Recall: $\pi(p|y)$ $\qquad P(Y_1 = 2) = E[P(Y_1=2|p)]$

$\pi(\mu|x) = N(\mu_1, \tau_1^2)$ $\qquad P(Y_{new} > 15\%) = E[P(Y_{new} > 15\% \mid \mu)]$

$Y_{new} \sim N(\mu, \underset{.02^2}{\underset{\shortparallel}{\sigma^2}})$ $\qquad 1 - \text{pnorm}(.15, \mu, .02)$

$\text{rnorm}(N, \mu_1, \tau_1)$