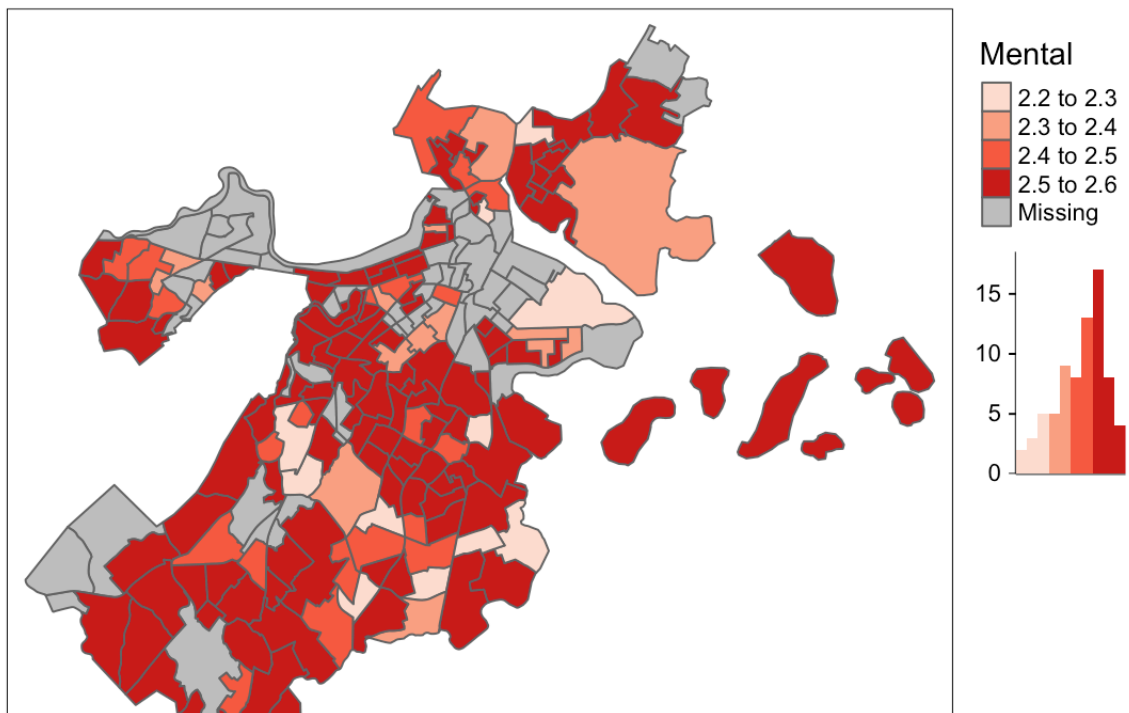
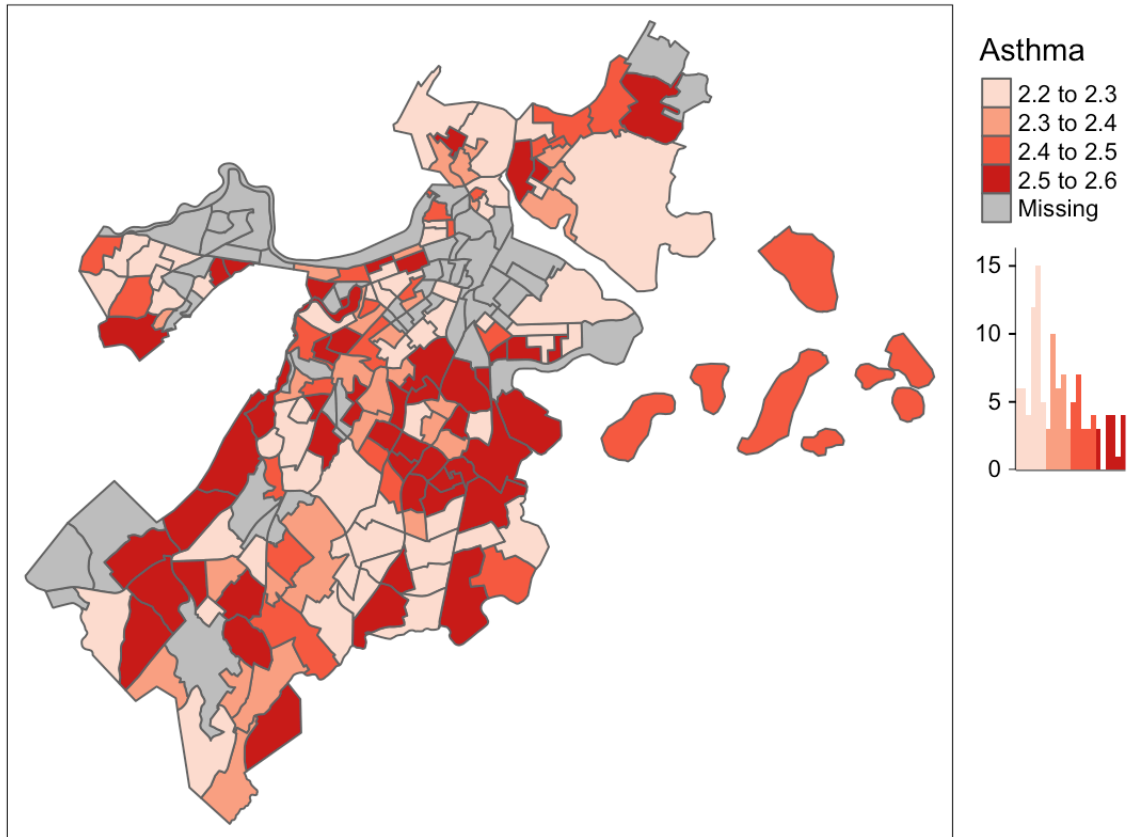


# Smoothing - Health

Team Health

12/2/2021

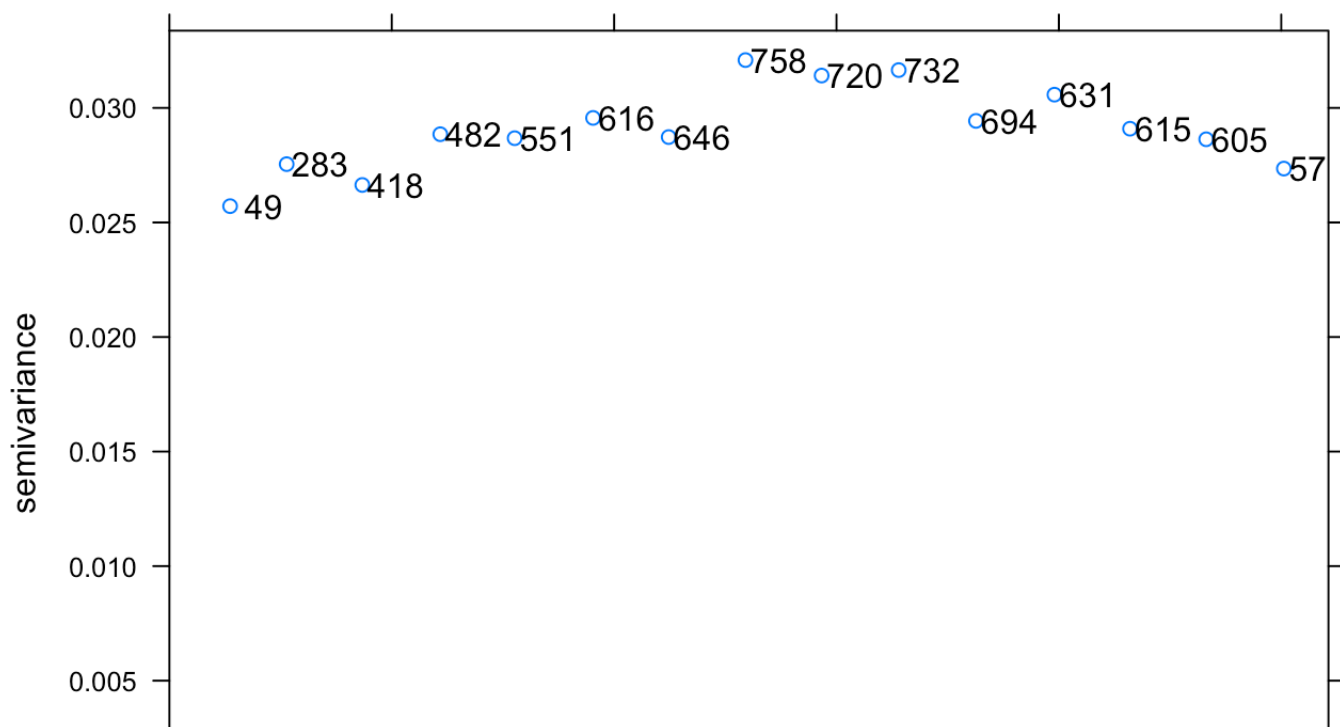
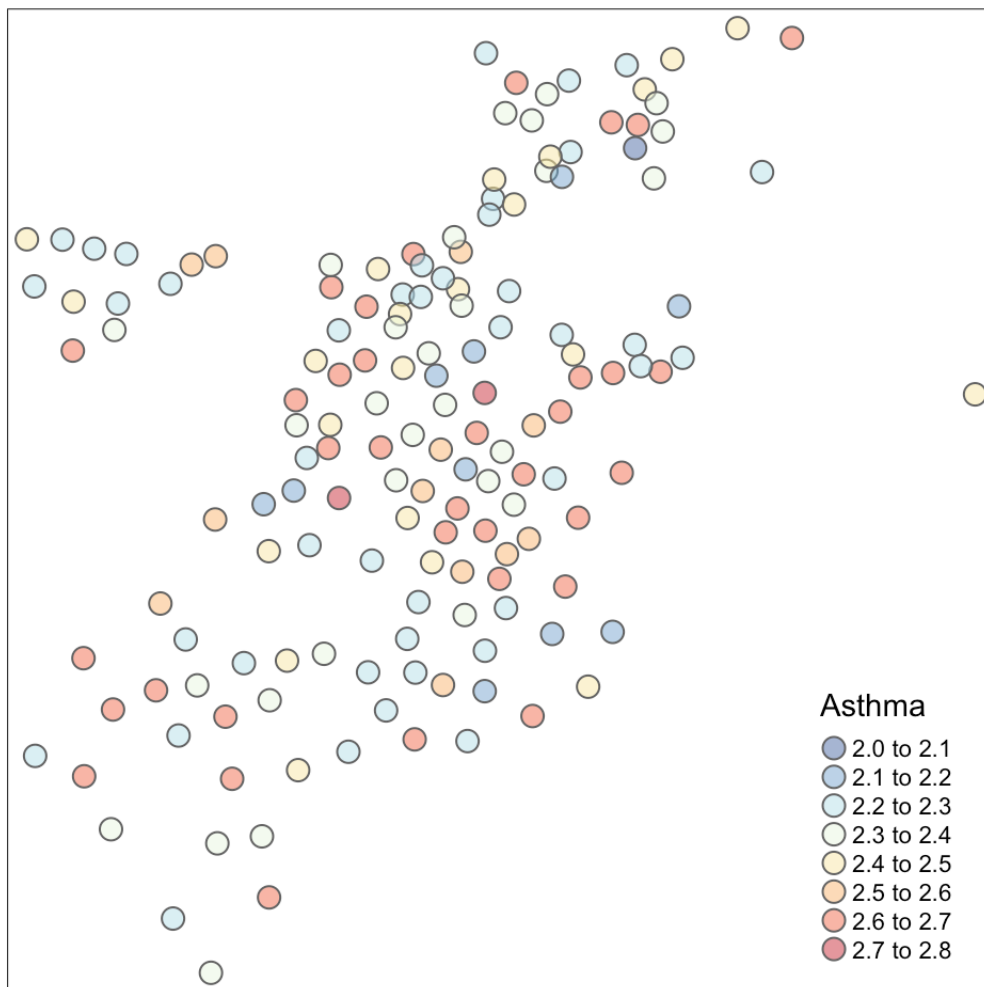
## Import Data - Tract Level

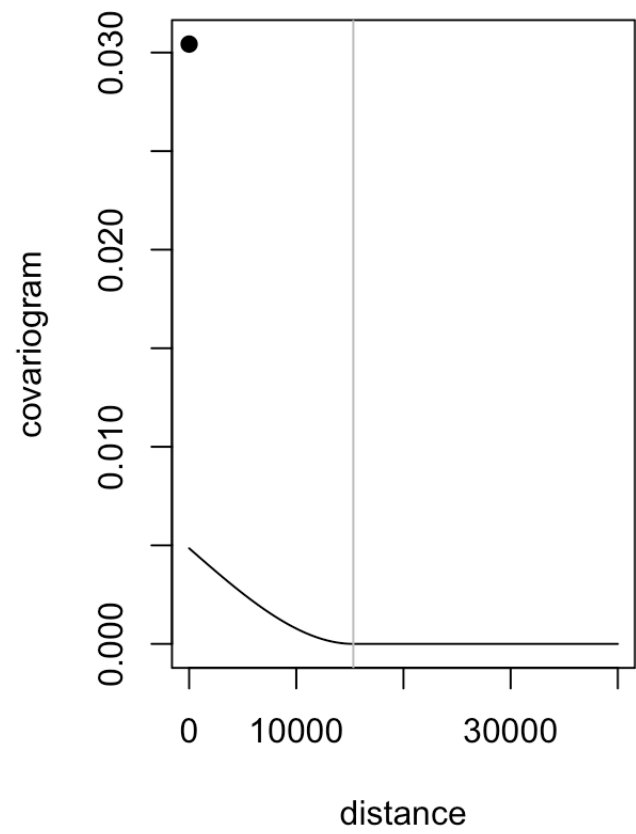
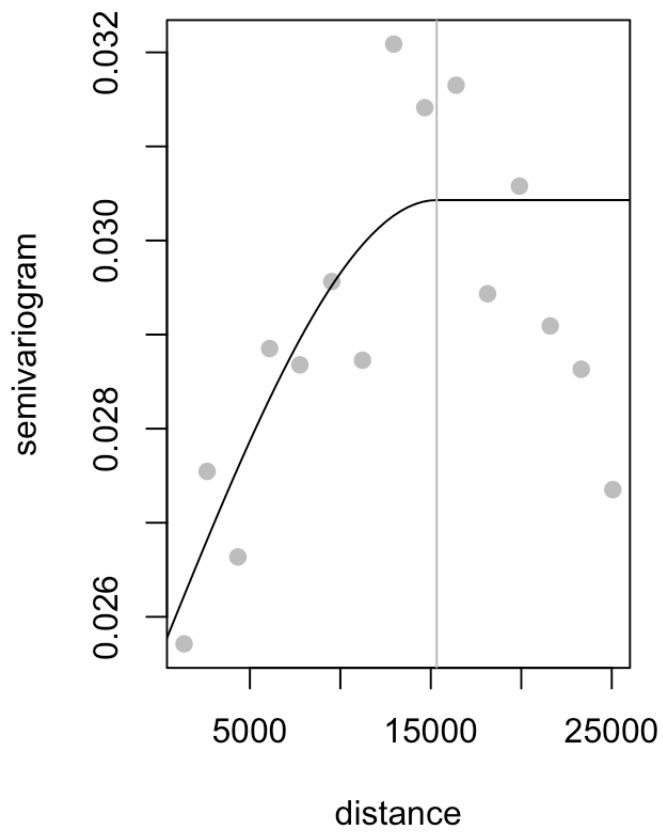
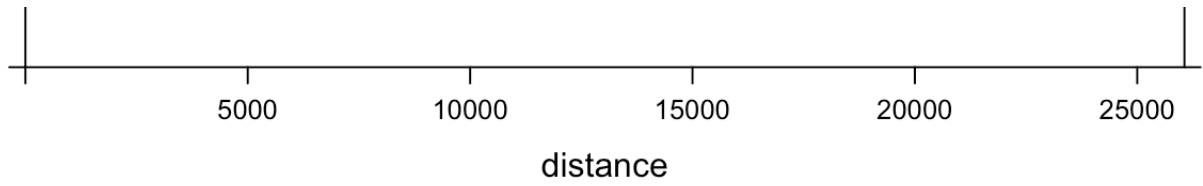


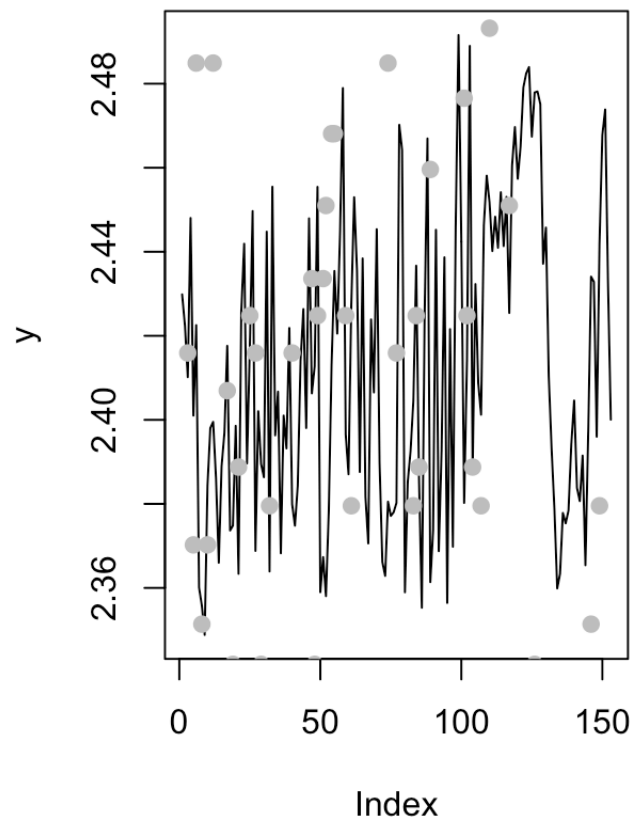
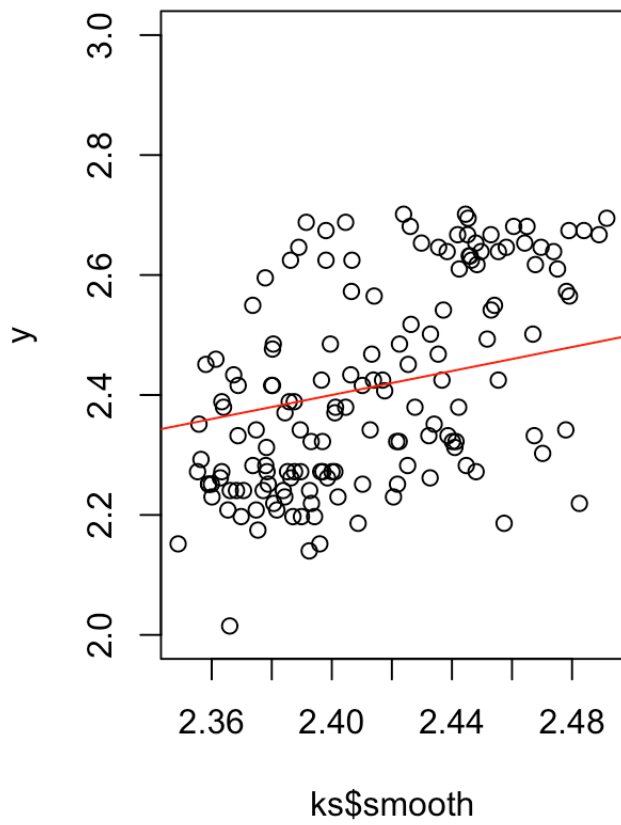


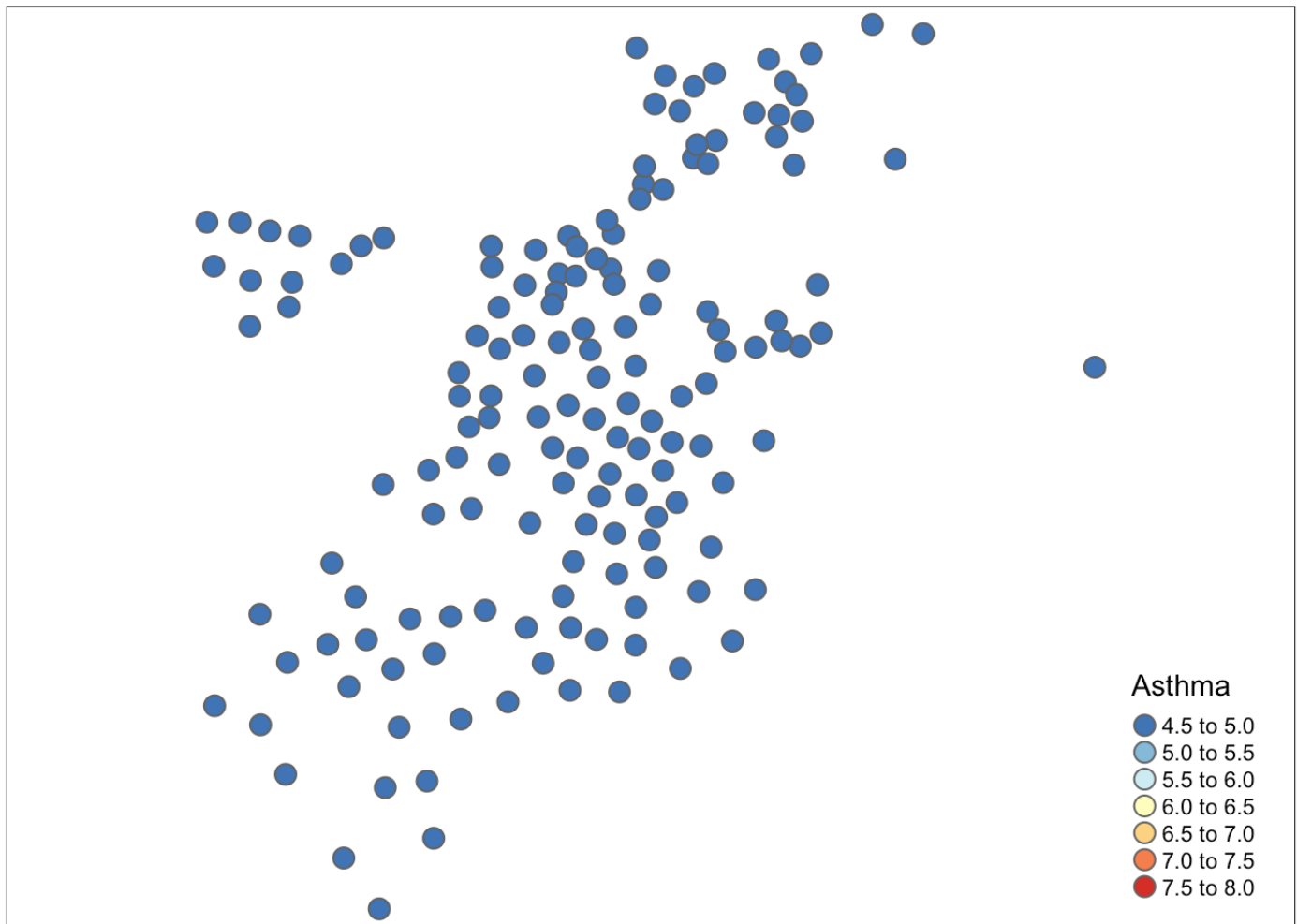
# Function

# Original Asthma





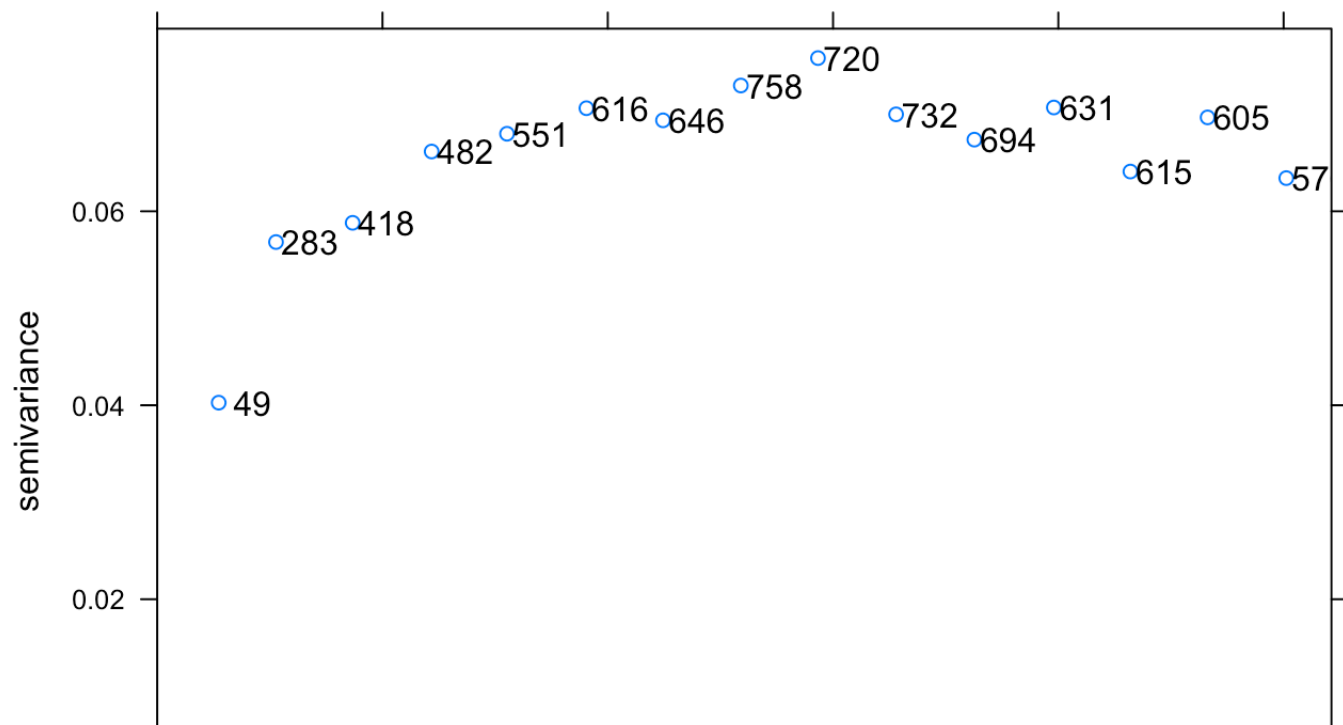
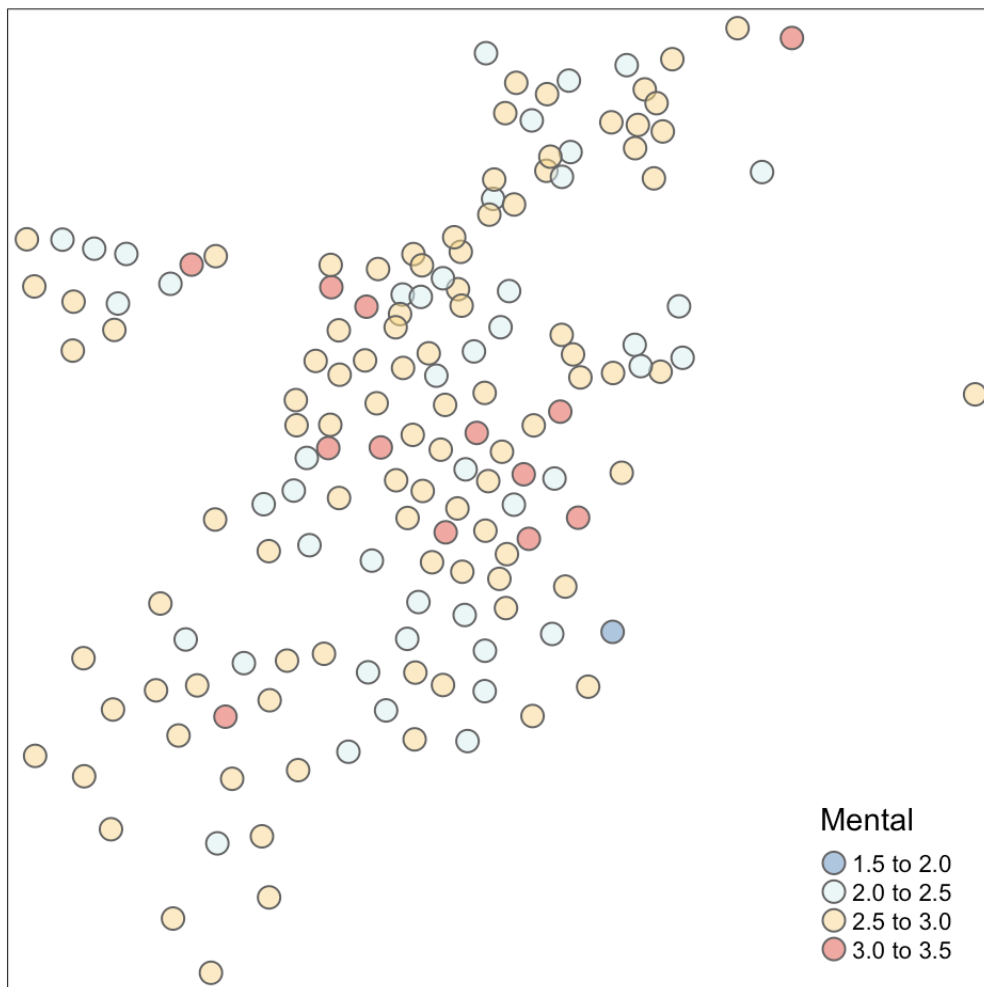


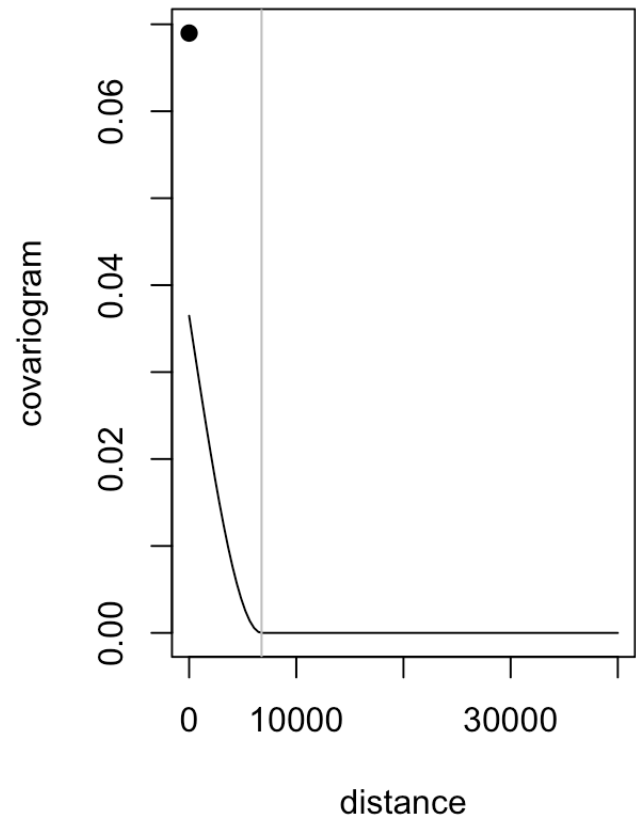
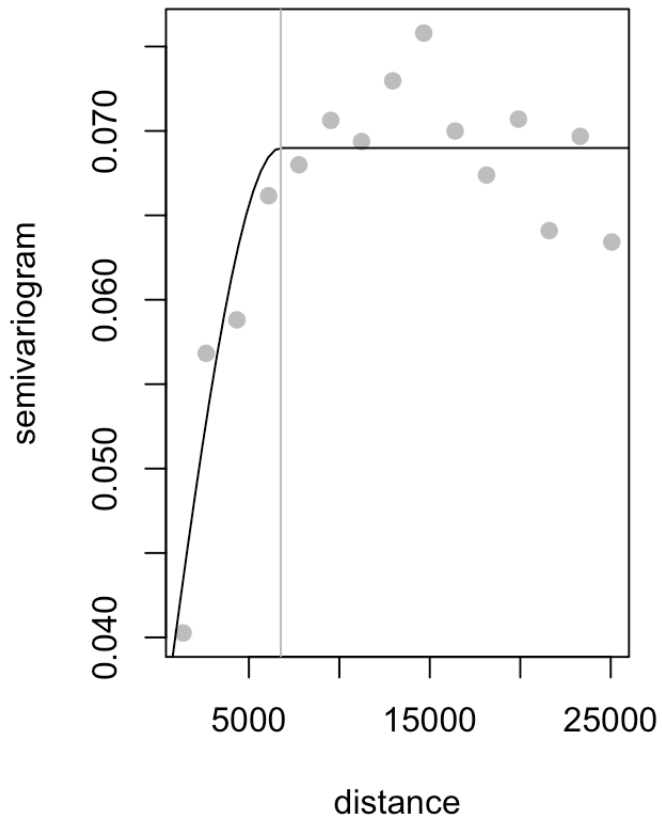
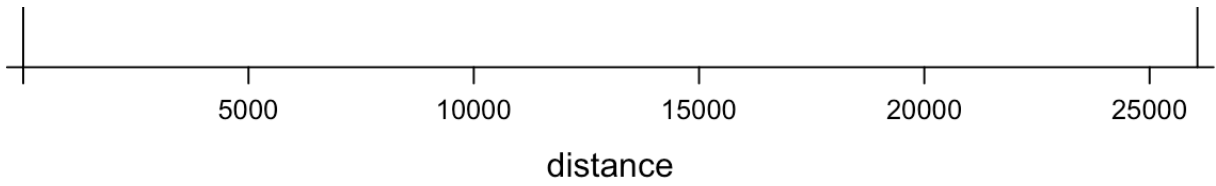


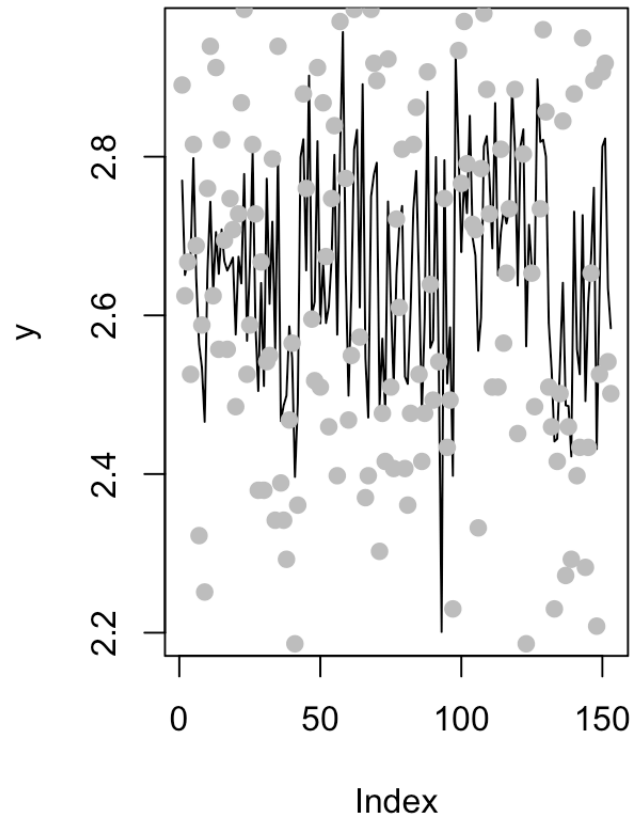
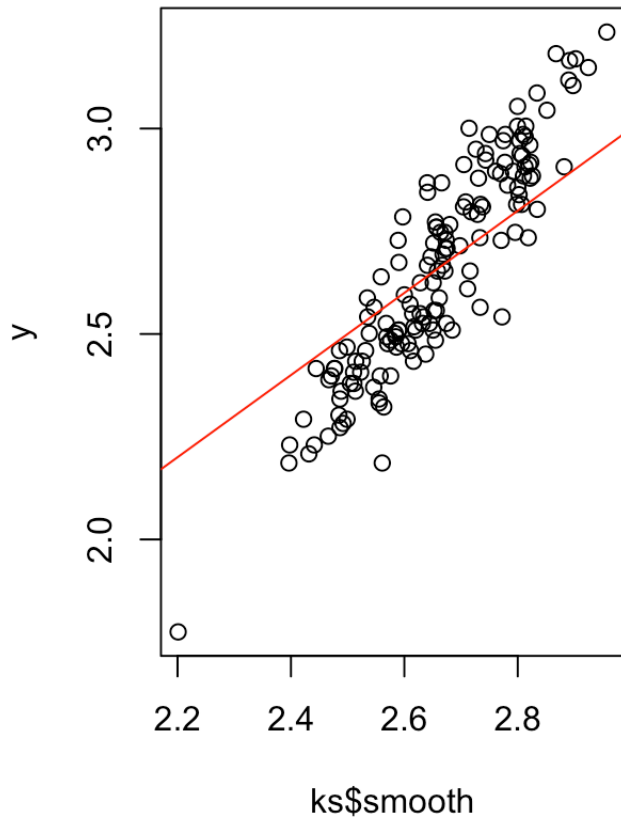
## Original Mental Health

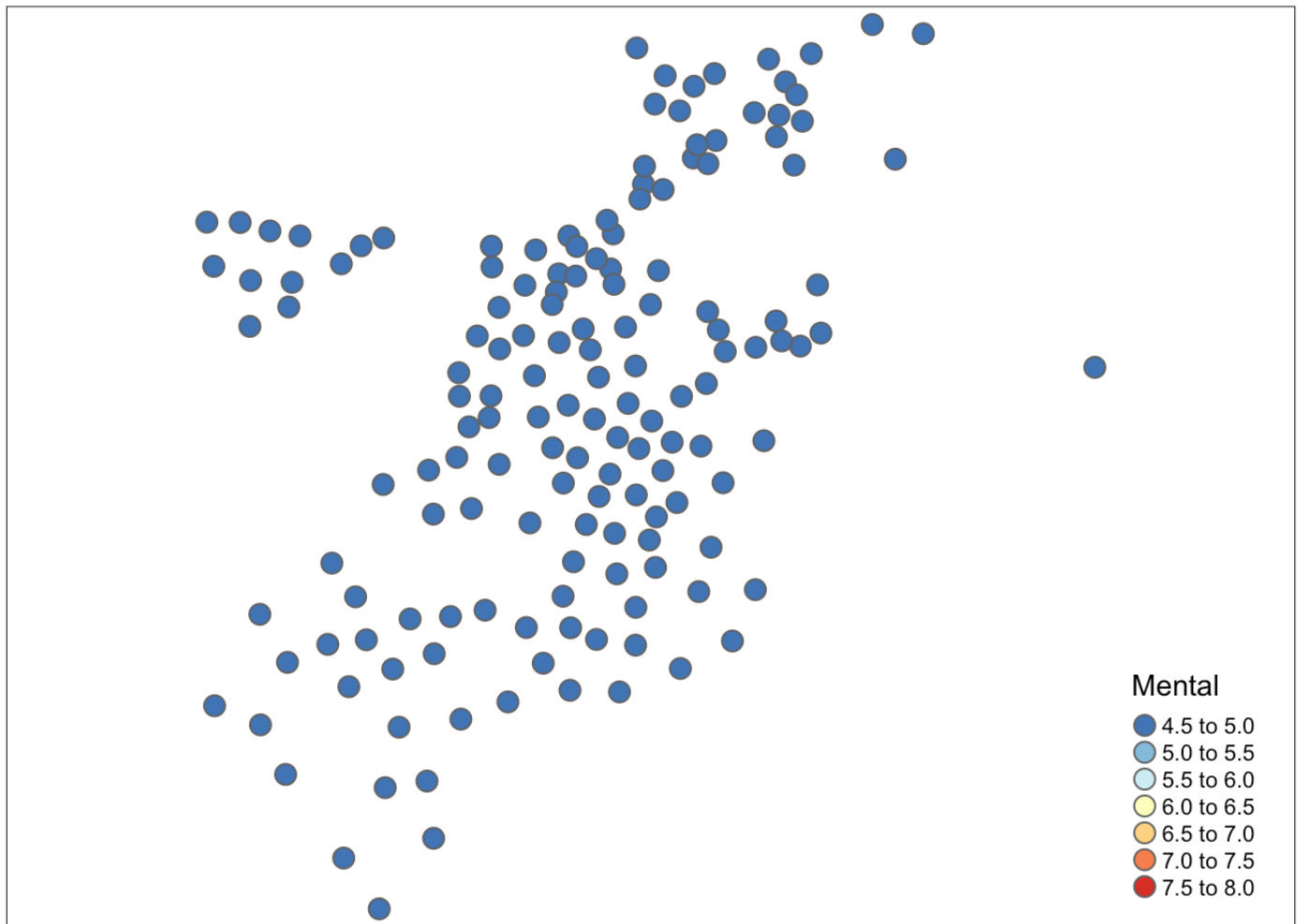








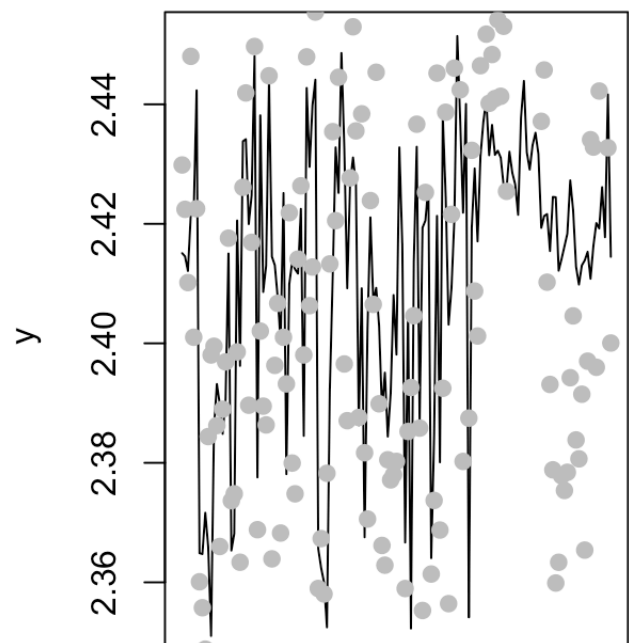
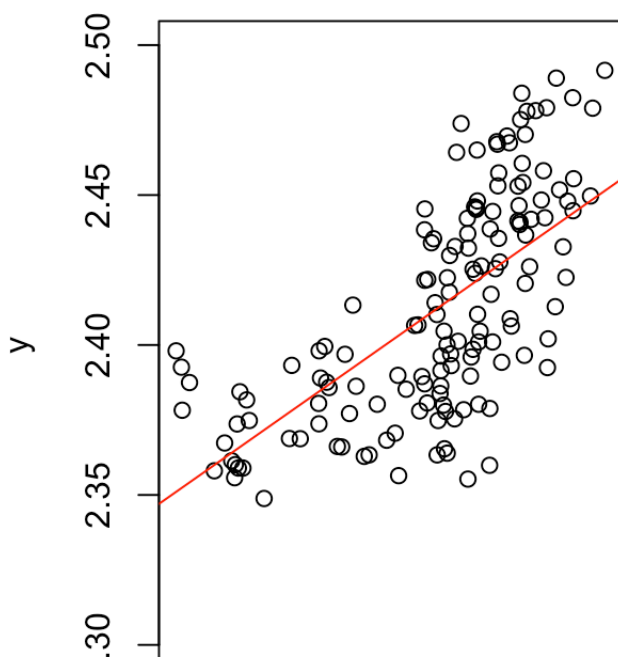
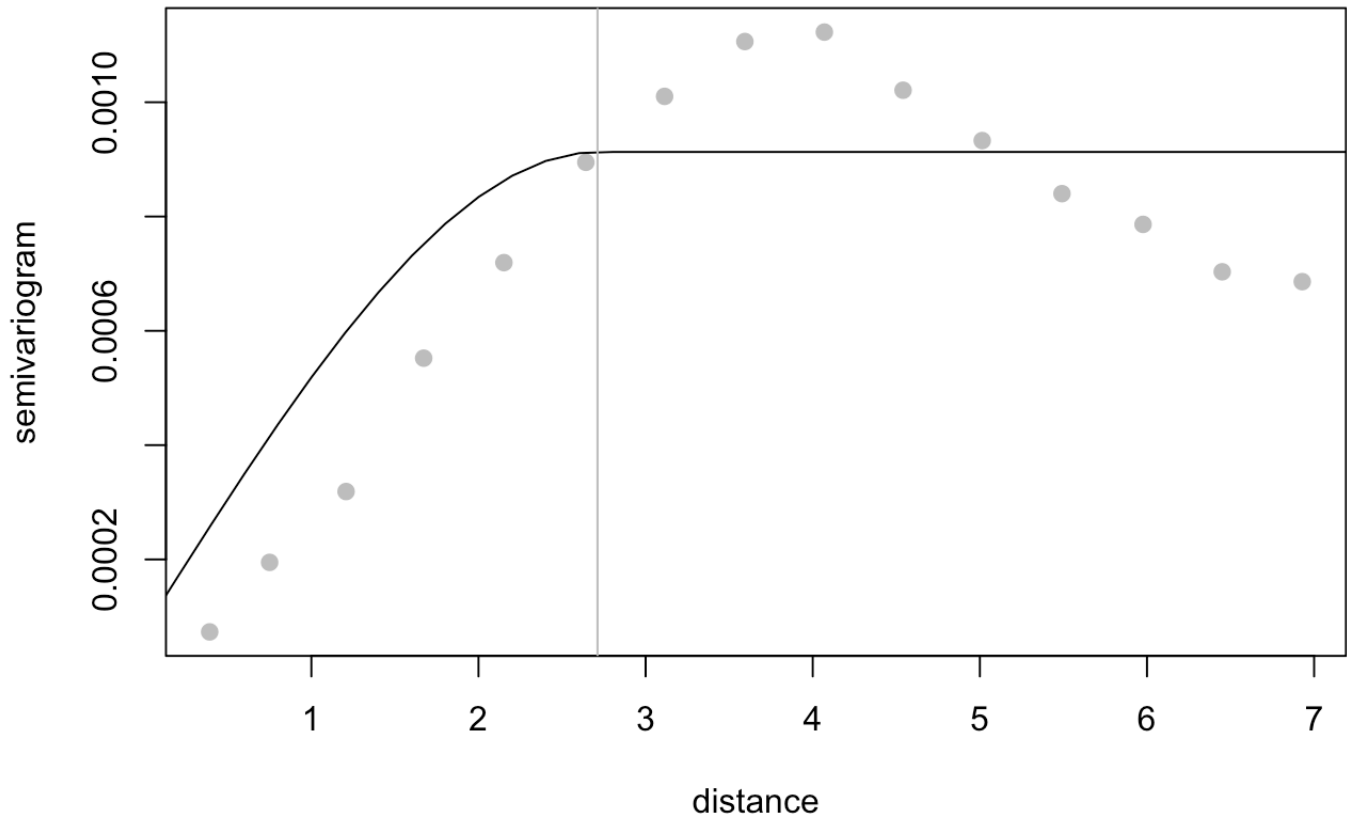


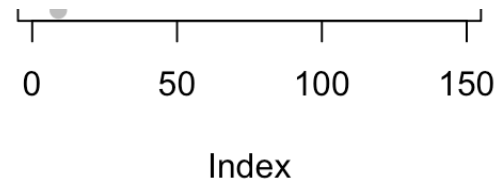
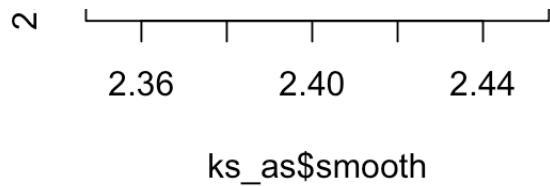


**Merge data with enviornment group**

**Model - Asthma**

## Asthma





## Model coefficient - Mental Health

Predictors	Coefficient	Sd.
(Intercept)	8.24169533	1.9697229
MnrPrc_s	-0.00616590	0.0036344
MnrPrc_r	-0.00236685	0.0075536
MdGrTx_s	-0.12446441	0.0237732
MdGrTx_r	0.00284747	0.0018065
Mdn_Inc_s	-0.16641901	0.0479271
Mdn_Inc_r	-0.01746738	0.0089063
mn_pm25_s	-0.01049538	0.0185436
mn_pm25_r	0.01356145	0.0244551
mn_tmp_s	-0.00006318	0.0000397
mn_tmp_r	0.00000074	0.0000045
Tre_Cnp	0.01673274	0.0424968

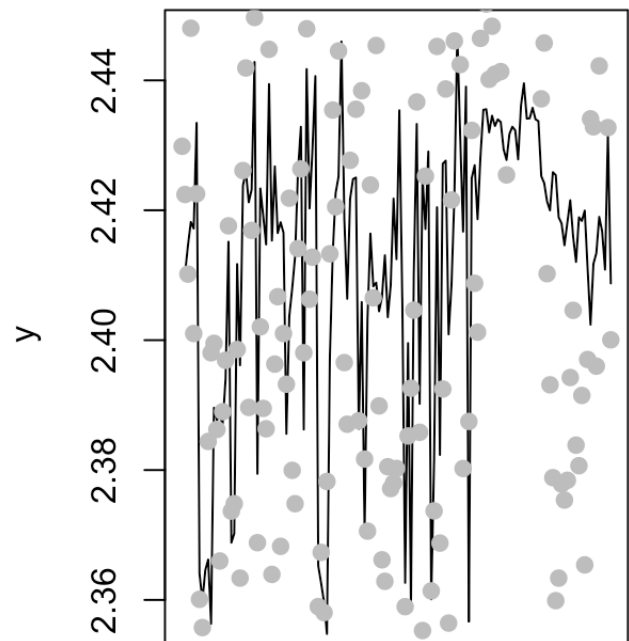
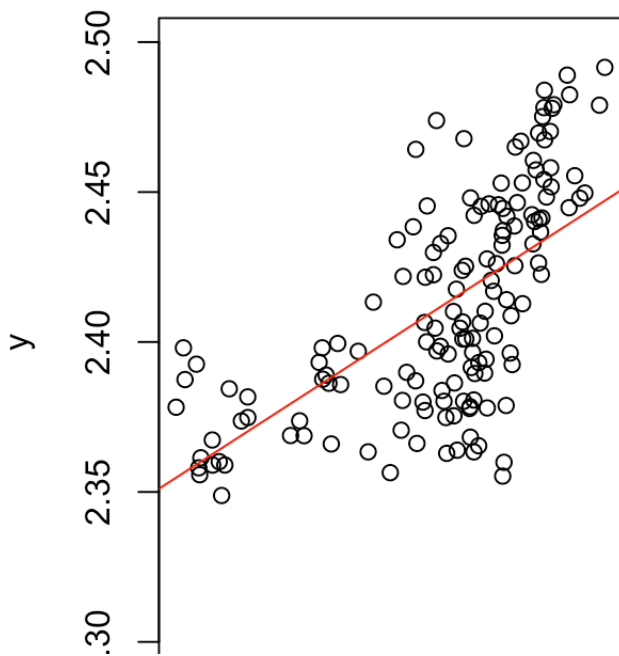
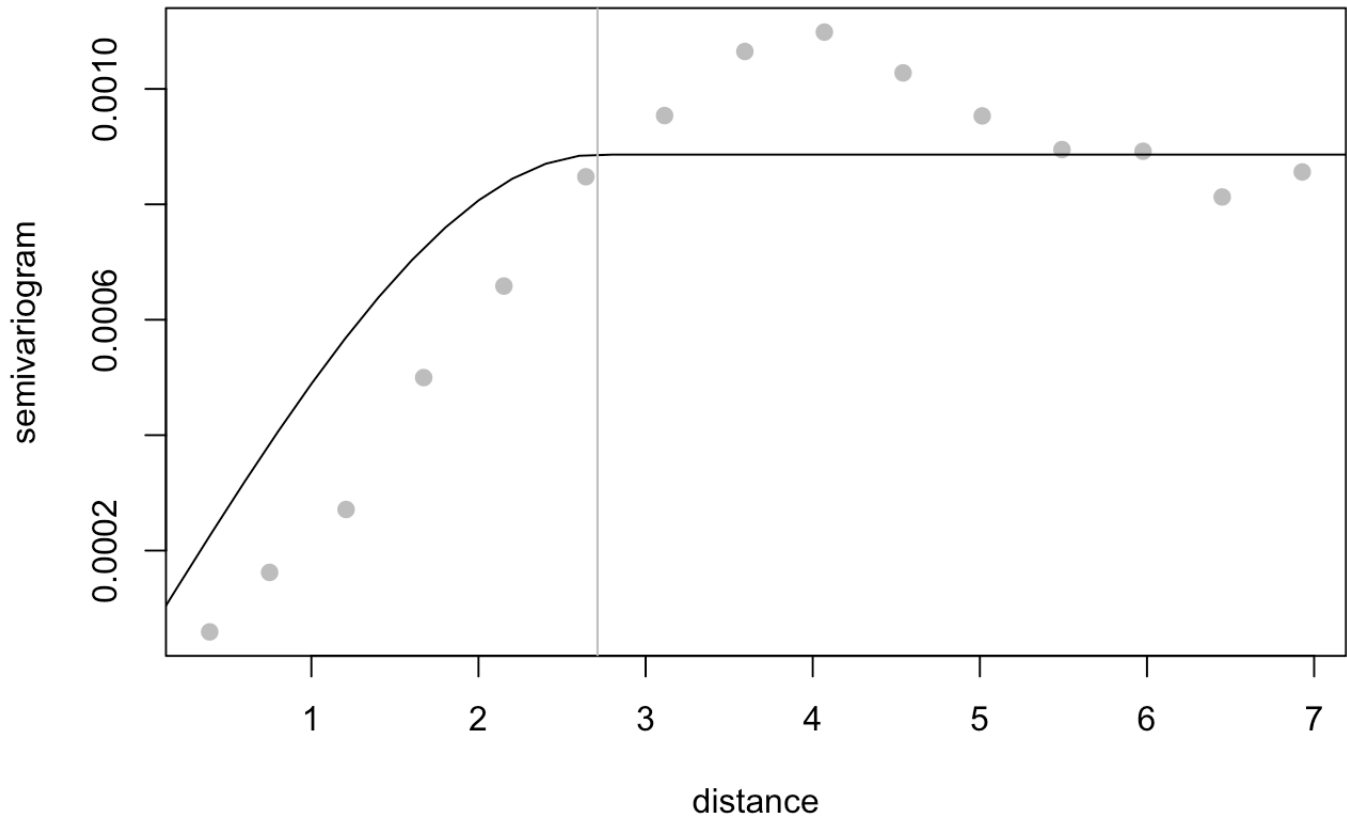
## Significant Model coefficient - Asthma

predictor	coefficient	Sd.	Q2.5	Q97.5
(Intercept)	8.24	1.970	4.30	12.181
MdGrTx_s	-0.12	0.024	-0.17	-0.077
Mdn_Inc_s	-0.17	0.048	-0.26	-0.071

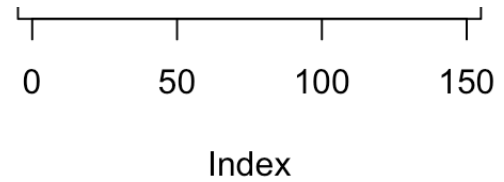
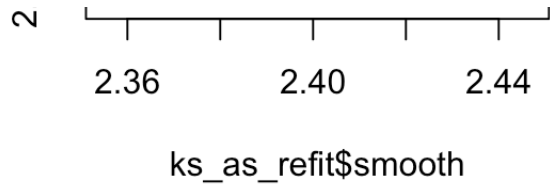
## Refit model for significant predictors - Asthma



## Asthma\_Refit





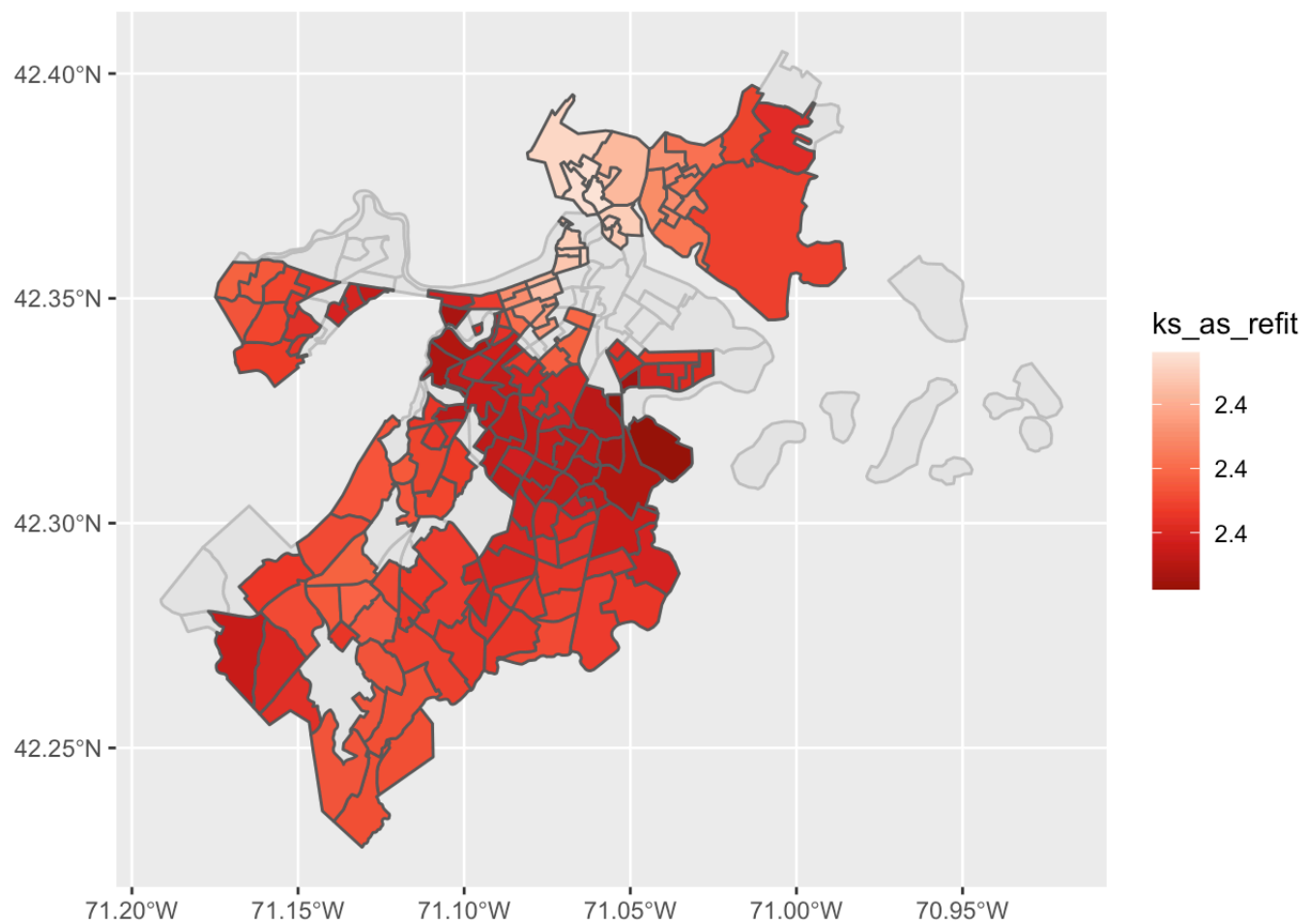


## Model coefficient - Mental Health

predictor	coefficient	Sd.	Q2.5	Q97.5
(Intercept)	4.4784	0.3811	5.2405	3.7163
MdGrTx_s	-0.1268	0.0219	-0.0830	-0.1706
MdGrTx_r	0.0024	0.0017	0.0058	-0.0011
Mdn_Inc_s	-0.0960	0.0313	-0.0335	-0.1586
Mdn_Inc_r	-0.0103	0.0065	0.0027	-0.0234
Tre_Cnp	0.0238	0.0359	0.0955	-0.0480

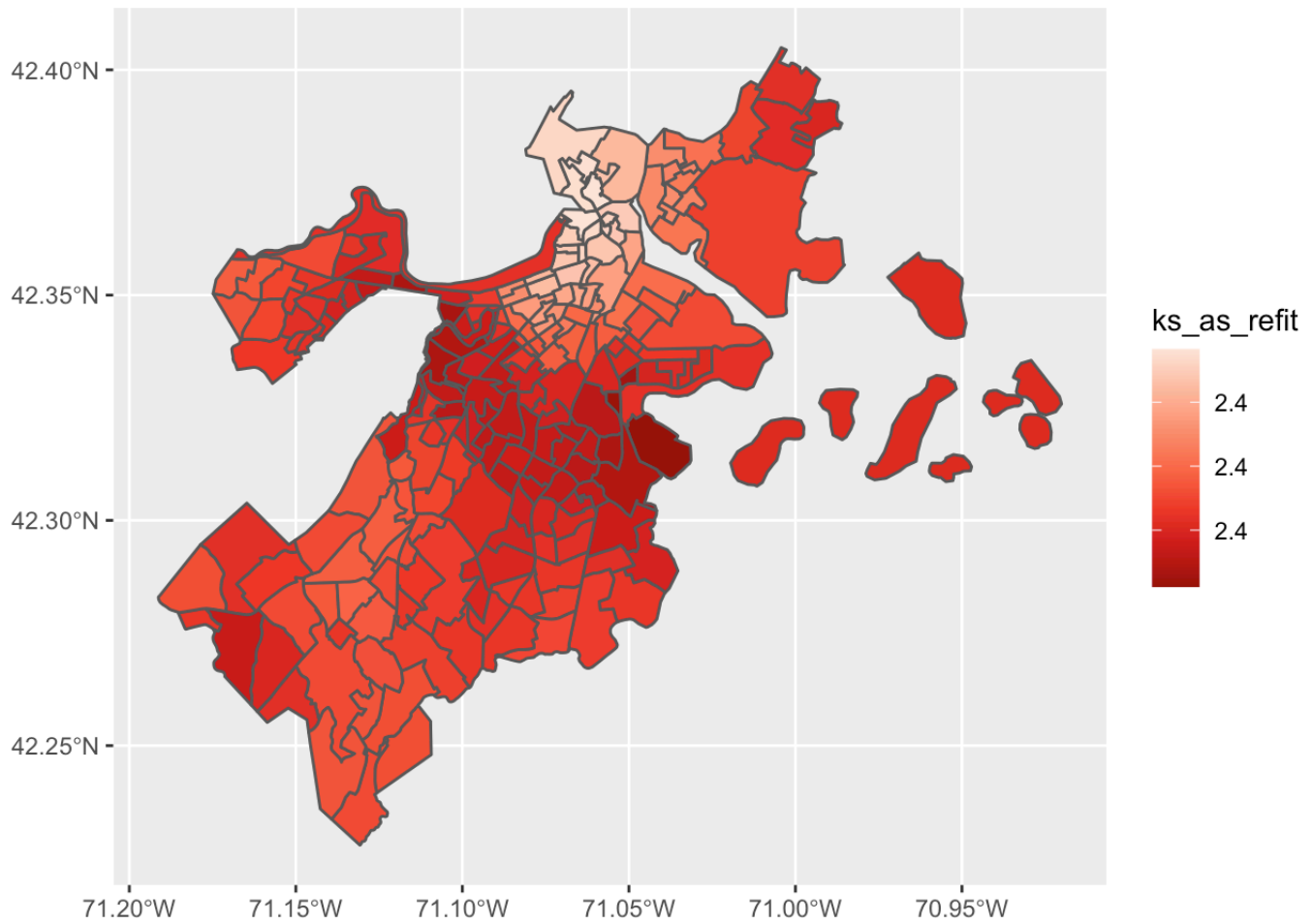
## After-Smoothing Map & Kriging Predicted Map for Asthma

## Original Model for Asthma



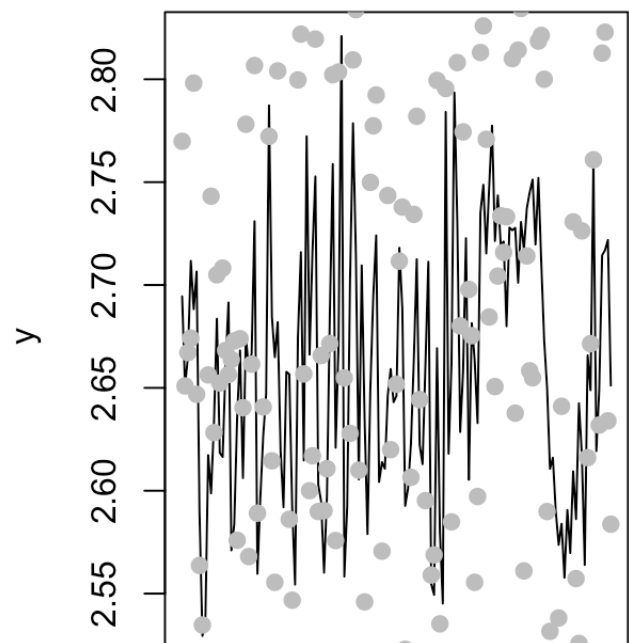
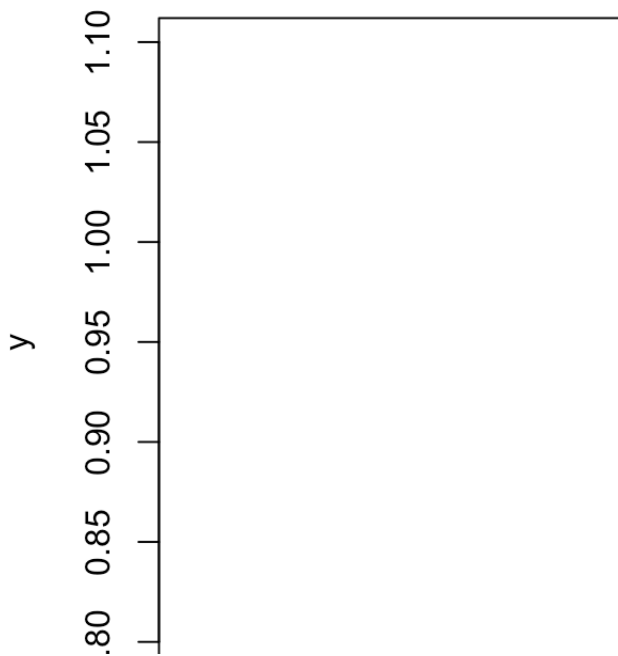
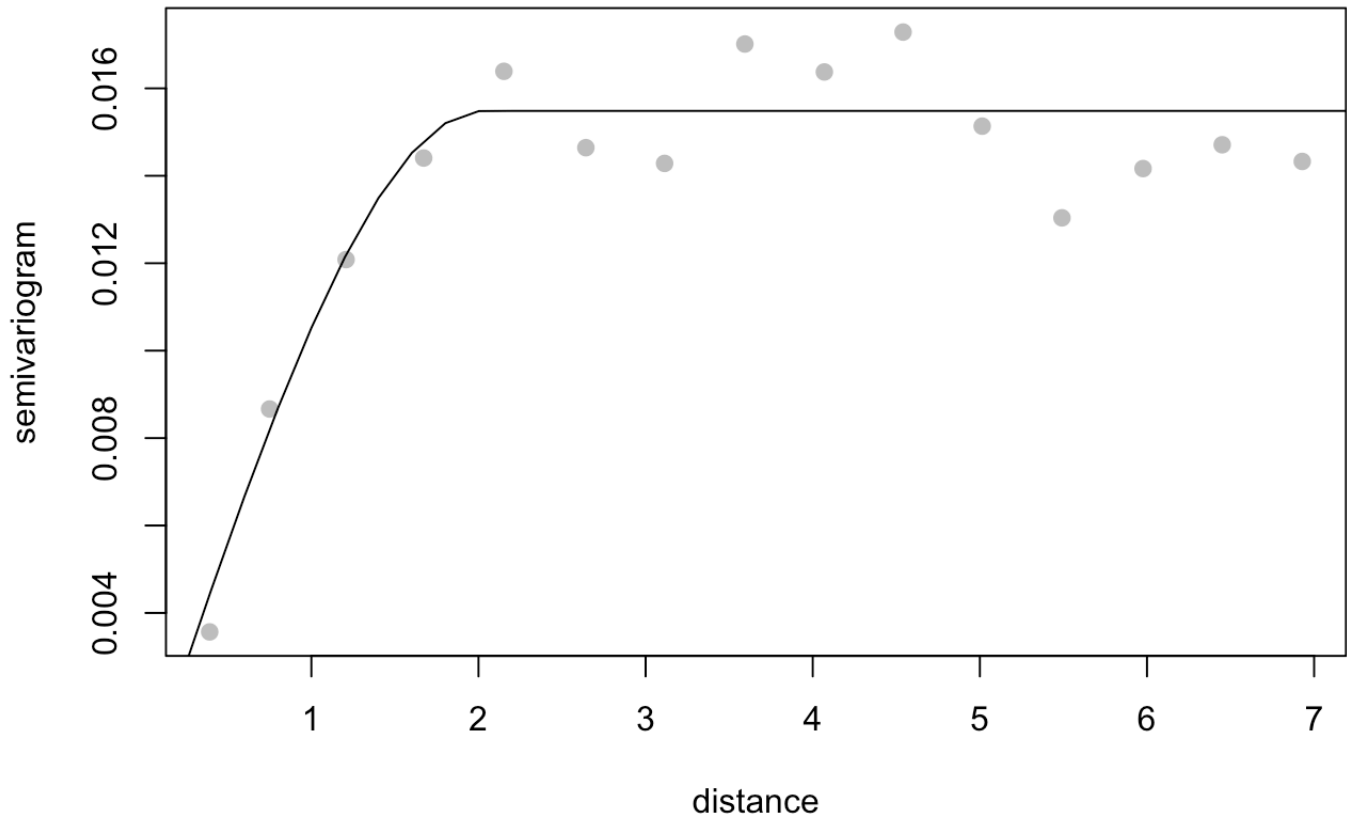
```
## [using ordinary kriging]
```

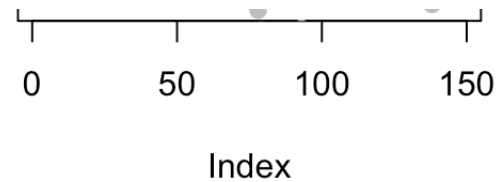
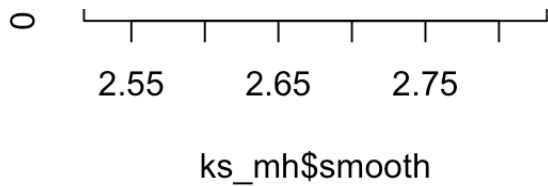
## Refitted Model for Asthma



## Model Mental Health

## Mental Health





## Model coefficient - Mental Health

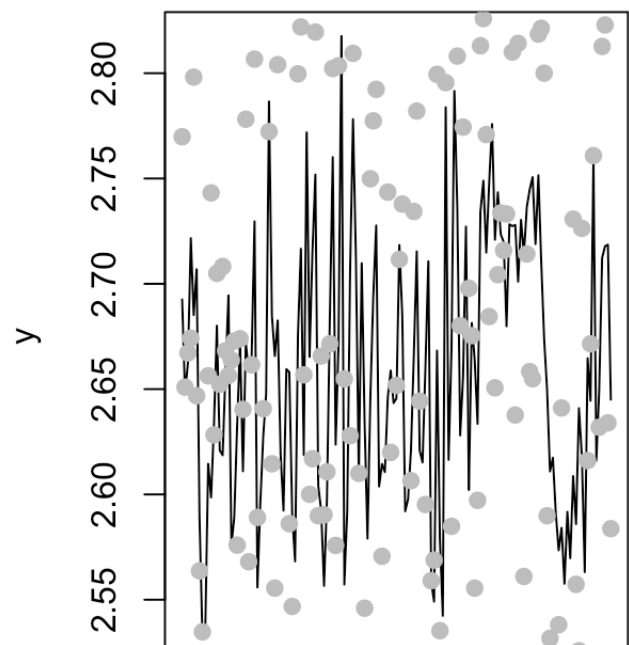
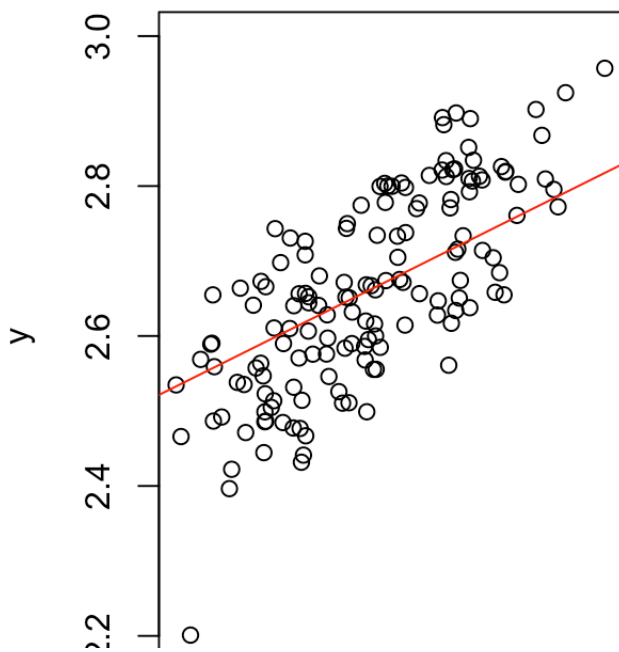
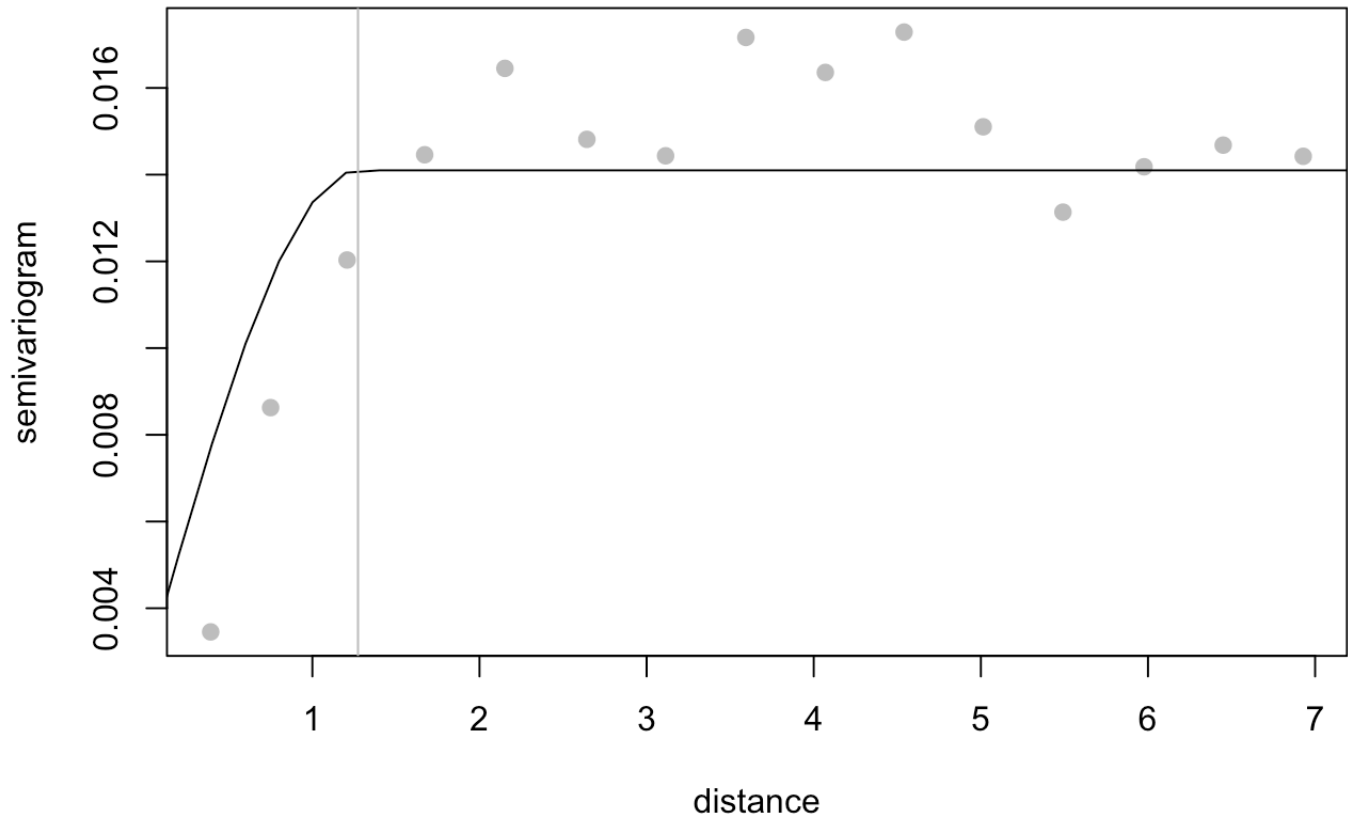
row.names(coef2)	V1	V2
(Intercept)	3.810052	4.955669
MnrPrc_s	0.014590	0.005963
MnrPrc_r	-0.023110	0.008192
MdGrTx_s	-0.354464	0.044445
MdGrTx_r	0.004320	0.002019
Mdn_Inc_s	-0.068609	0.113720
Mdn_Inc_r	-0.046186	0.010228
mn_pm25_s	0.002598	0.024897
mn_pm25_r	0.020363	0.027121
mn_tmp_s	0.000050	0.000096
mn_tmp_r	-0.000017	0.000005
Tre_Cnp	0.325314	0.058076

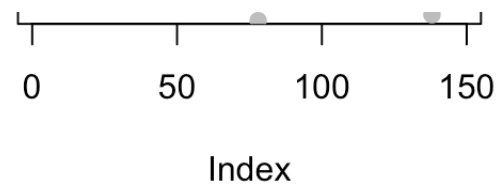
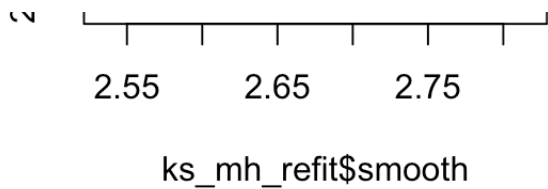
## Significant Model coefficient - Mental Health

predictor	coefficient	Sd.	Q2.5	Q97.5
MnrPrc_s	0.014590	0.005963	0.0265160	0.002664
MnrPrc_r	-0.023110	0.008192	-0.0067254	-0.039495
MdGrTx_s	-0.354464	0.044445	-0.2655742	-0.443354
MdGrTx_r	0.004320	0.002019	0.0083578	0.000282
Mdn_Inc_r	-0.046186	0.010228	-0.0257306	-0.066642
mn_tmp_r	-0.000017	0.000005	-0.0000066	-0.000027
Tre_Cnp	0.325314	0.058076	0.4414668	0.209162

# Refit model for significant predictors - Mental Health

## Mental Health





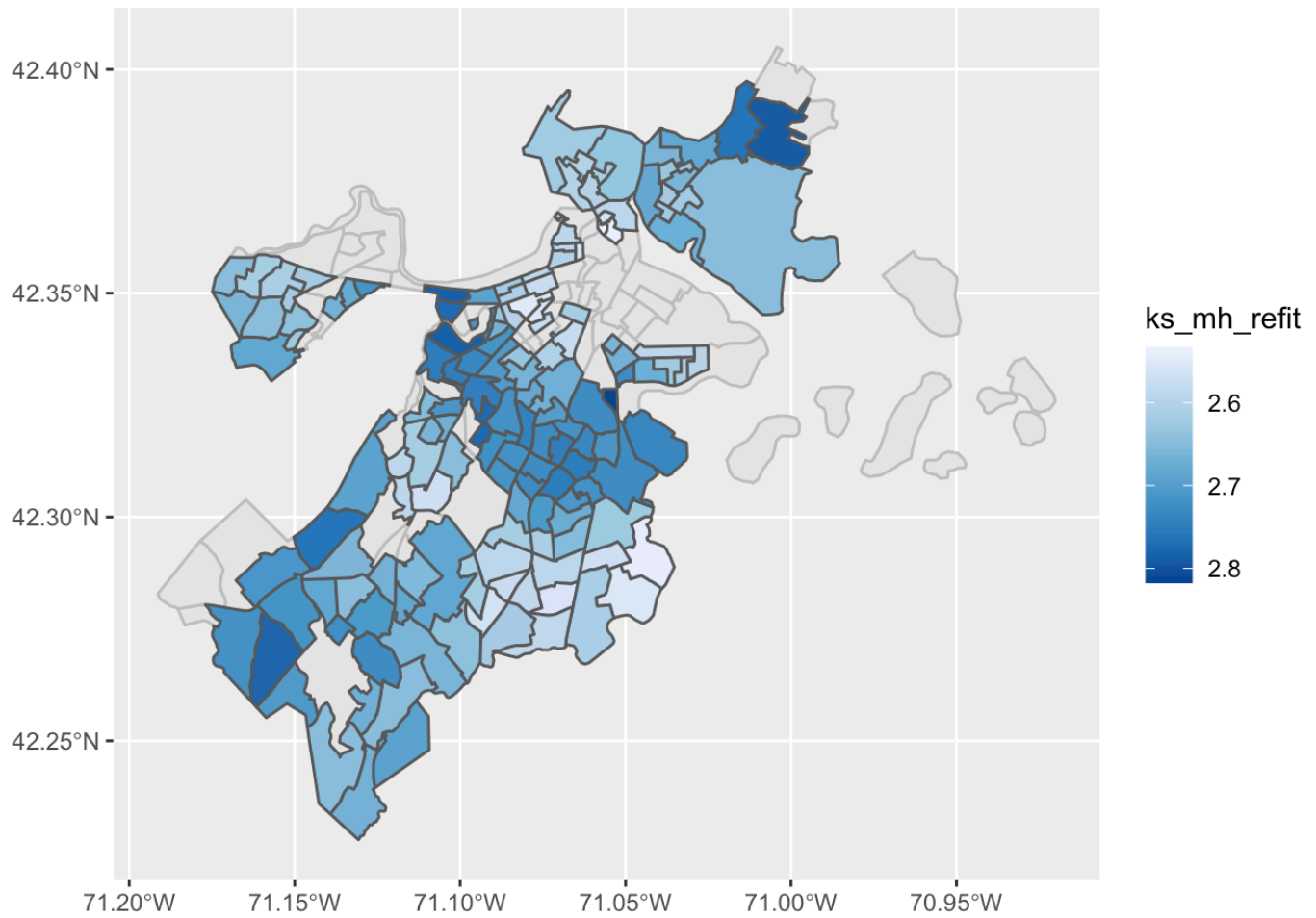
## Model coefficient - Mental Health

predictor	coefficient	Sd.	Q2.5	Q97.5
MnrPrc_s	0.014905	0.005923	0.026751	0.003058
MnrPrc_r	-0.023158	0.008185	-0.006787	-0.039528
MdGrTx_s	-0.355979	0.043911	-0.268157	-0.443800
MdGrTx_r	0.004427	0.002013	0.008452	0.000401
Mdn_Inc_r	-0.046031	0.010160	-0.025712	-0.066350
mn_tmp_r	-0.000016	0.000005	-0.000006	-0.000026
Tre_Cnp	0.326526	0.057874	0.442274	0.210777

## After-Smoothing Map & Kriging Predicted Map for Mental Health



## Original Model for Mental Health



```
## [using ordinary kriging]
```

## Refitted Model for Mental Health

