Country Summary: Senegal

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1 Intro

These estimates are created using a stratified BB8 model with subnational estimates using a AR1 main temporal effect and a AR1xICAR spatiotemporal interaction term with area-specific random slopes.

Senegal has 14 Admin 1 areas and 45 Admin 2 areas.

All uncertainty intervals displayed in subsequent figures are 90% intervals.

2 National Data Summaries and Results

2.1 Survey data

Survey	Urban	Rural	Total
DHS 2015	84	130	214
DHS 2016	84	130	214
DHS 2017	186	214	400
DHS 2018	82	132	214
DHS 2019	84	130	214

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

DHS 2015

Age	No. Deaths	No. Agemonths
0	523	18258
1-11	431	189021
12-23	232	192747
24-35	146	180907
36-47	106	168989
48-59	64	157496

DHS 2016

Age	No. Deaths	No. Agemonths
0	485	18513
1-11	363	192626
12-23	196	197344
24-35	162	185967
36-47	115	173441
48-59	63	161487

DHS 2017

Age	No. Deaths	No. Agemonths
0	1078	36086
1-11	718	374844
12-23	375	385329
24-35	226	363821
36-47	177	342816
48-59	108	320512

DHS 2018

Age	No. Deaths	No. Agemonths
0	547	20753
1-11	385	216071
12-23	204	221539
24-35	129	209183
36-47	106	196784
48-59	60	183603

DHS 2019

Age	No. Deaths	No. Agemonths
0	509	19257
1-11	362	199496
12-23	151	204486
24-35	109	192117
36-47	76	180258
48-59	44	168796

Table 2: Numbers of agemonths and deaths by age group for each survey used in analysis for Senegal.

Age	urban	rural
0	(21.7,26.1)	(25.3,29.3)
1-11	(1.2,1.5)	(1.7,2)
12-23	(0.4,0.5)	(0.9,1)
24-35	(0.3,0.4)	(0.6,0.8)
36-47	(0.2,0.4)	(0.5,0.6)
48-59	(0.2,0.3)	(0.3,0.4)

Table 3: The 95% credible intervals for monthly hazards in terms of 1000 children by age band for the Admin-1, unbenchmarked stratified model for Senegal.

2.2 Figures

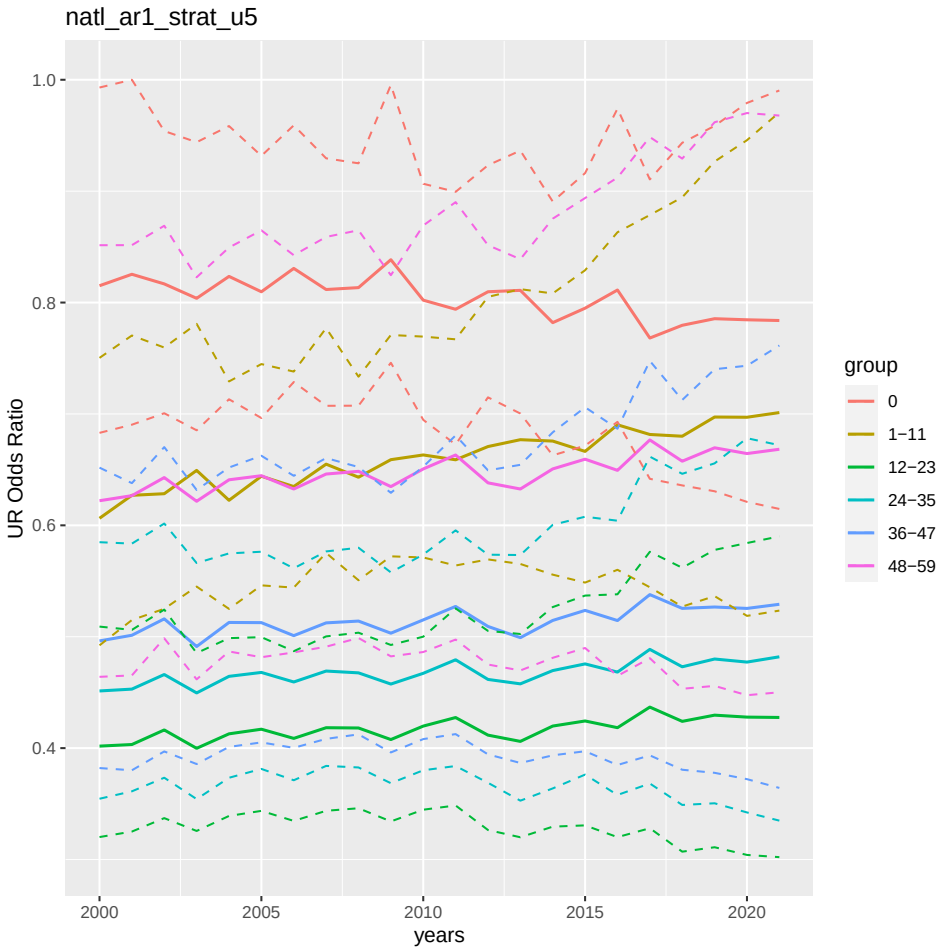


Figure 1: The urban rural odds from the national BB8 model.

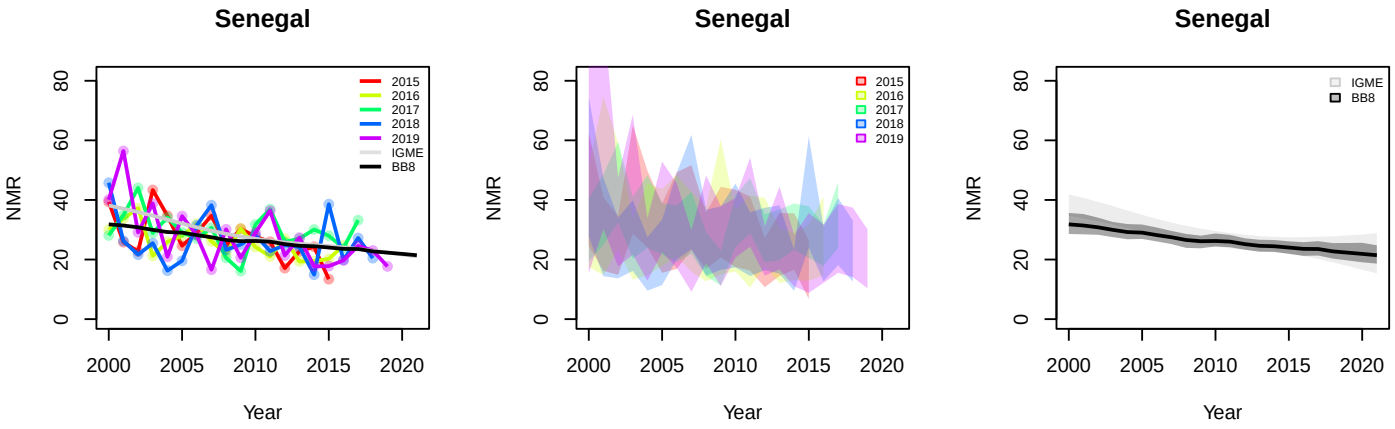


Figure 2: NMR results from the national BB8 model.

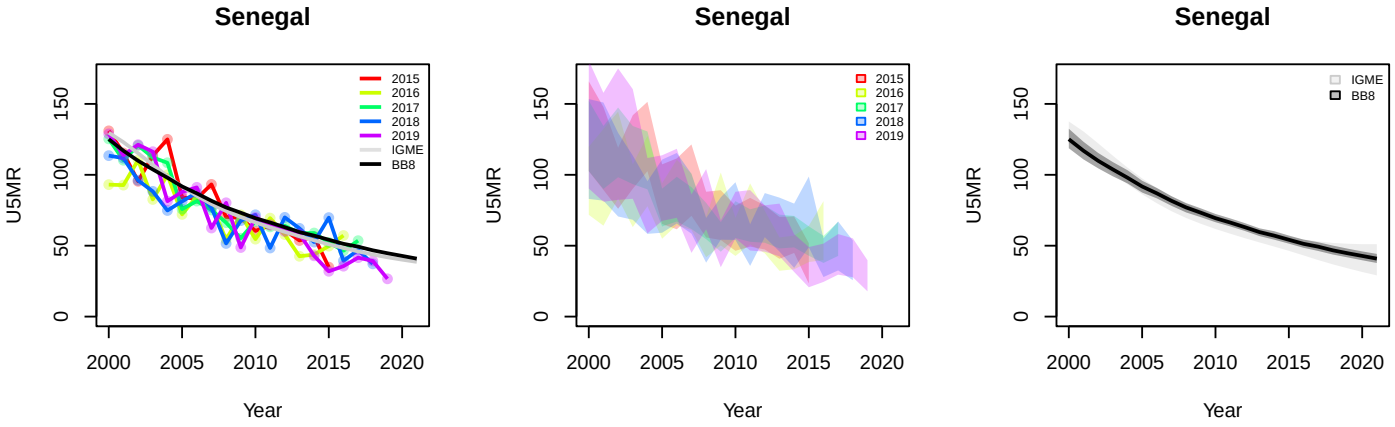


Figure 3: U5MR results from the national BB8 model.

3 Subnational Results

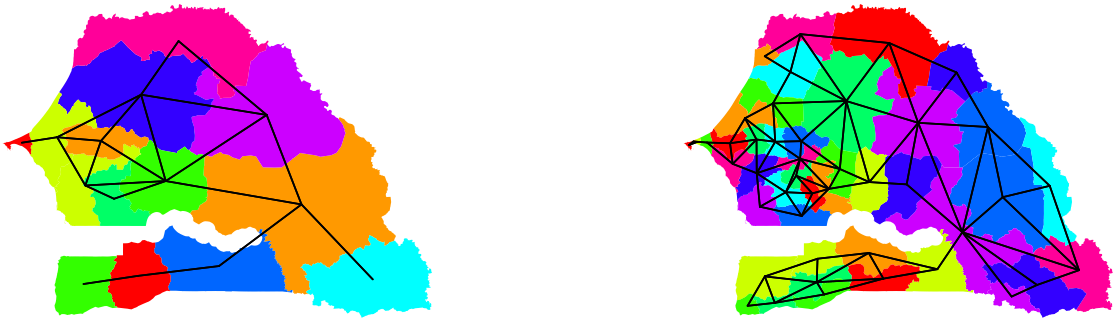


Figure 4: Top: The neighborhood structure of Admin 1 areas. Bottom: The neighborhood structure of Admin 2 areas.

3.1 Admin 1 Figures

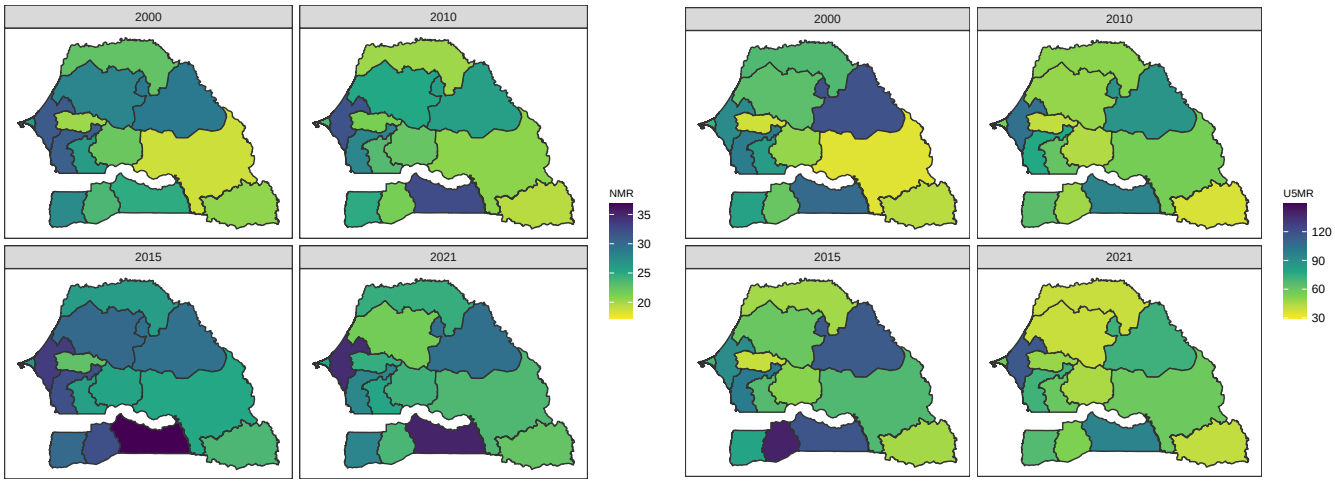
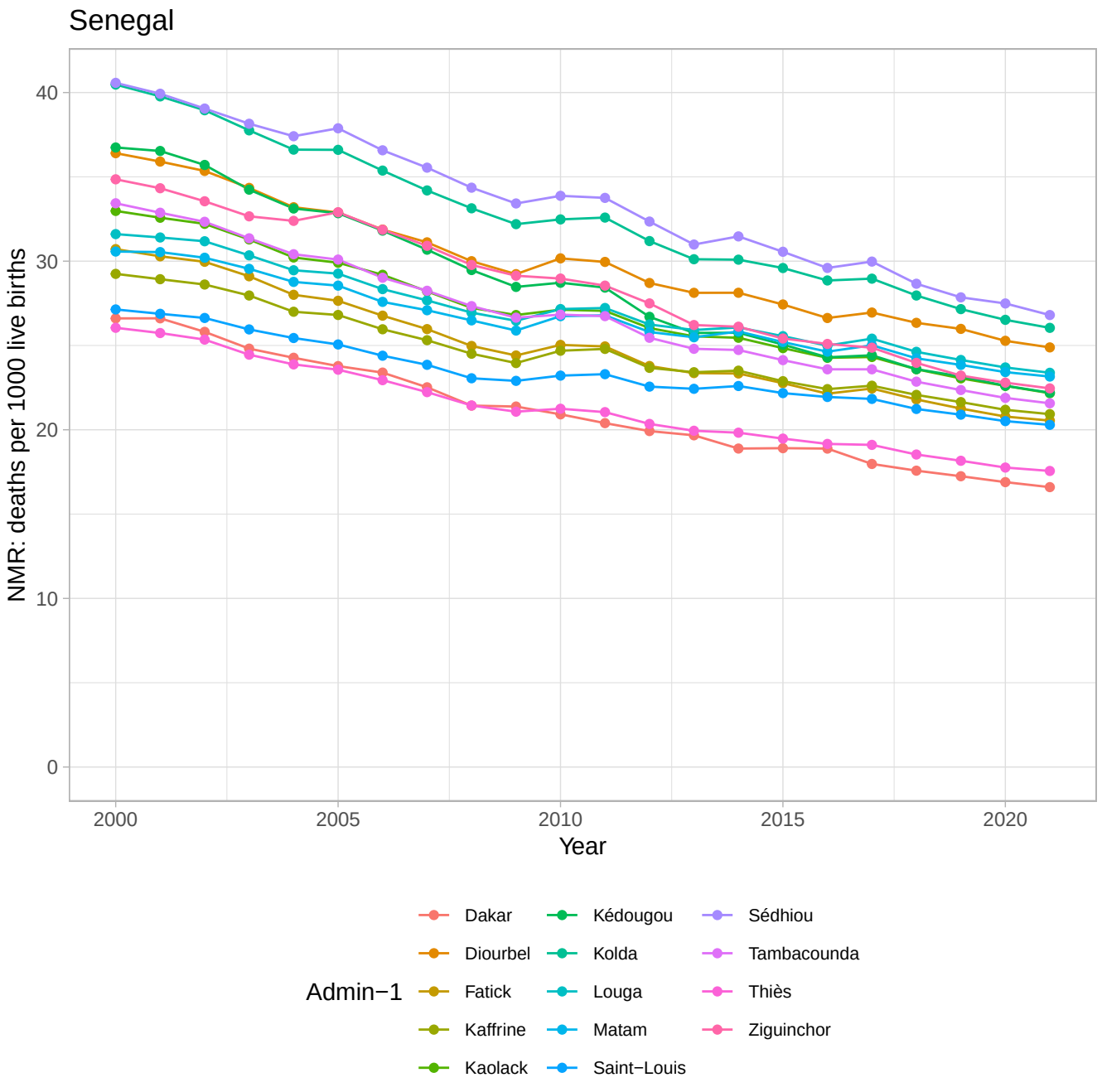
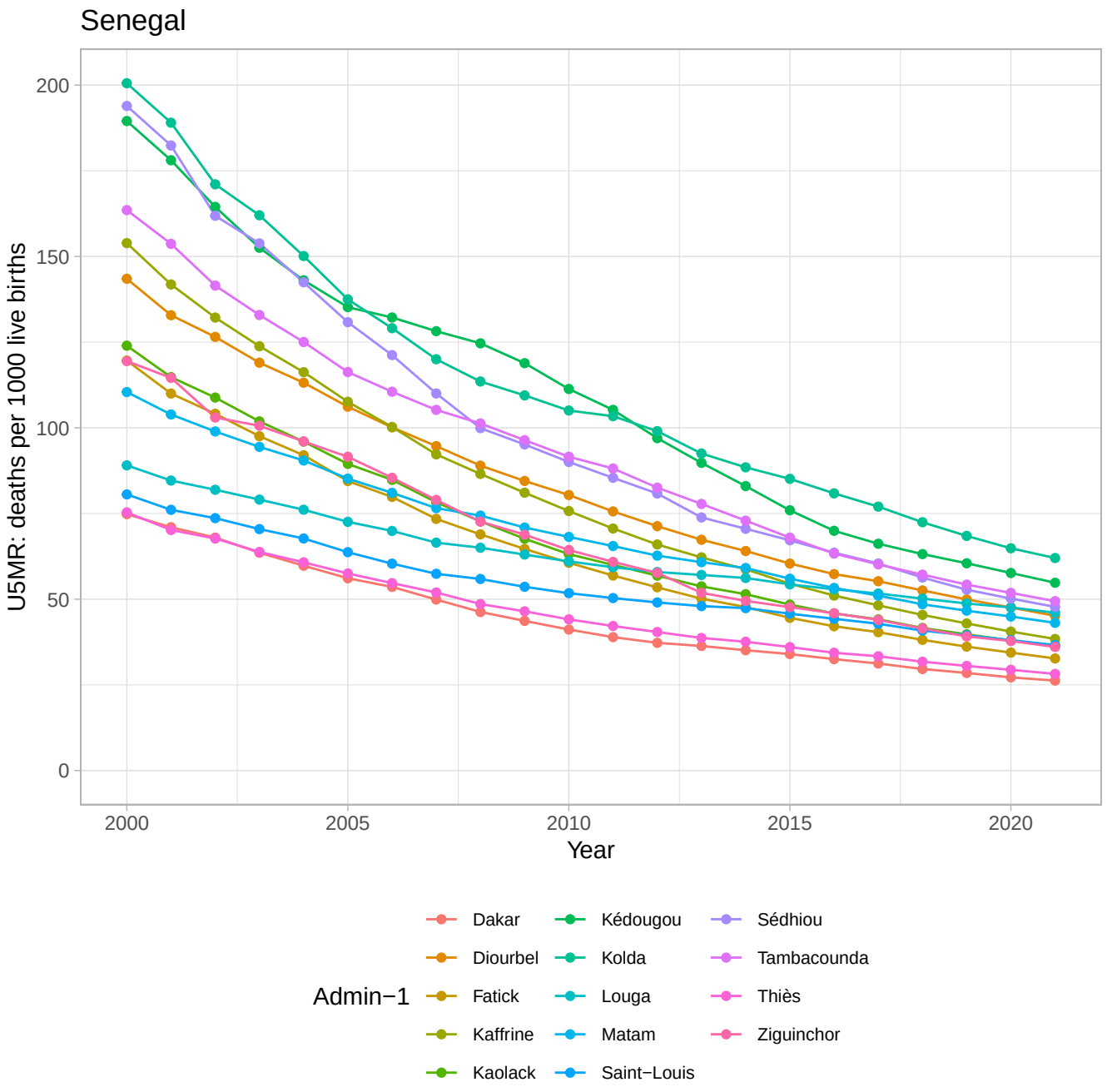
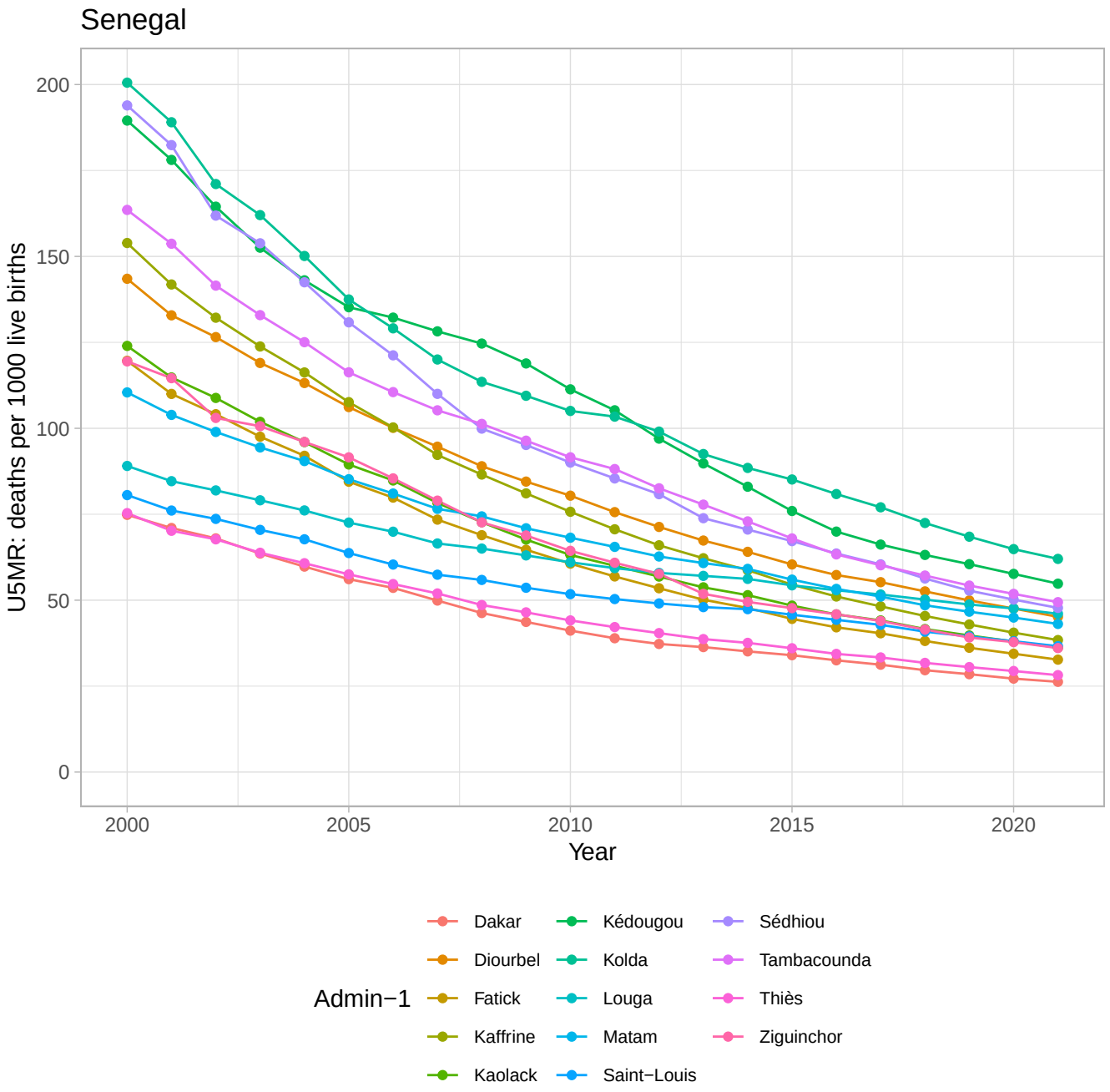


Figure 5: NMR (left) and U5MR (right) results in 2000, 2010, 2015, and 2021 from the Admin-1 BB8 model.


Senegal
NMR: deaths per 1000 live births
0
10
20
30
40
2000
2005
2010
2015
2020
Year
Admin−1
Dakar
Diourbel
Fatick
Kaffrine
Kaolack
Kédougou
Kolda
Louga
Matam
Saint−Louis
Sédhiou
Tambacounda
Thiès
Ziguinchor


Senegal
U5MR: deaths per 1000 live births
200
150
100
50
0
2000
2005
2010
2015
2020
Year
Admin−1
Dakar
Diourbel
Fatick
Kaffrine
Kaolack
Kédougou
Kolda
Louga
Matam
Saint−Louis
Sédhiou
Tambacounda
Thiès
Ziguinchor


Senegal
U5MR: deaths per 1000 live births
200
150
100
50
0
2000
2005
2010
2015
2020
Year
Admin−1
Dakar
Diourbel
Fatick
Kaffrine
Kaolack
Kédougou
Kolda
Louga
Matam
Saint−Louis
Sédhiou
Tambacounda
Thiès
Ziguinchor

3.2 Admin 2 Figures

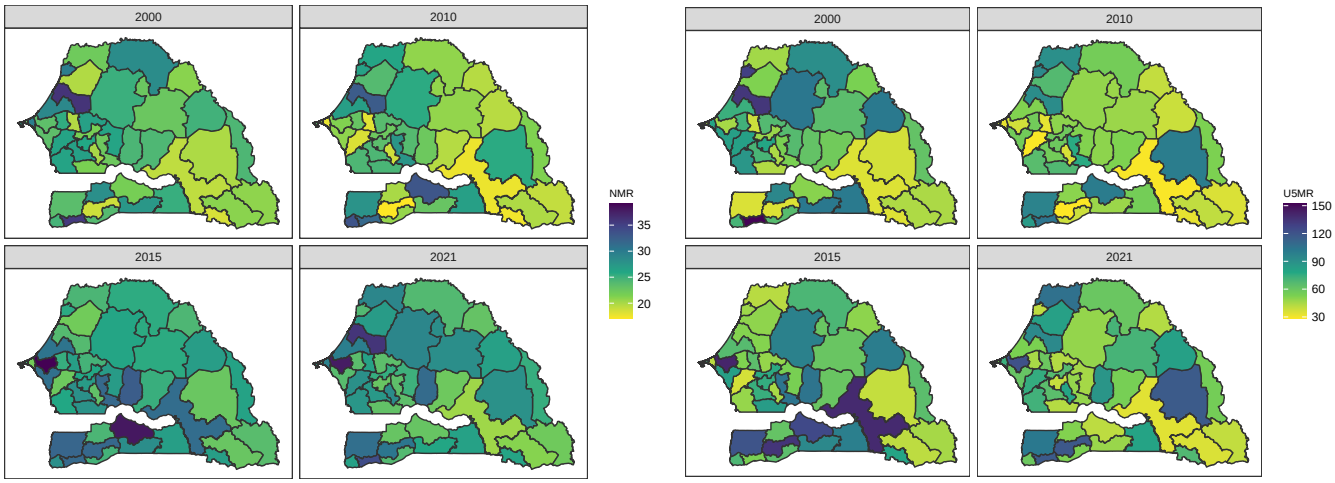
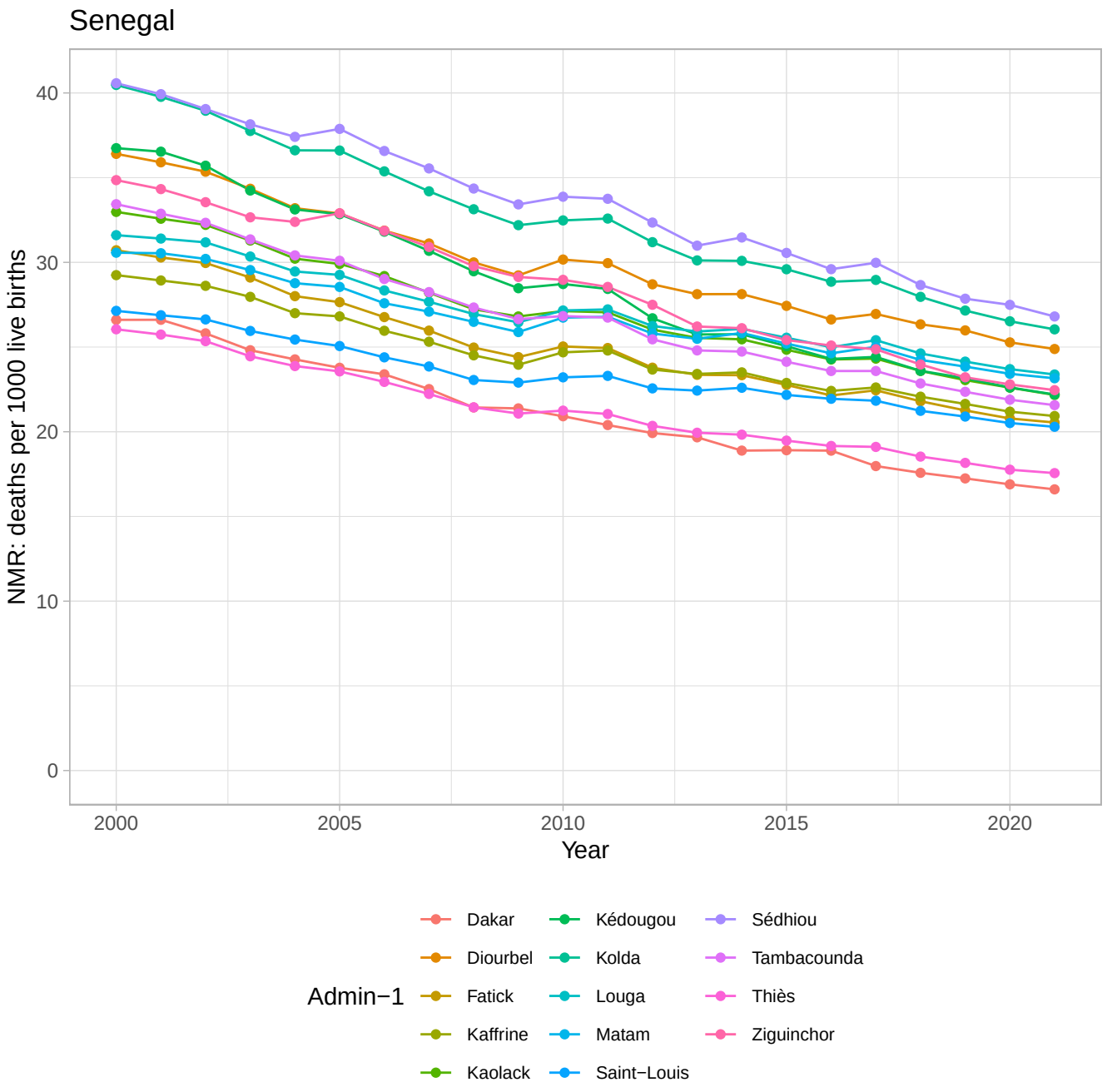
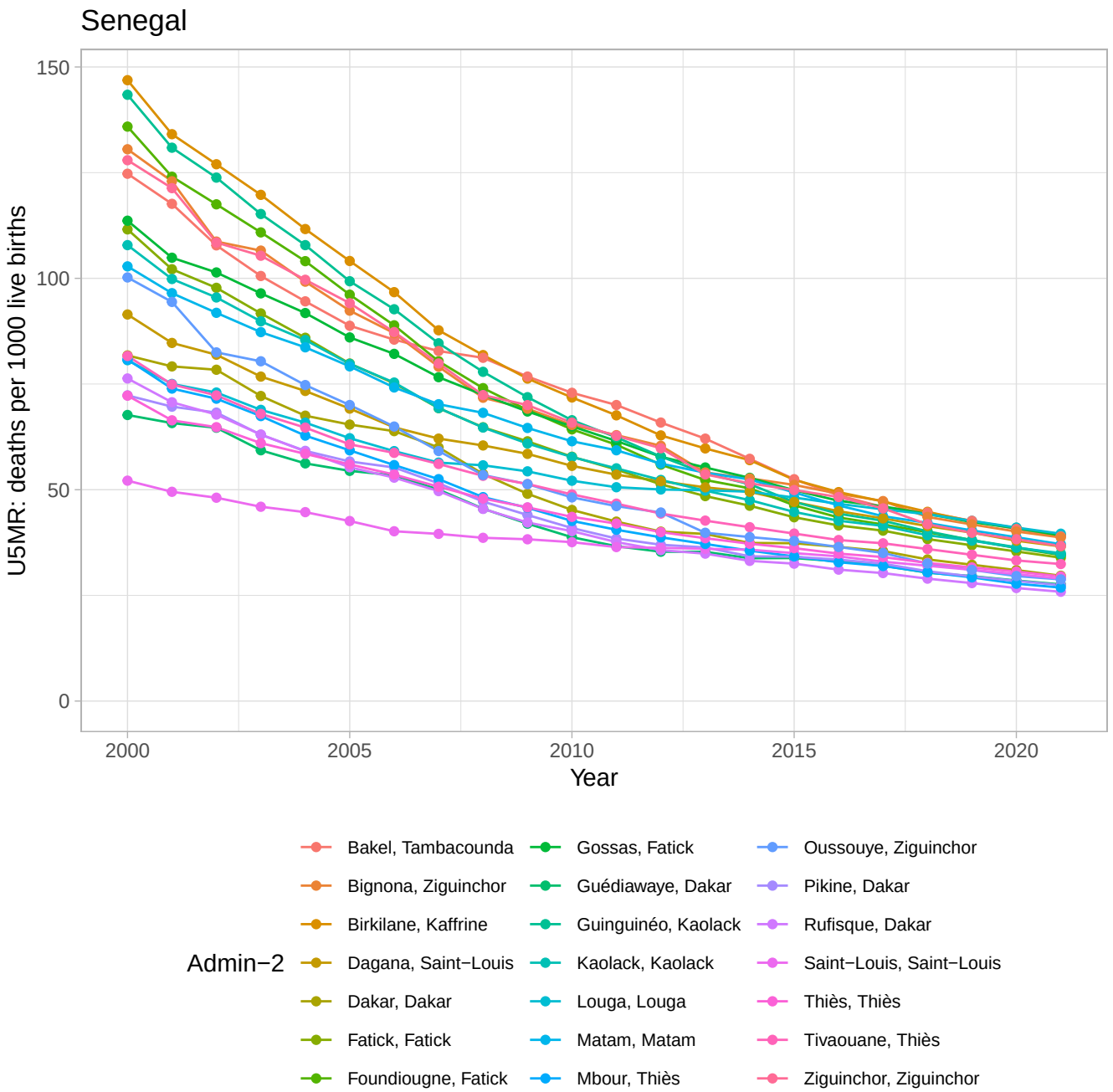
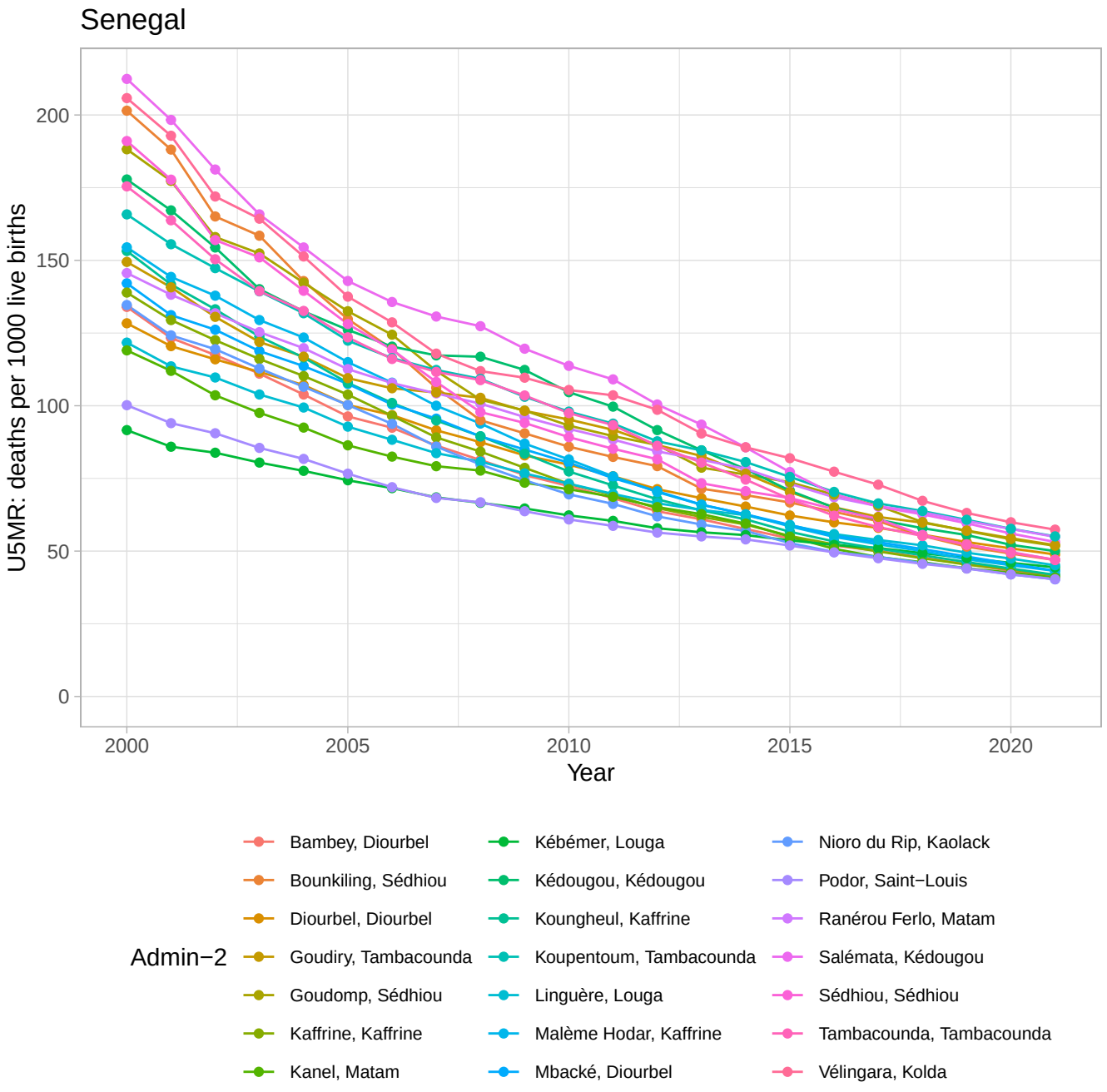
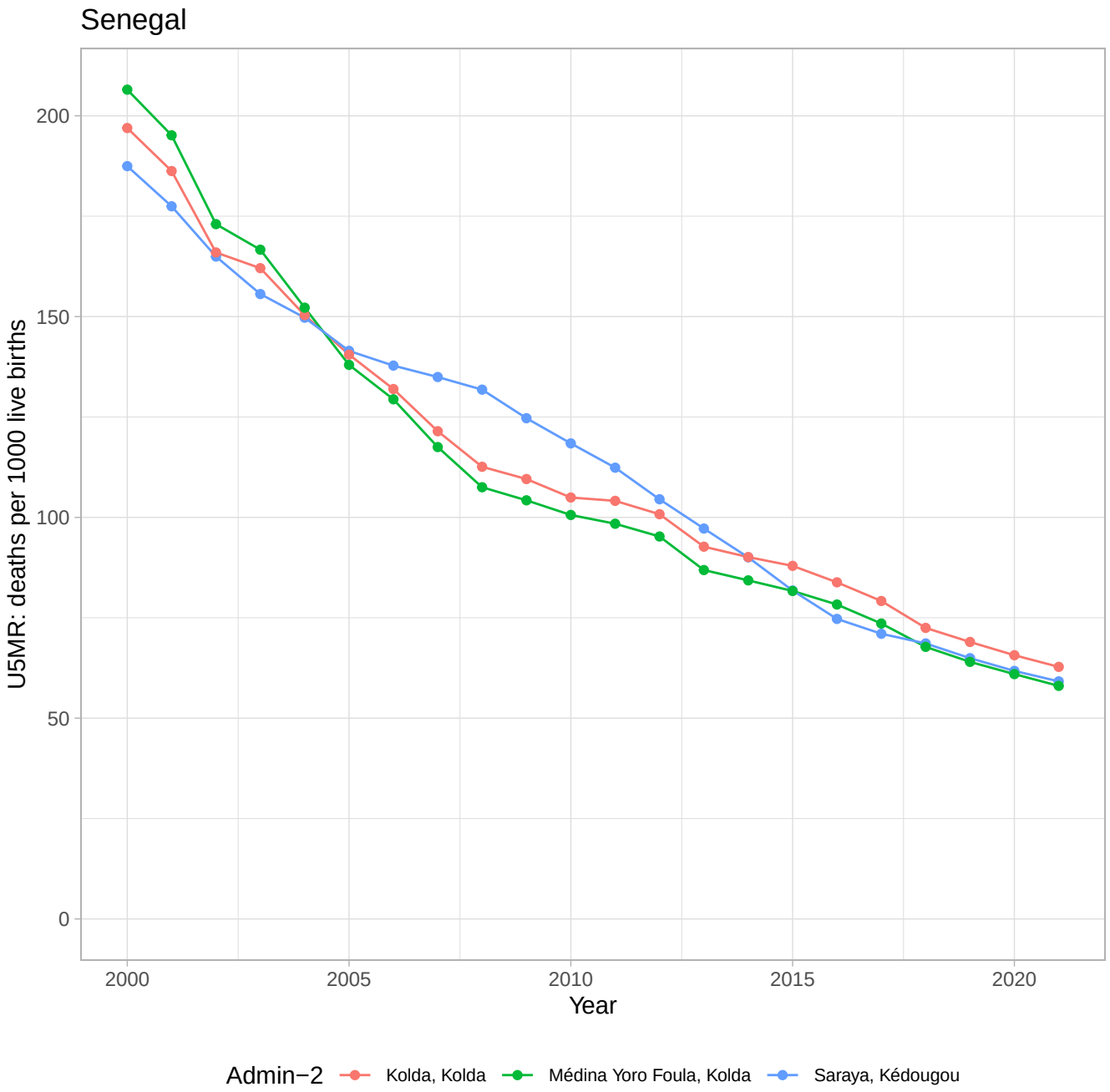


Figure 6: NMR (left) and U5MR (right) results in 2000, 2010, 2015, and 2021 from the Admin-2 BB8 model.


Senegal
NMR: deaths per 1000 live births
40
30
20
10
0
2000
2005
2010
2015
2020
Year
Admin−1
Dakar
Diourbel
Fatick
Kaffrine
Kaolack
Kédougou
Kolda
Louga
Matam
Saint−Louis
Sédhiou
Tambacounda
Thiès
Ziguinchor


Senegal
U5MR: deaths per 1000 live births
150
100
50
0
2000
2005
2010
2015
2020
Year
Admin−2
Bakel, Tambacounda
Bignona, Ziguinchor
Birkilane, Kaffrine
Dagana, Saint−Louis
Dakar, Dakar
Fatick, Fatick
Foundiougne, Fatick
Gossas, Fatick
Guédiawaye, Dakar
Guinguinéo, Kaolack
Kaolack, Kaolack
Louga, Louga
Matam, Matam
Mbour, Thiès
Oussouye, Ziguinchor
Pikine, Dakar
Rufisque, Dakar
Saint−Louis, Saint−Louis
Thiès, Thiès
Tivaouane, Thiès
Ziguinchor, Ziguinchor


Senegal
U5MR: deaths per 1000 live births
200
150
100
50
0
2000
2005
2010
2015
2020
Year
Admin−2
Bambey, Diourbel
Bounkiling, Sédhiou
Diourbel, Diourbel
Goudiry, Tambacounda
Goudomp, Sédhiou
Kaffrine, Kaffrine
Kanel, Matam
Kébémer, Louga
Kédougou, Kédougou
Koungheul, Kaffrine
Koupentoum, Tambacounda
Linguère, Louga
Malème Hodar, Kaffrine
Mbacké, Diourbel
Nioro du Rip, Kaolack
Podor, Saint−Louis
Ranérou Ferlo, Matam
Salémata, Kédougou
Sédhiou, Sédhiou
Tambacounda, Tambacounda
Vélingara, Kolda


Senegal
U5MR: deaths per 1000 live births
200
150
100
50
0
2000
2005
2010
2015
2020
Year
Admin−2
Kolda, Kolda
Médina Yoro Foula, Kolda
Saraya, Kédougou