SIR model fit to boarding school data via BDA with negative binomial emissions log – posterior -2600-2800-30000.0040 0.0035 0.0030B 0.0025 0.0020 0.7 0.6 -0.5 -Έ 0.4 -0.3 1.0 0.9 -0.8 -Chain Р 0.7 -0.6 0.5 75 -50 -0 25 - $\Pr(X_j(t_1) = S)$ 0.99 0.98 0.97 - $\Pr\bigl(X_j\bigl(t_1\bigr)=I\bigr)$ 0.010 0.005 0.000 $\Pr\bigl(X_j\bigl(t_1\bigr)=R\bigr)$ 0.02 0.01 25000 50000 75000 0 Iteration