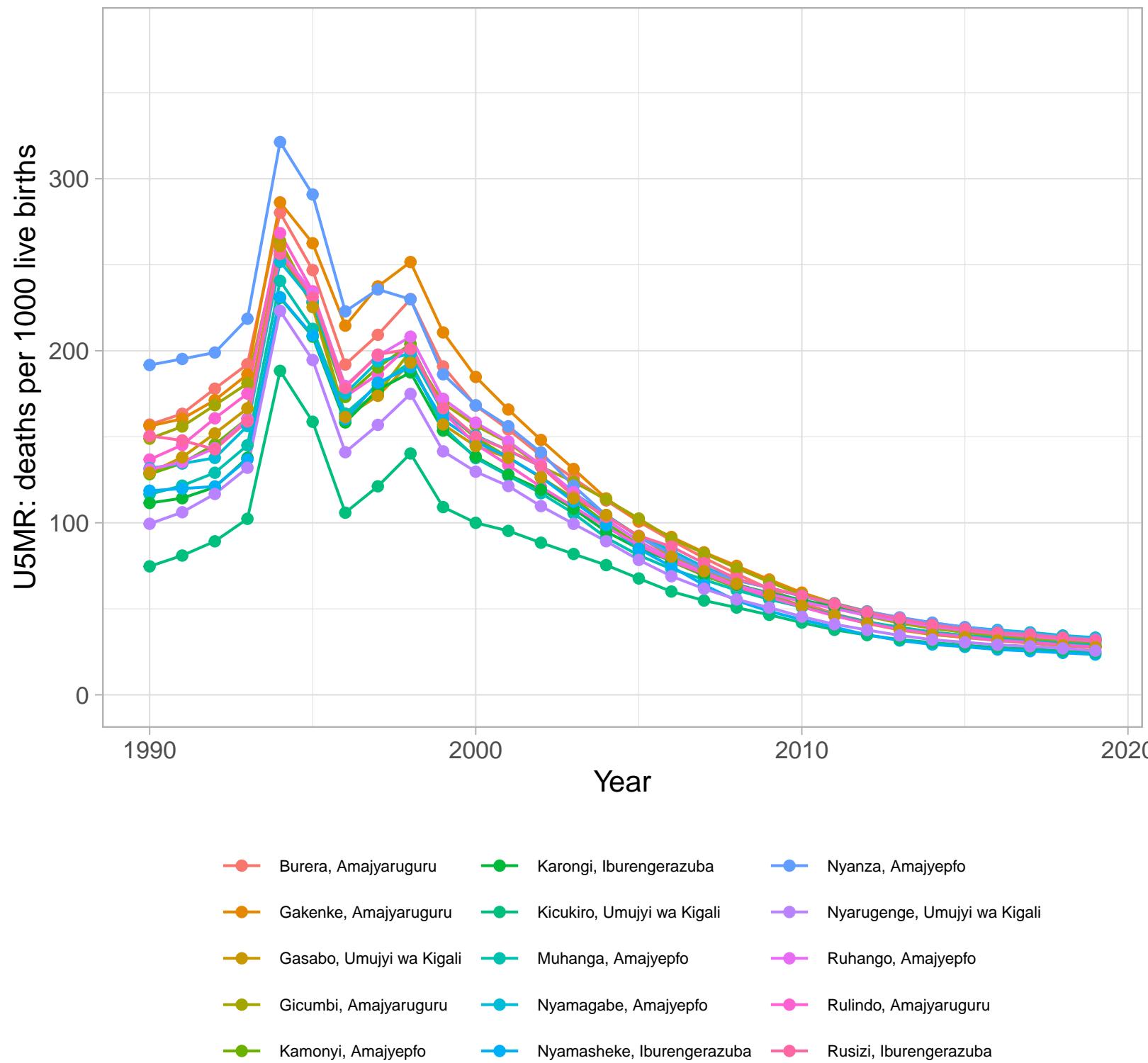
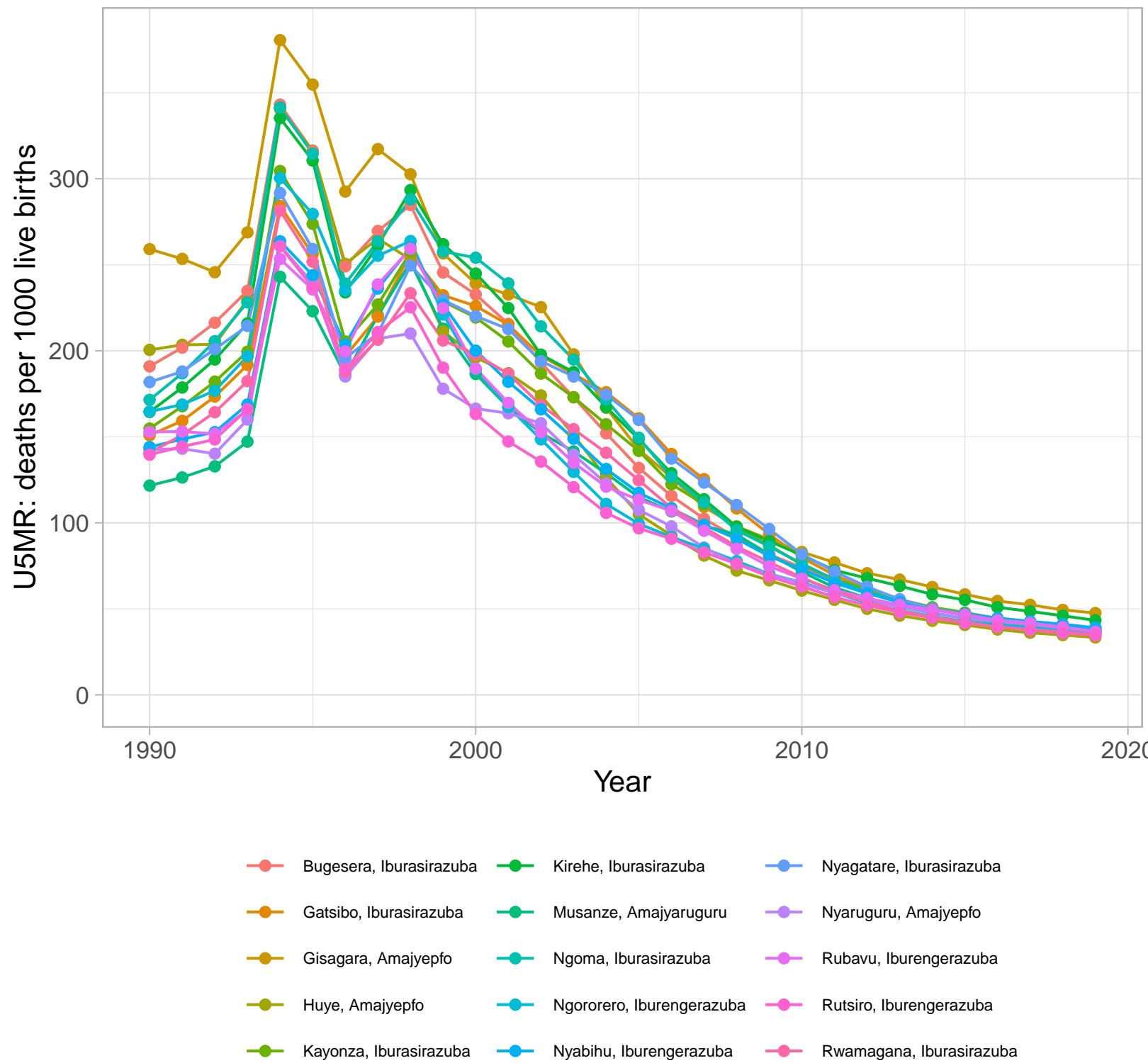


Figure 4: Median estimates for selected years.

Rwanda



Rwanda



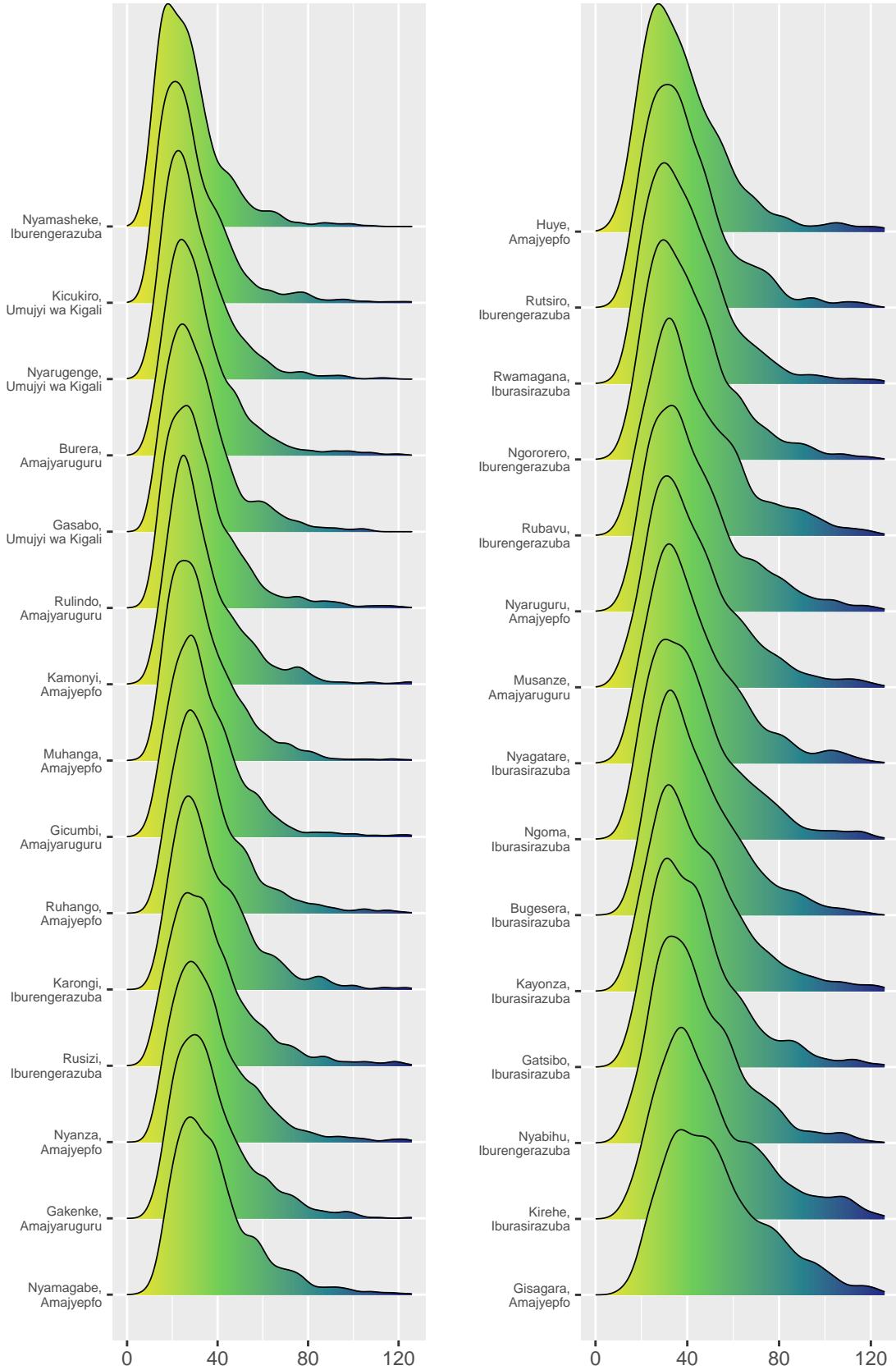


Figure 5: Posterior distributions of U5MR (deaths per 1000 children) in 2019. Areas are ordered by median estimated U5MR in 2019.

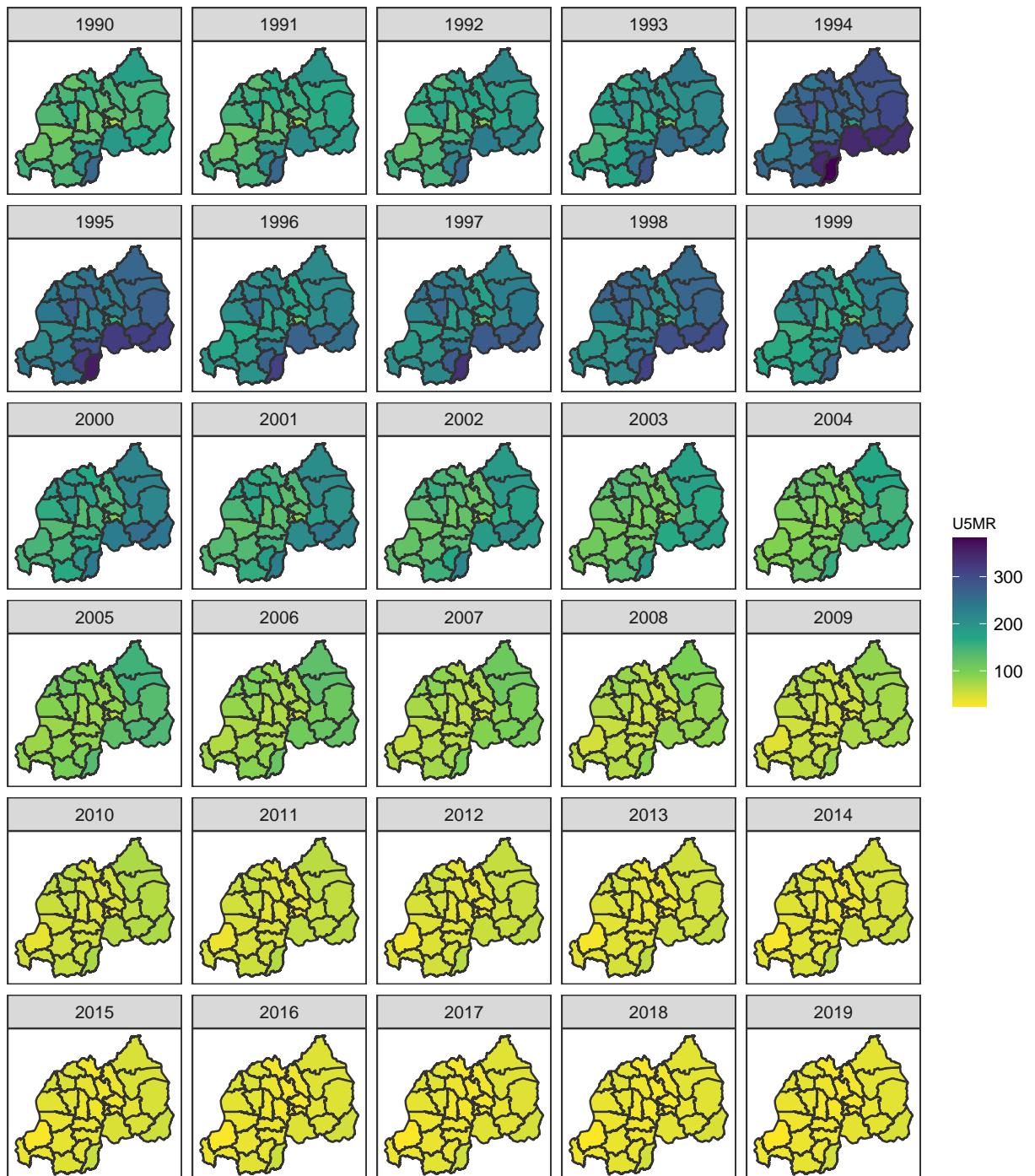


Figure 6: Posterior medians of U5MR (deaths per 1000 births) by Admin 2 area and year.

2 National Survey Data

Survey	Urban	Rural	Total
2005	108	348	456
2007-08	61	185	246
2010	79	413	492
2014-15	113	379	492

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

Age	No. Deaths	No. Agemonths
0	896	29082
1-11	969	296652
12-23	477	297741
24-35	307	277440
36-47	241	256614
48-59	141	238668

Table 2: Numbers of agemonths and deaths by age for DHS 2014-15.

Age	No. Deaths	No. Agemonths
0	1055	29499
1-11	1217	300308
12-23	639	302871
24-35	377	282377
36-47	275	262061
48-59	201	241437

Table 3: Numbers of agemonths and deaths by age for DHS 2010.

Age	No. Deaths	No. Agemonths
0	507	15465
1-11	692	157128
12-23	313	156787
24-35	211	146344
36-47	168	136017
48-59	102	125656

Table 4: Numbers of agemonths and deaths by age for DHS 2007-08.

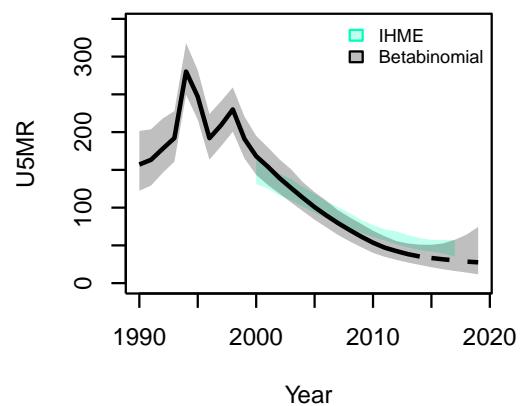
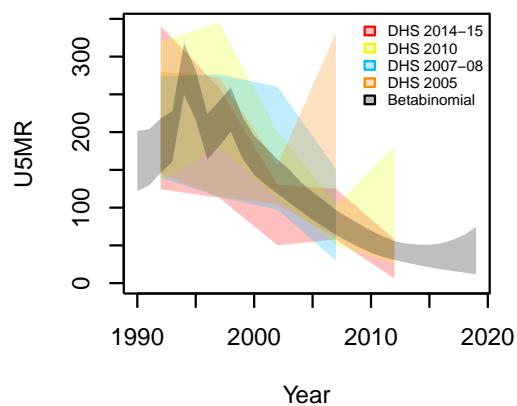
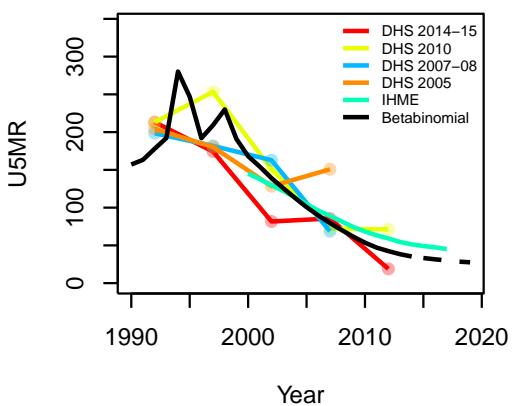
Age	No. Deaths	No. Agemonths
0	1041	22531
1-11	1245	223749
12-23	648	221823
24-35	401	206816
36-47	299	191661
48-59	210	180442

Table 5: Numbers of agemonths and deaths by age for DHS 2005.

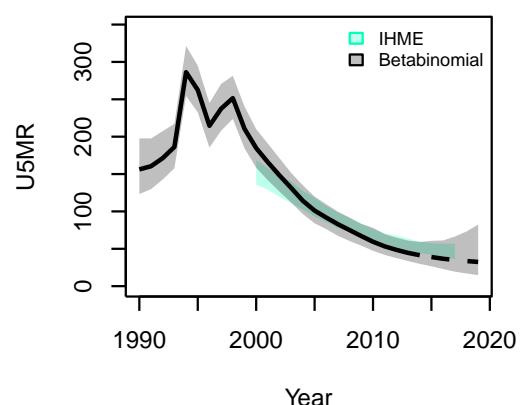
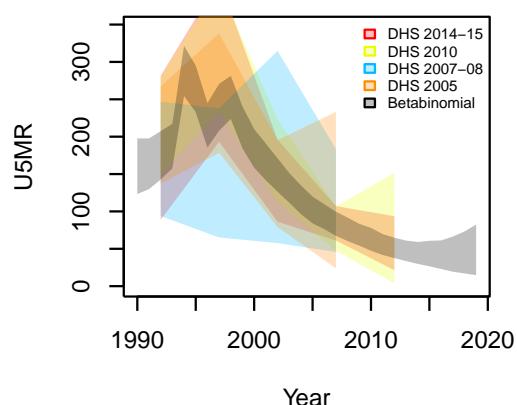
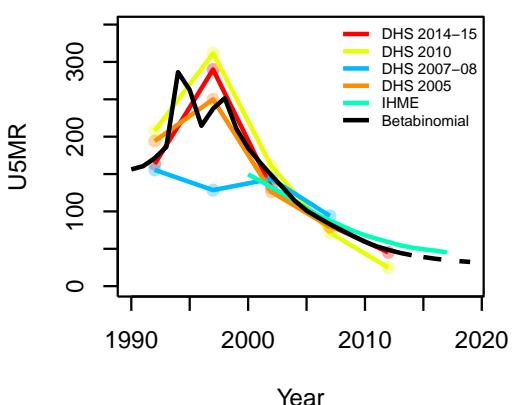
3 Admin 2 Figures

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.

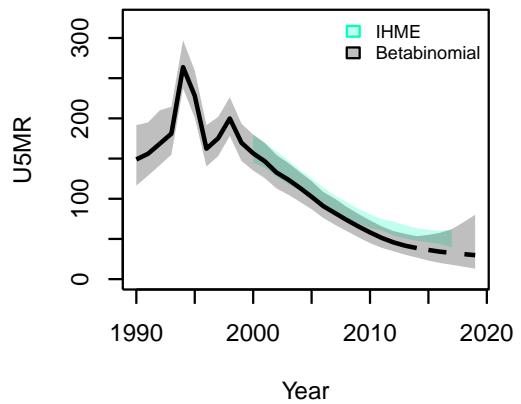
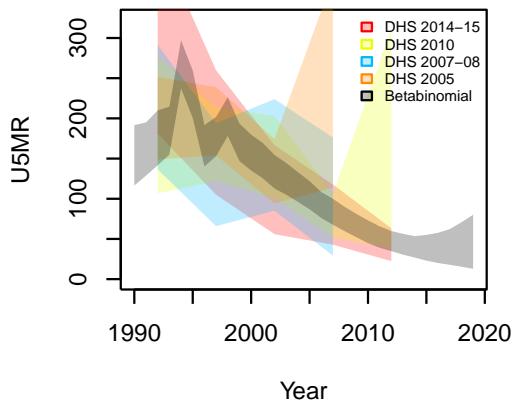
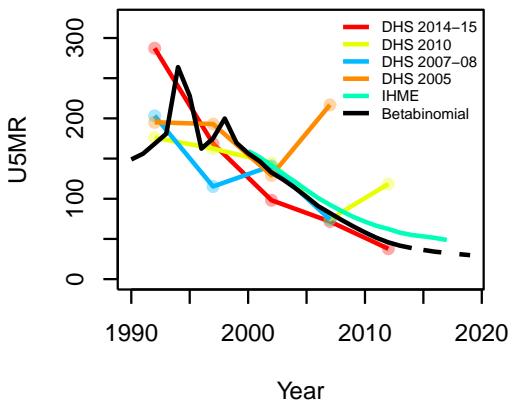
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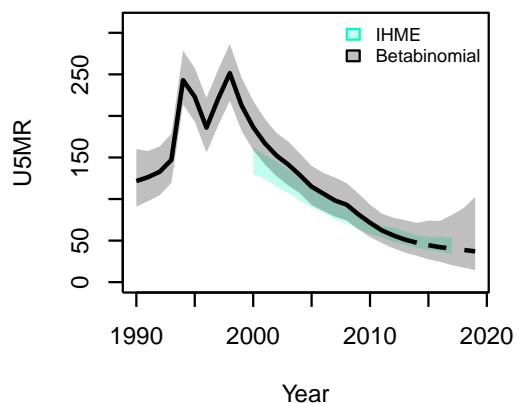
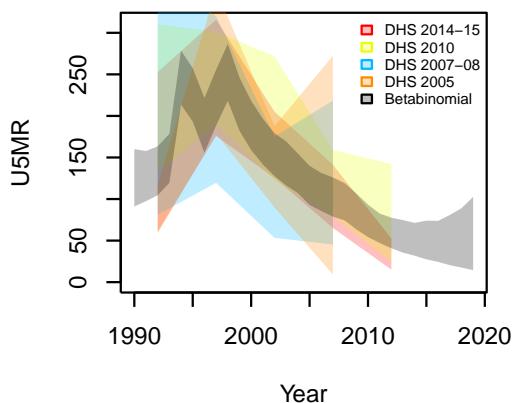
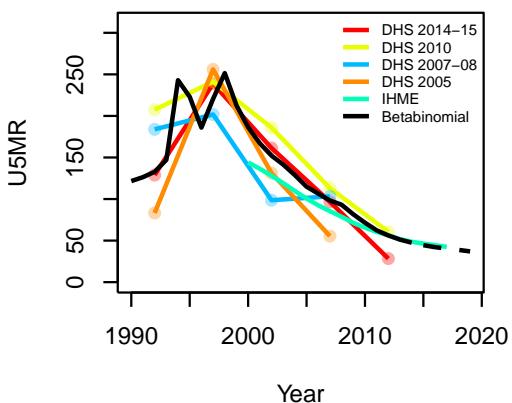
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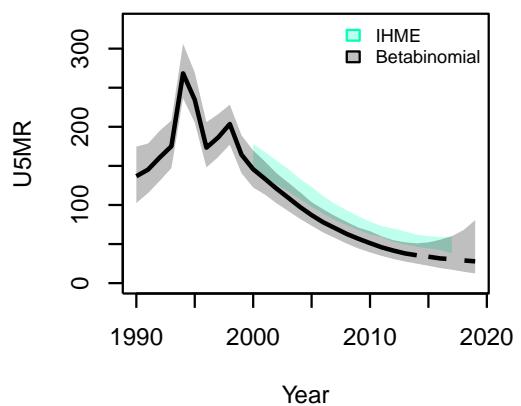
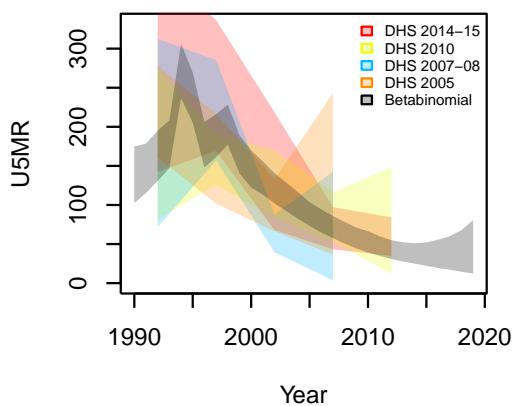
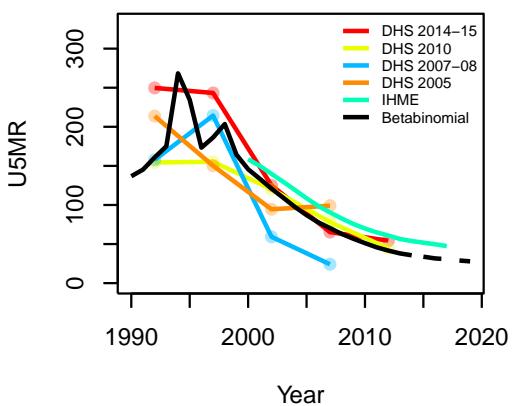
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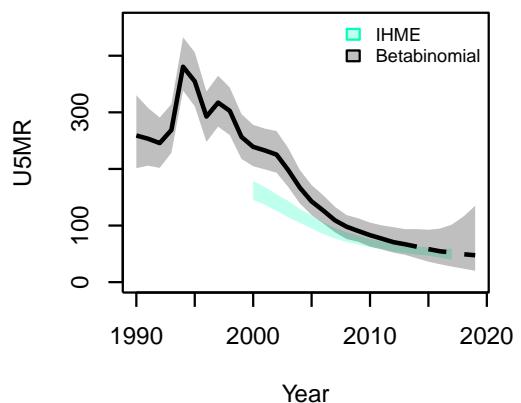
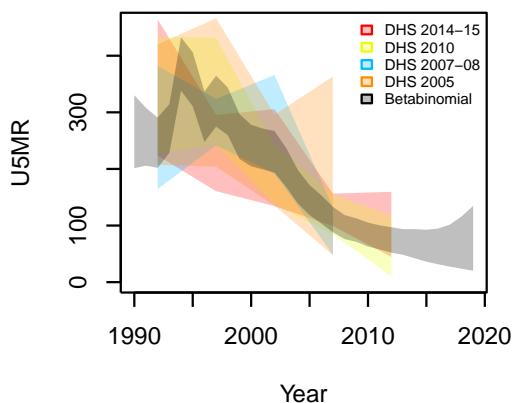
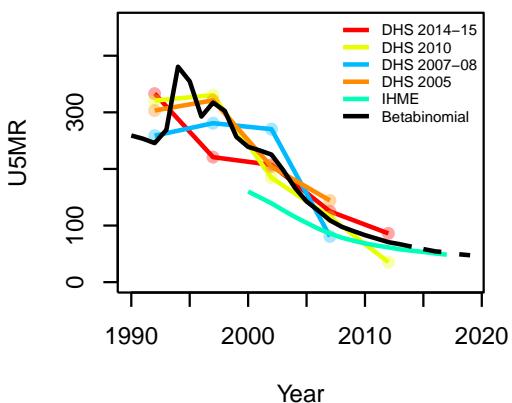
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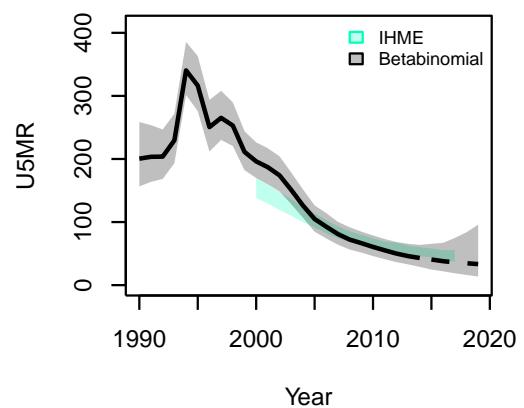
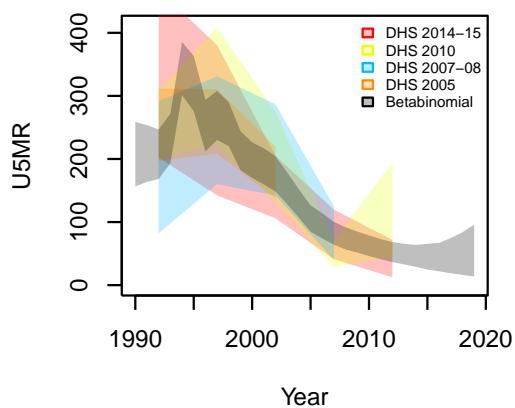
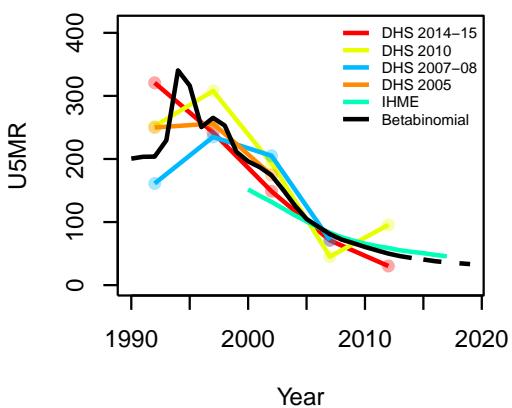
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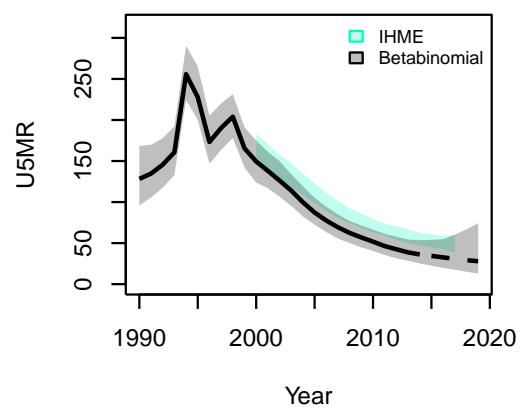
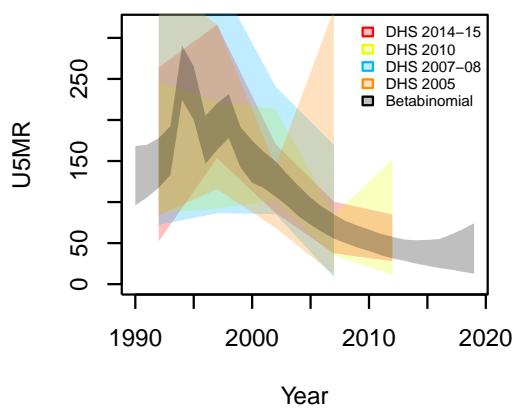
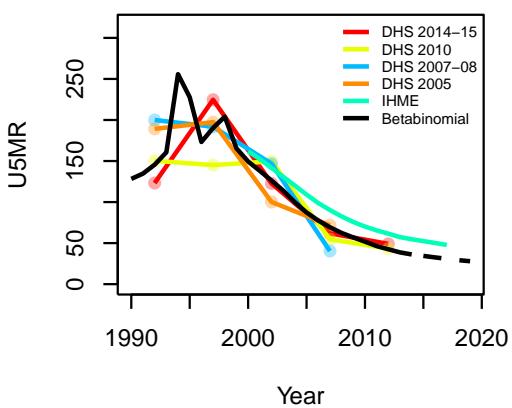
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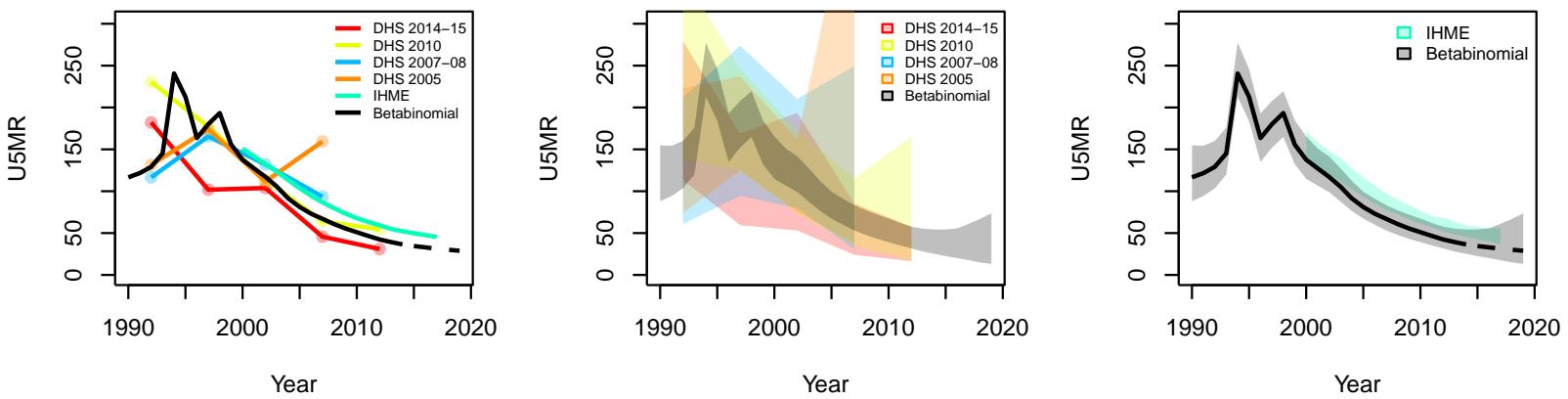
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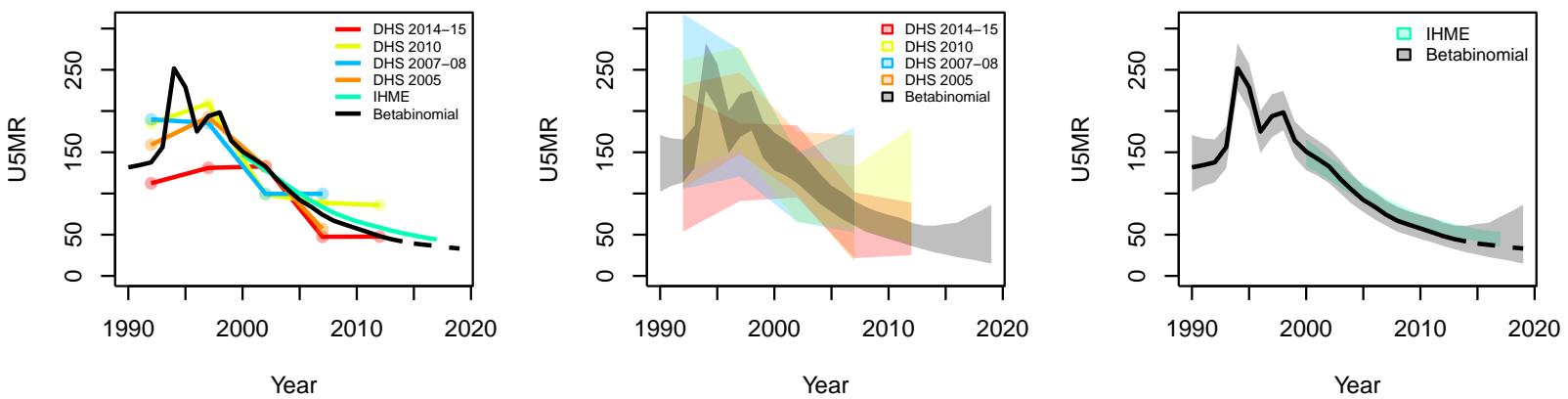
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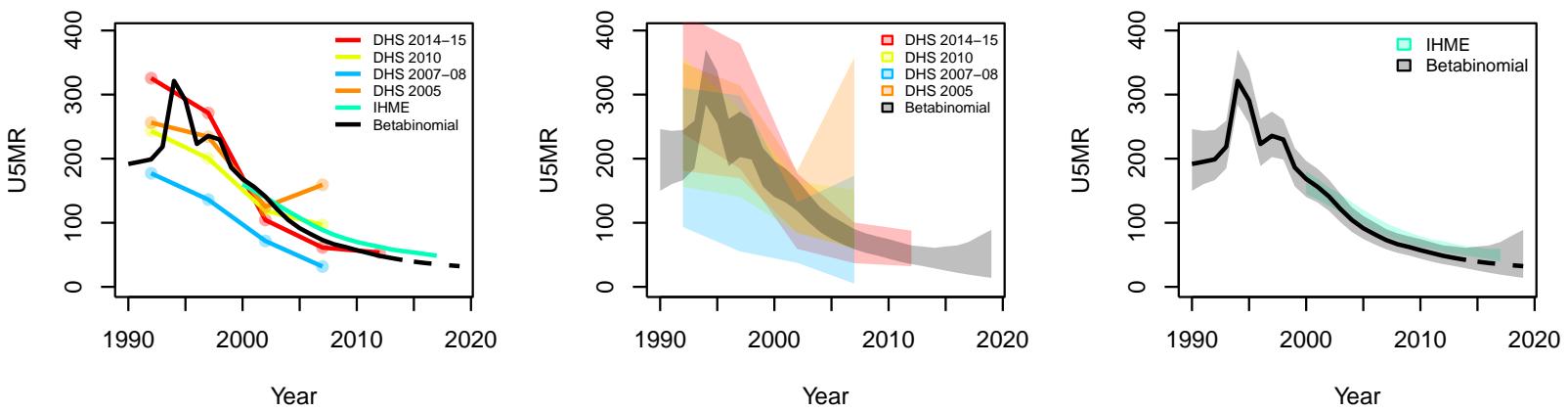
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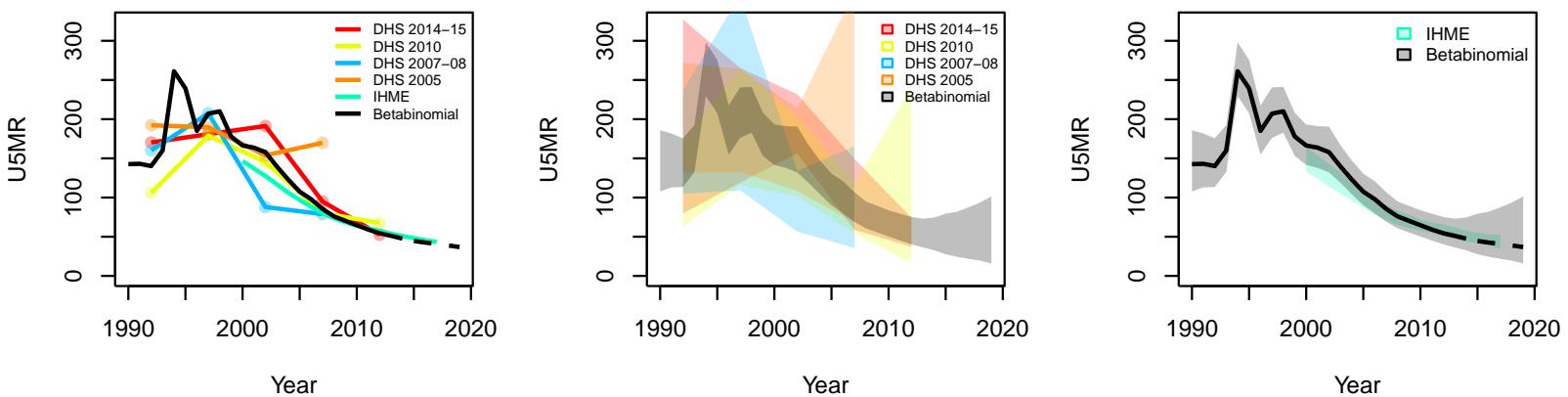
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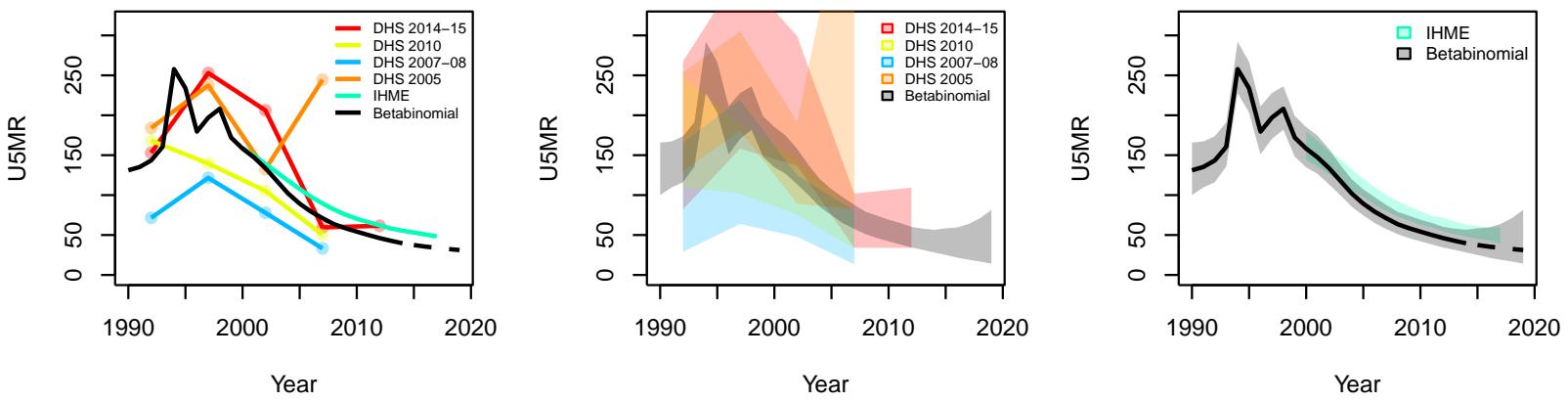
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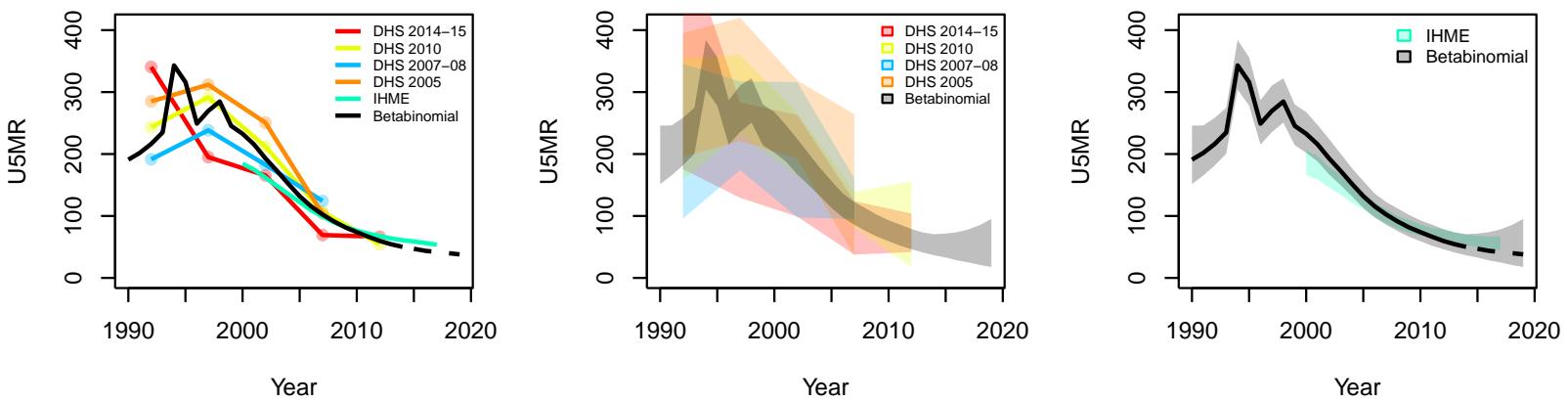
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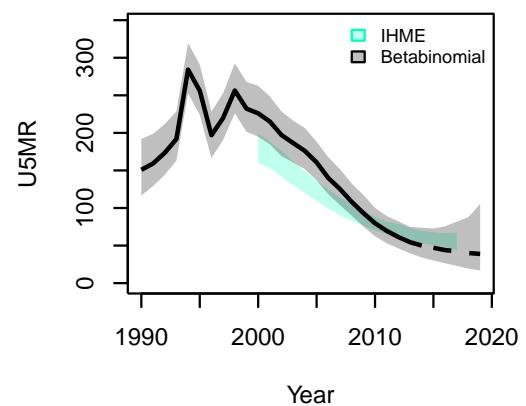
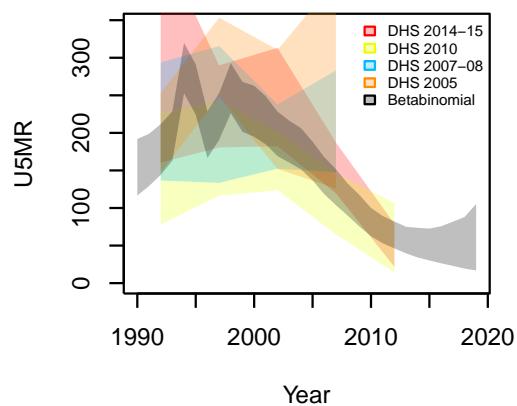
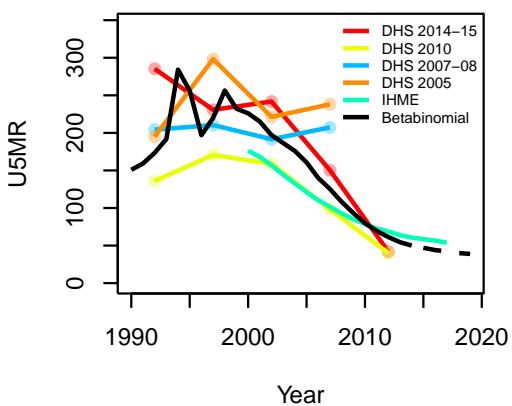
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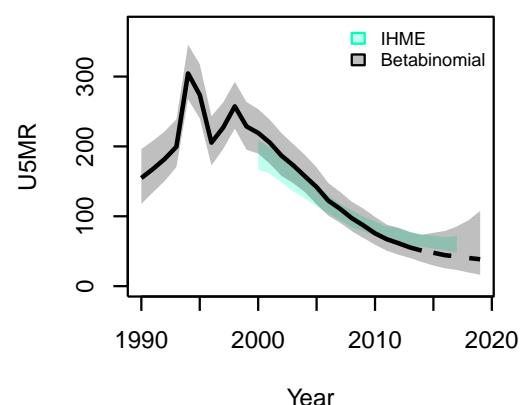
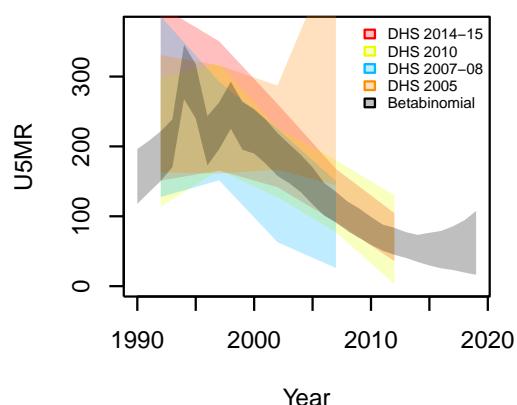
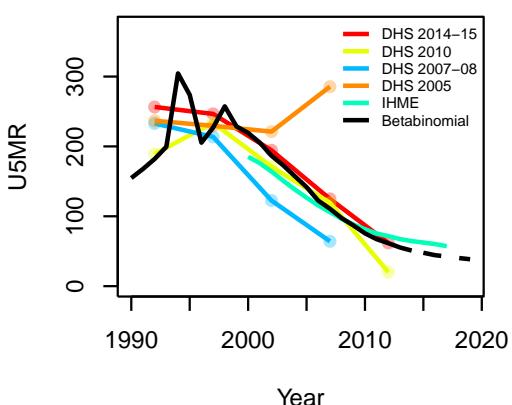
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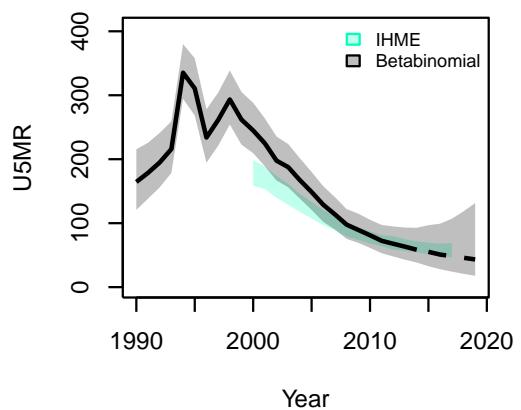
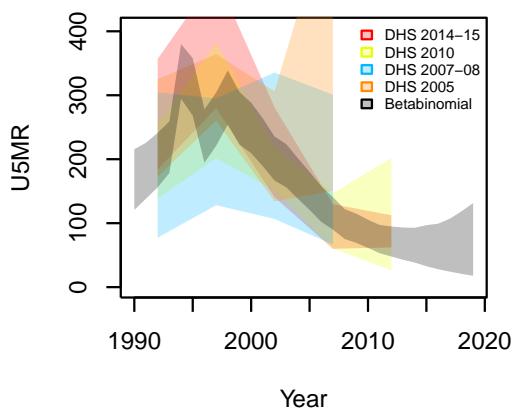
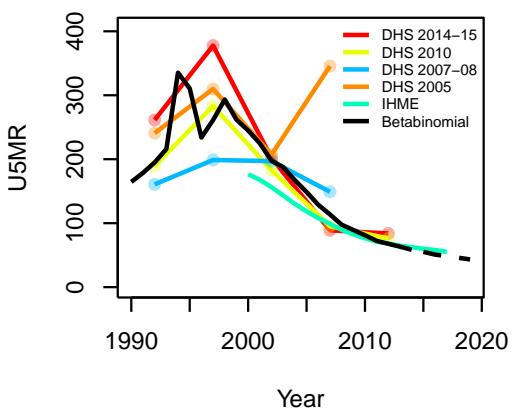
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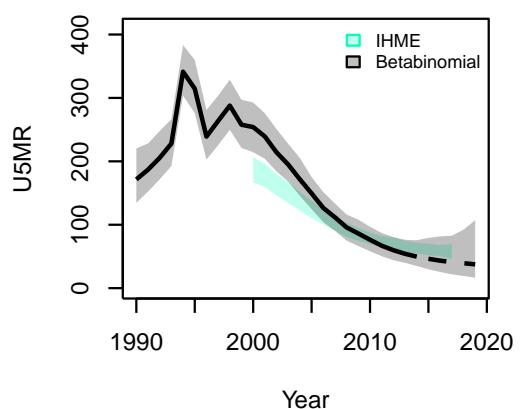
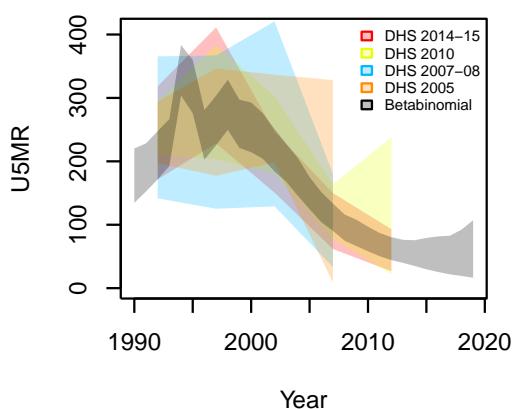
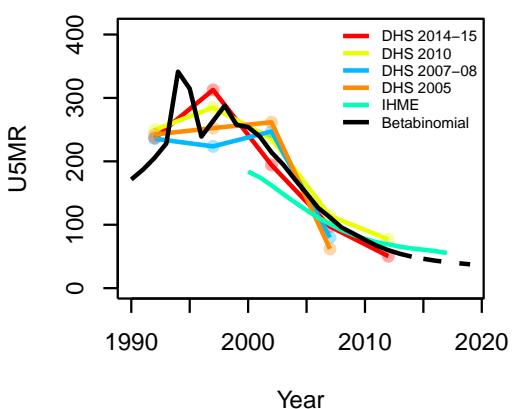
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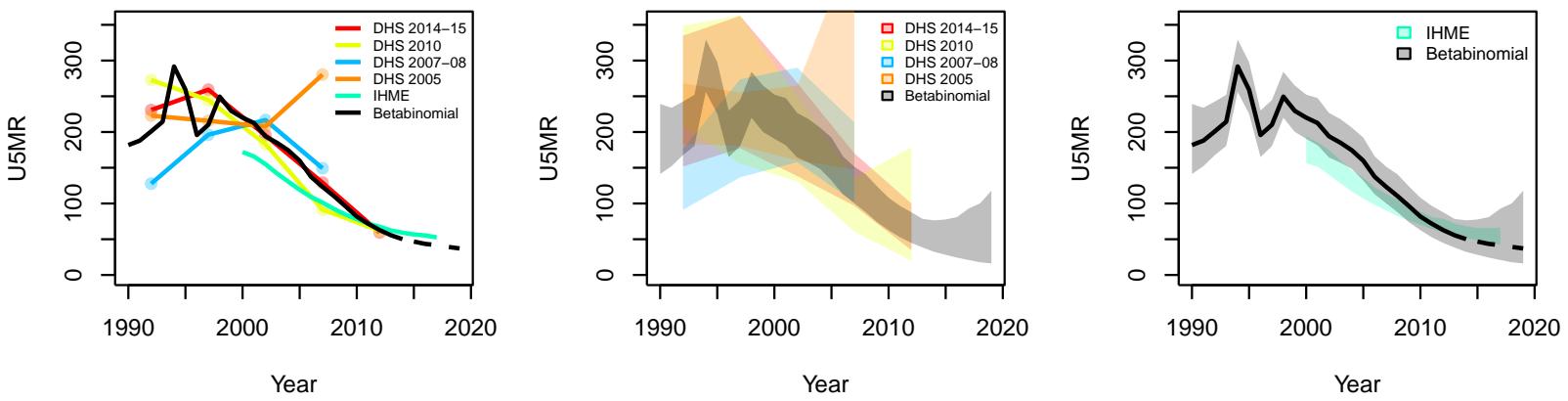
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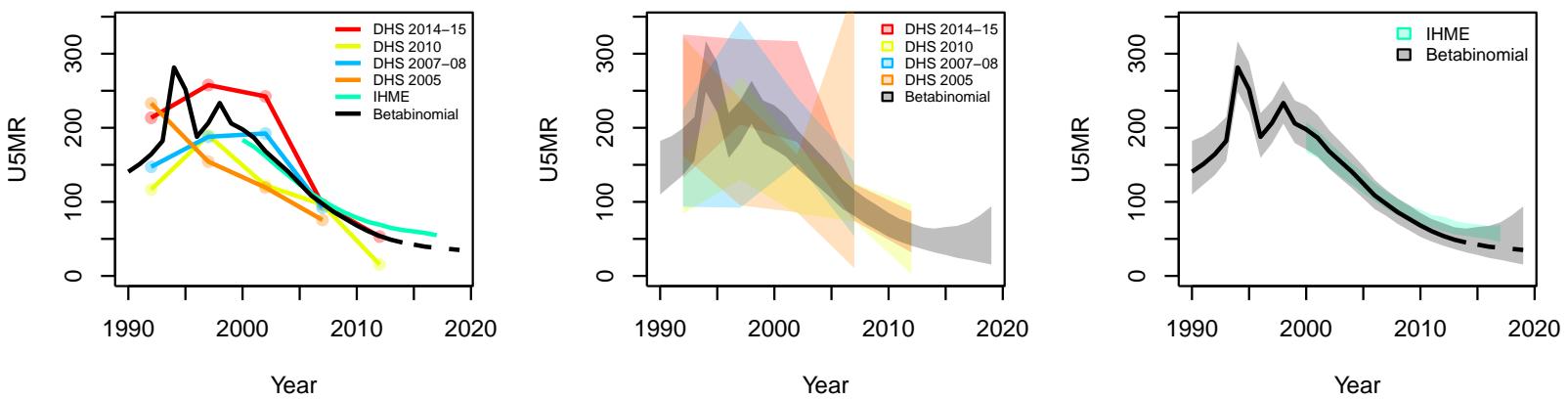
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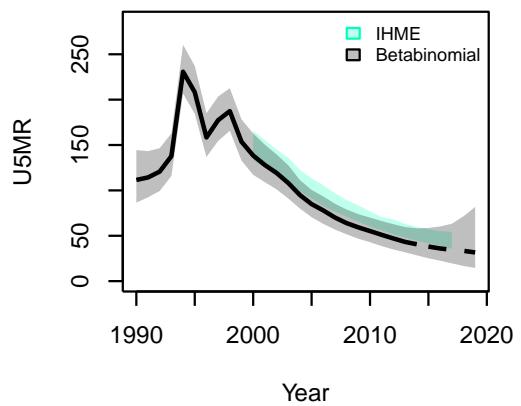
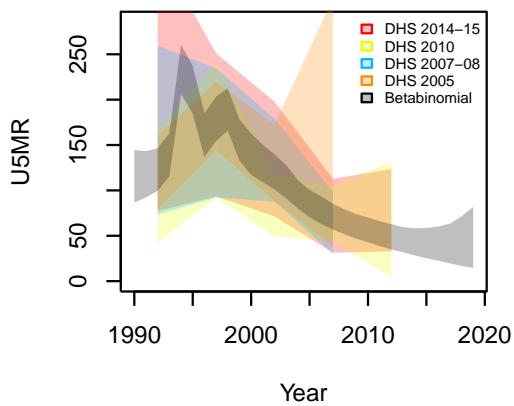
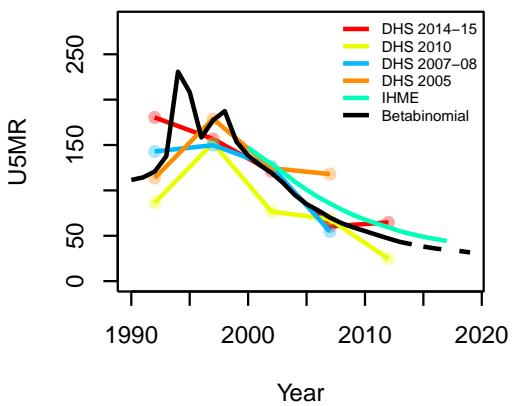
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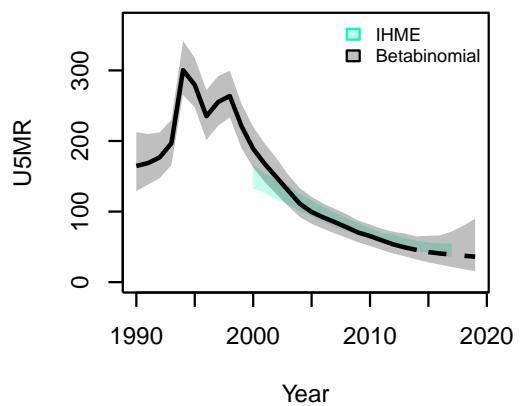
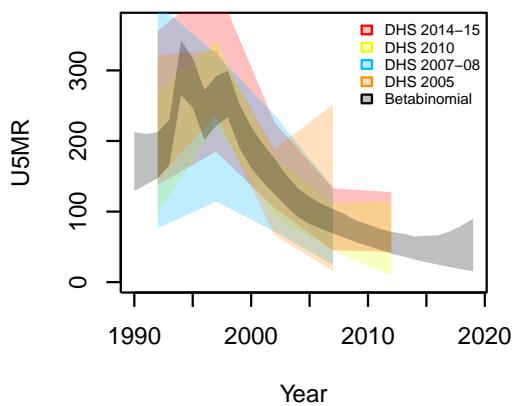
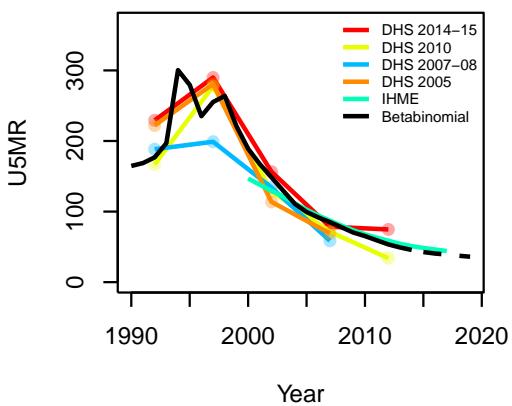
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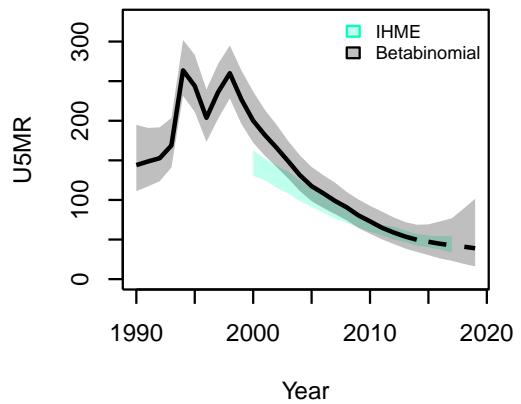
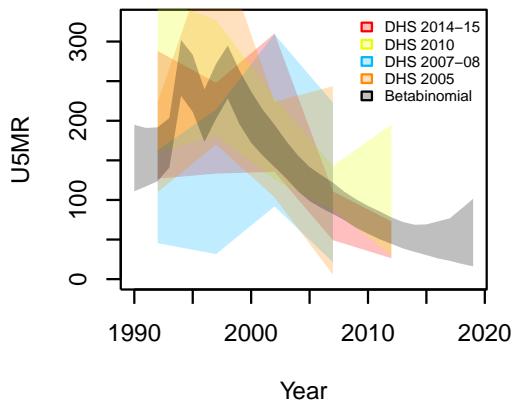
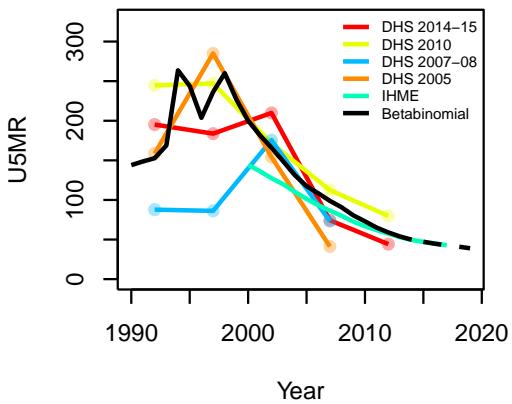
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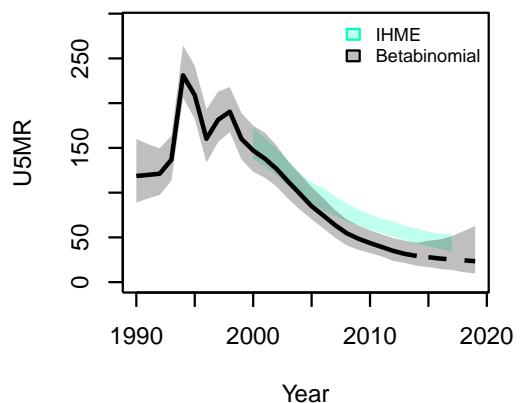
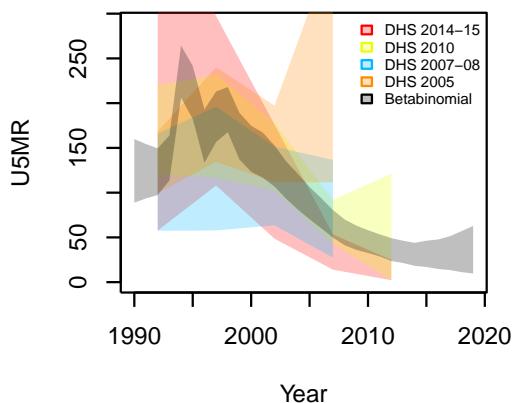
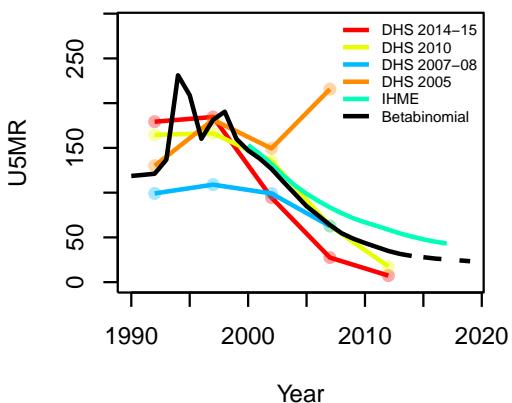
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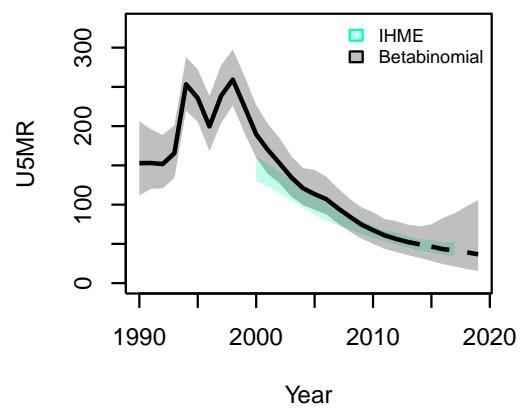
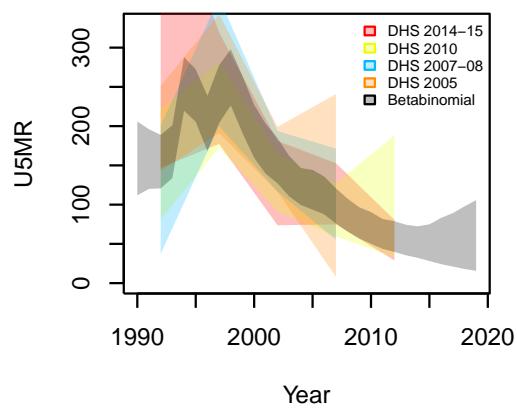
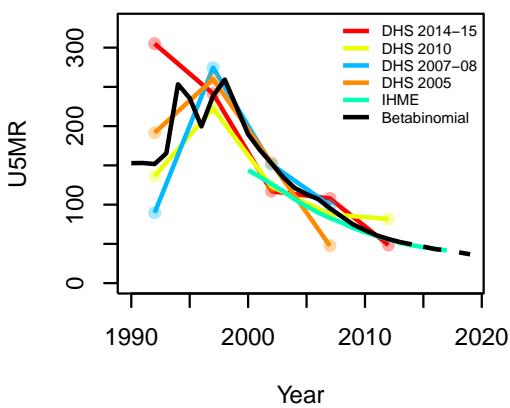
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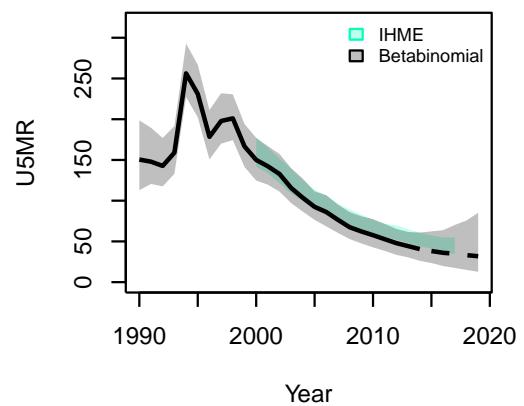
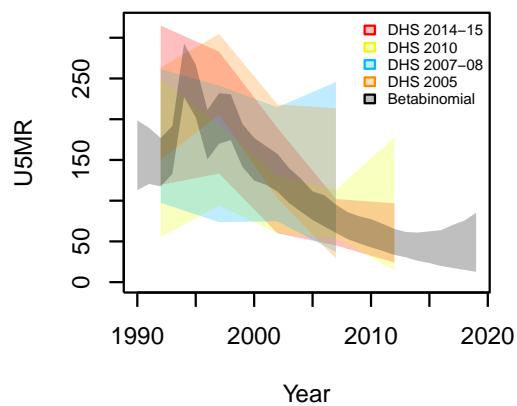
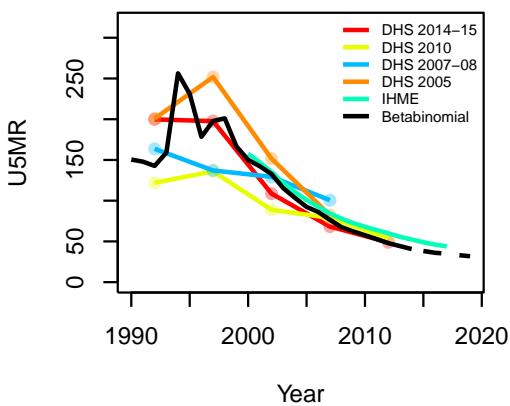
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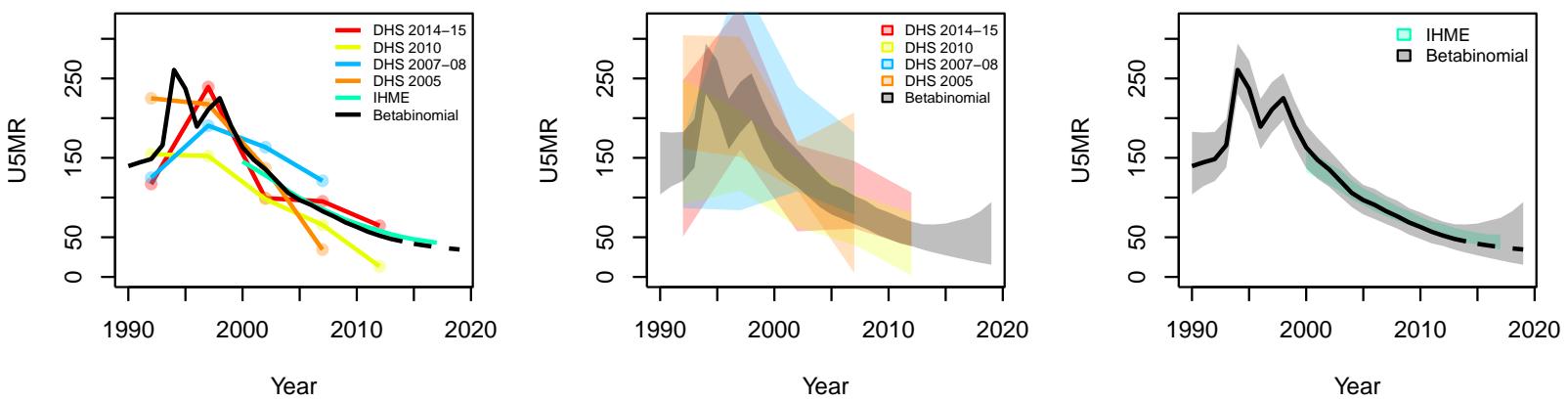
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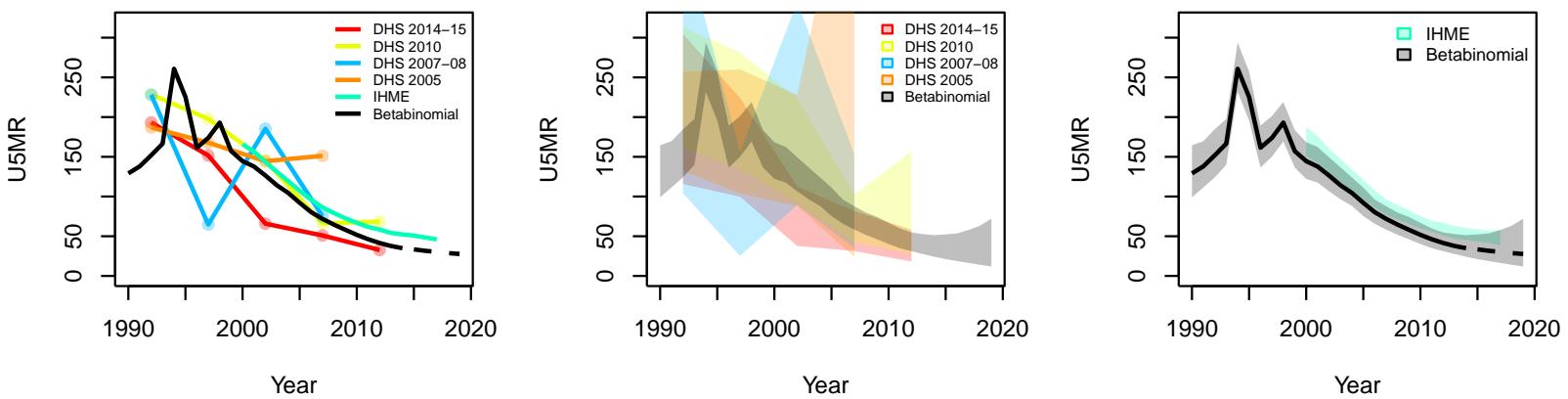
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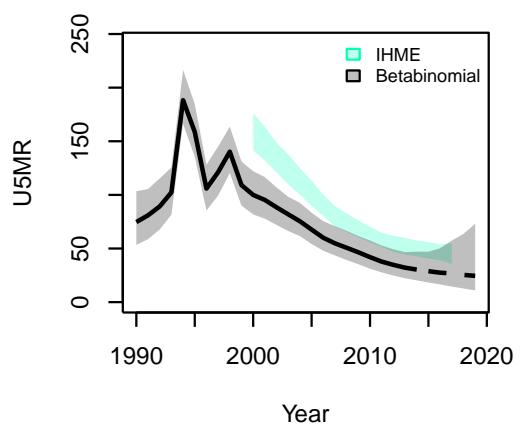
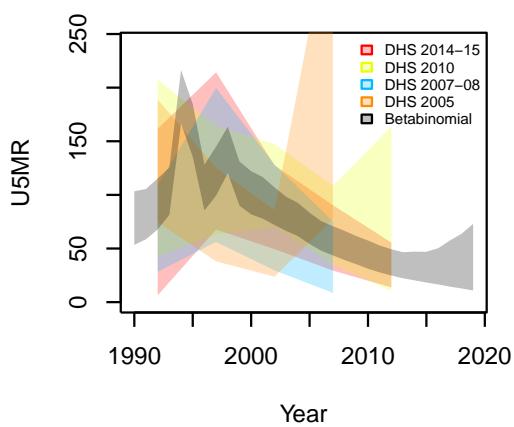
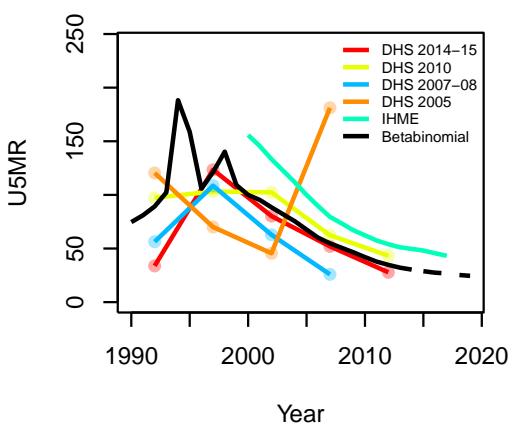
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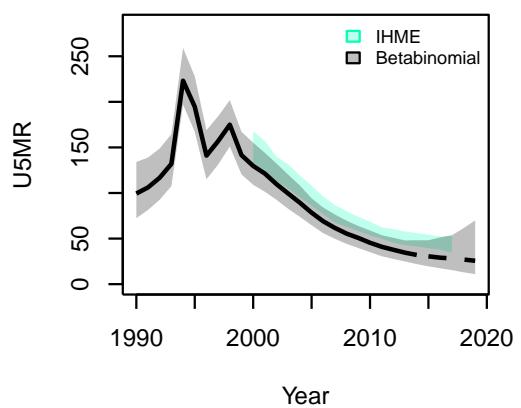
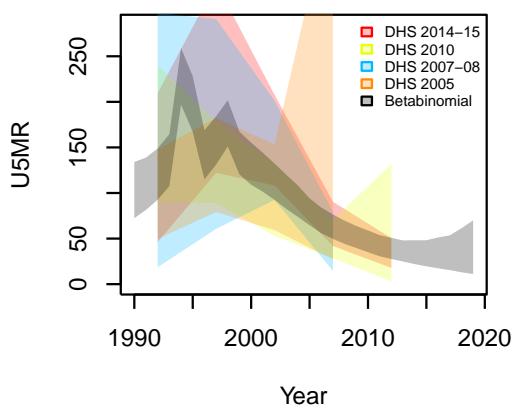
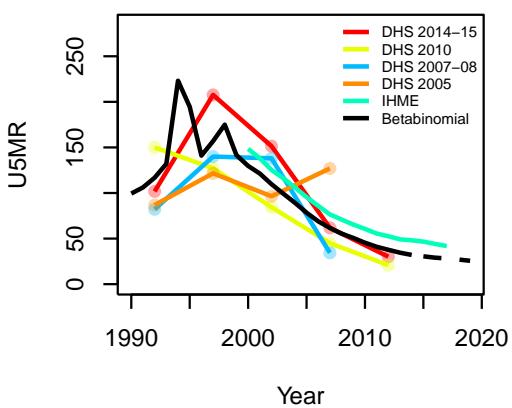
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Kicukiro, Umujyi wa Kigali



Nyarugenge, Umujyi wa Kigali



4 National Figures and Results

	Median	Interval
0	29.60	(25.7,34.2)
1-11	2.80	(2.4,3.3)
12-23	1.20	(1,1.4)
24-35	0.80	(0.7,0.9)
36-47	0.70	(0.5,0.8)
48-59	0.50	(0.4,0.6)

Table 6: Monthly hazards in terms of 1000 children by age band for national, unstratified model for Rwanda.

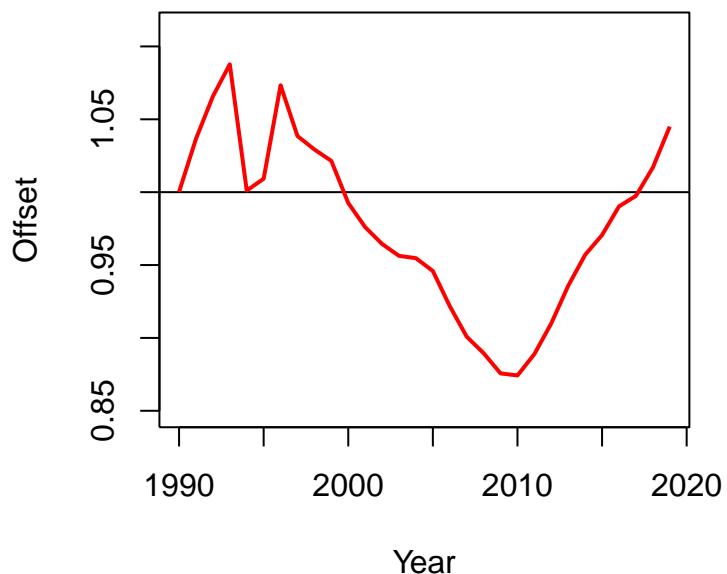


Figure 7: Benchmark offsets: $BENCH(t) = U5MR^*(t)/U5MR(t)$ where $U5MR^*(t)$ is modeled estimate and $U5MR(t)$ is UN-IGME estimate.

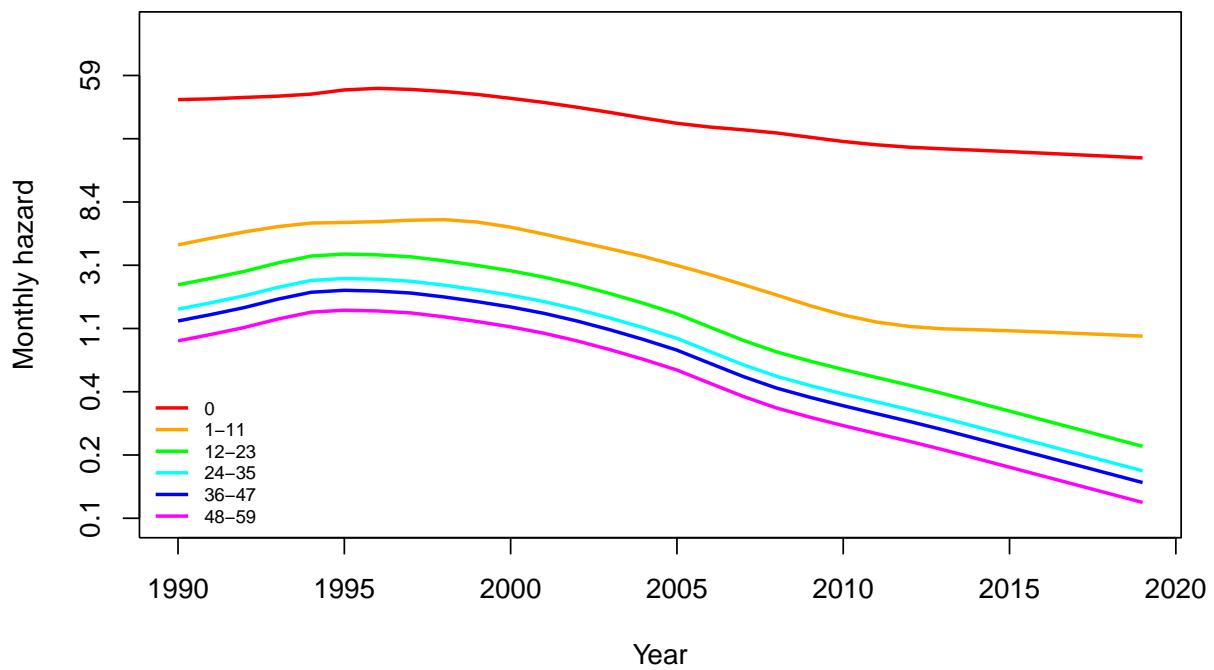


Figure 8: Monthly hazards of death in terms of U5MR (number deaths per 1000 children) by agebands.

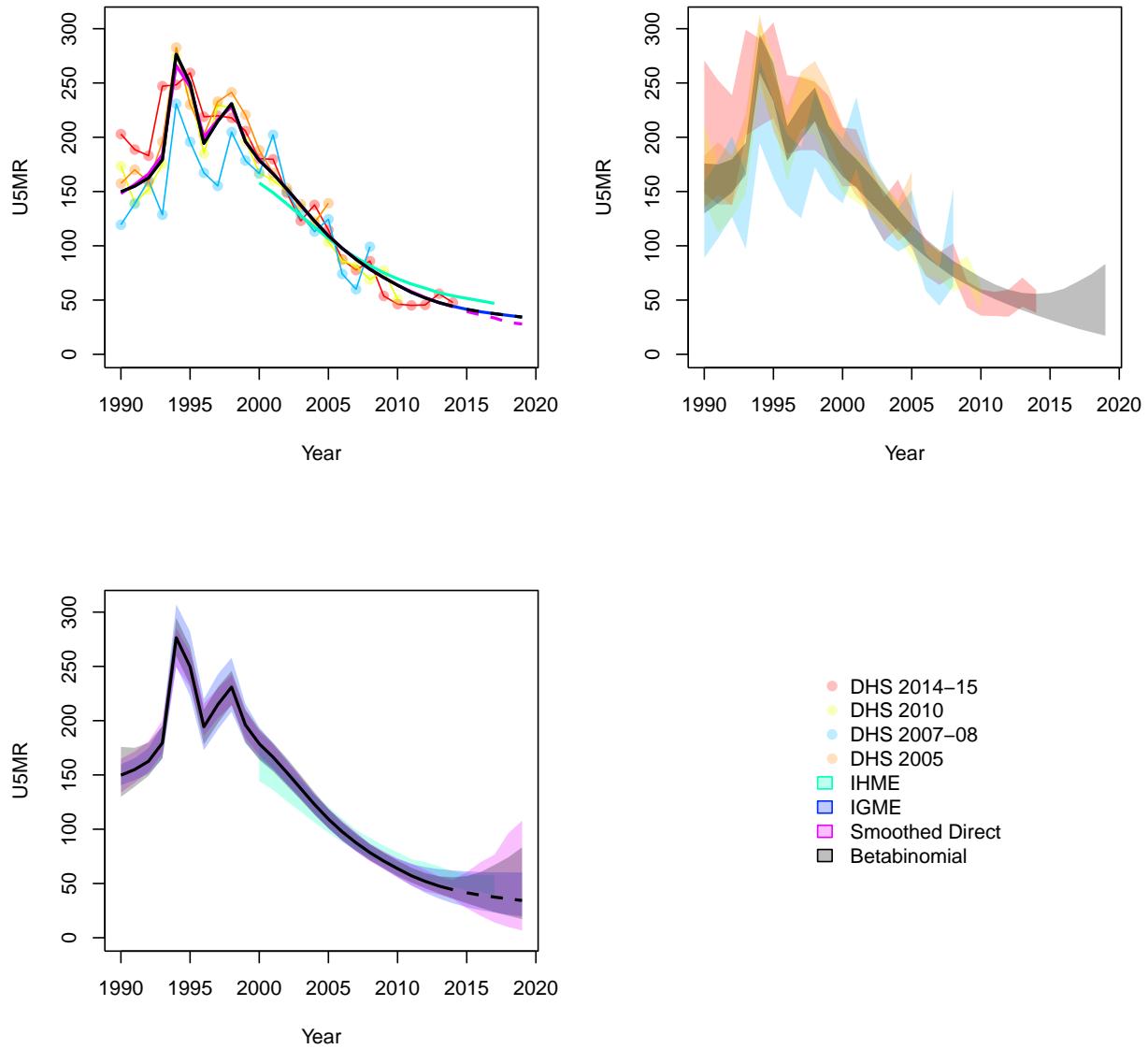
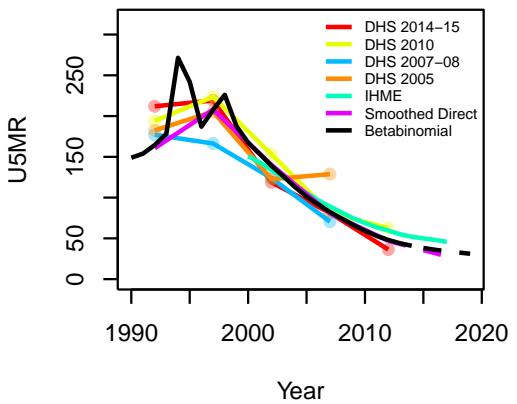


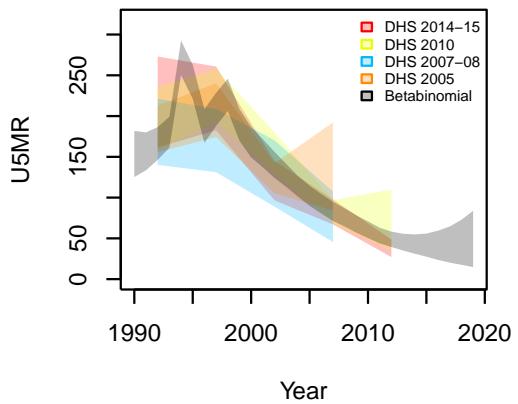
Figure 9: Benchmarked U5MR rates per 1000 live births. Top: DHS direct estimates with national trends from IHME GBD, UN-IGME, Smoothed Direct and Betabinomial estimates. Middle: 95% uncertainty intervals for DHS data. Bottom: IHME GBD, UN-IGME, Smoothed Direct and Betabinomial estimates with for the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

5 Admin 1 Figures

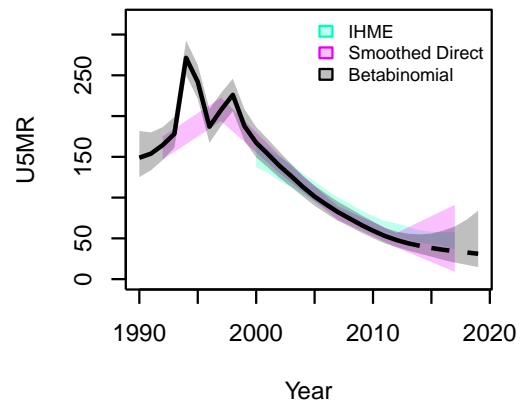
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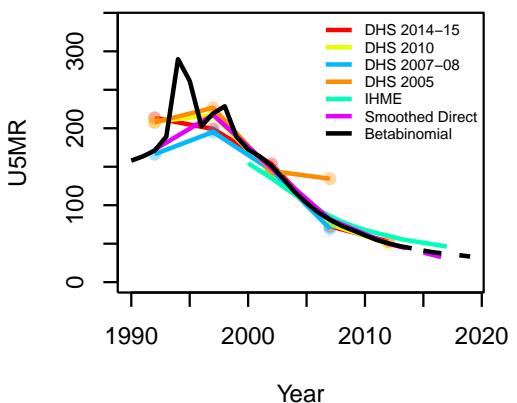
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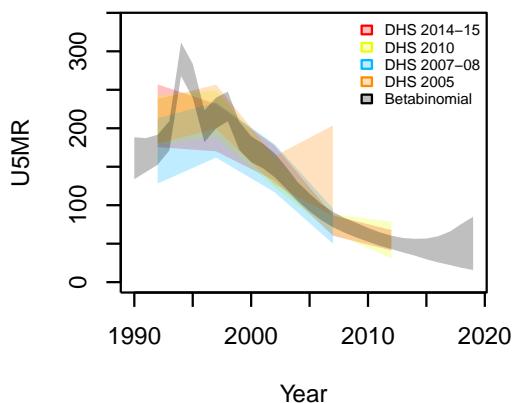
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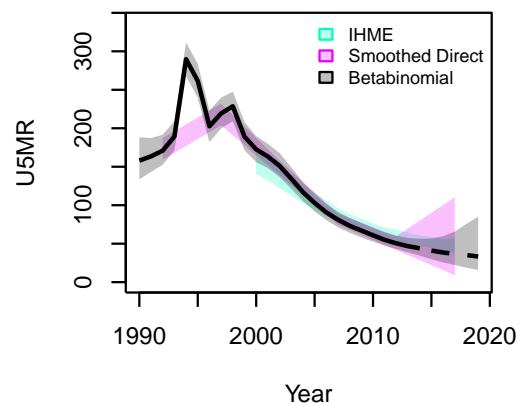
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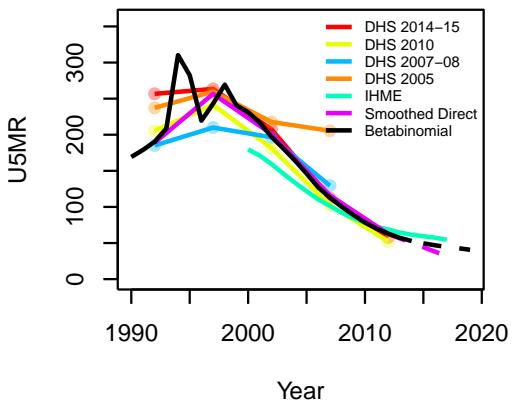
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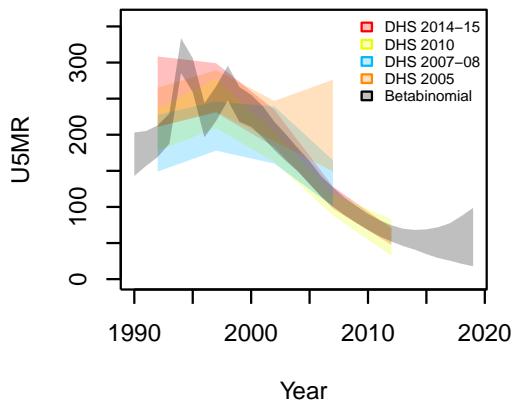
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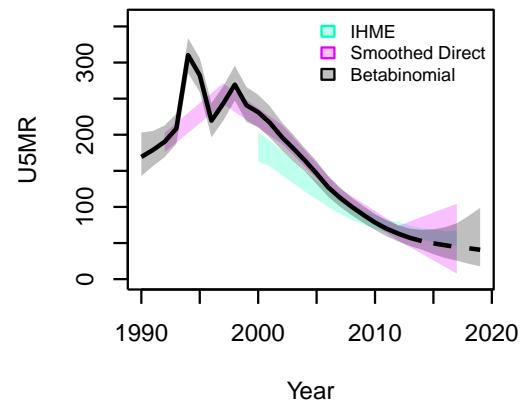
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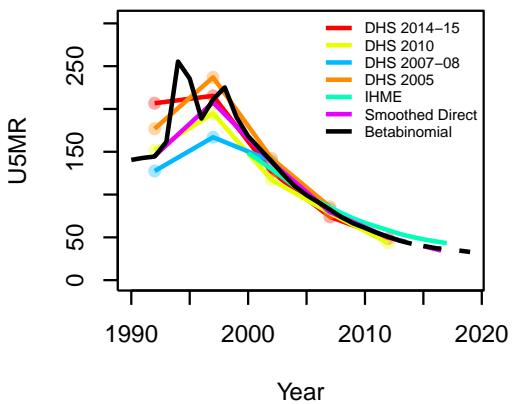
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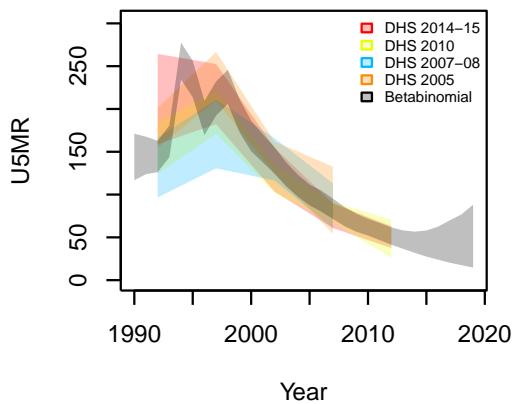
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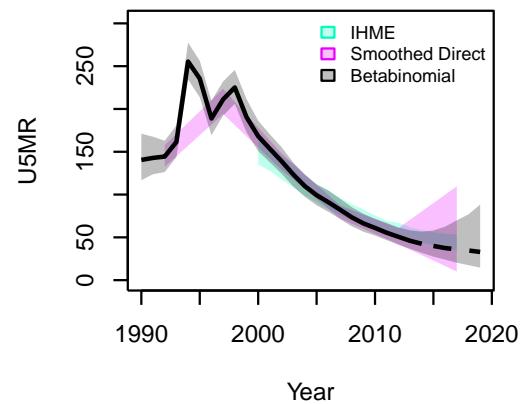
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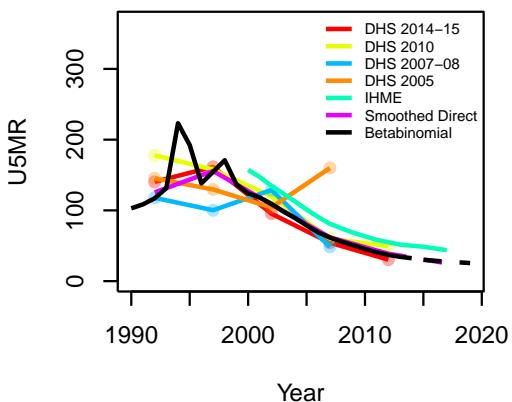
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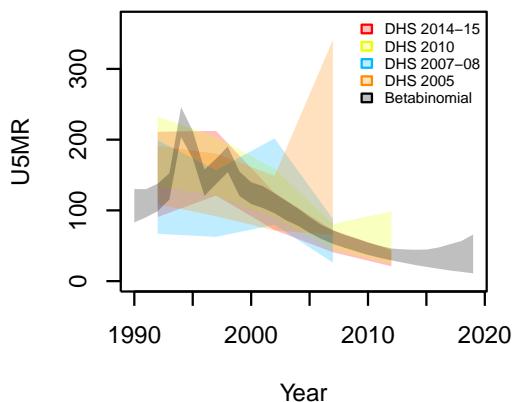
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