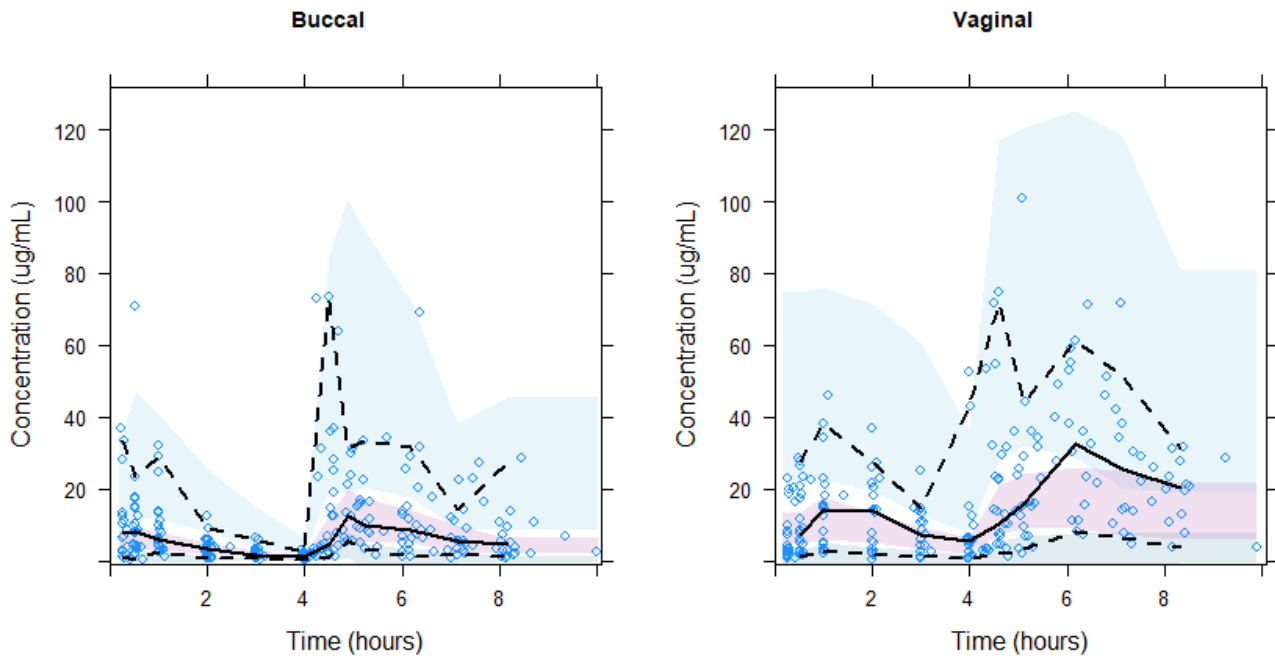**Supplemental Figure 1**.   ETA plots for Clearance (ETA1) and Volume (ETA2) vs. maternal age and BMI.

Supplemental Figure 2. Visual predictive checks for buccal and vaginal dosing of misoprostol. Observed data are represented by open circles. The solid black line indicates the median and the dashed lines the 5th and 95th percent confidence intervals of the observed data. The pink shaded region represents the 90% confidence interval of the median predicted concentrations and the blue shaded region represents the 90% confidence interval of the 5th and 95th percent prediction intervals for the predicted data.