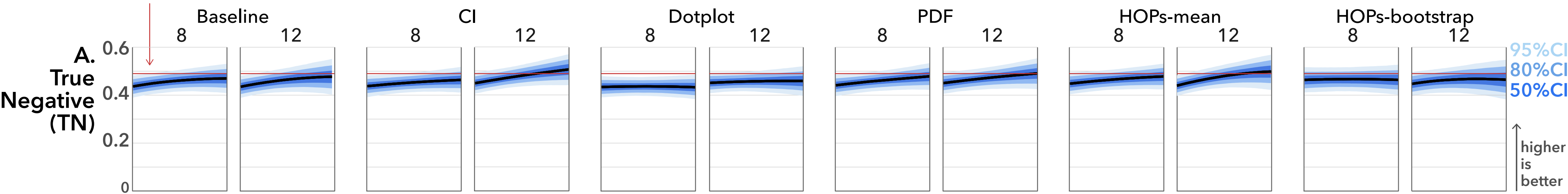Our model predicts the proportion of True Negatives (TNs), True Positives (TPs), False Positives (FPs) and False Negatives (FNs) using *(uncertainty) display*, *number of graphs shown (nregion)* and *trial number* as predictors. Below we plot the average proportion, and 95% posterior credible intervals of TNs, TPs, FNs and FPs for each *display* and *nregion* in a given trial, and its change as a typical participant progresses through the set of 70 trials (in two blocks).

Performance rate in each condition if Benjamini Hochberg strategy was used

A. True Negative (TN)

Baseline 8 12 | CI 8 12 | Dotplot 8 12 | PDF 8 12 | HOPs-mean 8 12 | HOPs-bootstrap 8 12

95%CI 80%CI 50%CI

higher is better

Proportion of FNs increases as trials progress. This perhaps due to the strong incentives against FPs, resulting in participants being more cautious in selecting what they think are *positives*. The proportion of FNs is higher when *nregion* = 12 compared to *nregion* = 8

B. True Positive (TP)

higher is better
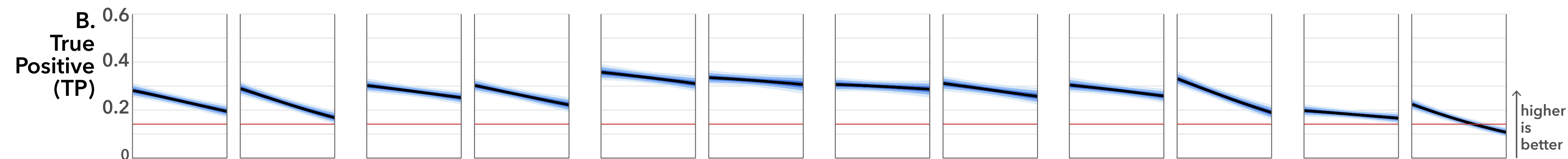
Proportion of FPs decrease sharply over the course of trials, and continues to decrease after the initial five trials in each block where feedback is provided to them. Proportion of FPs are lower when *nregion = 12* compared to *nregion = 8*

C. False Negative (FN)

lower is better
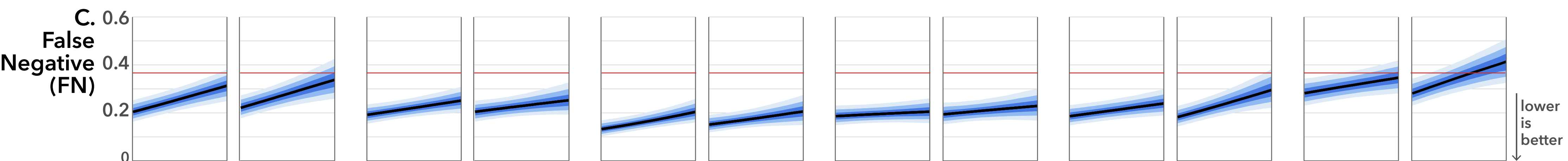
Proportion of TNs increase slightly over the course of trials in most conditions, although they are relatively constant for *dotplots* and *HOPs-b*. Proportion of TNs are usually higher when *nregion = 12* compared to *nregion = 8*

D. False Positive (FP)

lower is better
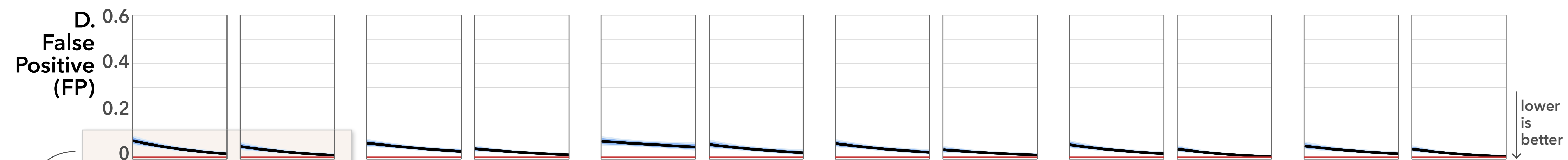
Proportion of FPs decrease over the course of trials, and in some conditions, this decrease is quite sharp. In some conditions, the proportion of FPs is lower when *nregion = 12* compared to *nregion = 8*

E. Closer look at the FPs

Proportion of FPs decreases in all conditions.
In the **CI condition**, as seen here, FP rates decrease by over 50%.
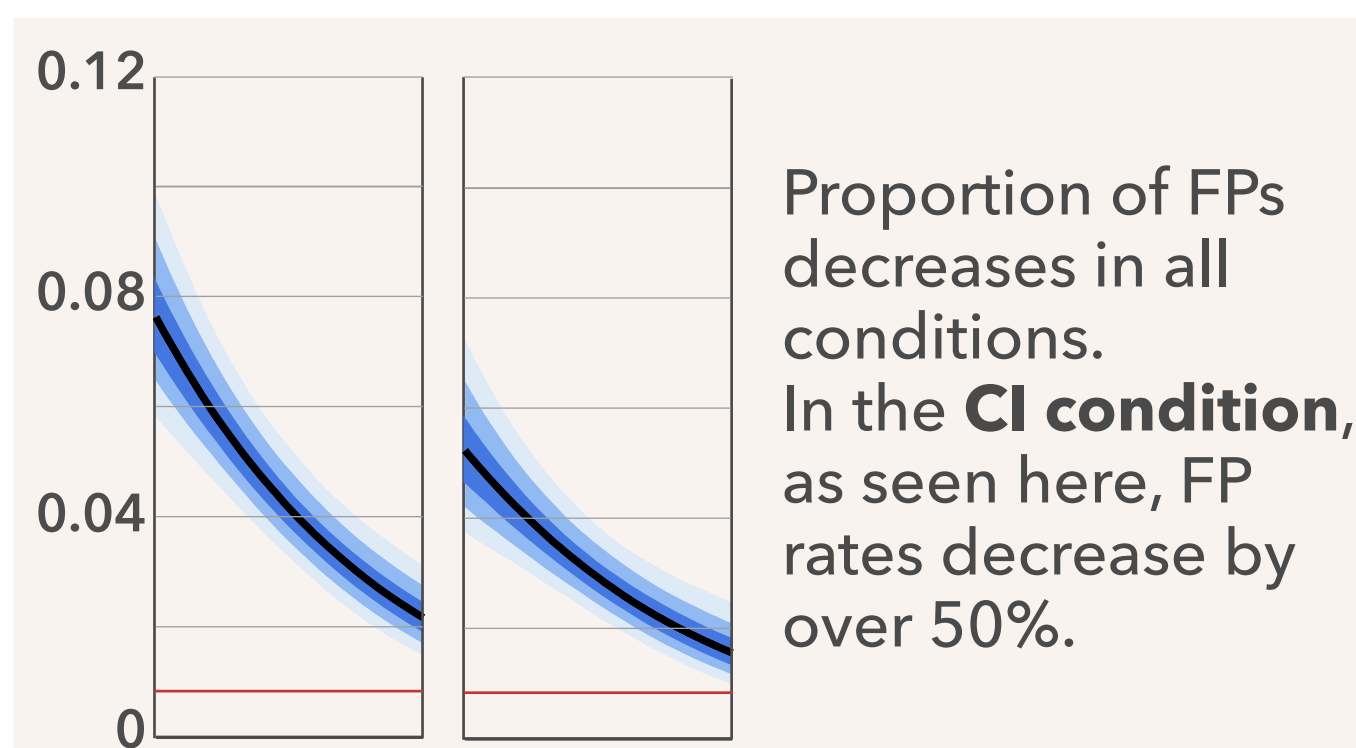
F. Calculation of marginalised density estimates (used in figures 4 - 9)

Marginalised density estimate of probability of FN in the dotplot condition when nregion = 8 are calculated as shown. In figures 4 - 9, we flip the x and y axes.

Sample n = 500 draws from this distribution

For each draw, take average of y over all trials (x), and project along y-axis

Estimate density based on these points