Total cost and time to treatment initiation for suspected TB patients

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Introduction

Model

Independent Bayesian linear regressions on cost and time to starting treatment with covariates of sputum smear results ('Not taken', 'Negative', 'Positive') and TB status (missing, 'E;PTB', 'PTB').
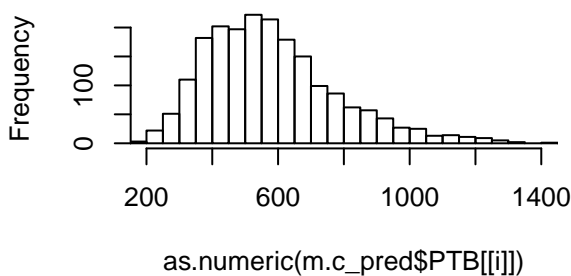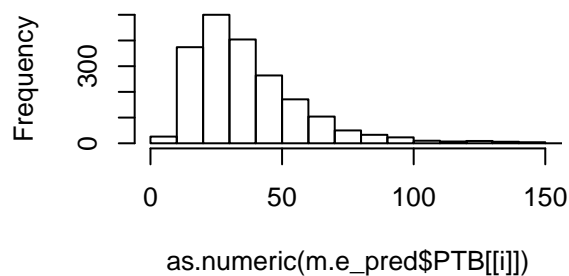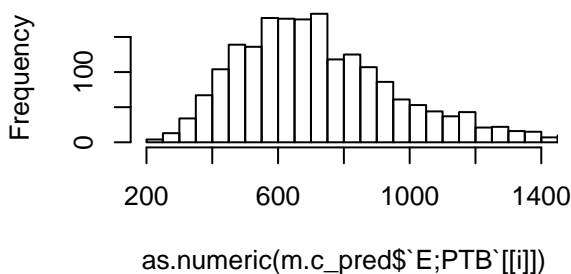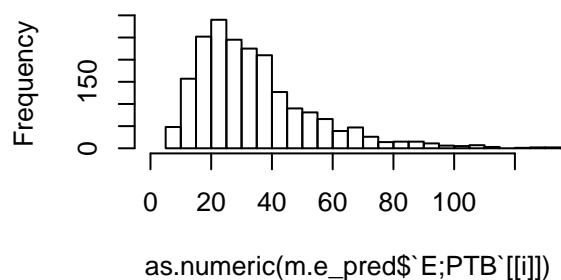
Data

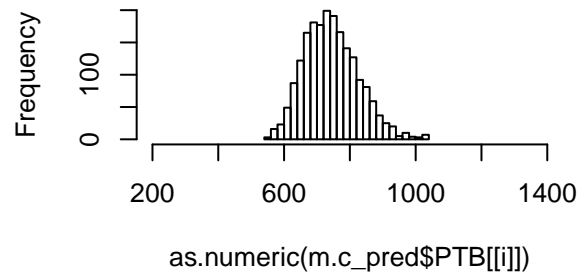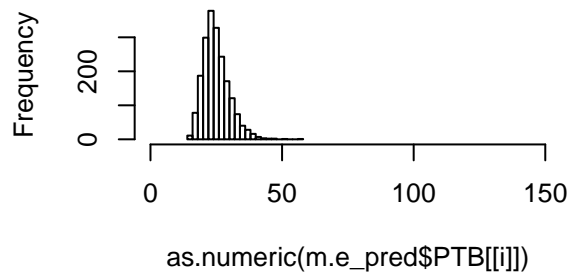The IDEA dataset for Dosanjh category 1 and 2 patients only.
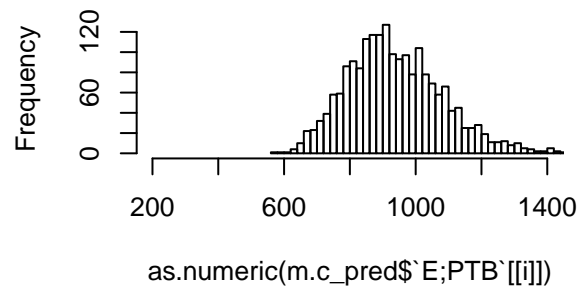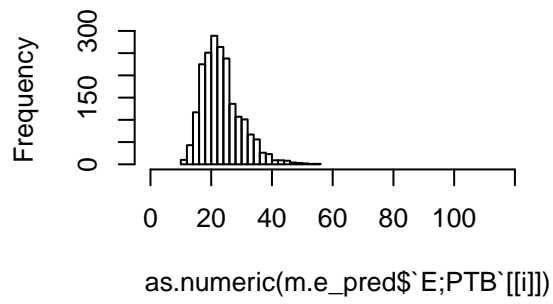
Output

Posterior distributions and summary statistics for mean cost and time to starting treatment.

Not taken

Negative

Frequency

as.numeric(m.e_pred$`E;PTB`[[i]])

Frequency

as.numeric(m.c_pred$`E;PTB`[[i]])

Frequency

as.numeric(m.e_pred$PTB[[i]])

Frequency

as.numeric(m.c_pred$PTB[[i]])
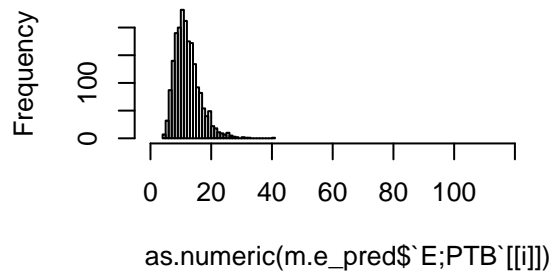
Positive

All smear results on same plot.

Black - Not taken, Red - Negative, Blue - Positive.

Time, E;PTB

N = 1990   Bandwidth = 3.187

Cost, E;PTB

N = 1990   Bandwidth = 47.26

Time, PTB

N = 1990   Bandwidth = 3.593

Cost, PTB

N = 1990   Bandwidth = 37.36
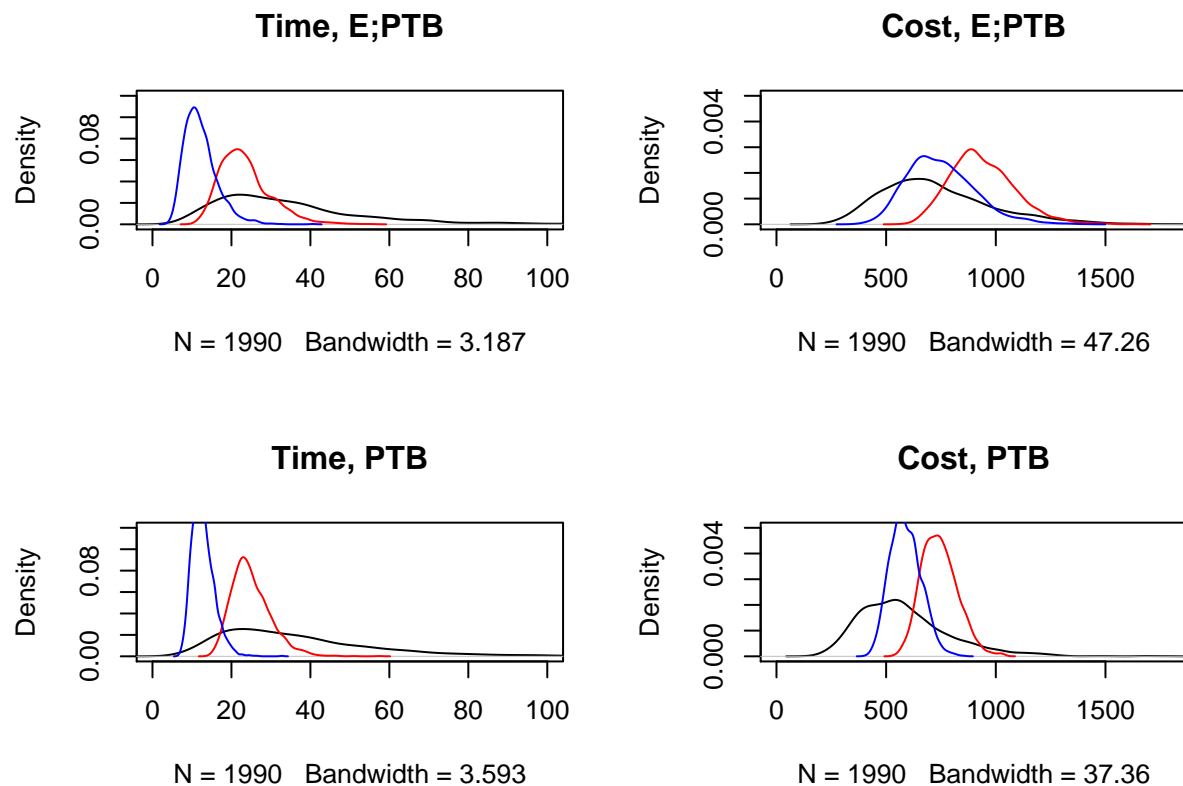
```r
load("data/out.ls_pathprobs.RData")

probs <- out_pathprobs$sims.list
```

ssm	tb status	mean prob	sd prob	mean cost	sd cost	mean time	sd time
Not taken	E;PTB	0.14	0.05	731.76	261.20	34.61	20.29
Not taken	PTB	0.59	0.04	581.95	206.12	37.59	23.00
Negative	E;PTB	0.16	0.05	939.68	147.53	23.48	6.47
Negative	PTB	0.02	0.01	743.43	81.75	24.97	4.95
Positive	E;PTB	0.70	0.04	749.46	153.40	12.18	4.15
Positive	PTB	0.39	0.04	588.51	69.60	12.76	2.76

References