

**Health inequities and clustering of fever, acute respiratory infection, diarrhoea and wasting in children under five in low- and middle-income countries: A Demographic and Health Surveys analysis.**

**Supplementary Information: Model fit**

Posterior predictive checks

	<b>Grouped</b>				
	<b>All</b>	<b>Wealth</b>	<b>Access</b>	<b>Urban/Rural</b>	<b>Cluster</b>
<b>% of checks &lt; 0.05 or &gt; 0.95</b>	3.4	0.8	2	1.9	13.9

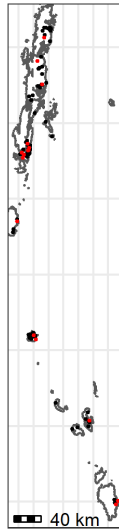
## AUC

Country/Region	ARI	Diarrhoea	Fever	Wasted	Country/Region	ARI	Diarrhoea	Fever	Wasted
Andaman & Nicobar Islands	0.67	0.61	0.70	0.74	Liberia	0.77	0.73	0.71	0.80
Andhra Pradesh	1.00	0.95	0.93	0.85	Madhya Pradesh	0.86	0.80	0.80	0.62
Angola	0.86	0.80	0.80	0.79	Maharashtra	0.96	0.87	0.86	0.79
Arunachal Pradesh	0.70	0.65	0.61	0.63	Malawi	0.82	0.77	0.77	0.86
Assam	0.76	0.88	0.81	0.71	Mali	0.85	0.77	0.74	0.76
Bangladesh	0.76	0.78	0.68	0.65	Manipur	0.68	0.65	0.66	0.61
Benin	0.87	0.79	0.73	0.78	Meghalaya	0.71	0.63	0.64	0.65
Bihar	0.92	0.86	0.83	0.71	Mizoram	0.72	0.69	0.70	0.64
Burkina Faso	0.92	0.78	0.76	0.81	Mozambique	0.84	0.76	0.74	0.83
Burundi	0.81	0.75	0.73	0.80	Myanmar	0.76	0.77	0.72	0.76
Cambodia	0.86	0.80	0.75	0.74	Nagaland	0.77	0.73	0.72	0.62
Cameroon	0.93	0.80	0.74	0.86	Namibia	0.92	0.83	0.81	0.90
Chad	0.84	0.77	0.77	0.73	NCT of Delhi	0.98	0.89	0.89	0.89
Chandigarh	0.94	NA	0.95	0.96	Nepal	0.82	0.75	0.75	0.79
Chhattisgarh	0.77	0.75	0.76	0.67	Nigeria	0.87	0.81	0.77	0.80
Comoros	0.94	0.83	0.78	0.70	Odisha	0.91	0.79	0.79	0.64
Congo Democratic Republic	0.75	0.77	0.76	0.77	Pakistan	0.76	0.76	0.72	0.80
Cote d'Ivoire	0.89	0.75	0.70	0.82	Puducherry	0.75	0.68	0.67	0.57
Dadra & Nagar Haveli	0.85	0.97	0.84	0.67	Punjab	0.85	0.83	0.78	0.80
Daman & Diu	0.88	0.79	0.81	0.72	Rajasthan	0.87	0.82	0.80	0.74
Egypt	0.80	0.79	0.77	0.90	Rwanda	0.85	0.80	0.80	0.87
Ethiopia	0.81	0.73	0.72	0.74	Senegal	0.80	0.75	0.75	0.68
Gabon	0.70	0.72	0.66	0.70	Sierra Leone	0.87	0.83	0.77	0.80
Ghana	0.88	0.83	0.84	0.87	Sikkim	0.82	0.86	0.81	0.66
Goa	0.91	0.93	0.87	0.72	South Africa	0.99	0.93	0.85	0.95
Guinea	0.91	0.79	0.74	0.83	Tamil Nadu	0.95	0.90	0.87	0.81
Gujarat	0.95	0.87	0.88	0.80	Tanzania	0.80	0.79	0.75	0.70
Haiti	0.78	0.76	0.72	0.78	Telangana	0.99	0.93	0.87	0.87
Haryana	0.82	0.78	0.80	0.74	Timor-Leste	0.86	0.82	0.80	0.70
Himachal Pradesh	0.72	0.73	0.66	0.59	Togo	0.90	0.78	0.72	0.78
Jammu & Kashmir	0.65	0.65	0.62	0.61	Tripura	0.90	0.81	0.74	0.70
Jharkhand	0.84	0.79	0.79	0.64	Uganda	0.82	0.81	0.83	0.82
Karnataka	0.97	0.91	0.90	0.79	Uttar Pradesh	0.87	0.80	0.78	0.78
Kenya	0.73	0.76	0.74	0.79	Uttarakhand	0.69	0.64	0.66	0.70
Kerala	0.99	0.97	0.91	0.89	West Bengal	0.95	0.91	0.87	0.83
Lakshadweep	0.67	0.84	0.77	0.63	Zambia	0.85	0.74	0.72	0.79
Lesotho	0.91	0.86	0.85	0.93	Zimbabwe	0.83	0.74	0.76	0.83

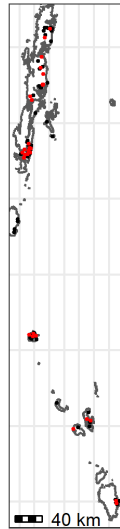
Posterior predictive spatial checks

Andaman & Nicobar Islands

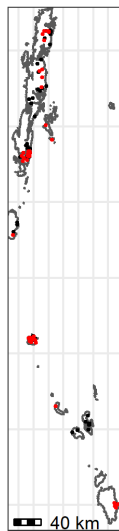
Fever



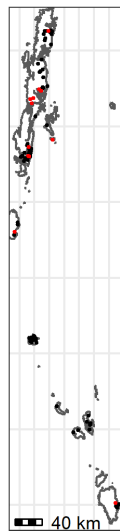
Diarrhoea



ARI

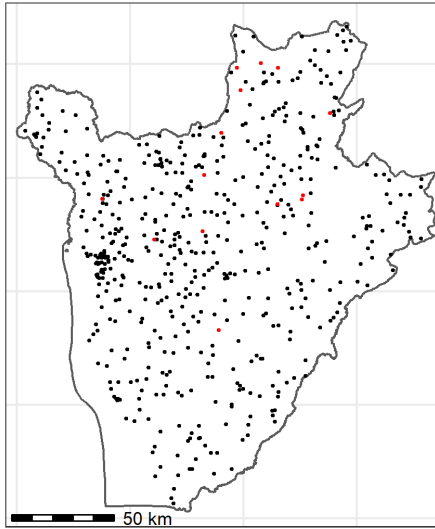


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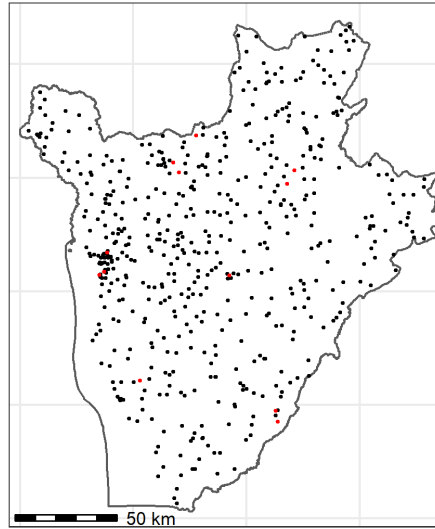


Burundi

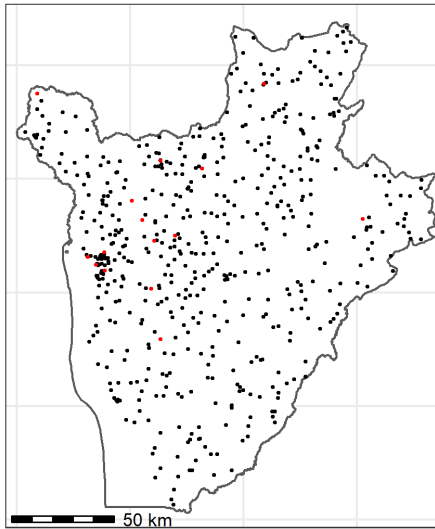
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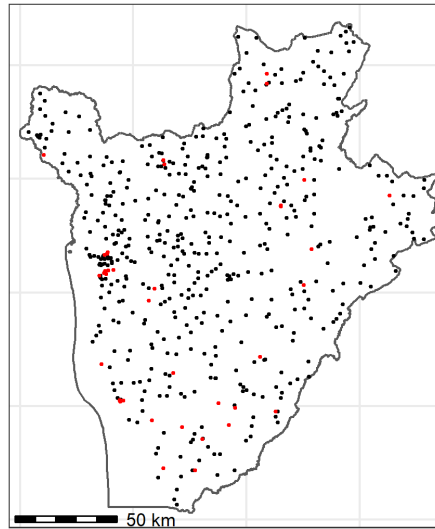
Diarrhoea



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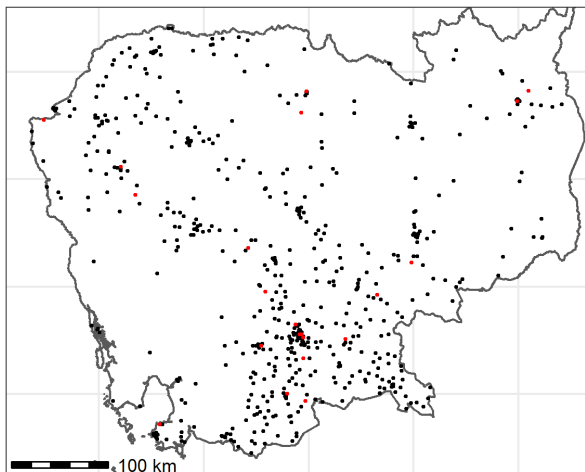


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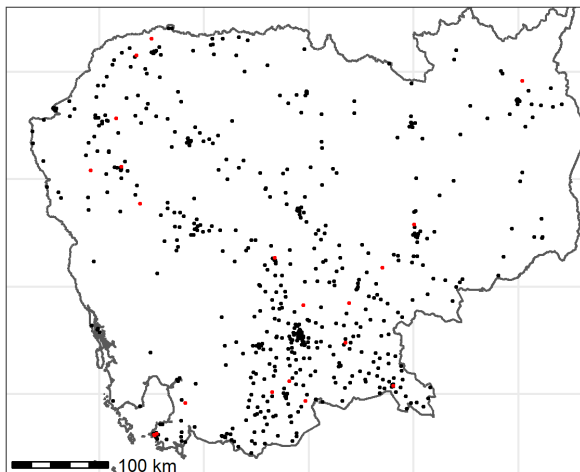


Cambodia

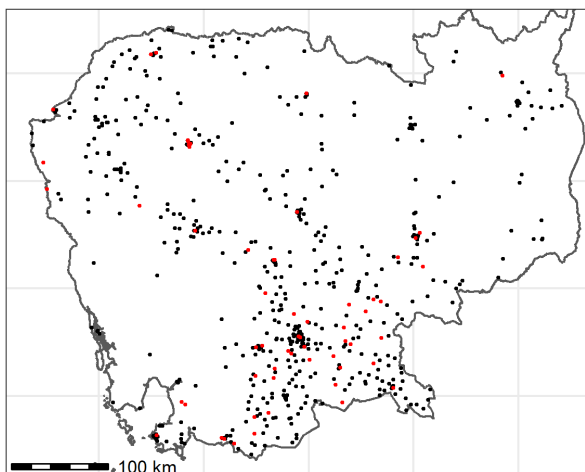
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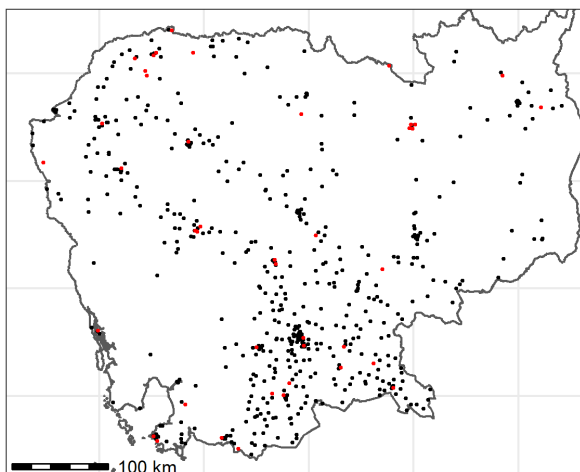
Diarrhoea



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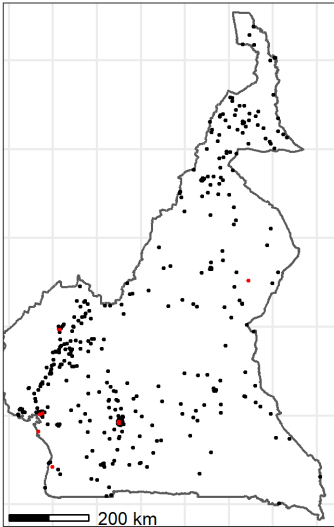


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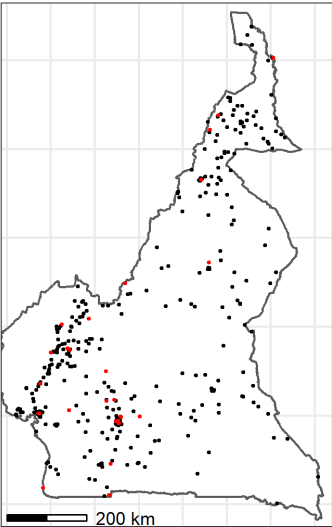


Cameroon

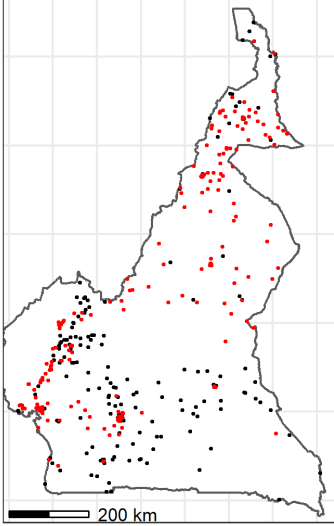
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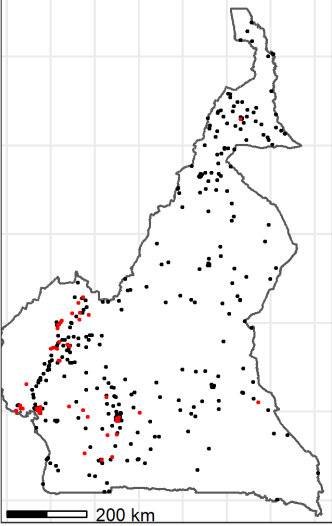
Diarrhoea



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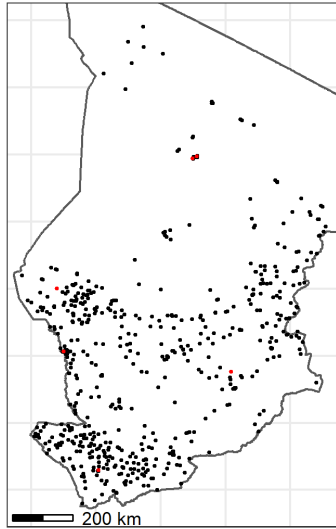


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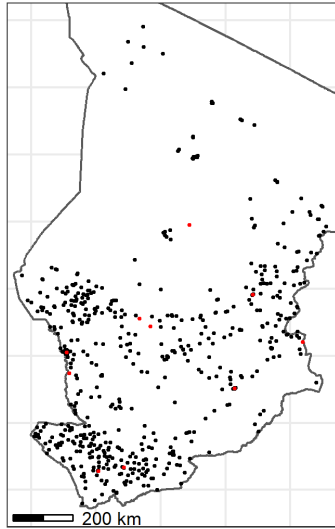


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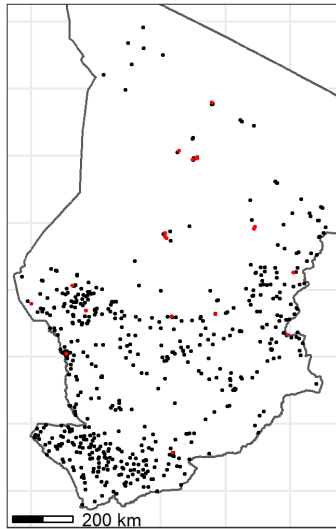
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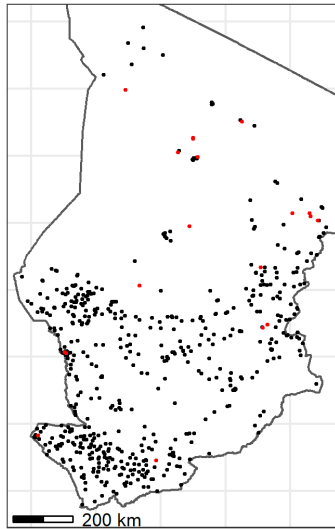
Diarrhoea



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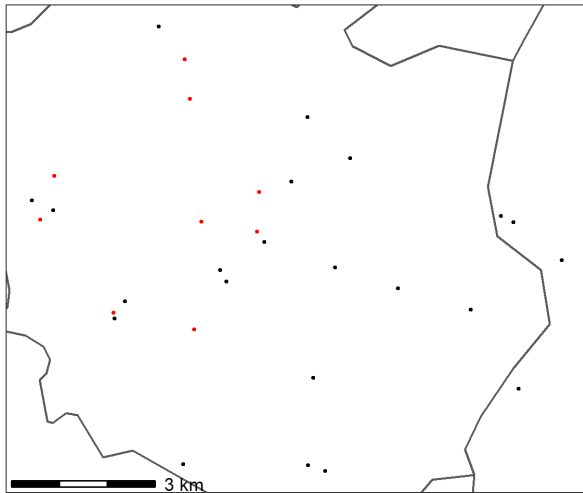


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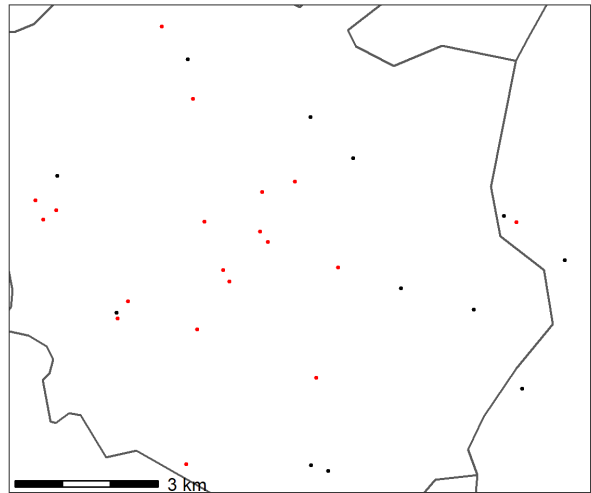


Chandigarh

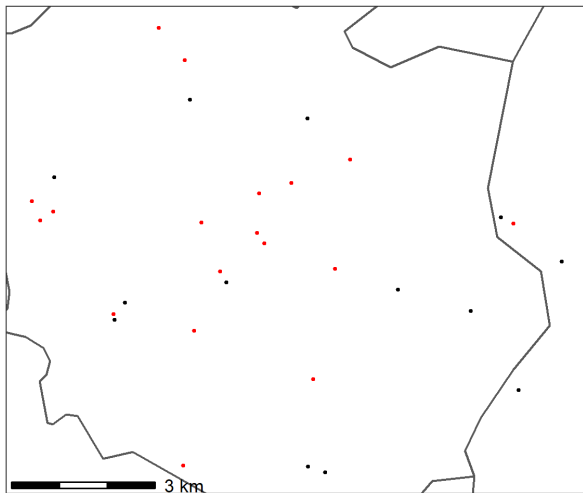
Fever



Diarrhoea



ARI



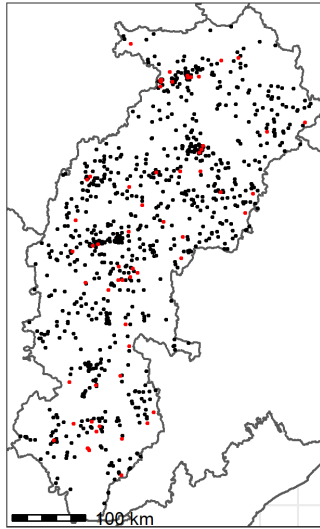
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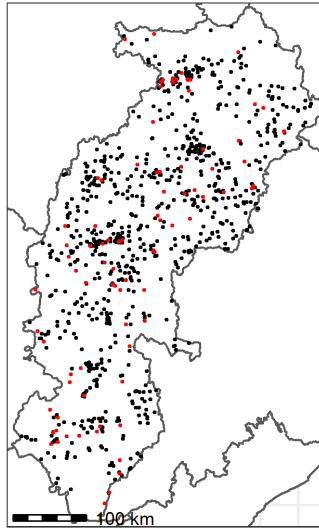


Chhattisgarh

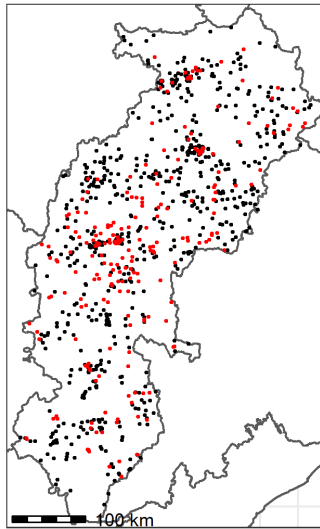
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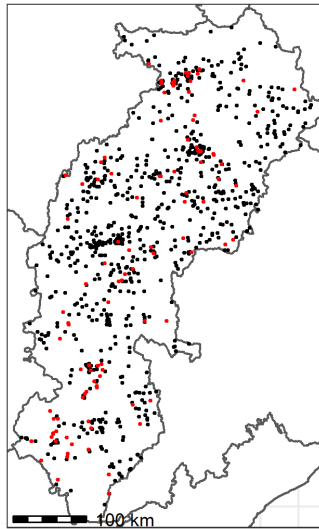
Diarrhoea



ARI

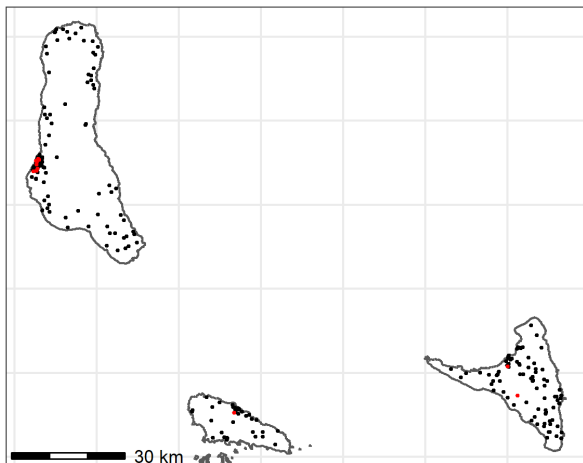


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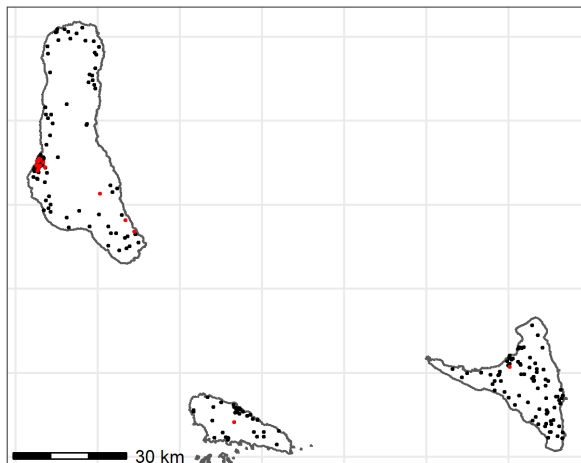


Comoros

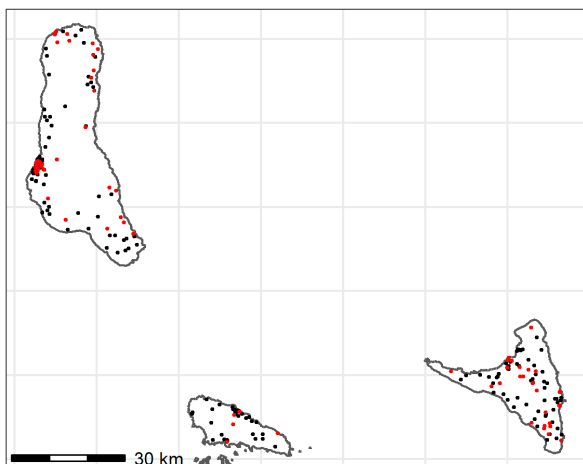
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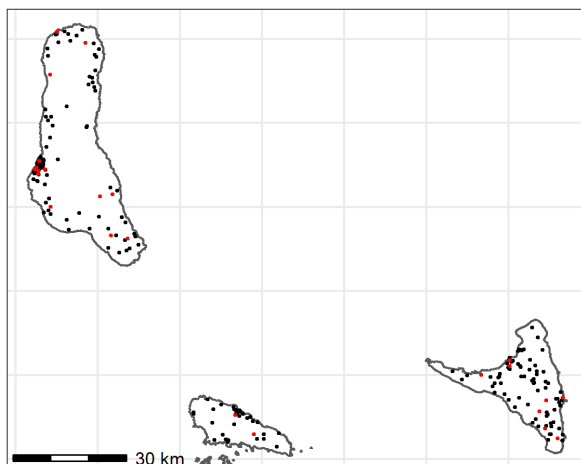
Diarrhoea



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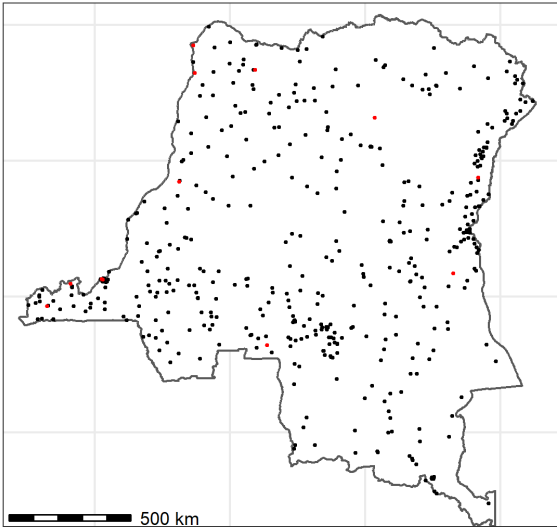


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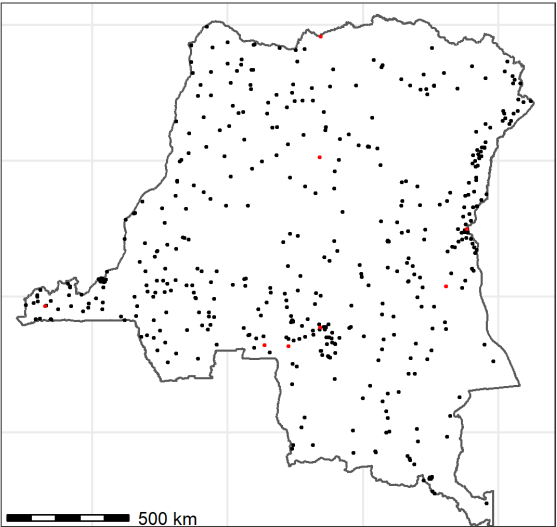


Congo Democratic Republic

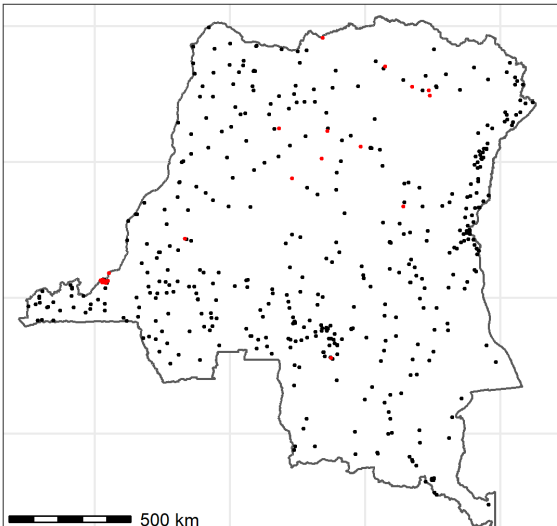
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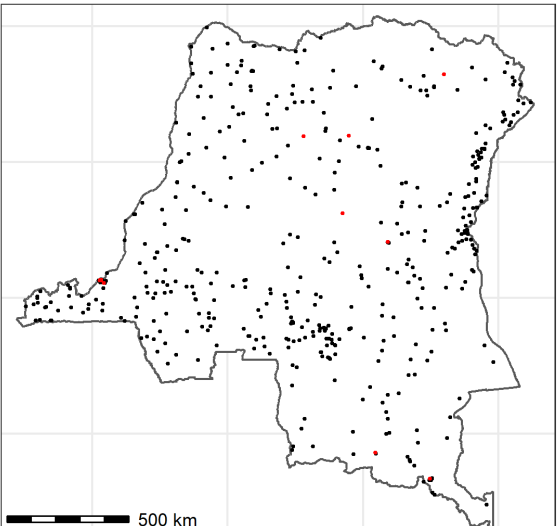
Diarrhoea



ARI

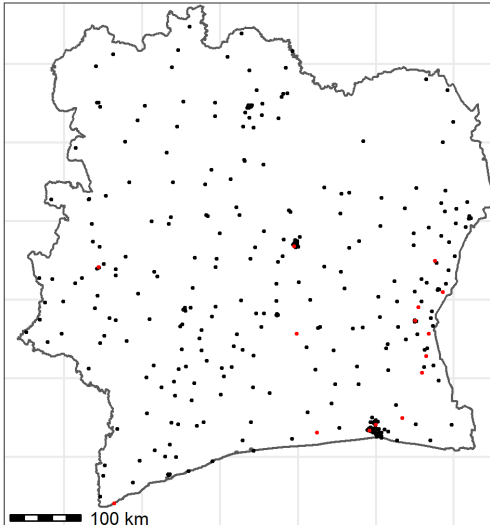


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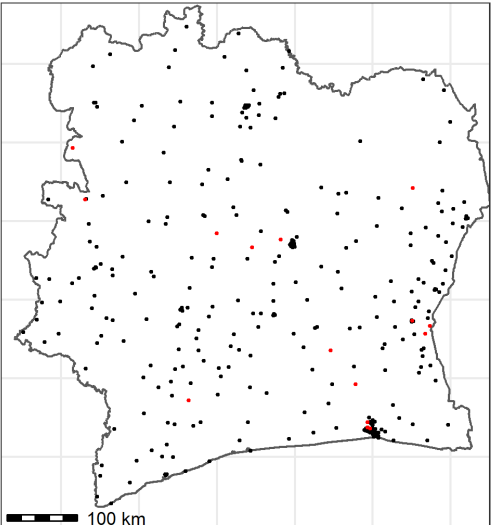


Cote d'Ivoire

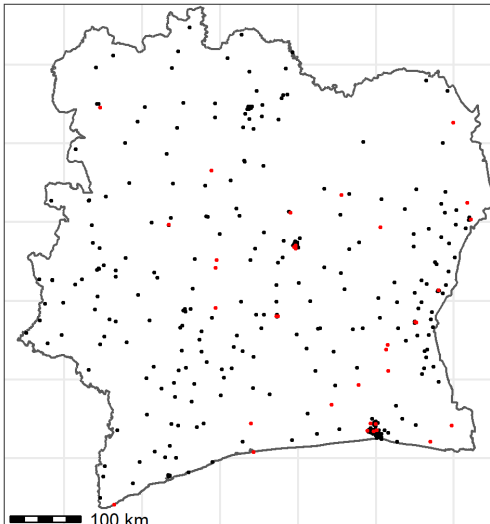
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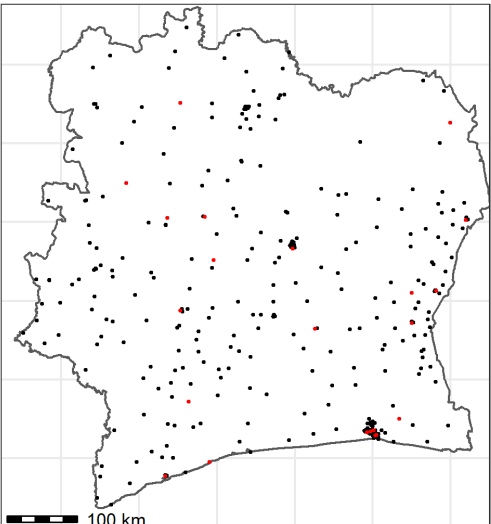
Diarrhoea



ARI



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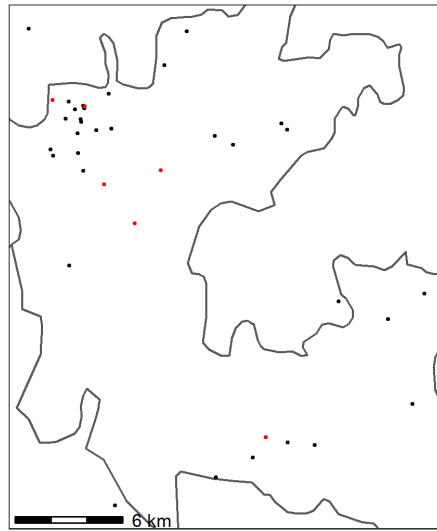


Dadra & Nagar Haveli

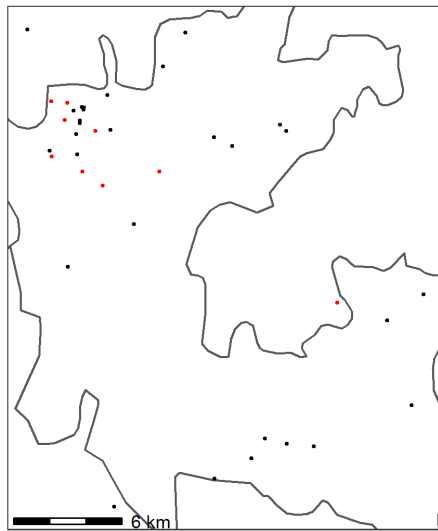
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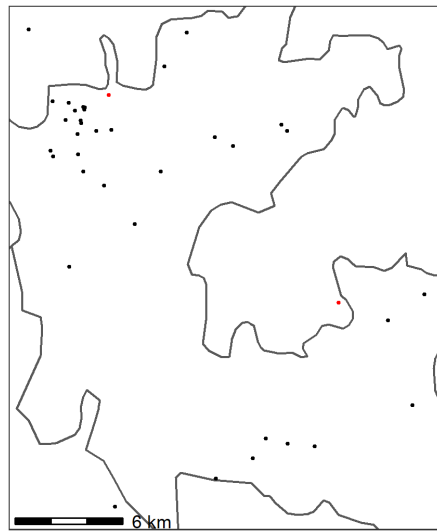
Diarrhoea



ARI

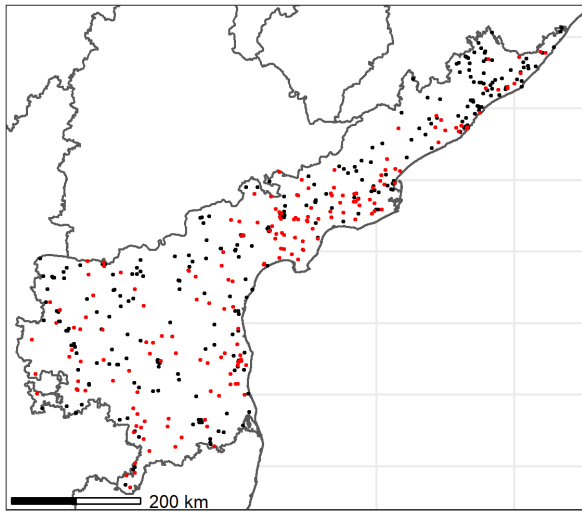


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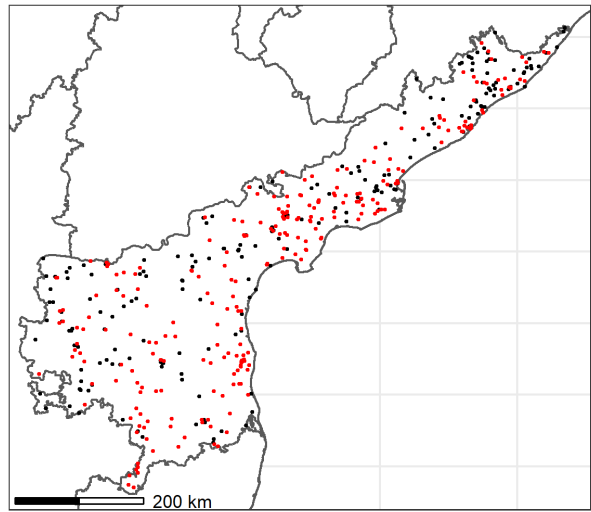


Andhra Pradesh

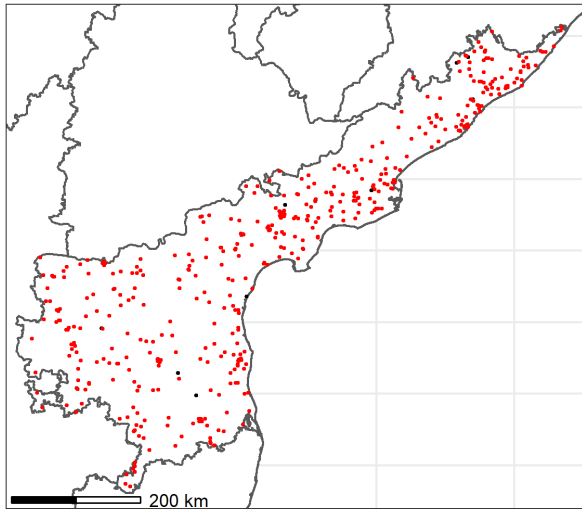
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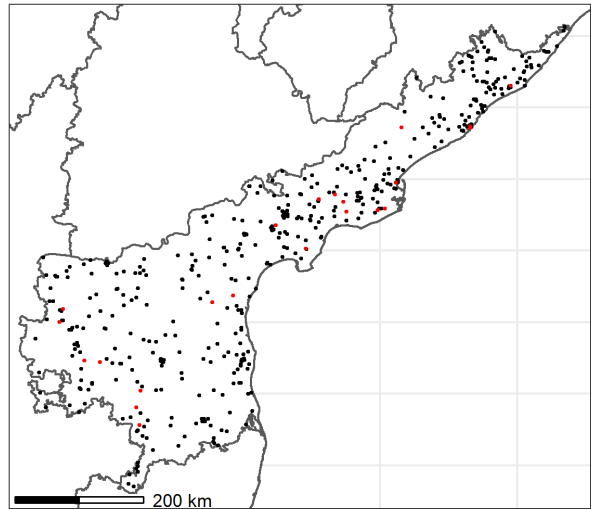
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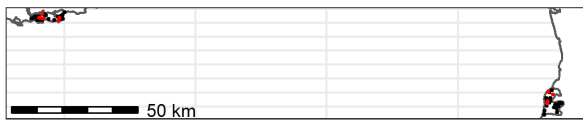


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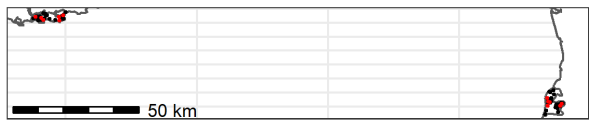


Daman & Diu

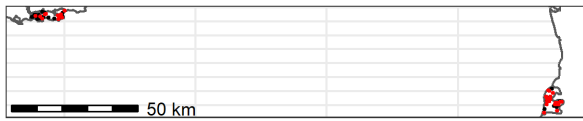
Fever



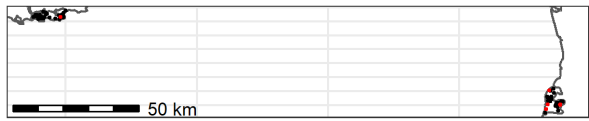
Diarrhoea



ARI

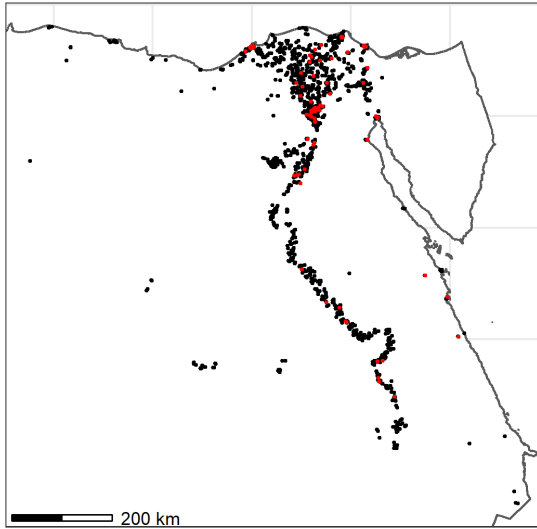


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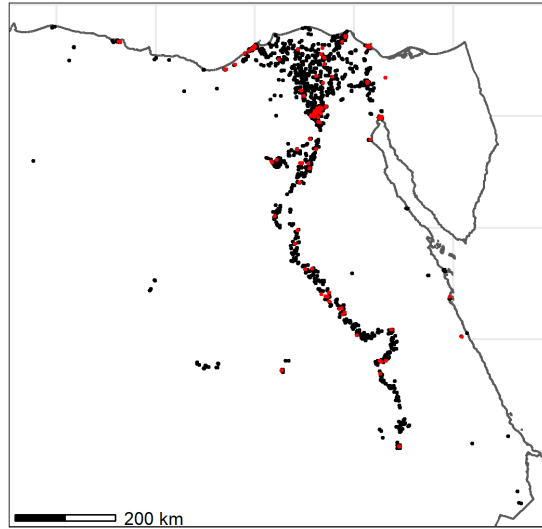


Egypt

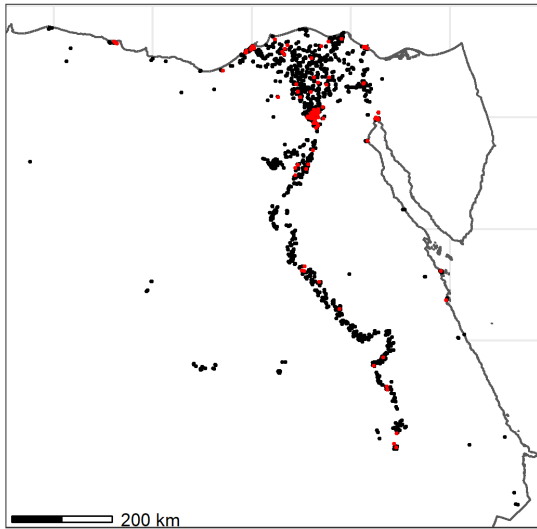
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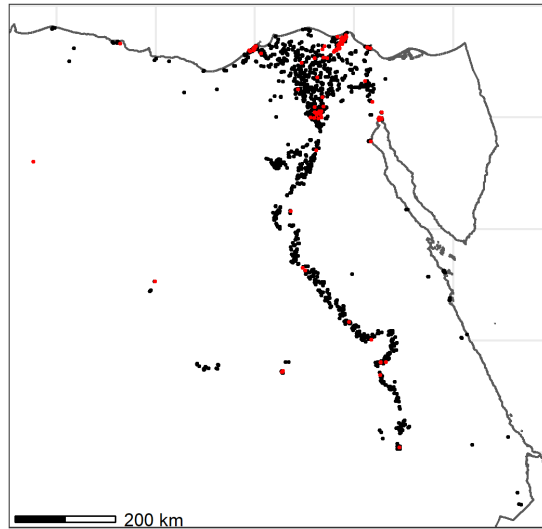
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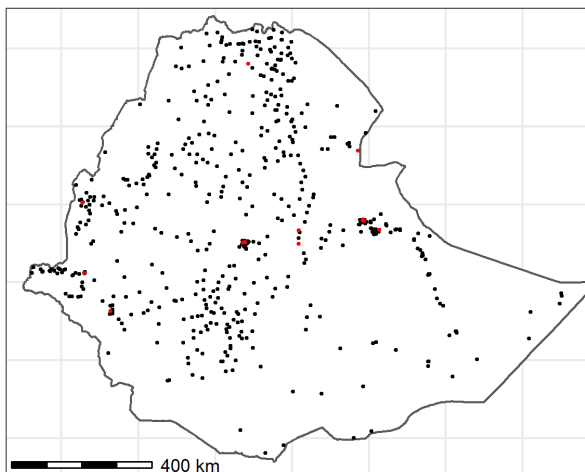
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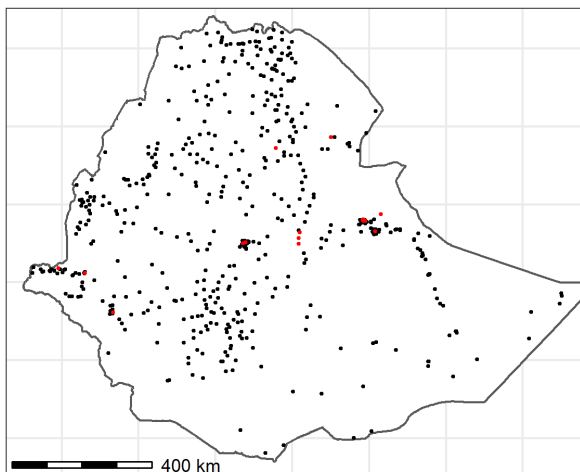


Ethiopia

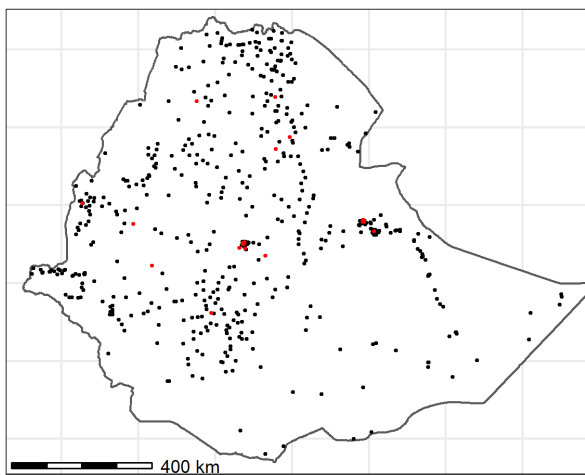
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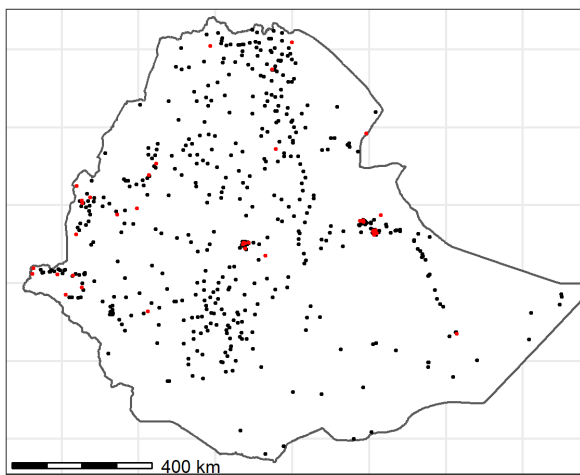
Diarrhoea



ARI

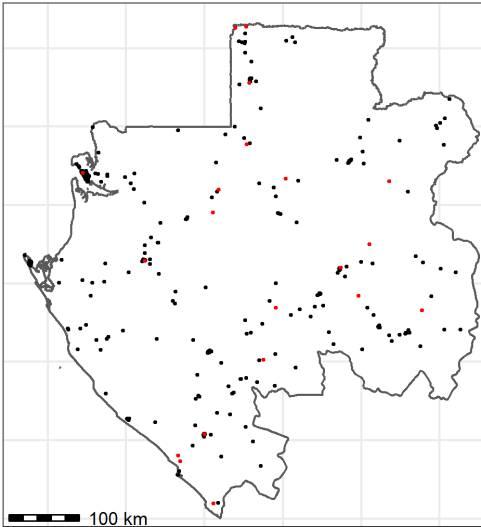


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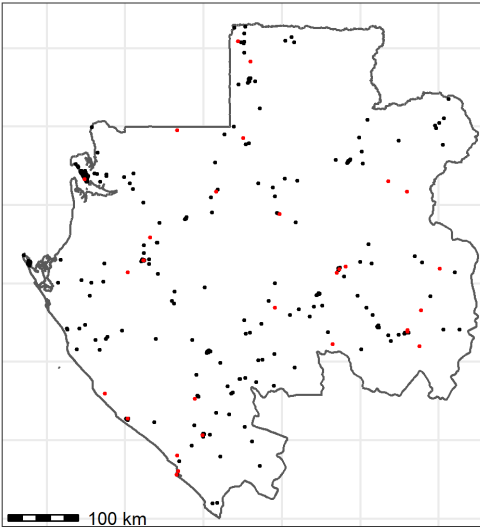


Gabon

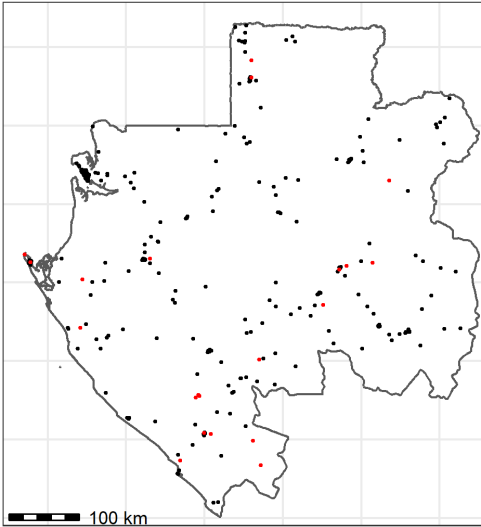
Fever



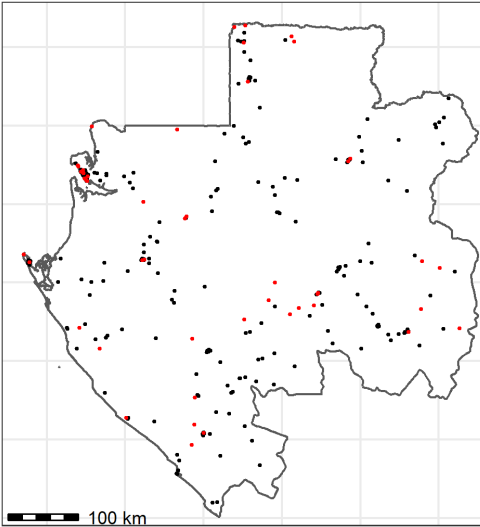
Diarrhoea



ARI

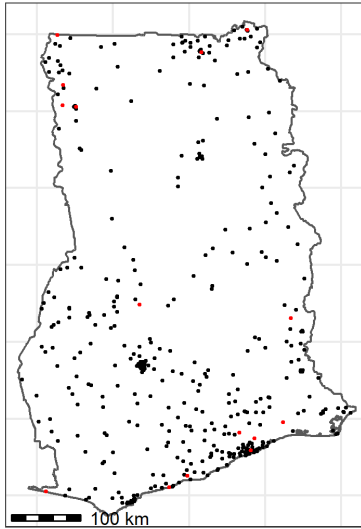


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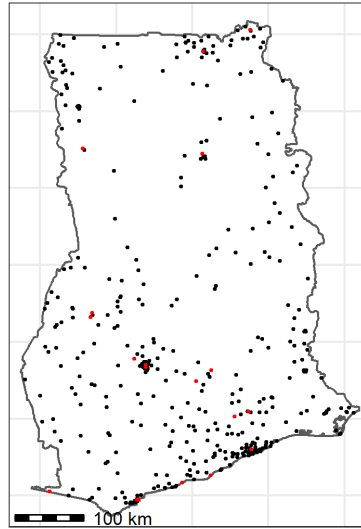


Ghana

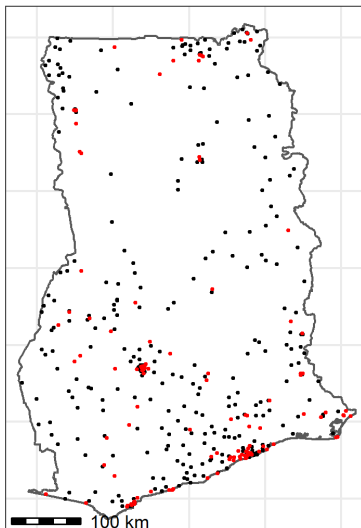
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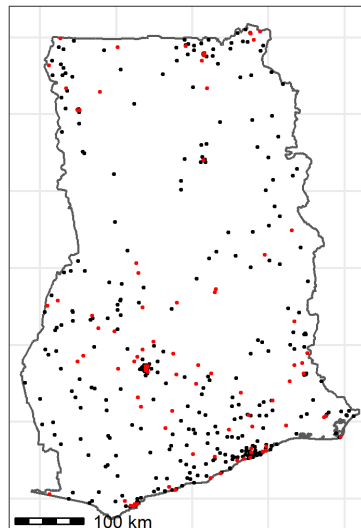
Diarrhoea



ARI

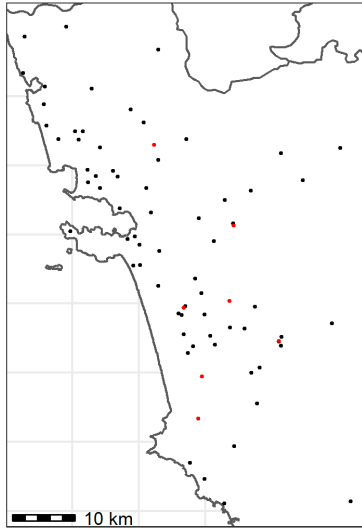


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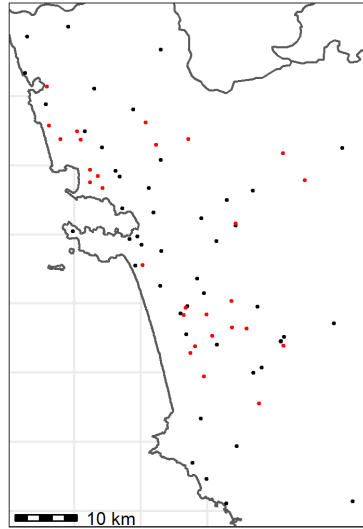


Goa

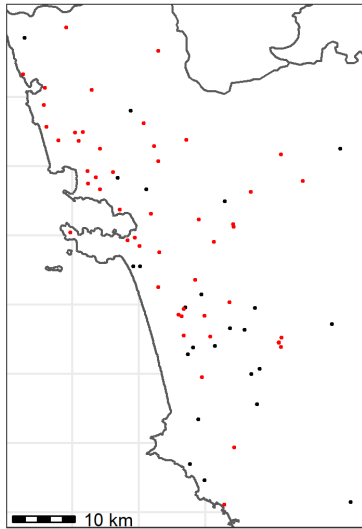
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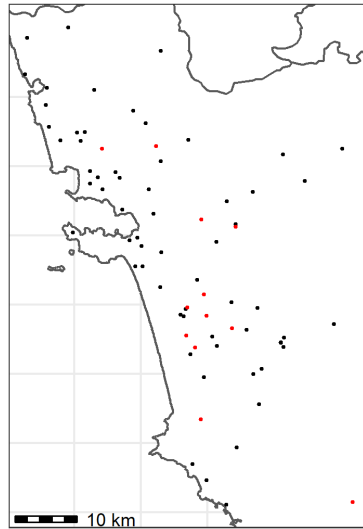
Diarrhoea



ARI

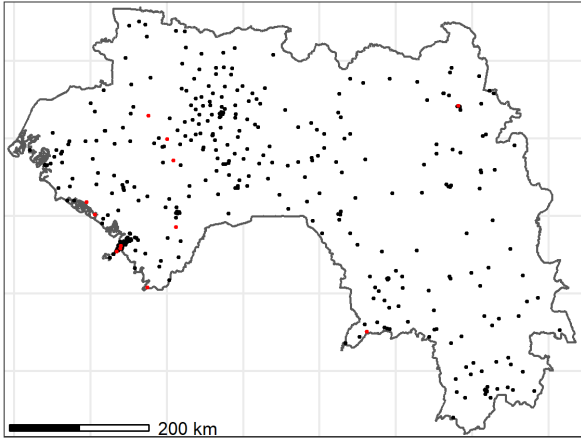


Wasting

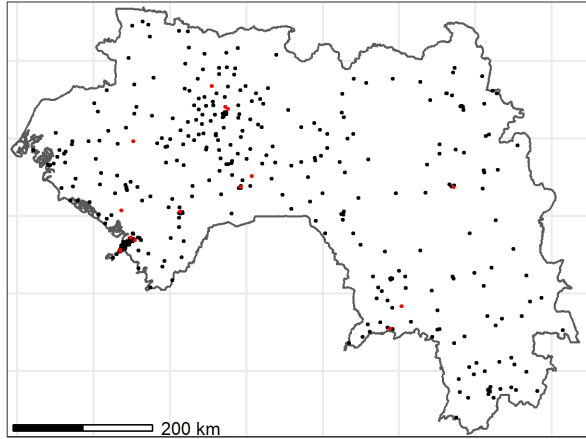


Guinea

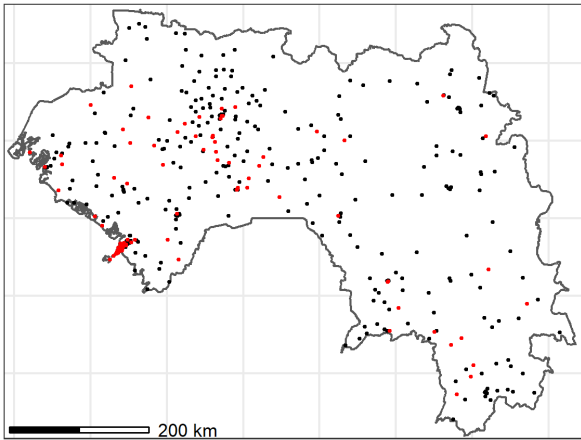
Fever



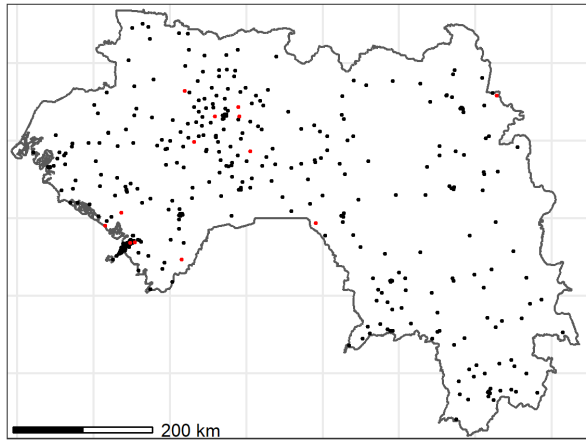
Diarrhoea



ARI

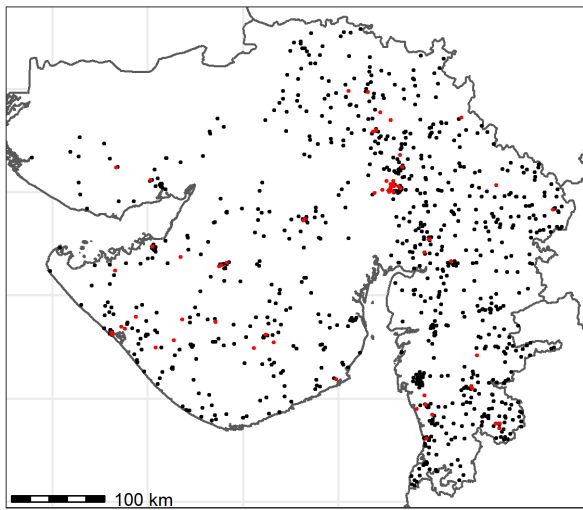


Wasting

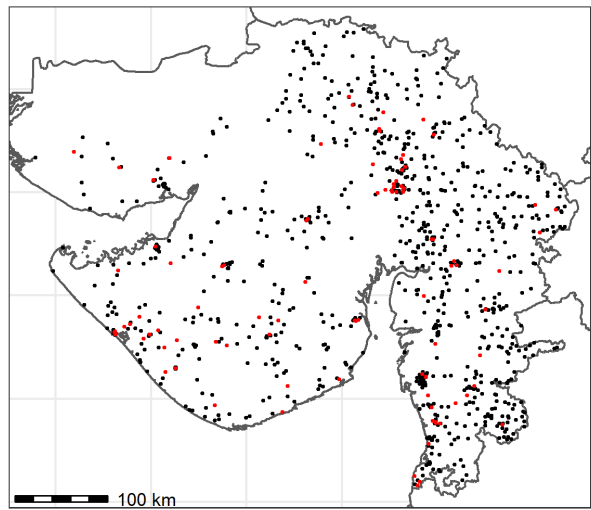


Gujarat

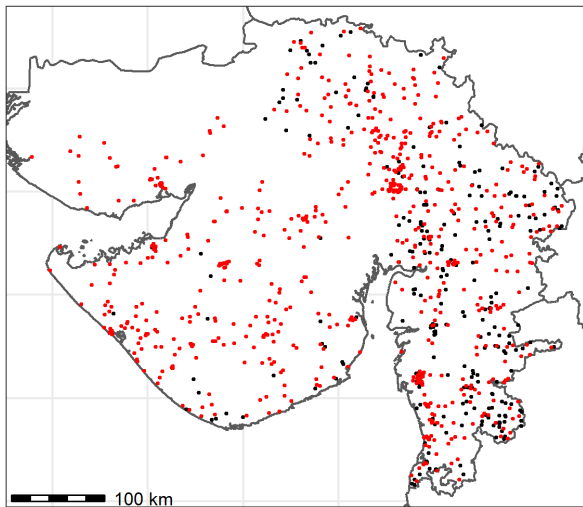
Fever



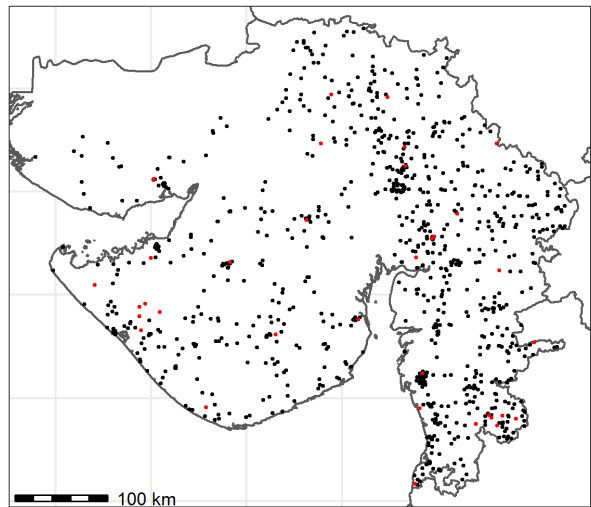
Diarrhoea



ARI

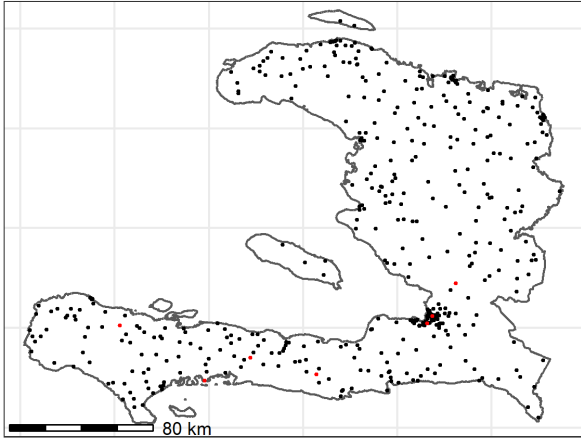


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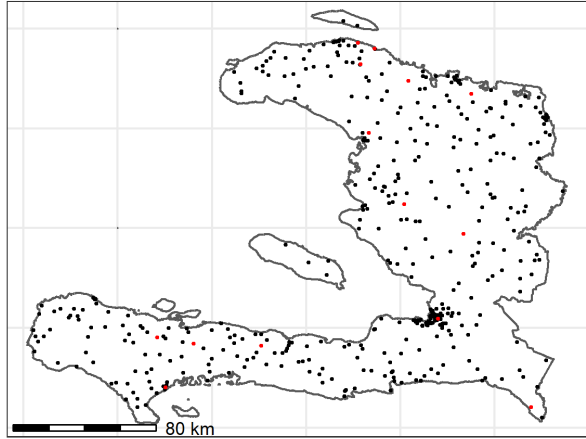


Haiti

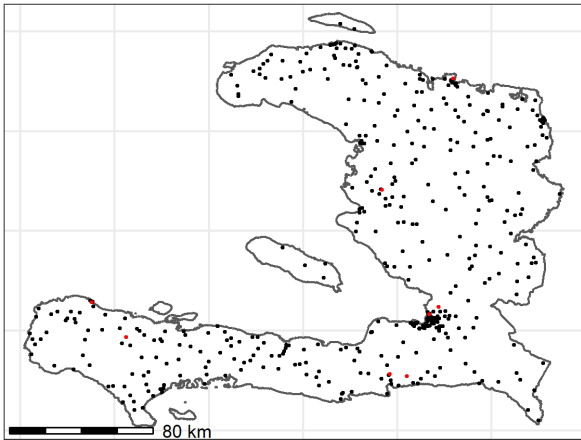
Fever



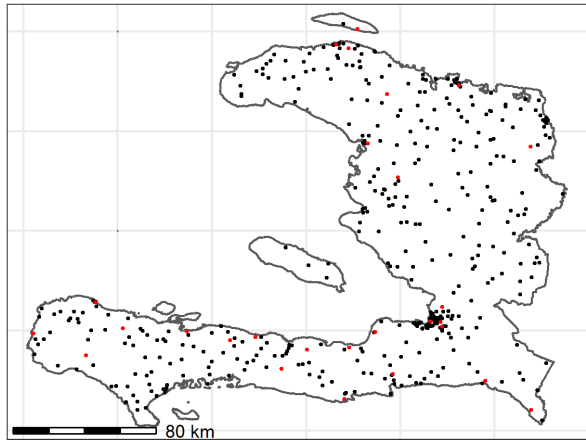
Diarrhoea



ARI

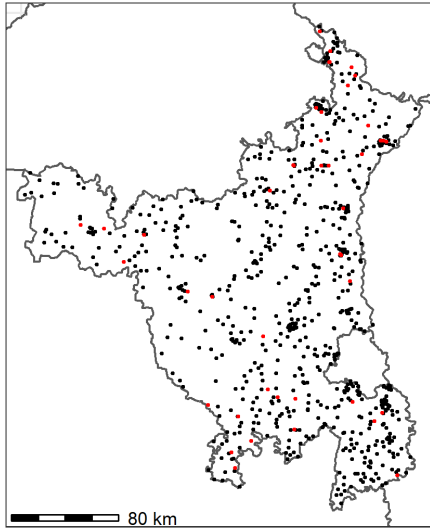


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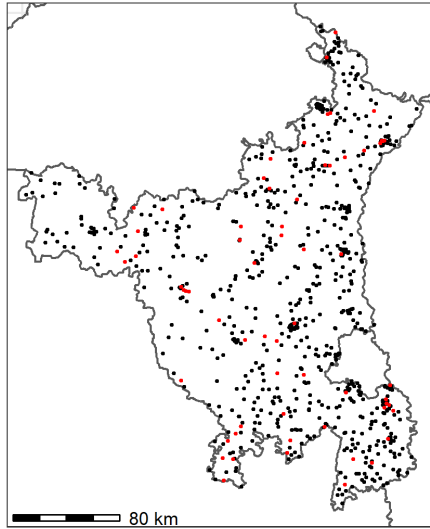


Haryana

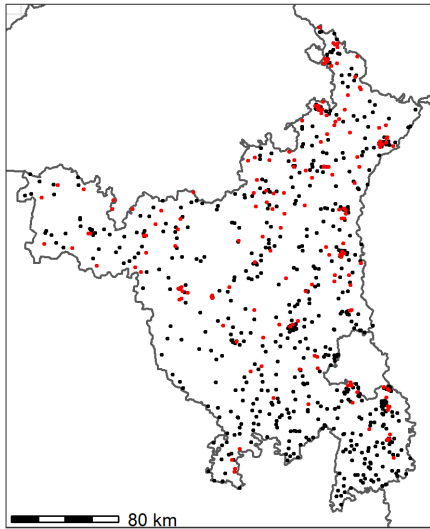
Fever



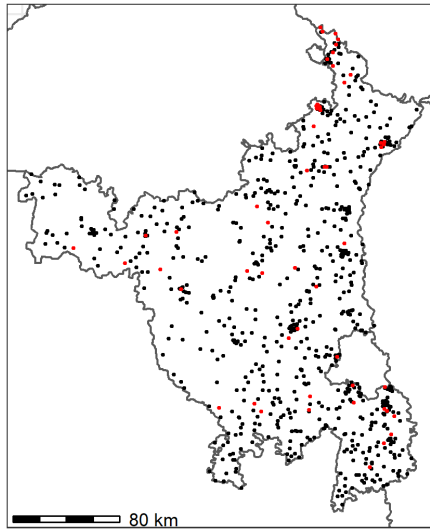
Diarrhoea



ARI



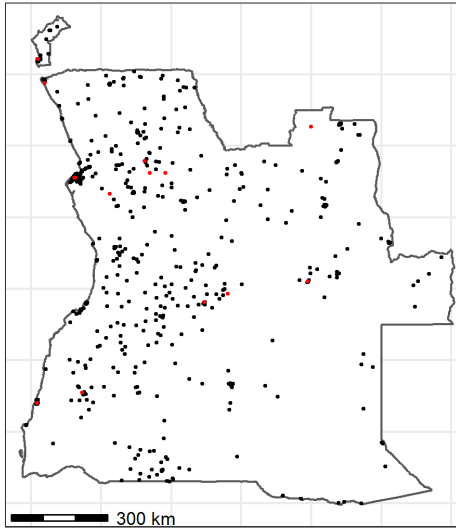
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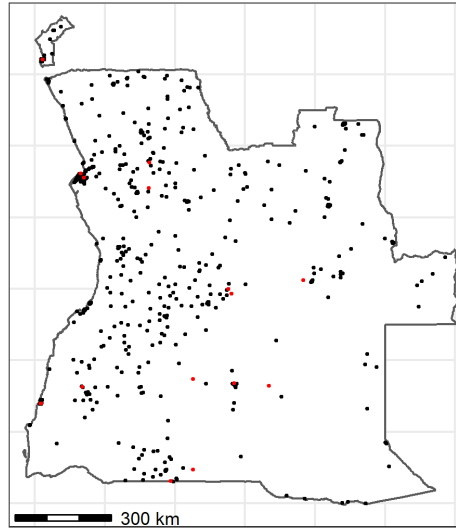


Angola

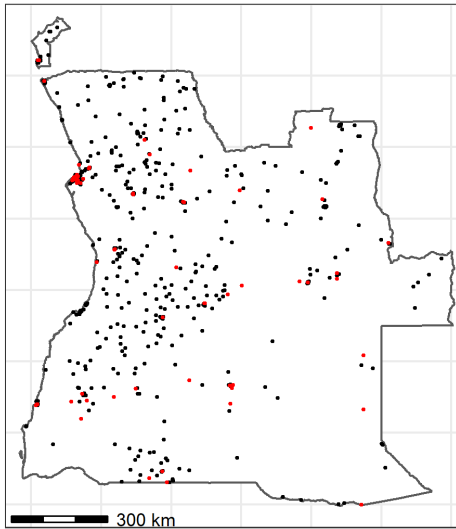
Fever



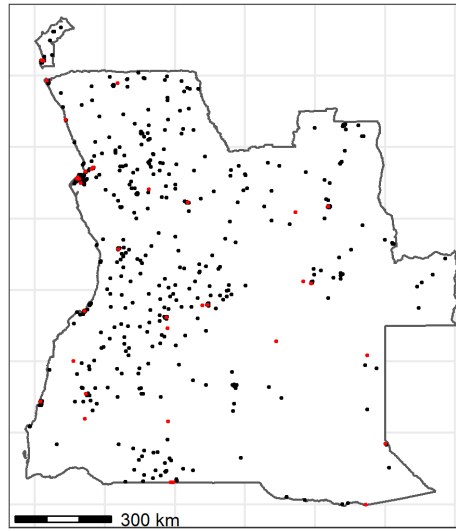
Diarrhoea



ARI

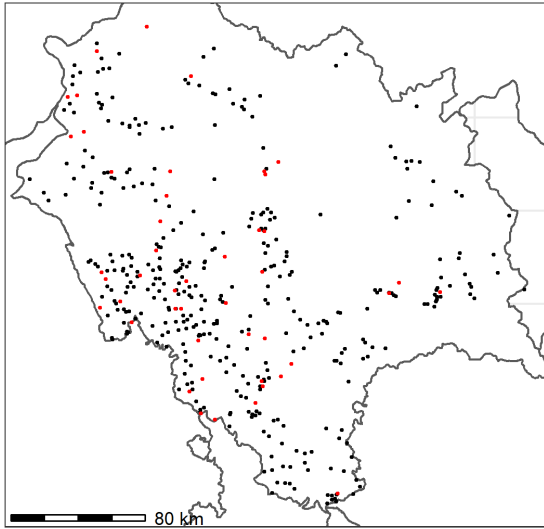


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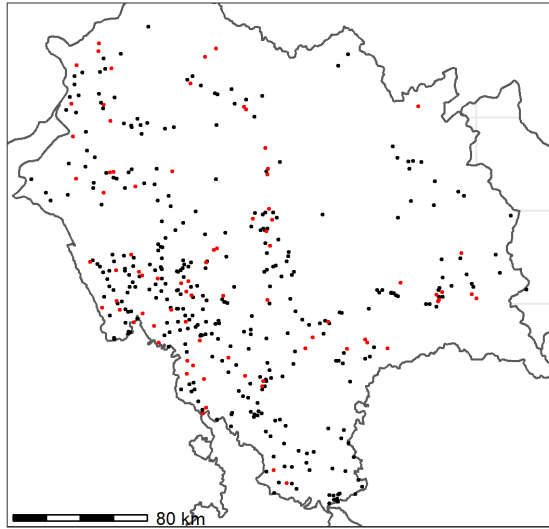


Himachal Pradesh

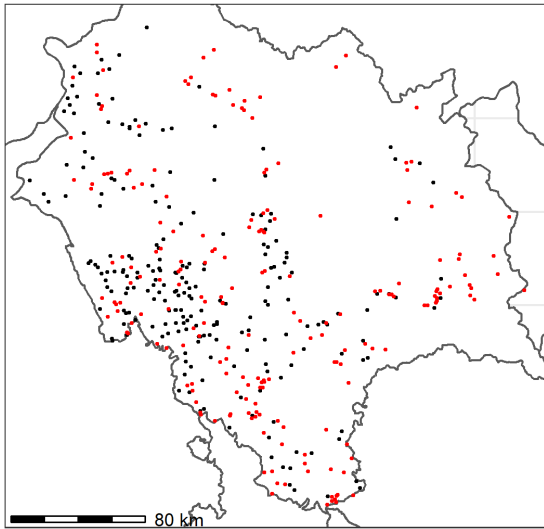
Fever



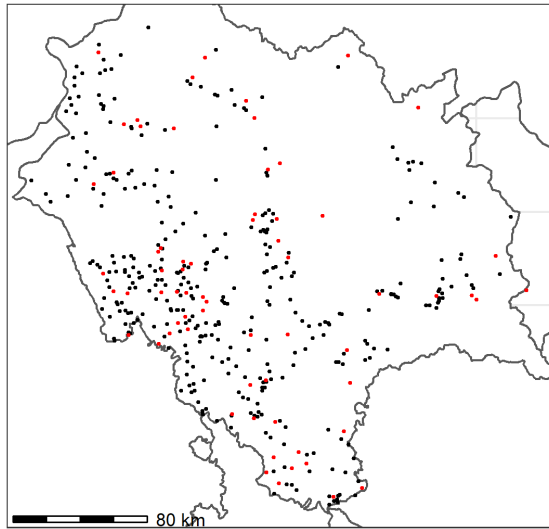
Diarrhoea



ARI

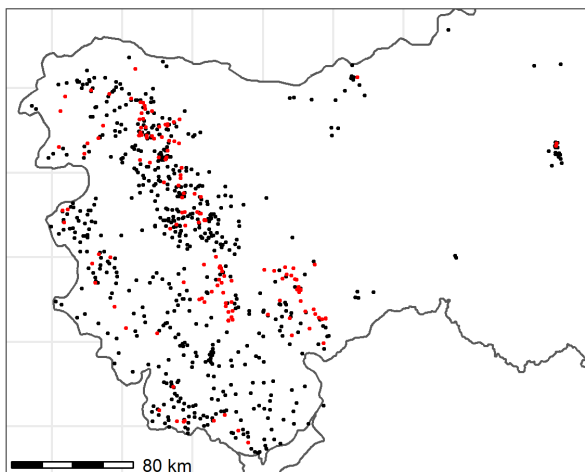


Wasting

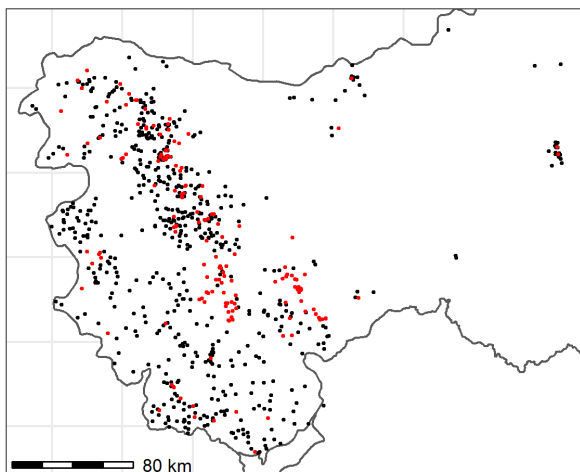


Jammu & Kashmir

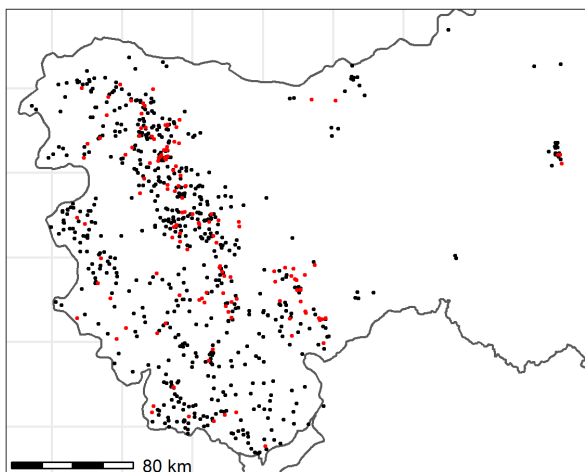
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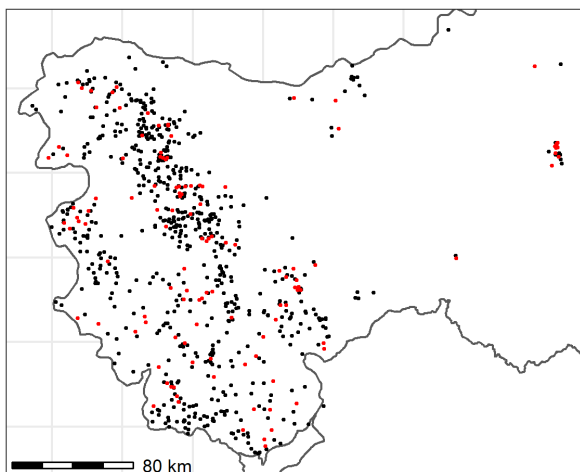
Diarrhoea



ARI

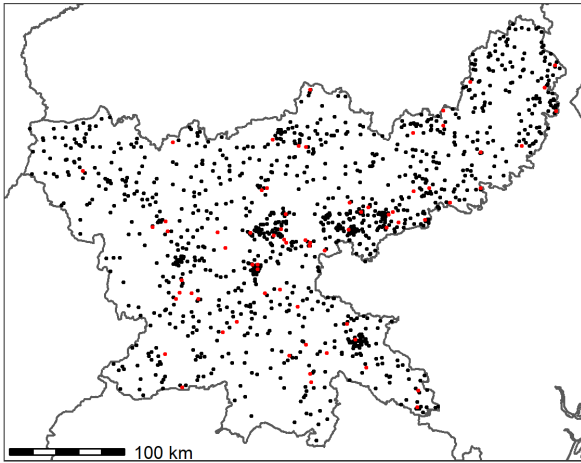


Wasting

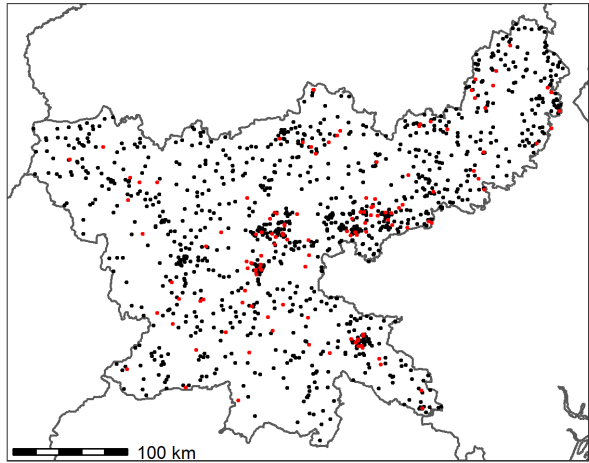


Jharkhand

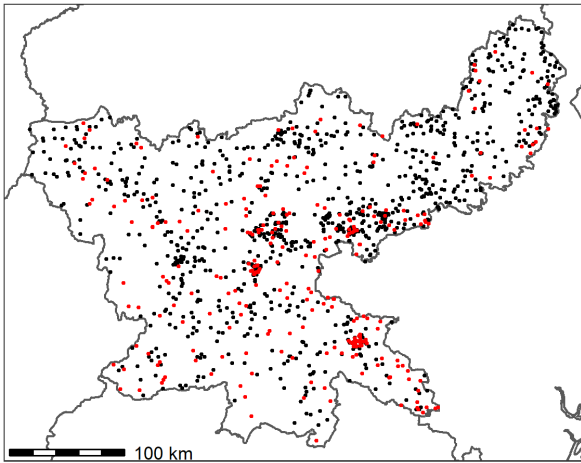
Fever



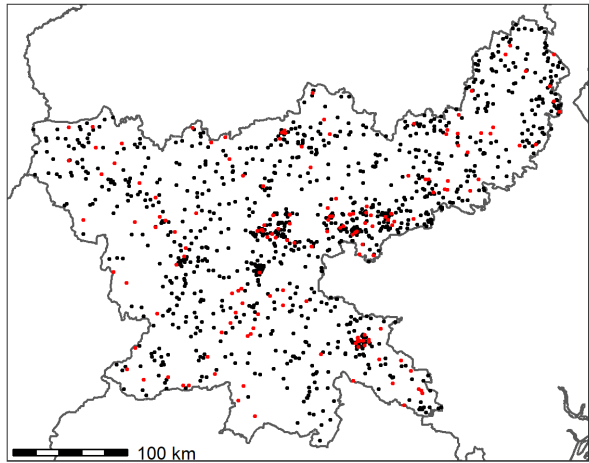
Diarrhoea



ARI

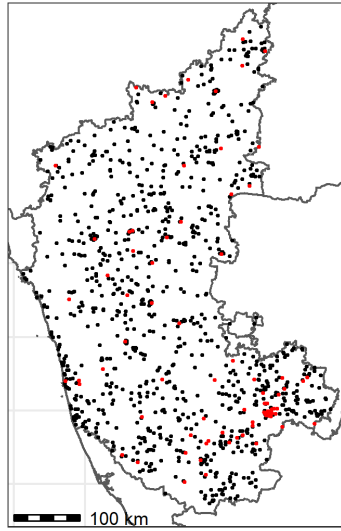


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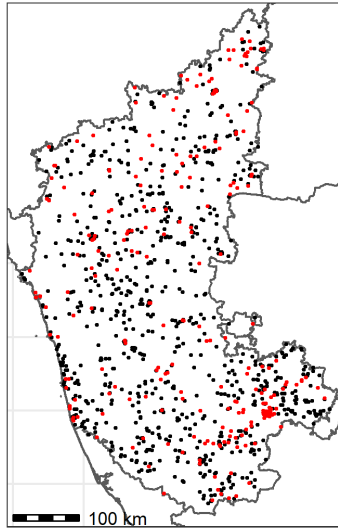


Karnataka

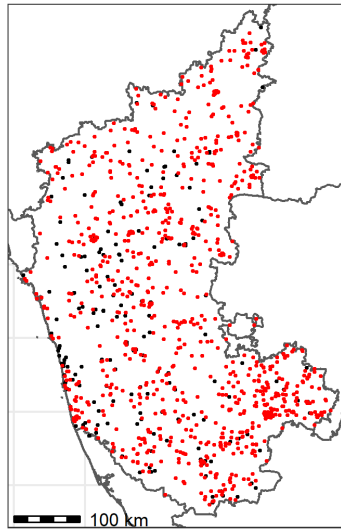
Fever



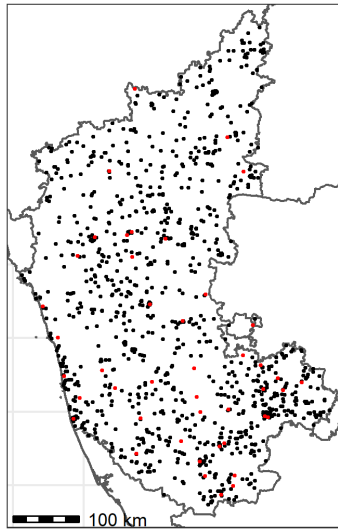
Diarrhoea



ARI

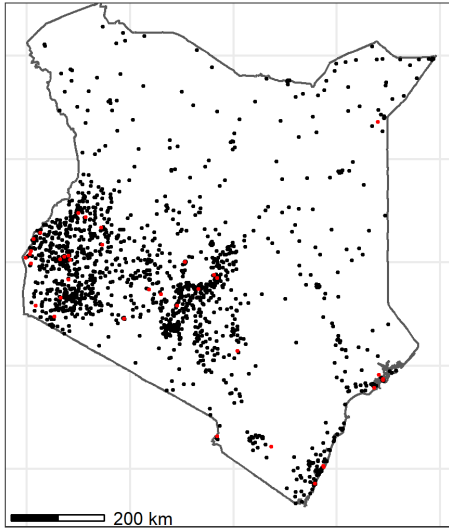


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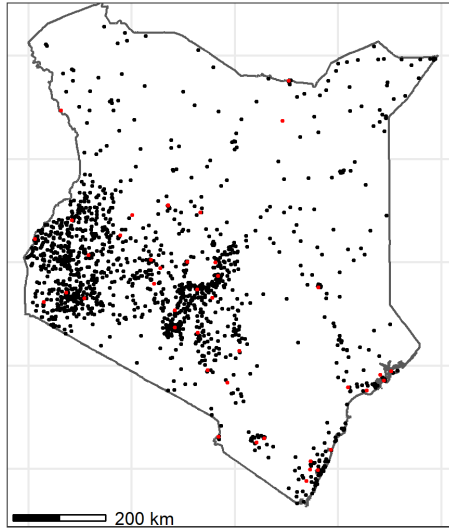


Kenya

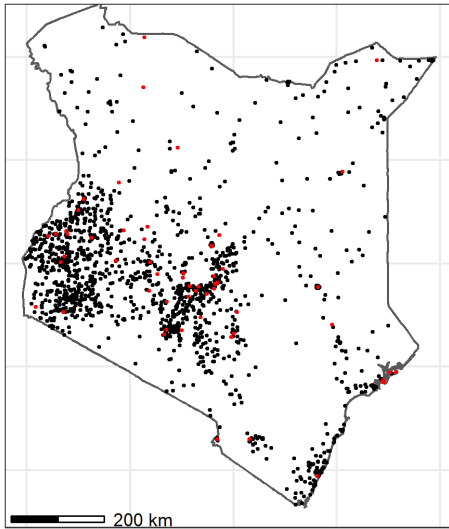
Fever



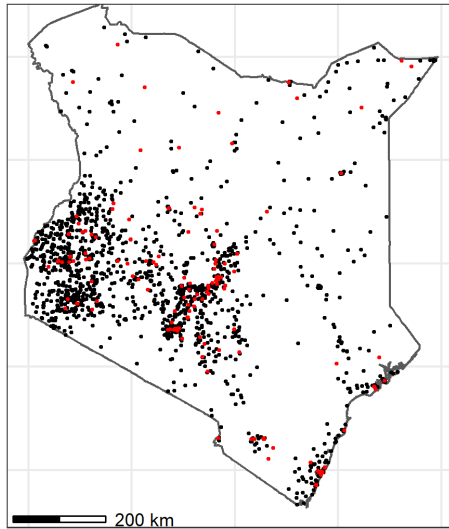
Diarrhoea



ARI

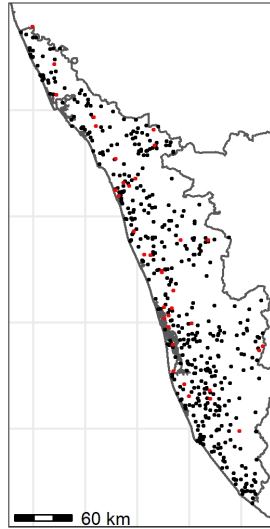


Wasting

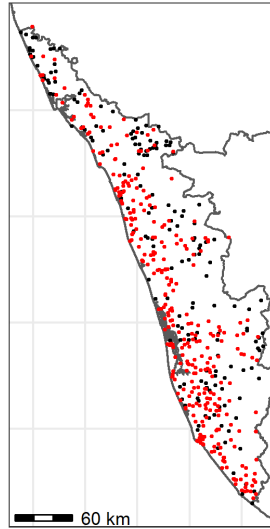


Kerala

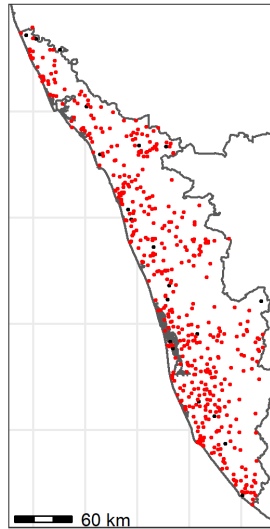
Fever



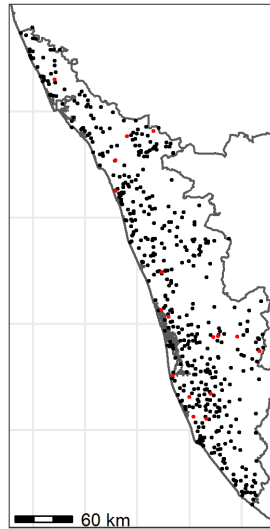
Diarrhoea



ARI

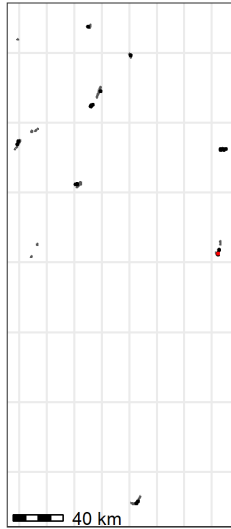


Wasting

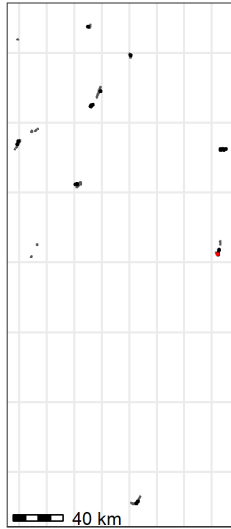


# Lakshadweep

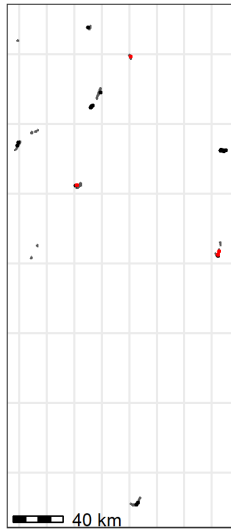
## Fever



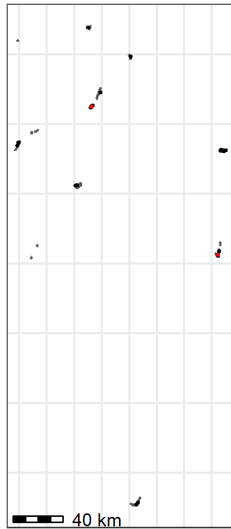
## Diarrhoea



## ARI



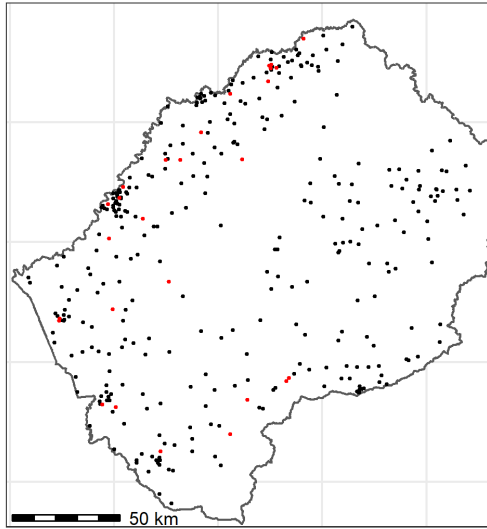
## Wasting



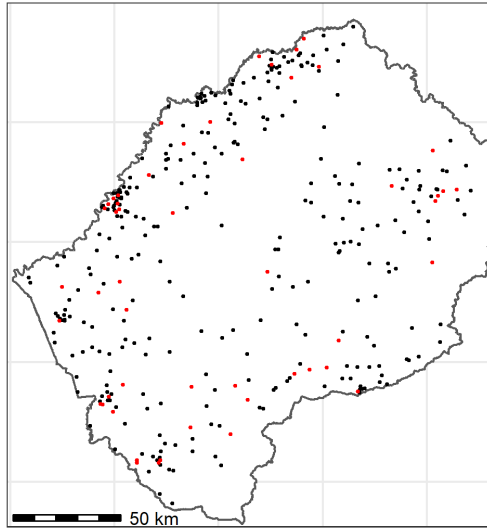


Lesotho

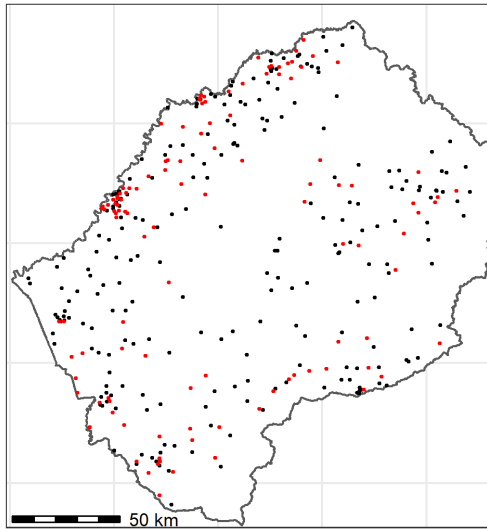
Fever



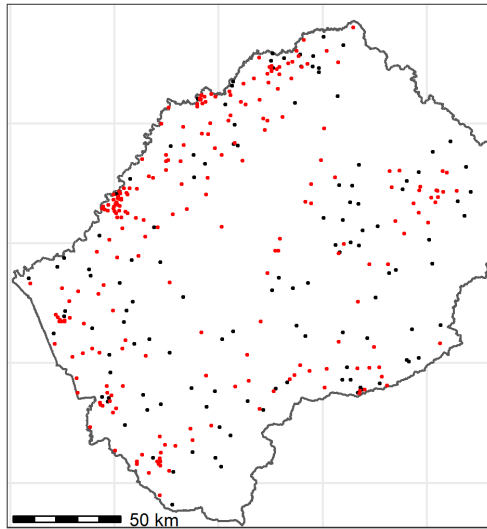
Diarrhoea



ARI

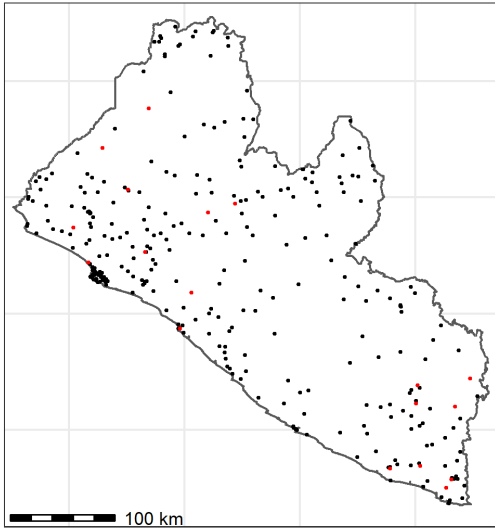


Wasting

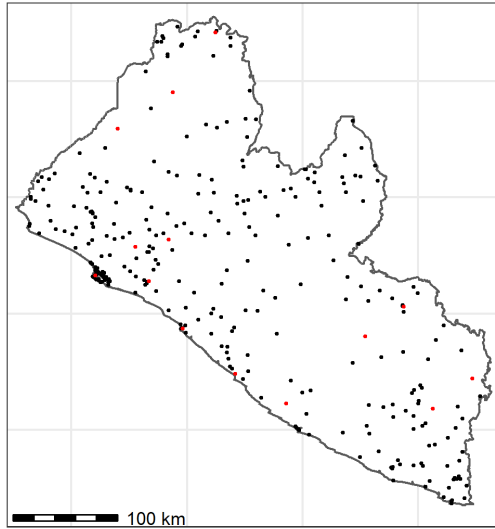


Liberia

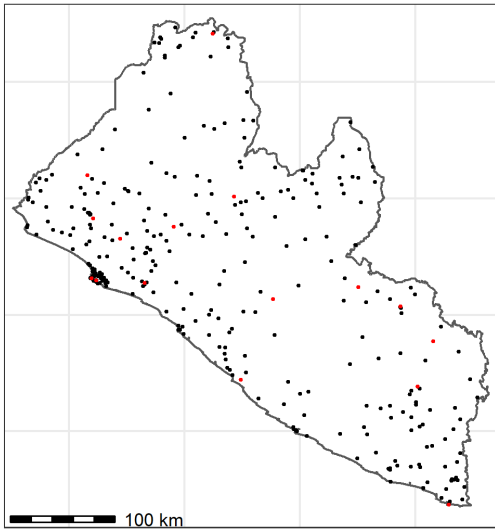
Fever



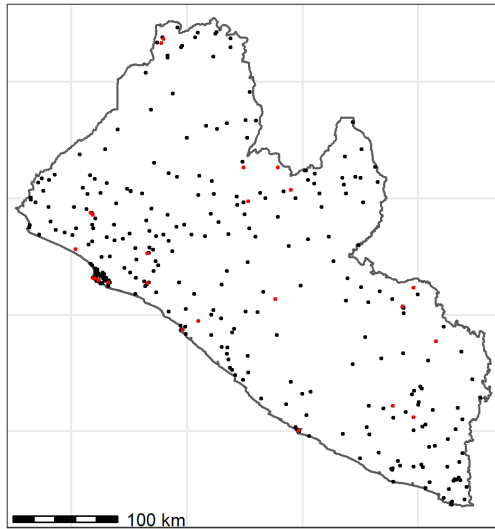
Diarrhoea



ARI

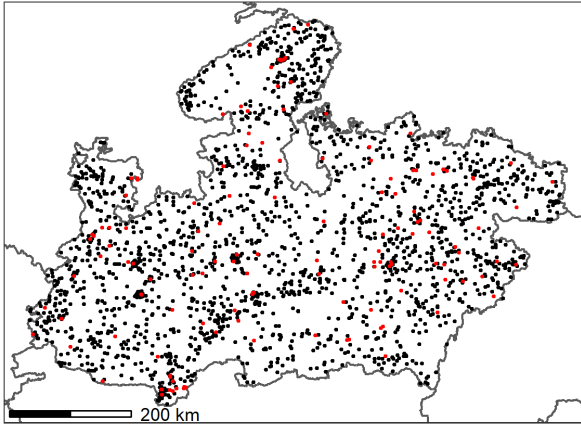


Wasting

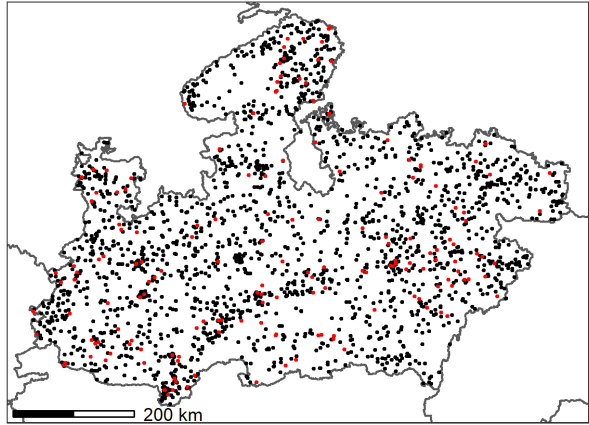


Madhya Pradesh

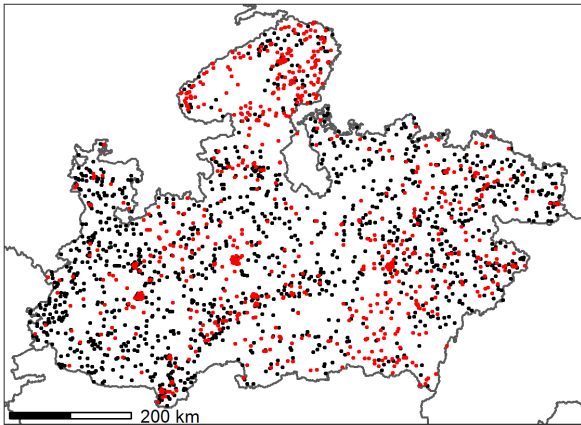
Fever



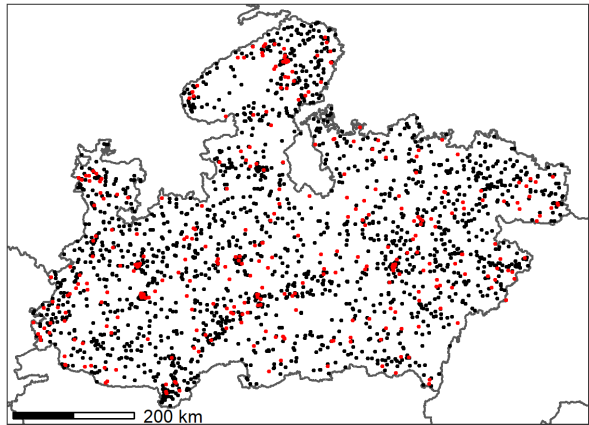
Diarrhoea



ARI

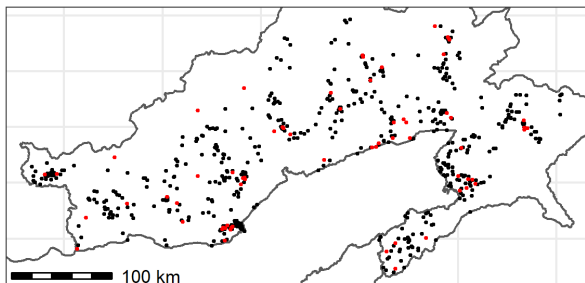


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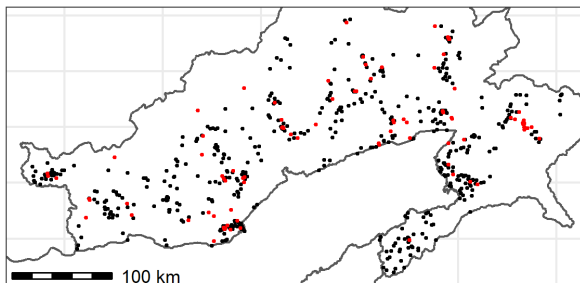


Arunachal Pradesh

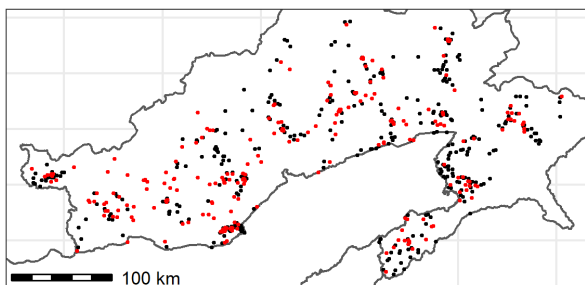
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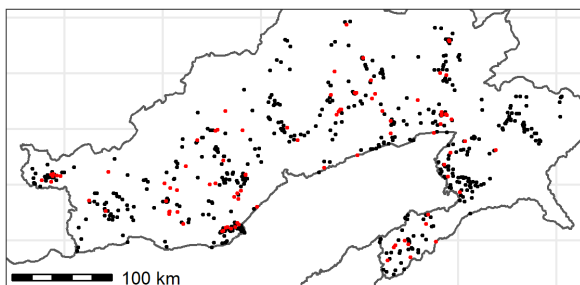
Diarrhoea



ARI

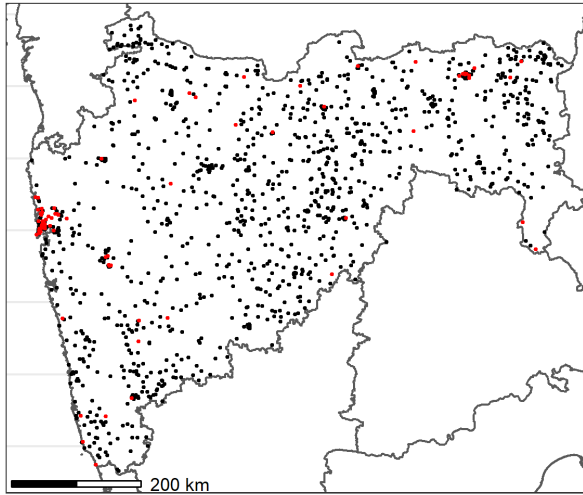


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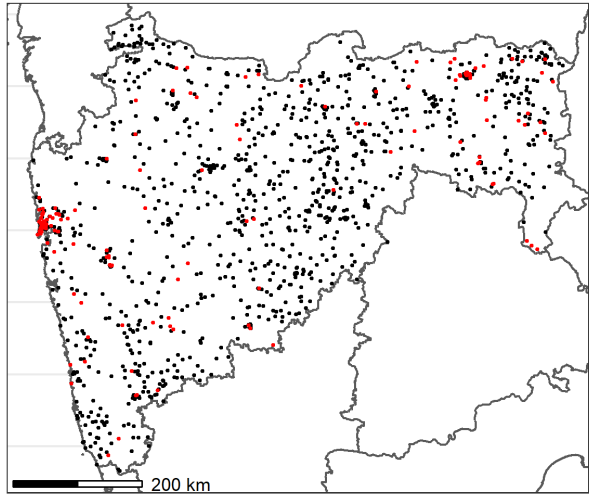


Maharashtra

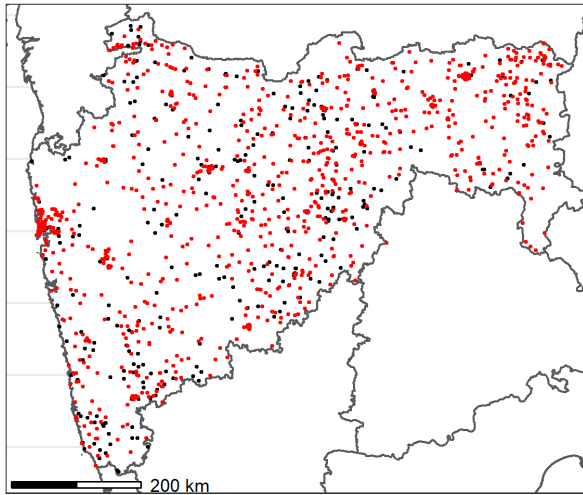
Fever



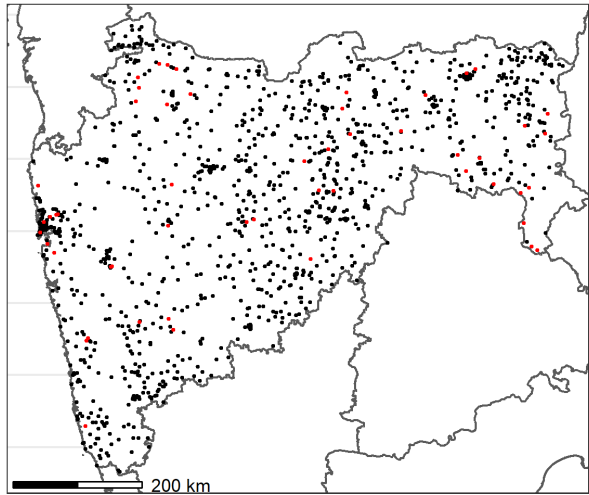
Diarrhoea



ARI

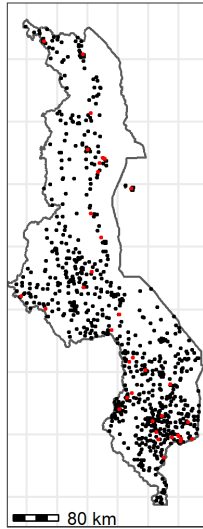


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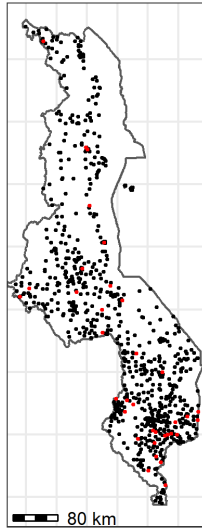


Malawi

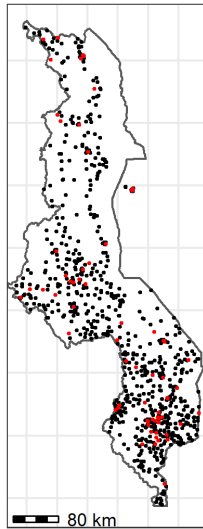
Fever



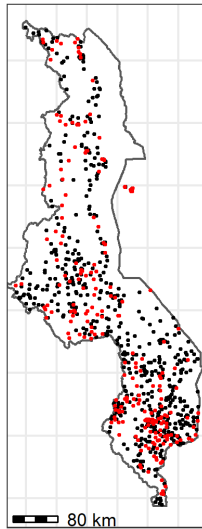
Diarrhoea



ARI

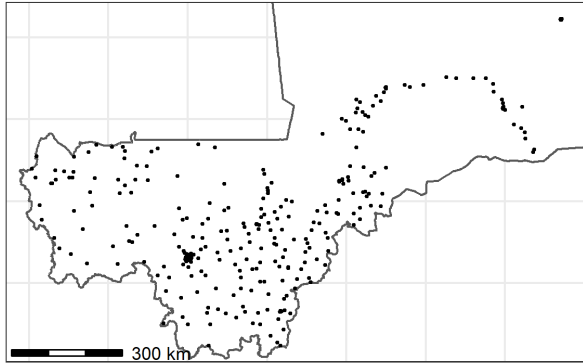


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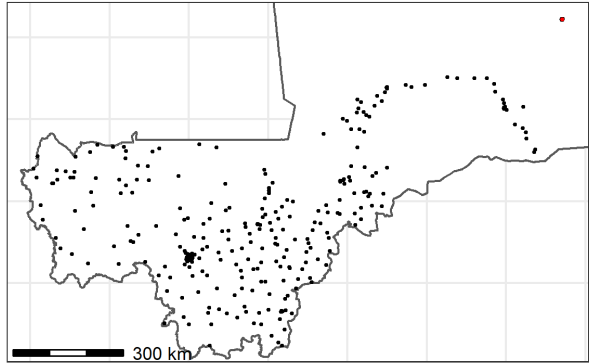


Mali

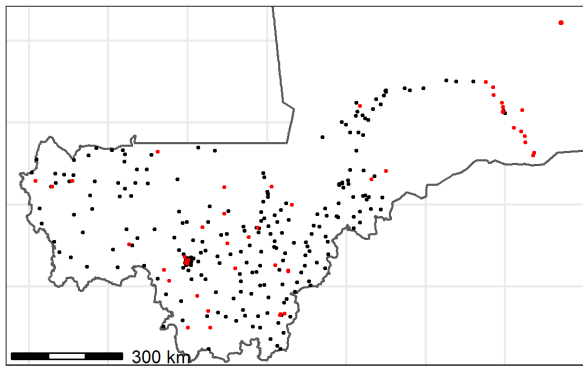
Fever



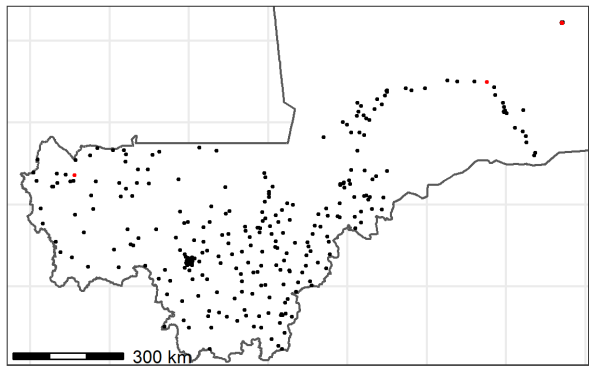
Diarrhoea



ARI

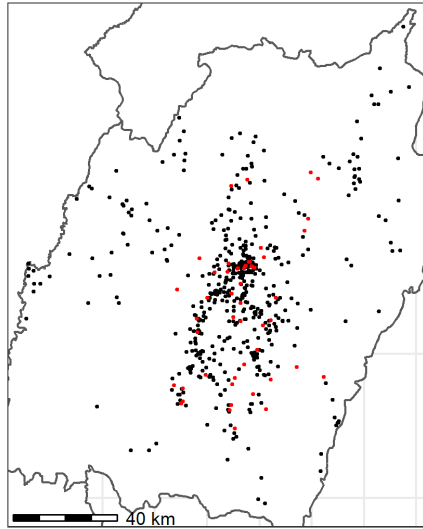


Wasting

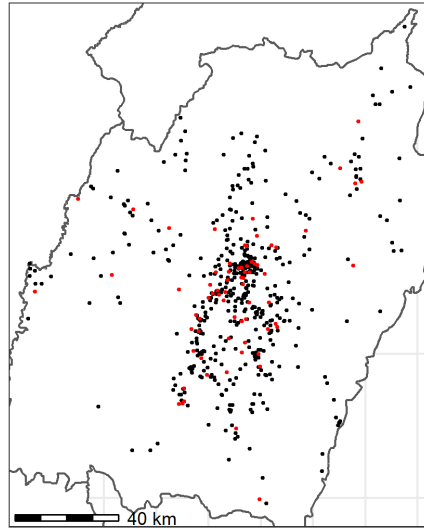


Manipur

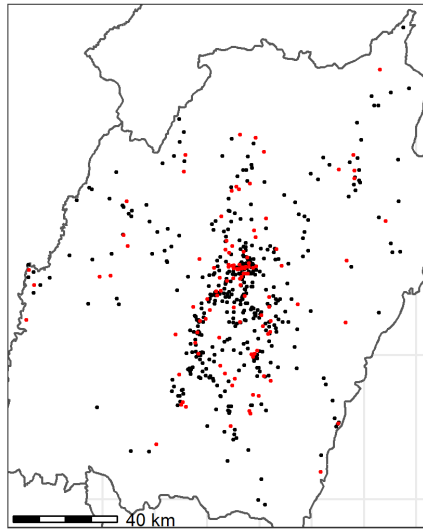
Fever



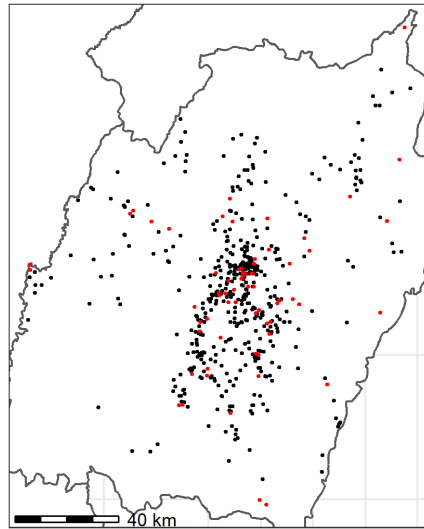
Diarrhoea



ARI



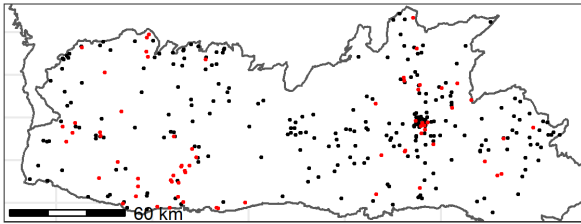
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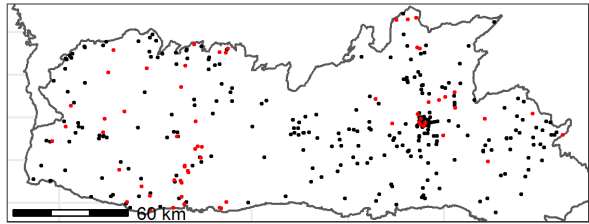


Meghalaya

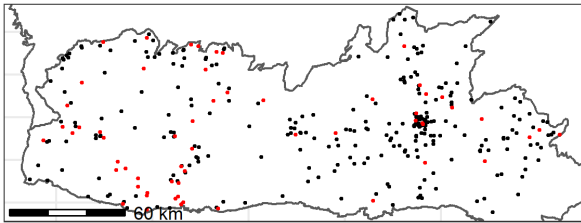
Fever



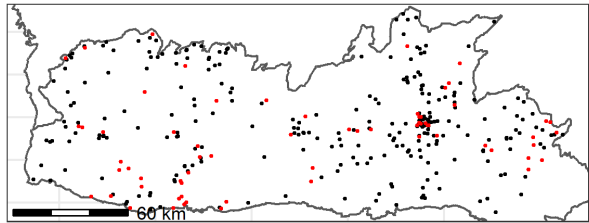
Diarrhoea



ARI

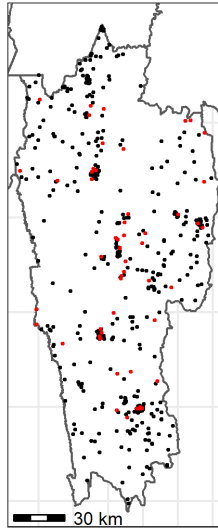


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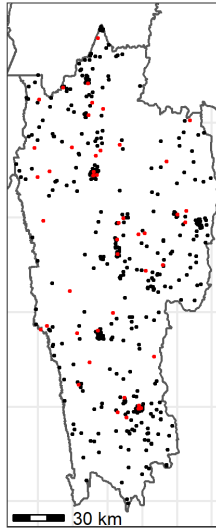


Mizoram

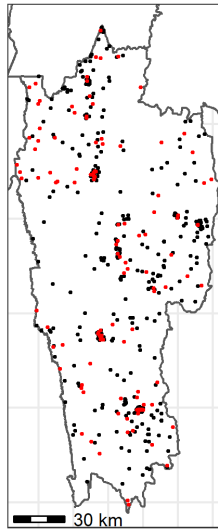
Fever



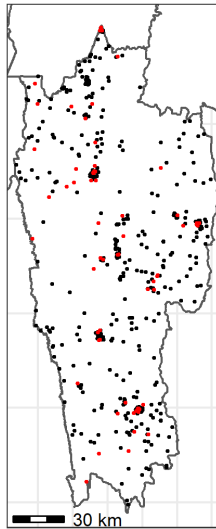
Diarrhoea



ARI



Wasting

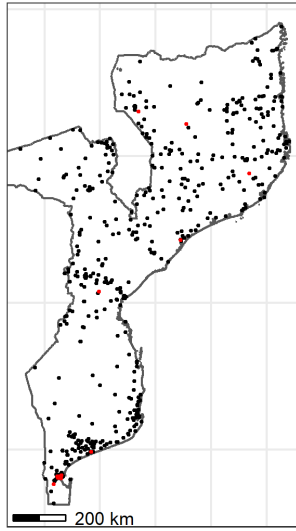


Mozambique

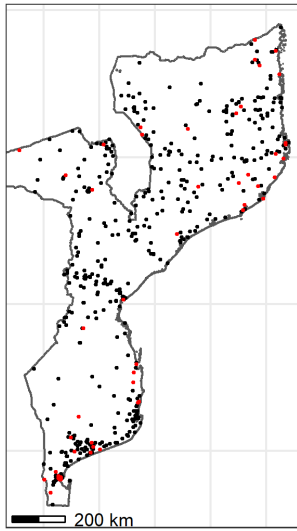
Fever



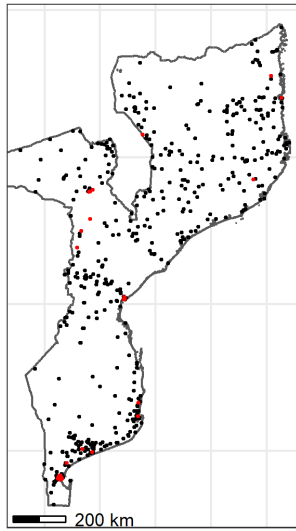
Diarrhoea



ARI

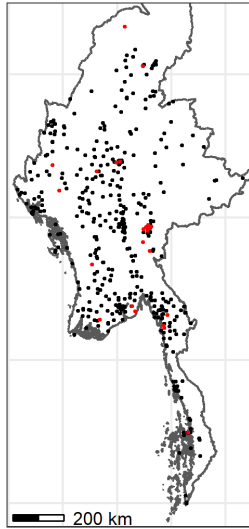


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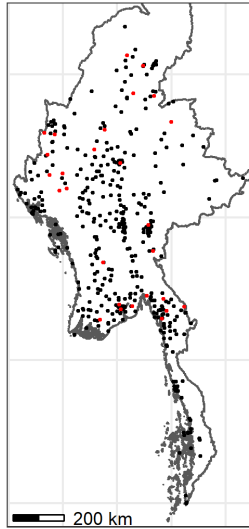


Myanmar

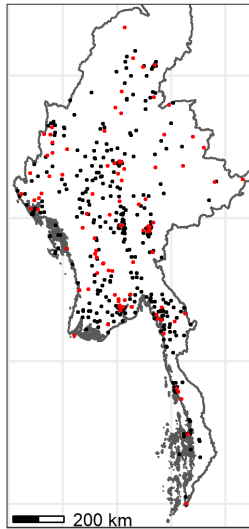
Fever



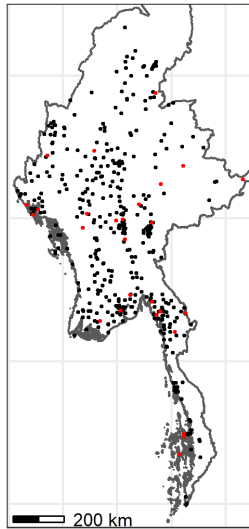
Diarrhoea



ARI

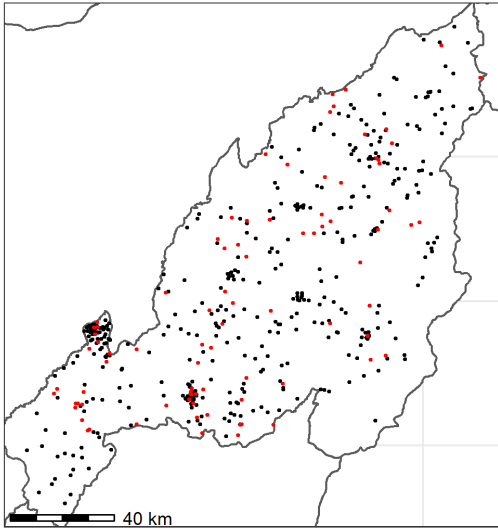


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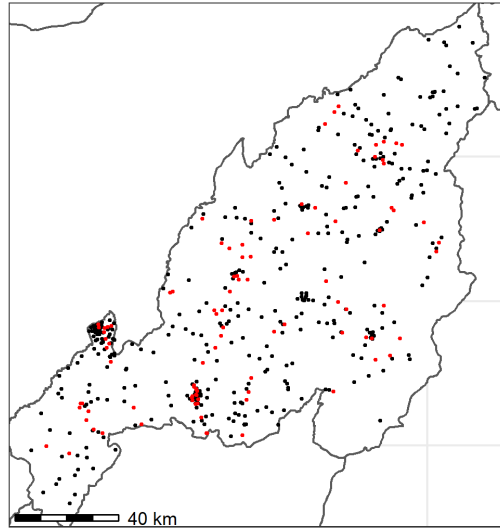


Nagaland

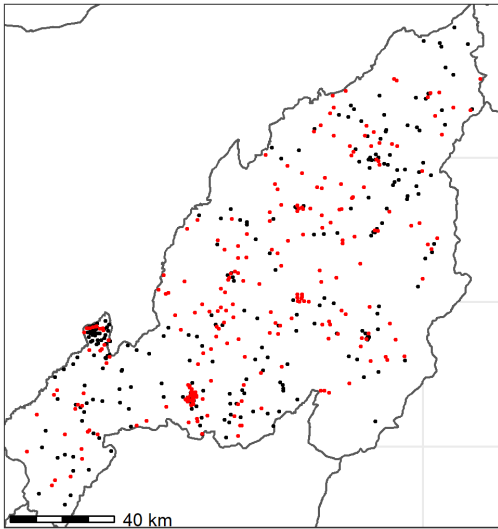
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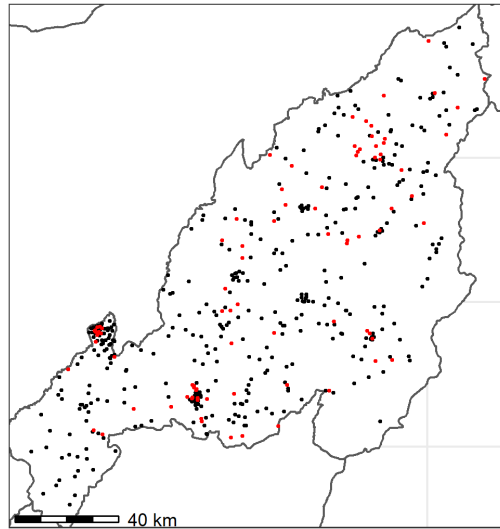
Diarrhoea



ARI

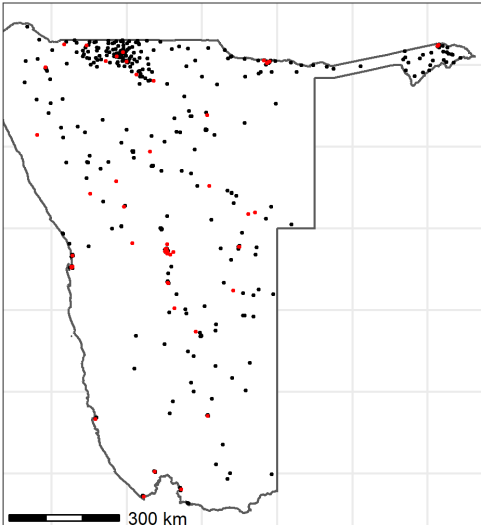


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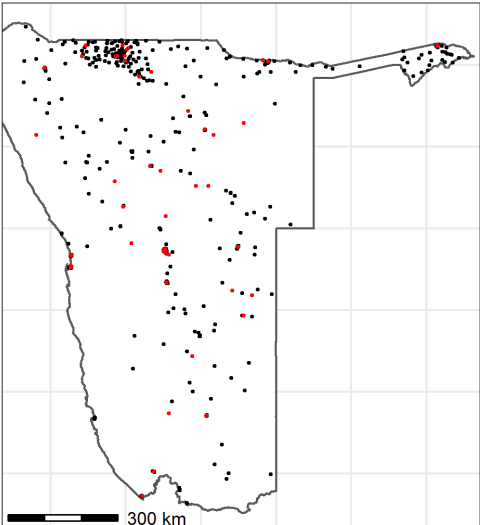


Namibia

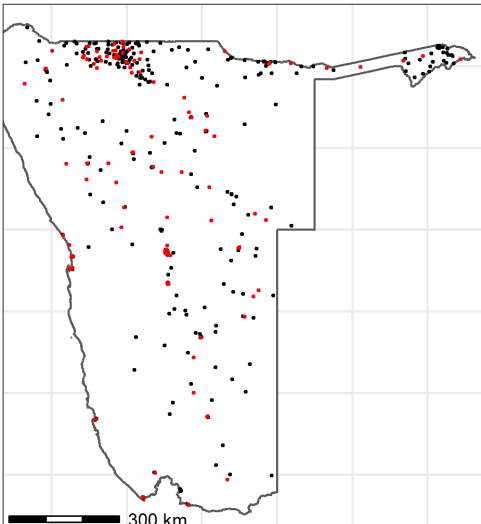
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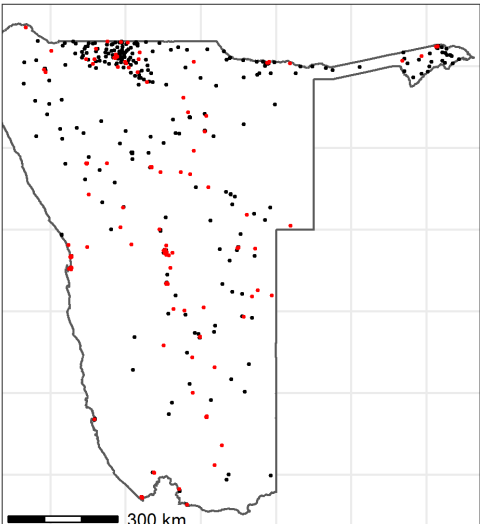
Diarrhoea



ARI

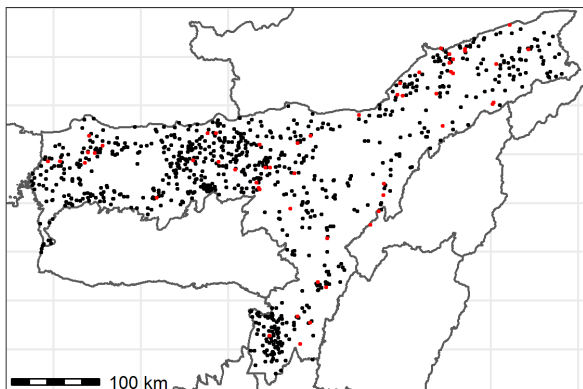


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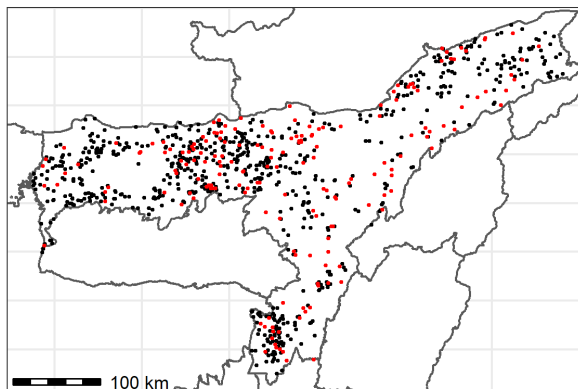


Assam

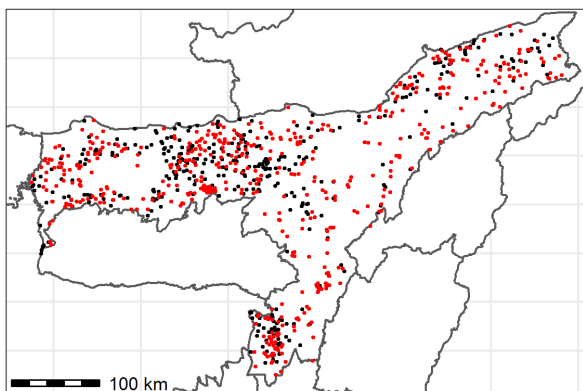
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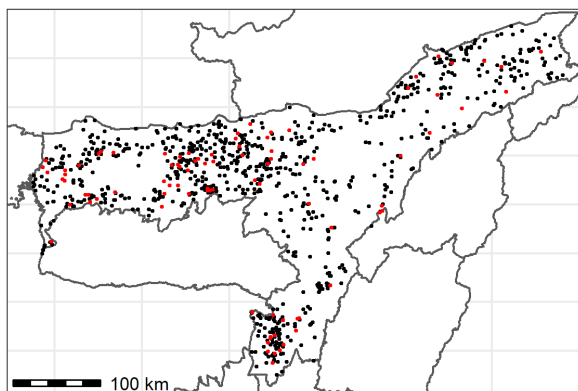
Diarrhoea



ARI

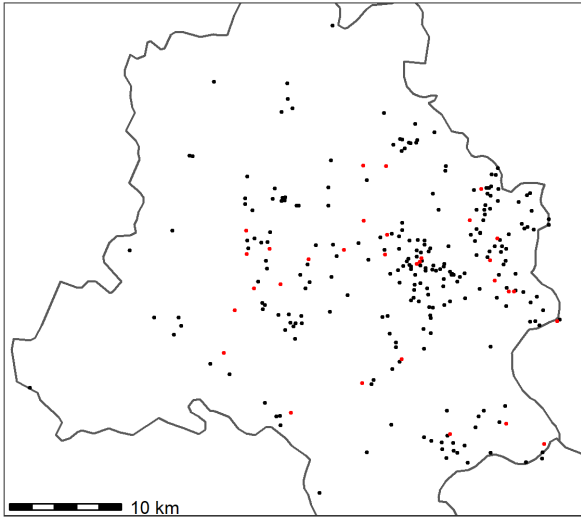


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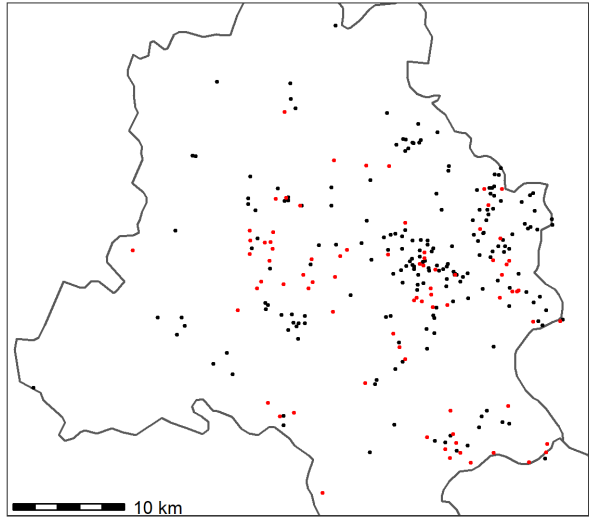


NCT of Delhi

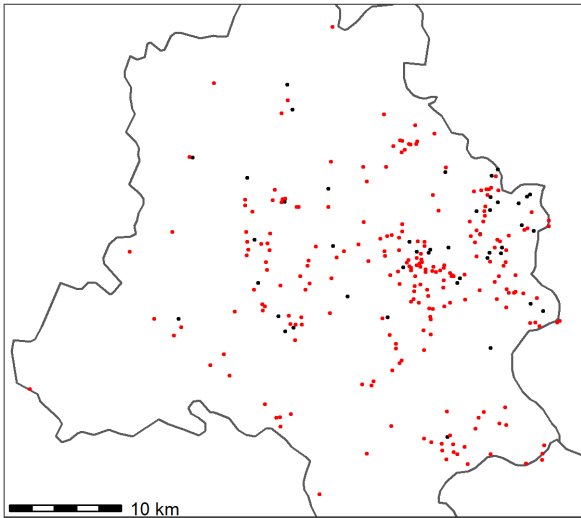
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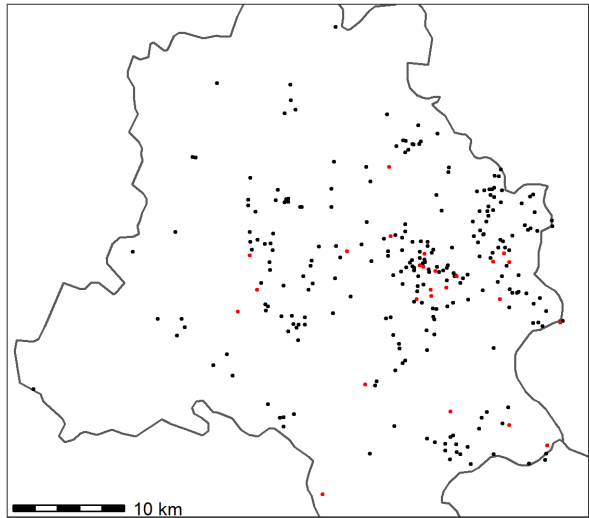
Diarrhoea



ARI



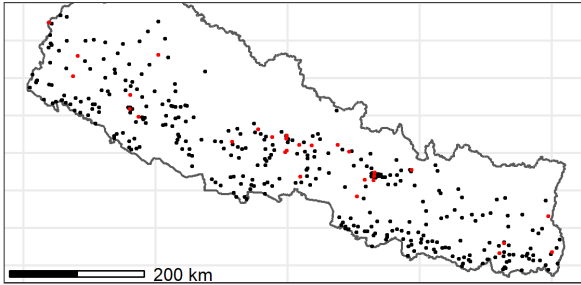
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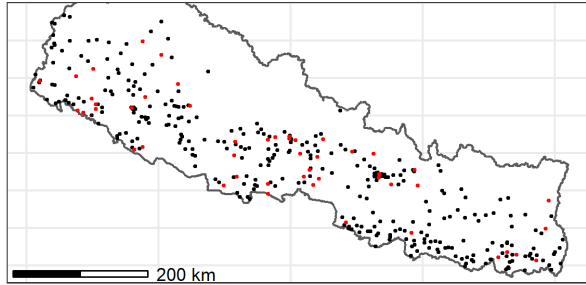


Nepal

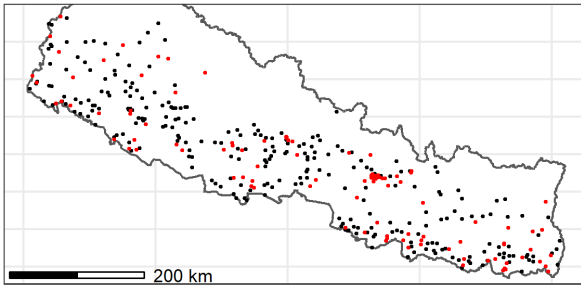
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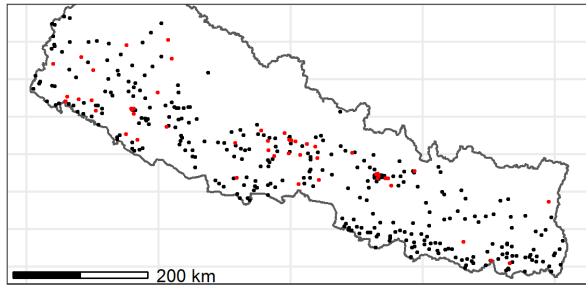
Diarrhoea



ARI

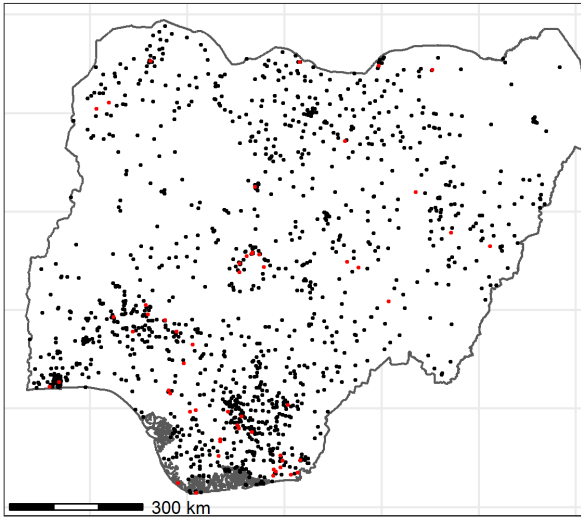


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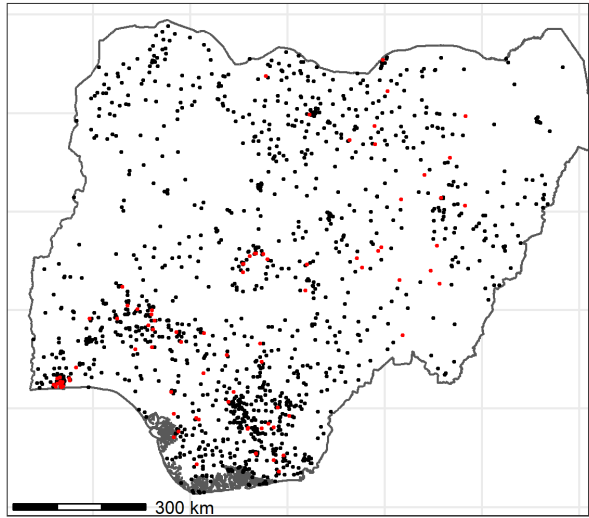


Nigeria

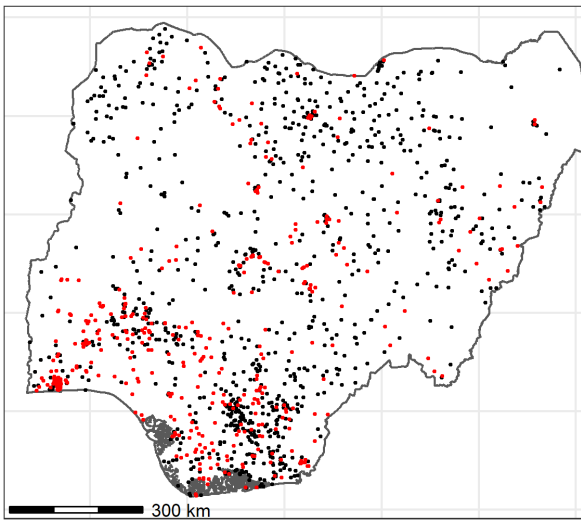
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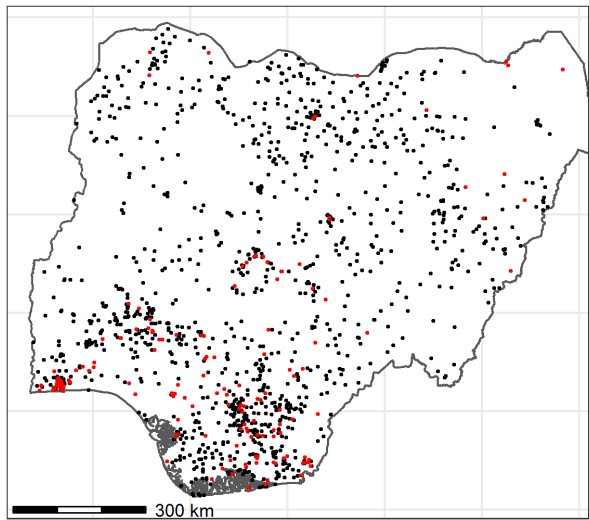
Diarrhoea



ARI

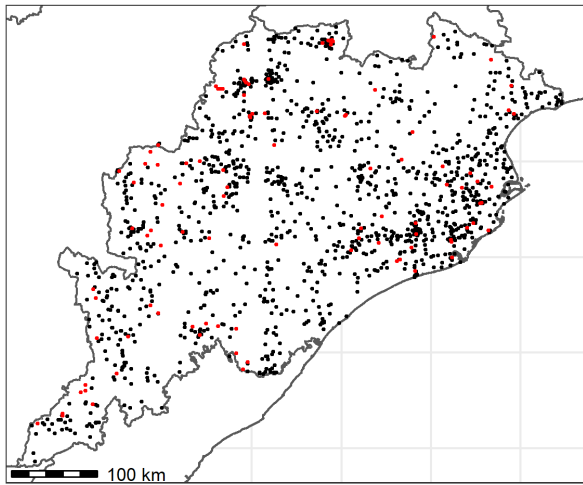


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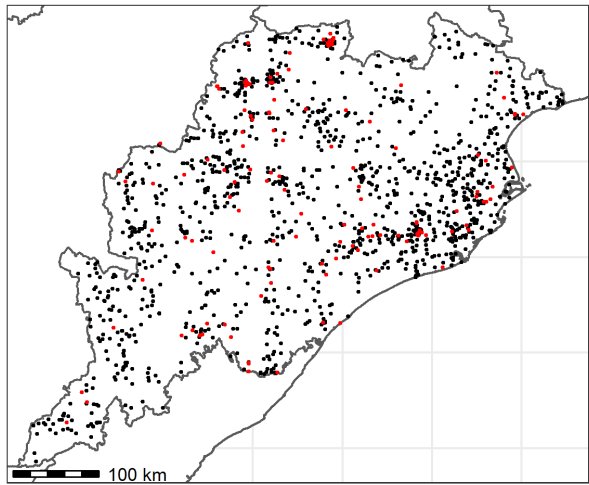


Odisha

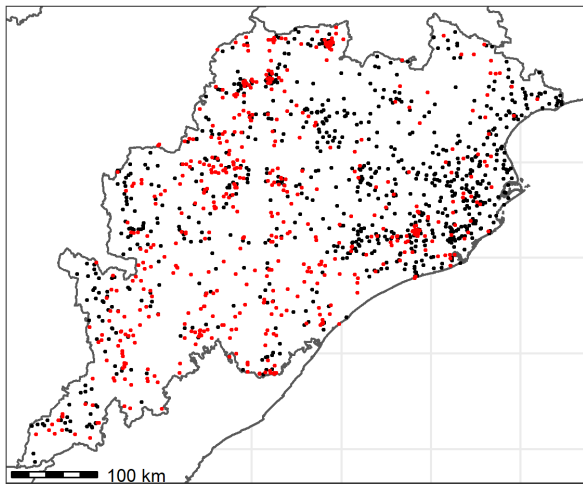
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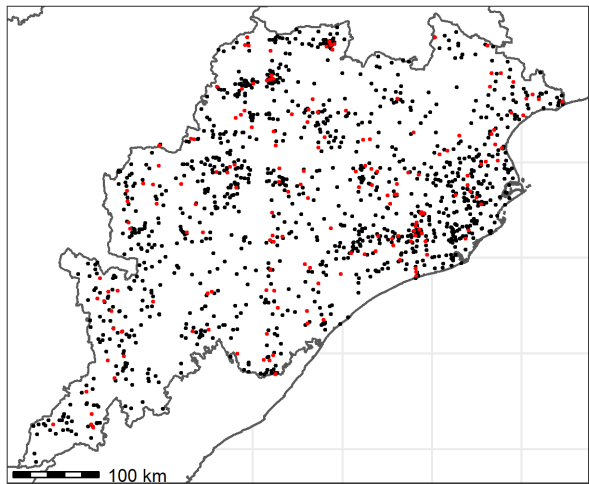
Diarrhoea



ARI

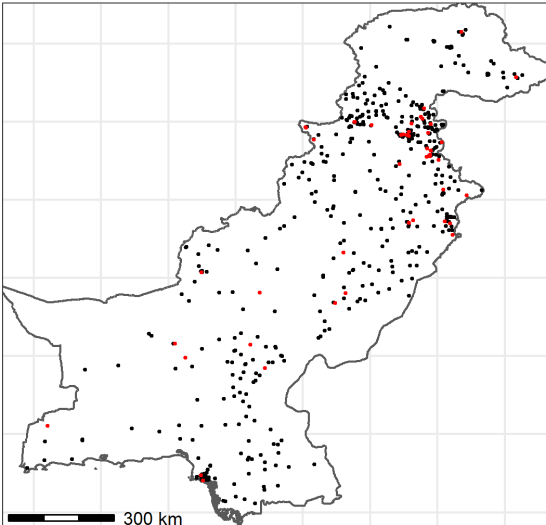


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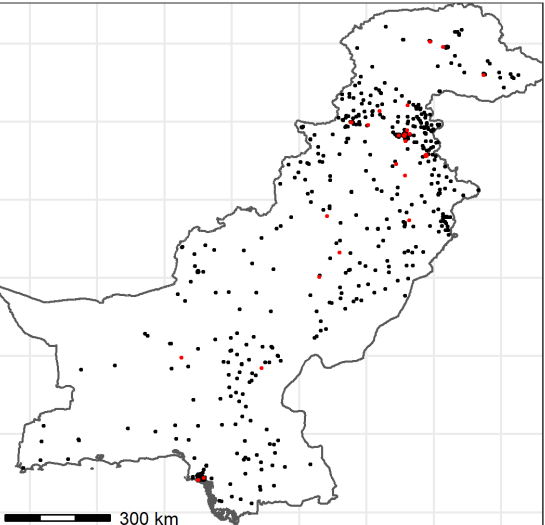


Pakistan

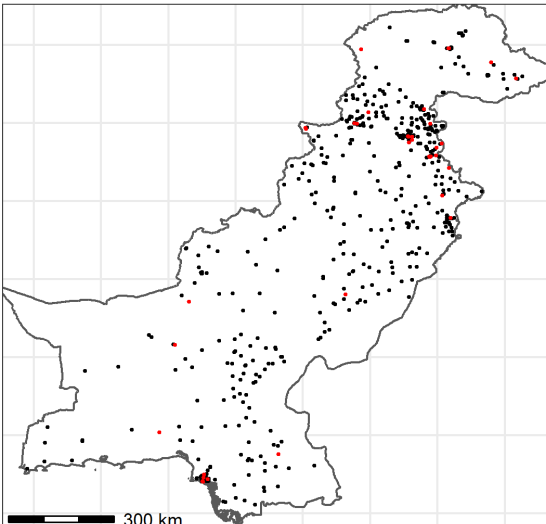
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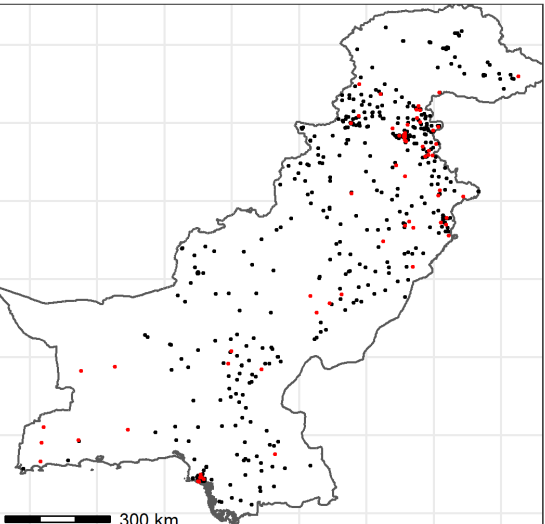
Diarrhoea



ARI

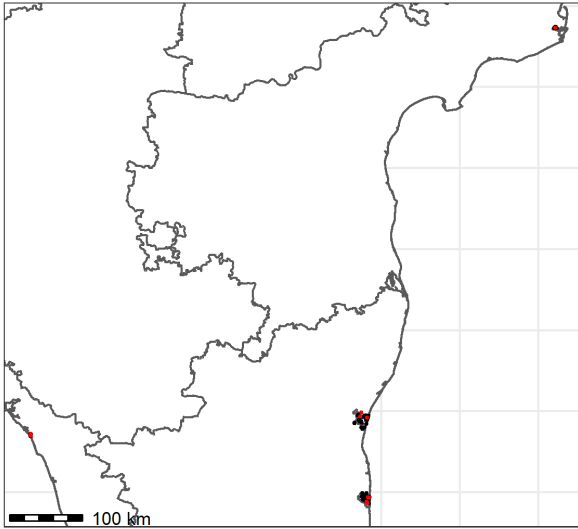


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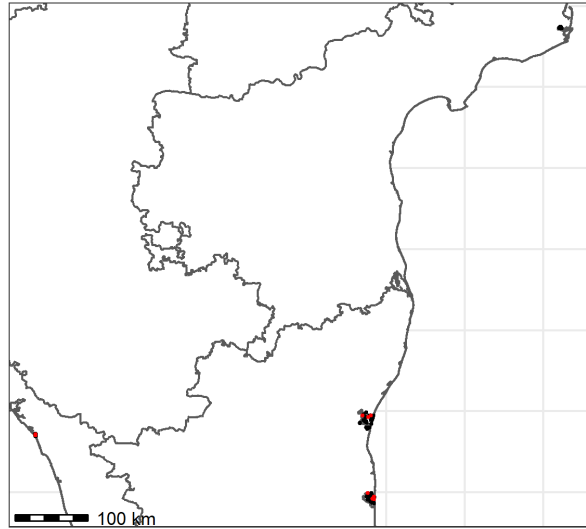


Puducherry

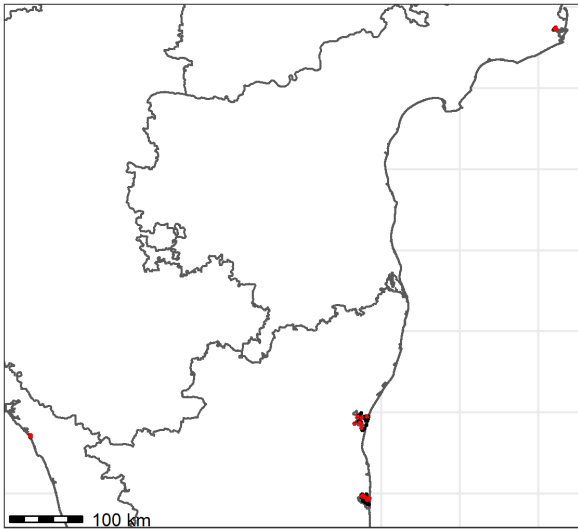
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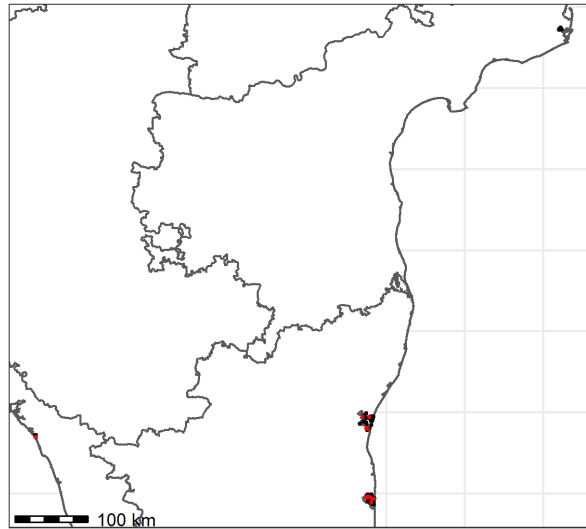
Diarrhoea



ARI

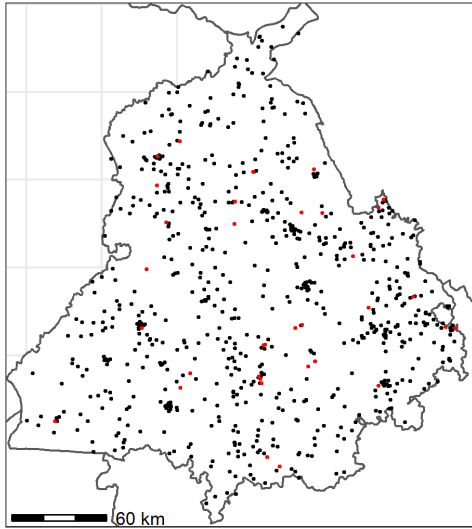


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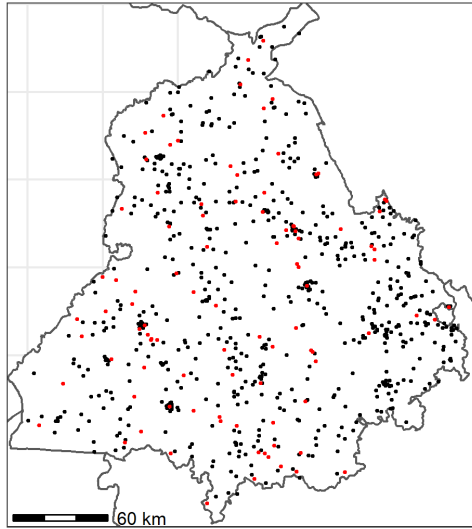


Punjab

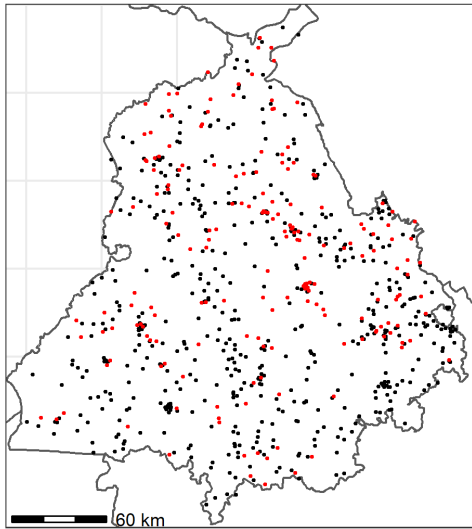
Fever



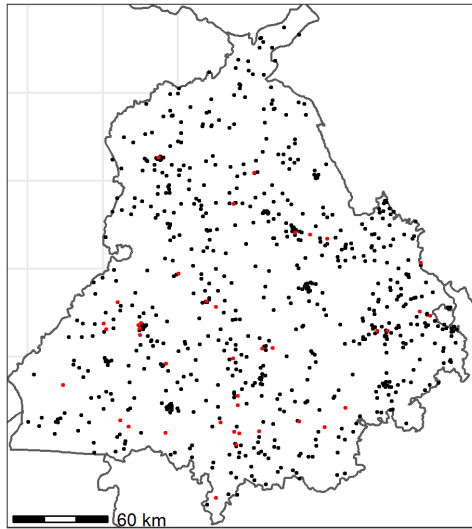
Diarrhoea



ARI

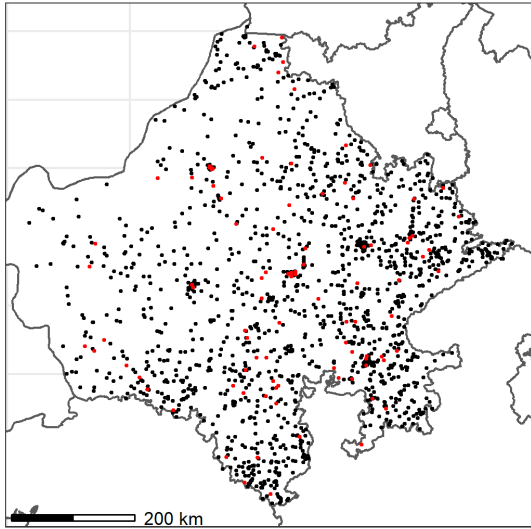


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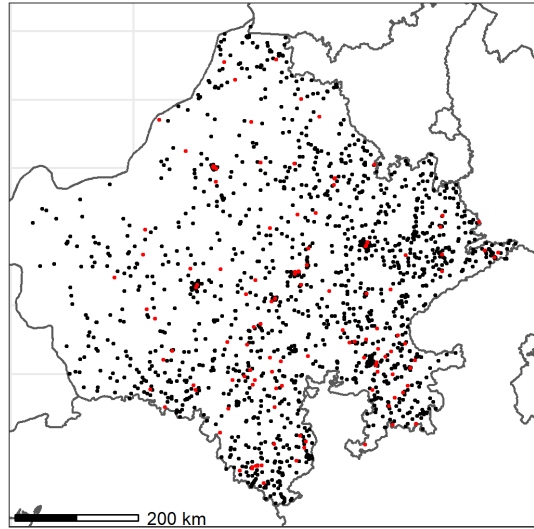


Rajasthan

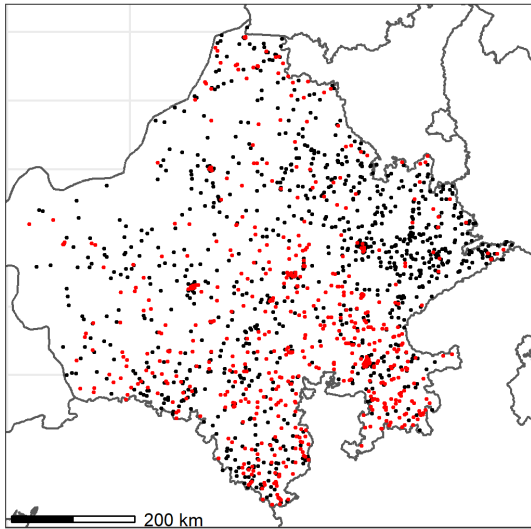
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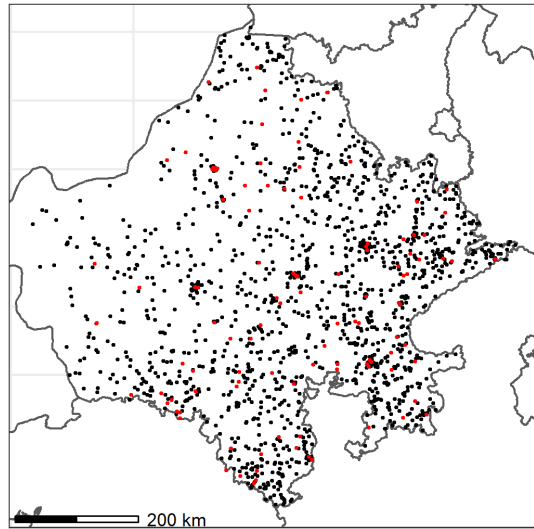
Diarrhoea



ARI

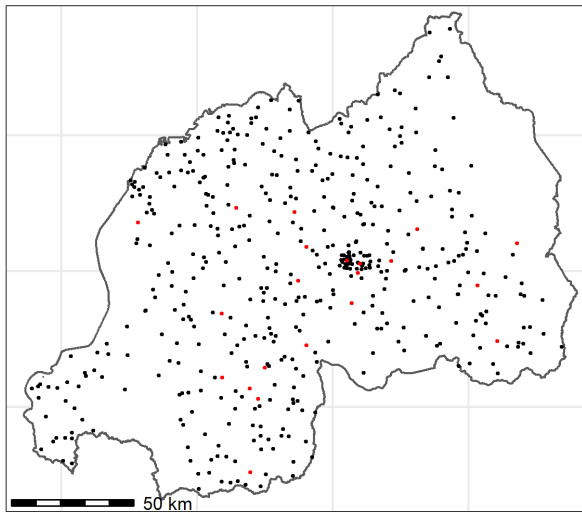


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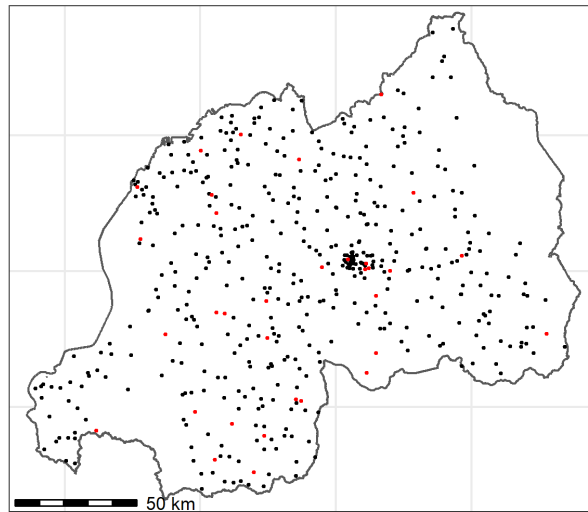


Rwanda

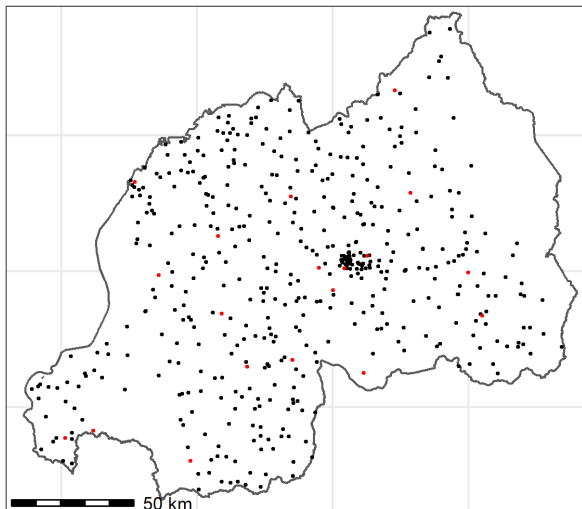
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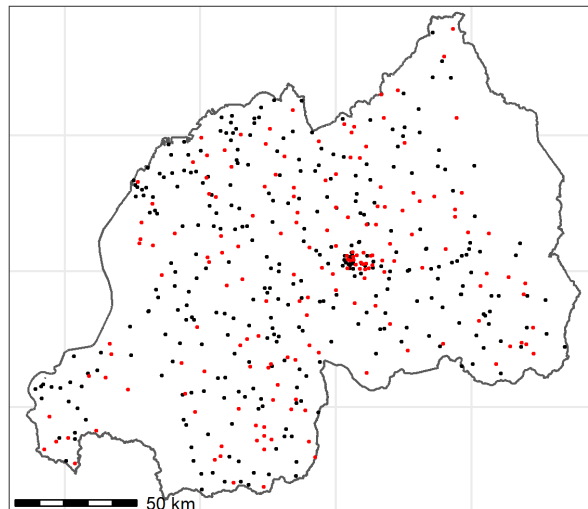
Diarrhoea



ARI



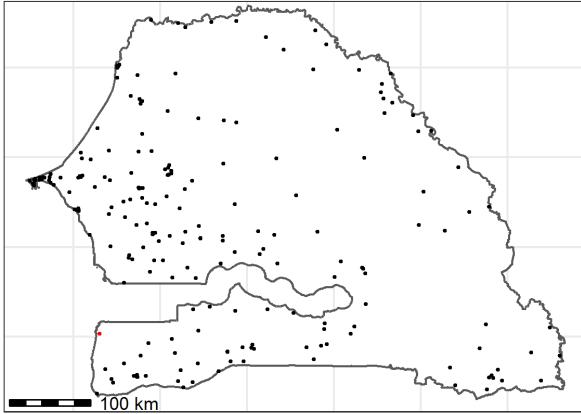
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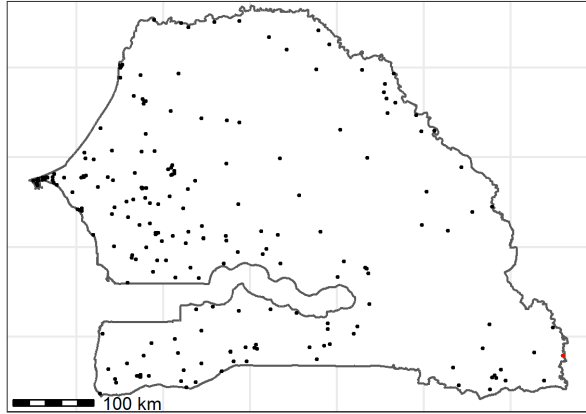


Senegal

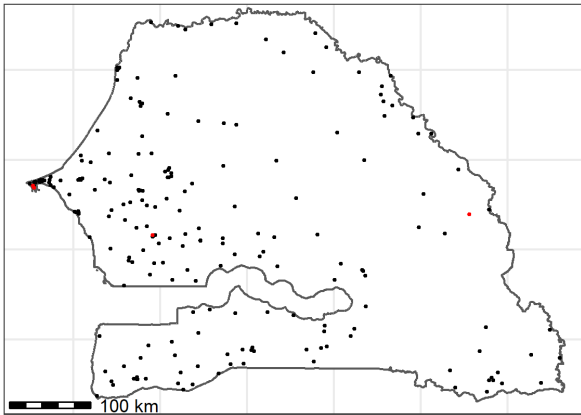
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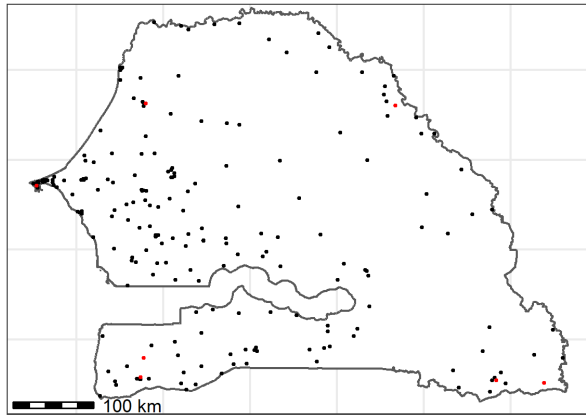
Diarrhoea



ARI

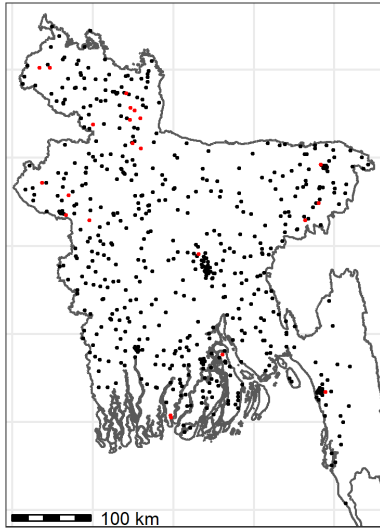


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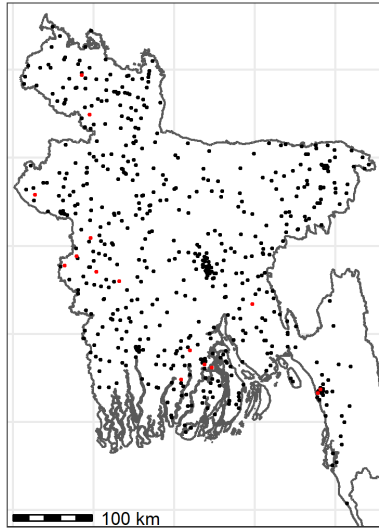


Bangladesh

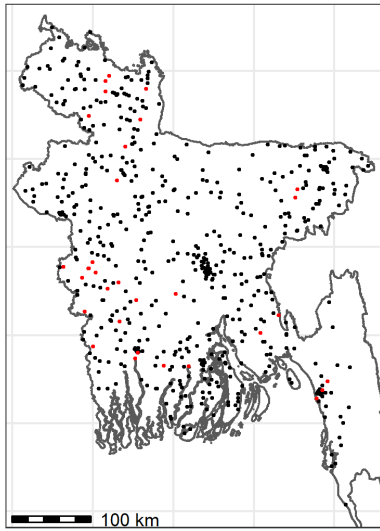
Fever



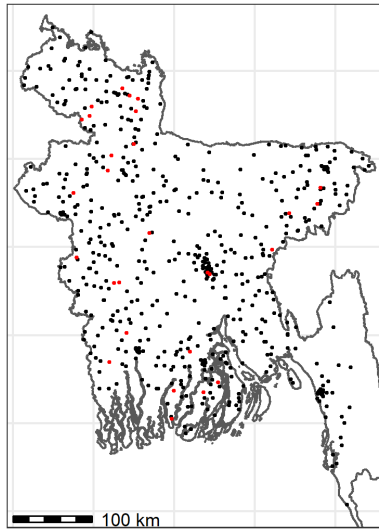
Diarrhoea



ARI

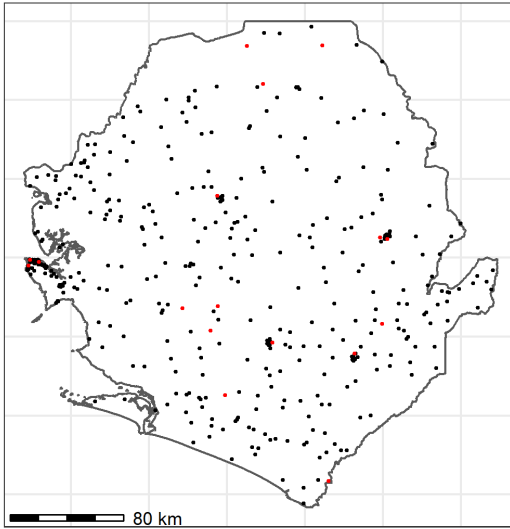


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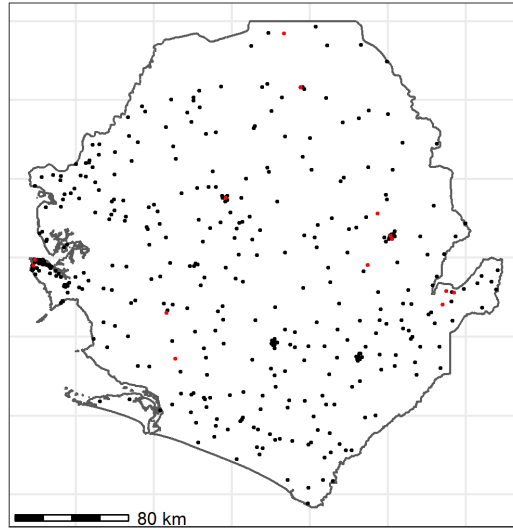


Sierra Leone

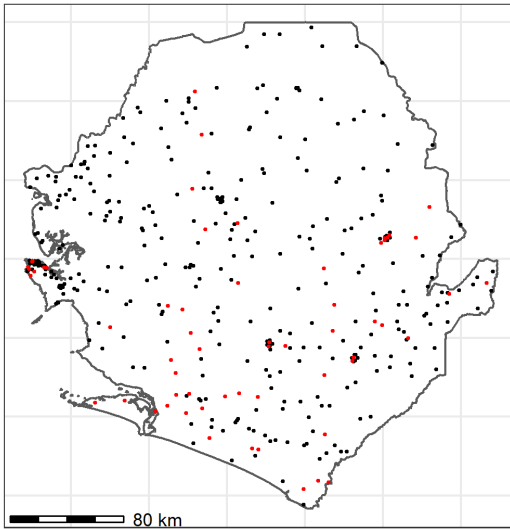
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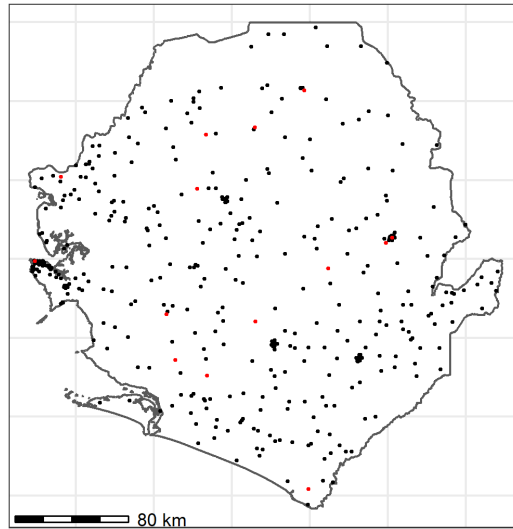
Diarrhoea



ARI

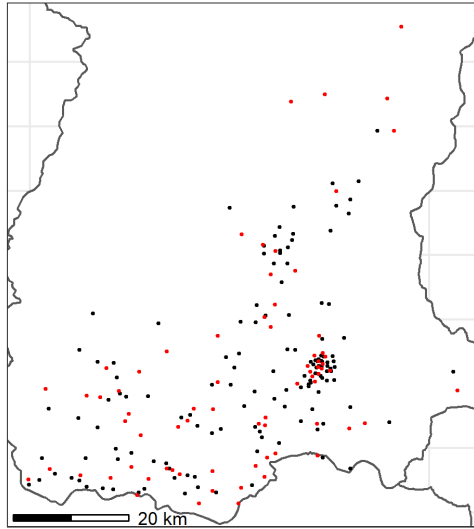


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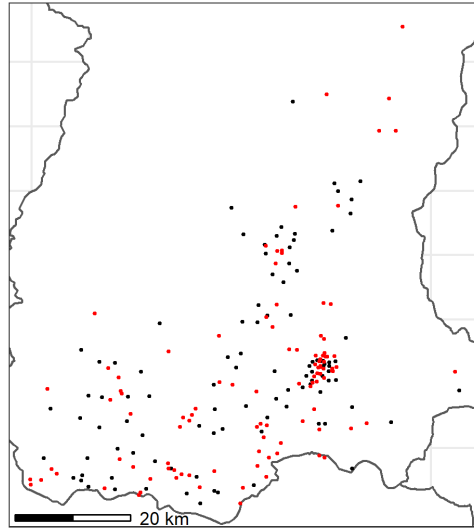


Sikkim

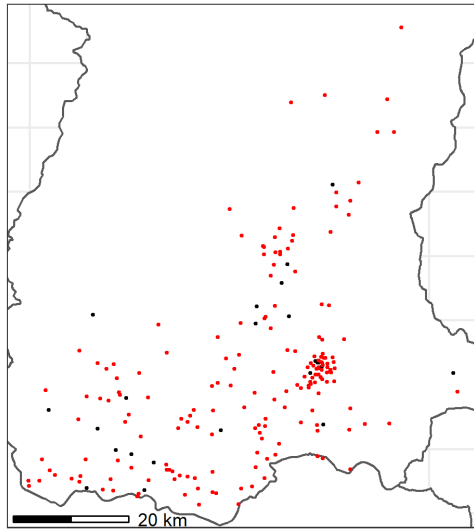
Fever



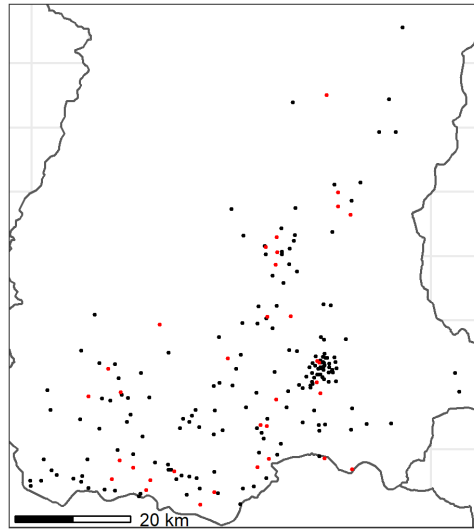
Diarrhoea



ARI

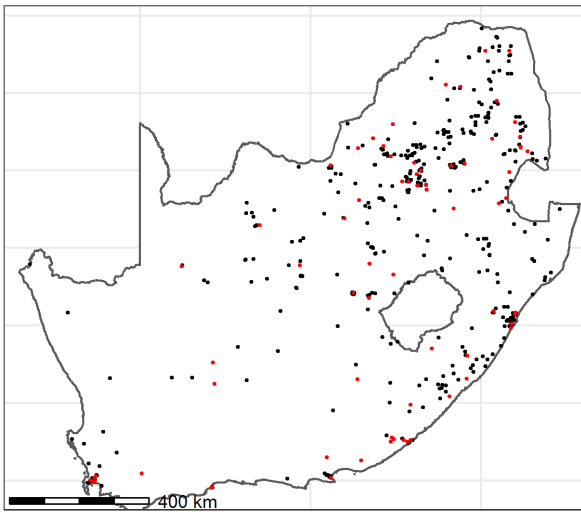


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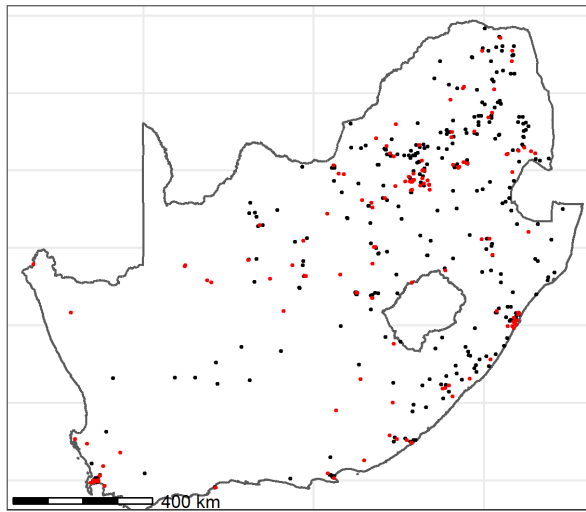


South Africa

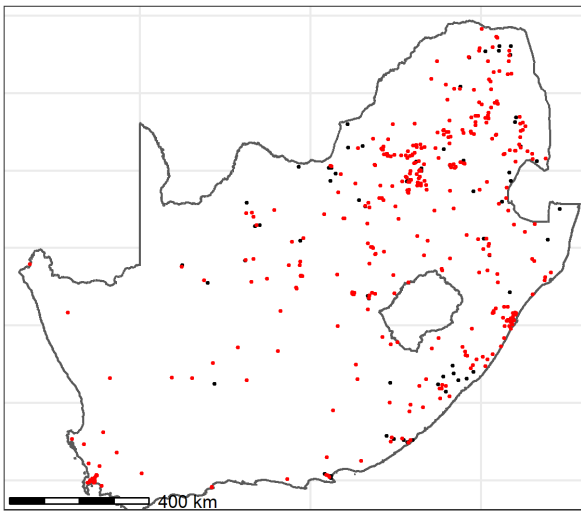
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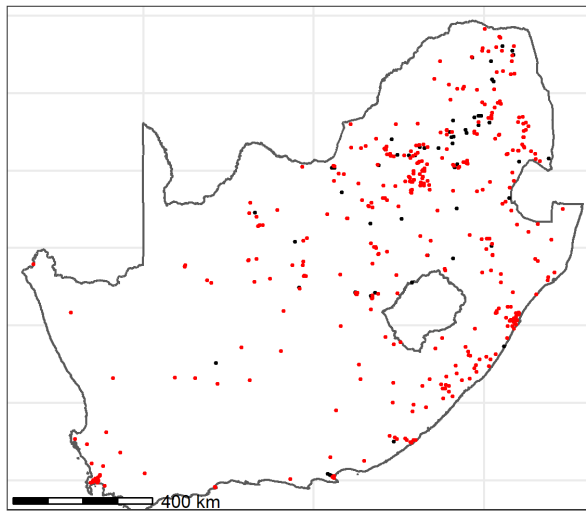
Diarrhoea



ARI

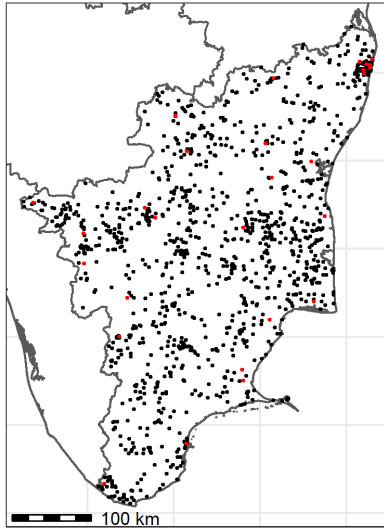


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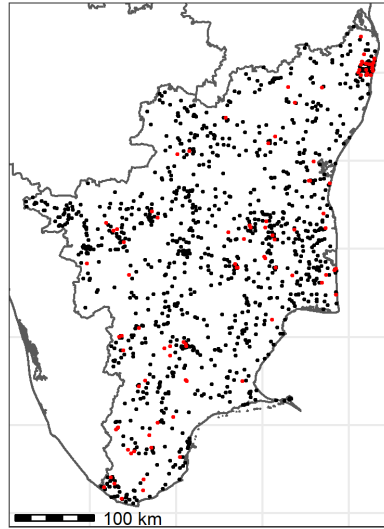


Tamil Nadu

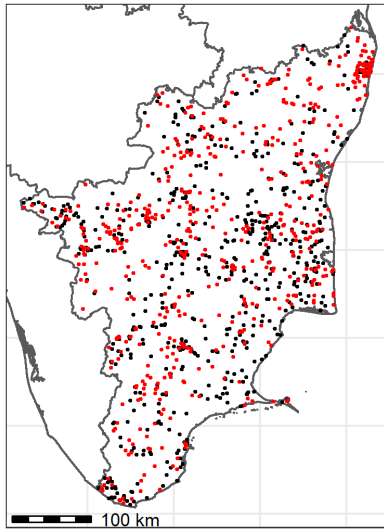
Fever



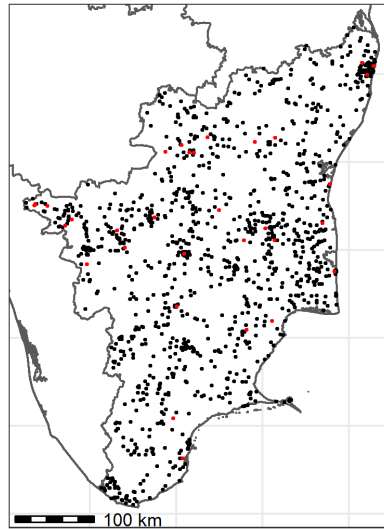
Diarrhoea



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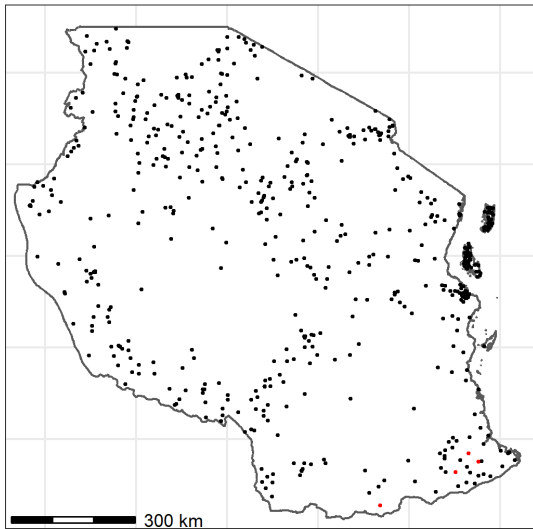


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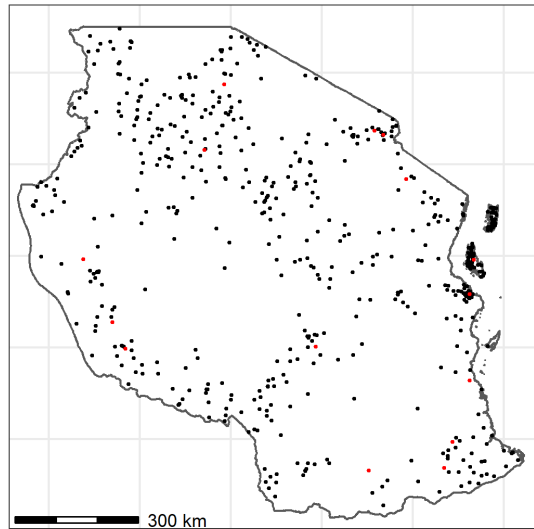


Tanzania

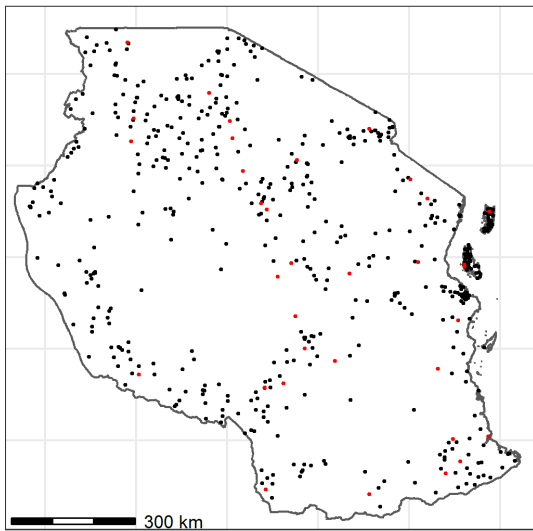
Fever



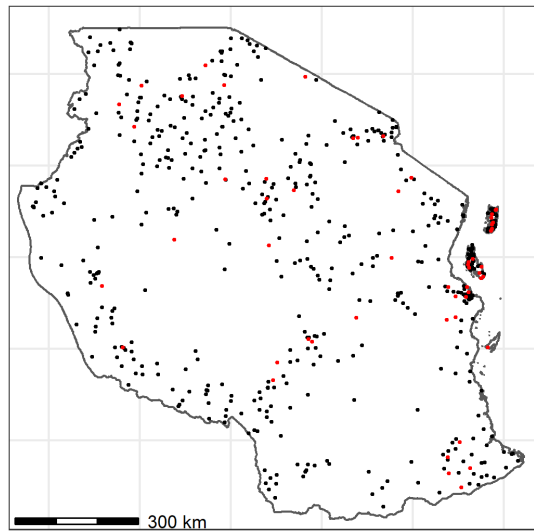
Diarrhoea



ARI

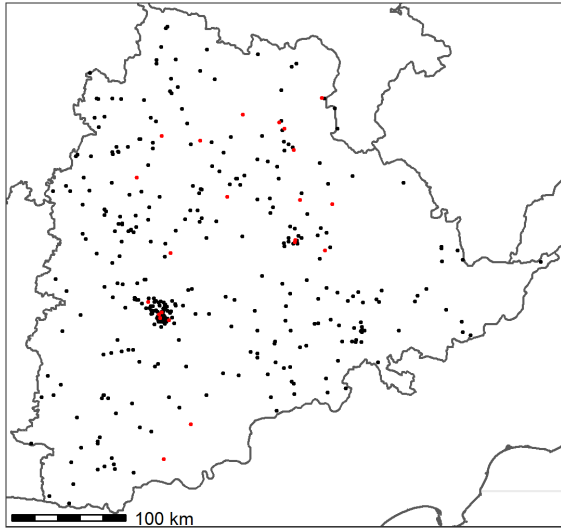


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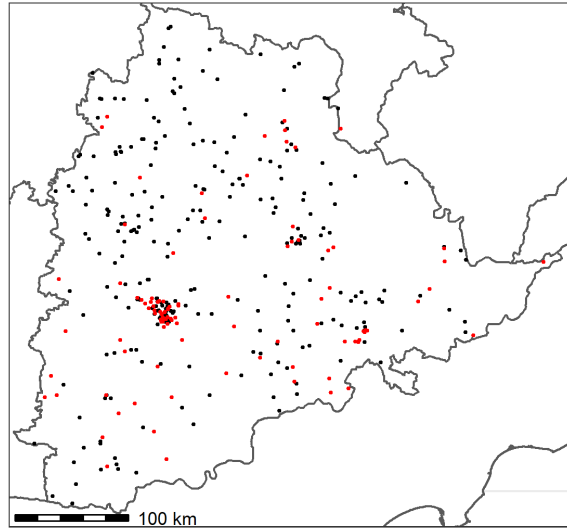


Telangana

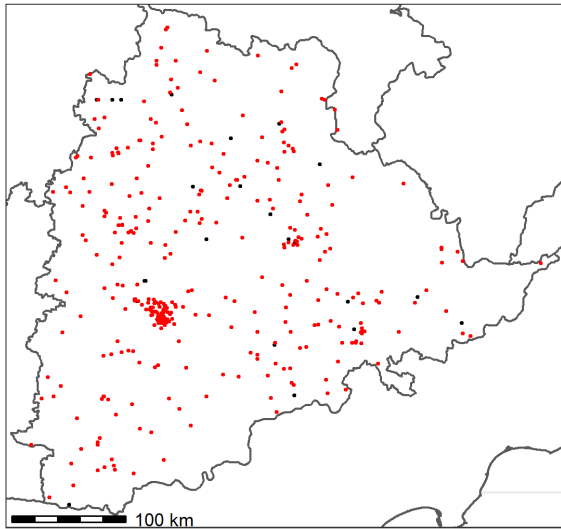
Fever



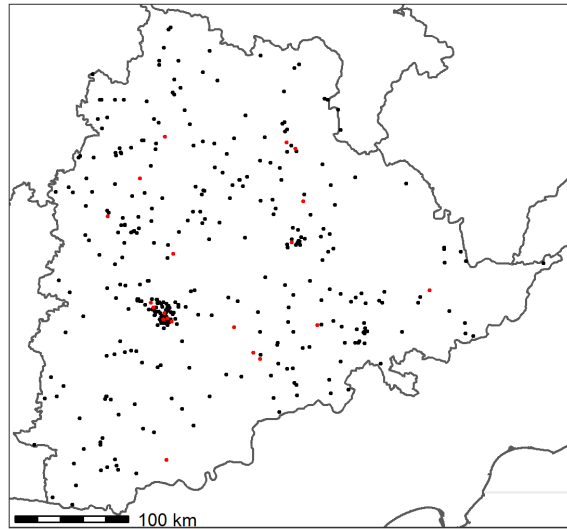
Diarrhoea



ARI



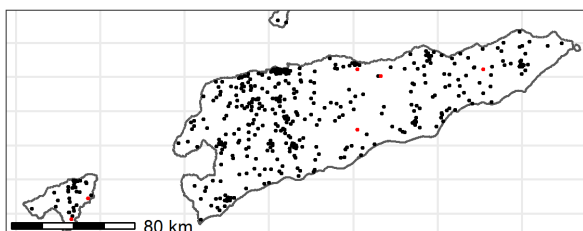
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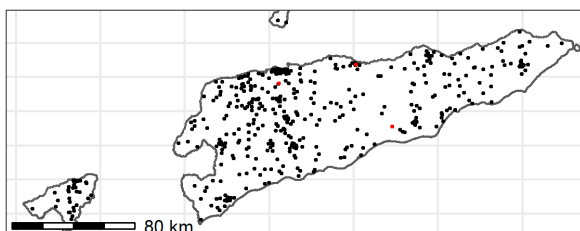


Timor-Leste

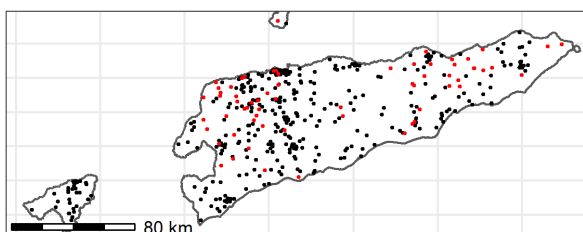
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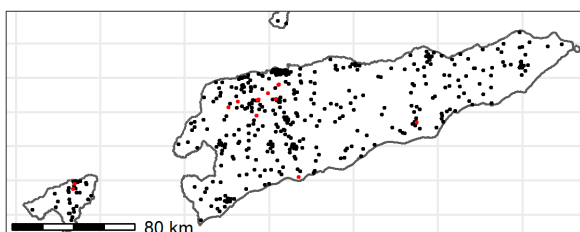
Diarrhoea



ARI

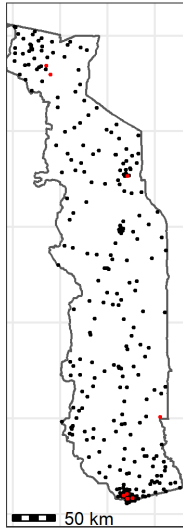


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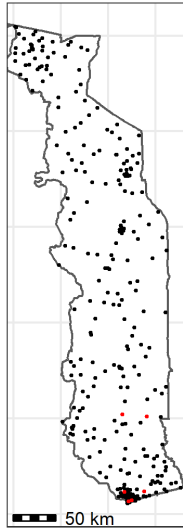


Togo

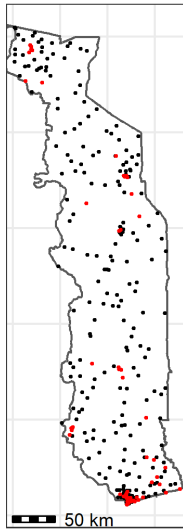
Fever



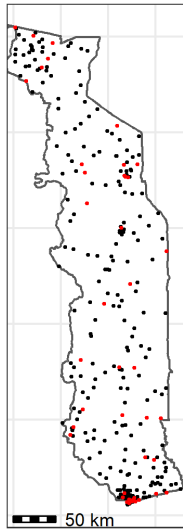
Diarrhoea



ARI

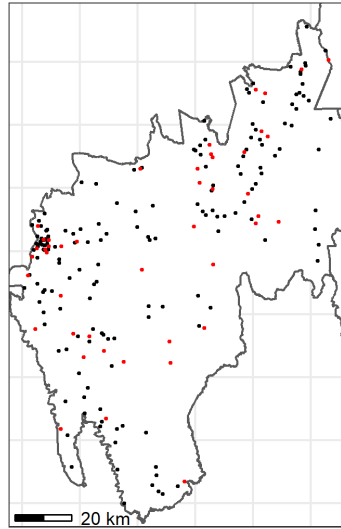


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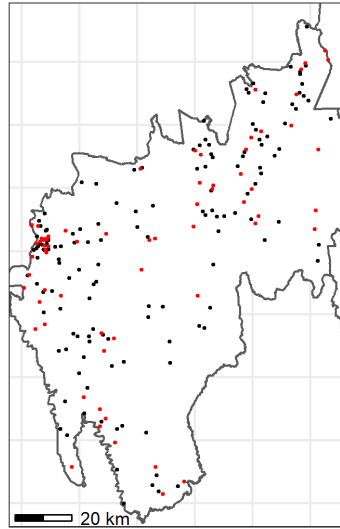


Tripura

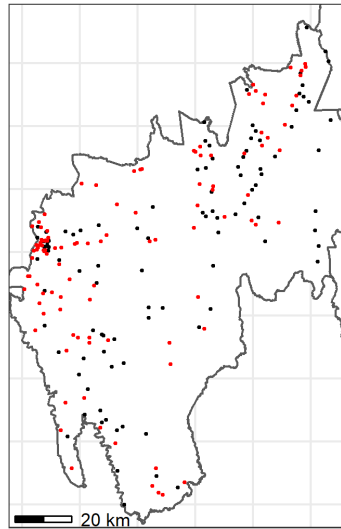
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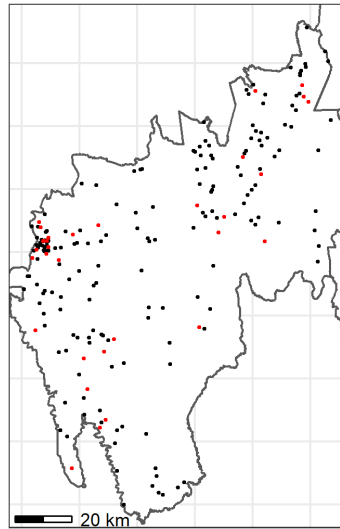
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ARI

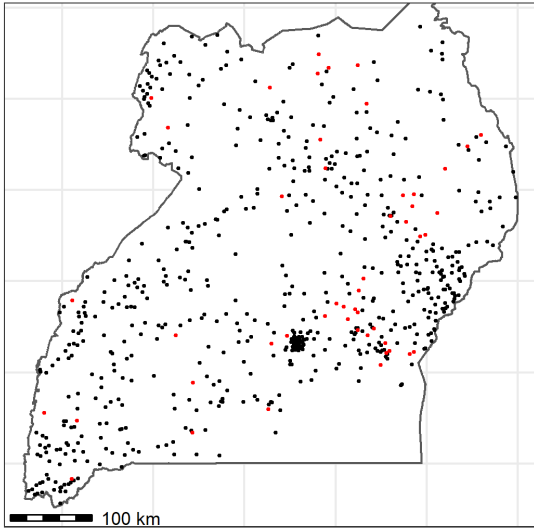


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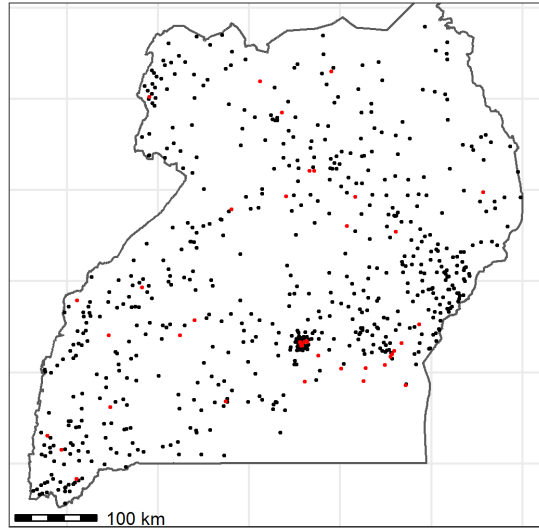


Uganda

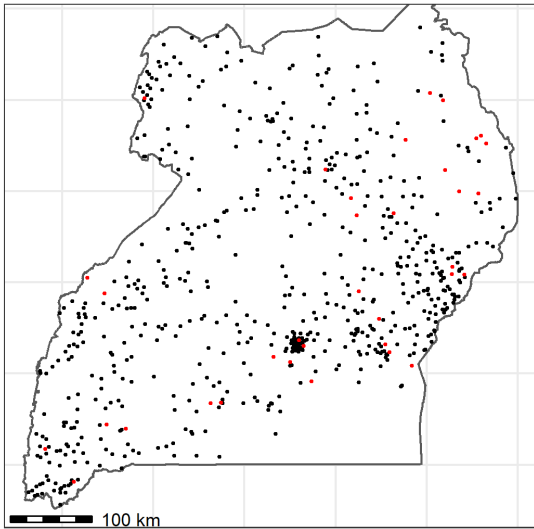
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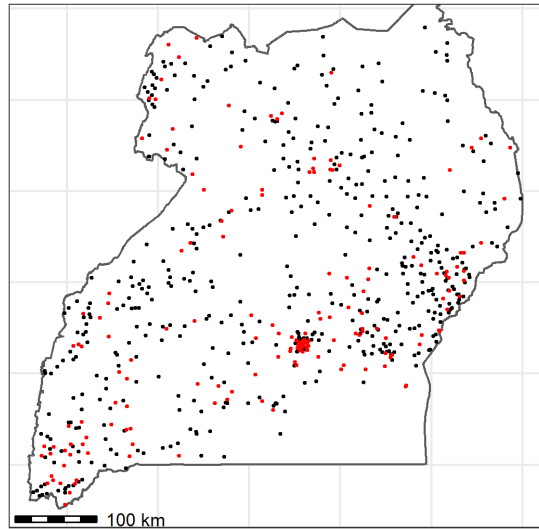
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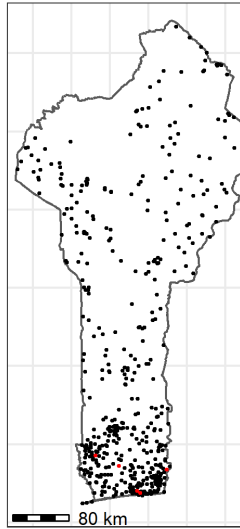


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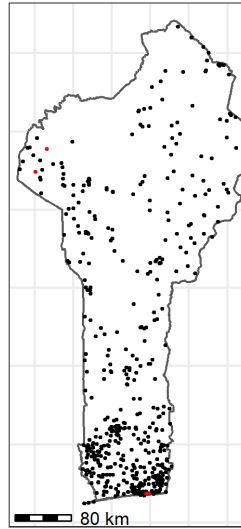


Benin

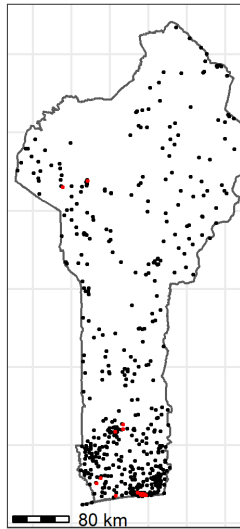
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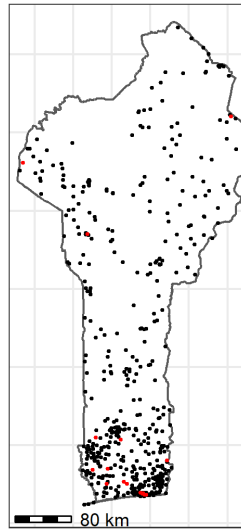
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ARI

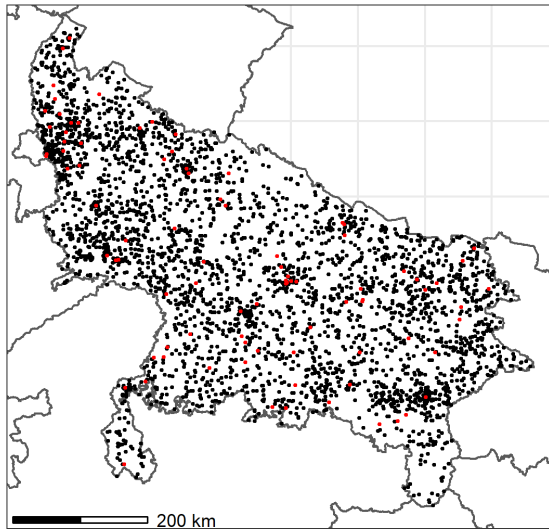


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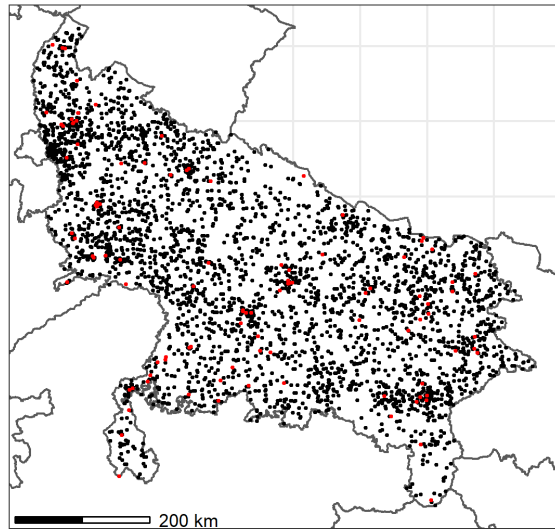


Uttar Pradesh

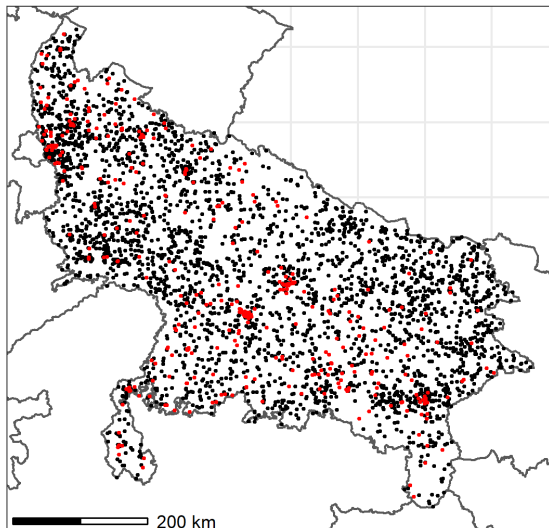
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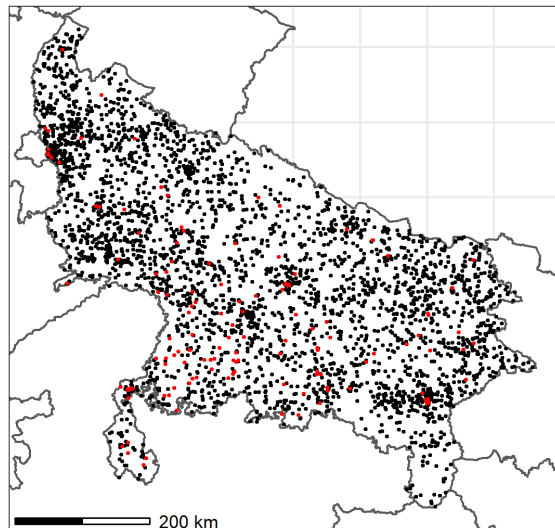
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ARI

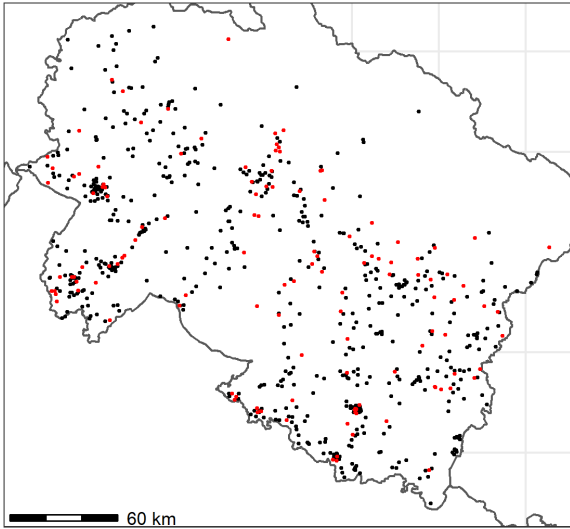


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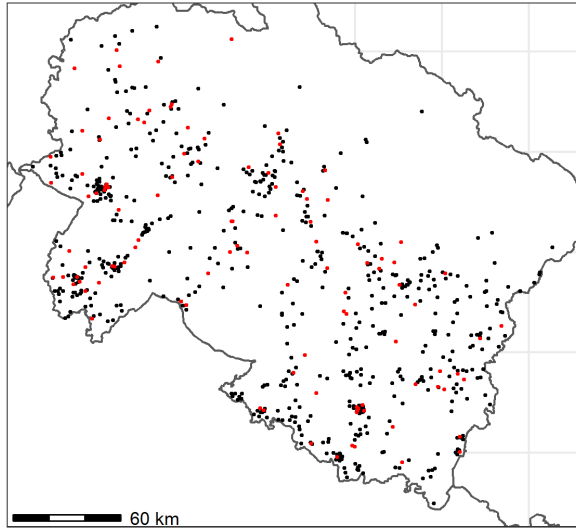


Uttarakhand

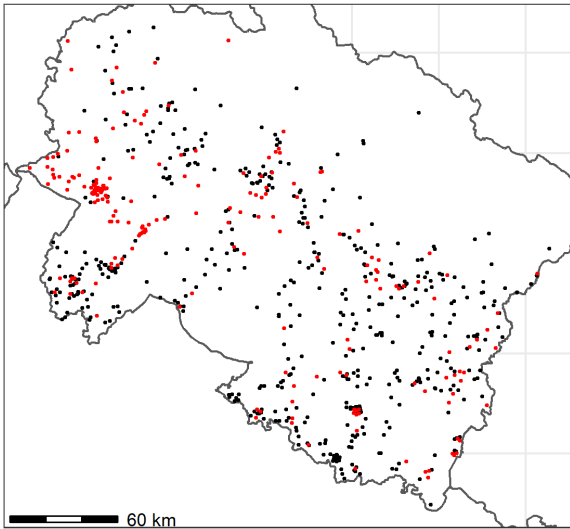
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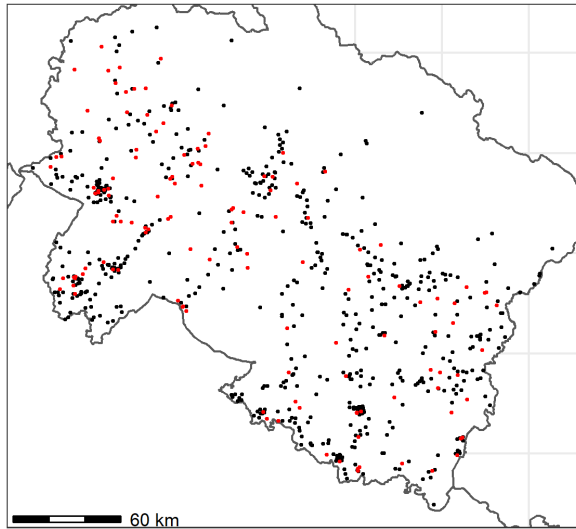
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ARI

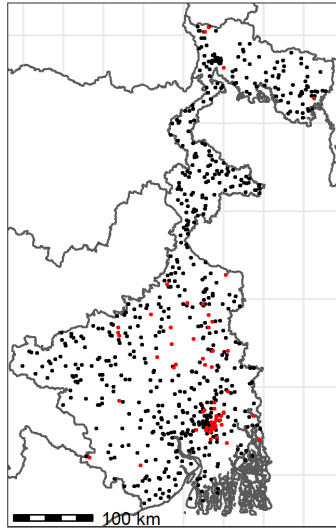


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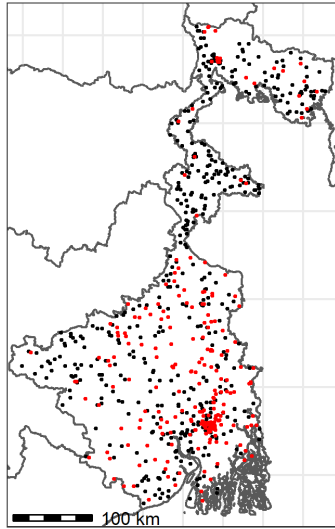


West Bengal

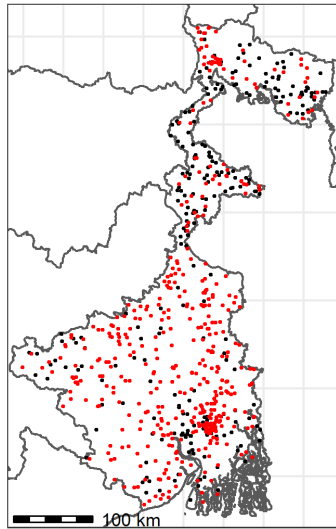
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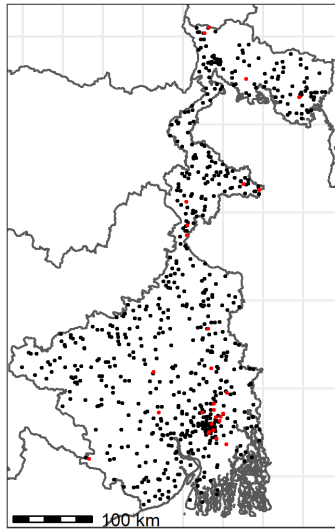
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ARI



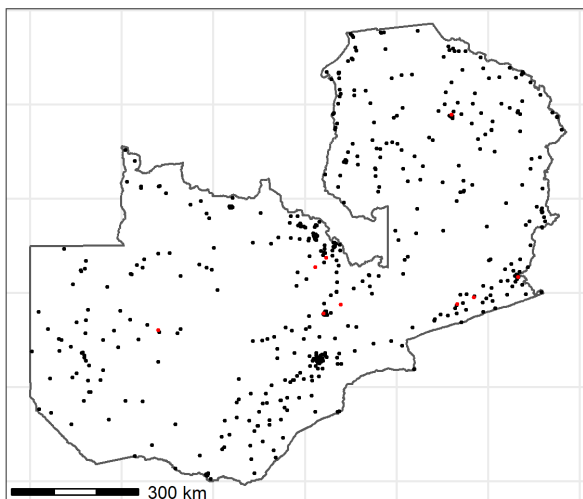
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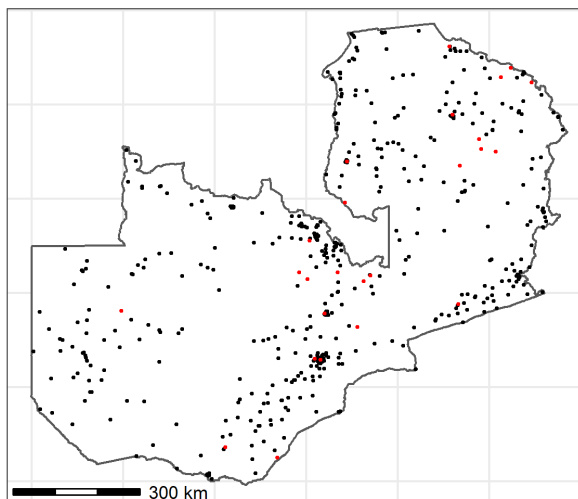


Zambia

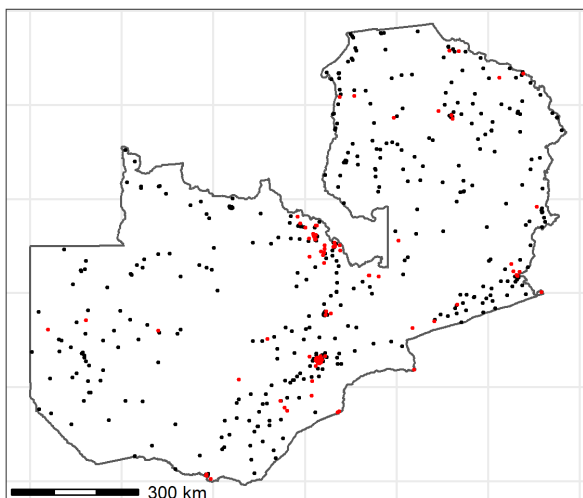
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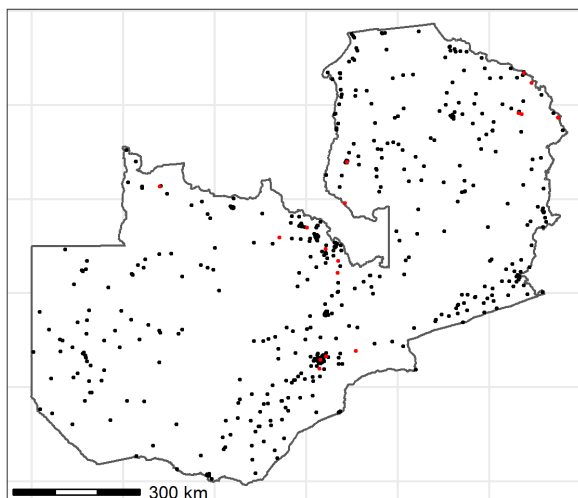
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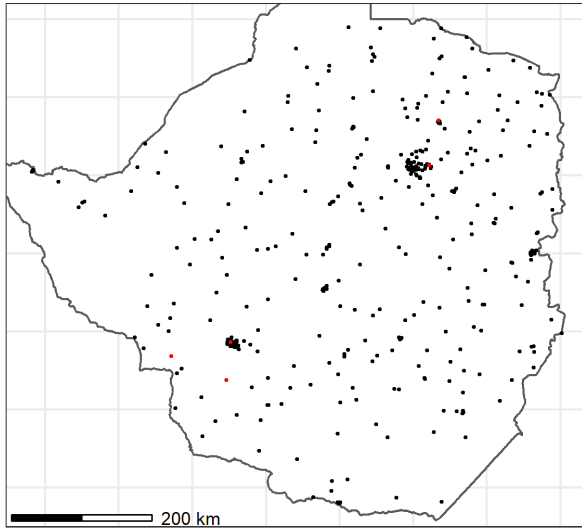


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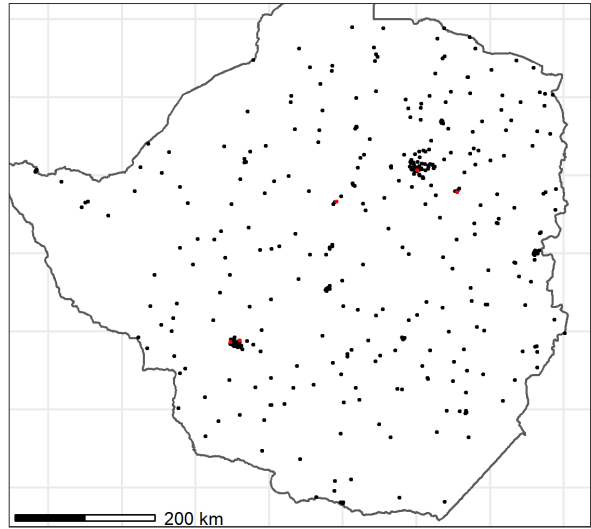


Zimbabwe

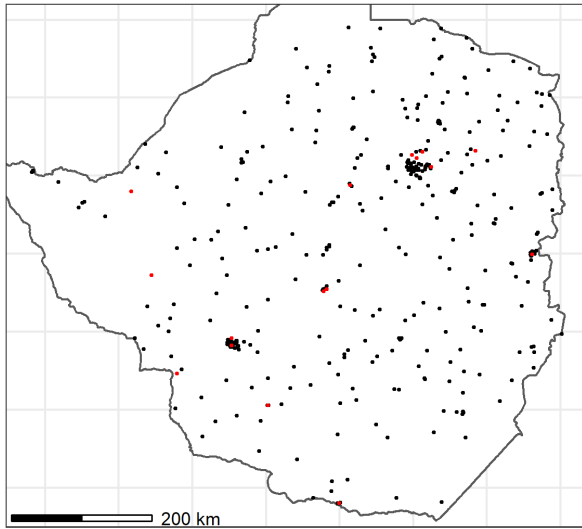
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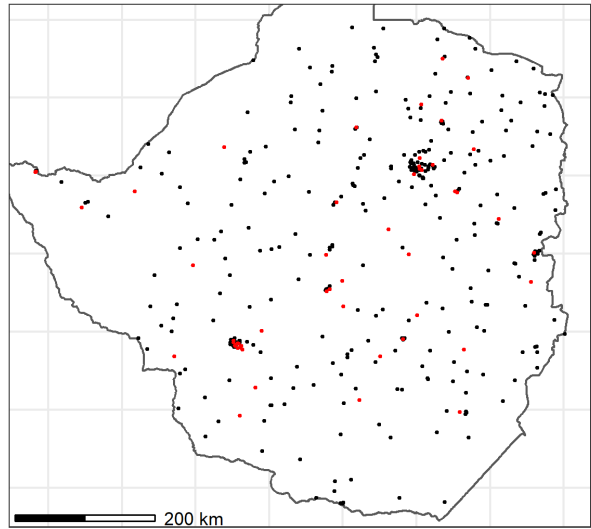
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ARI

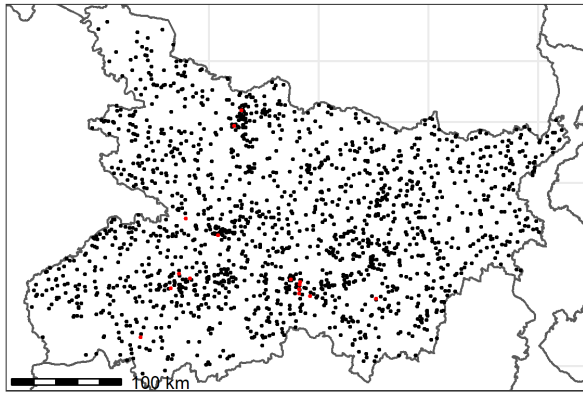


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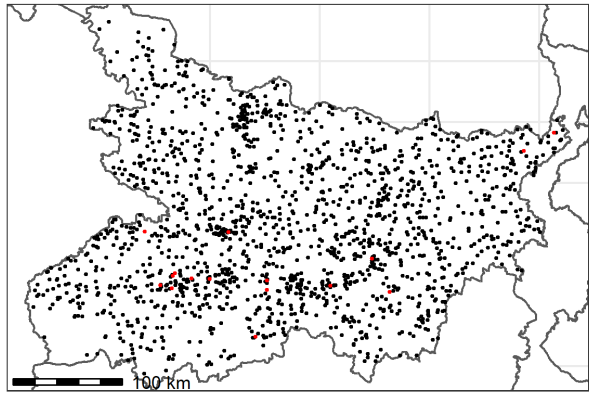


Bihar

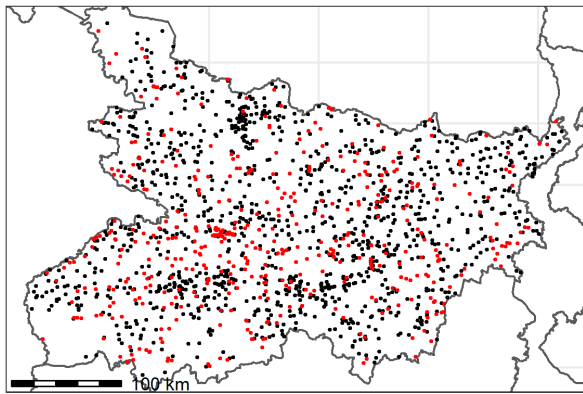
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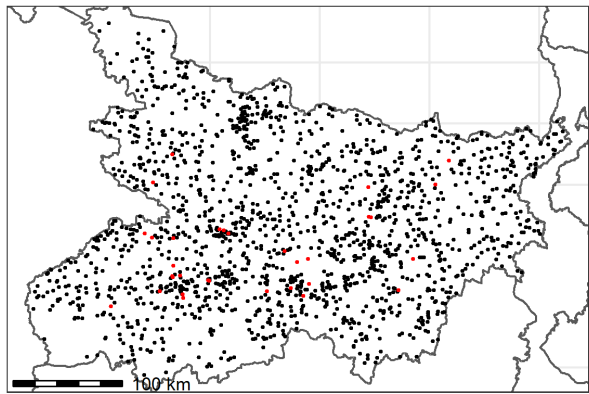
Diarrhoea



ARI

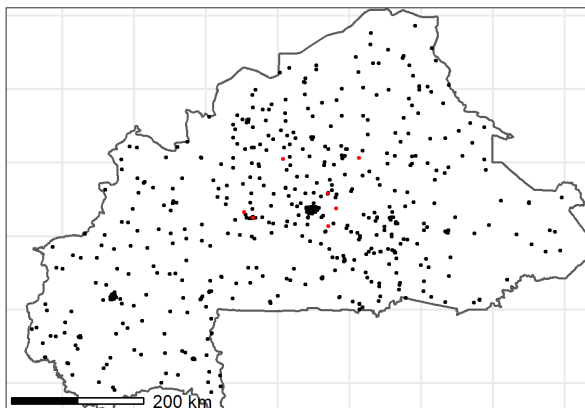


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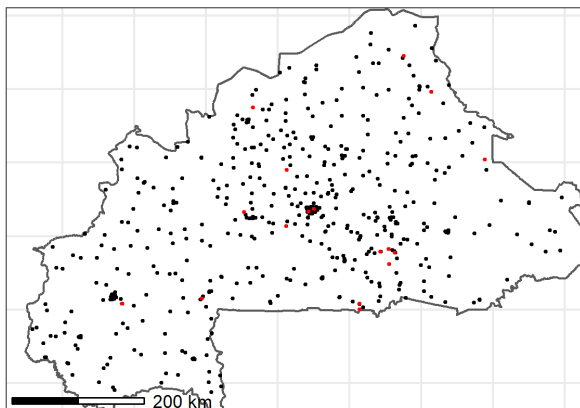


Burkina Faso

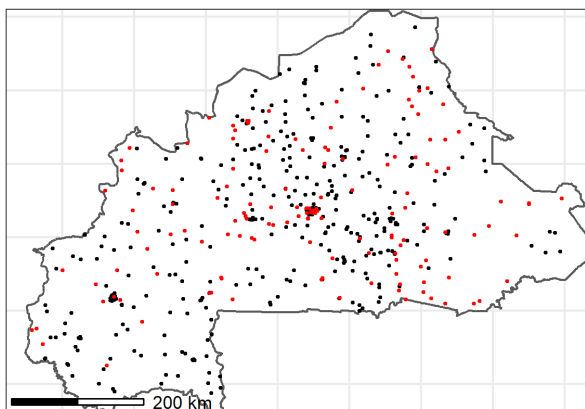
Fever



Diarrhoea



ARI



Wasting

