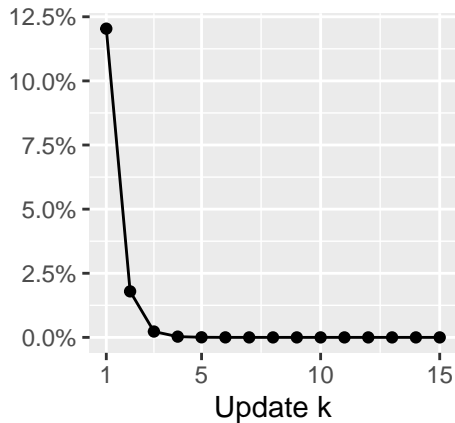
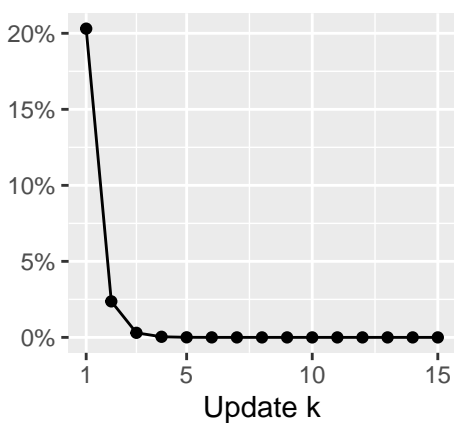


$$(a) \frac{\|\text{vec}(\{\hat{v}_{i,j}^{(k)} - \hat{v}_{i,j}^{(k-1)}\}_{(i,j)})\|_{l_2}}{\|\text{vec}(\{\hat{v}_{i,j}^{(k-1)}\}_{(i,j)})\|_{l_2}}$$



$$(b) \frac{\|\text{vec}(\{\hat{\beta}_{i,j}^{(k)} - \hat{\beta}_{i,j}^{(k-1)}\}_{(i,j)})\|_{l_2}}{\|\text{vec}(\{\hat{\beta}_{i,j}^{(k-1)}\}_{(i,j)})\|_{l_2}}$$



$$(c) \|\text{vec}(\{\hat{\beta}_{i,j}^{(k)} - \beta_{oi,j}\}_{(i,j)})\|_{l_2}$$

