

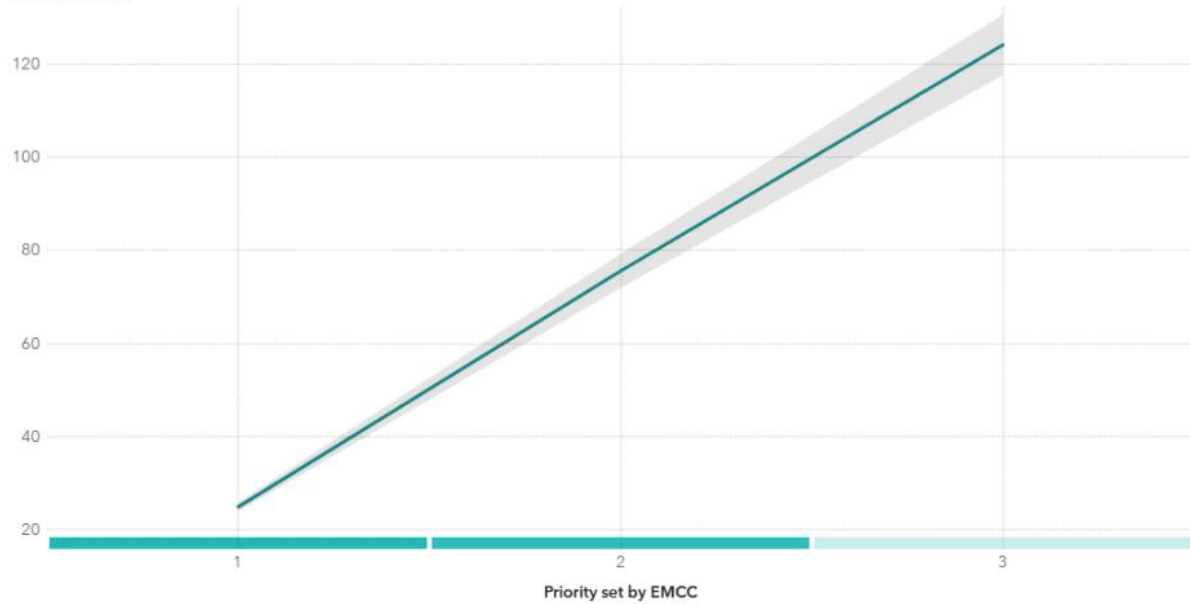
Appendix

A. Partial Dependence

A.1. Priority set by EMCC

Partial Dependence

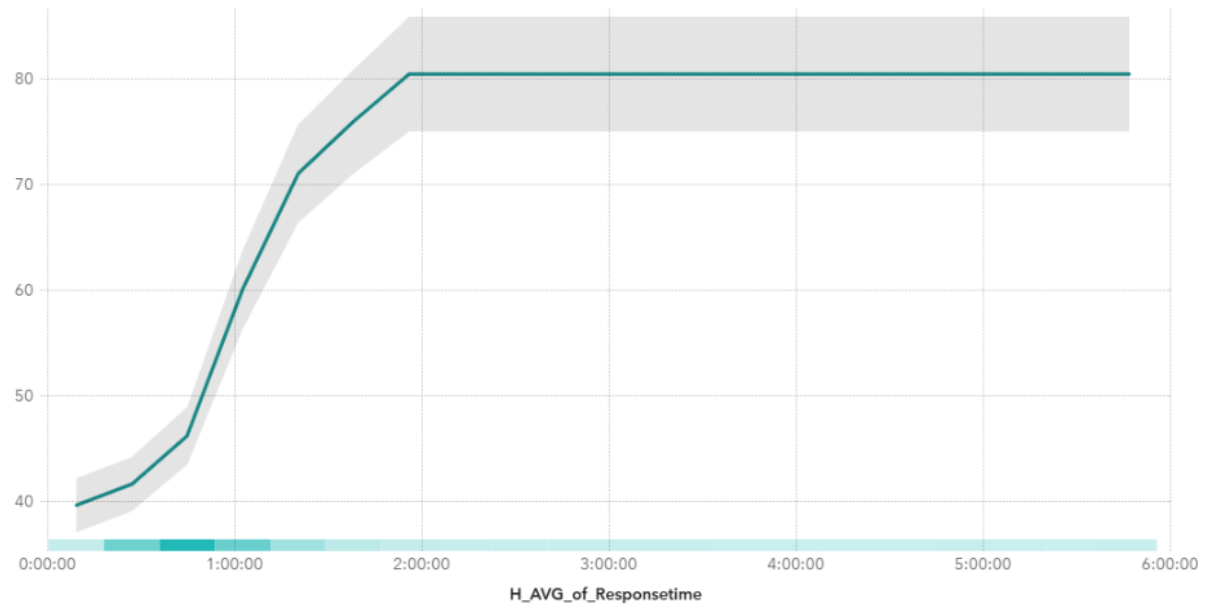
Predicted Value



A.2. H_AVG_of_Responsetime

Partial Dependence

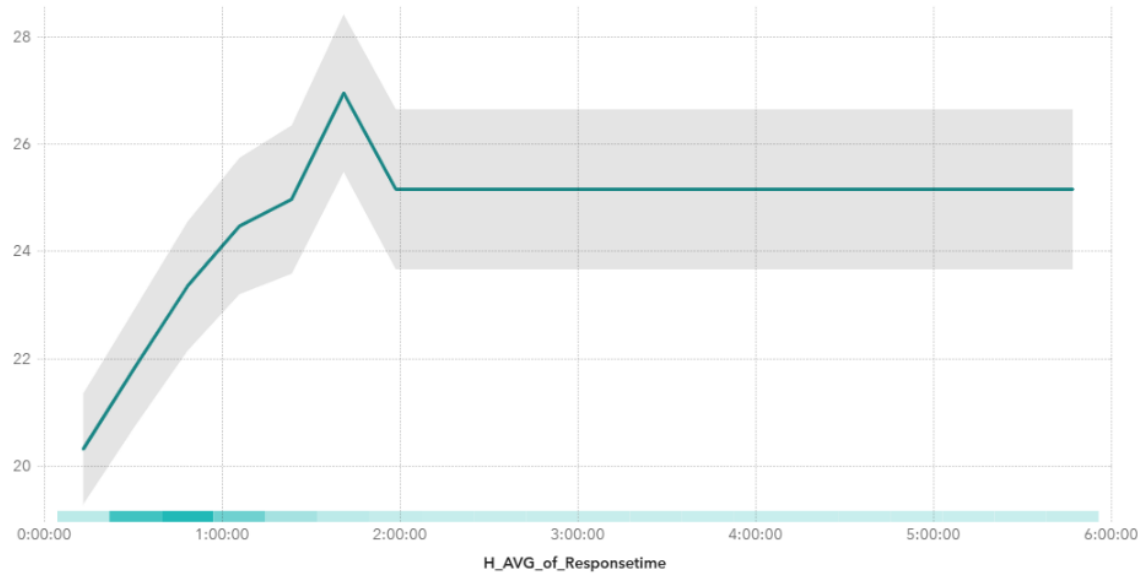
Predicted Value



A.3. H_AVG_of_Respontime priority level 1

Partial Dependence

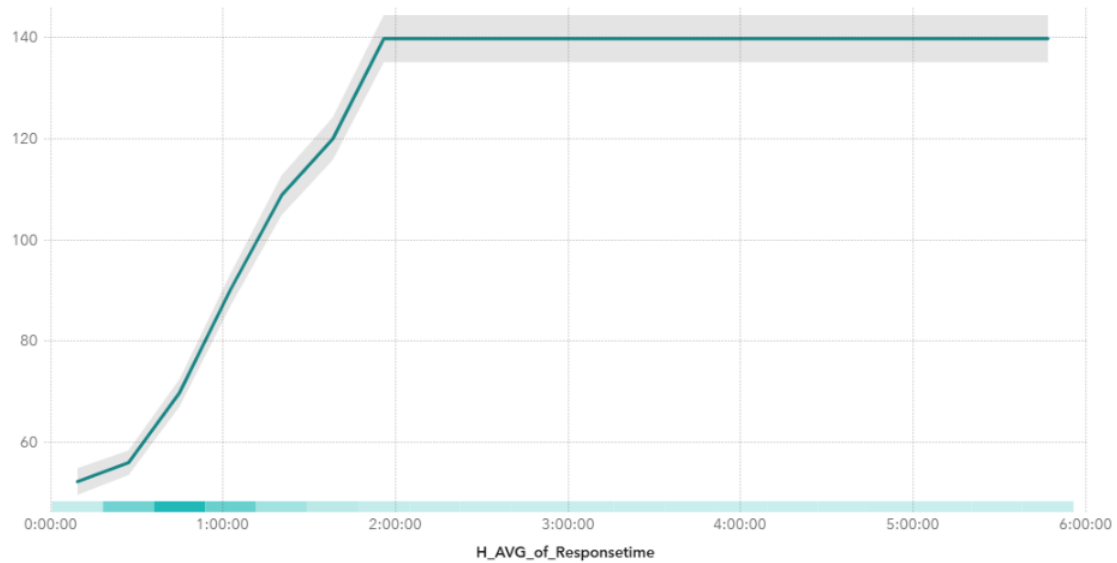
Predicted Value



A.4. H_AVG_of_Respontime priority level 2

Partial Dependence

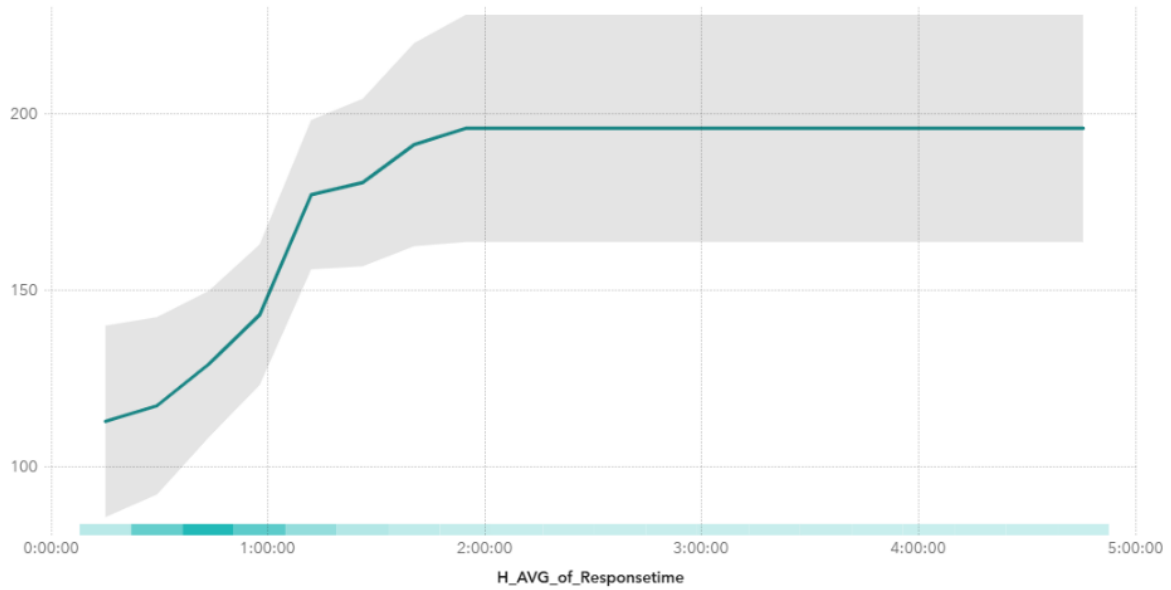
Predicted Value



A.5. H_AVG_of_Responsetime priority level 3

Partial Dependence

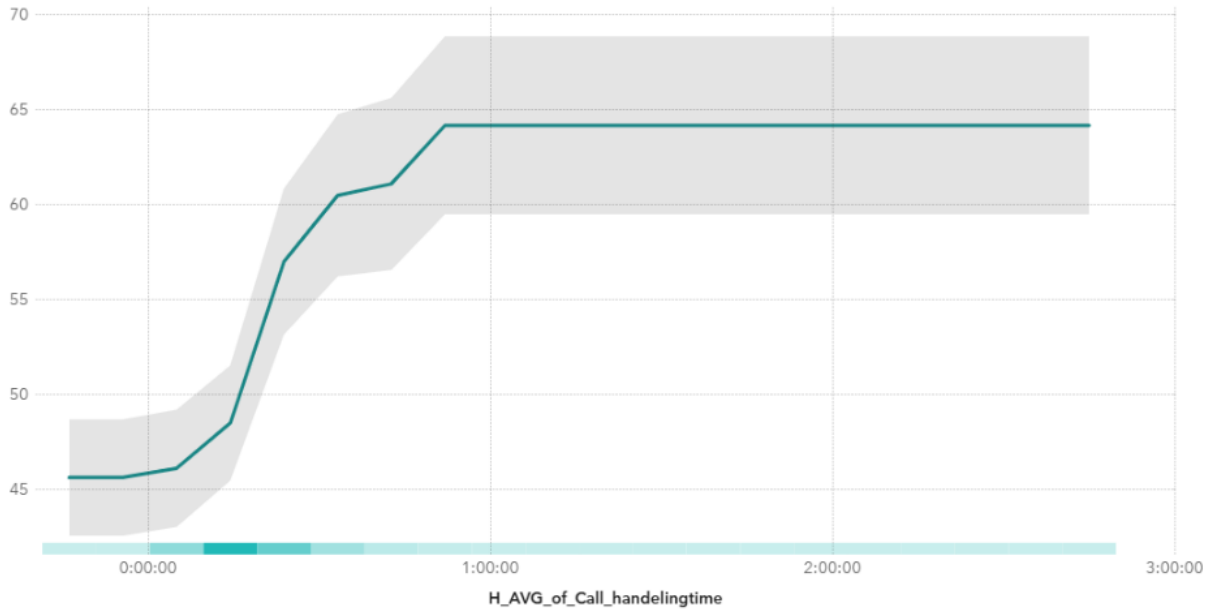
Predicted Value



A.6. H_AVG_of_Call_handlingtime

Partial Dependence

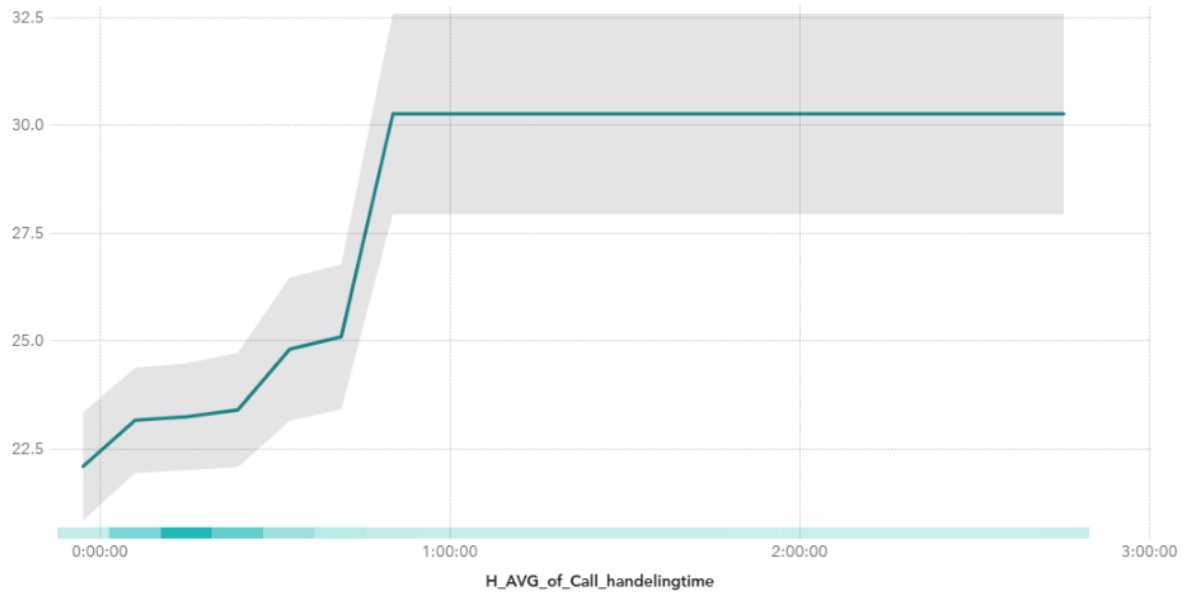
Predicted Value



A.7. H_AVG_of_Call_handlingtime priority level 1

Partial Dependence

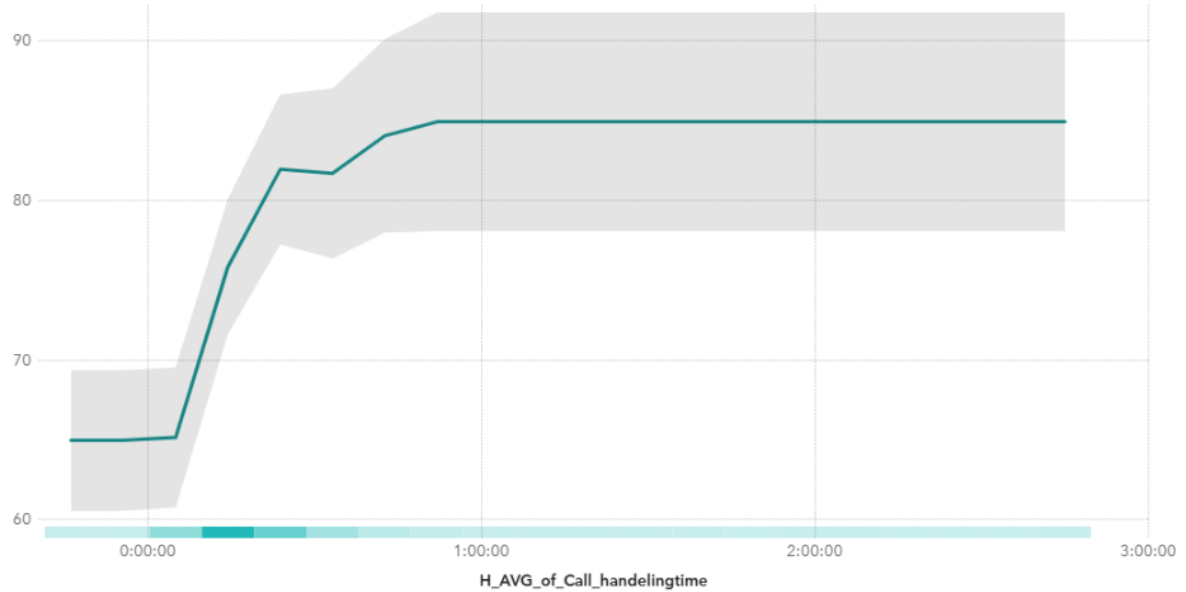
Predicted Value



A.8. H_AVG_of_Call_handlingtime priority level 2

Partial Dependence

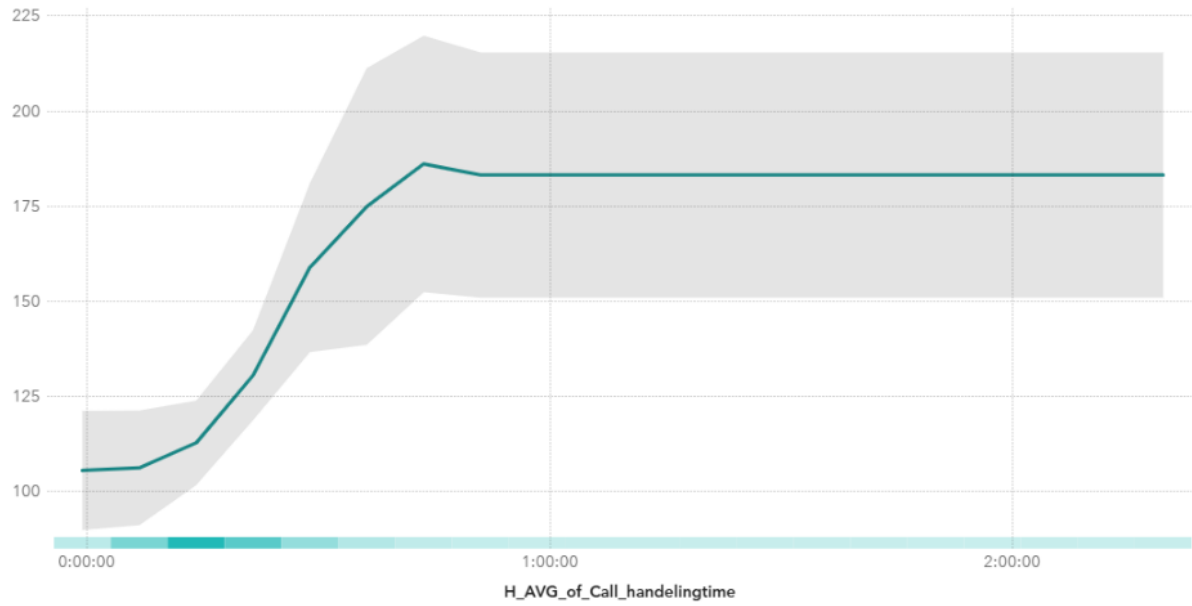
Predicted Value



A.9. H_AVG_of_Call_handlingtime priority level 3

Partial Dependence

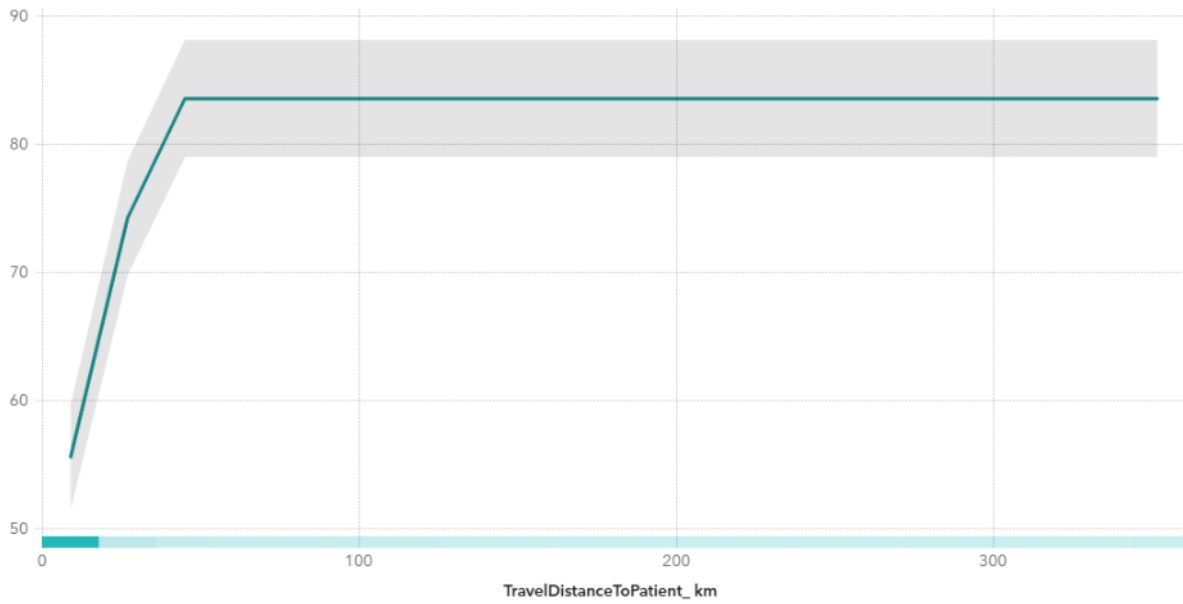
Predicted Value



A.10. TravelDistanceToPatient_km

Partial Dependence

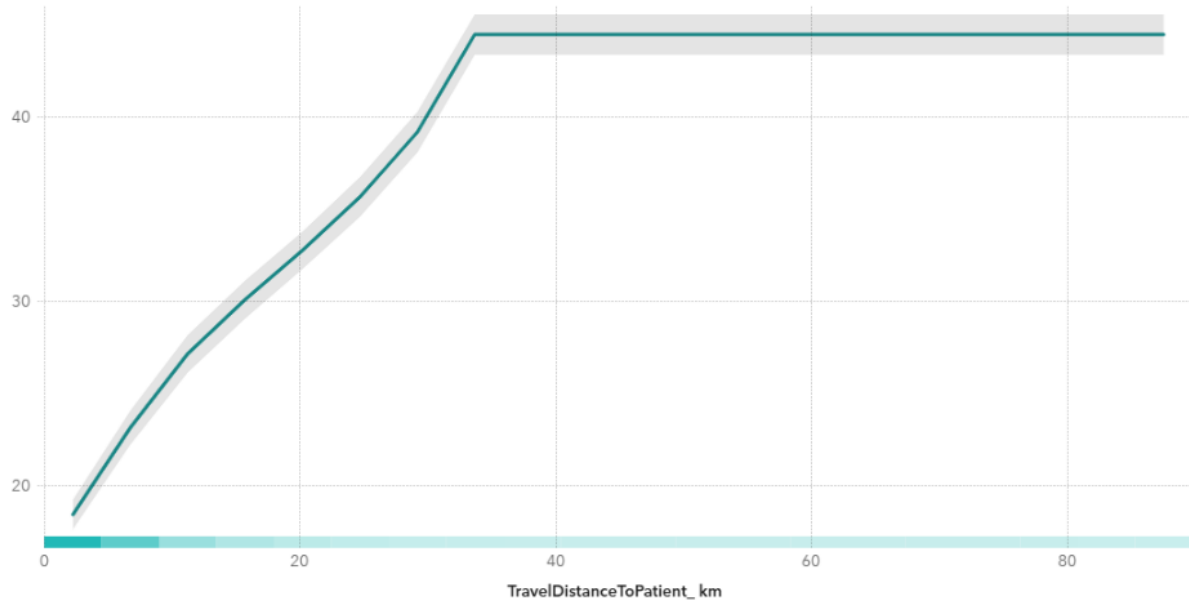
Predicted Value



A.11. TravelDistanceToPatient_km priority level 1

Partial Dependence

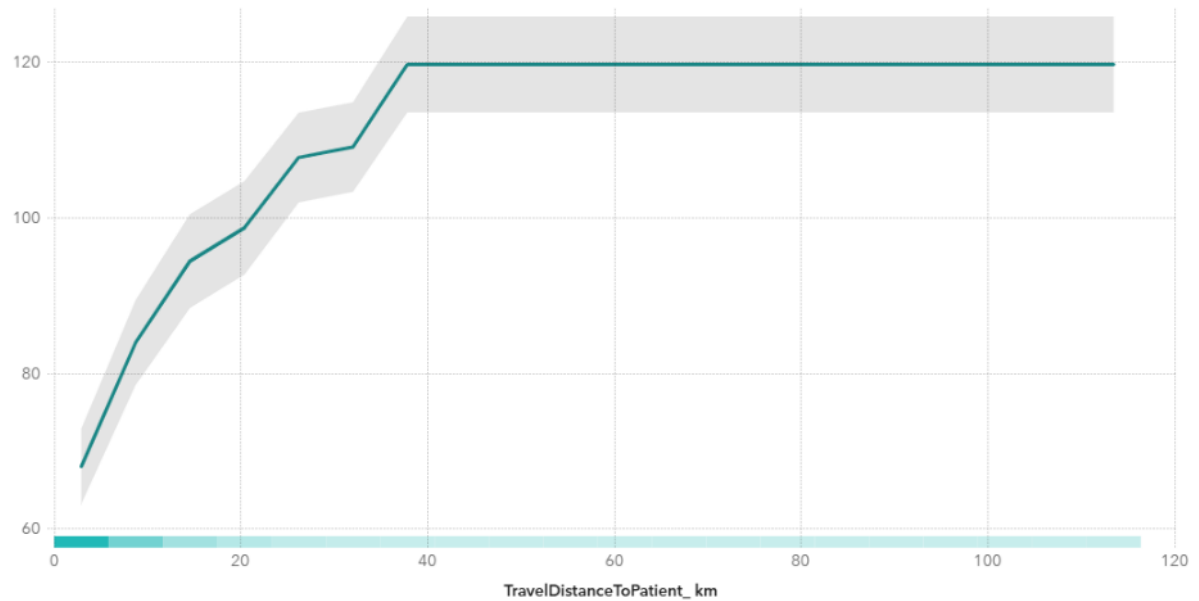
Predicted Value



A.12. TravelDistanceToPatient_km priority level 2

Partial Dependence

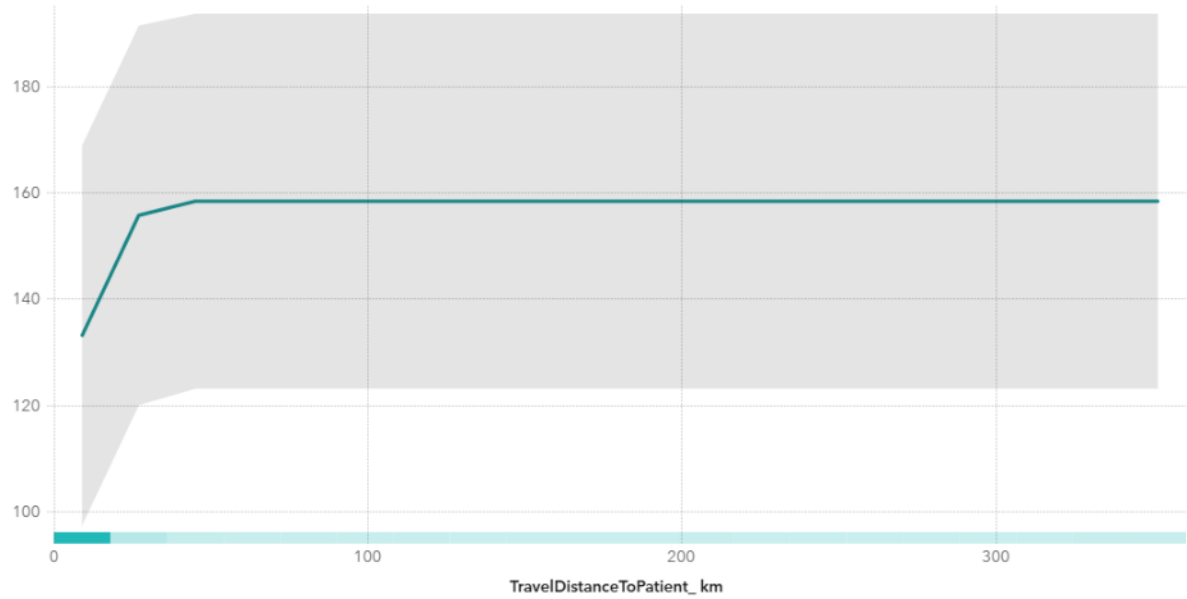
Predicted Value



A.13. TravelDistanceToPatient_km priority level 3

Partial Dependence

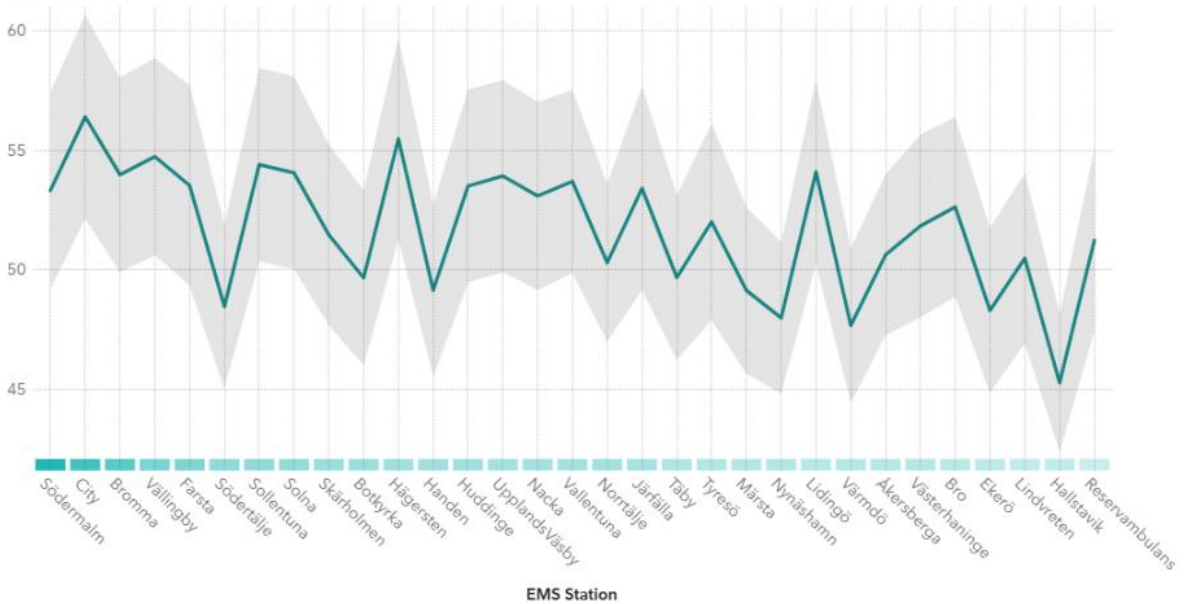
Predicted Value



A.14. Station

Partial Dependence

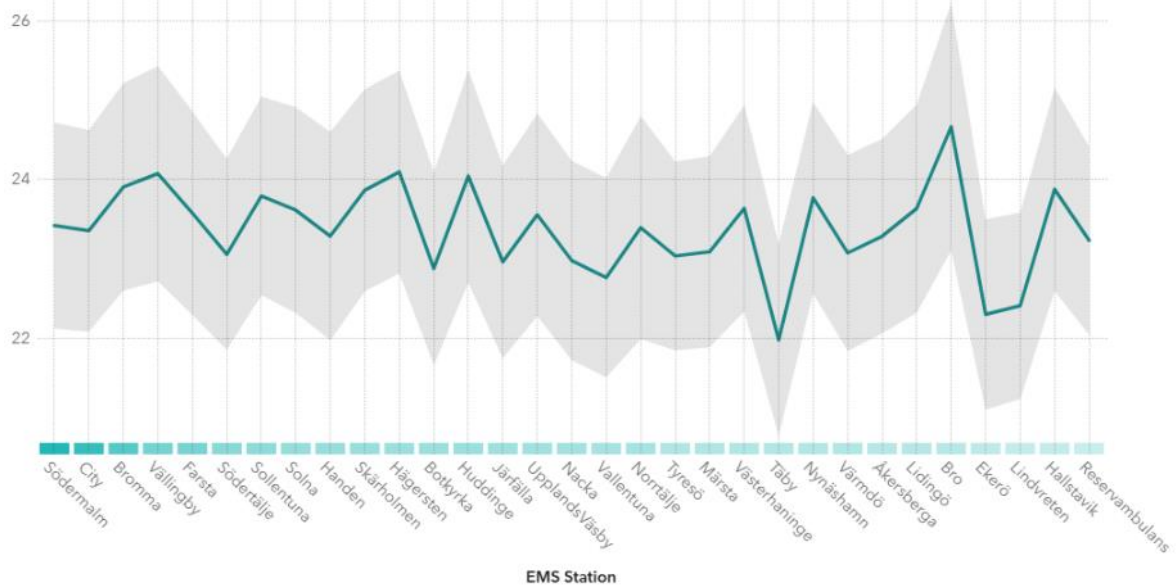
Predicted Value



A.15. Station priority level 1

Partial Dependence

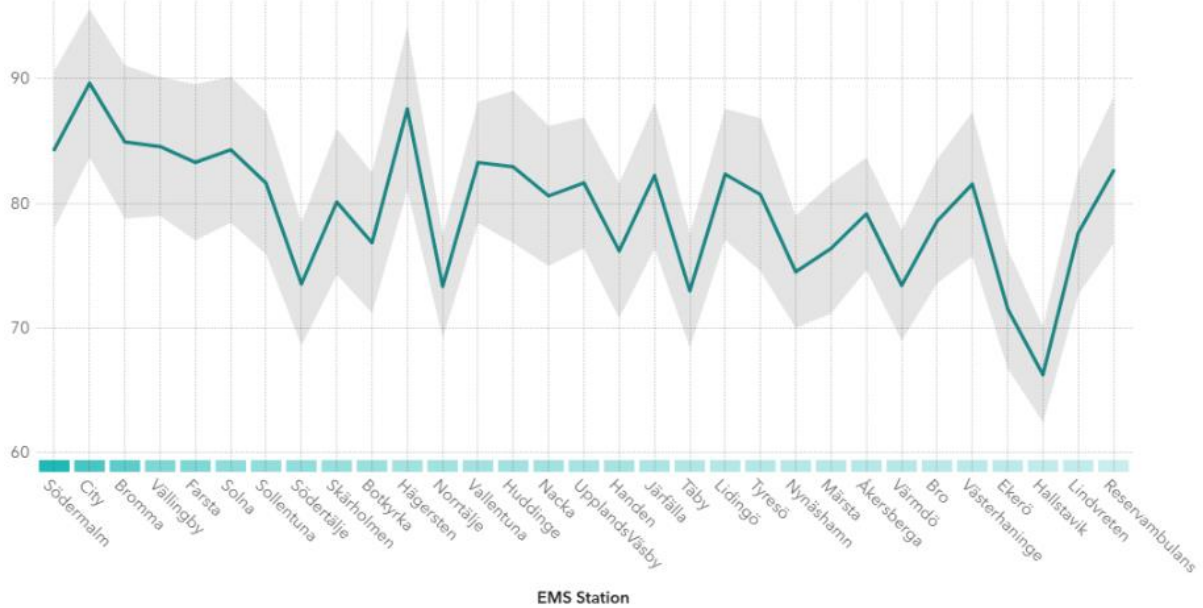
Predicted Value



A.16. Station priority level 2

Partial Dependence

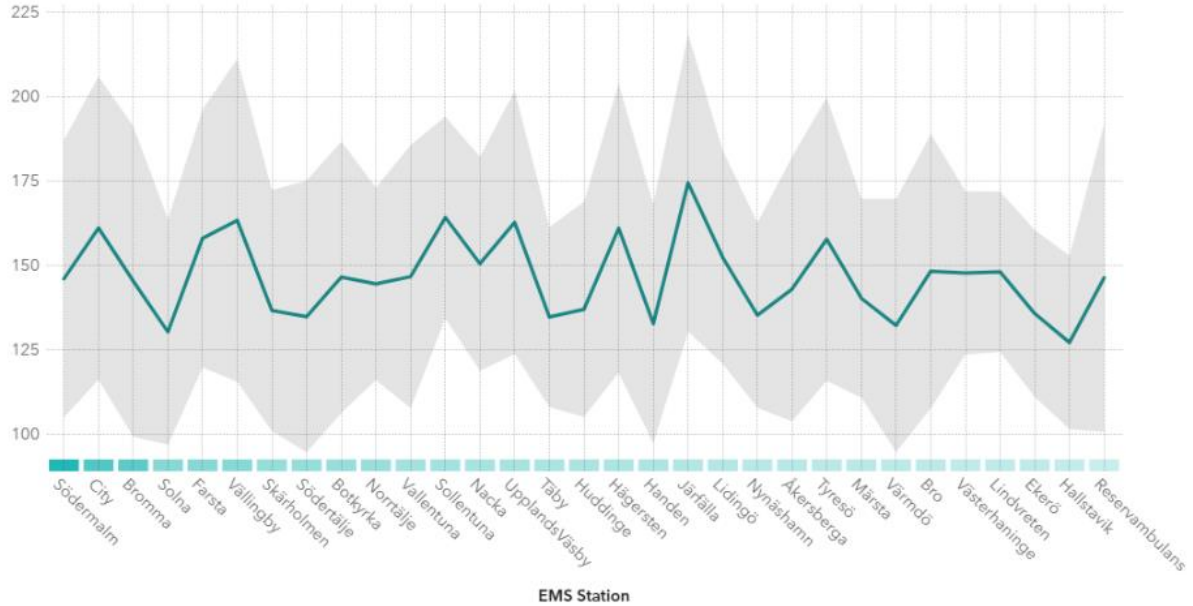
Predicted Value



A.17. Station priority level 3

Partial Dependence

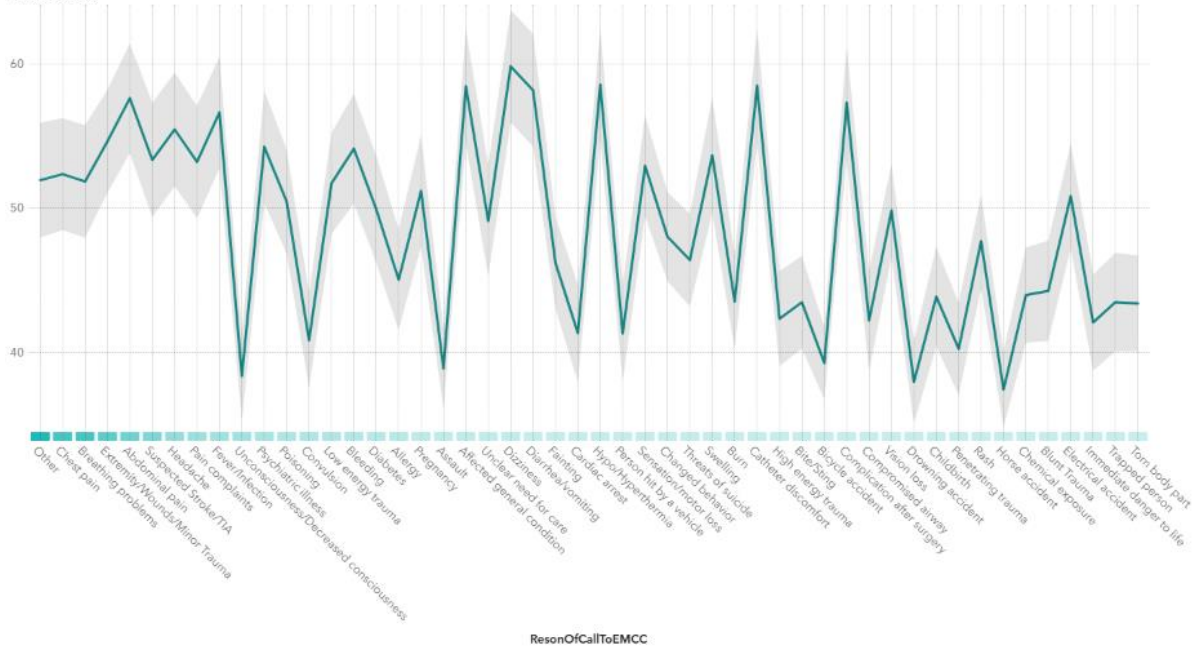
Predicted Value



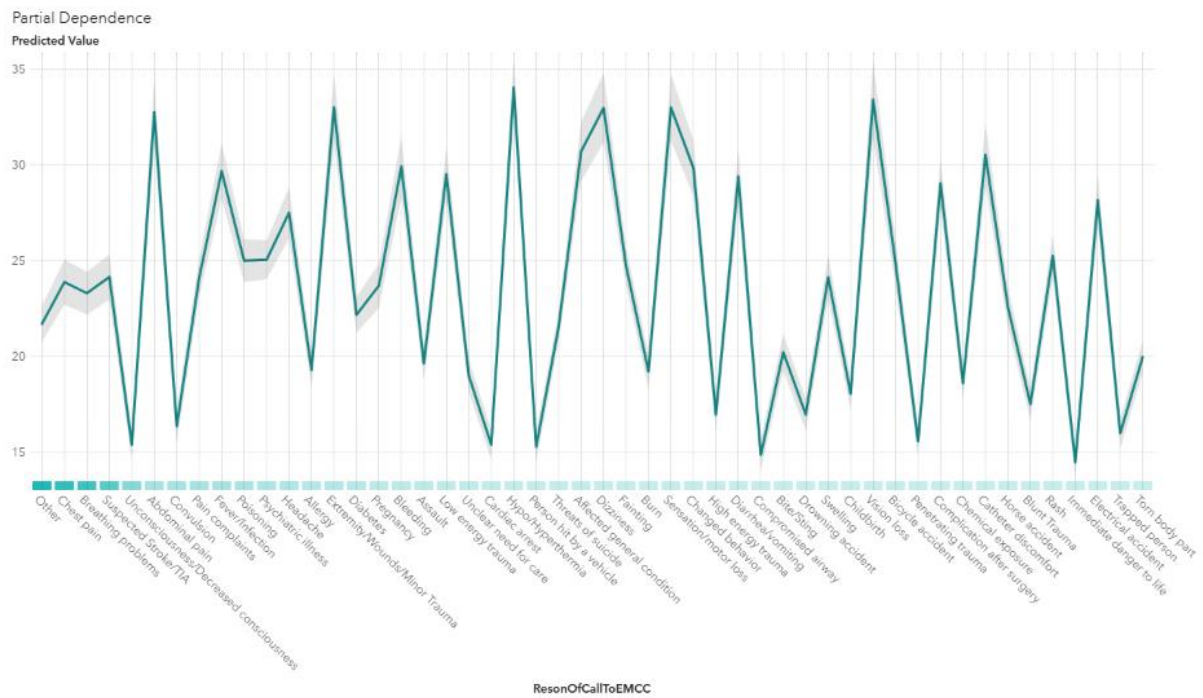
A.18. Reason of Call to EMCC

Partial Dependence

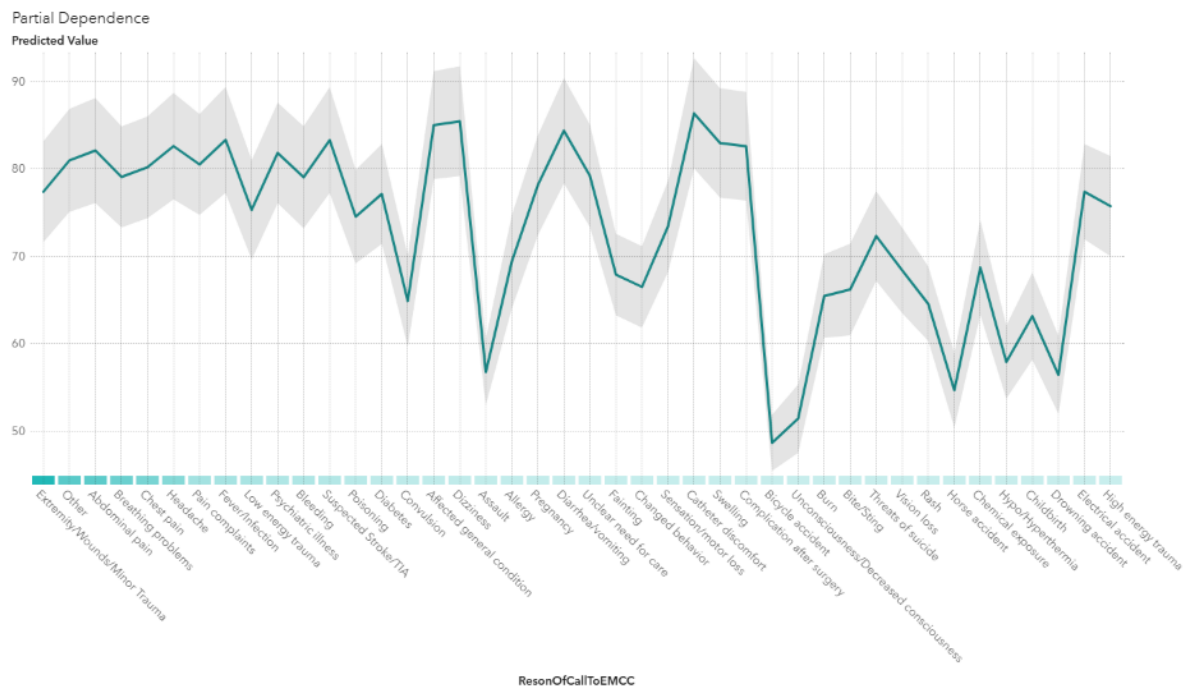
Predicted Value



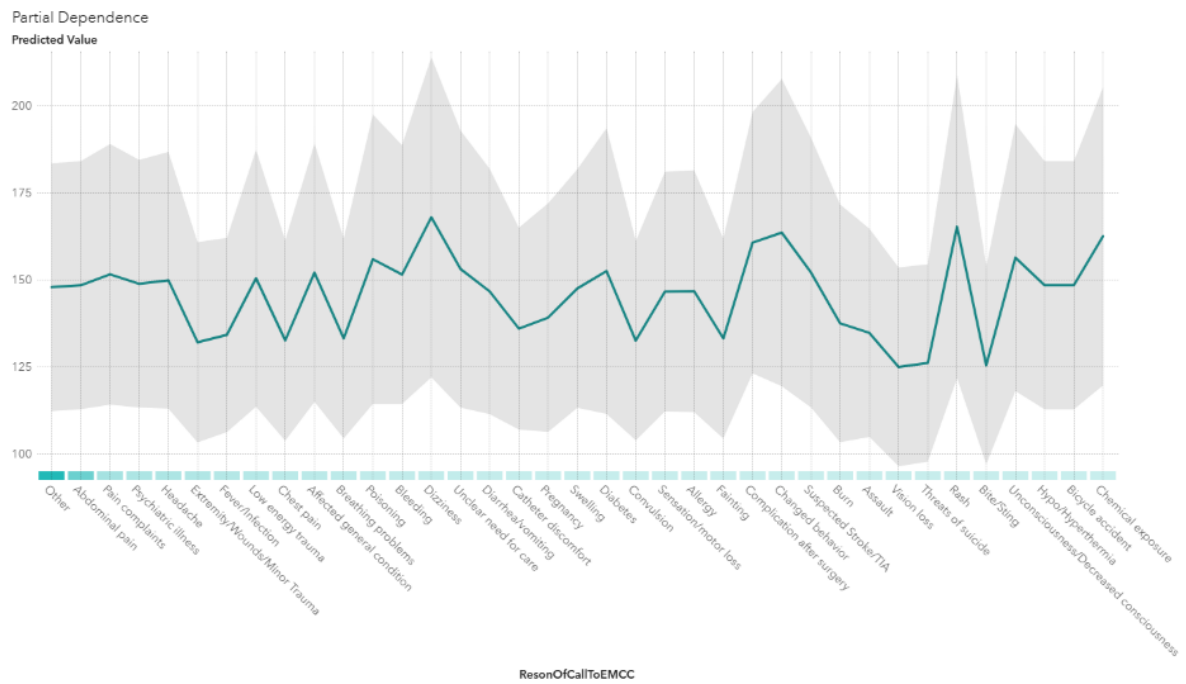
A.19. Reason of Call to EMCC priority level 1



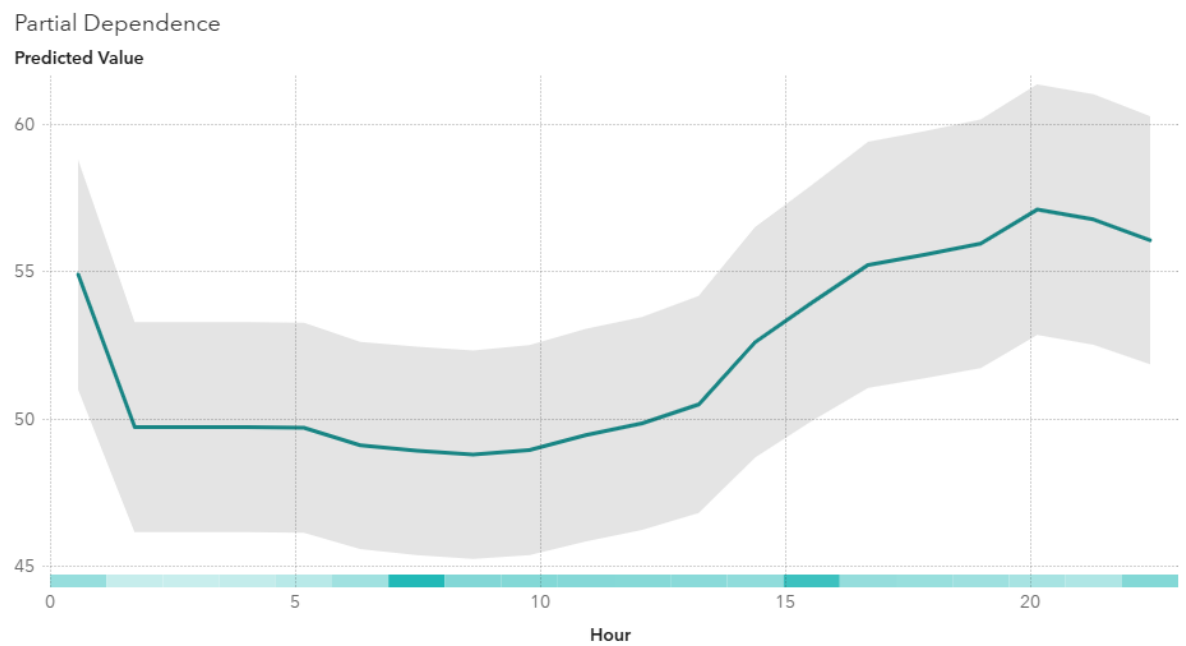
A.20. Reason of Call to EMCC priority level 2



A.21. Reason of Call to EMCC priority level 3



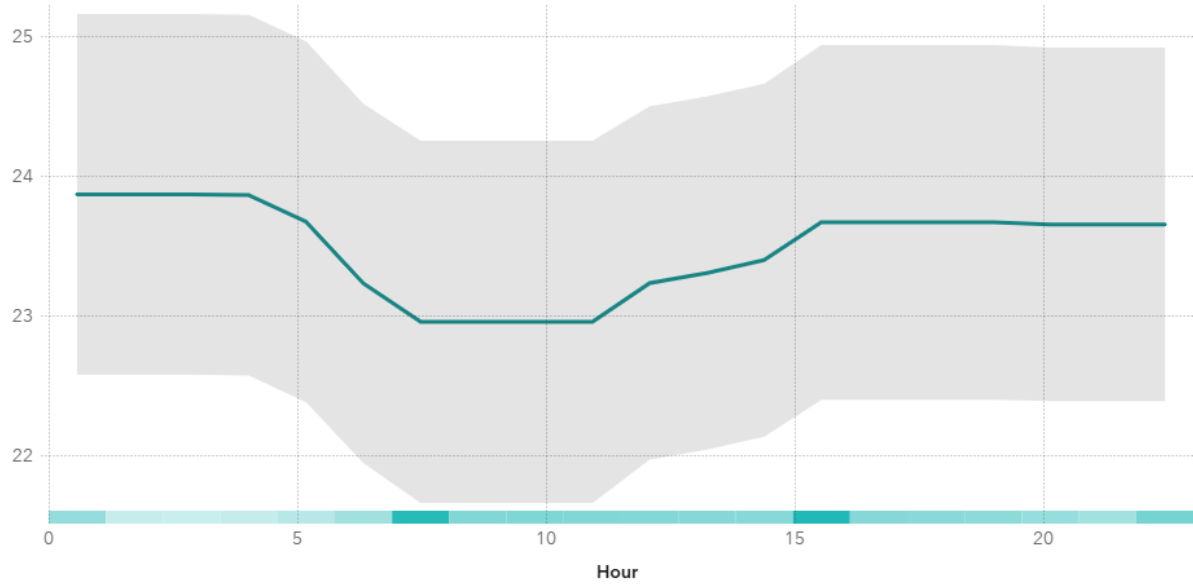
A.22. Hour



A.23. Hour priority level 1

Partial Dependence

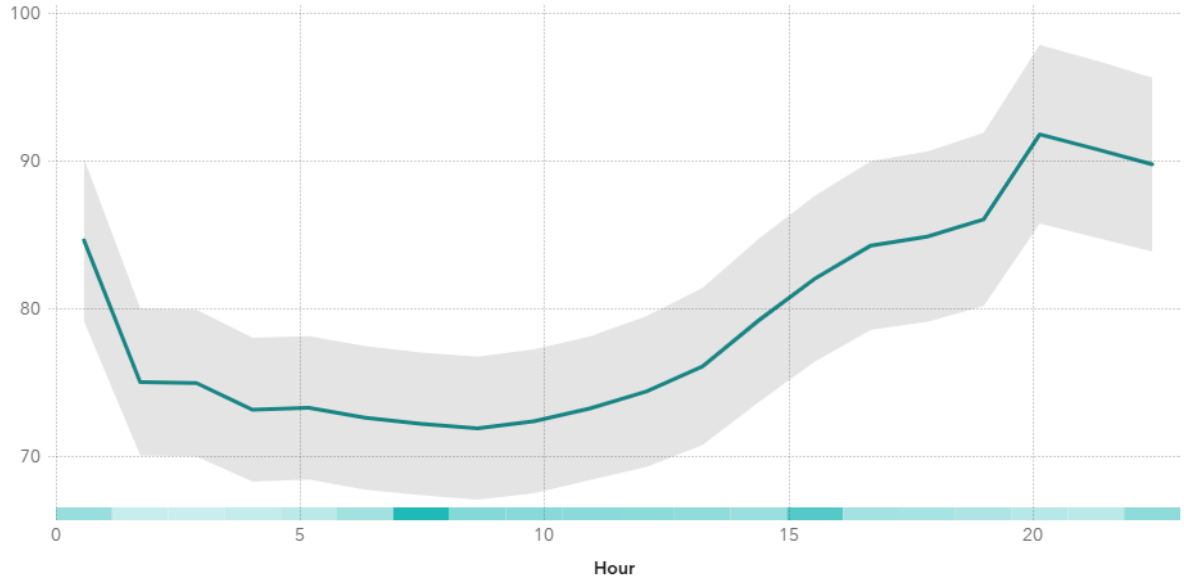
Predicted Value



A.24. Hour priority level 2

Partial Dependence

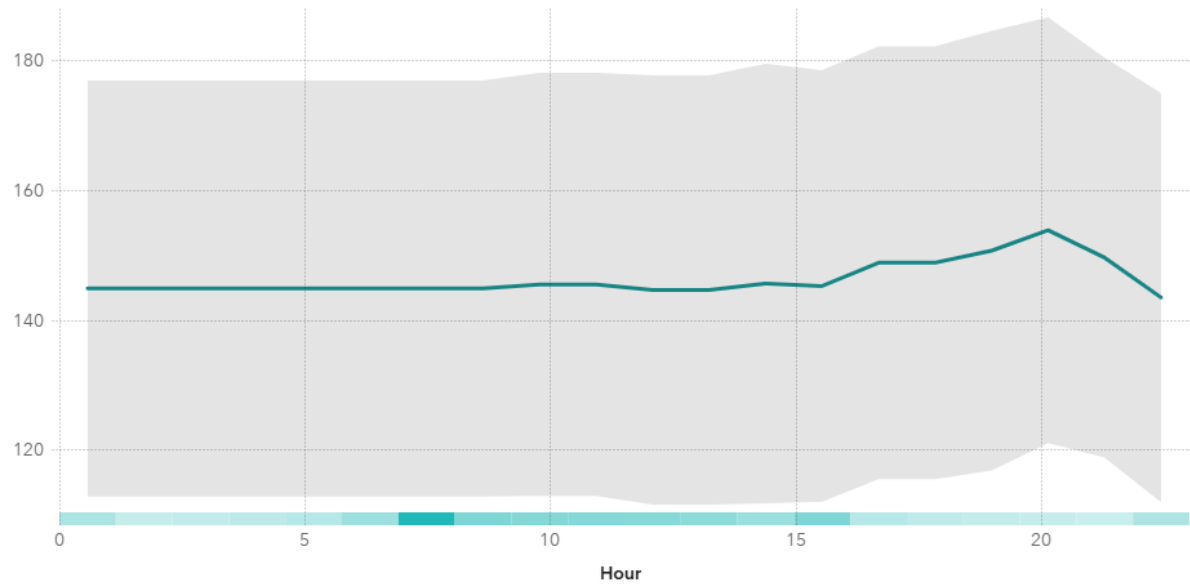
Predicted Value



A.25. Hour priority level 3

Partial Dependence

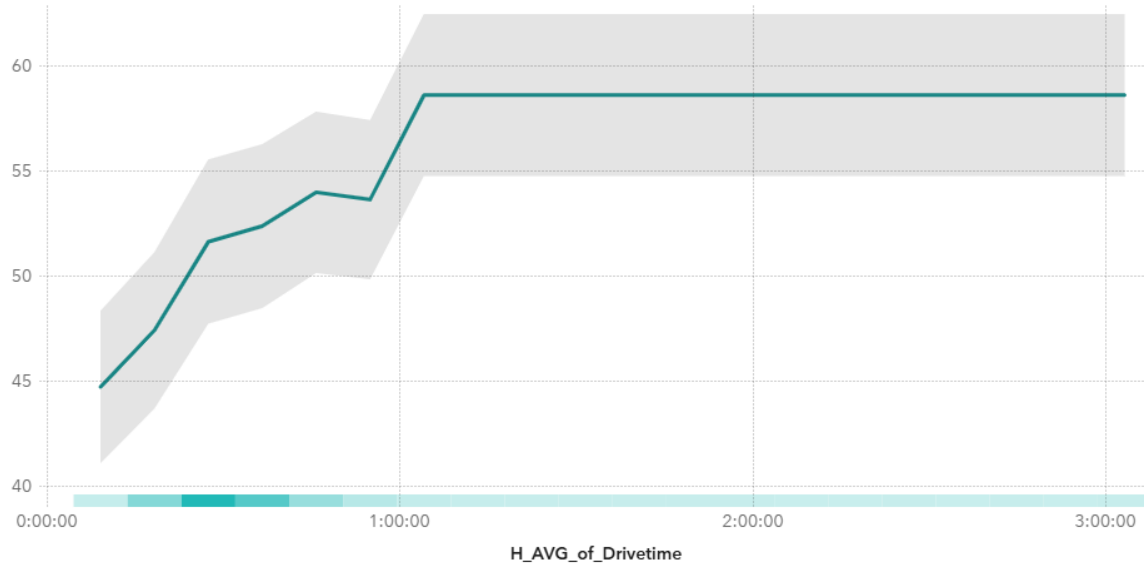
Predicted Value



A.26. H_AVG_of_Drivetime

Partial Dependence

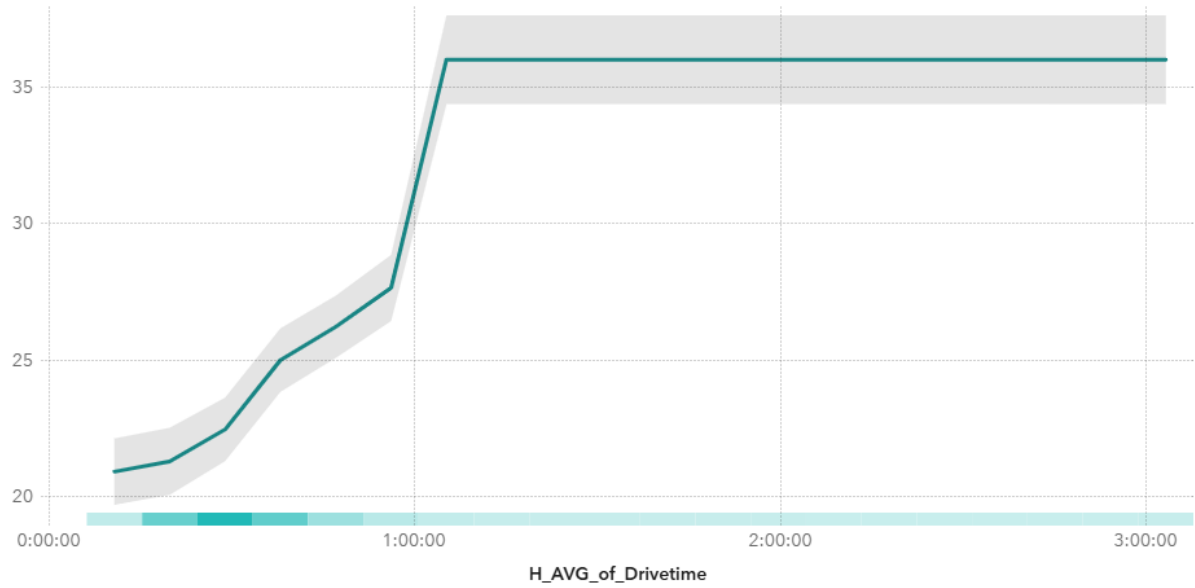
Predicted Value



A.27. H_AVG_of_Drivetime priority level 1

Partial Dependence

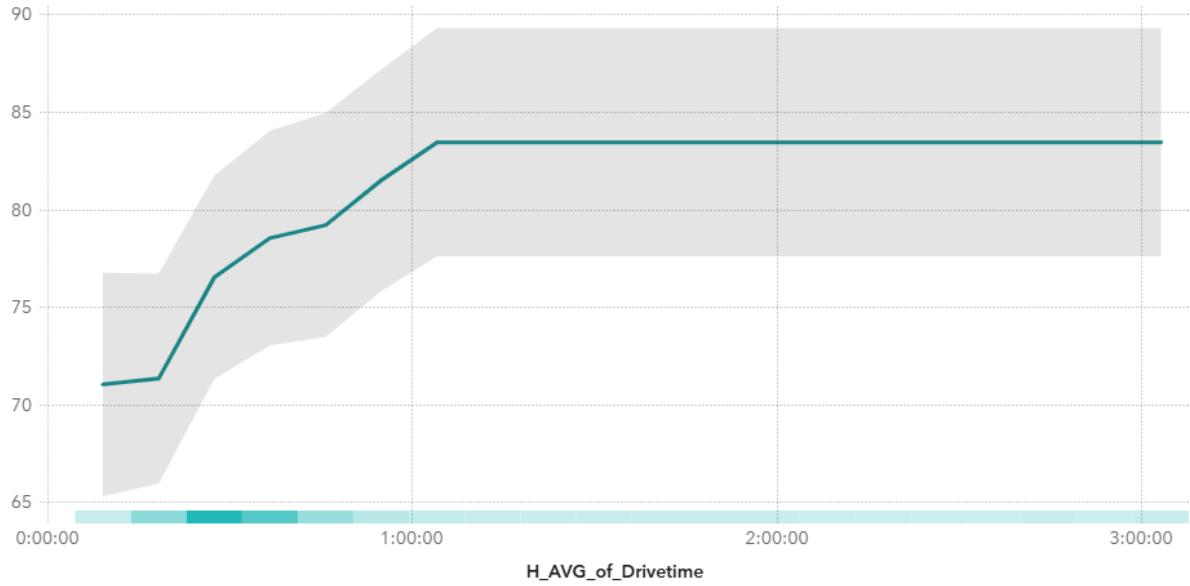
Predicted Value



A.28. H_AVG_of_Drivetime priority level 2

Partial Dependence

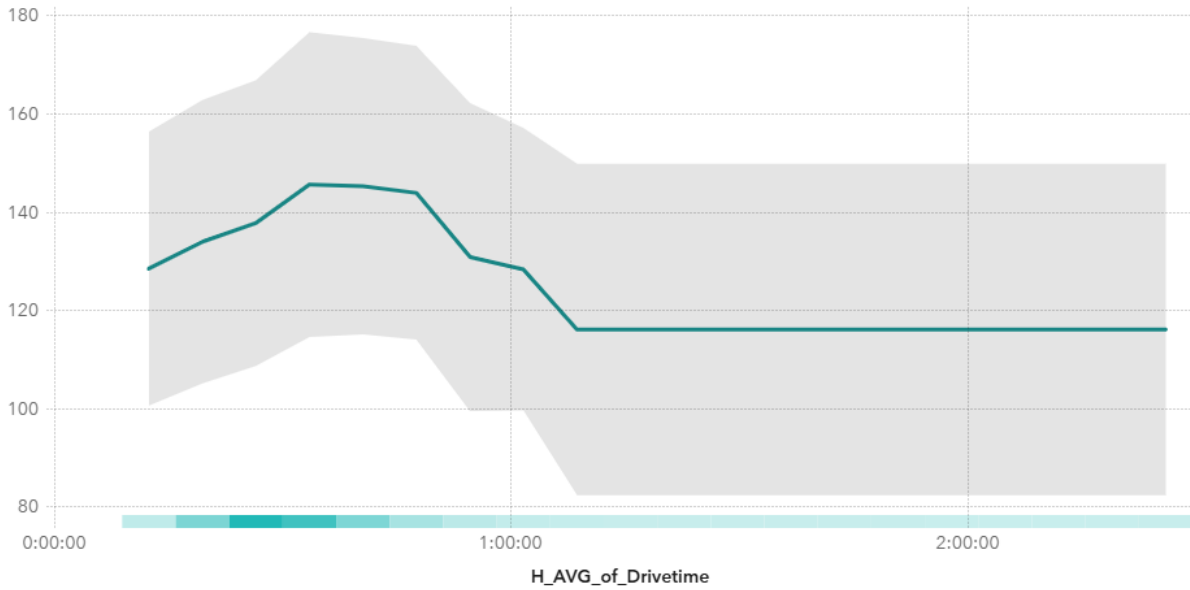
Predicted Value



A.29. H_AVG_of_Drivetime priority level 3

Partial Dependence

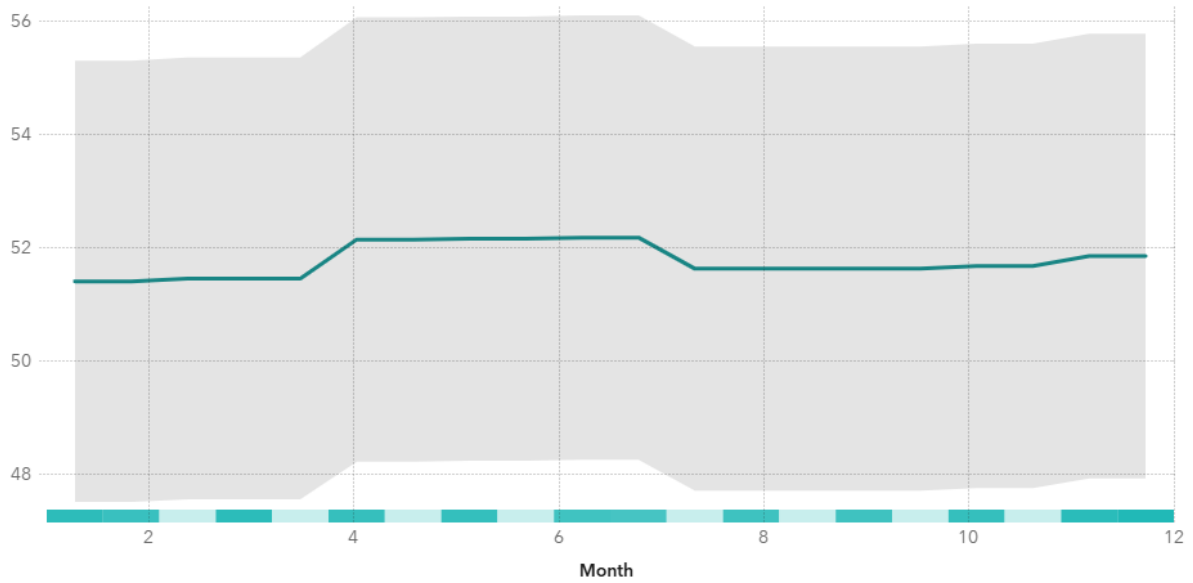
Predicted Value



A.30. Month

Partial Dependence

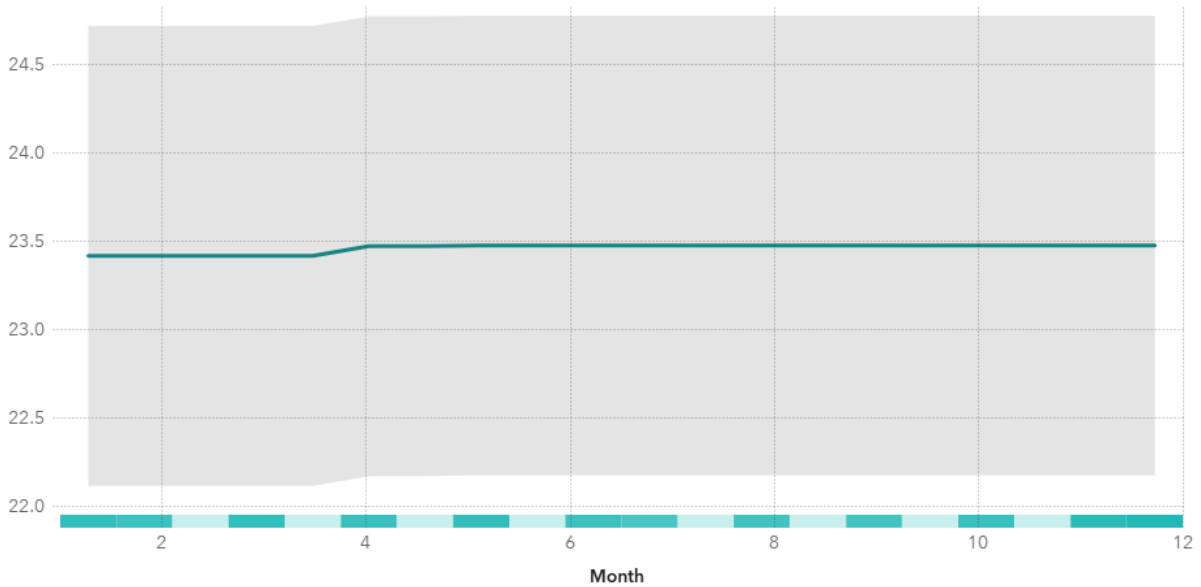
Predicted Value



A.31. Month priority level 1

Partial Dependence

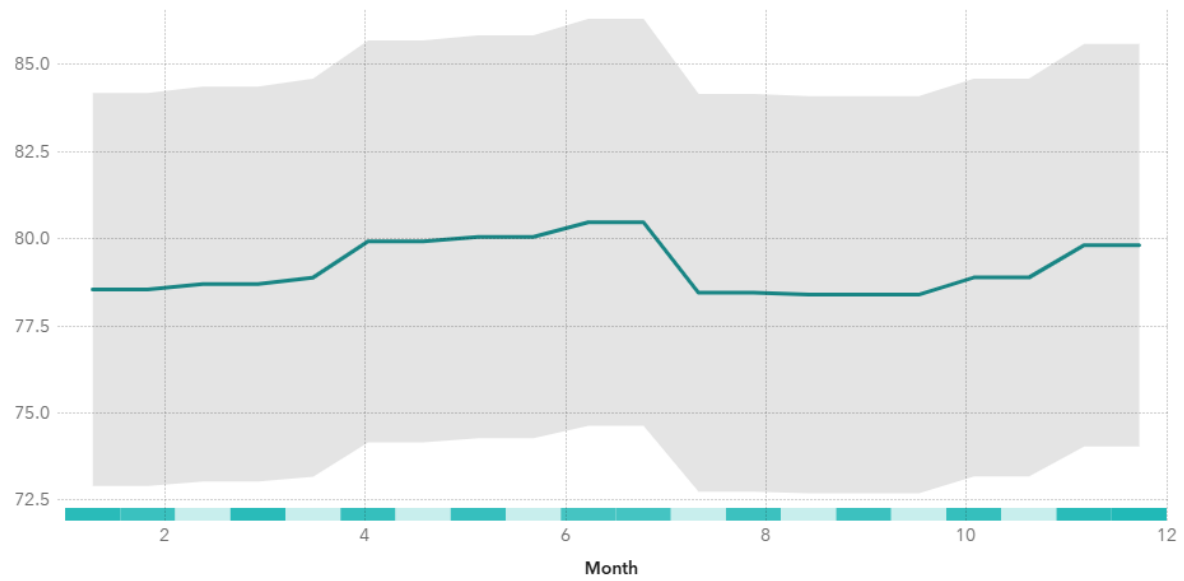
Predicted Value



A.32. Month priority level 2

Partial Dependence

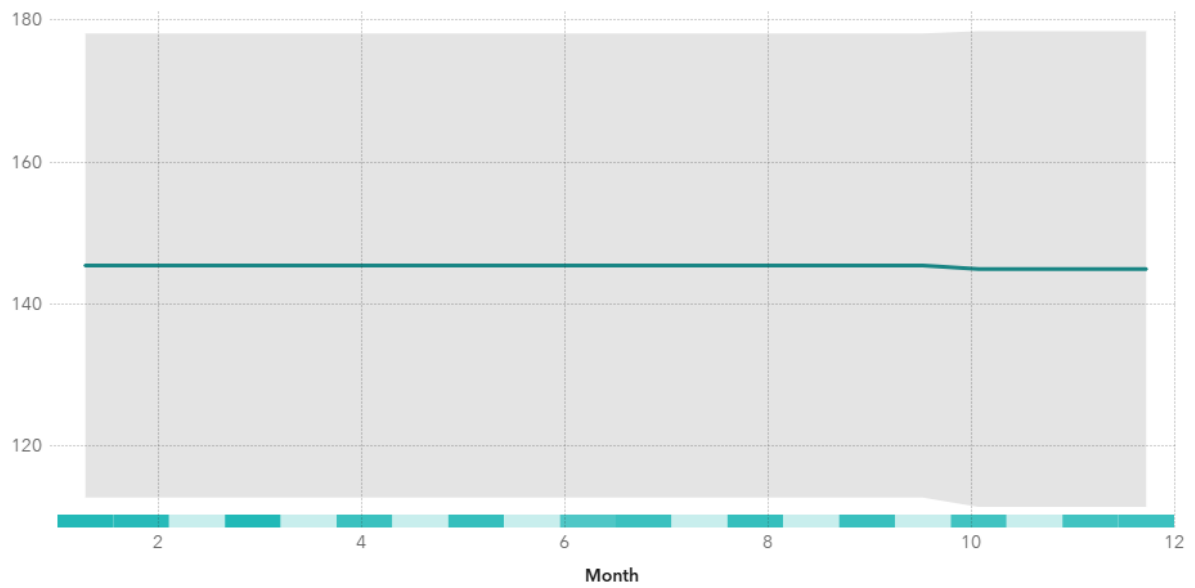
Predicted Value



A.33. Month priority level 3

Partial Dependence

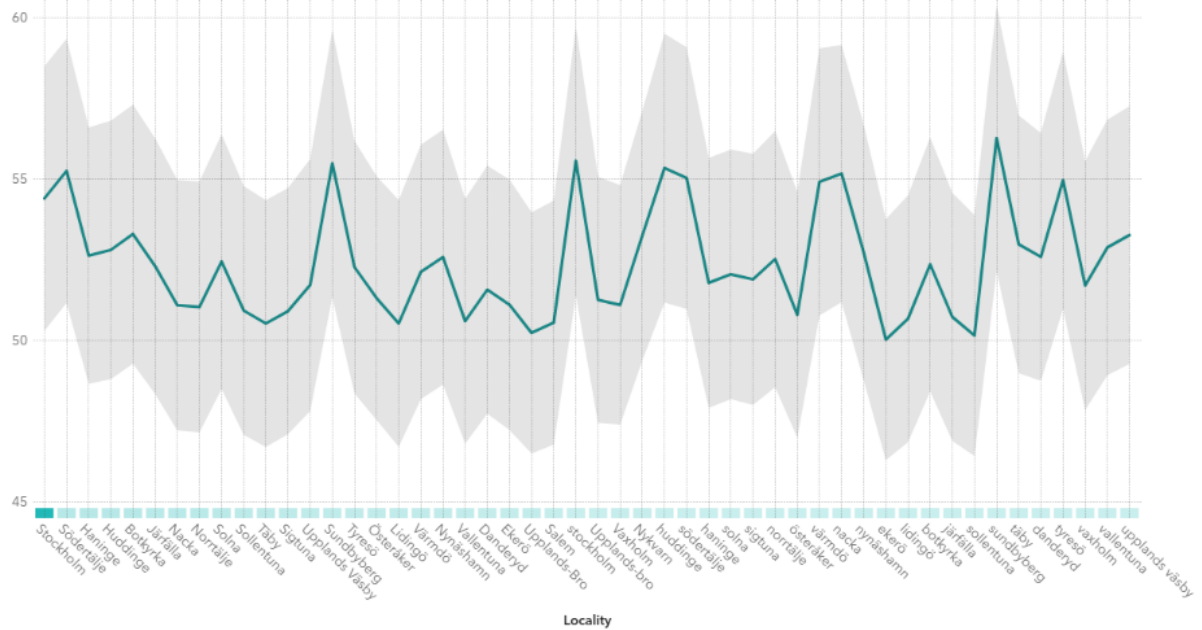
Predicted Value



A.34. Locality

Partial Dependence

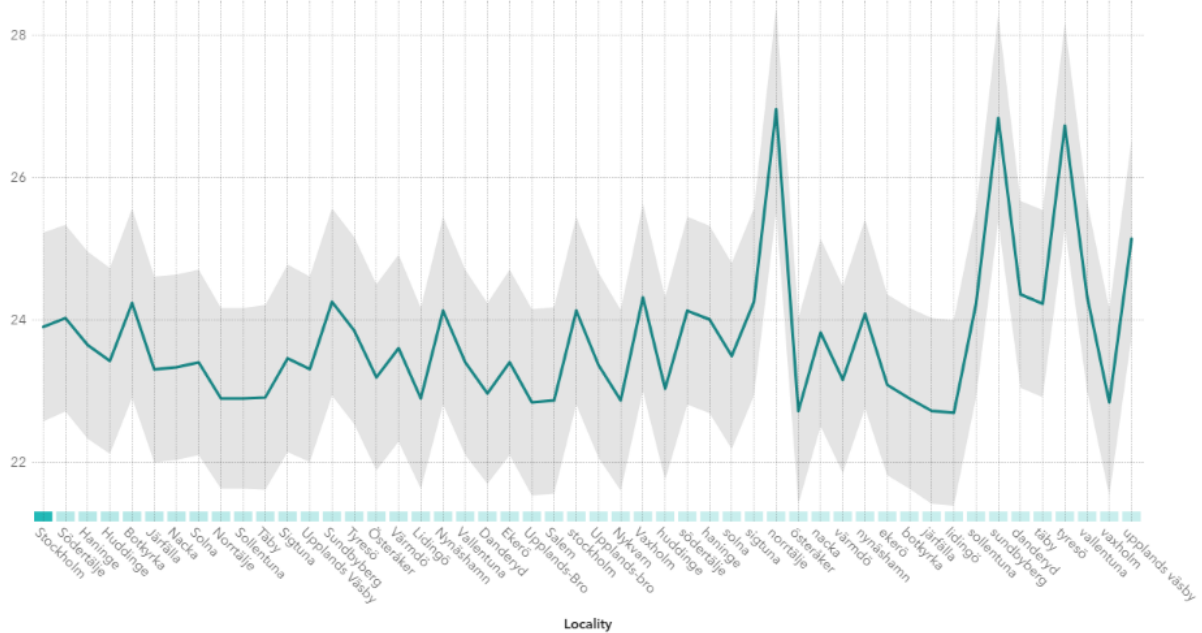
Predicted Value



A.35. Locality priority level 1

Partial Dependence

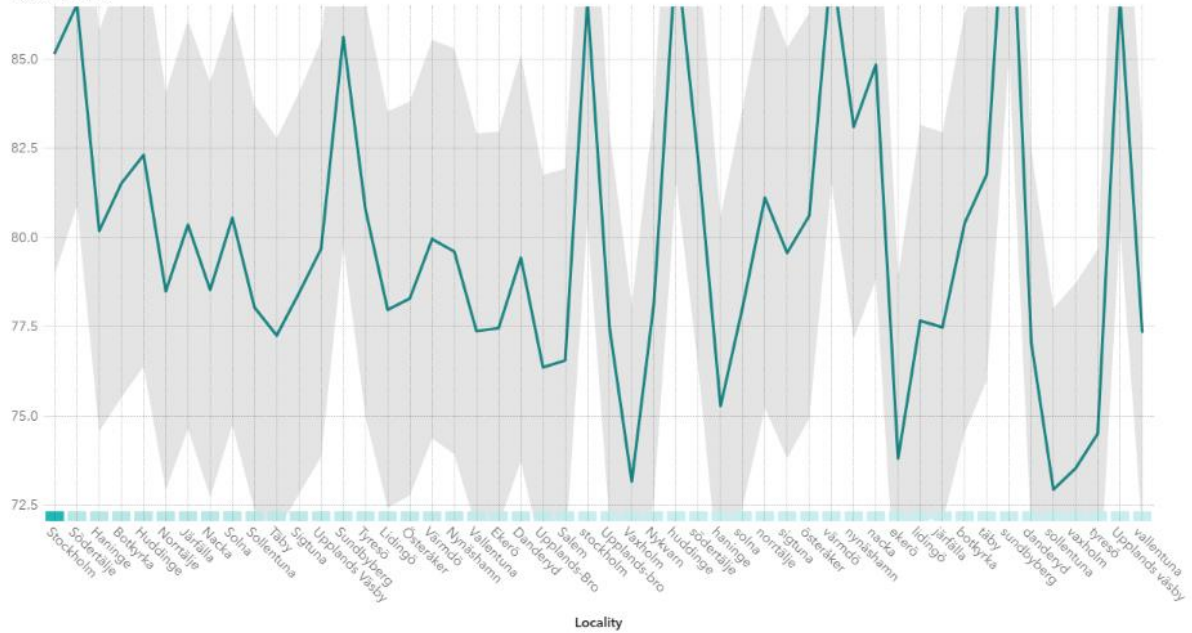
Predicted Value



A.36. Locality priority level 2

Partial Dependence

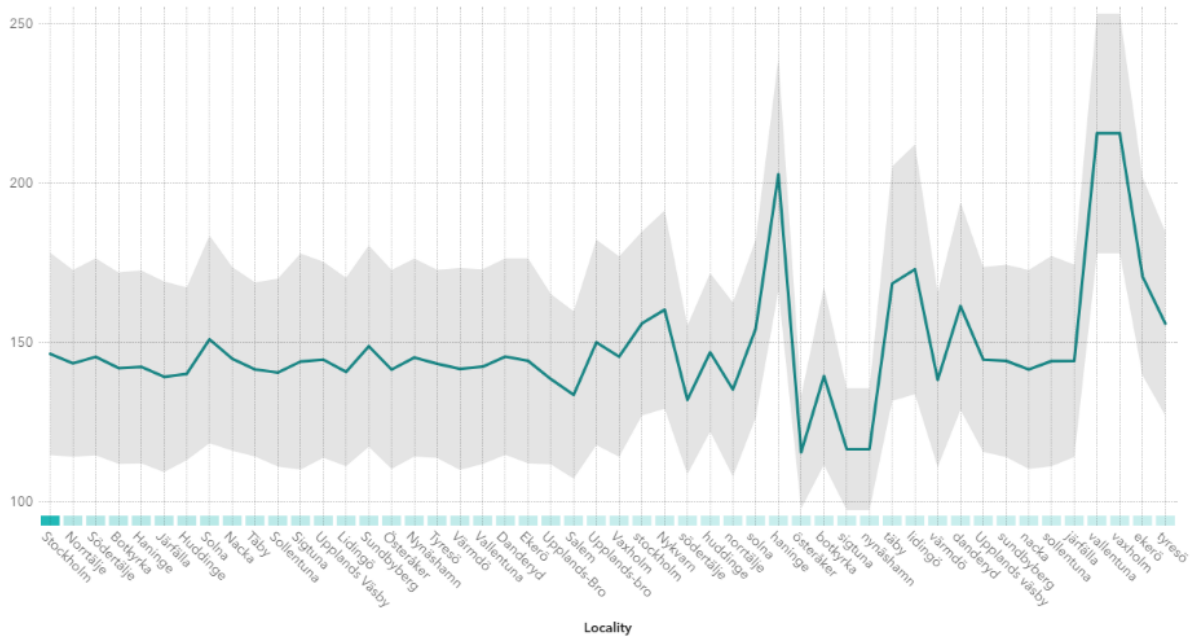
Predicted Value



A.37. Locality priority level 3

Partial Dependence

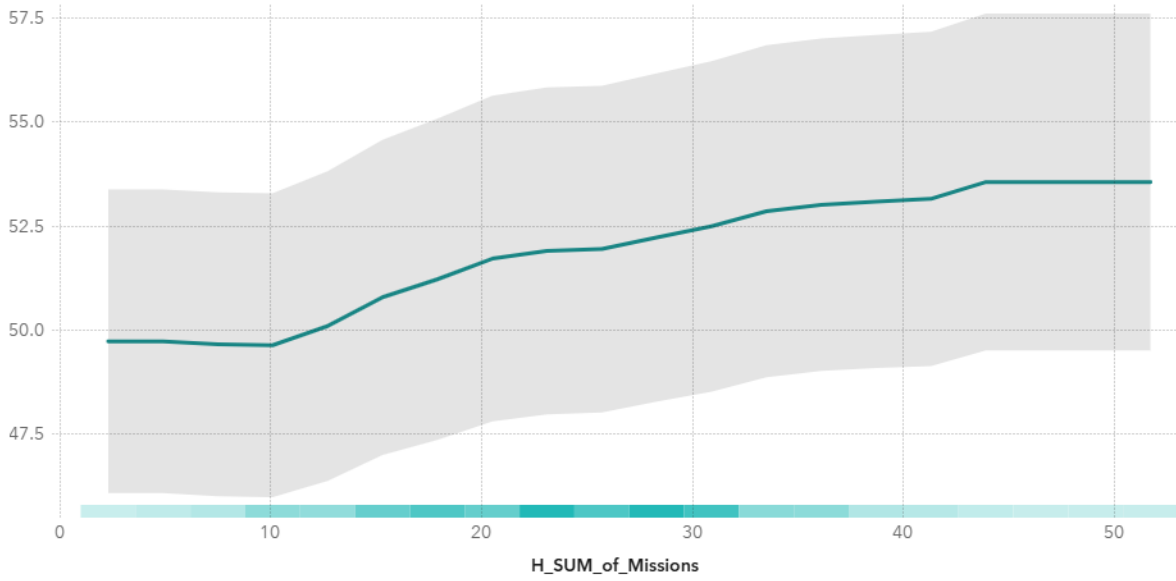
Predicted Value



A.38. H_SUM_of_Missions

Partial Dependence

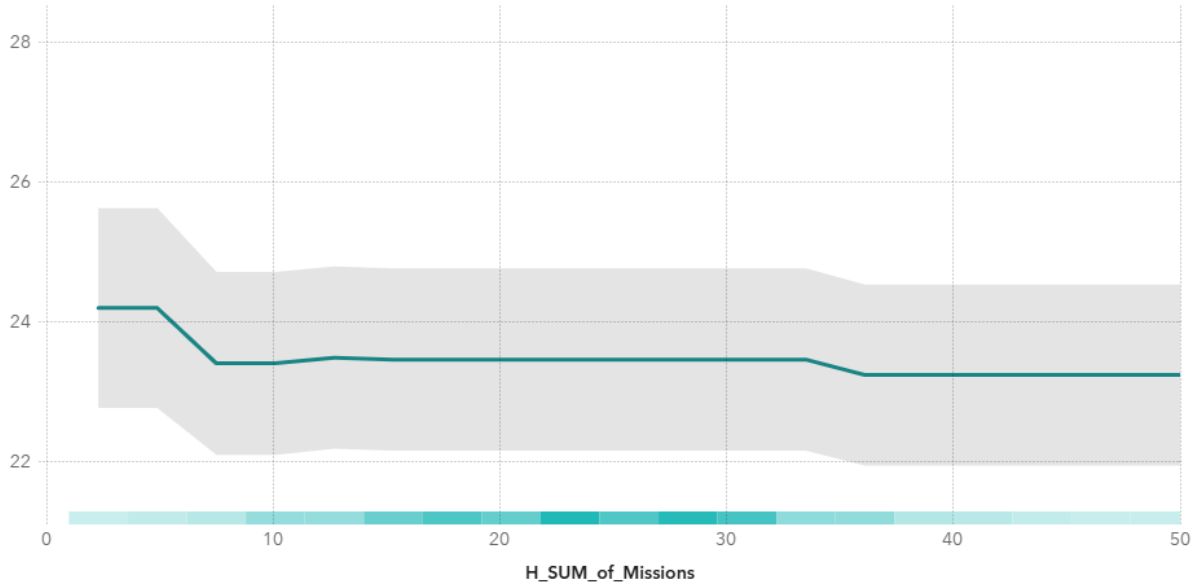
Predicted Value



A.39. H_SUM_of_Missions priority level 1

Partial Dependence

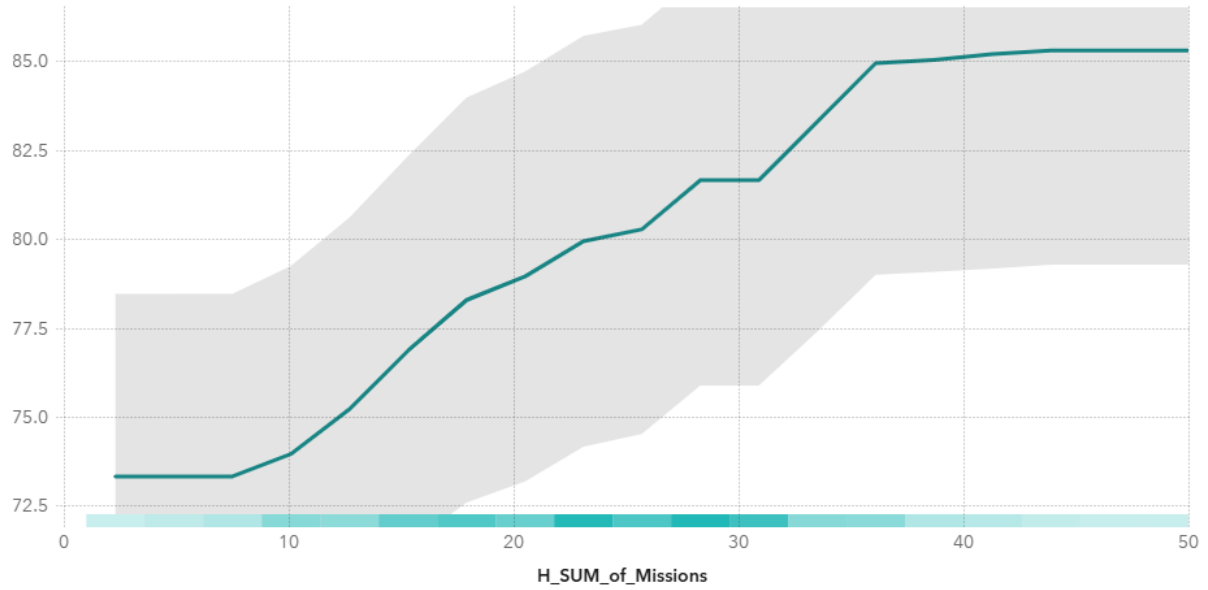
Predicted Value



A.40. H_SUM_of_Missions priority level 2

Partial Dependence

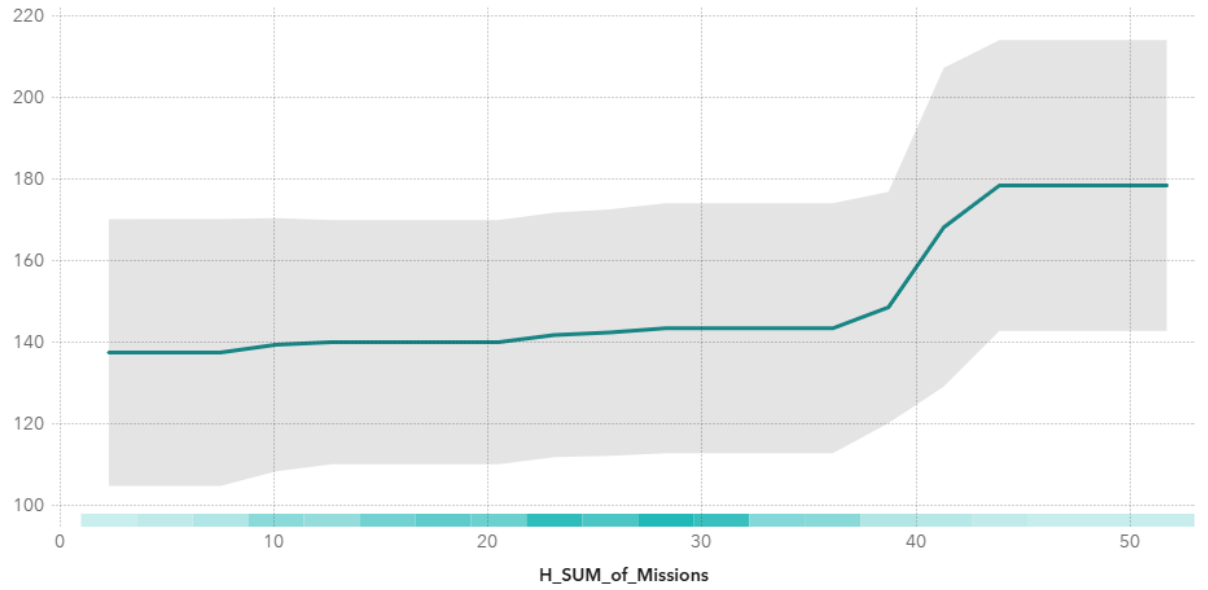
Predicted Value



A.41. H_SUM_of_Missions priority level 3

Partial Dependence

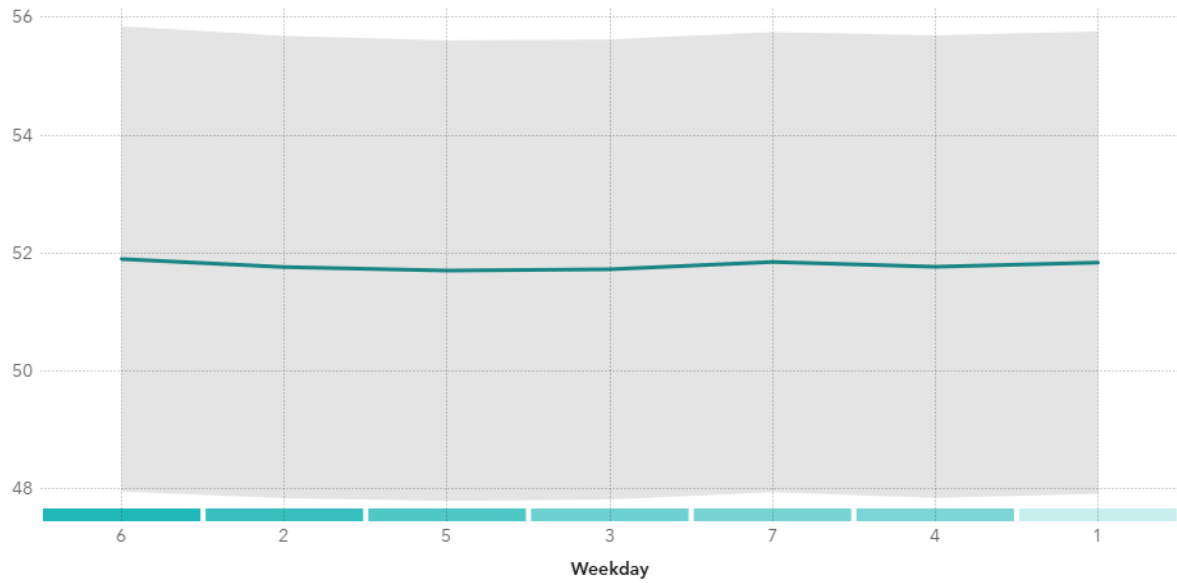
Predicted Value



A.42. Weekday

Partial Dependence

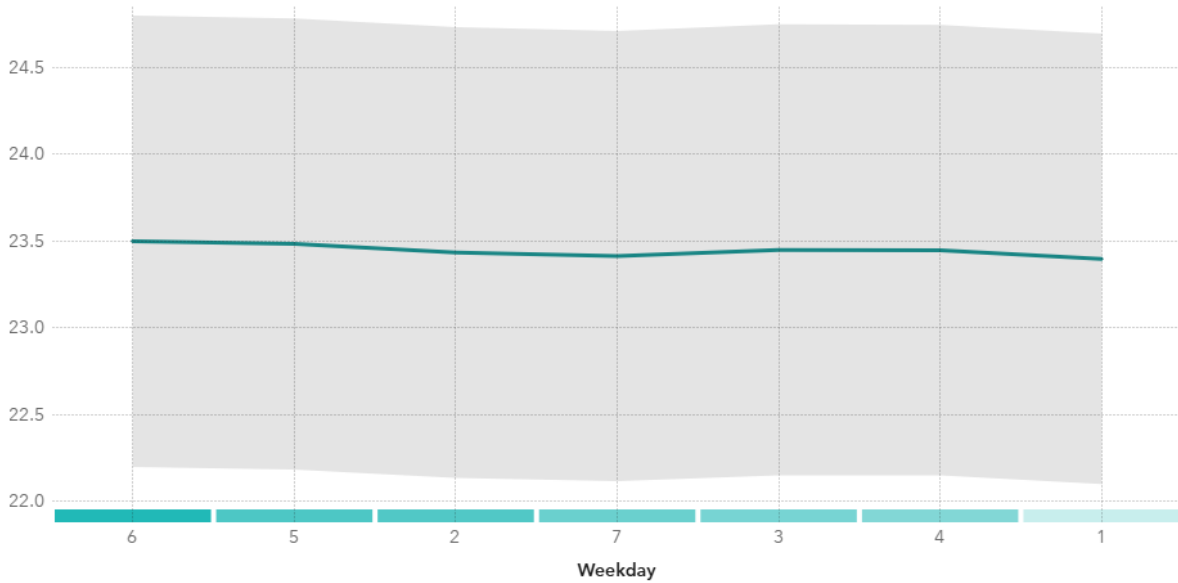
Predicted Value



A.43. Weekday priority level 1

Partial Dependence

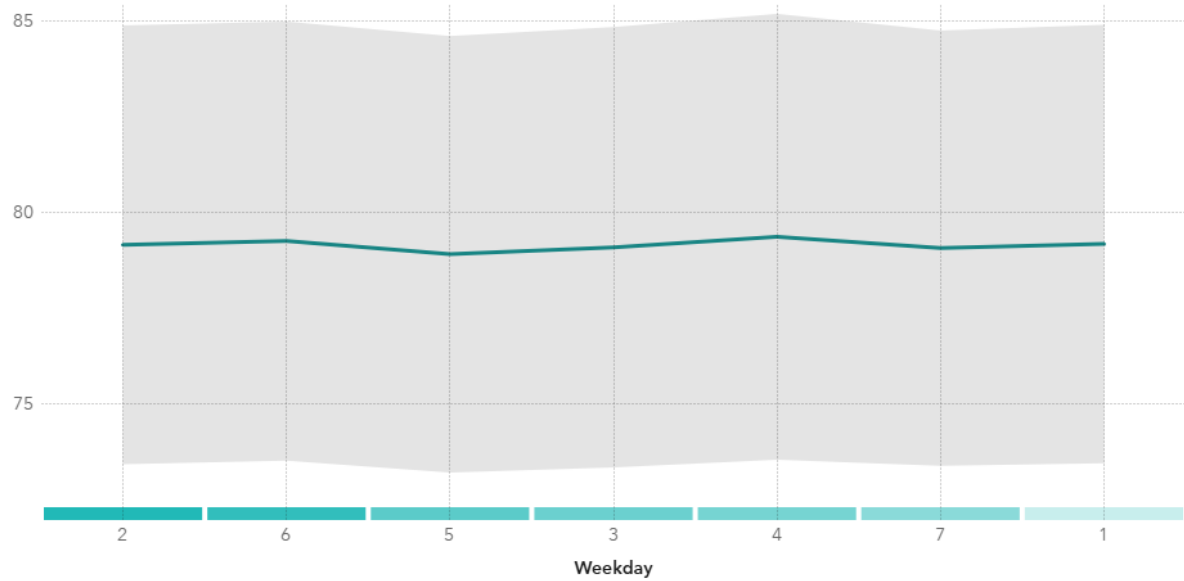
Predicted Value



A.44. Weekday priority level 2

Partial Dependence

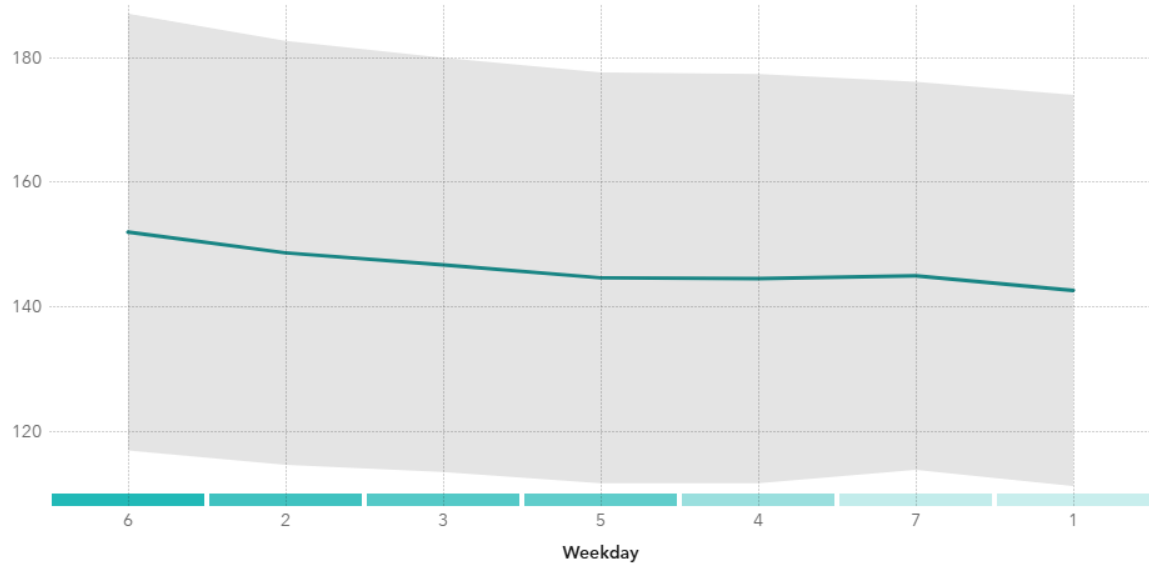
Predicted Value



A.45. Weekday priority level 3

Partial Dependence

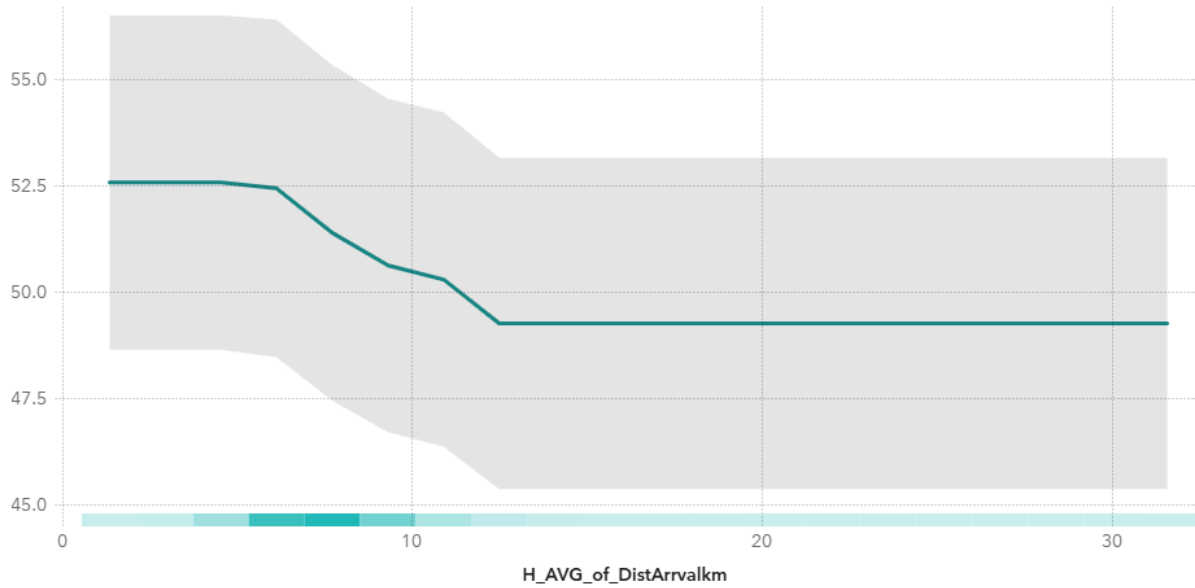
Predicted Value



A.46. H_AVG_of_DistArrivalkm

Partial Dependence

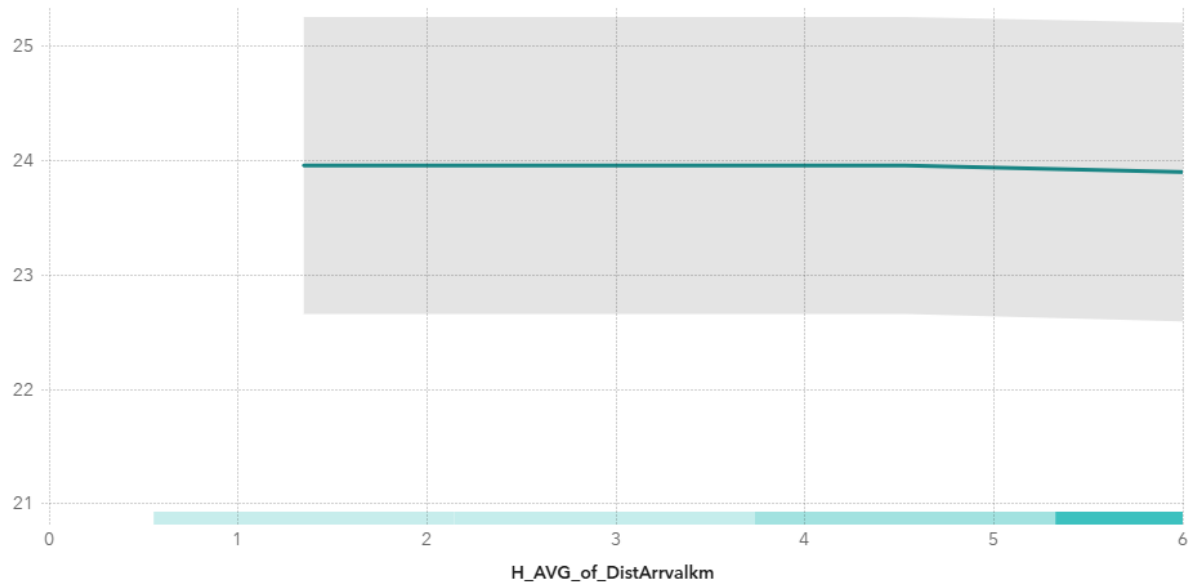
Predicted Value



A.47. H_AVG_of_DistArrivalkm priority level 1

Partial Dependence

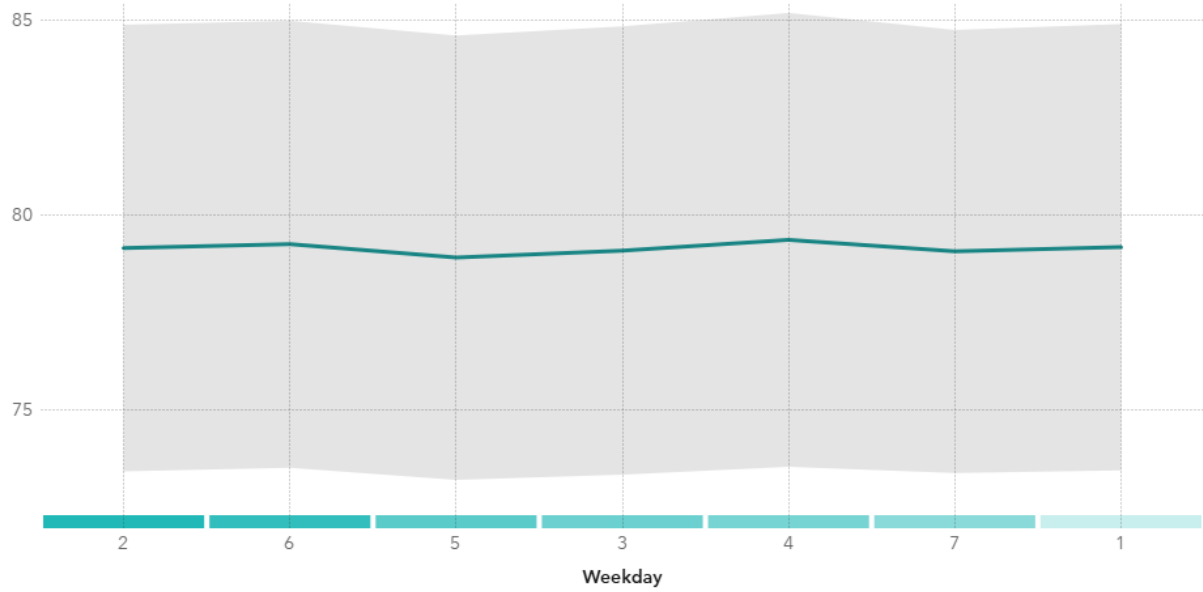
Predicted Value



A.48. H_AVG_of_DistArrivalkm priority level 2

Partial Dependence

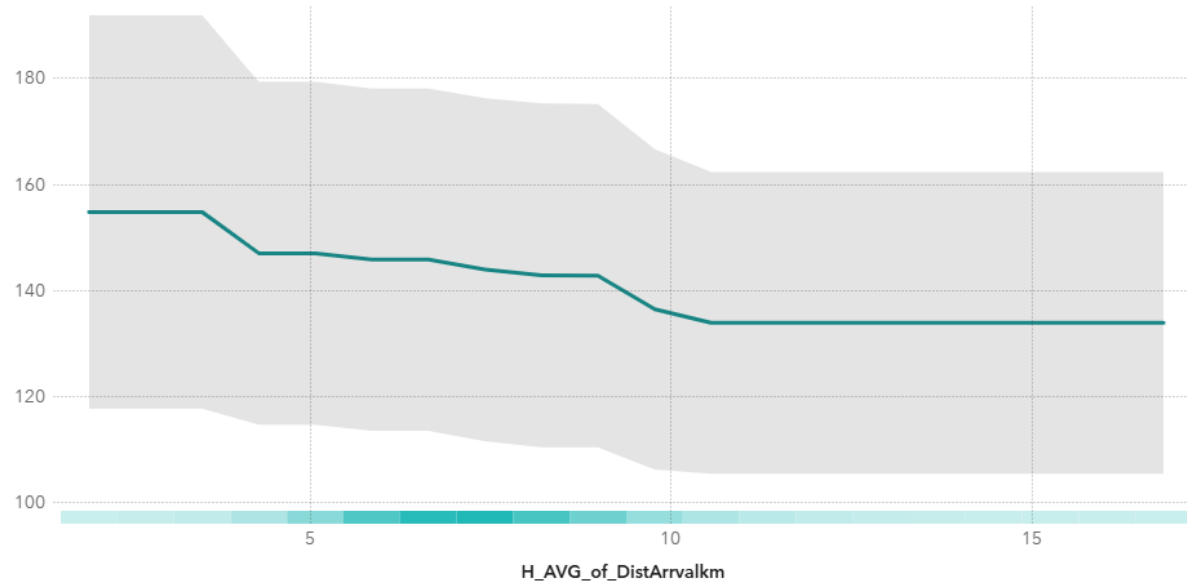
Predicted Value



A.49. H_AVG_of_DistArrivalkm priority level 3

Partial Dependence

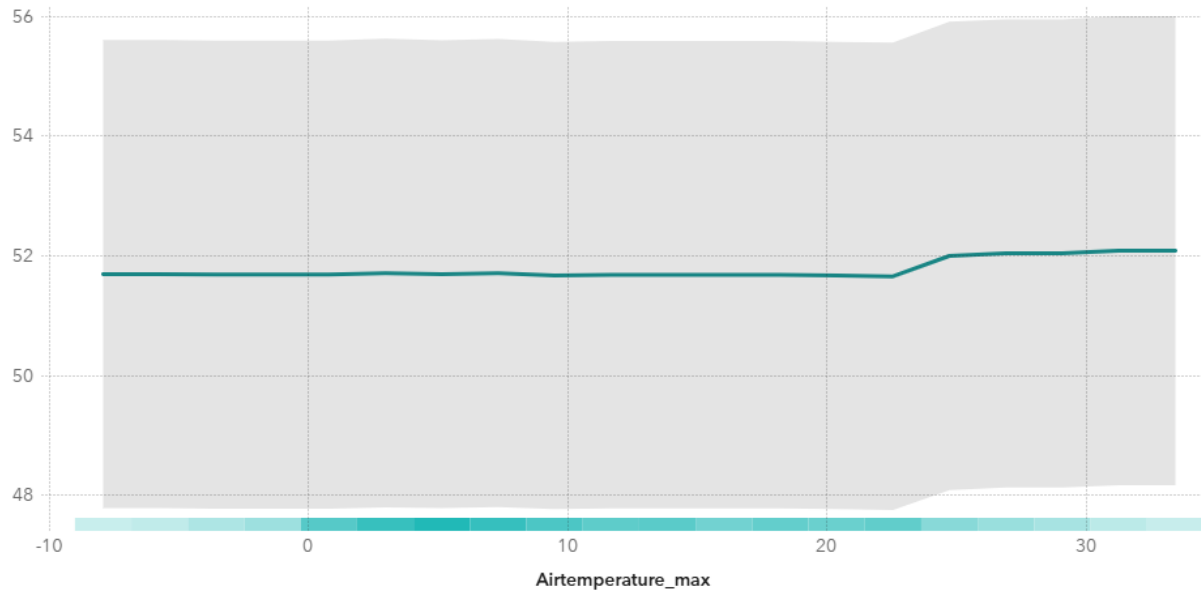
Predicted Value



A.50. Airtemperature_max

Partial Dependence

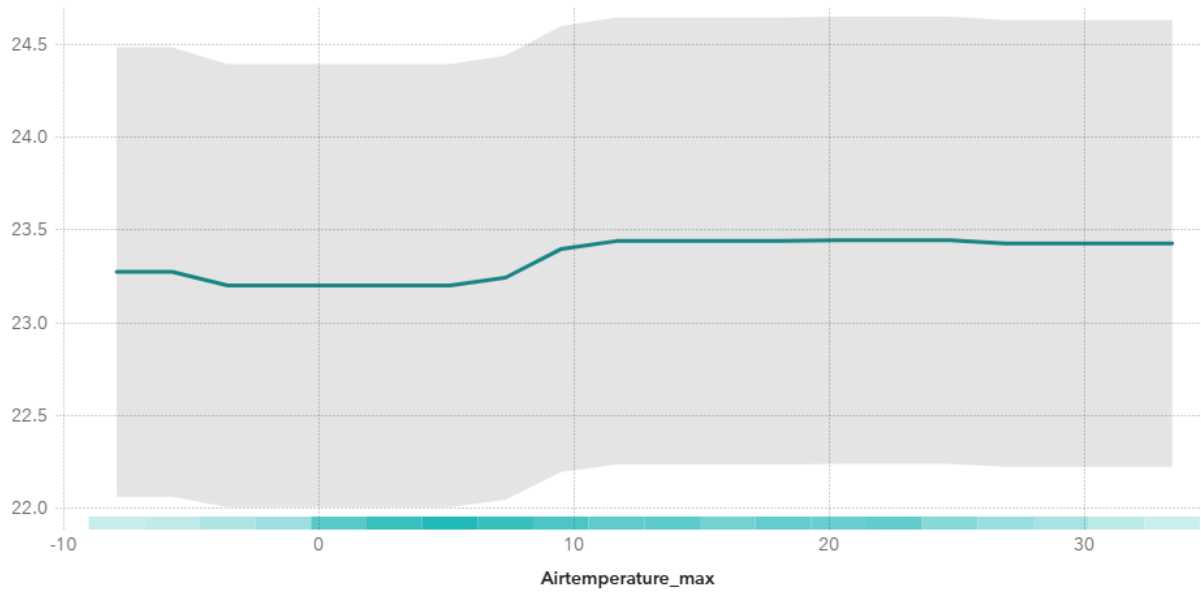
Predicted Value



A.51. Airtemperature_max priority level 1

Partial Dependence

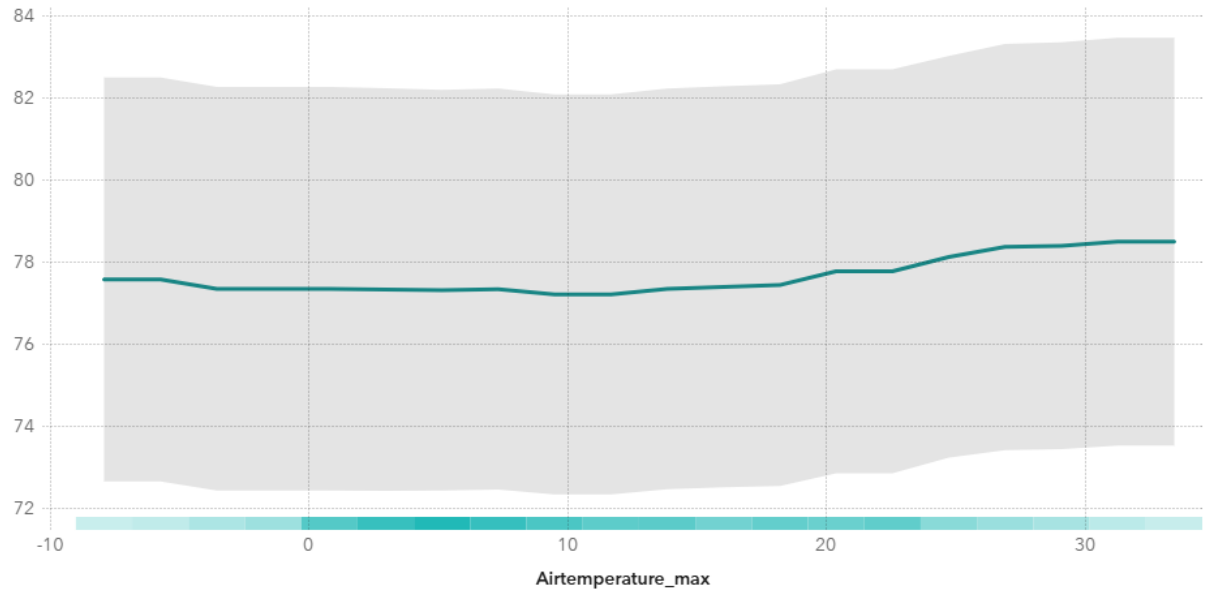
Predicted Value



A.52. Airtemperature_max priority level 2

Partial Dependence

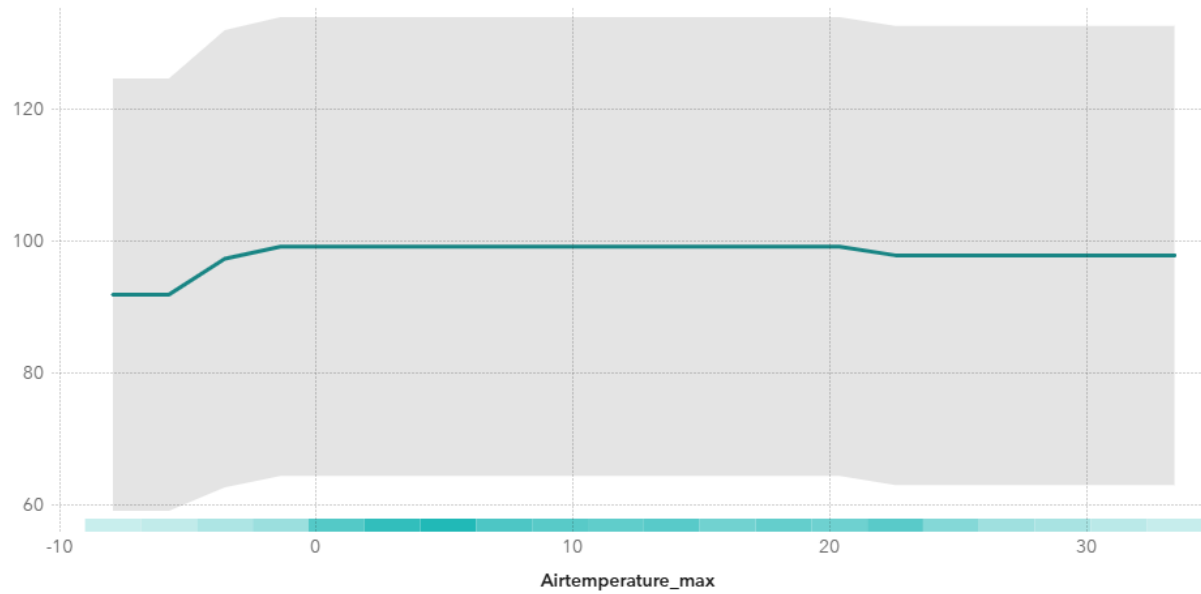
Predicted Value



A.53. Airtemperature_max priority level 3

Partial Dependence

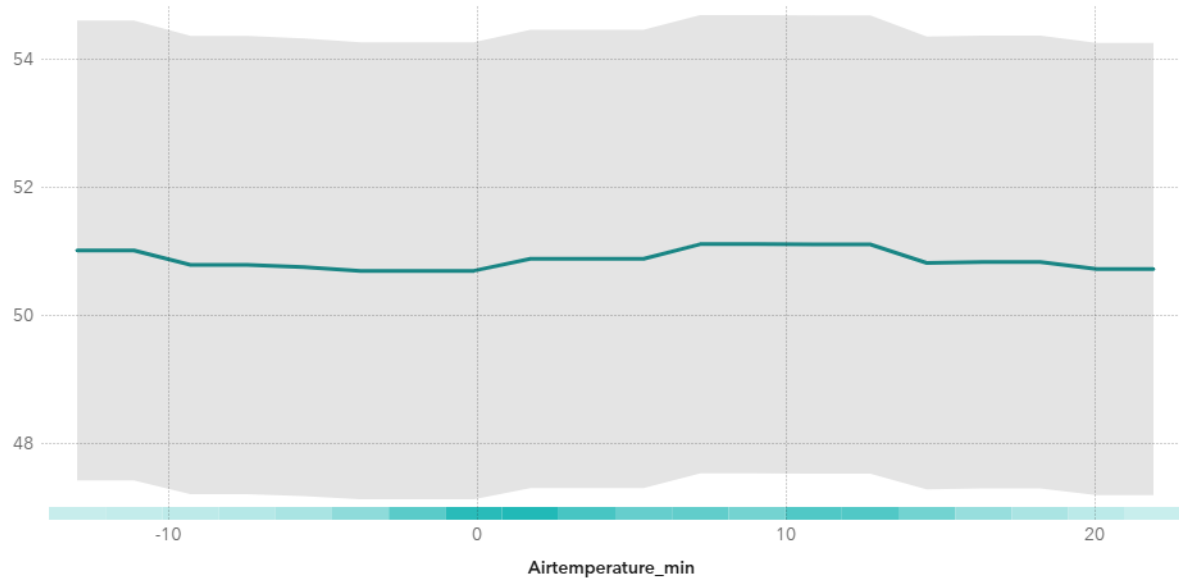
Predicted Value



A.54. Airtemperature_min

Partial Dependence

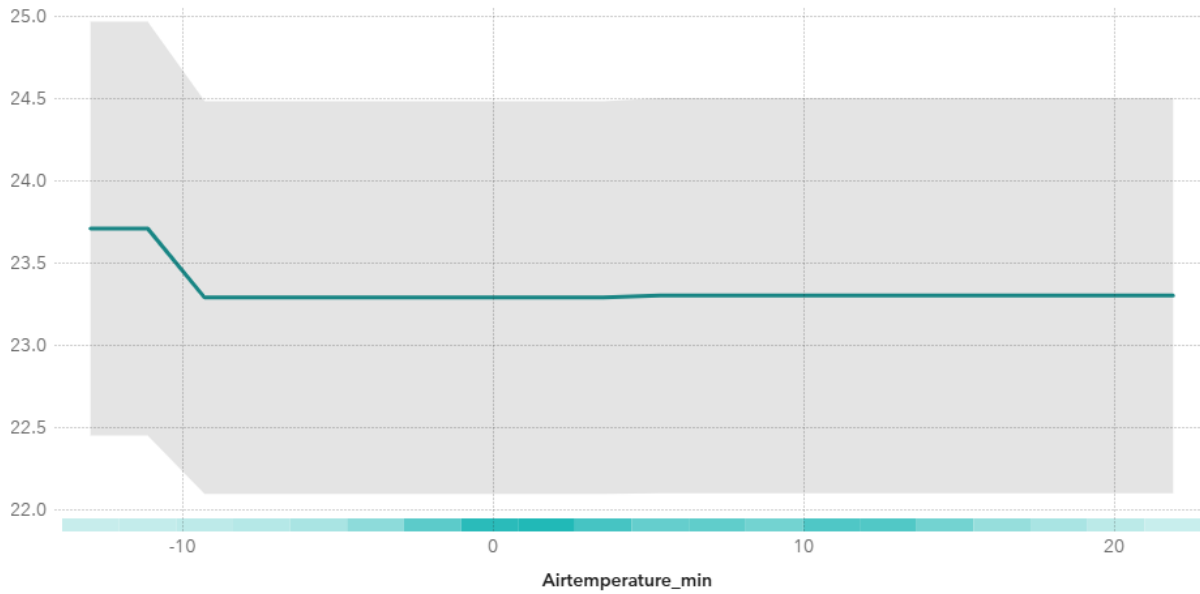
Predicted Value



A.55. Airtemperature_min priority level 1

Partial Dependence

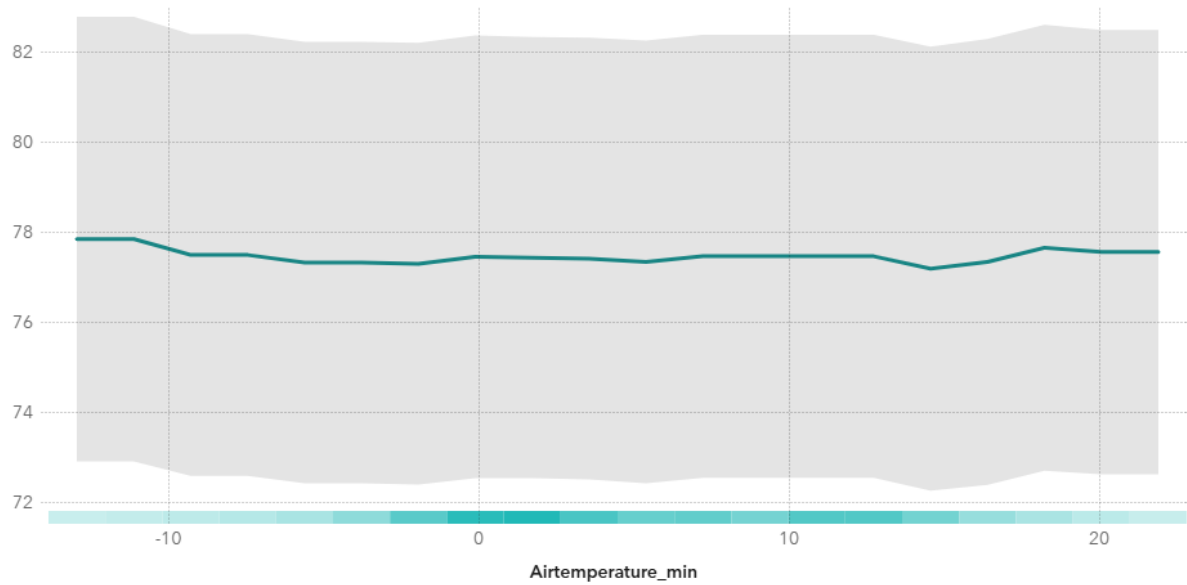
Predicted Value



A.56. Airtemperature_min priority level 2

Partial Dependence

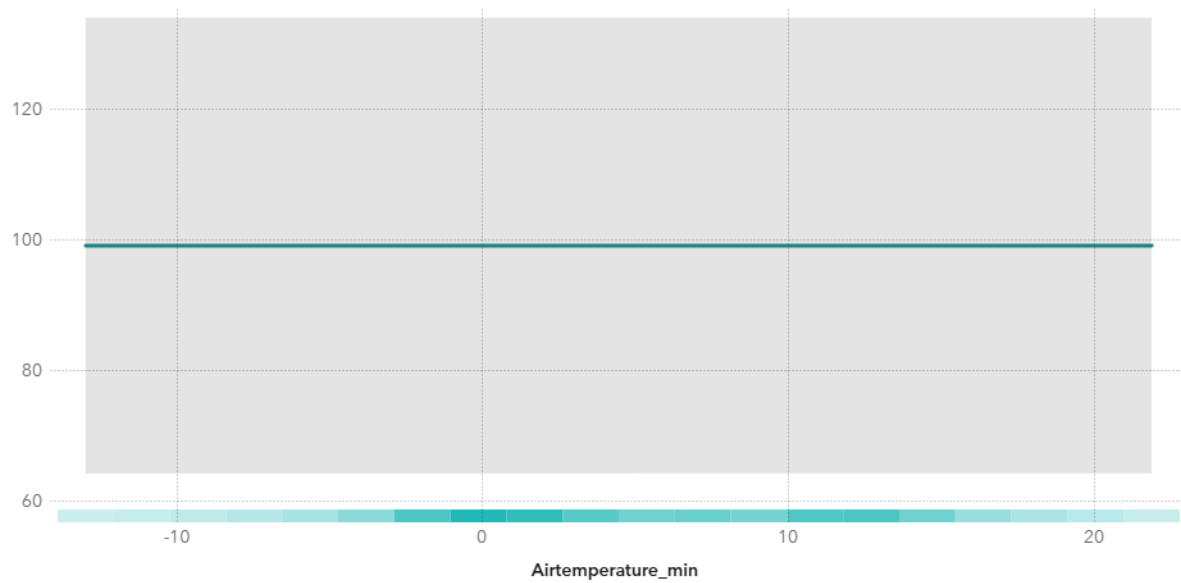
Predicted Value



A.57. Airtemperature_min priority level 3

Partial Dependence

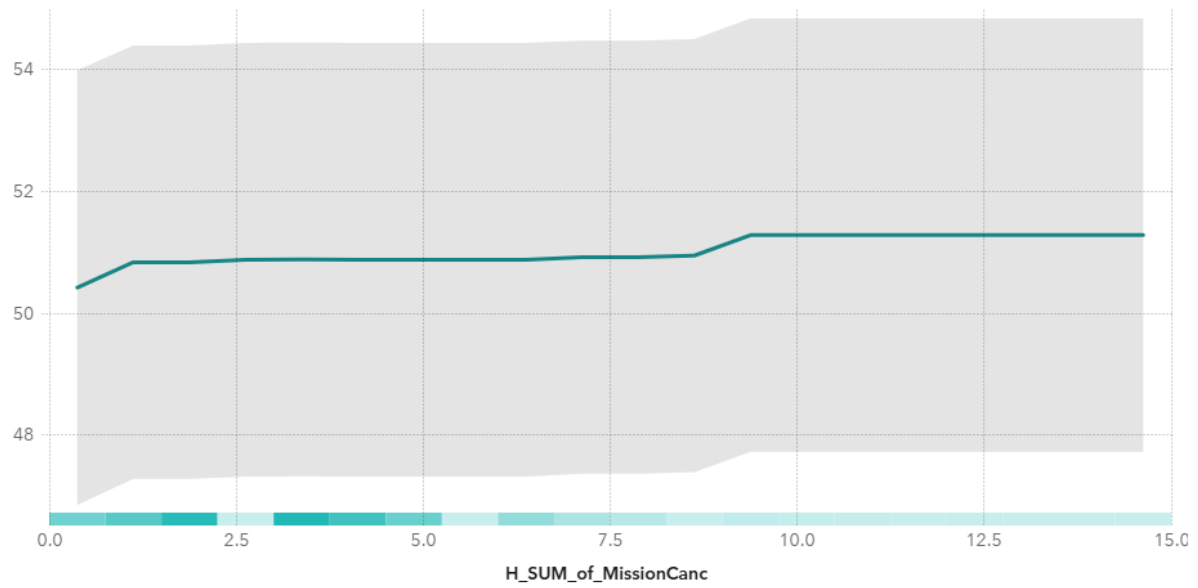
Predicted Value



A.58. H_SUM_of_MissionCanc

Partial Dependence

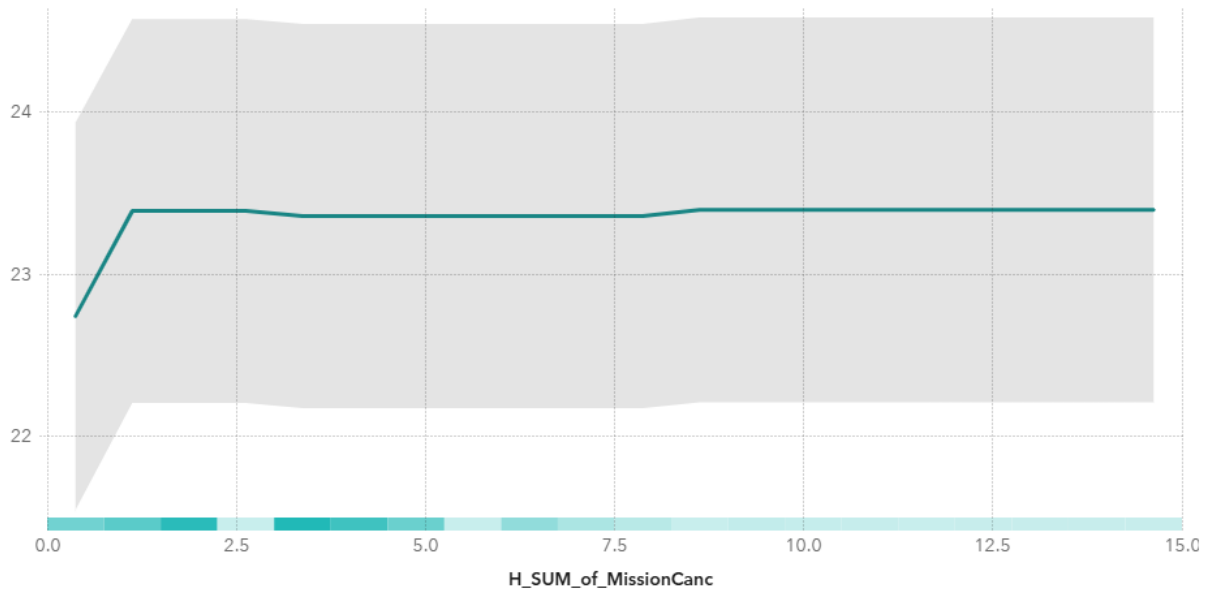
Predicted Value



A.59. H_SUM_of_MissionCanc priority level 1

Partial Dependence

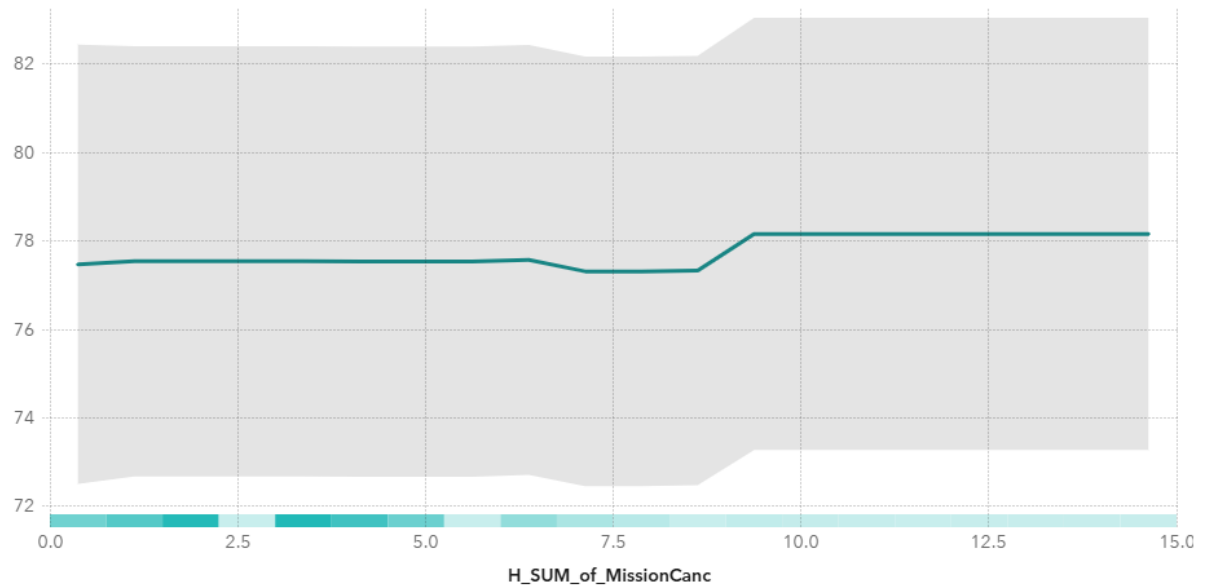
Predicted Value



A.60. H_SUM_of_MissionCanc priority level 2

Partial Dependence

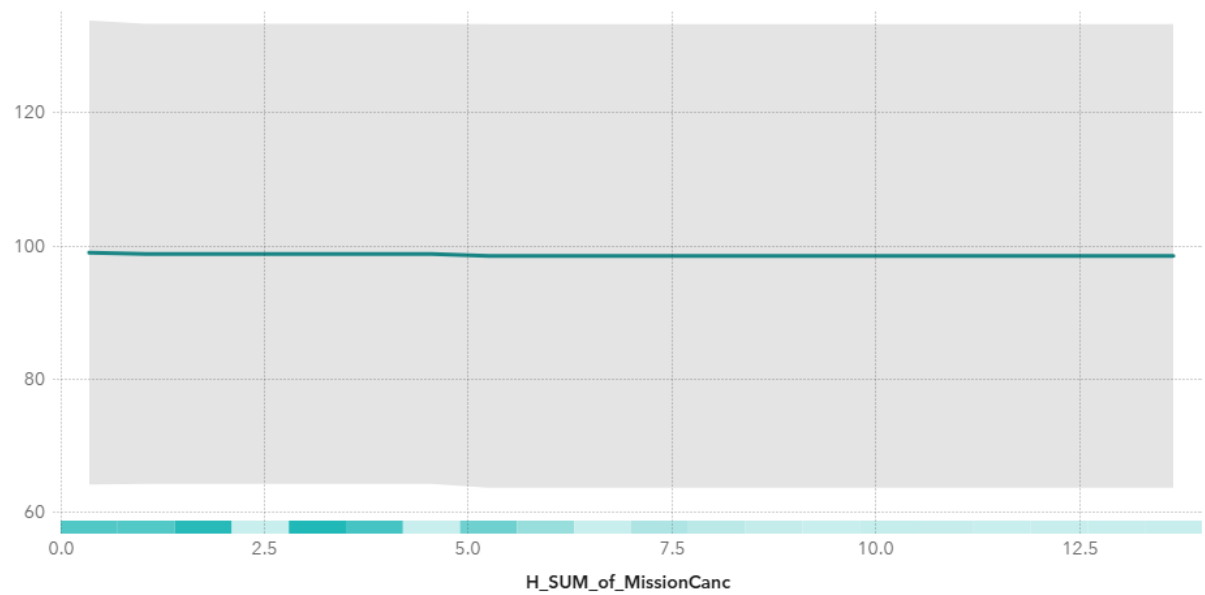
Predicted Value



A.61. H_SUM_of_MissionCanc priority level 3

Partial Dependence

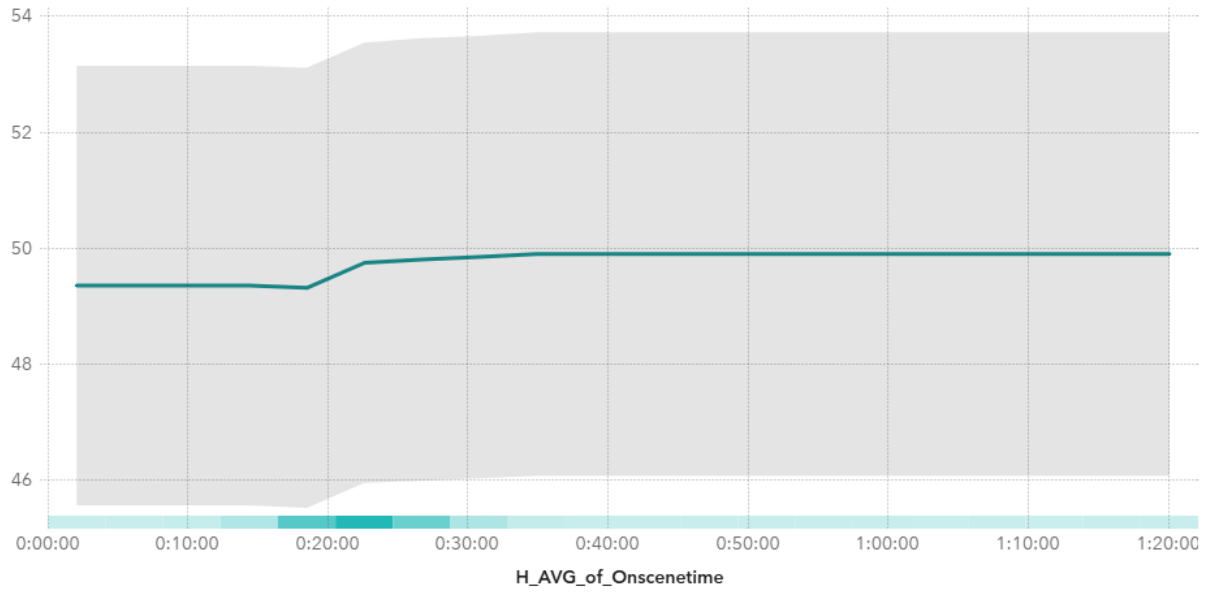
Predicted Value



A.62. H_AVG_of_Onscenetime

Partial Dependence

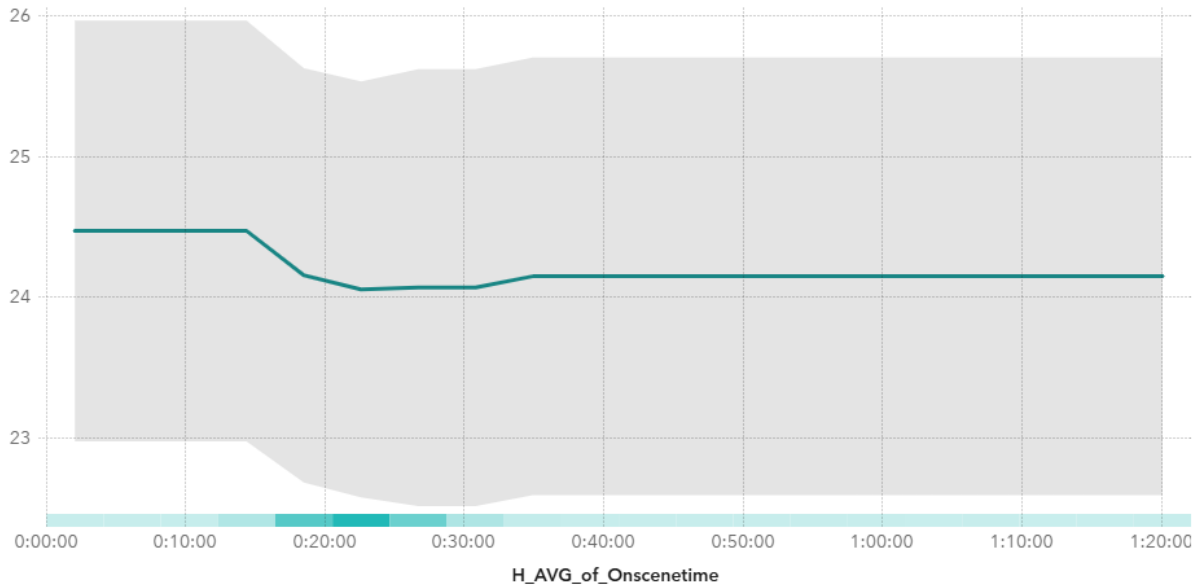
Predicted Value



A.63. H_AVG_of_Onscenetime priority level 1

Partial Dependence

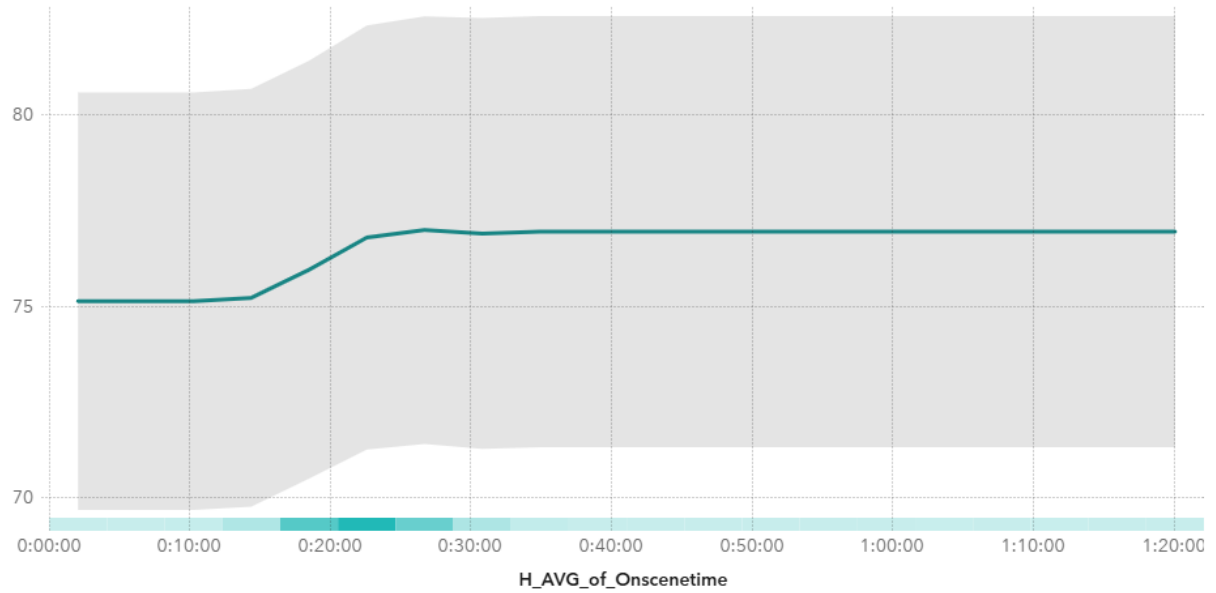
Predicted Value



A.64. H_AVG_of_Onscenetime priority level 2

Partial Dependence

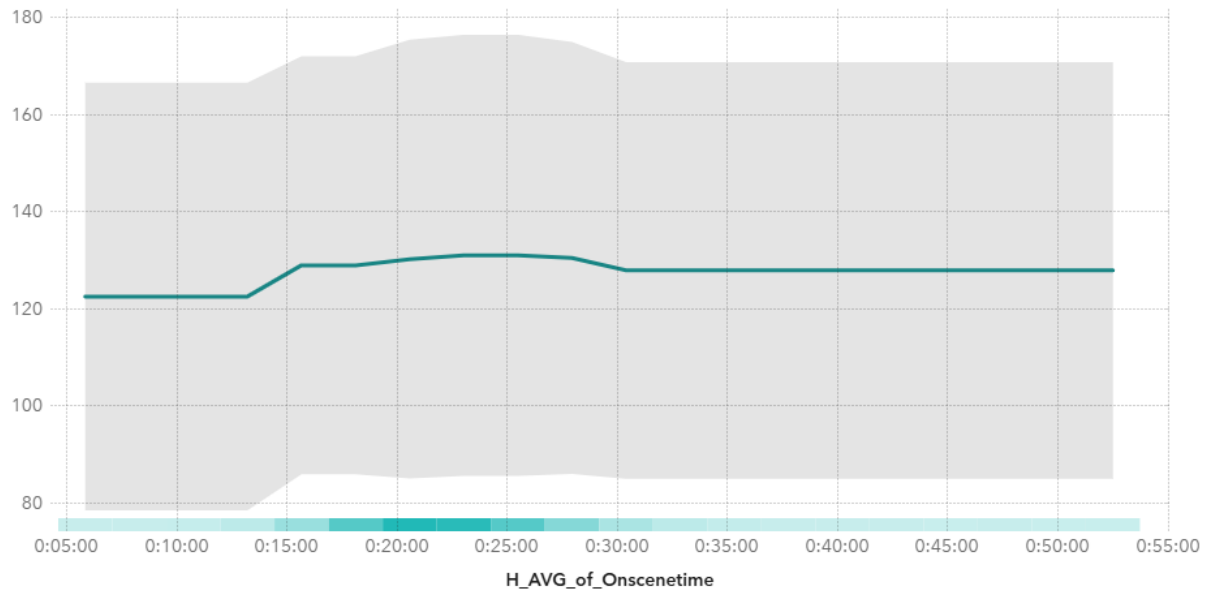
Predicted Value



A.65. H_AVG_of_Onscenetime priority level 3

Partial Dependence

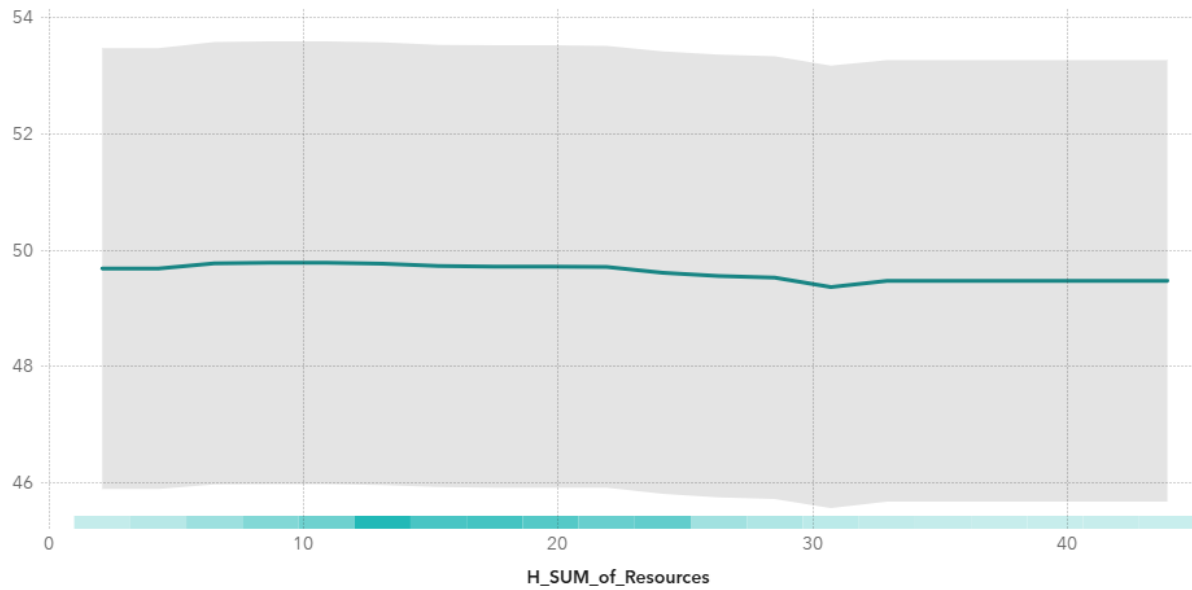
Predicted Value



A.66. H_SUM_of_Resources

Partial Dependence

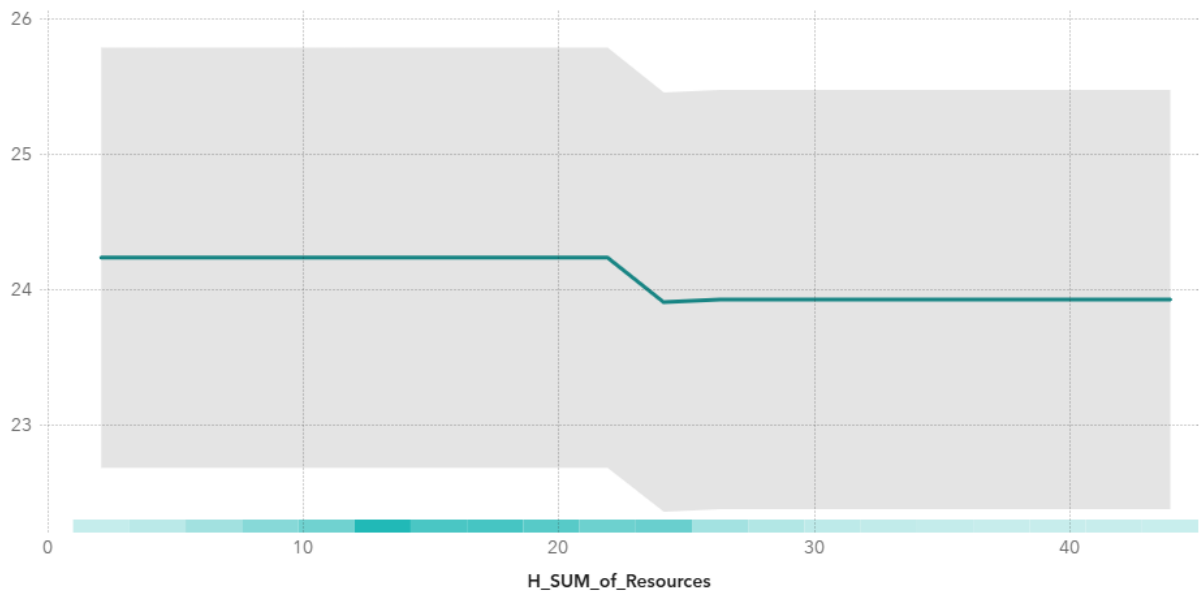
Predicted Value



A.67. H_SUM_of_Resources priority level 1

Partial Dependence

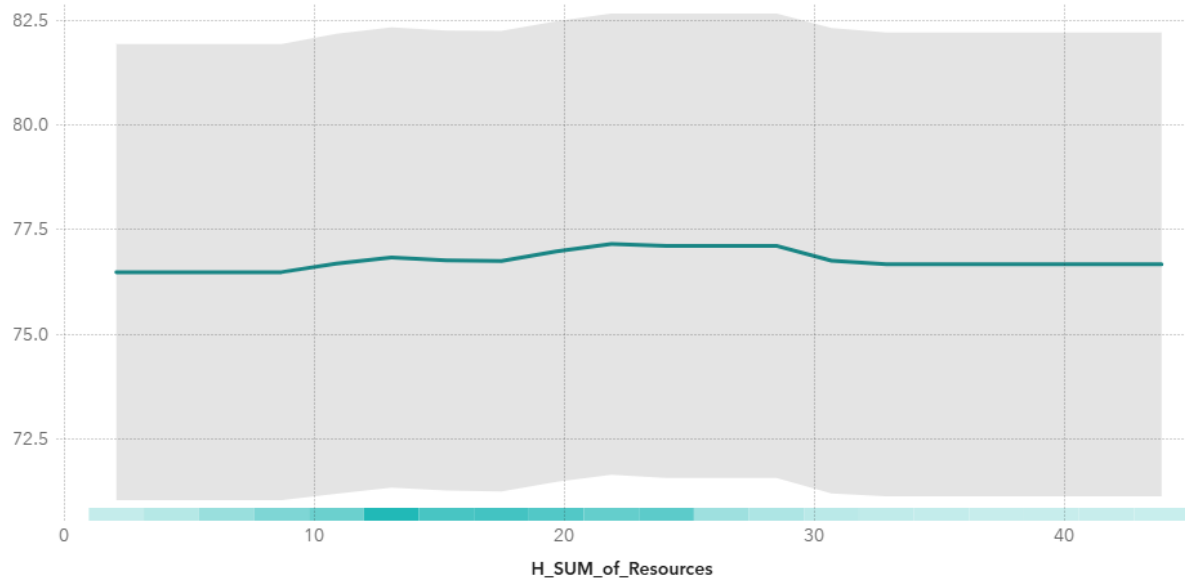
Predicted Value



A.68. H_SUM_of_Resources priority level 2

Partial Dependence

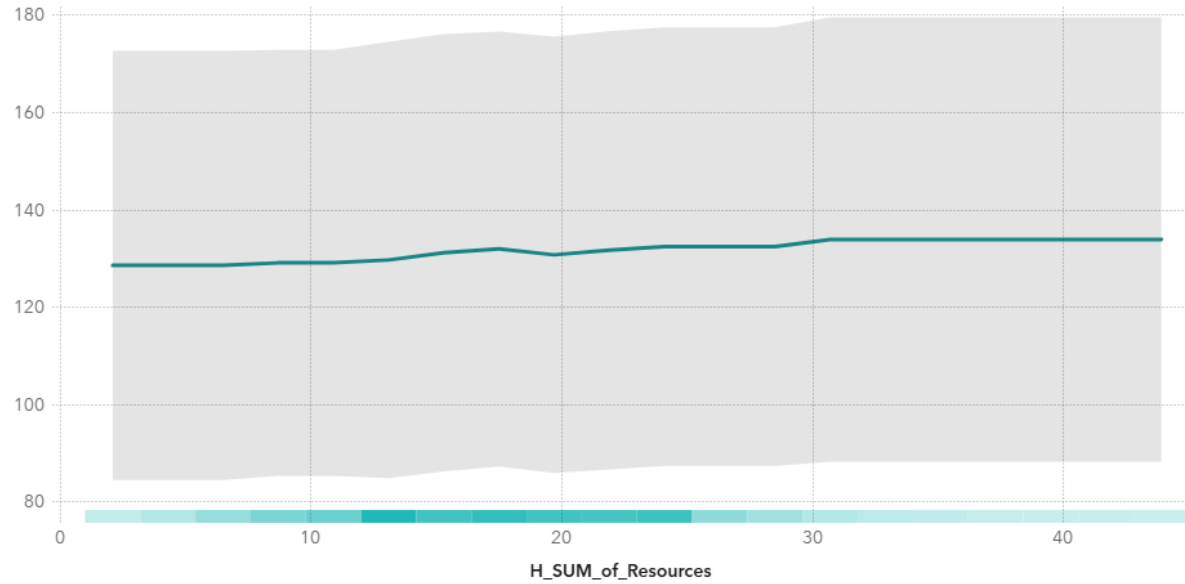
Predicted Value



A.69. H_SUM_of_Resources priority level 3

Partial Dependence

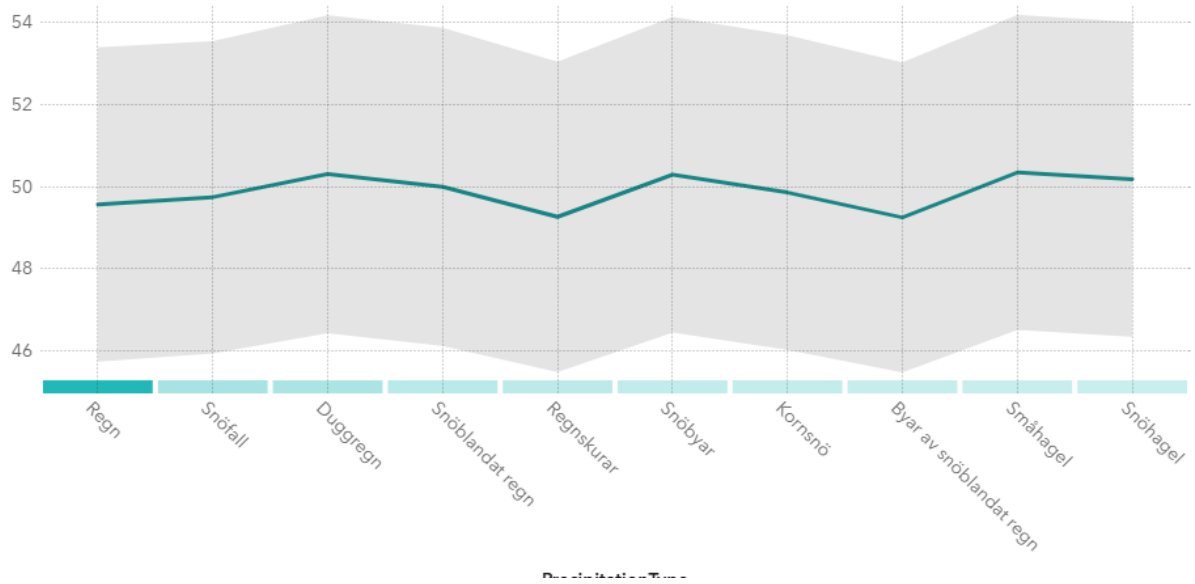
Predicted Value



A.70. PrecipitationType

Partial Dependence

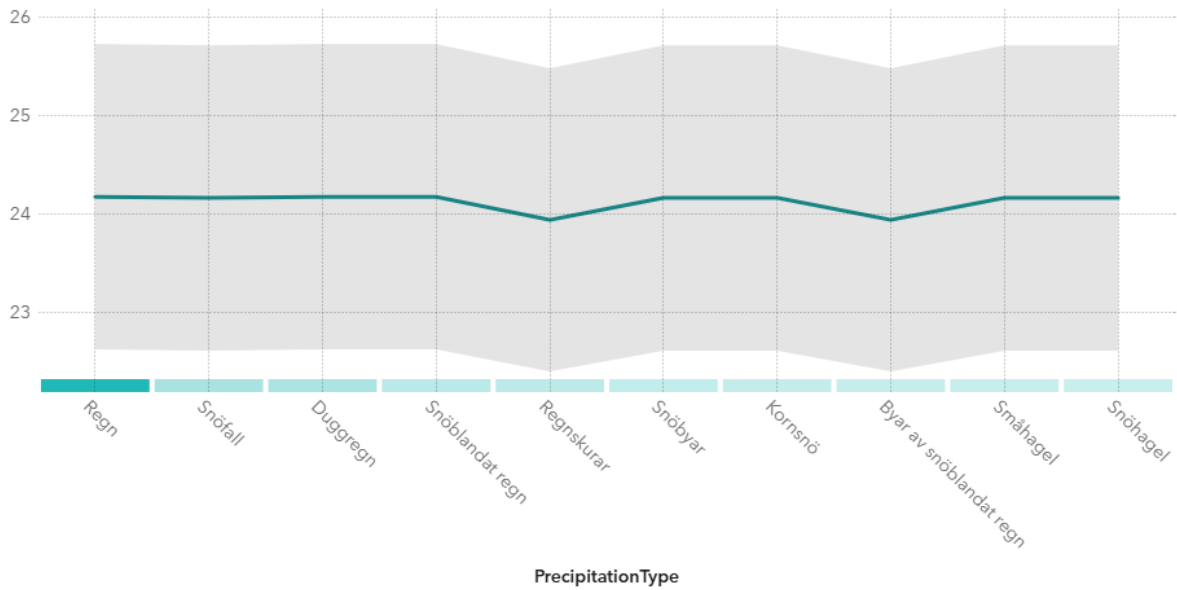
Predicted Value



A.71. PrecipitationType priority level 1

Partial Dependence

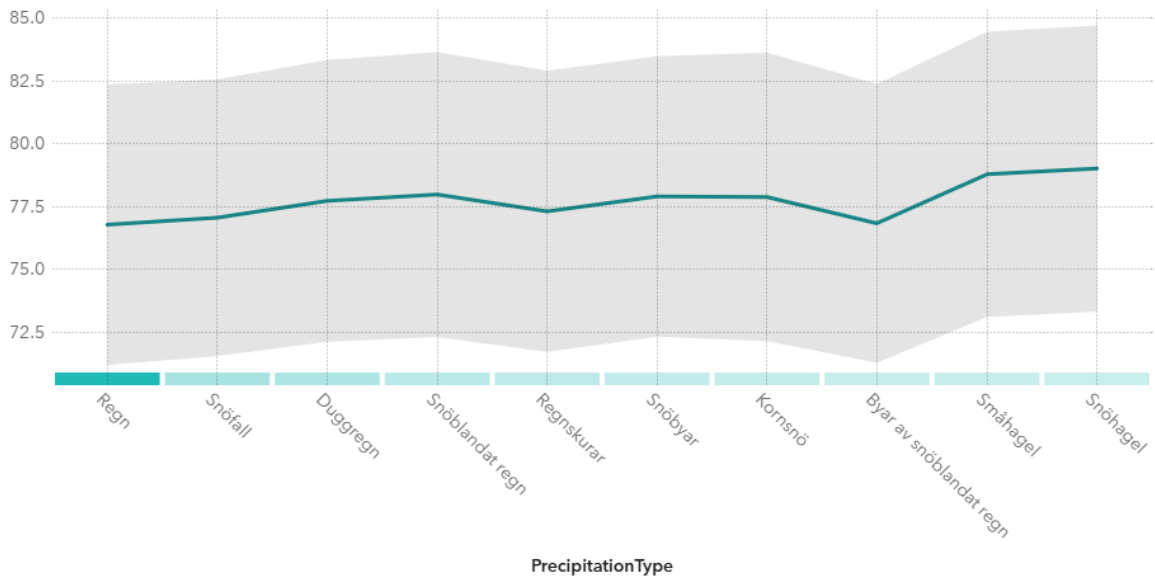
Predicted Value



A.72. PrecipitationType priority level 2

Partial Dependence

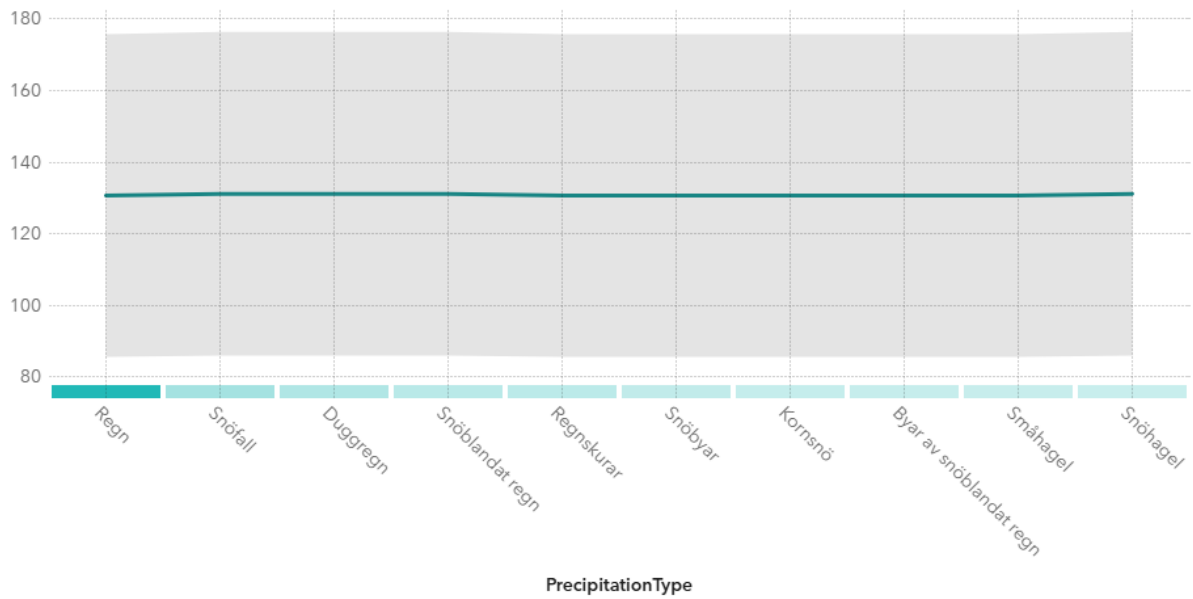
Predicted Value



A.73. PrecipitationType priority level 3

Partial Dependence

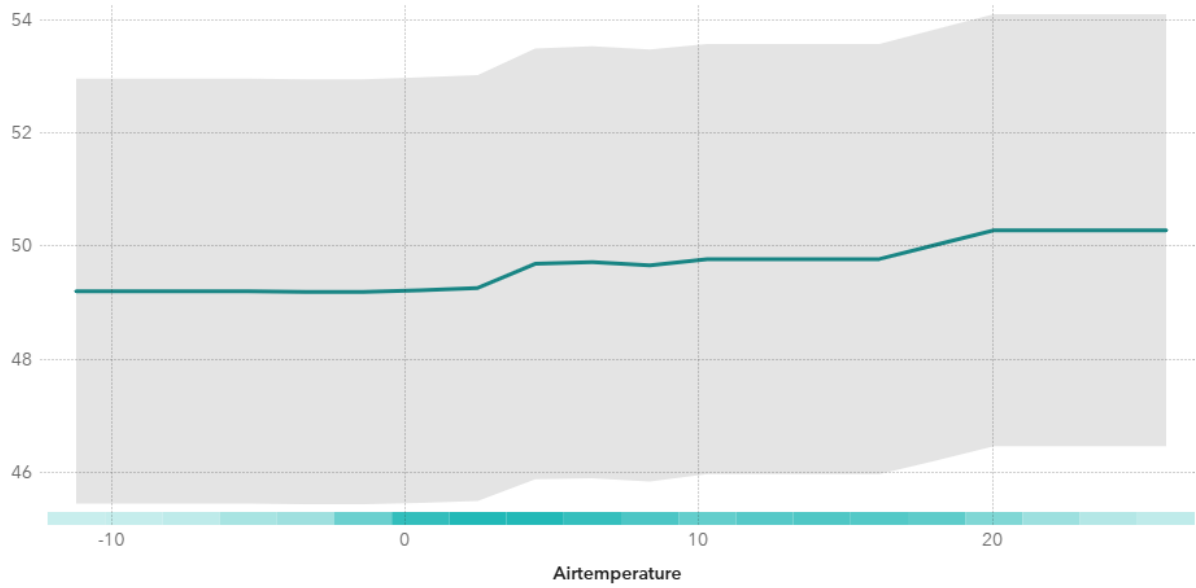
Predicted Value



A.74. Airtemperature

Partial Dependence

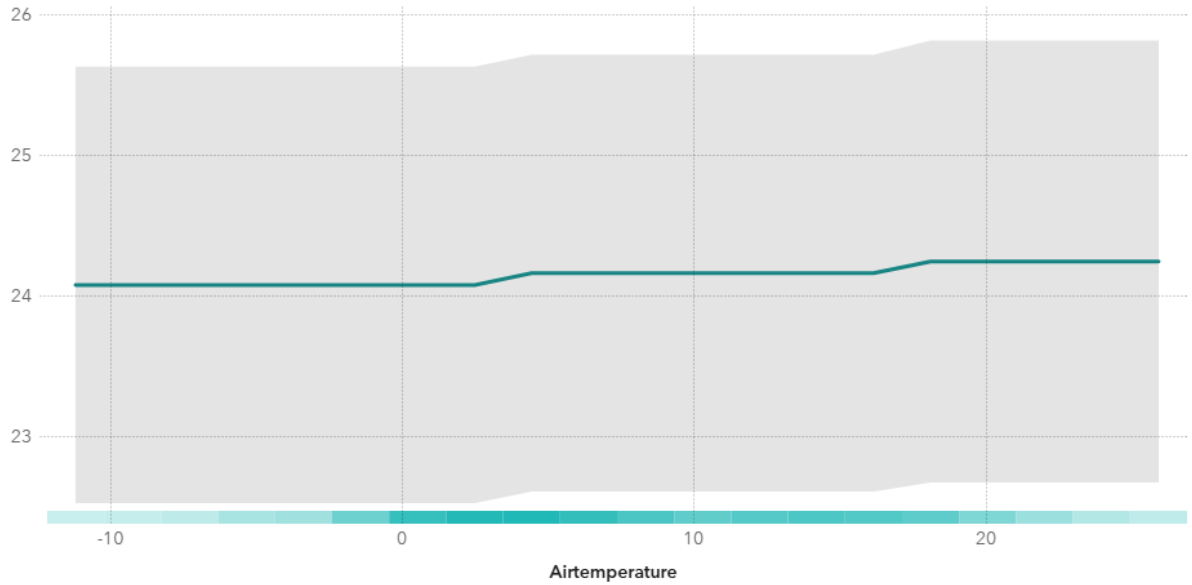
Predicted Value



A.75. Airtemperature priority level 1

Partial Dependence

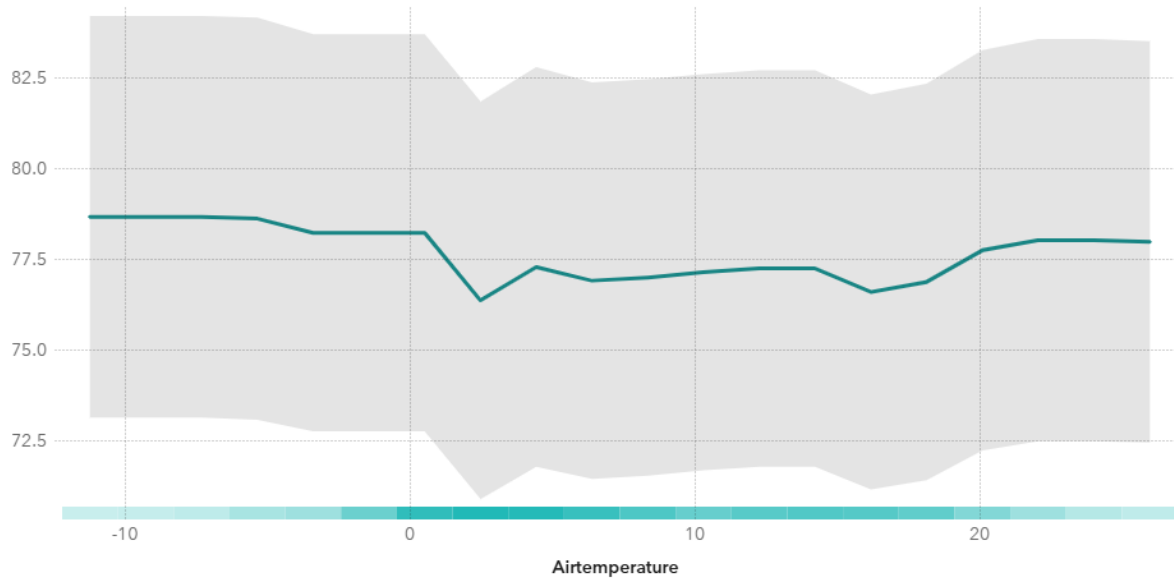
Predicted Value



A.76. Airtemperature priority level 2

Partial Dependence

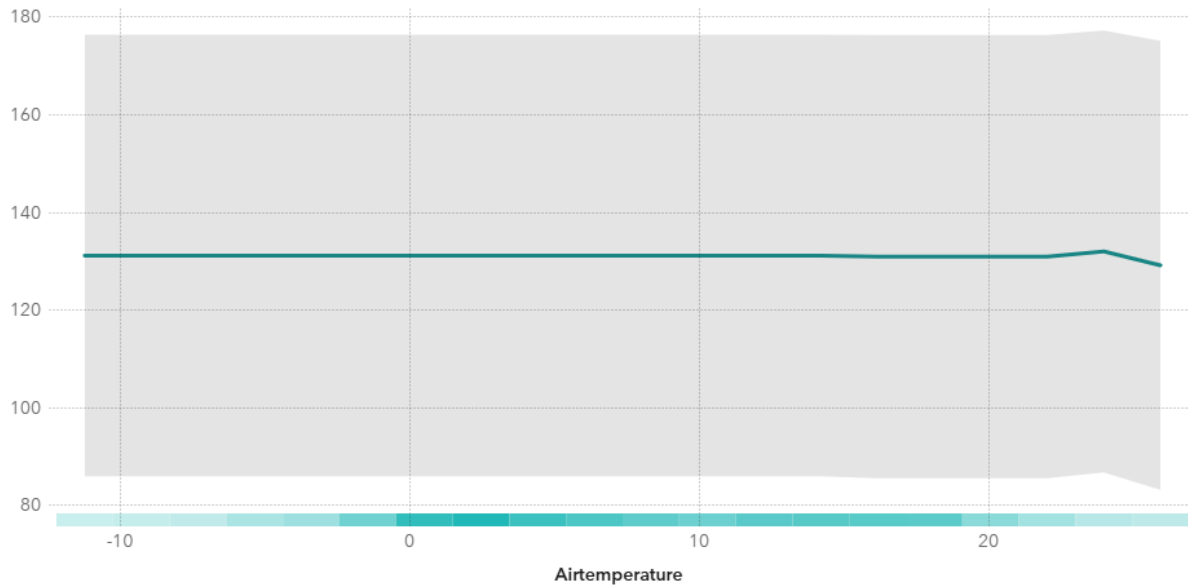
Predicted Value



A.77. Airtemperature priority level 3

Partial Dependence

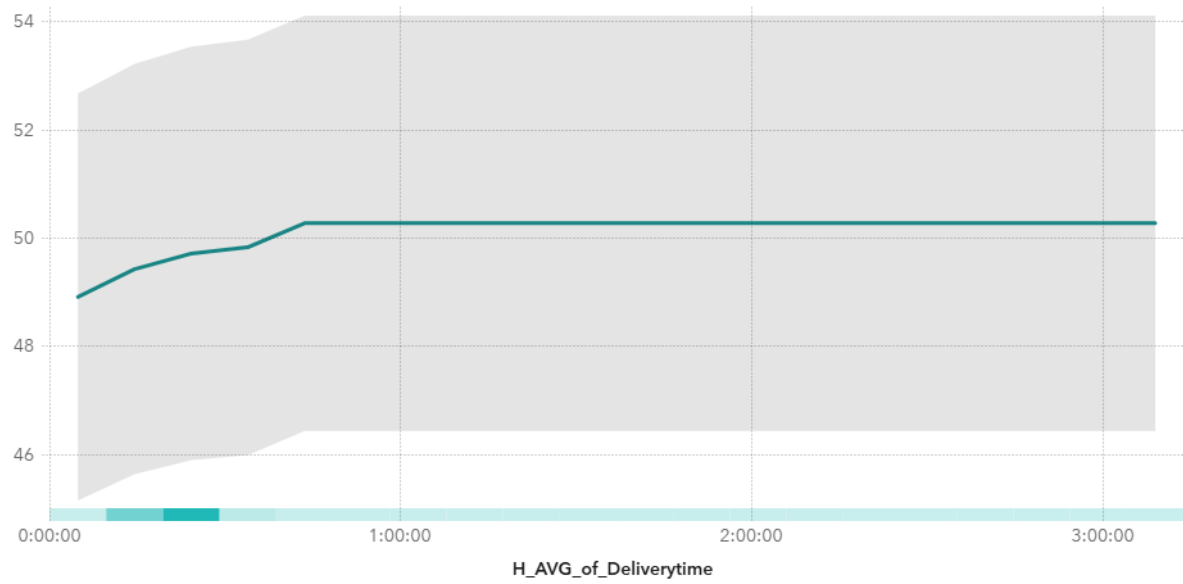
Predicted Value



A.78. H_AVG_of_Deliverytime

Partial Dependence

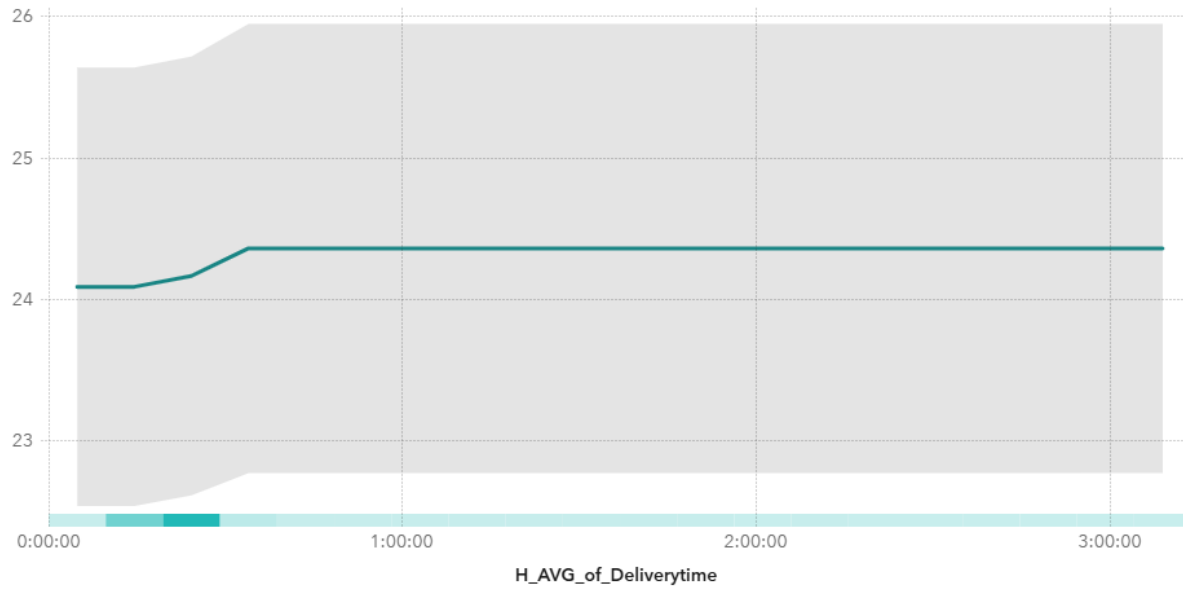
Predicted Value



A.79. H_AVG_of_Deliverytime priority level 1

Partial Dependence

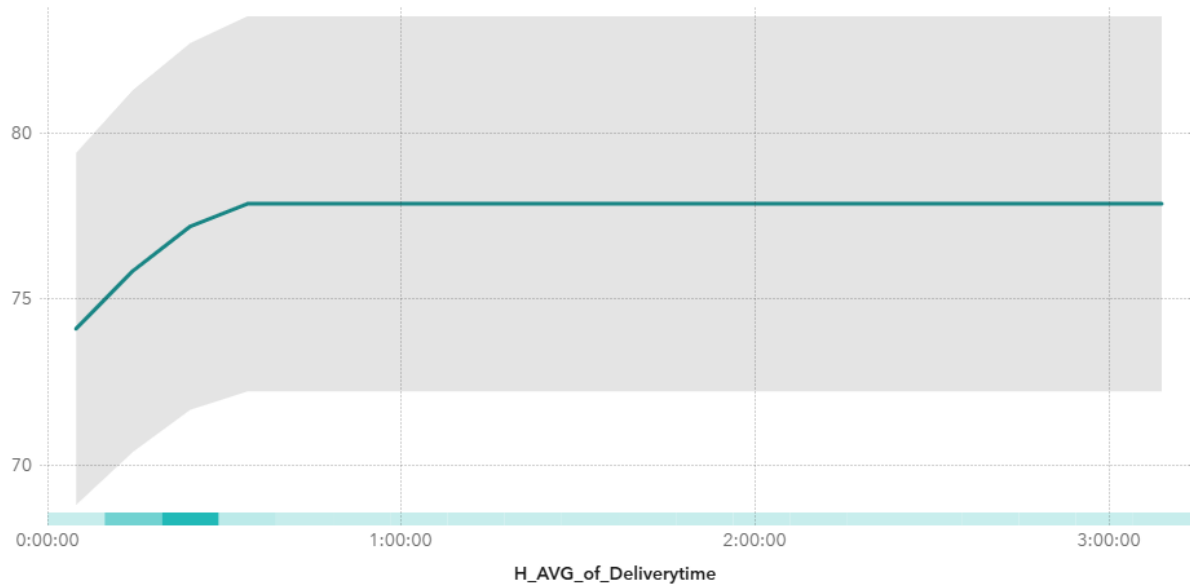
Predicted Value



A.80. H_AVG_of_Deliverytime priority level 2

Partial Dependence

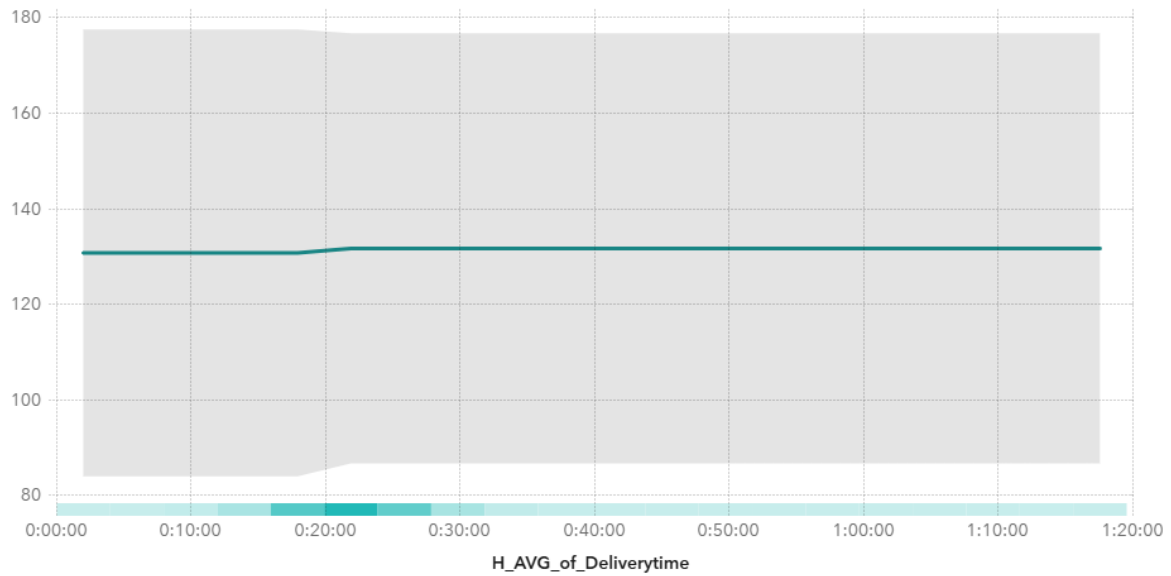
Predicted Value



A.81. H_AVG_of_Deliverytime priority level 3

Partial Dependence

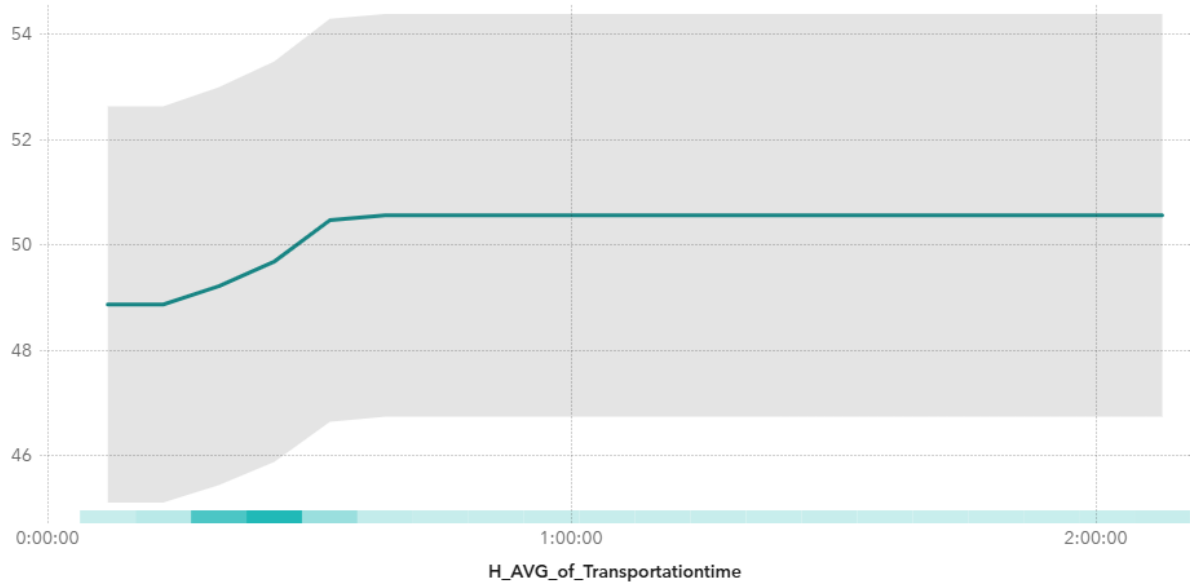
Predicted Value



A.82. H_AVG_of_Transportationtime

Partial Dependence

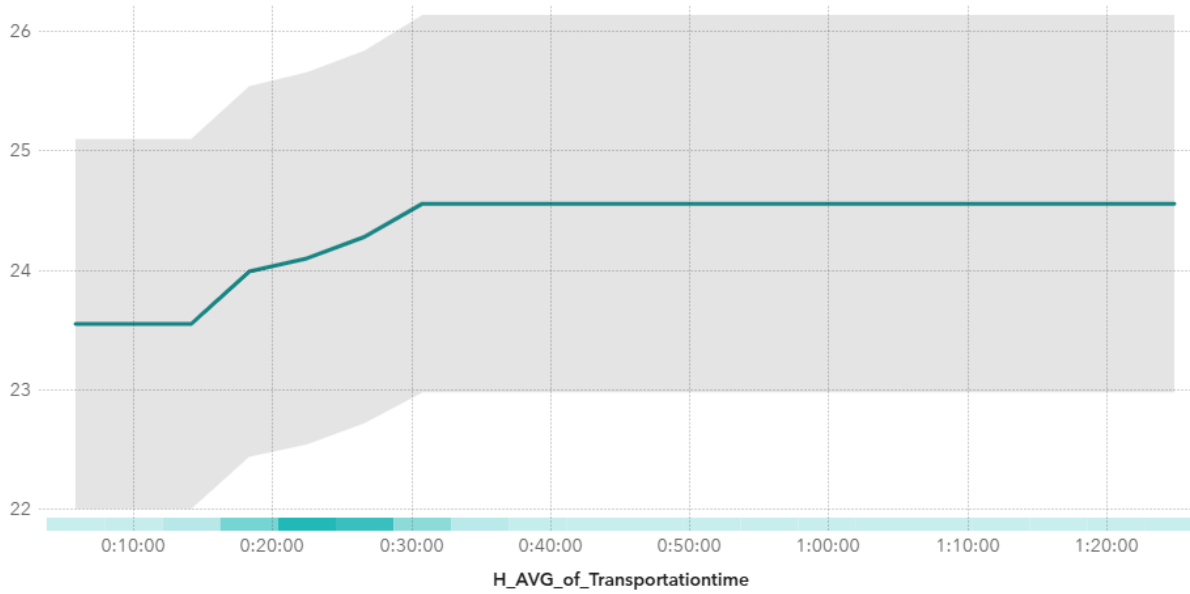
Predicted Value



A.83. H_AVG_of_Transportationtime priority level 1

Partial Dependence

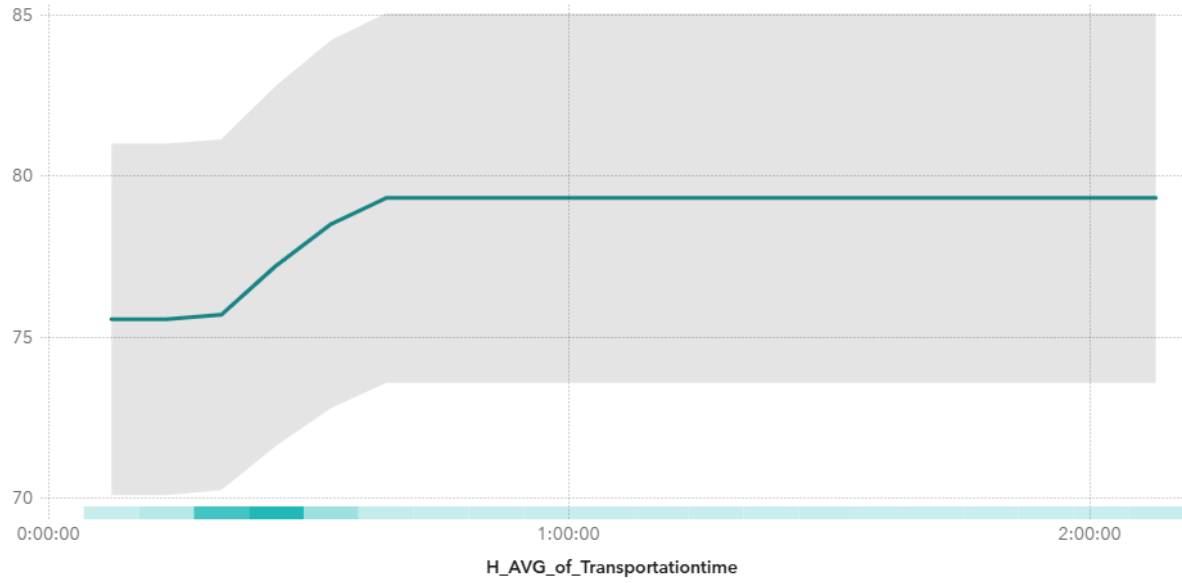
Predicted Value



A.84. H_AVG_of_Transportationtime priority level 2

Partial Dependence

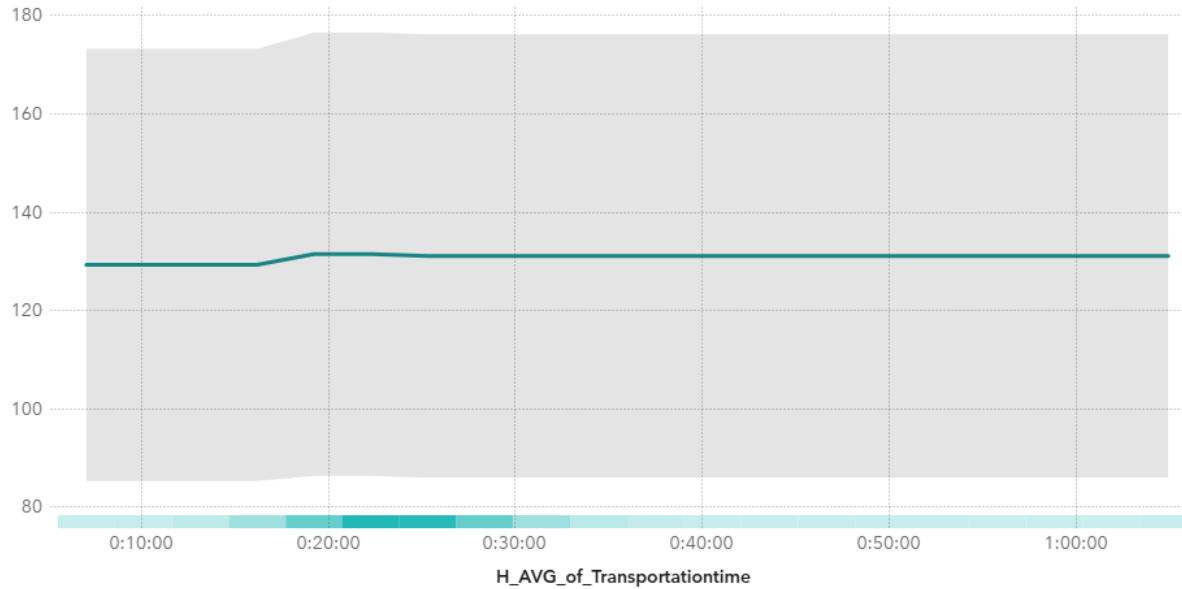
Predicted Value



A.85. H_AVG_of_Transportationtime priority level 3

Partial Dependence

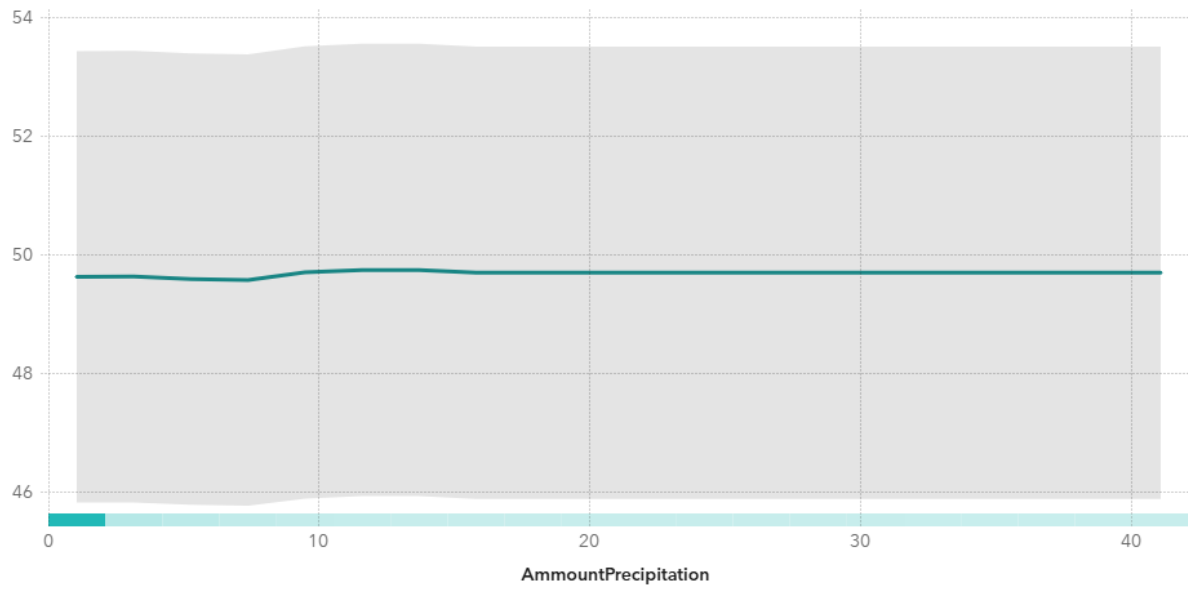
Predicted Value



A.86. Amount Precipitation

Partial Dependence

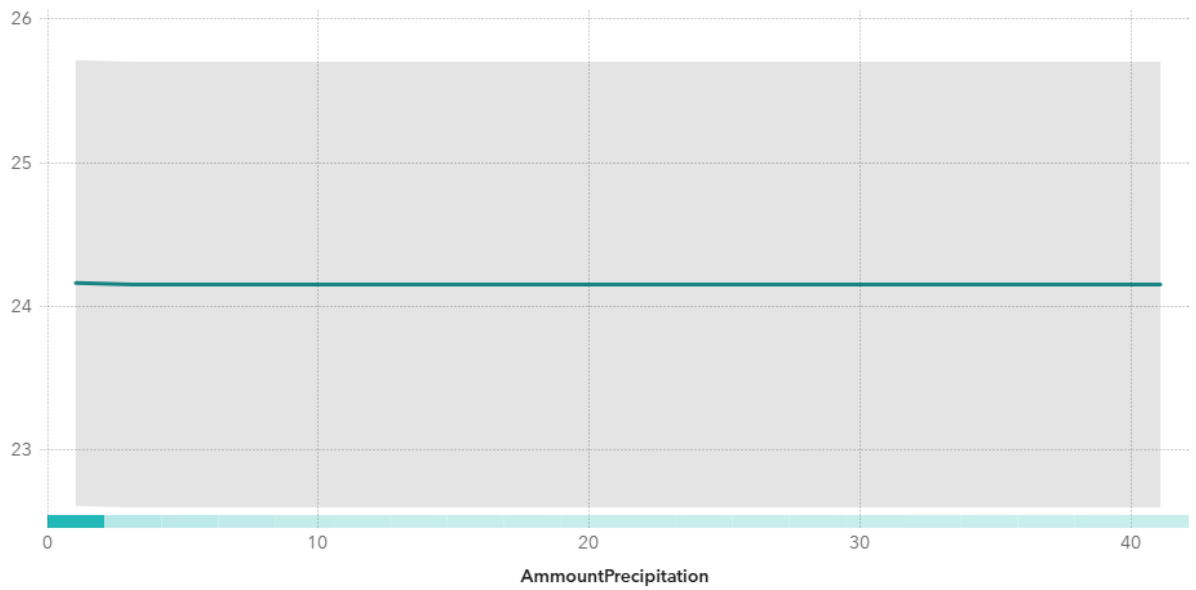
Predicted Value



A.87. Amount Precipitation priority level 1

Partial Dependence

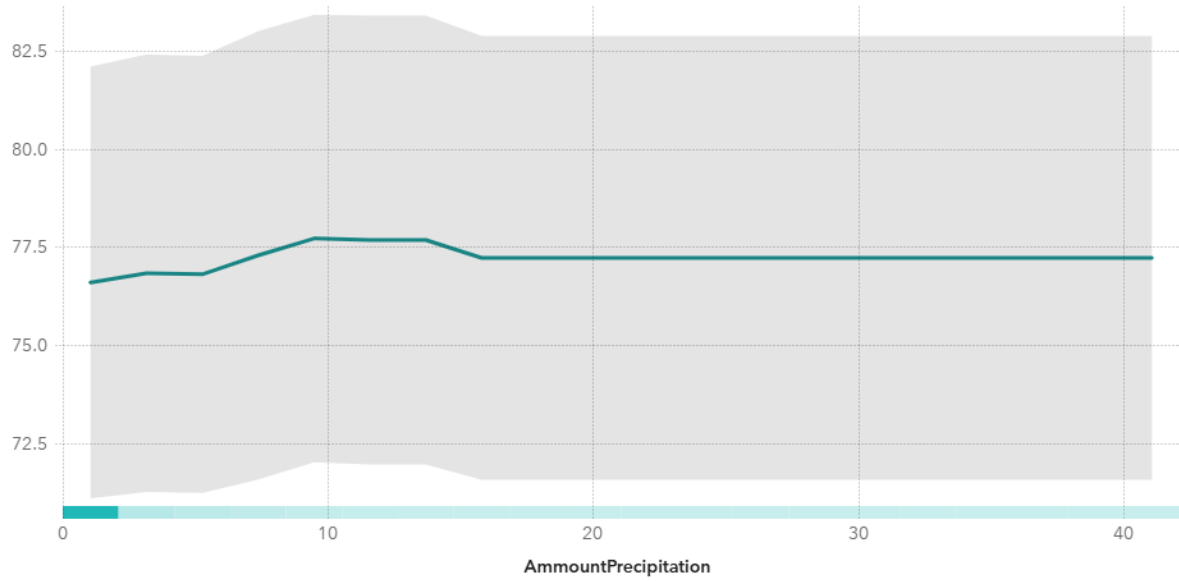
Predicted Value



A.88. Amount Precipitation priority level 2

Partial Dependence

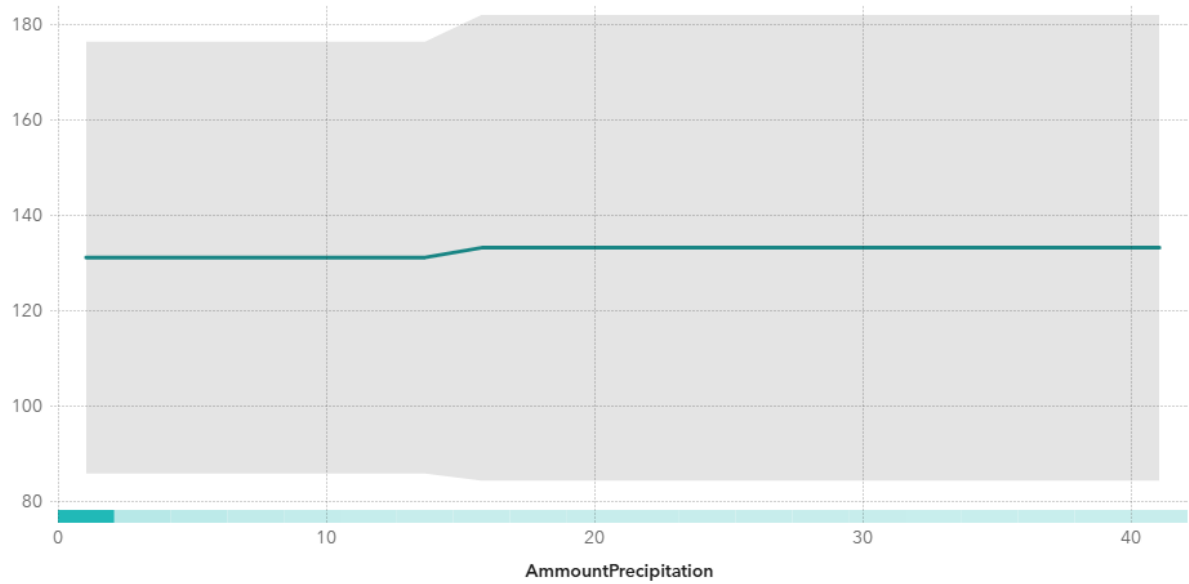
Predicted Value



A.89. Amount Precipitation priority level 3

Partial Dependence

Predicted Value



B. Model statistics

B.1. Linear regression statistics

B.1.1. Dimensions

Description	Value
Number of Model Effects	24
Number of Classification Effects	9
Number of Columns in X	212
Rank of Cross-product Matrix	190
Number of Observations Read	1 150 473
Number of Observations Used	520 614
Number of Observations Used for Training	312 215
Number of Observations Used for Validation	155 892

B.1.2. Overall ANOVA

Source	Deg Freedom	Sum of Squares	Mean Square	F Value	Pr > F	R-Square
Model	189	410422027.1	2171545.117	971.9873606	0.00000	0.370575484
Error	312025	697104090.6	2234.128966			
Corrected Total	312214	1107526118				

B.1.3. Fit statistics

Statistic	Value
Mean Square Error	2234.129
Root MSE	47.26657
F Value for Model	971.9874
Pr > F	<0.00001
R-Square	0.370575
Adjusted R-square	0.370194
AIC	2720086
AICC	2720086
SBC	2409893

B.1.4. Parameter estimates

Parameter	Estimate	Standard Error	t Value	Pr > t
-----------	----------	----------------	---------	---------

Intercept	55.5859564 6	6.37983863 1	8.71275273 2	0.00000
PrecipitationType Byar av snöblandat regn	- 1.85358213 3	1.92532192	- 0.96273880 9	0.33568
PrecipitationType Duggregn	- 0.96665311 8	1.71801402	- 0.56265729 3	0.57367
PrecipitationType Kornsnö	- 1.69217311 5	1.83985500 4	- 0.91973177 8	0.35771
PrecipitationType Regn	- 1.68783426 7	1.70048550 8	- 0.99256021 8	0.32093
PrecipitationType Regnskurar	- 2.16508524 7	1.74788074 8	- 1.23869162 7	0.21546
PrecipitationType Småhagel	0.02565728 6	2.08669469 1	0.01229565 9	0.99019
PrecipitationType Snöblandat regn	- 0.82006275 9	1.74010887 7	- 0.47127094 7	0.63745
PrecipitationType Snöbyar	- 1.65310853 9	1.79589999 1	- 0.92049030 9	0.35732
PrecipitationType Snöfall	- 1.59647508 9	1.72409894 6	- 0.92597648 9	0.35446
PrecipitationType Snöhagel	0			
Priority set by EMCC 1	- 95.5537063	0.52844748 5	- 180.819682 2	0.00000
Priority set by EMCC 2	- 44.0004219	0.52234396 6	- 84.2364892 6	0.00000
Priority set by EMCC 3	0			
EMS Station Botkyrka	- 5.14652683 5	1.26443837 7	- 4.07020771 3	0.00005
EMS Station Bro	- 0.44728216 1	1.42195781 8	- 0.31455374 8	0.75310
EMS Station Bromma	2.52303793 2	1.09997076 8	2.29373180 2	0.02181
EMS Station City	2.42402668	1.10268209	2.19830058 1	0.02793

EMS Station Ekerö	- 6.74093704 7	1.76675614 6	- 3.81543149 8	0.00014
EMS Station Farsta	0.70428273 4	1.14139444 6	0.61703711 3	0.53721
EMS Station Hallstavik	- 3.75619692 7	2.01650331 8	- 1.86272786 8	0.06250
EMS Station Handen	- 2.78771137 4	1.23873032 8	- 2.25045864 3	0.02442
EMS Station Huddinge	- 0.55197734 9	1.20719696 3	- 0.45723884 8	0.64750
EMS Station Hägersten	1.39293552 3	1.17796732 9	1.18249079 5	0.23701
EMS Station Järfälla	0.56160674 7	1.19890600 1	0.46843267 6	0.63948
EMS Station Lidingö	- 2.74912921 7	1.42541721 4	- 1.92864881 3	0.05378
EMS Station Lindvreten	- 1.67321382 8	1.50696368 9	- 1.11032126 4	0.26686
EMS Station Märsta	1.22358777 5	1.32415938 7	0.92404871 1	0.35546
EMS Station Nacka	- 2.14594546 8	1.24062104 3	- 1.72973486 3	0.08368
EMS Station Norrtälje	- 1.63290063 2	1.75017268	- 0.93299401 3	0.35082
EMS Station Nynäshamn	- 2.33837207 7	1.51779729 8	- 1.54063528 8	0.12341
EMS Station Reservambulans	- 0.92820633 3	1.85735660 6	- 0.49974589 1	0.61725
EMS Station Skärholmen	- 3.04300169 7	1.18531035	- 2.56726155 9	0.01025
EMS Station Sollentuna	2.49683097 3	1.06423148 9	2.34613521 5	0.01897
EMS Station Solna	1.36253827 8	1.13691771 4	1.19844933 4	0.23074
EMS Station Södermalm	0.42651903 5	1.10560421 7	0.38577913 2	0.69966

EMS Station Södertälje	- 6.44458071 6	1.33269927 1	- 4.83573515 3	0.00000
EMS Station Tyresö	0.65292072 7	1.31000082 1	0.49841245 7	0.61819
EMS Station Täby	- 2.55616394 7	1.10479913 8	- 2.31369111 3	0.02069
EMS Station UpplandsVäsby	2.00439644 4	1.16153991 9	1.72563715 7	0.08441
EMS Station Vallentuna	- 0.76053636 7	1.02146605 4	- 0.74455373 6	0.45654
EMS Station Vällingby	2.33139280 2	1.12031484 7	2.08101571 5	0.03743
EMS Station Värmdö	- 4.84486561 9	1.40709521 5	- 3.44316828 5	0.00058
EMS Station Västerhaninge	- 2.01705023 5	1.37724035 3	- 1.46455934 9	0.14304
EMS Station Åkersberga	0			
Locality Botkyrka	13.5369688 4	4.66812802 8	2.89987094 6	0.00373
Locality Danderyd	7.72899275 5	4.67182039 2	1.65438568	0.09805
Locality Ekerö	6.46914249 6	4.81616053 7	1.34321571	0.17920
Locality Enköping	8.44900269 3	47.5067025	0.17784864 6	0.85884
Locality Gnesta	56.1346705 5	33.7545220 7	1.66302667 3	0.09631
Locality HANinge	22.4490649 9	33.7516784 7	0.66512440 3	0.50597
Locality HUDDINGE	54.5115815 7	33.7468248 7	1.61530993 7	0.10624
Locality HUddinge	12.2862532 2	47.4965384 7	0.25867681 3	0.79588
Locality Haninge	11.8994468 3	4.66810639 1	2.54909503 5	0.01080
Locality Huddinge	12.5503003	4.65732707 6	2.69474316 4	0.00704
Locality Håbo	- 16.6521304 4	24.0932121 9	- 0.69115443 5	0.48947
Locality JÄRFÄLLA	11.9033060 9	47.4949821 3	0.25062239 3	0.80211

Locality Järfälla	- 6.23026586 7	33.7519524 5	- 0.18458979 2	0.85355
Locality Järfälla	10.4772435 9	4.65033036 9	2.25301059 4	0.02426
Locality Jönköping	0			
Locality Knivsta	21.4700609 2	27.6889857 1	0.77540077 3	0.43810
Locality Lidingö	7.28807923 4	4.71087252 9	1.54707629 8	0.12185
Locality Linköping	0			
Locality Ludvika	- 185.203178 2	47.5676610 8	- 3.89346825 1	0.00010
Locality NACKA	6.46971079 7	18.4595928 6	0.35047960 4	0.72598
Locality NORRTälje	0			
Locality NYNÄSHAMN	- 9.03159646 1	47.5063617 2	- 0.19011341 1	0.84922
Locality Nacka	10.9163208 2	4.66235834 3	2.34137318 8	0.01921
Locality Norrtälje	2.29492049 7	4.82859731 4	0.47527684 5	0.63459
Locality Nykvarn	8.64970748 1	4.86755702 6	1.77701204 9	0.07557
Locality Nynäshamn	6.12738162	4.75098417 7	1.28970785 7	0.19715
Locality Osby	0			
Locality Riks	- 8.59076649 8	17.4051641 8	- 0.49357572 3	0.62161
Locality Sigtuna	0			
Locality SOLNA	0			
Locality SOLna	2.39974766	27.6810031 1	0.08669294 4	0.93092
Locality STOCKHOLM	32.2689237 1	17.3425862 1	1.86067541	0.06279
Locality STockholm	17.8830835 2	24.0861257	0.74246409 5	0.45781
Locality Salem	10.0441326 1	4.77475818 4	2.10358979 9	0.03542
Locality Sigtuna	4.59954085 1	4.66693566 8	0.98555908 6	0.32435
Locality Sollentuna	7.89732353 7	4.64204465 3	1.70125970 9	0.08890

Locality Solna	11.6035014 3	4.65227596 2	2.49415587 7	0.01263
Locality Stenungsund	0			
Locality Stockholm	14.0783985 8	4.63243115	3.03909505 1	0.00237
Locality Stockholms län	- 25.0729127 8	47.4969307 8	- 0.52788490 5	0.59758
Locality Strängnäs	- 16.0480893 9	27.6895137 6	- 0.57957281 3	0.56220
Locality Sundbyberg	15.0100504 3	4.66658873 8	3.21649309	0.00130
Locality SÖDERTÄLJE	2.83563519 6	33.7506336	0.08401724 3	0.93304
Locality Södertälje	16.2200512 7	4.69230940 1	3.45673097 9	0.00055
Locality Trosa	- 9.86243355 9	27.6958394 2	- 0.35609801 9	0.72177
Locality Tyresö	11.3352415 7	4.68564354 7	2.41914295 3	0.01556
Locality Täby	6.92992836 9	4.62956088 4	1.49688675 5	0.13442
Locality Upplands Väsby	8.25061090 5	4.65720288 8	1.77158073 3	0.07647
Locality Upplands väsby	30.3480461 3	11.0880887 2	2.73699524 7	0.00620
Locality Upplands-Bro	4.73464554 5	4.74983908 6	0.99680125 1	0.31886
Locality Upplands-bro	6.93921695 8	4.80238367 3	1.44495263 8	0.14847
Locality Uppsala	16.8519934 1	24.1560803 2	0.69762946 6	0.48541
Locality VAXHOLM	0			
Locality VAllentuna	0			
Locality VAxholm	14.8432381 6	47.4950217 3	0.31252197 9	0.75464
Locality Vallentuna	5.72820991 3	4.65659021	1.23012969 9	0.21865
Locality Vaxholm	0.93006021	4.76088295 6	0.19535456 3	0.84512
Locality VÄRMDÖ	0			
Locality Värmdö	11.1337008 4	4.71542018 6	2.36112592 4	0.01822

Locality botkyrka	10.8130774 5	7.31652474 5	1.47789802 3	0.13944
Locality danderyd	8.53803240 3	8.35534378 3	1.02186488 4	0.30685
Locality ekerö	1.53709539 3	6.89625644 5	0.22288837 5	0.82362
Locality haninge	8.73573929 2	5.56634074 2	1.56938637	0.11656
Locality huddinge	13.0637985 8	5.36373893 7	2.43557688 6	0.01487
Locality järfälla	7.54099845 7	7.24603545 6	1.04070681 2	0.29801
Locality lidingö	9.42091515 1	6.68349389 4	1.40957937 6	0.15866
Locality nacka	16.4313390 4	6.49764564 6	2.52881427 2	0.01145
Locality norrtälje	3.23977052 3	6.08819194 7	0.53214001	0.59463
Locality nykvarn	0.60138223 4	18.4732393 3	0.03255423 8	0.97403
Locality nynäshamn	10.4747549 5	6.53223302 6	1.60354888	0.10881
Locality SIGTUNA	17.3991528 3	47.5001494 7	0.36629680 2	0.71414
Locality SOLNA	0			
Locality sTOCKHOLM	112.206635 9	47.5034083 5	2.36207547 7	0.01817
Locality salem	0.49651833 1	16.4342312 4	0.03021244 6	0.97590
Locality sigtuna	5.44579144 6	5.99575259 2	0.90827487 7	0.36373
Locality sollentuna	10.7698276 4	7.73437706	1.39246219 3	0.16378
Locality solna	10.4586642 5	5.68491182 6	1.83972321 3	0.06581
Locality stockholm	16.1275109 6	4.75962063	3.38840261	0.00070
Locality sundbyberg	16.4953546 7	8.64096312 4	1.90897177	0.05627
Locality SÖDERTÄLJE	0			
Locality södertälje	13.9029191 6	5.58416768 6	2.48970302 1	0.01279
Locality tyresö	10.4374613 9	8.72480753 5	1.19629703 6	0.23158
Locality täby	12.4748388 5	8.69577253 9	1.43458661	0.15141

Locality upplands väsby	27.3052720 1	11.7908107	2.31580954 9	0.02057
Locality upplands-bro	4.78876242 4	15.6584438	0.30582620 4	0.75974
Locality vallentuna	23.8644567 7	9.65946243 9	2.47057814 2	0.01349
Locality vaxholm	- 5.64186195	9.77124775 2	- 0.57739421 8	0.56367
Locality vÄRMDÖ	19.1045811 6	47.4950733 3	0.40224342 9	0.68751
Locality värmdö	24.0938215 4	6.47599247 4	3.72048325 2	0.00020
Locality Östersund	0			
Locality Österåker	5.60083275 4	4.61348202	1.21401421 5	0.22474
Locality Östhammar	0			
Locality österåker	0			
Weekday 1	- 0.73717815 2	0.33332322 9	- 2.21160149 7	0.02699
Weekday 2	- 0.83978126 2	0.31892185 3	- 2.63318820 7	0.00846
Weekday 3	- 0.54000591	0.32103927 7	- 1.68205558 7	0.09256
Weekday 4	- 0.91306178 5	0.32498450 7	- 2.80955481 1	0.00496
Weekday 5	- 0.59890943 1	0.32137731 6	- 1.86357095	0.06238
Weekday 6	- 0.28216492 7	0.31826087	- 0.88658378 6	0.37530
Weekday 7	0			
ResonOfCallToEMCC Abdominal pain	3.36695286 5	4.02276739 4	0.83697428 5	0.40261
ResonOfCallToEMCC Affected general condition	9.71082397 6	4.13884080 2	2.34626660 9	0.01896
ResonOfCallToEMCC Allergy	- 6.87537773 3	4.08258496 2	- 1.68407462 4	0.09217

ResonOfCallToEMCC Assault	- 13.1152608 9	4.11902048 2	- 3.18407275 3	0.00145
ResonOfCallToEMCC Bicycle accident	- 20.3202911 9	5.55203239 3	- 3.65997345 8	0.00025
ResonOfCallToEMCC Bite/Sting	- 8.08652939 3	5.55815688	- 1.45489405 4	0.14570
ResonOfCallToEMCC Bleeding	1.07021975 1	4.05882620 6	0.26367715 6	0.79203
ResonOfCallToEMCC Blunt Trauma	- 6.47885604	11.0689899 8	- 0.58531591 9	0.55834
ResonOfCallToEMCC Breathing problems	0.69390180 4	4.01801856 9	0.17269751 1	0.86289
ResonOfCallToEMCC Burn	- 11.6829869 3	4.74090575 2	- 2.46429428	0.01373
ResonOfCallToEMCC Cardiac arrest	- 8.95741558 6	4.38882053 4	- 2.04096192 1	0.04126
ResonOfCallToEMCC Catheter discomfort	12.7784849 8	4.72431647 4	2.70483255 2	0.00683
ResonOfCallToEMCC Changed behavior	- 6.74434612	4.46347481	- 1.51100799 4	0.13079
ResonOfCallToEMCC Chemical exposure	- 10.4973708 2	8.56774262 5	- 1.22522014	0.22049
ResonOfCallToEMCC Chest pain	0.85079695 7	4.01834059 2	0.21172843 3	0.83232
ResonOfCallToEMCC Childbirth	- 2.95420873 9	6.39678914 1	- 0.46182681 3	0.64421
ResonOfCallToEMCC Complication after surgery	10.9159204 2	5.16118590 4	2.11500237 1	0.03443
ResonOfCallToEMCC Compromised airway	- 13.0866401 5	5.47438525	- 2.39052232 3	0.01683
ResonOfCallToEMCC Convulsion	- 8.86575821 4	4.04915517 1	- 2.18953283 8	0.02856
ResonOfCallToEMCC Diabetes	- 0.74277133	4.07502529 9	- 0.18227404 1	0.85537

ResonOfCallToEMCC Diarrhea/vomiting	8.17184922 8	4.33503917 9	1.88506929	0.05942
ResonOfCallToEMCC Dizziness	8.97935321 9	4.17267069 7	2.15194389 2	0.03140
ResonOfCallToEMCC Drowning accident	- 9.61011036 1	6.23795367 5	- 1.54058700 4	0.12342
ResonOfCallToEMCC Electrical accident	1.10903948 5	12.1484112 3	0.09129090 7	0.92726
ResonOfCallToEMCC Extremity/Wounds/Minor Trauma	- 1.43016241 5	4.02128561 9	- 0.35564805 6	0.72210
ResonOfCallToEMCC Fainting	- 5.97562979 4	4.31701266 6	- 1.38420483 2	0.16630
ResonOfCallToEMCC Fever/Infection	5.03059518 6	4.03525497 5	1.24666104 5	0.21252
ResonOfCallToEMCC Headache	3.53066387 2	4.02979053	0.87614079 3	0.38095
ResonOfCallToEMCC High energy trauma	- 8.45878296 1	5.21624467 6	- 1.62162311 9	0.10489
ResonOfCallToEMCC Horse accident	- 23.3220021 4	8.65530357 6	- 2.69453311 9	0.00705
ResonOfCallToEMCC Hypo/Hyperthermia	5.29116771 4	4.35621908 9	1.21462387 6	0.22451
ResonOfCallToEMCC Immediate danger to life	- 11.8958907 9	12.8489734 8	- 0.92582421 6	0.35454
ResonOfCallToEMCC Low energy trauma	- 0.59429972 1	4.05072911 6	- 0.14671425 9	0.88336
ResonOfCallToEMCC Other	- 0.54191236 6	4.01667226 8	- 0.13491575 4	0.89268
ResonOfCallToEMCC Pain complaints	1.92923516 4	4.0323465	0.47843982 8	0.63234
ResonOfCallToEMCC Penetrating trauma	- 10.7728167 1	8.33426747 5	- 1.29259310 9	0.19615
ResonOfCallToEMCC Person hit by a vehicle	- 9.50303411 5	4.44209902 5	- 2.13931163 2	0.03241
ResonOfCallToEMCC Poisoning	- 1.40742400 8	4.04970199 6	- 0.34753767 3	0.72819

ResonOfCallToEMCC Pregnancy	- 0.54817844 2	4.11336361 2	- 0.13326768 4	0.89398
ResonOfCallToEMCC Psychiatric illness	1.72008893 1	4.04315282 6	0.42543257 8	0.67052
ResonOfCallToEMCC Rash	- 1.77509563 6	7.73988171 7	- 0.22934402 6	0.81860
ResonOfCallToEMCC Sensation/motor loss	1.51105369 8	4.41250451 2	0.34244808	0.73201
ResonOfCallToEMCC Suspected Stroke/TIA	1.28857476 7	4.02401831 9	0.3202209	0.74880
ResonOfCallToEMCC Swelling	- 0.87290255 2	4.72177159 4	- 0.18486759 3	0.85333
ResonOfCallToEMCC Threats of suicide	- 3.85620372 2	4.45060395 2	- 0.86644504	0.38625
ResonOfCallToEMCC Torn body part	0			
ResonOfCallToEMCC Trapped person	4.99380533 8	27.5852257 1	0.18103188 2	0.85634
ResonOfCallToEMCC Unclear need for care	- 3.04425206	4.16633627 6	- 0.73067843 3	0.46498
ResonOfCallToEMCC Unconsciousness/Decreased consciousness	- 8.33705694 3	4.03783113 9	- 2.06473640 3	0.03895
ResonOfCallToEMCC Vision loss	0			
Airtemperature	0.01858005 5	0.14066099 8	0.13209102	0.89491
Airtemperature_max	0.06716749 5	0.07460249 4	0.90033846 1	0.36794
Airtemperature_min	- 0.07998532 5	0.08016463 8	- 0.99776319 1	0.31839
AmmountPrecipitation	0.06654005 2	0.01955758 1	3.40226383 4	0.00067
H_AVG_of_DistArrvalkm	- 0.66263476 9	0.05361699 4	- 12.3586705 6	0.00000
H_SUM_of_MissionCanc	0.01696003 9	0.04633598 8	0.36602303 5	0.71435
H_SUM_of_Missions	0.82015294	0.07581984 6	10.8171274 3	0.00000

B.1.5. Type III test

Effect	DF	DenDF	F Value	Pr > F
PrecipitationType	9	312,025	1.673047506	0.08938
Priority set by EMCC	2	312,025	42724.30275	0.00001
EMS Station	30	312,025	12.90274397	0.00001
Locality	78	312,025	7.035194021	0.00001
Weekday	6	312,025	2.01022987	0.06062
ResonOfCallToEMCC	48	312,025	34.28546924	0.00001
Airtemperature	1	312,025	0.017448038	0.89491
Airtemperature_max	1	312,025	0.810609345	0.36794
Airtemperature_min	1	312,025	0.995531386	0.31839
AmmountPrecipitation	1	312,025	11.5753992	0.00067
H_AVG_of_DistArrvalkm	1	312,025	152.736738	0.00001
H_SUM_of_MissionCanc	1	312,025	0.133972862	0.71435
H_SUM_of_Missions	1	312,025	117.0102459	0.00001
H_SUM_of_Resources	1	312,025	114.0254352	0.00001
Hour	1	312,025	582.6041912	0.00001
Month	1	312,025	2.526366008	0.11196
H_AVG_of_Call_handelintime	0	312,025		
H_AVG_of_Deliverytime	1	312,025	0.019460678	0.88905
H_AVG_of_Drivetime	0	312,025		
H_AVG_of_Onscenetime	1	312,025	0.309665147	0.57789
H_AVG_of_Responsetime	0	312,025		
H_AVG_of_Transportationtime	1	312,025	0.585355135	0.44422
TravelDistanceToPatient_ km	1	312,025	8564.739672	0.00001

B.1.6. Assessment

Percentile	Training Observation	Training Predicted Average	Training Observed Average	Validation Observation	Validation Predicted Average	Validation Observed Average
5	15611	129.58	161.00	7795	129.44	158.52
10	15611	104.44	112.43	7795	104.62	113.82
15	15611	93.05	98.37	7795	92.96	98.94
20	15611	85.06	85.90	7795	84.86	85.19
25	15611	78.79	74.66	7795	78.58	73.62
30	15611	73.46	65.69	7795	73.32	66.25
35	15611	68.73	58.18	7795	68.62	57.81
40	15611	64.28	51.68	7795	64.15	51.18
45	15611	59.83	45.87	7795	59.61	45.02
50	15611	54.93	40.07	7795	54.71	39.15
55	15611	49.14	33.36	7795	48.90	33.47
60	15611	41.99	28.98	7795	41.83	28.87
65	15611	34.43	25.59	7795	34.35	25.71
70	15611	27.82	23.87	7795	27.84	24.10
75	15611	22.15	22.48	7795	22.17	22.28

80	15611	17.16	21.15	7795	17.17	21.08
85	15611	12.42	19.79	7795	12.43	19.41
90	15611	7.62	18.48	7795	7.55	18.49
95	15611	2.07	17.10	7795	2.04	16.95
100	15606	-7.71	14.58	7787	-7.73	14.64

B.1.7. Assessment statistics

Partition	ASE	Observed Average	SSE	Observations Used	Unused
Training	2,232.7694	161.0022	697,104,090.5751	312,215	378,069
Validation	2,238.6432	158.5247	348,986,564.4583	155,892	189,250
Test	2,217.2440	153.9765	116,420,833.2910	52,507	62,540

B.2. Gradient Boosting model statistics

B.2.1. Overall

B.2.1.1. Variable importance

Variable	Importance	Standard Deviation
Priority set by EMCC	31,267,339.6033	40,150,578.2814
H_AVG_of_Responsetime	9,771,576.8120	10,892,769.5457
H_AVG_of_Call_handelintime	9,196,869.1868	16,797,179.7600
TravelDistanceToPatient_ km	3,260,152.3358	1,161,858.8296
EMS Station	1,966,382.5414	489,350.2304
Hour	710,004.1145	653,923.3281
ResonOfCallToEMCC	633,218.8821	314,031.7585
H_AVG_of_Drivetime	384,293.6147	217,319.3691
Locality	210,131.0734	143,520.6892
H_SUM_of_Missions	158,529.7463	159,017.5768
H_AVG_of_DistArrvalkm	82,830.4638	46,933.3107
Weekday	81,590.6039	47,119.1766
H_AVG_of_Onscenetime	63,562.1282	43,082.0855
H_SUM_of_MissionCanc	63,403.2513	86,107.0433
Airtemperature_min	56,932.4125	80,380.4795
H_AVG_of_Transportationtime	56,249.6651	47,326.3803
Airtemperature_max	54,403.4899	65,220.4884
H_AVG_of_Deliverytime	39,819.1436	34,446.9003
H_SUM_of_Resources	32,985.0250	58,842.9534
Airtemperature	32,618.3629	43,222.9416
Month	29,226.9991	58,924.4273
PrecipitationType	20,229.5481	28,280.0651
AmmountPrecipitation	17,869.7847	25,717.8865
Priority set by EMCC	31,267,339.6033	40,150,578.2814

B.2.1.2. Iteration History

Number of Trees	Average Squared Error	Validation Average Squared Error
1	2,918.9408	2,922.8840
2	2,544.5111	2,551.6657
3	2,315.4025	2,326.1354
4	2,172.3693	2,185.3744
5	2,081.5357	2,096.1881
6	2,023.1382	2,039.2416
7	1,985.0641	2,002.7468
8	1,958.8746	1,977.8610
9	1,940.6045	1,960.3965
10	1,927.4020	1,948.7607
11	1,916.1128	1,938.4864
12	1,907.0845	1,931.3392
13	1,899.6518	1,925.0032
14	1,893.1572	1,920.2273
15	1,886.9503	1,915.3346
16	1,882.8369	1,912.2554
17	1,879.1132	1,909.2577
18	1,874.8920	1,906.2023
19	1,871.1221	1,904.3678
20	1,868.3013	1,902.6031
21	1,865.3413	1,900.7788
22	1,863.0925	1,899.6582
23	1,860.9148	1,898.2305
24	1,858.0798	1,896.8817
25	1,856.5902	1,896.0930
26	1,854.3366	1,894.7930
27	1,852.3438	1,893.9045
28	1,850.1928	1,893.0218
29	1,848.9873	1,892.2438
30	1,847.4941	1,891.6512
31	1,846.7788	1,891.1065
32	1,844.5894	1,890.0871
33	1,842.0719	1,888.4407
34	1,840.9412	1,887.8996
35	1,839.2113	1,887.5104
36	1,837.8260	1,887.1953
37	1,836.7429	1,886.8113
38	1,836.3536	1,886.6268
39	1,834.6474	1,886.3299
40	1,833.2252	1,885.7177

41	1,832.1311	1,885.2780
42	1,830.5031	1,884.5835
43	1,829.2310	1,884.5276
44	1,828.0825	1,883.9778
45	1,826.5488	1,883.4812
46	1,825.5736	1,883.1676
47	1,825.1306	1,883.1127
48	1,823.5899	1,882.7509
49	1,823.1796	1,882.6151
50	1,821.3019	1,882.0476

B.2.1.3. Assessment

Percentage	Training Observations	Training Predicted Average	Training Observed Average	Validation Observations	Validation Predicted Average	Validation Observed Average	Test Observations	Test Predicted Average	Test Observed Average
5	34515	168.58	172.46	17258	168.32	168.43	5753	167.95	166.66
10	34515	117.29	117.40	17258	117.34	118.20	5753	117.16	117.64
15	34515	97.41	97.37	17258	97.13	97.57	5753	97.26	97.17
20	34515	84.18	83.33	17258	84.00	83.65	5753	84.18	84.61
25	34515	73.94	73.72	17258	73.88	73.43	5753	74.01	73.36
30	34515	65.22	64.90	17258	65.10	65.01	5753	65.37	65.50
35	34515	57.76	57.33	17258	57.68	56.97	5753	57.88	58.36
40	34515	51.03	50.91	17258	50.90	50.69	5753	51.16	51.25
45	34515	44.65	44.00	17258	44.54	44.30	5753	44.87	44.06
50	34515	38.45	38.20	17258	38.41	38.20	5753	38.73	38.45
55	34515	33.09	32.57	17258	33.13	32.69	5753	33.40	33.35
60	34515	29.10	28.80	17258	29.18	29.00	5753	29.34	28.59
65	34515	26.04	25.68	17258	26.13	26.01	5753	26.19	26.12
70	34515	23.69	23.39	17258	23.75	23.20	5753	23.80	23.67
75	34515	21.79	21.61	17258	21.83	21.64	5753	21.85	21.18
80	34515	20.10	19.95	17258	20.14	20.07	5753	20.14	19.98
85	34515	18.52	18.52	17258	18.55	18.54	5753	18.55	18.52
90	34515	16.89	16.99	17258	16.91	17.16	5753	16.91	17.16
95	34515	14.94	15.10	17258	14.96	15.39	5753	14.96	15.37
100	34499	11.16	11.61	17240	11.16	11.77	5740	11.15	11.64

B.2.1.4. Iteration history

Number of Trees	Average Squared Error	Validation Average Squared Error
1	632.3327	614.8730
2	617.3509	599.7475
3	606.6062	588.8315
4	597.4099	579.4697
5	591.7438	573.7693
6	586.4248	568.8247
7	582.4223	564.7644
8	579.4945	562.0843
9	577.0827	559.6796
10	575.2927	558.0628
11	573.9772	557.0894
12	572.3675	555.4488
13	571.1792	554.5267
14	569.9955	553.4408
15	568.9379	552.7580
16	568.2188	552.3306
17	567.4928	551.7022
18	566.7773	551.3036
19	566.3905	551.0290
20	565.8626	550.5703
21	565.4922	550.3054
22	565.0103	550.2014
23	564.5549	549.9834
24	564.2954	549.8634
25	563.8866	549.7114
26	563.3176	549.4014
27	562.9522	549.2365
28	562.5537	549.3037
29	562.3665	549.2667
30	562.1434	549.2279
31	561.5567	548.9417
32	561.2194	548.7721
33	560.9985	548.7131
34	560.5846	548.5807
35	560.4585	548.6029
36	559.9404	548.2848
37	559.6707	548.2569
38	559.3811	548.0875
39	559.0542	548.0720
40	558.5171	547.7933
41	558.1541	547.7452
42	557.7514	547.6513

43	557.6167	547.6152
44	557.4755	547.6138
45	557.1638	547.4814
46	556.8889	547.4999
47	556.5932	547.3945
48	556.4432	547.3423
49	556.3871	547.3295
50	555.9817	547.2797

B.2.1.5. Assessment

Percentage	Training Observations	Training Predicted Average	Training Observed Average	Validation Observations	Validation Predicted Average	Validation Observed Average	Test Observations	Test Predicted Average	Test Observed Average
5	17392	49.40	51.82	8696	49.26	49.99	2880	49.53	49.66
10	17392	35.83	35.66	8696	35.78	36.02	2880	35.86	36.57
15	17392	32.07	31.90	8696	32.10	31.84	2880	32.11	31.77
20	17392	29.55	29.09	8696	29.60	29.27	2880	29.55	29.45
25	17392	27.49	27.48	8696	27.57	27.31	2880	27.47	27.65
30	17392	25.84	25.88	8696	25.91	26.05	2880	25.84	25.27
35	17392	24.54	24.21	8696	24.59	24.48	2880	24.55	24.78
40	17392	23.45	23.30	8696	23.49	22.94	2880	23.48	23.17
45	17392	22.49	22.44	8696	22.52	22.35	2880	22.49	22.59
50	17392	21.59	21.35	8696	21.65	21.54	2880	21.57	20.65
55	17392	20.78	20.51	8696	20.83	20.66	2880	20.77	20.09
60	17392	19.99	19.66	8696	20.03	19.73	2880	20.01	19.86
65	17392	19.22	19.07	8696	19.26	19.02	2880	19.24	18.80
70	17392	18.45	18.40	8696	18.49	18.20	2880	18.44	18.62
75	17392	17.66	17.66	8696	17.69	17.56	2880	17.62	18.22
80	17392	16.82	16.59	8696	16.84	17.04	2880	16.79	16.90
85	17392	15.88	15.82	8696	15.90	15.90	2880	15.86	15.84
90	17392	14.77	14.78	8696	14.80	14.96	2880	14.77	14.65
95	17392	13.20	13.18	8696	13.23	13.27	2880	13.20	12.84
100	17388	9.94	10.14	8684	9.93	10.37	2870	9.85	10.02

B.2.2. Priority 2

B.2.2.1. Iteration history

Number of Trees	Average Squared Error	Validation Average Squared Error
1	3,850.5625	3,867.9604
2	3,532.9810	3,558.0396
3	3,335.0710	3,366.8757

4	3,211.1796	3,248.2415
5	3,129.6768	3,172.0129
6	3,077.0992	3,124.3420
7	3,041.1237	3,092.0159
8	3,015.4782	3,071.2059
9	2,996.5657	3,056.0873
10	2,981.4164	3,042.9875
11	2,967.4226	3,032.2574
12	2,955.7060	3,023.6565
13	2,944.7790	3,016.1250
14	2,935.7734	3,010.2974
15	2,927.2937	3,005.1871
16	2,920.8013	3,002.0098
17	2,914.3560	2,998.9812
18	2,907.6347	2,995.4610
19	2,902.5604	2,992.5276
20	2,897.5461	2,990.2440
21	2,892.2699	2,987.1472
22	2,888.2343	2,985.3558
23	2,884.2810	2,984.4945
24	2,880.4181	2,983.2227
25	2,875.2221	2,981.5880
26	2,872.0619	2,979.9002
27	2,868.1225	2,979.1400
28	2,864.3586	2,977.8705
29	2,859.5045	2,974.5018
30	2,856.2002	2,973.4890
31	2,851.4823	2,972.4706
32	2,847.8839	2,971.6245
33	2,843.7202	2,970.2821
34	2,840.1167	2,969.7022
35	2,836.3509	2,968.5552
36	2,834.3122	2,968.3297
37	2,832.4721	2,968.1419
38	2,829.5612	2,967.8864
39	2,826.3500	2,967.4456
40	2,823.6138	2,967.0175
41	2,821.7151	2,966.6984
42	2,818.6992	2,966.1666
43	2,816.2645	2,965.7924
44	2,813.3844	2,965.6623
45	2,810.5650	2,964.5954
46	2,808.4174	2,963.9840
47	2,805.0649	2,964.0843
48	2,801.9659	2,963.2671

49	2,798.5414	2,962.9756
50	2,795.6928	2,962.4405

B.2.2.2. Assessment

Percentage	Training Observations	Training Predicted Average	Training Observed Average	Validation Observations	Validation Predicted Average	Validation Observed Average	Test Observations	Test Predicted Average	Test Observed Average
5	16130	182.56	190.63	8064	182.28	178.96	2704	181.50	176.57
10	16130	137.11	138.87	8064	137.22	137.87	2704	136.71	138.53
15	16130	119.04	119.13	8064	119.05	119.29	2704	118.67	119.74
20	16130	107.00	107.00	8064	106.85	108.20	2704	106.62	106.15
25	16130	97.95	98.36	8064	97.75	98.41	2704	97.69	97.92
30	16130	90.75	89.97	8064	90.51	91.13	2704	90.51	92.46
35	16130	84.72	83.59	8064	84.48	84.10	2704	84.49	85.63
40	16130	79.39	78.65	8064	79.26	78.70	2704	79.24	79.24
45	16130	74.49	73.17	8064	74.39	74.25	2704	74.40	74.78
50	16130	69.91	69.38	8064	69.81	68.84	2704	69.86	69.55
55	16130	65.63	65.22	8064	65.55	65.80	2704	65.56	65.64
60	16130	61.69	60.52	8064	61.60	62.34	2704	61.62	62.64
65	16130	58.03	57.39	8064	57.95	57.33	2704	57.81	58.47
70	16130	54.53	53.62	8064	54.44	53.76	2704	54.33	54.08
75	16130	51.10	50.75	8064	51.01	50.89	2704	50.94	50.89
80	16130	47.69	47.05	8064	47.62	47.52	2704	47.57	46.72
85	16130	44.16	43.83	8064	44.11	44.29	2704	44.08	43.93
90	16130	40.20	39.42	8064	40.19	39.73	2704	40.15	39.40
95	16130	35.32	34.69	8064	35.34	35.27	2704	35.22	34.76
100	16113	25.55	25.57	8055	25.65	26.14	2702	25.86	26.16

B.2.3. Priority 3

B.2.3.1. Iteration history

Number of Trees	Average Squared Error	Validation Average Squared Error
1	9,988.4603	10,232.2120
2	8,995.7594	9,277.2752
3	8,382.6186	8,708.2456
4	8,002.4984	8,345.7679
5	7,762.2561	8,129.6946
6	7,587.5668	7,975.4970
7	7,456.7702	7,871.7049
8	7,373.4849	7,803.6956
9	7,305.7411	7,774.9559
10	7,234.0408	7,729.5827

11	7,192.1894	7,700.4721
12	7,142.8370	7,681.3067
13	7,104.8077	7,661.7641
14	7,064.4763	7,637.2068
15	7,026.9831	7,619.2478
16	6,985.1028	7,596.3561
17	6,952.1994	7,593.2409
18	6,925.4227	7,583.5352
19	6,900.9880	7,571.3960
20	6,880.4923	7,561.7008
21	6,867.0724	7,555.4203
22	6,833.6874	7,545.5962
23	6,824.2211	7,541.6794
24	6,791.5876	7,543.7889
25	6,760.7637	7,539.2560
26	6,744.0939	7,541.3621
27	6,738.1211	7,540.3514
28	6,716.7099	7,533.1766
29	6,697.8862	7,527.1159
30	6,672.5543	7,514.8430
31	6,650.5150	7,511.5755
32	6,628.0773	7,505.3263
33	6,614.4718	7,506.5390
34	6,606.8006	7,504.6537
35	6,601.0341	7,501.9584
36	6,581.8810	7,498.9063
37	6,565.8380	7,496.5343
38	6,560.7275	7,494.0692
39	6,537.4864	7,484.2696
40	6,521.5027	7,483.4006
41	6,511.5163	7,478.7184
42	6,490.1977	7,475.4659

B.2.3.2. Assessment

Percentage	Training Observations	Training Predicted Average	Training Observed Average	Validation Observations	Validation Predicted Average	Validation Observed Average	Test Observations	Test Predicted Average	Test Observed Average
5	994	300.73	335.84	499	298.62	294.12	169	297.73	278.54
10	994	229.72	235.93	499	230.07	231.28	169	229.23	233.70
15	994	198.11	199.30	499	196.94	205.68	169	197.43	174.84
20	994	175.91	173.48	499	175.69	176.37	169	174.96	170.57
25	994	160.32	158.44	499	159.55	155.91	169	157.58	150.65
30	994	147.56	143.24	499	146.93	143.55	169	144.82	150.01
35	994	135.98	134.12	499	135.69	145.54	169	134.03	134.71

40	994	126.04	121.22	499	125.60	123.01	169	124.46	110.79
45	994	117.19	113.84	499	116.39	116.82	169	115.96	119.80
50	994	108.61	107.81	499	108.30	106.52	169	108.09	93.34
55	994	100.98	96.52	499	101.03	104.35	169	100.19	94.63
60	994	93.82	87.09	499	93.94	91.35	169	92.51	97.52
65	994	86.92	87.85	499	86.99	89.56	169	85.48	82.11
70	994	80.19	76.83	499	80.44	79.76	169	79.22	81.98
75	994	73.88	71.74	499	73.97	76.95	169	72.67	64.57
80	994	67.89	65.54	499	67.69	66.68	169	66.92	73.56
85	994	62.03	61.33	499	61.53	60.04	169	61.26	63.26
90	994	55.33	53.19	499	54.67	53.80	169	54.82	52.46
95	994	46.51	44.88	499	45.74	47.58	169	46.02	46.27
100	979	29.73	29.35	482	29.71	30.42	168	30.86	29.97

C. Missing data

incidentid_lopnr	Frequency	Percent
Non-missing	1150474	100
taskid_lopnr	Frequency	Percent
Non-missing	1150474	100
rakelid_lopnr	Frequency	Percent
Non-missing	1150474	100
Priority set by EMCC	Frequency	Percent
Non-missing	1150474	100
Station		
Station	Frequency	Percent
Non-missing	1150474	100
Ort		
KOMMUN	Frequency	Percent
	139	0.01
Non-missing	1150335	99.99
Receved emergencycall UTC	Frequency	Percent
Non-missing	1150474	100
Year	Frequency	Percent
Non-missing	1150474	100

Month	Frequency	Percent
Non-missing	1150474	100
Weekday	Frequency	Percent
Non-missing	1150474	100
Hour	Frequency	Percent
Non-missing	1150474	100
TravelDistanceToPatient_ km	Frequency	Percent
.	4427	0.38
Non-missing	1146047	99.62
Call_handlingtime	Frequency	Percent
Non-missing	1150474	100
Drivetime	Frequency	Percent
Non-missing	1150474	100
Date	Frequency	Percent
Non-missing	1150474	100
MissionCancelled	Frequency	Percent
Non-missing	1150474	100
Onscenetime	Frequency	Percent
.	220418	19.16
Non-missing	930056	80.84
Transportationtime	Frequency	Percent
.	228146	19.83
Non-missing	922328	80.17
Deliverytime	Frequency	Percent
.	319598	27.78
Non-missing	830876	72.22
Airtemperature_min	Frequency	Percent
Non-missing	1150474	100
Airtemperature_max	Frequency	Percent
Non-missing	1150474	100
AmmountPrecipitation	Frequency	Percent

Non-missing	1150474	100
Airtemperature	Frequency	Percent
Non-missing	1150474	100
PrecipitationType	Frequency	Percent
	627881	54.58
Non-missing	522593	45.42
H_SUM_of_Resources	Frequency	Percent
Non-missing	1150474	100
H_AVG_of_Onscenetime	Frequency	Percent
.	8	0
Non-missing	1150466	100
H_AVG_of_Transportationtime	Frequency	Percent
.	15	0
Non-missing	1150459	100
H_AVG_of_Deliverytime	Frequency	Percent
.	26	0
Non-missing	1150448	100
H_AVG_of_Responsetime	Frequency	Percent
Non-missing	1150474	100
H_AVG_of_Call_handelingtime	Frequency	Percent
Non-missing	1150474	100
H_AVG_of_Drivetime	Frequency	Percent
Non-missing	1150474	100
H_AVG_of_DistArrvalkm	Frequency	Percent
Non-missing	1150474	100
H_SUM_of_Missions	Frequency	Percent
Non-missing	1150474	100
H_SUM_of_MissionCanc	Frequency	Percent
Non-missing	1150474	100
ResponseTime	Frequency	Percent
Non-missing	1150474	100

D. SAS code

D.1. SAS code from feature engineering in SAS Enterprise Guide 8.2

```
/* -----  
Kod exporterad från SAS Enterprise Guide  
DATUM: 07 January 2025   TID: 09:07:11  
PROJEKT: Study I Revision 2.2  
PROJEKTSÖKVÄG: C:\Users\4khw\OneDrive - Karolinska Institutet\General\Studie I\Revision  
II\Analyses\Study I Revision 2.2.egp  
----- */  
  
/* Bibliotekstilldelning för SASAppUser.BI_KFA */  
Libname BI_KFA META  
LIBURI="SASLibrary?*[@Name='BI_KFA'] [DeployedComponents/ServerContext[@Name='SA  
SAppUser']]" METAOUT=DATA;  
/* Bibliotekstilldelning för SASAppUser.BI_KFA */  
Libname BI_KFA META  
LIBURI="SASLibrary?*[@Name='BI_KFA'] [DeployedComponents/ServerContext[@Name='SA  
SAppUser']]" METAOUT=DATA;  
/* Bibliotekstilldelning för SASAppUser.BI_KFA */  
Libname BI_KFA META  
LIBURI="SASLibrary?*[@Name='BI_KFA'] [DeployedComponents/ServerContext[@Name='SA  
SAppUser']]" METAOUT=DATA;  
/* Bibliotekstilldelning för SASAppUser.VA_VIYA */  
Libname VA_VIYA META  
LIBURI="SASLibrary?*[@Name='VA_VIYA'] [DeployedComponents/ServerContext[@Name='S  
ASAppUser']]";  
/* Bibliotekstilldelning för SASAppUser.J */  
Libname J V9 '/home2/S4KHW' ;  
  
/* Conditionally delete set of tables or views, if they exists      */  
/* If the member does not exist, then no action is performed      */  
%macro _eg_conditional_dropds /parmbuff;  
  
    %local num;  
    %local stepneeded;  
    %local stepstarted;  
    %local dsname;  
    %local name;  
  
    %let num=1;  
    /* flags to determine whether a PROC SQL step is needed */  
    /* or even started yet                                     */  
    %let stepneeded=0;  
    %let stepstarted=0;  
    %let dsname= %qscan(&syspbuff,&num,',()');  
    %do %while(&dsname ne);
```

```

        %let name = %sysfunc(left(&dsname));
        %if %qsysfunc(exist(&name)) %then %do;
            %let stepneeded=1;
            %if (&stepstarted eq 0) %then %do;
                proc sql;
                %let stepstarted=1;

                %end;
                drop table &name;
            %end;

        %if %sysfunc(exist(&name,view)) %then %do;
            %let stepneeded=1;
            %if (&stepstarted eq 0) %then %do;
                proc sql;
                %let stepstarted=1;

                %end;
                drop view &name;
            %end;
            %let num=%eval(&num+1);
            %let dsname=%qscan(&syspbuff,&num,',()');
            %end;
            %if &stepstarted %then %do;
                quit;
            %end;
    %mend _eg_conditional_dropds;

/* Build where clauses from stored process parameters */
%macro _eg_WhereParam( COLUMN, PARM, OPERATOR, TYPE=S,
MATCHALL=_ALL_VALUES_, MATCHALL_CLAUSE=1, MAX= , IS_EXPLICIT=0, MATCH_CASE=1);

    %local q1 q2 sq1 sq2;
    %local isEmpty;
    %local isEqual isNotEqual;
    %local isIn isNotIn;
    %local isString;
    %local isBetween;

    %let isEqual = ("%QUPCASE(&OPERATOR)" = "EQ" OR "&OPERATOR" = "=");
    %let isNotEqual = ("%QUPCASE(&OPERATOR)" = "NE" OR "&OPERATOR" = "<>");
    %let isIn = ("%QUPCASE(&OPERATOR)" = "IN");
    %let isNotIn = ("%QUPCASE(&OPERATOR)" = "NOT IN");
    %let isString = (%QUPCASE(&TYPE) eq S or %QUPCASE(&TYPE) eq STRING );
    %if &isString %then
    %do;
        %if "&MATCH_CASE" eq "0" %then %do;

```

```

        %let COLUMN = %str(UPPER%(&COLUMN%));
    %end;
    %let q1=%str("%");
    %let q2=%str("%");
    %let sq1=%str('%');
    %let sq2=%str('%');
%end;
%else %if %QUPCASE(&TYPE) eq D or %QUPCASE(&TYPE) eq DATE %then
%do;
    %let q1=%str("%");
    %let q2=%str("%d");
        %let sq1=%str('%');
    %let sq2=%str('%');
%end;
%else %if %QUPCASE(&TYPE) eq T or %QUPCASE(&TYPE) eq TIME %then
%do;
    %let q1=%str("%");
    %let q2=%str("%t");
        %let sq1=%str('%');
    %let sq2=%str('%');
%end;
%else %if %QUPCASE(&TYPE) eq DT or %QUPCASE(&TYPE) eq DATETIME %then
%do;
    %let q1=%str("%");
    %let q2=%str("%dt");
        %let sq1=%str('%');
    %let sq2=%str('%');
%end;
%else
%do;
    %let q1=;
    %let q2=;
        %let sq1=;
    %let sq2=;
%end;

%if "&PARM" = "" %then %let PARM=&COLUMN;

%let isBetween = ("%QUPCASE(&OPERATOR)"="BETWEEN" or
"%QUPCASE(&OPERATOR)"="NOT BETWEEN");

%if "&MAX" = "" %then %do;
    %let MAX = &parm._MAX;
    %if &isBetween %then %let PARM = &parm._MIN;
%end;

%if not %symexist(&PARM) or (&isBetween and not %symexist(&MAX)) %then %do;

```

```

    %if &IS_EXPLICIT=0 %then %do;
        not &MATCHALL_CLAUSE
    %end;
    %else %do;
        not 1=1
    %end;
%end;
%else %if "%qupcase(&&&PARM)" = "%qupcase(&MATCHALL)" %then %do;
    %if &IS_EXPLICIT=0 %then %do;
        &MATCHALL_CLAUSE
    %end;
    %else %do;
        1=1
    %end;
%end;
%else %if (not %symexist(&PARM._count)) or &isBetween %then %do;
    %let isEmpty = ("%&&&PARM" = "");
    %if (&isEqual AND &isEmpty AND &isString) %then
        &COLUMN is null;
    %else %if (&isNotEqual AND &isEmpty AND &isString) %then
        &COLUMN is not null;
    %else %do;
        %if &IS_EXPLICIT=0 %then %do;
            &COLUMN &OPERATOR
                %if "&MATCH_CASE" eq "0" %then %do;

                    %unquote(&q1)%QUPCASE(&&&PARM)%unquote(&q2)
                    %end;
                    %else %do;

                    %unquote(&q1)&&&PARM%unquote(&q2)
                    %end;

                %end;
                %else %do;
                    &COLUMN &OPERATOR
                        %if "&MATCH_CASE" eq "0" %then %do;

                            %unquote(%nrstr(&sq1))%QUPCASE(&&&PARM)%unquote(%nrstr(&sq2))
                            %end;
                            %else %do;

                            %unquote(%nrstr(&sq1))&&&PARM%unquote(%nrstr(&sq2))
                            %end;

                        %end;
                    %if &isBetween %then
                        AND %unquote(&q1)&&&MAX%unquote(&q2);
                    %end;

```



```

%end;
%else
%do;
    %local emptyList;
    %let emptyList = %symexist(&PARM._count);
    %if &emptyList %then %let emptyList = &&&PARM._count = 0;
    %if (&emptyList) %then
    %do;
        %if (&isNotin) %then
            1;
        %else
            0;
    %end;
    %else %if (&&&PARM._count = 1) %then
%do;
    %let isEmpty = ("&&&PARM" = "");
    %if (&isIn AND &isEmpty AND &isString) %then
        &COLUMN is null;
    %else %if (&isNotin AND &isEmpty AND &isString) %then
        &COLUMN is not null;
    %else %do;
        %if &IS_EXPLICIT=0 %then %do;
            %if "&MATCH_CASE" eq "0" %then %do;
                &COLUMN &OPERATOR
(%unquote(&q1)%QUPCASE(&&&PARM)%unquote(&q2))
            %end;
            %else %do;
                &COLUMN &OPERATOR
(%unquote(&q1)&&&PARM%unquote(&q2))
            %end;
        %end;
    %else %do;
        &COLUMN &OPERATOR (
            %if "&MATCH_CASE" eq "0" %then %do;

                %unquote(%nrstr(&sq1))%QUPCASE(&&&PARM)%unquote(%nrstr(&sq2)))
            %end;
            %else %do;

                %unquote(%nrstr(&sq1))&&&PARM%unquote(%nrstr(&sq2)))
            %end;
        %end;
    %end;
%end;
%else
%do;
    %local addIsNull addIsNotNull addComma;

```

```

%let addIsNull = %eval(0);
%let addIsNotNull = %eval(0);
%let addComma = %eval(0);
(&COLUMN &OPERATOR (
%do i=1 %to &&&PARM._count;
  %let isEmpty = ("&&&PARM&i" = "");
  %if (&isString AND &isEmpty AND (&isIn OR &isNotIn)) %then
  %do;
    %if (&isIn) %then %let addIsNull = 1;
    %else %let addIsNotNull = 1;
  %end;
  %else
  %do;
    %if &addComma %then %do;,%end;
                                %if &IS_EXPLICIT=0 %then %do;
                                    %if "&MATCH_CASE" eq "0" %then
%do;

    %unquote(&q1)%QUPCASE(&&&PARM&i)%unquote(&q2)
                                %end;
                                %else %do;

    %unquote(&q1)&&&PARM&i%unquote(&q2)
                                %end;
                                %end;
                                %else %do;
                                    %if "&MATCH_CASE" eq "0" %then
%do;

    %unquote(%nrstr(&sq1))%QUPCASE(&&&PARM&i)%unquote(%nrstr(&sq2))
                                %end;
                                %else %do;

    %unquote(%nrstr(&sq1))&&&PARM&i%unquote(%nrstr(&sq2))
                                %end;
                                %end;
    %let addComma = %eval(1);
  %end;
%end;)
%if &addIsNull %then OR &COLUMN is null;
%else %if &addIsNotNull %then AND &COLUMN is not null;
%do;)
%end;
%end;
%mend _eg_WhereParam;

```

```

/* ----- */
/* MACRO: enterpriseguide */
/* PURPOSE: define a macro variable */
/* that contains the file system */
/* path of the WORK library on the */
/* server. Note that different */
/* logic is needed depending on the */
/* server type. */
/* ----- */
%macro enterpriseguide;
%global sasworklocation;
%local tempdsn unique_dsn path;

%if &sysscp=OS %then %do; /* MVS Server */
    %if %sysfunc(getoption(filesystem))=MVS %then %do;
        /* By default, physical file name will be considered a classic MVS data set. */
        /* Construct dsn that will be unique for each concurrent session under a
particular account: */
        filename egtemp '&egtemp' disp=(new,delete); /* create a
temporary data set */
        %let tempdsn=%sysfunc(pathname(egtemp)); /* get dsn */
        filename egtemp clear; /* get rid of data set - we only wanted its
name */
        %let unique_dsn=".EGTEMP.%substr(&tempdsn, 1, 16).PDSE";
        filename egtmpdir &unique_dsn
            disp=(new,delete,delete) space=(cyl,(5,5,50))
            dsorg=po dsntype=library recfm=vb
            lrecl=8000 blksize=8004 ;
        options fileext=ignore ;
    %end;
    %else %do;
        /*
        By default, physical file name will be considered an HFS
        (hierarchical file system) file.
        */
        %if "%sysfunc(getoption(filetempdir))"="" %then %do;
            filename egtmpdir '/tmp';
        %end;
        %else %do;
            filename egtmpdir
"%sysfunc(getoption(filetempdir))";
        %end;
    %end;
    %let path=%sysfunc(pathname(egtmpdir));
    %let sasworklocation=%sysfunc(quote(&path));
%end; /* MVS Server */

```

```

%else %do;
    %let sasworklocation = "%sysfunc(getoption(work))"/";
%end;
%if &sysscp=VMS_AXP %then %do; /* Alpha VMS server */
    %let sasworklocation = "%sysfunc(getoption(work))";
%end;
%if &sysscp=CMS %then %do;
    %let path = %sysfunc(getoption(work));
    %let sasworklocation = "%substr(&path, %index(&path,%str( )))";
%end;
%mend enterpriseguide;

```

```

%enterpriseguide

```

```

/* save the current settings of XPIXELS and YPIXELS */
/* so that they can be restored later */
%macro _sas_pushchartsize(new_xsize, new_ysize);
    %global _savedxpixels _savedypixels;
    options nonotes;
    proc sql noprint;
        select setting into :_savedxpixels
        from sashelp.vgopt
        where optname eq "XPIXELS";
        select setting into :_savedypixels
        from sashelp.vgopt
        where optname eq "YPIXELS";
    quit;
    options notes;
    GOPTIONS XPIXELS=&new_xsize YPIXELS=&new_ysize;
%mend _sas_pushchartsize;

/* restore the previous values for XPIXELS and YPIXELS */
%macro _sas_popchartsize;
    %if %symexist(_savedxpixels) %then %do;
        GOPTIONS XPIXELS=&_savedxpixels YPIXELS=&_savedypixels;
        %symdel _savedxpixels / nowarn;
        %symdel _savedypixels / nowarn;
    %end;
%mend _sas_popchartsize;

```

```

ODS PROCTITLE;
OPTIONS DEV=SVG;
GOPTIONS XPIXELS=0 YPIXELS=0;
%macro HTML5AccessibleGraphSupported;
    %if %_SAS_VERCOMP_FV(9,4,4, 0,0,0) >= 0 %then ACCESSIBLE_GRAPH;

```

```

%mend;
FILENAME EGHTMLX TEMP;
ODS HTML5(ID=EGHTMLX) FILE=EGHTMLX
  OPTIONS(BITMAP_MODE='INLINE')
  %HTML5AccessibleGraphSupported
  ENCODING='utf-8'
  STYLE=HTMLBlue
  NOGTITLE
  NOGFOOTNOTE
  GPATH=&sasworklocation
;

/* START PÅ NOD: Frågebyggare-Grundläggande filter */
%LET _CLIENTTASKLABEL='Frågebyggare-Grundläggande filter';
%LET _CLIENTPROCESSFLOWNAME='Processflöde';
%LET _CLIENTPROJECTPATH='C:\Users\4khw\OneDrive - Karolinska
Institutet\General\Studie I\Revision II\Analyses\Study I Revision 2.2.egp';
%LET _CLIENTPROJECTPATHHOST='RSTPC00020406';
%LET _CLIENTPROJECTNAME='Study I Revision 2.2.egp';

%_eg_conditional_dropds(WORK.QUERY_FOR_DYNEMSALL_TASKLASTVALU);

PROC SQL;
  CREATE TABLE WORK.QUERY_FOR_DYNEMSALL_TASKLASTVALU AS
  SELECT DISTINCT /* Responsetime */
    (((INPUT(t1.MOTTAGEN,anydtdtm.))-(input(t1.LARMTIDAMBULANS,
      anydtdtm.)))+(t2.FirstFramme-t2.FirstMottaget)) FORMAT=TIME8. AS
  Responsetime,
    t1.incidentid_lopnr,
    t1.taskid_lopnr,
    t1.rakelid_lopnr,
    /* Received emergencycall UTC */
    (input(t1.LARMTIDAMBULANS, anydtdtm.)) FORMAT=SVEDFDT19. AS 'Received
  emergencycall UTC'n,
    /* Year */
    (YEAR(DATEPART((input(t1.LARMTIDAMBULANS, anydtdtm.))))) FORMAT=NUMX12.
  AS Year,
    /* Hour */
    (HOUR((input(t1.LARMTIDAMBULANS, anydtdtm.))))) FORMAT=NUMX12. AS Hour,
    t1.PRIORITETUT LABEL="Priority set by dispatch" AS 'Priority set by dispatch'n,
    /* DistancetoArrival km */
    (t1.DFramme/1000) FORMAT=COMMAX6.3 AS 'DistancetoArrival km'n,
    /* Call_handelingtime */
    ((INPUT(t1.MOTTAGEN,anydtdtm.))-(input(t1.LARMTIDAMBULANS, anydtdtm.)))
  FORMAT=TIME8. AS Call_handelingtime,
    /* Drivetime */
    (t2.FirstFramme-t2.FirstMottaget) FORMAT=TIME8. AS Drivetime,

```

```

/* Date */
    (DATEPART(input(t1.LARMTIDAMBULANS, anydtdtm.))) FORMAT=AFRDFDE7. AS Date,
/* MissionCancelled */
    (COUNT(DISTINCT t1.Avbrutet_uppdrag)) AS MissionCancelled,
t1.RakelIndex1,
t1.PRIORITETUT,
/* Onscenetime */
    (t1.Lastat-t1.Framme) FORMAT=TIME8. AS Onscenetime,
/* Transportationtime */
    (t1.Snart_klar-t1.Lastat) FORMAT=TIME8. AS Transportationtime,
/* Deliverytime */
    (t1.Klar_uppdrag-t1.Snart_klar) FORMAT=TIME8. AS Deliverytime,
/* Month */
    (MONTH(DATEPART((input(t1.LARMTIDAMBULANS, anydtdtm.)))))
FORMAT=NUMX12. AS Month,
/* Weekday */
    (WEEKDAY(DATEPART((input(t1.LARMTIDAMBULANS, anydtdtm.))))) AS Weekday,
t1.Station,
/* ResonOfCallToEMCC */
    (CASE
        WHEN 'Allergi' = t1.RakelIndex1 THEN 'Allergy'
        WHEN 'Allergi Barn 1-6 år' = t1.RakelIndex1 THEN 'Allergy'
        WHEN 'Allergi Barn 7-15 år' = t1.RakelIndex1 THEN 'Allergy'
        WHEN 'Allergi Spädbarn' = t1.RakelIndex1 THEN 'Allergy'
        WHEN 'Allergi Vuxen' = t1.RakelIndex1 THEN 'Allergy'
        WHEN 'Andningsbesvär' = t1.RakelIndex1 THEN 'Breathing problems'
        WHEN 'Andningsbesvär Barn 1-6 år' = t1.RakelIndex1 THEN 'Breathing problems'
        WHEN 'Andningsbesvär Barn 7-15 år' = t1.RakelIndex1 THEN 'Breathing problems'
        WHEN 'Andningsbesvär Spädbarn' = t1.RakelIndex1 THEN 'Breathing problems'
        WHEN 'Andningsbesvär Vuxen' = t1.RakelIndex1 THEN 'Breathing problems'
        WHEN 'Andningssvårigheter' = t1.RakelIndex1 THEN 'Breathing problems'
        WHEN 'Avsliten kroppsdel Vuxen' = t1.RakelIndex1 THEN 'Torn body part'
        WHEN 'Bett/Stick Barn 1-6 år' = t1.RakelIndex1 THEN 'Bite/Sting'
        WHEN 'Bett/Stick Vuxen' = t1.RakelIndex1 THEN 'Bite/Sting'
        WHEN 'Blödning Ansikte' = t1.RakelIndex1 THEN 'Bleeding'
        WHEN 'Blödning Ansikte Vuxen' = t1.RakelIndex1 THEN 'Bleeding'
        WHEN 'Blödning Ansikte Vuxen' = t1.RakelIndex1 THEN 'Bleeding'
        WHEN 'Blödning Bål Vuxen' = t1.RakelIndex1 THEN 'Bleeding'
        WHEN 'Blödning Bål Vuxen' = t1.RakelIndex1 THEN 'Bleeding'
        WHEN 'Blödning Barn 1-6 år' = t1.RakelIndex1 THEN 'Bleeding'
        WHEN 'Blödning Barn 1-6 år' = t1.RakelIndex1 THEN 'Bleeding'
        WHEN 'Blödning Barn 7-15 år' = t1.RakelIndex1 THEN 'Bleeding'
        WHEN 'Blödning Barn 7-15 år' = t1.RakelIndex1 THEN 'Bleeding'
        WHEN 'Blödning Barn 7-15år' = t1.RakelIndex1 THEN 'Bleeding'
        WHEN 'Blödning Barn 7-15år' = t1.RakelIndex1 THEN 'Bleeding'
        WHEN 'Blödning Extremitet' = t1.RakelIndex1 THEN 'Bleeding'
        WHEN 'Blödning Extremitet' = t1.RakelIndex1 THEN 'Bleeding'
    )

```

WHEN 'Blödning Extremitet Vuxen' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Extremitet Vuxen' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Mun' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Mun' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Mun Vuxen' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Mun Vuxen' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Näsa' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Näsa' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Näsa Vuxen' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Näsa Vuxen' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Rektal' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Rektal' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Rektal Vuxen' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Rektal Vuxen' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Urinväg' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Urinväg' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Urinväg Vuxen' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Urinväg Vuxen' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Vaginal' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Vaginal' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Vaginal Vuxen' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning Vaginal Vuxen' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning. ej trauma' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Blödning. ej trauma' = t1.RakelIndex1 THEN 'Bleeding'
WHEN 'Brännskada' = t1.RakelIndex1 THEN 'Burn'
WHEN 'Brännskada' = t1.RakelIndex1 THEN 'Burn'
WHEN 'Brännskada Barn 7-15år' = t1.RakelIndex1 THEN 'Burn'
WHEN 'Brännskada Barn 7-15år' = t1.RakelIndex1 THEN 'Burn'
WHEN 'Brännskada Vuxen' = t1.RakelIndex1 THEN 'Burn'
WHEN 'Brännskada Vuxen' = t1.RakelIndex1 THEN 'Burn'
WHEN 'Brännskada/Elolycka' = t1.RakelIndex1 THEN 'Burn'
WHEN 'Brännskada/Elolycka' = t1.RakelIndex1 THEN 'Burn'
WHEN 'Brännskada/Elolycka Barn 1-6 år' = t1.RakelIndex1 THEN 'Burn'
WHEN 'Brännskada/Elolycka Barn 1-6 år' = t1.RakelIndex1 THEN 'Burn'
WHEN 'Brännskada/Elskada' = t1.RakelIndex1 THEN 'Burn'
WHEN 'Brännskada/Elskada' = t1.RakelIndex1 THEN 'Burn'
WHEN 'Bröstsmärta/Hjärtsjukdom' = t1.RakelIndex1 THEN 'Chest pain'
WHEN 'Bröstsmärta/Hjärtsjukdom' = t1.RakelIndex1 THEN 'Chest pain'
WHEN 'Bröstsmärtor/Hjärtsjukdom' = t1.RakelIndex1 THEN 'Chest pain'
WHEN 'Bröstsmärtor/Hjärtsjukdom' = t1.RakelIndex1 THEN 'Chest pain'
WHEN 'Buk/urinvägar' = t1.RakelIndex1 THEN 'Abdominal pain'
WHEN 'Buk/urinvägar' = t1.RakelIndex1 THEN 'Abdominal pain'
WHEN 'Cykelolycka' = t1.RakelIndex1 THEN 'Bicycle accident'
WHEN 'Cykelolycka' = t1.RakelIndex1 THEN 'Bicycle accident'
WHEN 'Cykelolycka Vuxen' = t1.RakelIndex1 THEN 'Bicycle accident'
WHEN 'Cykelolycka Vuxen' = t1.RakelIndex1 THEN 'Bicycle accident'
WHEN 'Diabetes' = t1.RakelIndex1 THEN 'Diabetes'

WHEN 'Diabetes' = t1.RakelIndex1 THEN 'Diabetes'
 WHEN 'Diarré/Kräkning' = t1.RakelIndex1 THEN 'Diarrhea/vomiting'
 WHEN 'Diarré/Kräkning' = t1.RakelIndex1 THEN 'Diarrhea/vomiting'
 WHEN 'Diarré/Kräkning Barn 1-6 år' = t1.RakelIndex1 THEN 'Diarrhea/vomiting'
 WHEN 'Diarré/Kräkning Barn 1-6 år' = t1.RakelIndex1 THEN 'Diarrhea/vomiting'
 WHEN 'Diarré/Kräkning Barn 7-15 år' = t1.RakelIndex1 THEN 'Diarrhea/vomiting'
 WHEN 'Diarré/Kräkning Barn 7-15 år' = t1.RakelIndex1 THEN 'Diarrhea/vomiting'
 WHEN 'Diarré/Kräkning Spädbarn' = t1.RakelIndex1 THEN 'Diarrhea/vomiting'
 WHEN 'Diarré/Kräkning Spädbarn' = t1.RakelIndex1 THEN 'Diarrhea/vomiting'
 WHEN 'Diarré/Kräkning Vuxen' = t1.RakelIndex1 THEN 'Diarrhea/vomiting'
 WHEN 'Diarré/Kräkning Vuxen' = t1.RakelIndex1 THEN 'Diarrhea/vomiting'
 WHEN 'Djurbett/Insektsstick' = t1.RakelIndex1 THEN 'Bite/Sting'
 WHEN 'Djurbett/Insektsstick' = t1.RakelIndex1 THEN 'Bite/Sting'
 WHEN 'Drunkningstillbud' = t1.RakelIndex1 THEN 'Drowning accident'
 WHEN 'Drunkningstillbud' = t1.RakelIndex1 THEN 'Drowning accident'
 WHEN 'Dykeriolucky' = t1.RakelIndex1 THEN 'Drowning accident'
 WHEN 'Dykeriolucky' = t1.RakelIndex1 THEN 'Drowning accident'
 WHEN 'Elolycka Vuxen' = t1.RakelIndex1 THEN 'Electrical accident'
 WHEN 'Elolycka Vuxen' = t1.RakelIndex1 THEN 'Electrical accident'
 WHEN 'Extremitet/Sårskador/Mindre trauma' = t1.RakelIndex1 THEN
 'Extremity/Wounds/Minor Trauma'
 WHEN 'Extremitet/Sårskador/Mindre trauma' = t1.RakelIndex1 THEN
 'Extremity/Wounds/Minor Trauma'
 WHEN 'Fastklämd person' = t1.RakelIndex1 THEN 'Trapped person'
 WHEN 'Fastklämd person' = t1.RakelIndex1 THEN 'Trapped person'
 WHEN 'Feber' = t1.RakelIndex1 THEN 'Fever/Infection'
 WHEN 'Feber' = t1.RakelIndex1 THEN 'Fever/Infection'
 WHEN 'Feber Barn 7-15 år' = t1.RakelIndex1 THEN 'Fever/Infection'
 WHEN 'Feber Barn 7-15 år' = t1.RakelIndex1 THEN 'Fever/Infection'
 WHEN 'Feber Vuxen' = t1.RakelIndex1 THEN 'Fever/Infection'
 WHEN 'Feber Vuxen' = t1.RakelIndex1 THEN 'Fever/Infection'
 WHEN 'Feber/Infektion' = t1.RakelIndex1 THEN 'Fever/Infection'
 WHEN 'Feber/Infektion' = t1.RakelIndex1 THEN 'Fever/Infection'
 WHEN 'Förändrat beteende' = t1.RakelIndex1 THEN 'Changed behavior'
 WHEN 'Förändrat beteende' = t1.RakelIndex1 THEN 'Changed behavior'
 WHEN 'Förändrat beteende Barn 1-6 år' = t1.RakelIndex1 THEN 'Changed behavior'
 WHEN 'Förändrat beteende Barn 1-6 år' = t1.RakelIndex1 THEN 'Changed behavior'
 WHEN 'Förändrat beteende Barn 7-15 år' = t1.RakelIndex1 THEN 'Changed behavior'
 WHEN 'Förändrat beteende Barn 7-15 år' = t1.RakelIndex1 THEN 'Changed behavior'
 WHEN 'Förändrat beteende Spädbarn' = t1.RakelIndex1 THEN 'Changed behavior'
 WHEN 'Förändrat beteende Spädbarn' = t1.RakelIndex1 THEN 'Changed behavior'
 WHEN 'Förändrat beteende Vuxen' = t1.RakelIndex1 THEN 'Changed behavior'
 WHEN 'Förändrat beteende Vuxen' = t1.RakelIndex1 THEN 'Changed behavior'
 WHEN 'Förgiftning' = t1.RakelIndex1 THEN 'Poisoning'
 WHEN 'Förgiftning' = t1.RakelIndex1 THEN 'Poisoning'
 WHEN 'Förgiftning Barn 1-6 år' = t1.RakelIndex1 THEN 'Poisoning'
 WHEN 'Förgiftning Barn 1-6 år' = t1.RakelIndex1 THEN 'Poisoning'

WHEN 'Förgiftning Barn 7-15 år' = t1.RakelIndex1 THEN 'Poisoning'
WHEN 'Förgiftning Barn 7-15 år' = t1.RakelIndex1 THEN 'Poisoning'
WHEN 'Förgiftning Barn 7-15år' = t1.RakelIndex1 THEN 'Poisoning'
WHEN 'Förgiftning Barn 7-15år' = t1.RakelIndex1 THEN 'Poisoning'
WHEN 'Förgiftning Vuxen' = t1.RakelIndex1 THEN 'Poisoning'
WHEN 'Förgiftning Vuxen' = t1.RakelIndex1 THEN 'Poisoning'
WHEN 'Förgiftning, överdos' = t1.RakelIndex1 THEN 'Poisoning'
WHEN 'Förgiftning, överdos' = t1.RakelIndex1 THEN 'Poisoning'
WHEN 'Förlossning' = t1.RakelIndex1 THEN 'Childbirth'
WHEN 'Förlossning' = t1.RakelIndex1 THEN 'Childbirth'
WHEN 'Förlossning Vuxen' = t1.RakelIndex1 THEN 'Childbirth'
WHEN 'Förlossning Vuxen' = t1.RakelIndex1 THEN 'Childbirth'
WHEN 'Graviditet' = t1.RakelIndex1 THEN 'Pregnancy'
WHEN 'Graviditet' = t1.RakelIndex1 THEN 'Pregnancy'
WHEN 'Graviditet Vuxen' = t1.RakelIndex1 THEN 'Pregnancy'
WHEN 'Graviditet Vuxen' = t1.RakelIndex1 THEN 'Pregnancy'
WHEN 'Graviditet/förlossning (från v.20)' = t1.RakelIndex1 THEN 'Pregnancy'
WHEN 'Graviditet/förlossning (från v.20)' = t1.RakelIndex1 THEN 'Pregnancy'
WHEN 'Gyn-graviditet (före v.20)' = t1.RakelIndex1 THEN 'Pregnancy'
WHEN 'Gyn-graviditet (före v.20)' = t1.RakelIndex1 THEN 'Pregnancy'
WHEN 'Hästolycka' = t1.RakelIndex1 THEN 'Horse accident'
WHEN 'Hästolycka' = t1.RakelIndex1 THEN 'Horse accident'
WHEN 'Hästolycka Barn 7-15 år' = t1.RakelIndex1 THEN 'Horse accident'
WHEN 'Hästolycka Barn 7-15 år' = t1.RakelIndex1 THEN 'Horse accident'
WHEN 'Hästolycka Vuxen' = t1.RakelIndex1 THEN 'Horse accident'
WHEN 'Hästolycka Vuxen' = t1.RakelIndex1 THEN 'Horse accident'
WHEN 'Hjärtklappning' = t1.RakelIndex1 THEN 'Chest pain'
WHEN 'Hjärtklappning' = t1.RakelIndex1 THEN 'Chest pain'
WHEN 'Hjärtklappning Barn 7-15 år' = t1.RakelIndex1 THEN 'Chest pain'
WHEN 'Hjärtklappning Barn 7-15 år' = t1.RakelIndex1 THEN 'Chest pain'
WHEN 'Hjärtklappning Vuxen' = t1.RakelIndex1 THEN 'Chest pain'
WHEN 'Hjärtklappning Vuxen' = t1.RakelIndex1 THEN 'Chest pain'
WHEN 'Hjärtstopp' = t1.RakelIndex1 THEN 'Cardiac arrest'
WHEN 'Hjärtstopp' = t1.RakelIndex1 THEN 'Cardiac arrest'
WHEN 'Hjärtstopp Barn 1-6 år' = t1.RakelIndex1 THEN 'Cardiac arrest'
WHEN 'Hjärtstopp Barn 1-6 år' = t1.RakelIndex1 THEN 'Cardiac arrest'
WHEN 'Hjärtstopp Spädbarn' = t1.RakelIndex1 THEN 'Cardiac arrest'
WHEN 'Hjärtstopp Spädbarn' = t1.RakelIndex1 THEN 'Cardiac arrest'
WHEN 'Hjärtstopp Vuxen' = t1.RakelIndex1 THEN 'Cardiac arrest'
WHEN 'Hjärtstopp Vuxen' = t1.RakelIndex1 THEN 'Cardiac arrest'
WHEN 'Högenergitrauma' = t1.RakelIndex1 THEN 'High energy trauma'
WHEN 'Högenergitrauma' = t1.RakelIndex1 THEN 'High energy trauma'
WHEN 'Högenergitrauma Barn 1-6 år' = t1.RakelIndex1 THEN 'High energy trauma'
WHEN 'Högenergitrauma Barn 1-6 år' = t1.RakelIndex1 THEN 'High energy trauma'
WHEN 'Högenergitrauma Barn 7-15 år' = t1.RakelIndex1 THEN 'High energy trauma'
WHEN 'Högenergitrauma Barn 7-15 år' = t1.RakelIndex1 THEN 'High energy trauma'
WHEN 'Högenergitrauma Spädbarn' = t1.RakelIndex1 THEN 'High energy trauma'

WHEN 'Högenergitrauma Spädbarn' = t1.RakelIndex1 THEN 'High energy trauma'
WHEN 'Högenergitrauma Vuxen' = t1.RakelIndex1 THEN 'High energy trauma'
WHEN 'Högenergitrauma Vuxen' = t1.RakelIndex1 THEN 'High energy trauma'
WHEN 'Högt/Lågt sockervärde' = t1.RakelIndex1 THEN 'Diabetes'
WHEN 'Högt/Lågt sockervärde' = t1.RakelIndex1 THEN 'Diabetes'
WHEN 'Högt/Lågt sockervärde Barn 7-15 år' = t1.RakelIndex1 THEN 'Diabetes'
WHEN 'Högt/Lågt sockervärde Barn 7-15 år' = t1.RakelIndex1 THEN 'Diabetes'
WHEN 'Högt/Lågt sockervärde Vuxen' = t1.RakelIndex1 THEN 'Diabetes'
WHEN 'Högt/Lågt sockervärde Vuxen' = t1.RakelIndex1 THEN 'Diabetes'
WHEN 'Hot om suicid' = t1.RakelIndex1 THEN 'Threats of suicide'
WHEN 'Hot om suicid' = t1.RakelIndex1 THEN 'Threats of suicide'
WHEN 'Hot om suicid Barn 7-15 år' = t1.RakelIndex1 THEN 'Threats of suicide'
WHEN 'Hot om suicid Barn 7-15 år' = t1.RakelIndex1 THEN 'Threats of suicide'
WHEN 'Hot om suicid kroppskada' = t1.RakelIndex1 THEN 'Threats of suicide'
WHEN 'Hot om suicid kroppskada' = t1.RakelIndex1 THEN 'Threats of suicide'
WHEN 'Hot om suicid kroppskada Vuxen' = t1.RakelIndex1 THEN 'Threats of suicide'
WHEN 'Hot om suicid kroppskada Vuxen' = t1.RakelIndex1 THEN 'Threats of suicide'
WHEN 'Hot om suicid saknad person' = t1.RakelIndex1 THEN 'Threats of suicide'
WHEN 'Hot om suicid saknad person' = t1.RakelIndex1 THEN 'Threats of suicide'
WHEN 'Hot om suicid svår belägenhet' = t1.RakelIndex1 THEN 'Threats of suicide'
WHEN 'Hot om suicid svår belägenhet' = t1.RakelIndex1 THEN 'Threats of suicide'
WHEN 'Hot om suicid Vuxen' = t1.RakelIndex1 THEN 'Threats of suicide'
WHEN 'Hot om suicid Vuxen' = t1.RakelIndex1 THEN 'Threats of suicide'
WHEN 'Hotad luftväg' = t1.RakelIndex1 THEN 'Compromised airway'
WHEN 'Hotad luftväg' = t1.RakelIndex1 THEN 'Compromised airway'
WHEN 'Hotad luftväg Barn 1-6 år' = t1.RakelIndex1 THEN 'Compromised airway'
WHEN 'Hotad luftväg Barn 1-6 år' = t1.RakelIndex1 THEN 'Compromised airway'
WHEN 'Hotad luftväg Barn 7-15 år' = t1.RakelIndex1 THEN 'Compromised airway'
WHEN 'Hotad luftväg Barn 7-15 år' = t1.RakelIndex1 THEN 'Compromised airway'
WHEN 'Hotad luftväg Spädbarn' = t1.RakelIndex1 THEN 'Compromised airway'
WHEN 'Hotad luftväg Spädbarn' = t1.RakelIndex1 THEN 'Compromised airway'
WHEN 'Hotad luftväg Vuxen' = t1.RakelIndex1 THEN 'Compromised airway'
WHEN 'Hotad luftväg Vuxen' = t1.RakelIndex1 THEN 'Compromised airway'
WHEN 'Hudutslag' = t1.RakelIndex1 THEN 'Rash'
WHEN 'Hudutslag' = t1.RakelIndex1 THEN 'Rash'
WHEN 'Hudutslag Barn 1-6 år' = t1.RakelIndex1 THEN 'Rash'
WHEN 'Hudutslag Barn 1-6 år' = t1.RakelIndex1 THEN 'Rash'
WHEN 'Hudutslag Barn 7-15 år' = t1.RakelIndex1 THEN 'Rash'
WHEN 'Hudutslag Barn 7-15 år' = t1.RakelIndex1 THEN 'Rash'
WHEN 'Hudutslag Spädbarn' = t1.RakelIndex1 THEN 'Rash'
WHEN 'Hudutslag Spädbarn' = t1.RakelIndex1 THEN 'Rash'
WHEN 'Hudutslag Vuxen' = t1.RakelIndex1 THEN 'Rash'
WHEN 'Hudutslag Vuxen' = t1.RakelIndex1 THEN 'Rash'
WHEN 'Huvudvärk. Yrsel' = t1.RakelIndex1 THEN 'Headache'
WHEN 'Huvudvärk. Yrsel' = t1.RakelIndex1 THEN 'Headache'
WHEN 'Hypertermi Vuxen' = t1.RakelIndex1 THEN 'Hypo/Hyperthermia'
WHEN 'Hypertermi Vuxen' = t1.RakelIndex1 THEN 'Hypo/Hyperthermia'

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WHEN 'Hypo/Hypertermi' = t1.RakelIndex1 THEN 'Hypo/Hyperthermia'
WHEN 'Hypo/Hypertermi' = t1.RakelIndex1 THEN 'Hypo/Hyperthermia'
WHEN 'Hypotermi/Köldskada' = t1.RakelIndex1 THEN 'Hypo/Hyperthermia'
WHEN 'Hypotermi/Köldskada' = t1.RakelIndex1 THEN 'Hypo/Hyperthermia'
WHEN 'Hypotermi/Köldskada Vuxen' = t1.RakelIndex1 THEN 'Hypo/Hyperthermia'
WHEN 'Hypotermi/Köldskada Vuxen' = t1.RakelIndex1 THEN 'Hypo/Hyperthermia'
WHEN 'Infektion' = t1.RakelIndex1 THEN 'Fever/Infection'
WHEN 'Infektion' = t1.RakelIndex1 THEN 'Fever/Infection'
WHEN 'Infektion Barn 1-6 år' = t1.RakelIndex1 THEN 'Fever/Infection'
WHEN 'Infektion Barn 1-6 år' = t1.RakelIndex1 THEN 'Fever/Infection'
WHEN 'Infektion Spädbarn' = t1.RakelIndex1 THEN 'Fever/Infection'
WHEN 'Infektion Spädbarn' = t1.RakelIndex1 THEN 'Fever/Infection'
WHEN 'Infektion/Misstanke om Sepsis Barn 7-15 år' = t1.RakelIndex1 THEN
'Fever/Infection'
    WHEN 'Infektion/Misstanke om Sepsis Barn 7-15 år' = t1.RakelIndex1 THEN
'Fever/Infection'
        WHEN 'Infektion/Misstanke om Sepsis Vuxen' = t1.RakelIndex1 THEN
'Fever/Infection'
            WHEN 'Infektion/Misstanke om Sepsis Vuxen' = t1.RakelIndex1 THEN
'Fever/Infection'
                WHEN 'Känsel/Motoriskt bortfall' = t1.RakelIndex1 THEN 'Sensation/motor loss'
                WHEN 'Känsel/Motoriskt bortfall' = t1.RakelIndex1 THEN 'Sensation/motor loss'
                WHEN 'Känsel/Motoriskt bortfall Barn 7-15år' = t1.RakelIndex1 THEN
'Sensation/motor loss'
                    WHEN 'Känsel/Motoriskt bortfall Barn 7-15år' = t1.RakelIndex1 THEN
'Sensation/motor loss'
                        WHEN 'Känsel/Motoriskt bortfall Vuxen' = t1.RakelIndex1 THEN 'Sensation/motor
loss'
                            WHEN 'Känsel/Motoriskt bortfall Vuxen' = t1.RakelIndex1 THEN 'Sensation/motor
loss'
                                WHEN 'Kateterbesvär' = t1.RakelIndex1 THEN 'Catheter discomfort'
                                WHEN 'Kateterbesvär' = t1.RakelIndex1 THEN 'Catheter discomfort'
                                WHEN 'Kateterbesvär Vuxen' = t1.RakelIndex1 THEN 'Catheter discomfort'
                                WHEN 'Kateterbesvär Vuxen' = t1.RakelIndex1 THEN 'Catheter discomfort'
                                WHEN 'Kemikalier-gaser' = t1.RakelIndex1 THEN 'Chemical exposure'
                                WHEN 'Kemikalier-gaser' = t1.RakelIndex1 THEN 'Chemical exposure'
                                WHEN 'Komplikation operation' = t1.RakelIndex1 THEN 'Complication after surgery'
                                WHEN 'Komplikation operation' = t1.RakelIndex1 THEN 'Complication after surgery'
                                WHEN 'Komplikation operation Barn 7-15 år' = t1.RakelIndex1 THEN 'Complication
after surgery'
                                    WHEN 'Komplikation operation Barn 7-15 år' = t1.RakelIndex1 THEN 'Complication
after surgery'
                                        WHEN 'Komplikation operation Barn 7-15år' = t1.RakelIndex1 THEN 'Complication
after surgery'
                                            WHEN 'Komplikation operation Barn 7-15år' = t1.RakelIndex1 THEN 'Complication
after surgery'

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WHEN 'Komplikation operation Vuxen' = t1.RakelIndex1 THEN 'Complication after surgery'

WHEN 'Komplikation operation Vuxen' = t1.RakelIndex1 THEN 'Complication after surgery'

WHEN 'Krampanfall' = t1.RakelIndex1 THEN 'Convulsion'

WHEN 'Krampanfall' = t1.RakelIndex1 THEN 'Convulsion'

WHEN 'Kramper/Epilepsi' = t1.RakelIndex1 THEN 'Convulsion'

WHEN 'Kramper/Epilepsi' = t1.RakelIndex1 THEN 'Convulsion'

WHEN 'Kramper/Epilepsi Barn 1-6 år' = t1.RakelIndex1 THEN 'Convulsion'

WHEN 'Kramper/Epilepsi Barn 1-6 år' = t1.RakelIndex1 THEN 'Convulsion'

WHEN 'Kramper/Epilepsi Barn 7-15 år' = t1.RakelIndex1 THEN 'Convulsion'

WHEN 'Kramper/Epilepsi Barn 7-15 år' = t1.RakelIndex1 THEN 'Convulsion'

WHEN 'Kramper/Epilepsi Barn 7-15år' = t1.RakelIndex1 THEN 'Convulsion'

WHEN 'Kramper/Epilepsi Barn 7-15år' = t1.RakelIndex1 THEN 'Convulsion'

WHEN 'Kramper/Epilepsi Spädbarn' = t1.RakelIndex1 THEN 'Convulsion'

WHEN 'Kramper/Epilepsi Spädbarn' = t1.RakelIndex1 THEN 'Convulsion'

WHEN 'Kramper/Epilepsi Vuxen' = t1.RakelIndex1 THEN 'Convulsion'

WHEN 'Kramper/Epilepsi Vuxen' = t1.RakelIndex1 THEN 'Convulsion'

WHEN 'Medvetandesänkt' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased consciousness'

WHEN 'Medvetandesänkt' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased consciousness'

WHEN 'Medvetandesänkt Barn 1-6 år' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased consciousness'

WHEN 'Medvetandesänkt Barn 1-6 år' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased consciousness'

WHEN 'Medvetandesänkt Barn 7-15 år' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased consciousness'

WHEN 'Medvetandesänkt Barn 7-15 år' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased consciousness'

WHEN 'Medvetandesänkt Spädbarn' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased consciousness'

WHEN 'Medvetandesänkt Spädbarn' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased consciousness'

WHEN 'Medvetandesänkt Vuxen' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased consciousness'

WHEN 'Medvetandesänkt Vuxen' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased consciousness'

WHEN 'Medvetlös' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased consciousness'

WHEN 'Medvetlös' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased consciousness'

WHEN 'Medvetlös Barn 1-6 år' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased consciousness'

WHEN 'Medvetlös Barn 1-6 år' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased consciousness'

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    WHEN 'Medvetslös Barn 7-15 år' = t1.RakelIndex1 THEN
'Unconsciousness/Decreased consciousness'
    WHEN 'Medvetslös Barn 7-15 år' = t1.RakelIndex1 THEN
'Unconsciousness/Decreased consciousness'
    WHEN 'Medvetslös Spädbarn' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased
consciousness'
    WHEN 'Medvetslös Spädbarn' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased
consciousness'
    WHEN 'Medvetslös vuxen' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased
consciousness'
    WHEN 'Medvetslös vuxen' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased
consciousness'
    WHEN 'Medvetslös Vuxen' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased
consciousness'
    WHEN 'Medvetslös Vuxen' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased
consciousness'
    WHEN 'Medvetslös-barn' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased
consciousness'
    WHEN 'Medvetslös-barn' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased
consciousness'
    WHEN 'Medvetslös-vuxen' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased
consciousness'
    WHEN 'Medvetslös-vuxen' = t1.RakelIndex1 THEN 'Unconsciousness/Decreased
consciousness'
    WHEN 'Mindre trauma (lågenergi)' = t1.RakelIndex1 THEN 'Low energy trauma'
    WHEN 'Mindre trauma (lågenergi) Barn 1-6 år' = t1.RakelIndex1 THEN 'Low energy
trauma'
    WHEN 'Mindre trauma (lågenergi) Barn 7-15 år' = t1.RakelIndex1 THEN 'Low energy
trauma'
    WHEN 'Mindre trauma (lågenergi) Barn 7-15år' = t1.RakelIndex1 THEN 'Low energy
trauma'
    WHEN 'Mindre trauma (lågenergi) Spädbarn' = t1.RakelIndex1 THEN 'Low energy
trauma'
    WHEN 'Mindre trauma (lågenergi) Vuxen' = t1.RakelIndex1 THEN 'Low energy
trauma'
    WHEN 'Misshandel' = t1.RakelIndex1 THEN 'Assault'
    WHEN 'Misshandel' = t1.RakelIndex1 THEN 'Assault'
    WHEN 'Misshandel Barn 7-15 år' = t1.RakelIndex1 THEN 'Assault'
    WHEN 'Misshandel Barn 7-15 år' = t1.RakelIndex1 THEN 'Assault'
    WHEN 'Misshandel Vuxen' = t1.RakelIndex1 THEN 'Assault'
    WHEN 'Misshandel Vuxen' = t1.RakelIndex1 THEN 'Assault'
    WHEN 'Misstanke om Sepsis' = t1.RakelIndex1 THEN 'Fever/Infection'
    WHEN 'Misstanke om Sepsis' = t1.RakelIndex1 THEN 'Fever/Infection'
    WHEN 'Misstanke om sjukvårdsbehov' = t1.RakelIndex1 THEN 'Unclear need for
care'
    WHEN 'Misstanke om sjukvårdsbehov' = t1.RakelIndex1 THEN 'Unclear need for
care'

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    WHEN 'Misstanke om stroke/TIA' = t1.RakelIndex1 THEN 'Suspected Stroke/TIA'
    WHEN 'Misstanke om stroke/TIA' = t1.RakelIndex1 THEN 'Suspected Stroke/TIA'
    WHEN 'Misstanke om Stroke/TIA' = t1.RakelIndex1 THEN 'Suspected Stroke/TIA'
    WHEN 'Misstanke om Stroke/TIA' = t1.RakelIndex1 THEN 'Suspected Stroke/TIA'
    WHEN 'Misstanke om Stroke/TIA Vuxen' = t1.RakelIndex1 THEN 'Suspected
Stroke/TIA'
    WHEN 'Misstanke om Stroke/TIA Vuxen' = t1.RakelIndex1 THEN 'Suspected
Stroke/TIA'
    WHEN 'Oklart vårdbehov' = t1.RakelIndex1 THEN 'Unclear need for care'
    WHEN 'Oklart vårdbehov' = t1.RakelIndex1 THEN 'Unclear need for care'
    WHEN 'Oklart vårdbehov Barn 1-6 år' = t1.RakelIndex1 THEN 'Unclear need for care'
    WHEN 'Oklart vårdbehov Barn 1-6 år' = t1.RakelIndex1 THEN 'Unclear need for care'
    WHEN 'Oklart vårdbehov Barn 7-15 år' = t1.RakelIndex1 THEN 'Unclear need for
care'
    WHEN 'Oklart vårdbehov Barn 7-15 år' = t1.RakelIndex1 THEN 'Unclear need for
care'
    WHEN 'Oklart vårdbehov Spädbarn' = t1.RakelIndex1 THEN 'Unclear need for care'
    WHEN 'Oklart vårdbehov Spädbarn' = t1.RakelIndex1 THEN 'Unclear need for care'
    WHEN 'Oklart vårdbehov Vuxen' = t1.RakelIndex1 THEN 'Unclear need for care'
    WHEN 'Oklart vårdbehov Vuxen' = t1.RakelIndex1 THEN 'Unclear need for care'
    WHEN 'Omedelbar Livsfara Vuxen (Temporär indexering)' = t1.RakelIndex1 THEN
'Immediate danger to life'
    WHEN 'Omedelbar Livsfara Vuxen (Temporär indexering)' = t1.RakelIndex1 THEN
'Immediate danger to life'
    WHEN 'Påkörd person - Trafikolycka' = t1.RakelIndex1 THEN 'Person hit by a vehicle'
    WHEN 'Påkörd person - Trafikolycka' = t1.RakelIndex1 THEN 'Person hit by a vehicle'
    WHEN 'Påkörd person - Tunnelbana' = t1.RakelIndex1 THEN 'Person hit by a vehicle'
    WHEN 'Påkörd person - Tunnelbana' = t1.RakelIndex1 THEN 'Person hit by a vehicle'
    WHEN 'Påverkat allmäntillstånd' = t1.RakelIndex1 THEN 'Affected general condition'
    WHEN 'Påverkat allmäntillstånd' = t1.RakelIndex1 THEN 'Affected general condition'
    WHEN 'Påverkat allmäntillstånd Vuxen' = t1.RakelIndex1 THEN 'Affected general
condition'
    WHEN 'Påverkat allmäntillstånd Vuxen' = t1.RakelIndex1 THEN 'Affected general
condition'
    WHEN 'Påverkat tal' = t1.RakelIndex1 THEN 'Suspected Stroke/TIA'
    WHEN 'Påverkat tal' = t1.RakelIndex1 THEN 'Suspected Stroke/TIA'
    WHEN 'Påverkat tal Vuxen' = t1.RakelIndex1 THEN 'Suspected Stroke/TIA'
    WHEN 'Påverkat tal Vuxen' = t1.RakelIndex1 THEN 'Suspected Stroke/TIA'
    WHEN 'PDV-Övriga vapen' = t1.RakelIndex1 THEN 'Ongoing deadly violence'
    WHEN 'PDV-Övriga vapen' = t1.RakelIndex1 THEN 'Ongoing deadly violence'
    WHEN 'Penetrerande trauma' = t1.RakelIndex1 THEN 'Penetrating trauma'
    WHEN 'Penetrerande trauma' = t1.RakelIndex1 THEN 'Penetrating trauma'
    WHEN 'Penetrerande trauma Vuxen' = t1.RakelIndex1 THEN 'Penetrating trauma'
    WHEN 'Penetrerande trauma Vuxen' = t1.RakelIndex1 THEN 'Penetrating trauma'
    WHEN 'Psykiatri' = t1.RakelIndex1 THEN 'Psychiatric illness'
    WHEN 'Psykiatri' = t1.RakelIndex1 THEN 'Psychiatric illness'
    WHEN 'Psykiatri Barn 7-15 år' = t1.RakelIndex1 THEN 'Psychiatric illness'

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    WHEN 'Psykiatri Barn 7-15 år' = t1.RakelIndex1 THEN 'Psychiatric illness'
    WHEN 'Psykiatri Vuxen' = t1.RakelIndex1 THEN 'Psychiatric illness'
    WHEN 'Psykiatri Vuxen' = t1.RakelIndex1 THEN 'Psychiatric illness'
    WHEN 'Slaganfall (Stroke)-förlamningar' = t1.RakelIndex1 THEN 'Suspected
Stroke/TIA'
    WHEN 'Slaganfall (Stroke)-förlamningar' = t1.RakelIndex1 THEN 'Suspected
Stroke/TIA'
    WHEN 'Smärta' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Arm' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Arm' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Arm Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Arm Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Barn 1-6 år' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Barn 1-6 år' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Ben' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Ben' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Ben Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Ben Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Bröst' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Bröst' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Bröst Barn 7-15 år' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Bröst Barn 7-15 år' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Bröst Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Bröst Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Buk' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Buk' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Buk Barn 7-15 år' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Buk Barn 7-15 år' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Buk Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Buk Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Extremitet' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Extremitet' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Extremitet Barn 7-15 år' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Extremitet Barn 7-15 år' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Hals' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Hals' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Hals Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Hals Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Höft' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Höft' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Höft Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Höft Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Huvud' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Huvud' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Huvud Barn 7-15 år' = t1.RakelIndex1 THEN 'Pain complaints'
    WHEN 'Smärta Huvud Barn 7-15 år' = t1.RakelIndex1 THEN 'Pain complaints'

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WHEN 'Smärta Huvud Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Huvud Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Öga' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Öga' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Öga Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Öga Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Öra Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Öra Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Rygg (högt)' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Rygg (högt)' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Rygg (högt) Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Rygg (högt) Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Rygg (lågt)' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Rygg (lågt)' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Rygg (lågt) Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Rygg (lågt) Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Rygg (mellan)' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Rygg (mellan)' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Rygg (mellan) Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Rygg (mellan) Vuxen' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Rygg Barn 7-15 år' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Smärta Rygg Barn 7-15 år' = t1.RakelIndex1 THEN 'Pain complaints'
 WHEN 'Stroke -Förlamningar' = t1.RakelIndex1 THEN 'Suspected Stroke/TIA'
 WHEN 'Stroke -Förlamningar' = t1.RakelIndex1 THEN 'Suspected Stroke/TIA'
 WHEN 'Suicidmisstanke-psykiatri' = t1.RakelIndex1 THEN 'Psychiatric illness'
 WHEN 'Suicidmisstanke-psykiatri' = t1.RakelIndex1 THEN 'Psychiatric illness'
 WHEN 'Svimning' = t1.RakelIndex1 THEN 'Fainting'
 WHEN 'Svimning' = t1.RakelIndex1 THEN 'Fainting'
 WHEN 'Svimning Barn 7-15 år' = t1.RakelIndex1 THEN 'Fainting'
 WHEN 'Svimning Barn 7-15 år' = t1.RakelIndex1 THEN 'Fainting'
 WHEN 'Svimning Vuxen' = t1.RakelIndex1 THEN 'Fainting'
 WHEN 'Svimning Vuxen' = t1.RakelIndex1 THEN 'Fainting'
 WHEN 'Svullnad Ansikte' = t1.RakelIndex1 THEN 'Swelling'
 WHEN 'Svullnad Ansikte' = t1.RakelIndex1 THEN 'Swelling'
 WHEN 'Svullnad Ansikte Vuxen' = t1.RakelIndex1 THEN 'Swelling'
 WHEN 'Svullnad Ansikte Vuxen' = t1.RakelIndex1 THEN 'Swelling'
 WHEN 'Svullnad Barn 1-6 år' = t1.RakelIndex1 THEN 'Swelling'
 WHEN 'Svullnad Barn 1-6 år' = t1.RakelIndex1 THEN 'Swelling'
 WHEN 'Svullnad Barn 7-15 år' = t1.RakelIndex1 THEN 'Swelling'
 WHEN 'Svullnad Buk' = t1.RakelIndex1 THEN 'Swelling'
 WHEN 'Svullnad Buk Vuxen' = t1.RakelIndex1 THEN 'Swelling'
 WHEN 'Svullnad Extremitet' = t1.RakelIndex1 THEN 'Swelling'
 WHEN 'Svullnad Extremitet Vuxen' = t1.RakelIndex1 THEN 'Swelling'
 WHEN 'Svullnad Spädbarn' = t1.RakelIndex1 THEN 'Swelling'
 WHEN 'Synbortfall' = t1.RakelIndex1 THEN 'Vision loss'
 WHEN 'Synbortfall Barn 7-15 år' = t1.RakelIndex1 THEN 'Vision loss'
 WHEN 'Synbortfall Vuxen' = t1.RakelIndex1 THEN 'Vision loss'


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WHEN 'Trafikolycka' = t1.RakelIndex1 THEN 'Person hit by a vehicle'
WHEN 'Trafikolycka' = t1.RakelIndex1 THEN 'Traffic accident'
WHEN 'Trubbigt trauma Vuxen' = t1.RakelIndex1 THEN 'Blunt Trauma'
WHEN 'Utsläpp' = t1.RakelIndex1 THEN 'Chemical exposure'
WHEN 'Våld-misshandel' = t1.RakelIndex1 THEN 'Assault'
WHEN 'Yrsel' = t1.RakelIndex1 THEN 'Dizziness'
WHEN 'Yrsel Barn 7-15 år' = t1.RakelIndex1 THEN 'Dizziness'
WHEN 'Yrsel Vuxen' = t1.RakelIndex1 THEN 'Dizziness'
ELSE 'Other'
END) AS ResonOfCallToEMCC,
/* KOMMUN */
(CASE
  WHEN 'botkyrka' = t2.KOMMUN THEN 'Botkyrka'
  WHEN 'Botkyrka' = t2.KOMMUN THEN 'Botkyrka'
  WHEN 'danderyd' = t2.KOMMUN THEN 'Danderyd'
  WHEN 'Danderyd' = t2.KOMMUN THEN 'Danderyd'
  WHEN 'ekerö' = t2.KOMMUN THEN 'Ekerö'
  WHEN 'Ekerö' = t2.KOMMUN THEN 'Ekerö'
  WHEN 'haninge' = t2.KOMMUN THEN 'Haninge'
  WHEN 'Haninge' = t2.KOMMUN THEN 'Haninge'
  WHEN 'HANinge' = t2.KOMMUN THEN 'Haninge'
  WHEN 'huddinge' = t2.KOMMUN THEN 'Huddinge'
  WHEN 'Huddinge' = t2.KOMMUN THEN 'Huddinge'
  WHEN 'HUDDINGE' = t2.KOMMUN THEN 'Huddinge'
  WHEN 'järfälla' = t2.KOMMUN THEN 'Järfälla'
  WHEN 'Järfälla' = t2.KOMMUN THEN 'Järfälla'
  WHEN 'lidingö' = t2.KOMMUN THEN 'Lidingö'
  WHEN 'Lidingö' = t2.KOMMUN THEN 'Lidingö'
  WHEN 'nacka' = t2.KOMMUN THEN 'Nacka'
  WHEN 'nackA' = t2.KOMMUN THEN 'Nacka'
  WHEN 'Nacka' = t2.KOMMUN THEN 'Nacka'
  WHEN 'NACKa' = t2.KOMMUN THEN 'Nacka'
  WHEN 'norrtälje' = t2.KOMMUN THEN 'Norrtälje'
  WHEN 'Norrtälje' = t2.KOMMUN THEN 'Norrtälje'
  WHEN 'nORRTÄLJE' = t2.KOMMUN THEN 'Norrtälje'
  WHEN 'nyköping' = t2.KOMMUN THEN 'Nyköping'
  WHEN 'Nyköping' = t2.KOMMUN THEN 'Nyköping'
  WHEN 'nYNäs' = t2.KOMMUN THEN 'Nynäshamn'
  WHEN 'nynäshamn' = t2.KOMMUN THEN 'Nynäshamn'
  WHEN 'Nynäshamn' = t2.KOMMUN THEN 'Nynäshamn'
  WHEN 'NYNÄSHAMN' = t2.KOMMUN THEN 'Nynäshamn'
  WHEN 'österåker' = t2.KOMMUN THEN 'Österåker'
  WHEN 'Österåker' = t2.KOMMUN THEN 'Österåker'
  WHEN 'saalem' = t2.KOMMUN THEN 'Salem'
  WHEN 'Salem' = t2.KOMMUN THEN 'Salem'
  WHEN 'sigtuna' = t2.KOMMUN THEN 'Sigtuna'
  WHEN 'Sigtuna' = t2.KOMMUN THEN 'Sigtuna'

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    WHEN 'SIGTUNA' = t2.KOMMUN THEN 'Sigtuna'
    WHEN 'södertälje' = t2.KOMMUN THEN 'Södertälje'
    WHEN 'Södertälje' = t2.KOMMUN THEN 'Södertälje'
    WHEN 'sollentuna' = t2.KOMMUN THEN 'Sollentuna'
    WHEN 'Sollentuna' = t2.KOMMUN THEN 'Sollentuna'
    WHEN 'solna' = t2.KOMMUN THEN 'Solna'
    WHEN 'Solna' = t2.KOMMUN THEN 'Solna'
    WHEN 'sthlm' = t2.KOMMUN THEN 'Stockholm'
    WHEN 'stockholm' = t2.KOMMUN THEN 'Stockholm'
    WHEN 'sTOCKHOLM' = t2.KOMMUN THEN 'Stockholm'
    WHEN 'Stockholm' = t2.KOMMUN THEN 'Stockholm'
    WHEN 'STockholm' = t2.KOMMUN THEN 'Stockholm'
    WHEN 'STOCKHOLM' = t2.KOMMUN THEN 'Stockholm'
    WHEN 'stockhom' = t2.KOMMUN THEN 'Stockholm'
    WHEN 'sundbyberg' = t2.KOMMUN THEN 'Sundbyberg'
    WHEN 'Sundbyberg' = t2.KOMMUN THEN 'Sundbyberg'
    WHEN 'täby' = t2.KOMMUN THEN 'Täby'
    WHEN 'Täby' = t2.KOMMUN THEN 'Täby'
    WHEN 'tyresö' = t2.KOMMUN THEN 'Tyresö'
    WHEN 'Tyresö' = t2.KOMMUN THEN 'Tyresö'
    WHEN 'upplands väsby' = t2.KOMMUN THEN 'Upplands Väsby'
    WHEN 'Upplands väsby' = t2.KOMMUN THEN 'Upplands Väsby'
    WHEN 'Upplands Väsby' = t2.KOMMUN THEN 'Upplands Väsby'
    WHEN 'upplands-bro' = t2.KOMMUN THEN 'Upplands-Bro'
    WHEN 'Upplands-bro' = t2.KOMMUN THEN 'Upplands-Bro'
    WHEN 'Upplands-Bro' = t2.KOMMUN THEN 'Upplands-Bro'
    WHEN 'vallentuna' = t2.KOMMUN THEN 'Vallentuna'
    WHEN 'Vallentuna' = t2.KOMMUN THEN 'Vallentuna'
    WHEN 'värmdö' = t2.KOMMUN THEN 'Värmdö'
    WHEN 'Värmdö' = t2.KOMMUN THEN 'Värmdö'
    WHEN 'vaxholm' = t2.KOMMUN THEN 'Vaxholm'
    WHEN 'Vaxholm' = t2.KOMMUN THEN 'Vaxholm'
    ELSE t2.KOMMUN
  END) AS KOMMUN
FROM BI_KFA.DYNEMSALL_TASKLASTVALUE t1
  LEFT JOIN BI_KFA.DYNEMSALL_INCIDENTLASTVALUE t2 ON (t1.incidentid_lopnr =
t2.incidentid_lopnr)
WHERE t1.RakelIndex1 NOT IN
(
  'Sekundäruppdrag',
  'Sekundäruppdrag Barn 1-6 år',
  'Sekundäruppdrag Barn 7-15 år',
  'Sekundäruppdrag Spädbarn',
  'Sekundäruppdrag Vuxen',
  'Sjuktransporter',
  'Beställt uppdrag mellan vårdenheter'
) AND t1.RakelIndex2 NOT IN

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(
'Transport',
'Transport mellan vårdenheter',
'Transport till/från vårdenhet',
'Transport till/från vårdenhet (DOLD)',
'Transportuppdrag'
) AND t1.PRIORITETUT IN
(
'1',
'2',
'3'
) AND t1.EmsUnitType = 'Akutambulans' AND (CALCULATED Year) IN
(
2017,
2018,
2019,
2020,
2021,
2022
) AND (CALCULATED Call_handlingtime) BETWEEN 0 AND 36000 AND (CALCULATED
Drivetime) BETWEEN 0 AND 36000 AND
(CALCULATED Onscenetime) BETWEEN 0 AND 36000 AND (CALCULATED Deliverytime)
BETWEEN 0 AND 36000 AND
(CALCULATED Responsetime) BETWEEN 0 AND 36000 AND (CALCULATED
Transportationtime) BETWEEN 0 AND 36000
GROUP BY (CALCULATED Responsetime),
t1.incidentid_lopnr,
t1.taskid_lopnr,
t1.rakelid_lopnr,
(CALCULATED 'Received emergencycall UTC'n),
(CALCULATED Year),
(CALCULATED Hour),
t1.PRIORITETUT,
(CALCULATED 'DistancetoArrival km'n),
(CALCULATED Call_handlingtime),
(CALCULATED Drivetime),
(CALCULATED Date),
t1.RakelIndex1,
(CALCULATED Onscenetime),
(CALCULATED Transportationtime),
(CALCULATED Deliverytime),
(CALCULATED Month),
(CALCULATED Weekday),
t1.Station,
(CALCULATED ResonOfCallToEMCC),
(CALCULATED KOMMUN)
ORDER BY 'Received emergencycall UTC'n;

```

QUIT;

```
%LET _CLIENTTASKLABEL=;
%LET _CLIENTPROCESSFLOWNAME=;
%LET _CLIENTPROJECTPATH=;
%LET _CLIENTPROJECTPATHHOST=;
%LET _CLIENTPROJECTNAME=;
```

```
/* START PÅ NOD: Frågebyggare */
%LET _CLIENTTASKLABEL='Frågebyggare';
%LET _CLIENTPROCESSFLOWNAME='Processflöde';
%LET _CLIENTPROJECTPATH='C:\Users\4khw\OneDrive - Karolinska
Institutet\General\Studie I\Revision II\Analyses\Study I Revision 2.2.egp';
%LET _CLIENTPROJECTPATHHOST='RSTPC00020406';
%LET _CLIENTPROJECTNAME='Study I Revision 2.2.egp';
```

%_eg_conditional_dropds(WORK.QUERY_FOR_DYNEMSALL_TASKLAS_0000);

PROC SQL;

```
CREATE TABLE WORK.QUERY_FOR_DYNEMSALL_TASKLAS_0000 AS
SELECT t1.Date,
       t1.Hour,
       /* SUM_of_Resources */
       (COUNT(DISTINCT(t1.rakelid_lopnr))) AS SUM_of_Resources,
       /* SUM_of_MissionCanc */
       (SUM(t1.MissionCancelled)) FORMAT=NUMX12. AS SUM_of_MissionCanc,
       /* H_AVG_of_Onscenetime */
       (AVG(t1.Onscenetime)) FORMAT=TIME8. AS H_AVG_of_Onscenetime,
       /* H_AVG_of_Transportationtime */
       (AVG(t1.Transportationtime)) FORMAT=TIME8. AS H_AVG_of_Transportationtime,
       /* H_AVG_of_Deliverytime */
       (AVG(t1.Deliverytime)) FORMAT=TIME8. AS H_AVG_of_Deliverytime,
       /* C_DISTT_of_missions */
       (COUNT(DISTINCT(t1.taskid_lopnr))) AS C_DISTT_of_missions,
       /* H_AVG_of_Responsetime */
       (AVG(t1.Responsetime)) FORMAT=TIME8. AS H_AVG_of_Responsetime,
       /* H_AVG_of_Call_handlingtime */
       (AVG(t1.Call_handlingtime)) FORMAT=TIME8. AS H_AVG_of_Call_handlingtime,
       /* H_AVG_of_Drivetime */
       (AVG(t1.Drivetime)) FORMAT=TIME8. AS H_AVG_of_Drivetime,
       /* H_AVG_of_DistArrvalkm */
       (AVG(t1.'DistancetoArrival km'n')) FORMAT=COMMAX6.3 AS H_AVG_of_DistArrvalkm
FROM WORK.QUERY_FOR_DYNEMSALL_TASKLASTVALU t1
```

```

WHERE t1.Responsetime BETWEEN '0:0:0't AND '10:0:0't
GROUP BY t1.Date,
        t1.Hour;
QUIT;

```

```

%LET _CLIENTTASKLABEL=;
%LET _CLIENTPROCESSFLOWNAME=;
%LET _CLIENTPROJECTPATH=;
%LET _CLIENTPROJECTPATHHOST=;
%LET _CLIENTPROJECTNAME=;

```

```

/* START PÅ NOD: Partition Data */
%LET _CLIENTTASKLABEL='Partition Data';
%LET _CLIENTPROCESSFLOWNAME='Processflöde';
%LET _CLIENTPROJECTPATH='C:\Users\4khw\OneDrive - Karolinska
Institutet\General\Studie I\Revision II\Analyses\Study I Revision 2.2.egp';
%LET _CLIENTPROJECTPATHHOST='RSTPC00020406';
%LET _CLIENTPROJECTNAME='Study I Revision 2.2.egp';

```

```

%macro web_drop_table / parmbuff;%mend;
%macro web_open_table / parmbuff;%mend;

```

```

ODS GRAPHICS ON;
TITLE;FOOTNOTE;
FOOTNOTE1 "Genererat av SAS (&_SASSERVERNAME, &SYSSCPL)
%TRIM(%QSYSFUNC(DATE()), NLDATE20.)) %TRIM(%QSYSFUNC(TIME()), NLTIME.))";

```

```

data _null_;
    idMaxLength=length("Training");
    idMaxLength=max(idMaxLength, length("Validation"));
    idMaxLength=max(idMaxLength, length("Test"));

    /* Put it in a macro variable for use in the real code */
    call symput('idLength', idMaxLength);

```

```
run;
```

```

proc sql noprint;
    select count(*) into :count from WORK.STDIZE;
quit;

```

```

data J.DEMSI_P;
    set WORK.STDIZE;
    length _Partition_ $ &idLength;

```

```

retain __tmp1-__tmp%trim(&count) __nobs__ __nobs1__ __nobs2__
__nobs3__;
drop _i__seed__ __tmp1-__tmp%trim(&count);
drop _n1__nobs__ __nobs1__ __nobs2__ __nobs3__;
array __tmp(*) __tmp1-__tmp%trim(&count);

if (_n_=1) then
    do;
        __seed__=-1;
        __nobs__=&count;

        do _i_=1 to dim(__tmp);
            __tmp(_i_)=_i_;
        end;
        call ranperm(__seed__, of __tmp(*));
        __nobs1__=round(0.6*__nobs__);
        __nobs2__=round(0.3*__nobs__)+__nobs1__;
        __nobs3__=round(0.1*__nobs__)+__nobs2__;
    end;
    _n1=_n_;

    if (_n1_ <=dim(__tmp)) then
        do;

            if (__tmp(_n1_) > 0) then
                do;

                    if (__tmp(_n1_)
<=__nobs1__) then
                        do;

                            _Partition_="Training";

                            output;

                        end;
                    else if (__tmp(_n1_)
<=__nobs2__) then
                        do;

                            _Partition_="Validation";

                            output;

                        end;
                    else if (__tmp(_n1_)
<=__nobs3__) then
                        do;

```

```

        _Partition_="Test";

        output;

end;

end;

run;

```

```

TITLE;FOOTNOTE;

```

```

%LET _CLIENTTASKLABEL=;
%LET _CLIENTPROCESSFLOWNAME=;
%LET _CLIENTPROJECTPATH=;
%LET _CLIENTPROJECTPATHHOST=;
%LET _CLIENTPROJECTNAME=;

```

```

/* START PÅ NOD: Describe Missing Data 1 */
%LET _CLIENTTASKLABEL='Describe Missing Data 1';
%LET _CLIENTPROCESSFLOWNAME='Processflöde';
%LET _CLIENTPROJECTPATH='C:\Users\4khw\OneDrive - Karolinska
Institutet\General\Studie I\Revision II\Analyses\Study I Revision 2.2.egp';
%LET _CLIENTPROJECTPATHHOST='RSTPC00020406';
%LET _CLIENTPROJECTNAME='Study I Revision 2.2.egp';

```

```

%macro web_drop_table / parmbuff;%mend;
%macro web_open_table / parmbuff;%mend;

```

```

ODS GRAPHICS ON;
TITLE;FOOTNOTE;
FOOTNOTE1 "Genererat av SAS (&_SASSERVERNAME, &SYSSCPL)
%TRIM(%QSYSFUNC(DATE()), NLDATE20.)) %TRIM(%QSYSFUNC(TIME()), NLTIME.))";

```

```

ods noproctitle;

```

```

proc format;
    value _nmissprint low-high="Non-missing";
    value $_cmissprint " "=" " other="Non-missing";
run;

```

```

proc freq data=BI_KFA.DYNEMSALL_TASKLASTVALUE;
    title3 "Missing Data Frequencies";
    title4 h=2 "Legend: ., A, B, etc = Missing";

```

```

format IDNR_Lopnr CreationTime Distance Kvitterat Passning Framme Lastat
Snart_klar Klar_uppdrag Avbrutet_uppdrag DKvitterat DPassning
DFramme DLastat
DSnart_klar DKlar_uppdrag DAvbrutet_uppdrag
GeoKvitterat200m GeoFramme200m
GeoLastat200m GeoSnartKlar200m taskid_lopnr incidentid_lopnr
rakelid_lopnr
_nmissprint.;
format Operator EmsUnitType Station RakelIndex1 RakelIndex2 PRIORITETUT
PRIORITETIN LARM_POD LARMTIDAMBULANS MOTTAGEN
INDEXNIVA1
INDEXNIVA2 $_cmissprint.;
tables IDNR_Lopnr CreationTime Operator EmsUnitType Station RakelIndex1
RakelIndex2 Distance Kvitterat Passning Framme Lastat Snart_klar
Klar_uppdrag
Avbrutet_uppdrag DKvitterat DPassning DFrame DLastat
DSnart_klar
DKlar_uppdrag DAvbrutet_uppdrag GeoKvitterat200m
GeoFramme200m GeoLastat200m
GeoSnartKlar200m PRIORITETUT PRIORITETIN LARM_POD
LARMTIDAMBULANS MOTTAGEN
INDEXNIVA1 INDEXNIVA2 taskid_lopnr incidentid_lopnr
rakelid_lopnr / missing
nocum;
run;

proc freq data=BI_KFA.DYNEMSALL_TASKLASTVALUE noprint;
table IDNR_Lopnr * CreationTime * Operator * EmsUnitType * Station *
RakelIndex1 * RakelIndex2 * Distance * Kvitterat * Passning *
Framme * Lastat
* Snart_klar * Klar_uppdrag * Avbrutet_uppdrag * DKvitterat *
DPassning *
DFramme * DLastat * DSnart_klar * DKlar_uppdrag *
DAvbrutet_uppdrag *
GeoKvitterat200m * GeoFramme200m * GeoLastat200m *
GeoSnartKlar200m *
PRIORITETUT * PRIORITETIN * LARM_POD * LARMTIDAMBULANS
* MOTTAGEN *
INDEXNIVA1 * INDEXNIVA2 * taskid_lopnr * incidentid_lopnr *
rakelid_lopnr /
missing out=Work._MissingData_;
format IDNR_Lopnr CreationTime Distance Kvitterat Passning Framme Lastat
Snart_klar Klar_uppdrag Avbrutet_uppdrag DKvitterat DPassning
DFramme DLastat
DSnart_klar DKlar_uppdrag DAvbrutet_uppdrag
GeoKvitterat200m GeoFramme200m

```



```

                                GeoLastat200m GeoSnartKlar200m taskid_lopnr incidentid_lopnr
rakelid_lopnr
                                _nmissprint.;
                                format Operator EmsUnitType Station RakelIndex1 RakelIndex2 PRIORITETUT
                                PRIORITETIN LARM_POD LARMTIDAMBULANS MOTTAGEN
INDEXNIVA1
                                INDEXNIVA2 $_cmissprint.;
run;

proc print data=Work._MissingData_ noobs label;
    title3 "Missing Data Patterns across Variables";
    title4 h=2 "Legend: ., A, B, etc = Missing";
    format IDNR_Lopnr CreationTime Distance Kvitterat Passning Framme Lastat
    Snart_klar Klar_uppdrag Avbrutet_uppdrag DKvitterat DPassning
DFrame DLastat
    DSnat_klar DKlar_uppdrag DAvbrutet_uppdrag
GeoKvitterat200m GeoFramme200m
    GeoLastat200m GeoSnartKlar200m taskid_lopnr incidentid_lopnr
rakelid_lopnr
                                _nmissprint.;
                                format Operator EmsUnitType Station RakelIndex1 RakelIndex2 PRIORITETUT
                                PRIORITETIN LARM_POD LARMTIDAMBULANS MOTTAGEN
INDEXNIVA1
                                INDEXNIVA2 $_cmissprint.;
                                label count="Frequency" percent="Percent";
run;

title3;

/* Clean up */
proc delete data=Work._MissingData_;
run;

TITLE;FOOTNOTE;

%LET _CLIENTTASKLABEL=;
%LET _CLIENTPROCESSFLOWNAME=;
%LET _CLIENTPROJECTPATH=;
%LET _CLIENTPROJECTPATHHOST=;
%LET _CLIENTPROJECTNAME=;

/* START PÅ NOD: Program */
%LET _CLIENTTASKLABEL='Program';

```

```
%LET _CLIENTPROCESSFLOWNAME='Processflöde';
%LET _CLIENTPROJECTPATH='C:\Users\4khw\OneDrive - Karolinska
Institutet\General\Studie I\Revision II\Analyses\Study I Revision 2.2.egp';
%LET _CLIENTPROJECTPATHHOST='RSTPC00020406';
%LET _CLIENTPROJECTNAME='Study I Revision 2.2.egp';
%LET _SASPROGRAMFILE='';
%LET _SASPROGRAMFILEHOST='';
```

```
libname va_viya meta library='VA_VIYA' metaout=data;
```

```
data va_viya.phill_test;
a='test';
b=1;
run;
```

```
%LET _CLIENTTASKLABEL=;
%LET _CLIENTPROCESSFLOWNAME=;
%LET _CLIENTPROJECTPATH=;
%LET _CLIENTPROJECTPATHHOST=;
%LET _CLIENTPROJECTNAME=;
%LET _SASPROGRAMFILE=;
%LET _SASPROGRAMFILEHOST=;
```

```
/* START PÅ NOD: Importera data (minmaxtemp.csv) */
%LET _CLIENTTASKLABEL='Importera data (minmaxtemp.csv)';
%LET _CLIENTPROCESSFLOWNAME='Processflöde';
%LET _CLIENTPROJECTPATH='C:\Users\4khw\OneDrive - Karolinska
Institutet\General\Studie I\Revision II\Analyses\Study I Revision 2.2.egp';
%LET _CLIENTPROJECTPATHHOST='RSTPC00020406';
%LET _CLIENTPROJECTNAME='Study I Revision 2.2.egp';
```

```
/* -----
```

Kod genererad av en SAS-uppgift

Genererad 07 January 2025 08:38:07

Av uppgift: guiden Importera data

Källfil:

\\gainashsf01.gaia.sll.se\fs_hsf_usr\$\4khw\Dokument\Projekt\Dynamic
EMS allocation\Dataanalys\weather\minmaxtemp.csv

Server: Lokalt filsystem

Output-data: WORK.minmaxtemp

Server: SASAppUser

Obs! Som föreberedelse inför körning av nedanstående kod har guiden
Importerat data använt interna rutiner för att överföra
källdatafilen från det lokala filsystemet till SASAppUser. Det
finns ingen SAS-kod tillgänglig för att representera den här
åtgärden.

----- */

```
DATA WORK.minmaxtemp;
  LENGTH
    'Representativt dygn'n 8
    Lufttemperatur_min 8
    Lufttemperatur_max 8 ;
  FORMAT
    'Representativt dygn'n YYMMDD10.
    Lufttemperatur_min BEST5.
    Lufttemperatur_max BEST4. ;
  INFORMAT
    'Representativt dygn'n YYMMDD10.
    Lufttemperatur_min BEST5.
    Lufttemperatur_max BEST4. ;
  INFILE '/opt/sas/saswork/SAS_work983400005AA0_sllscip6a/#LN00027'
    LRECL=21
    ENCODING="LATIN1"
    TERMSTR=CRLF
    DLM='7F'x
    MISSEVER
    DSD ;
  INPUT
    'Representativt dygn'n : ?? YYMMDD10.
    Lufttemperatur_min : ?? COMMA5.
    Lufttemperatur_max : ?? COMMA4. ;
RUN;
```

```
%LET _CLIENTTASKLABEL=;
%LET _CLIENTPROCESSFLOWNAME=;
%LET _CLIENTPROJECTPATH=;
%LET _CLIENTPROJECTPATHHOST=;
%LET _CLIENTPROJECTNAME=;
```

```
/* START PÅ NOD: Importera data (nederbörd.csv) */
%LET _CLIENTTASKLABEL='Importera data (nederbörd.csv)';
%LET _CLIENTPROCESSFLOWNAME='Processflöde';
%LET _CLIENTPROJECTPATH='C:\Users\4khw\OneDrive - Karolinska
Institutet\General\Studie I\Revision II\Analyses\Study I Revision 2.2.egp';
%LET _CLIENTPROJECTPATHHOST='RSTPC00020406';
```

```
%LET _CLIENTPROJECTNAME='Study I Revision 2.2.egp';
```

```
/* -----
```

Kod genererad av en SAS-uppgift

Genererad 07 January 2025 08:38:16

Av uppgift: guiden Importera data

Källfil:

\\gainashsf01.gaia.sll.se\fs_hsf_usr\$\4khw\Dokument\Projekt\Dynamic
EMS allocation\Dataanalys\weather
ederbörd.csv

Server: Lokalt filsystem

Output-data: WORK.nederbörd

Server: SASAppUser

Obs! Som föreberedelse inför körning av nedanstående kod har guiden
Importera data använt interna rutiner för att överföra
källdatafilen från det lokala filsystemet till SASAppUser. Det
finns ingen SAS-kod tillgänglig för att representera den här
åtgärden.

```
----- */
```

```
DATA WORK.'nederbörd'n;
```

```
LENGTH
```

```
'Representativt dygn'n 8
```

```
'Nederbördsmängd'n 8 ;
```

```
FORMAT
```

```
'Representativt dygn'n YYMMDD10.
```

```
'Nederbördsmängd'n BEST4. ;
```

```
INFORMAT
```

```
'Representativt dygn'n YYMMDD10.
```

```
'Nederbördsmängd'n BEST4. ;
```

```
INFILE '/opt/sas/saswork/SAS_work983400005AA0_sllscip6a/#LN00031'
```

```
LRECL=15
```

```
ENCODING="LATIN1"
```

```
TERMSTR=CRLF
```

```
DLM='7F'x
```

```
MISSOVER
```

```
DSD ;
```

```
INPUT
```

```
'Representativt dygn'n : ?? YYMMDD10.
```

```
'Nederbördsmängd'n : ?? COMMA4. ;
```

```
RUN;
```

```

%LET _CLIENTTASKLABEL=;
%LET _CLIENTPROCESSFLOWNAME=;
%LET _CLIENTPROJECTPATH=;
%LET _CLIENTPROJECTPATHHOST=;
%LET _CLIENTPROJECTNAME=;

/* START PÅ NOD: Importera data (sunperhour.csv) */
%LET _CLIENTTASKLABEL='Importera data (sunperhour.csv)';
%LET _CLIENTPROCESSFLOWNAME='Processflöde';
%LET _CLIENTPROJECTPATH='C:\Users\4khw\OneDrive - Karolinska
Institutet\General\Studie I\Revision II\Analyses\Study I Revision 2.2.egp';
%LET _CLIENTPROJECTPATHHOST='RSTPC00020406';
%LET _CLIENTPROJECTNAME='Study I Revision 2.2.egp';

```

```
/* -----
```

Kod genererad av en SAS-uppgift

Genererad 07 January 2025 08:38:26

Av uppgift: guiden Importera data

Källfil:

\\gainashsf01.gaia.sll.se\fs_hsf_usr\$\4khw\Dokument\Projekt\Dynamic
EMS allocation\Dataanalys\weather\sunperhour.csv

Server: Lokalt filsystem

Output-data: WORK.sunperhour

Server: SASAppUser

Obs! Som föreberedelse inför körning av nedanstående kod har guiden
Importera data använt interna rutiner för att överföra
källdatafilen från det lokala filsystemet till SASAppUser. Det
finns ingen SAS-kod tillgänglig för att representera den här
åtgärden.

```
----- */
```

```

DATA WORK.sunperhour;
  LENGTH
    Datum      8
    'Tid (UTC)'n 8
    Solskenstid 8 ;
  FORMAT
    Datum      YYMMDD10.
    'Tid (UTC)'n TIME8.
    Solskenstid BEST4. ;
  INFORMAT
    Datum      YYMMDD10.

```

```

        'Tid (UTC)'n    TIME11.
        Solskenstid    BEST4. ;
INFILE '/opt/sas/saswork/SAS_work983400005AA0_sllscip6a/#LN00034'
        LRECL=24
        ENCODING="LATIN1"
        TERMSTR=CRLF
        DLM='7F'x
        MISSOEVER
        DSD ;
INPUT
        Datum          : ?? YYMMDD10.
        'Tid (UTC)'n    : ?? TIME8.
        Solskenstid     : ?? BEST4. ;
RUN;

```

```

%LET _CLIENTTASKLABEL=;
%LET _CLIENTPROCESSFLOWNAME=;
%LET _CLIENTPROJECTPATH=;
%LET _CLIENTPROJECTPATHHOST=;
%LET _CLIENTPROJECTNAME=;

```

```

/* START PÅ NOD: Importera data (temperature.csv) */
%LET _CLIENTTASKLABEL='Importera data (temperature.csv)';
%LET _CLIENTPROCESSFLOWNAME='Processflöde';
%LET _CLIENTPROJECTPATH='C:\Users\4khw\OneDrive - Karolinska
Institutet\General\Studie I\Revision II\Analyses\Study I Revision 2.2.egp';
%LET _CLIENTPROJECTPATHHOST='RSTPC00020406';
%LET _CLIENTPROJECTNAME='Study I Revision 2.2.egp';

```

```

/* -----

```

Kod genererad av en SAS-uppgift

Genererad 07 January 2025 08:38:33

Av uppgift: guiden Importera data

Källfil:

\\gainashsf01.gaia.sll.se\fs_hsf_usr\$\4khw\Dokument\Projekt\Dynamic
EMS allocation\Dataanalys\weather\temperature.csv

Server: Lokalt filsystem

Output-data: WORK.temperature

Server: SASAppUser

Obs! Som föreberedelse inför körning av nedanstående kod har guiden
Importera data använt interna rutiner för att överföra

källdatafilen från det lokala filsystemet till SASAppUser. Det finns ingen SAS-kod tillgänglig för att representera den här åtgärden.

----- */

```
DATA WORK.temperature;
  LENGTH
    'Representativt dygn'n 8
    Lufttemperatur 8 ;
  FORMAT
    'Representativt dygn'n YYMMDD10.
    Lufttemperatur BEST5. ;
  INFORMAT
    'Representativt dygn'n YYMMDD10.
    Lufttemperatur BEST5. ;
  INFILE '/opt/sas/saswork/SAS_work983400005AA0_sllscip6a/#LN00037'
    LRECL=16
    ENCODING="LATIN1"
    TERMSTR=CRLF
    DLM='7F'x
    MISSOVER
    DSD ;
  INPUT
    'Representativt dygn'n : ?? YYMMDD10.
    Lufttemperatur : ?? COMMA5. ;
RUN;
```

```
%LET _CLIENTTASKLABEL=;
%LET _CLIENTPROCESSFLOWNAME=;
%LET _CLIENTPROJECTPATH=;
%LET _CLIENTPROJECTPATHHOST=;
%LET _CLIENTPROJECTNAME=;
```

```
/* START PÅ NOD: Importera data (type of weather.csv) */
%LET _CLIENTTASKLABEL='Importera data (type of weather.csv)';
%LET _CLIENTPROCESSFLOWNAME='Processflöde';
%LET _CLIENTPROJECTPATH='C:\Users\4khw\OneDrive - Karolinska
Institutet\General\Studie I\Revision II\Analyses\Study I Revision 2.2.egp';
%LET _CLIENTPROJECTPATHHOST='RSTPC00020406';
%LET _CLIENTPROJECTNAME='Study I Revision 2.2.egp';
```

/* -----

Kod genererad av en SAS-uppgift

Genererad 07 January 2025 08:38:41

Av uppgift: guiden Importera data

Källfil:

\\gainashsf01.gaia.sll.se\fs_hsf_usr\$\4khw\Dokument\Projekt\Dynamic
EMS allocation\Dataanalys\weather\type of weather.csv

Server: Lokalt filsystem

Output-data: WORK.type of weather

Server: SASAppUser

Obs! Som föreberedelse inför körning av nedanstående kod har guiden
Importera data använt interna rutiner för att överföra
källdatafilen från det lokala filsystemet till SASAppUser. Det
finns ingen SAS-kod tillgänglig för att representera den här
åtgärden.

----- */

```
DATA WORK.'type of weather';
  LENGTH
    'Representativt dygn'n 8
    'Nederbörd'n $ 23 ;
  FORMAT
    'Representativt dygn'n YYMMDD10.
    'Nederbörd'n $CHAR23. ;
  INFORMAT
    'Representativt dygn'n YYMMDD10.
    'Nederbörd'n $CHAR23. ;
  INFILE '/opt/sas/saswork/SAS_work983400005AA0_sllscip6a/#LN00040'
    LRECL=34
    ENCODING="LATIN1"
    TERMSTR=CRLF
    DLM='7F'x
    MISSOVER
    DSD ;
  INPUT
    'Representativt dygn'n : ?? YYMMDD10.
    'Nederbörd'n : $CHAR23. ;
RUN;
```

```
%LET _CLIENTTASKLABEL=;
%LET _CLIENTPROCESSFLOWNAME=;
%LET _CLIENTPROJECTPATH=;
%LET _CLIENTPROJECTPATHHOST=;
%LET _CLIENTPROJECTNAME=;
```



```

/* START PÅ NOD: Frågebyggare 1 */
%LET _CLIENTTASKLABEL='Frågebyggare 1';
%LET _CLIENTPROCESSFLOWNAME='Processflöde';
%LET _CLIENTPROJECTPATH='C:\Users\4khw\OneDrive - Karolinska
Institutet\General\Studie I\Revision II\Analyses\Study I Revision 2.2.egp';
%LET _CLIENTPROJECTPATHHOST='RSTPC00020406';
%LET _CLIENTPROJECTNAME='Study I Revision 2.2.egp';

%_eg_conditional_dropds(J.DEMSI);

PROC SQL;
CREATE TABLE J.DEMSI AS
SELECT t1.incidentid_lopnr,
       t1.taskid_lopnr,
       t1.rakelid_lopnr,
       t1.'Priority set by dispatch'n LABEL="" AS 'Priority set by EMCC'n,
       t1.Station,
       t1.KOMMUN,
       t1.'Receved emergencycall UTC'n,
       t1.ResonOfCallToEMCC,
       t1.Year FORMAT=COMMA6. AS Year,
       t1.Month FORMAT=COMMA6. AS Month,
       t1.Weekday FORMAT=COMMA6. AS Weekday,
       t1.Hour FORMAT=COMMA6. AS Hour,
       t1.'DistancetoArrival km'n FORMAT=COMMA6. AS 'TravelDistanceToPatient_ km'n,
       t1.Date,
       t1.MissionCancelled,
       t3.Lufttemperatur_min FORMAT=COMMA6. AS Airtemperature_min,
       t3.Lufttemperatur_max FORMAT=COMMA6. AS Airtemperature_max,
       t4.'Nederbörds mängd'n FORMAT=COMMA6. AS AmmountPrecipitation,
       t6.Lufttemperatur FORMAT=COMMA6. AS Airtemperature,
       t7.'Nederbörd'n AS PrecipitationType,
       t2.SUM_of_Resources FORMAT=COMMA6. AS H_SUM_of_Resources,
       t2.H_AVG_of_Onscenetime FORMAT=COMMA6. AS H_AVG_of_Onscenetime,
       t2.H_AVG_of_Transportationtime FORMAT=COMMA6. AS
H_AVG_of_Transportationtime,
       t2.H_AVG_of_Deliverytime FORMAT=COMMA6. AS H_AVG_of_Deliverytime,
       t2.H_AVG_of_Responsetime FORMAT=COMMA6. AS H_AVG_of_Responsetime,
       t2.H_AVG_of_Call_handelintime FORMAT=COMMA6. AS
H_AVG_of_Call_handelintime,
       t2.H_AVG_of_Drivetime FORMAT=COMMA6. AS H_AVG_of_Drivetime,
       t2.H_AVG_of_DistArrvalkm FORMAT=COMMA6. AS H_AVG_of_DistArrvalkm,
       t2.C_DISTT_of_missions FORMAT=COMMA6. AS H_SUM_of_Missions,
       t2.SUM_of_MissionCanc FORMAT=COMMA6. AS H_SUM_of_MissionCanc,
/* ResponseTime */
(CASE
  WHEN t1.Responsetime < 0 THEN MEDIAN(t1.Responsetime)

```

```

        WHEN t1.Responsetime > 36000 THEN MEDIAN(t1.Responsetime)
        ELSE t1.Responsetime
    END) FORMAT=COMMA6. AS ResponseTime,
/* Onscenetime */
    (CASE
        WHEN t2.H_AVG_of_Onscenetime NOT BETWEEN 0 AND 36000 THEN
MEDIAN(t1.Onscenetime)
        ELSE t2.H_AVG_of_Onscenetime
    END) FORMAT=COMMA6. AS Onscenetime,
/* Transportationtime */
    (CASE
        WHEN t1.Transportationtime NOT BETWEEN 0 AND 36000 THEN
MEDIAN(t1.Transportationtime)
        ELSE t1.Transportationtime
    END) FORMAT=COMMA8. AS Transportationtime,
/* Call_handelingtime */
    (CASE
        WHEN t1.Call_handelingtime NOT BETWEEN 0 AND 36000 THEN
MEDIAN(t1.Call_handelingtime)
        ELSE t1.Call_handelingtime
    END) FORMAT=COMMA8. AS Call_handelingtime,
/* Drivetime */
    (CASE
        WHEN t1.Drivetime NOT BETWEEN 0 AND 36000 THEN MEDIAN(t1.Drivetime)
        ELSE t1.Drivetime
    END) FORMAT=COMMA8. AS Drivetime,
/* Deliverytime */
    (CASE
        WHEN t1.Deliverytime NOT BETWEEN 0 AND 36000 THEN MEDIAN(t1.Deliverytime)
        ELSE t1.Deliverytime
    END) FORMAT=NUMX8. AS Deliverytime
FROM WORK.QUERY_FOR_DYNEMSALL_TASKLASTVALU t1
    INNER JOIN WORK.QUERY_FOR_DYNEMSALL_TASKLAS_0000 t2 ON (t1.Date = t2.Date)
AND (t1.Hour = t2.Hour)
    LEFT JOIN WORK.MINMAXTEMP t3 ON (t2.Date = t3.'Representativt dygn'n)
    LEFT JOIN WORK.SUNPERHOUR t5 ON (t2.Date = t5.Datum) AND (t2.Hour = t5.'Tid
(UTC)'n)
    LEFT JOIN WORK.'NEDERBÖRD'n t4 ON (t2.Date = t4.'Representativt dygn'n)
    LEFT JOIN WORK.TEMPERATURE t6 ON (t2.Date = t6.'Representativt dygn'n)
    LEFT JOIN WORK.'TYPE OF WEATHER'n t7 ON (t2.Date = t7.'Representativt dygn'n)
WHERE t1.incidentid_lopnr NOT IS MISSING AND t1.taskid_lopnr NOT IS MISSING AND
t1.'Priority set by dispatch'n IN
    (
        '1',
        '2',
        '3'
    ) AND t1.Responsetime NOT IS MISSING AND t1.Year IN

```

```

(
2017,
2018,
2019,
2020,
2021,
2022
)
ORDER BY t1.'Receved emergencycall UTC'n,
        t1.'Priority set by dispatch'n,
        t1.RakelIndex1,
        t1.PRIORITETUT,
        t1.Responsetime;
QUIT;

```

```

%LET _CLIENTTASKLABEL=;
%LET _CLIENTPROCESSFLOWNAME=;
%LET _CLIENTPROJECTPATH=;
%LET _CLIENTPROJECTPATHHOST=;
%LET _CLIENTPROJECTNAME=;

```

```

/* START PÅ NOD: Standardize Data */
%LET _CLIENTTASKLABEL='Standardize Data';
%LET _CLIENTPROCESSFLOWNAME='Processflöde';
%LET _CLIENTPROJECTPATH='C:\Users\4khw\OneDrive - Karolinska
Institutet\General\Studie I\Revision II\Analyses\Study I Revision 2.2.egp';
%LET _CLIENTPROJECTPATHHOST='RSTPC00020406';
%LET _CLIENTPROJECTNAME='Study I Revision 2.2.egp';

```

```

%macro web_drop_table / parmbuff;%mend;
%macro web_open_table / parmbuff;%mend;

```

```

ODS GRAPHICS ON;
TITLE;FOOTNOTE;
FOOTNOTE1 "Genererat av SAS (&_SASSERVERNAME, &SYSSCPL)
%TRIM(%QSYSFUNC(DATE()), NLDATE20.)) %TRIM(%QSYSFUNC(TIME()), NLTIME.))";

```

```
ods noproctitle;
```

```

proc stdize data=J.DEMSI method=std nomiss out=WORK.STDIZE oprefix
            sprefix=Standardized_;
    var 'TravelDistanceToPatient_ km'n MissionCancelled Airtemperature_min
        Airtemperature_max AmmountPrecipitation Airtemperature
H_SUM_of_Resources
        H_AVG_of_Onscenetime H_AVG_of_Transportationtime
H_AVG_of_Deliverytime
        H_AVG_of_Responsetime H_AVG_of_Call_handlingtime
H_AVG_of_Drivetime
        H_AVG_of_DistArrvalkm H_SUM_of_Missions
H_SUM_of_MissionCanc ResponseTime;
run;

```

```

TITLE;FOOTNOTE;

```

```

%LET _CLIENTTASKLABEL=;
%LET _CLIENTPROCESSFLOWNAME=;
%LET _CLIENTPROJECTPATH=;
%LET _CLIENTPROJECTPATHHOST=;
%LET _CLIENTPROJECTNAME=;

```

```

/* START PÅ NOD: Describe Missing Data */
%LET _CLIENTTASKLABEL='Describe Missing Data';
%LET _CLIENTPROCESSFLOWNAME='Processflöde';
%LET _CLIENTPROJECTPATH='C:\Users\4khw\OneDrive - Karolinska
Institutet\General\Studie I\Revision II\Analyses\Study I Revision 2.2.egp';
%LET _CLIENTPROJECTPATHHOST='RSTPC00020406';
%LET _CLIENTPROJECTNAME='Study I Revision 2.2.egp';

```

```

%macro web_drop_table / parmbuff;%mend;
%macro web_open_table / parmbuff;%mend;

```

```

ODS GRAPHICS ON;
TITLE;FOOTNOTE;
FOOTNOTE1 "Genererat av SAS (&_SASSERVERNAME, &SYSSCPL)
%TRIM(%QSYSFUNC(DATE()), NLDATE20.)) %TRIM(%QSYSFUNC(TIME()), NLTIME.))";

```

```

ods noproctitle;

```

```

proc format;
    value _nmissprint low-high="Non-missing";
    value $_cmissprint " =" " other="Non-missing";

```

```

run;

proc freq data=J.DEMSI;
    title3 "Missing Data Frequencies";
    title4 h=2 "Legend: ., A, B, etc = Missing";
    format incidentid_ lopnr taskid_ lopnr rakelid_ lopnr
        'Receved emergencycall UTC'n Year Month Weekday Hour
        'TravelDistanceToPatient_ km'n Call_ handlingtime Drivetime
Date
        MissionCancelled Onscenetime Transportationtime Deliverytime
        Airtemperature_min Airtemperature_max AmmountPrecipitation
Airtemperature
        H_SUM_of_Resources H_AVG_of_Onscenetime
H_AVG_of_Transportationtime
        H_AVG_of_Deliverytime H_AVG_of_Respondetime
H_AVG_of_Call_handlingtime
        H_AVG_of_Drivetime H_AVG_of_DistArrvalkm
H_SUM_of_Missions
        H_SUM_of_MissionCanc ResponseTime _nmissprint.;
    format 'Priority set by EMCC'n Station KOMMUN PrecipitationType
$_cmissprint.;
    tables incidentid_ lopnr taskid_ lopnr rakelid_ lopnr 'Priority set by EMCC'n
        Station KOMMUN 'Receved emergencycall UTC'n Year Month
Weekday Hour
        'TravelDistanceToPatient_ km'n Call_ handlingtime Drivetime
Date
        MissionCancelled Onscenetime Transportationtime Deliverytime
        Airtemperature_min Airtemperature_max AmmountPrecipitation
Airtemperature
        PrecipitationType H_SUM_of_Resources H_AVG_of_Onscenetime
        H_AVG_of_Transportationtime H_AVG_of_Deliverytime
H_AVG_of_Respondetime
        H_AVG_of_Call_handlingtime H_AVG_of_Drivetime
H_AVG_of_DistArrvalkm
        H_SUM_of_Missions H_SUM_of_MissionCanc ResponseTime /
missing nocum;
run;

proc freq data=J.DEMSI noprint;
    table incidentid_ lopnr * taskid_ lopnr * rakelid_ lopnr *
        'Priority set by EMCC'n * Station * KOMMUN * 'Receved
emergencycall UTC'n *
        Year * Month * Weekday * Hour * 'TravelDistanceToPatient_
km'n *
        Call_ handlingtime * Drivetime * Date * MissionCancelled *
Onscenetime *

```

```

Transportationtime * Deliverytime * Airtemperature_min *
Airtemperature_max *
AmmountPrecipitation * Airtemperature * PrecipitationType *
H_SUM_of_Resources * H_AVG_of_Onscenetime *
H_AVG_of_Transportationtime *
H_AVG_of_Deliverytime * H_AVG_of_Responsetime *
H_AVG_of_Call_handelington *
H_AVG_of_Drivetime * H_AVG_of_DistArrvalkm *
H_SUM_of_Missions *
H_SUM_of_MissionCanc * ResponseTime / missing
out=Work._MissingData_;
format incidentid_ lopnr taskid_ lopnr rakelid_ lopnr
'Receved emergencycall UTC'n Year Month Weekday Hour
'TravelDistanceToPatient_ km'n Call_handelington Drivetime
Date
MissionCancelled Onscenetime Transportationtime Deliverytime
Airtemperature_min Airtemperature_max AmmountPrecipitation
Airtemperature
H_SUM_of_Resources H_AVG_of_Onscenetime
H_AVG_of_Transportationtime
H_AVG_of_Deliverytime H_AVG_of_Responsetime
H_AVG_of_Call_handelington
H_AVG_of_Drivetime H_AVG_of_DistArrvalkm
H_SUM_of_Missions
H_SUM_of_MissionCanc ResponseTime _nmissprint.;
format 'Priority set by EMCC'n Station KOMMUN PrecipitationType
$_cmissprint.;
run;

proc print data=Work._MissingData_ noobs label;
title3 "Missing Data Patterns across Variables";
title4 h=2 "Legend: ., A, B, etc = Missing";
format incidentid_ lopnr taskid_ lopnr rakelid_ lopnr
'Receved emergencycall UTC'n Year Month Weekday Hour
'TravelDistanceToPatient_ km'n Call_handelington Drivetime
Date
MissionCancelled Onscenetime Transportationtime Deliverytime
Airtemperature_min Airtemperature_max AmmountPrecipitation
Airtemperature
H_SUM_of_Resources H_AVG_of_Onscenetime
H_AVG_of_Transportationtime
H_AVG_of_Deliverytime H_AVG_of_Responsetime
H_AVG_of_Call_handelington
H_AVG_of_Drivetime H_AVG_of_DistArrvalkm
H_SUM_of_Missions
H_SUM_of_MissionCanc ResponseTime _nmissprint.;

```

```

format 'Priority set by EMCC'n Station KOMMUN PrecipitationType
$_cmissprint.;
label count="Frequency" percent="Percent";
run;

title3;

/* Clean up */
proc delete data=Work._MissingData_;
run;

TITLE;FOOTNOTE;

%LET _CLIENTTASKLABEL=;
%LET _CLIENTPROCESSFLOWNAME=;
%LET _CLIENTPROJECTPATH=;
%LET _CLIENTPROJECTPATHHOST=;
%LET _CLIENTPROJECTNAME=;

;*,*";*/quit;run;
ODS _ALL_ CLOSE;

```

D.2. SAS code from analyses in SAS Viya Visual Analytics 8.5.2

D.2.1. Gradient Boosting overall

```

/*-----
The options statement below should be placed
before the data step when submitting this code.
-----*/
options VALIDMEMNAME=EXTEND VALIDVARNAME=ANY;

/*-----
Before this code can run you need to fill in all the
macro variables below.
-----*/
/*-----
Start Macro Variables
-----*/
%let SOURCE_HOST=<Hostname>; /* The host name of the CAS server */
%let SOURCE_PORT=<Port>; /* The port of the CAS server */
%let SOURCE_LIB=<Library>; /* The CAS library where the source data resides */
%let SOURCE_DATA=<Tablename>; /* The CAS table name of the source data */

```

```
%let DEST_LIB=<Library>; /* The CAS library where the destination data should go */
%let DEST_DATA=<Tablename>; /* The CAS table name where the destination data should
go */
```

```
/* Open a CAS session and make the CAS libraries available */
options cashost="&SOURCE_HOST" casport=&SOURCE_PORT;
cas mysess;
caslib _all_ assign;
```

```
/* Load ASTOREs into CAS memory */
proc casutil;
  Load casdata="Gradient_boosting___Response_Time_(minutes)_1.sashdat"
incaslib="Models" casout="Gradient_boosting___Response_Time_(minutes)_1"
outcaslib="casuser" replace;
Quit;
```

```
/* Apply the model */
proc cas;
  fccompact.runProgram /
  inputData={caslib="&SOURCE_LIB" name="&SOURCE_DATA"}
  outputData={caslib="&DEST_LIB" name="&DEST_DATA" replace=1}
  routineCode = "
```

```
/*-----
```

Generated SAS Scoring Code

Date : 17Dec2024:15:25:16

Locale : en_US

Model Type : Gradient Boosting

Interval variable: _va_d_Response_Time_(minutes)(Response Time (minutes))

Interval variable: Airtemperature

Interval variable: Airtemperature_max

Interval variable: Airtemperature_min

Interval variable: AmmountPrecipitation

Interval variable: H_AVG_of_DistArrvalkm

Interval variable: H_SUM_of_MissionCanc

Interval variable: H_SUM_of_Missions

Interval variable: H_SUM_of_Resources

Interval variable: Hour

Interval variable: Month

Interval variable: H_AVG_of_Call_handelintime

Interval variable: H_AVG_of_Deliverytime

Interval variable: H_AVG_of_Drivetime

Interval variable: H_AVG_of_Onscenetime

Interval variable: H_AVG_of_Responsetime

Interval variable: H_AVG_of_Transportationtime

Interval variable: TravelDistanceToPatient_ km

Class variable : PrecipitationType


```

Class variable : Priority set by EMCC
Class variable : Station(EMS Station)
Class variable : KOMMUN(Locality)
Class variable : _va_d_Weekday_ONES(Weekday)
Class variable : ResonOfCallToEMCC(ReasonOfCallToEMCC)
Response variable: _va_d_Response_Time_(minutes)(Response Time (minutes))
-----*/
/* Temporary Computed Columns */
'_va_d_Response_Time_(minutes)'n=('ResponseTime'n / 60);;
'_va_d_Weekday_ONES'n=round('Weekday'n,1);

/*-----*/
declare object Gradient_boosting___Response_Time_(minutes)_1(astore);
call
Gradient_boosting___Response_Time_(minutes)_1.score('CASUSER','Gradient_boosting___
Response_Time_(minutes)_1');
/*-----*/
/*_VA_DROP*/ drop '_va_d_Response_Time_(minutes)'n '_va_d_Weekday_ONES'n
'P__va_d_Response_Time__minutes_'n;
'P__va_d_Response_Time__minu_57'n='P__va_d_Response_Time__minutes_'n;
/*-----*/
";

run;
Quit;

/* Persist the output table */
proc casutil;
  Save casdata="&DEST_DATA" incaslib="&DEST_LIB" casout="&DEST_DATA%str(.)sashdat"
outcaslib="&DEST_LIB" replace;
Quit;

```

D.2.2. Gradient Boosting priority level 1

```

/*-----
The options statement below should be placed
before the data step when submitting this code.
-----*/
options VALIDMEMNAME=EXTEND VALIDVARNAME=ANY;

/*-----
Before this code can run you need to fill in all the
macro variables below.
-----*/
/*-----

```

Start Macro Variables

```
-----*/
%let SOURCE_HOST=<Hostname>; /* The host name of the CAS server */
%let SOURCE_PORT=<Port>; /* The port of the CAS server */
%let SOURCE_LIB=<Library>; /* The CAS library where the source data resides */
%let SOURCE_DATA=<Tablename>; /* The CAS table name of the source data */
%let DEST_LIB=<Library>; /* The CAS library where the destination data should go */
%let DEST_DATA=<Tablename>; /* The CAS table name where the destination data should
go */
```

```
/* Open a CAS session and make the CAS libraries available */
options cashost="&SOURCE_HOST" casport=&SOURCE_PORT;
cas mysess;
caslib _all_ assign;
```

```
/* Load ASTOREs into CAS memory */
proc casutil;
  Load casdata="Gradient_boosting___Response_Time_(minutes)_2.sashdat"
incaslib="Models" casout="Gradient_boosting___Response_Time_(minutes)_2"
outcaslib="casuser" replace;
Quit;
```

```
/* Apply the model */
proc cas;
  fccompact.runProgram /
  inputData={caslib="&SOURCE_LIB" name="&SOURCE_DATA"}
  outputData={caslib="&DEST_LIB" name="&DEST_DATA" replace=1}
  routineCode = "
```

```
/*-----
```

Generated SAS Scoring Code

```
Date       : 17Dec2024:15:16:53
Locale      : en_US
Model Type   : Gradient Boosting
Interval variable: _va_d_Response_Time_(minutes)(Response Time (minutes))
Interval variable: Airtemperature
Interval variable: Airtemperature_max
Interval variable: Airtemperature_min
Interval variable: AmmountPrecipitation
Interval variable: H_AVG_of_DistArrvalkm
Interval variable: H_SUM_of_MissionCanc
Interval variable: H_SUM_of_Missions
Interval variable: H_SUM_of_Resources
Interval variable: Hour
Interval variable: Month
Interval variable: H_AVG_of_Call_handelngtime
Interval variable: H_AVG_of_Deliverytime
```

```

Interval variable: H_AVG_of_Drivetime
Interval variable: H_AVG_of_Onscenetime
Interval variable: H_AVG_of_Responsetime
Interval variable: H_AVG_of_Transportationtime
Interval variable: TravelDistanceToPatient_ km
Class variable : PrecipitationType
Class variable : Priority set by EMCC
Class variable : Station(EMS Station)
Class variable : KOMMUN(Locality)
Class variable : _va_d_Weekday_ONES(Weekday)
Class variable : ResonOfCallToEMCC(ReasonOfCallToEMCC)
Response variable: _va_d_Response_Time_(minutes)(Response Time (minutes))
-----*/
/* Temporary Computed Columns */
'_va_d_Response_Time_(minutes)'n=('ResponseTime'n / 60);
'_va_d_Weekday_ONES'n=round('Weekday'n,1);

/*-----*/
declare object Gradient_boosting___Response_Time_(minutes)_2(astore);
call
Gradient_boosting___Response_Time_(minutes)_2.score('CASUSER','Gradient_boosting___
Response_Time_(minutes)_2');
/*-----*/
/*_VA_DROP*/ drop '_va_d_Response_Time_(minutes)'n '_va_d_Weekday_ONES'n
'P__va_d_Response_Time__minutes_'n;
'P__va_d_Response_Time__min_981'n='P__va_d_Response_Time__minutes_'n;
/*-----*/
";

run;
Quit;

/* Persist the output table */
proc casutil;
  Save casdata="&DEST_DATA" incaslib="&DEST_LIB" casout="&DEST_DATA%str(.).sashdat"
  outcaslib="&DEST_LIB" replace;
Quit;

```

D.2.3. Gradient Boosting priority level 2

```

/*-----
The options statement below should be placed
before the data step when submitting this code.
-----*/
options VALIDMEMNAME=EXTEND VALIDVARNAME=ANY;

/*-----

```

Before this code can run you need to fill in all the macro variables below.

```
-----*/
/*-----
Start Macro Variables
-----*/

%let SOURCE_HOST=<Hostname>; /* The host name of the CAS server */
%let SOURCE_PORT=<Port>; /* The port of the CAS server */
%let SOURCE_LIB=<Library>; /* The CAS library where the source data resides */
%let SOURCE_DATA=<Tablename>; /* The CAS table name of the source data */
%let DEST_LIB=<Library>; /* The CAS library where the destination data should go */
%let DEST_DATA=<Tablename>; /* The CAS table name where the destination data should
go */

/* Open a CAS session and make the CAS libraries available */
options cashost="&SOURCE_HOST" casport=&SOURCE_PORT;
cas mysess;
caslib _all_ assign;

/* Load ASTOREs into CAS memory */
proc casutil;
  Load casdata="Gradient_boosting___Response_Time_(minutes)_3.sashdat"
incaslib="Models" casout="Gradient_boosting___Response_Time_(minutes)_3"
outcaslib="casuser" replace;
Quit;

/* Apply the model */
proc cas;
  fccompact.runProgram /
  inputData={caslib="&SOURCE_LIB" name="&SOURCE_DATA"}
  outputData={caslib="&DEST_LIB" name="&DEST_DATA" replace=1}
  routineCode = "

/*-----
Generated SAS Scoring Code
Date          : 17Dec2024:15:22:42
Locale        : en_US
Model Type    : Gradient Boosting
Interval variable: _va_d_Response_Time_(minutes)(Response Time (minutes))
Interval variable: Airtemperature
Interval variable: Airtemperature_max
Interval variable: Airtemperature_min
Interval variable: AmmountPrecipitation
Interval variable: H_AVG_of_DistArrvalkm
Interval variable: H_SUM_of_MissionCanc
Interval variable: H_SUM_of_Missions
Interval variable: H_SUM_of_Resources
```

```

Interval variable: Hour
Interval variable: Month
Interval variable: H_AVG_of_Call_handlingtime
Interval variable: H_AVG_of_Deliverytime
Interval variable: H_AVG_of_Drivetime
Interval variable: H_AVG_of_Onscenetime
Interval variable: H_AVG_of_Responsetime
Interval variable: H_AVG_of_Transportationtime
Interval variable: TravelDistanceToPatient_ km
Class variable : PrecipitationType
Class variable : Priority set by EMCC
Class variable : Station(EMS Station)
Class variable : KOMMUN(Locality)
Class variable : _va_d_Weekday_ONES(Weekday)
Class variable : ResonOfCallToEMCC(ReasonOfCallToEMCC)
Response variable: _va_d_Response_Time_(minutes)(Response Time (minutes))
-----*/
/* Temporary Computed Columns */
'_va_d_Response_Time_(minutes)'n=('ResponseTime'n / 60);
'_va_d_Weekday_ONES'n=round('Weekday'n,1);

/*-----*/
declare object Gradient_boosting___Response_Time_(minutes)_3(astore);
call
Gradient_boosting___Response_Time_(minutes)_3.score('CASUSER','Gradient_boosting___
Response_Time_(minutes)_3');
/*-----*/
/*_VA_DROP*/ drop '_va_d_Response_Time_(minutes)'n '_va_d_Weekday_ONES'n
'P__va_d_Response_Time__minutes_'n;
'P__va_d_Response_Time__mi_1502'n='P__va_d_Response_Time__minutes_'n;
/*-----*/
";

run;
Quit;

/* Persist the output table */
proc casutil;
  Save casdata="&DEST_DATA" incaslib="&DEST_LIB" casout="&DEST_DATA%str(.).sashdat"
outcaslib="&DEST_LIB" replace;
Quit;

```

D.2.4. Gradient Boosting priority level 3

```

/*-----
The options statement below should be placed
before the data step when submitting this code.

```

```

-----*/
options VALIDMEMNAME=EXTEND VALIDVARNAME=ANY;

/*-----
Before this code can run you need to fill in all the
macro variables below.
-----*/
/*-----
Start Macro Variables
-----*/
%let SOURCE_HOST=<Hostname>; /* The host name of the CAS server */
%let SOURCE_PORT=<Port>; /* The port of the CAS server */
%let SOURCE_LIB=<Library>; /* The CAS library where the source data resides */
%let SOURCE_DATA=<Tablename>; /* The CAS table name of the source data */
%let DEST_LIB=<Library>; /* The CAS library where the destination data should go */
%let DEST_DATA=<Tablename>; /* The CAS table name where the destination data should
go */

/* Open a CAS session and make the CAS libraries available */
options cashost="&SOURCE_HOST" casport=&SOURCE_PORT;
cas mysess;
caslib _all_ assign;

/* Load ASTOREs into CAS memory */
proc casutil;
  Load casdata="Gradient_boosting___Response_Time_(minutes)_4.sashdat"
incaslib="Models" casout="Gradient_boosting___Response_Time_(minutes)_4"
outcaslib="casuser" replace;
Quit;

/* Apply the model */
proc cas;
  fccompact.runProgram /
  inputData={caslib="&SOURCE_LIB" name="&SOURCE_DATA"}
  outputData={caslib="&DEST_LIB" name="&DEST_DATA" replace=1}
  routineCode = "

/*-----
Generated SAS Scoring Code
Date          : 17Dec2024:15:20:38
Locale        : en_US
Model Type    : Gradient Boosting
Interval variable: _va_d_Response_Time_(minutes)(Response Time (minutes))
Interval variable: Airtemperature
Interval variable: Airtemperature_max
Interval variable: Airtemperature_min

```

```

Interval variable: AmmountPrecipitation
Interval variable: H_AVG_of_DistArrvalkm
Interval variable: H_SUM_of_MissionCanc
Interval variable: H_SUM_of_Missions
Interval variable: H_SUM_of_Resources
Interval variable: Hour
Interval variable: Month
Interval variable: H_AVG_of_Call_handelintime
Interval variable: H_AVG_of_Deliverytime
Interval variable: H_AVG_of_Drivetime
Interval variable: H_AVG_of_Onscenetime
Interval variable: H_AVG_of_Responsetime
Interval variable: H_AVG_of_Transportationtime
Interval variable: TravelDistanceToPatient_ km
Class variable : PrecipitationType
Class variable : Priority set by EMCC
Class variable : Station(EMS Station)
Class variable : KOMMUN(Locality)
Class variable : _va_d_Weekday_ONES(Weekday)
Class variable : ResonOfCallToEMCC(ReasonOfCallToEMCC)
Response variable: _va_d_Response_Time_(minutes)(Response Time (minutes))
-----*/
/* Temporary Computed Columns */
'_va_d_Response_Time_(minutes)'n=('ResponseTime'n / 60);
'_va_d_Weekday_ONES'n=round('Weekday'n,1);

/*-----*/
declare object Gradient_boosting___Response_Time_(minutes)_4(astore);
call
Gradient_boosting___Response_Time_(minutes)_4.score('CASUSER','Gradient_boosting___
Response_Time_(minutes)_4');
/*-----*/
/*_VA_DROP*/ drop '_va_d_Response_Time_(minutes)'n '_va_d_Weekday_ONES'n
'P__va_d_Response_Time__minutes_'n;
'P__va_d_Response_Time__mi_1987'n='P__va_d_Response_Time__minutes_'n;
/*-----*/
";

run;
Quit;

/* Persist the output table */
proc casutil;
  Save casdata="&DEST_DATA" incaslib="&DEST_LIB" casout="&DEST_DATA%str(.)sashdat"
outcaslib="&DEST_LIB" replace;
Quit;

```

