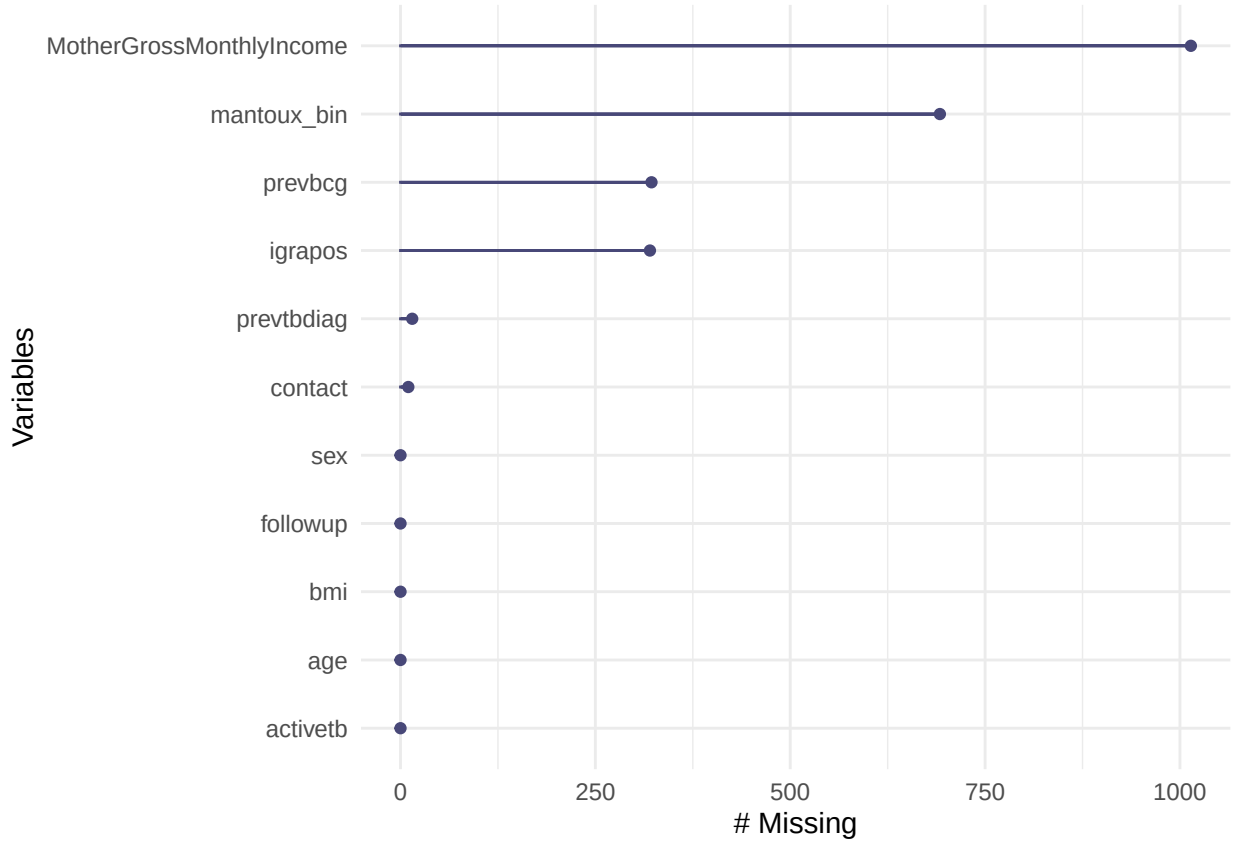
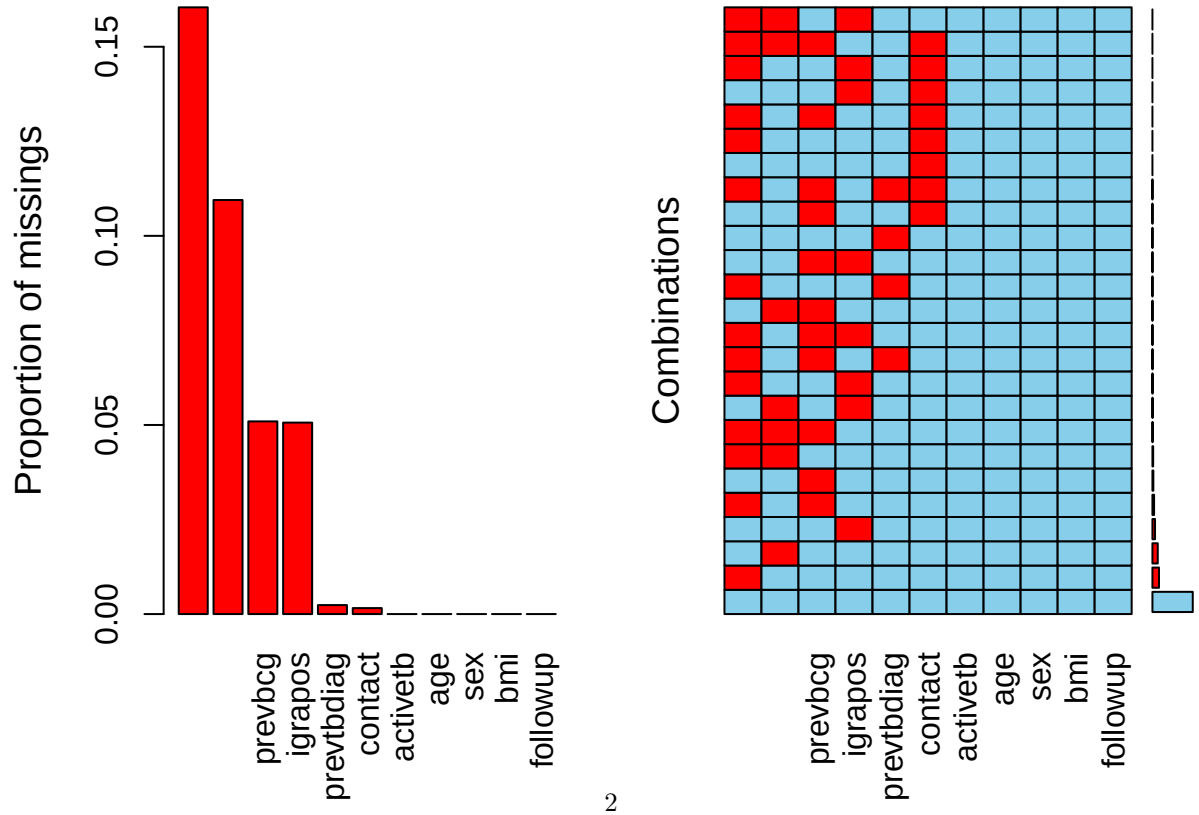
ACS data anaysis

Characteristics of participants

```
## [1] "<table class=\"Rtable1\">\n<thead>\n<tr>\n<th class='rowlabel firstrow lastrow'></th>\n<th clas
```

Missing data





```
##
##  Variables sorted by number of missings:
##                  Variable       Count
##  MotherGrossMonthlyIncome 0.160417655
##               mantoux_bin 0.109476349
##                   prevbcg 0.050941307
##                  igrapos 0.050624901
##                 prevtbdiag 0.002373042
##                    contact 0.001582028
##                   activetb 0.000000000
##                        age 0.000000000
##                        sex 0.000000000
##                        bmi 0.000000000
##                   followup 0.000000000
```

Overall incidence rate 0.77 per 100p-y

```
## # A tibble: 3 x 4
##   mantoux_bin activetb followup    ir
##   <fct>          <dbl>    <dbl> <dbl>
## 1 negative          22  1646287 0.488
## 2 positive          51  2017753 0.923
## 3 <NA>              14   459154 1.11
```

```
## # A tibble: 3 x 4
##   igrapos  activetb followup    ir
##   <fct>       <dbl>    <dbl> <dbl>
## 1 negative       27  1802058 0.547
## 2 positive       57  2105552 0.988
## 3 <NA>            3   215584 0.508
```

Survival analysis

Characteristic	HR	95% CI	p-value
mantoux_bin			
negative			
positive	2.07	1.24, 3.46	0.005

Characteristic	HR	95% CI	p-value
igrapos			
negative			
positive	2.05	1.27, 3.31	0.003

Characteristic	HR	95% CI	p-value
tst10	2.89	1.77, 4.73	<0.001

Characteristic	HR	95% CI	p-value
tst15	3.36	2.11, 5.36	<0.001

Characteristic	HR	95% CI	p-value
tst_stratify	3.01	1.85, 4.91	<0.001

#IRR

Characteristic	IRR	95% CI	p-value
mantoux_bin			
negative			
positive	1.89	1.16, 3.18	0.012

Characteristic	IRR	95% CI	p-value
igrapos			
negative			
positive	1.81	1.16, 2.90	0.011

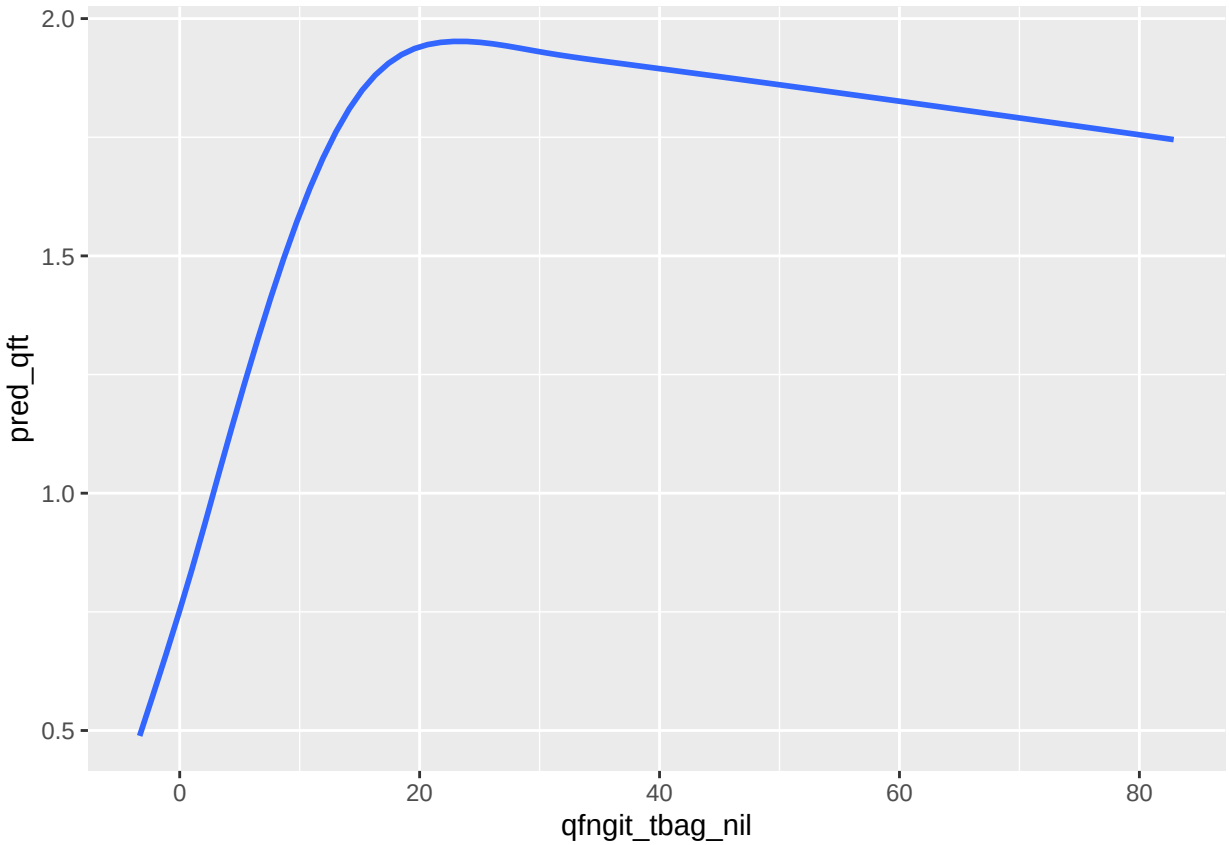
Characteristic	IRR	95% CI	p-value
tst10	2.70	1.68, 4.45	<0.001

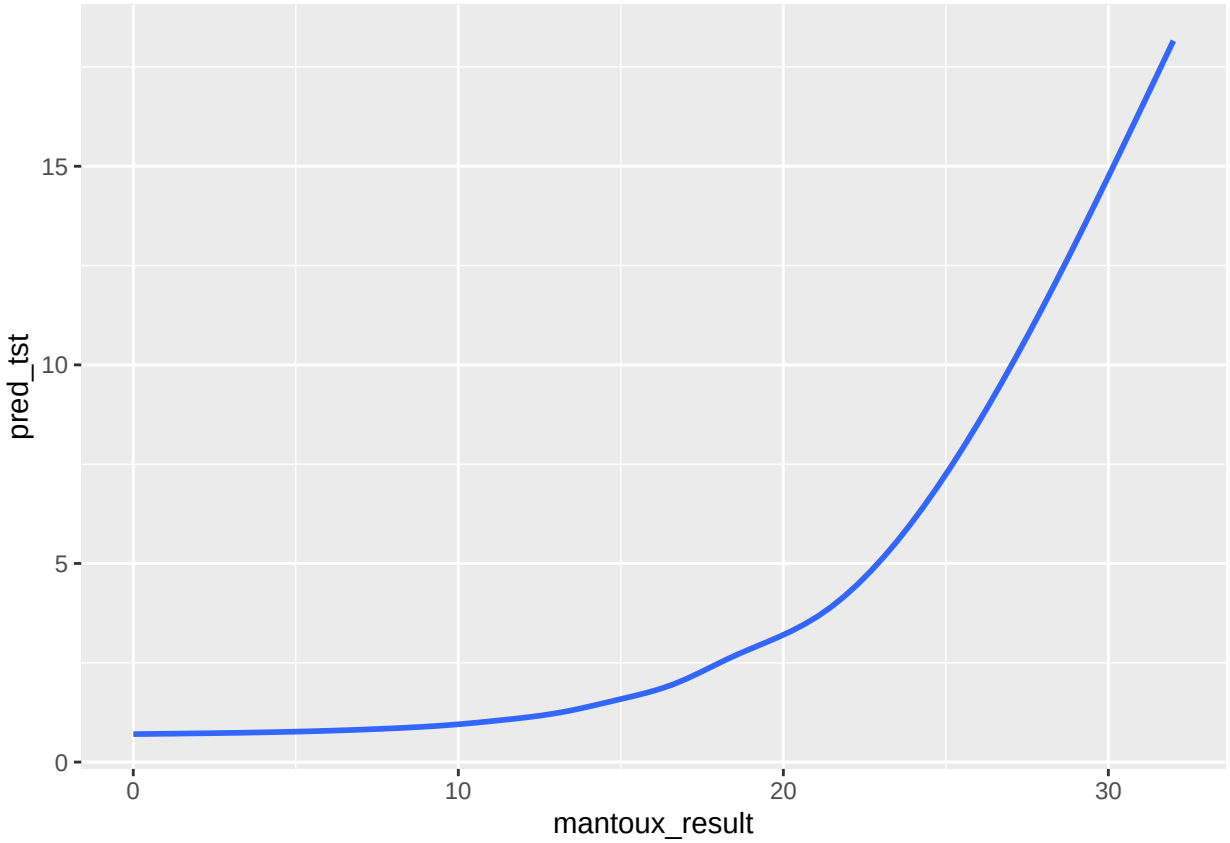
Characteristic	IRR	95% CI	p-value
tst15	3.43	2.15, 5.43	<0.001

Characteristic	IRR	95% CI	p-value
tst_stratify	3.09	1.89, 4.99	<0.001

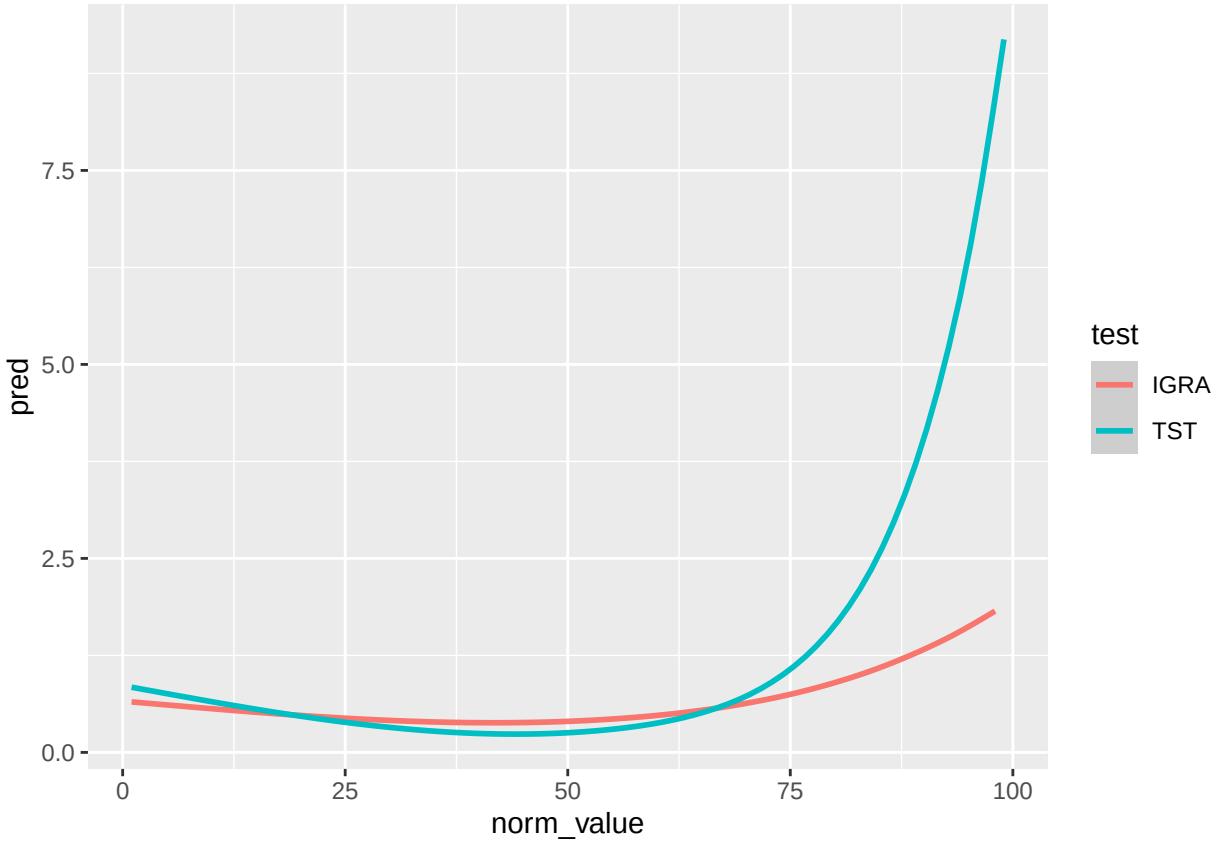
quantitative value

The prediction curve using quantitative QFT values shows an odd shape.


2.0
1.5
1.0
0.5
pred_qft
0
20
40
60
80
qfngit_tbag_nil



Curves using normalized values using PERISKOPE percentile.



Stratified by contact

Characteristic	IRR	95% CI	p-value
mantoux_bin			
negative			
positive	1.88	1.02, 3.60	0.049
contact			
no			
yes	2.68	1.02, 6.36	0.031
mantoux_bin * contact			
positive * yes	0.68	0.24, 2.05	0.5

Characteristic	IRR	95% CI	p-value
igrapos			
negative			
positive	1.79	1.01, 3.27	0.049
contact			
no			
yes	2.37	1.01, 5.13	0.035
igrapos * contact			
positive * yes	0.75	0.29, 2.00	0.5

predictors

```
##
## Call:
## glm(formula = activetb ~ tst15 + contact + sex + bmi + offset(log(followup)),
##     family = poisson(link = "log"), data = d4)
##
## Deviance Residuals:
##     Min       1Q   Median       3Q      Max
## -0.4171  -0.1718  -0.1373  -0.1133   3.4206
##
## Coefficients:
##             Estimate Std. Error z value Pr(>|z|)
## (Intercept) -9.76028    0.81016 -12.047  < 2e-16 ***
## tst15        1.00538    0.25719   3.909 9.26e-05 ***
## contactyes   0.54186    0.25923   2.090   0.0366 *
## sexfemale    0.50771    0.26644   1.906   0.0567 .
## bmi         -0.09013    0.04005  -2.251   0.0244 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for poisson family taken to be 1)
##
##     Null deviance: 622.25  on 5034  degrees of freedom
## Residual deviance: 592.50  on 5030  degrees of freedom
## AIC: 730.5
##
## Number of Fisher Scoring iterations: 7
```