SUPPLEMENTARY DOCUMENT

|  |  |  | $\mathbf{N}=\mathbf{1 , 7 0 7}$ |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Small Hospitals <br> $\mathrm{N}=426$ | $25-50^{\text {th }}$ Quartile <br> $\mathrm{N}=427$ | $50-75^{\text {th }}$ Quartile <br> $\mathrm{N}=427$ | Large Hospitals <br> $\mathrm{N}=427$ |
| Hospital Ownership (\%) |  |  |  |  |
| Non-profit | 54.0 | 53.9 | 69.5 | 71.9 |
| For-profit | 21.6 | 23.2 | 18.8 | 11.3 |
| Government | 24.4 | 22.9 | 11.7 | 16.8 |
| Hospital Type (\%) |  |  |  |  |
| Acute Care Hospitals | 22.5 | 87.8 | 100.0 | 99.1 |
| Critical Access Hospitals | 77.5 | 12.2 | 0.0 | 0.9 |
| Emergency Services Offered (\%) |  |  |  |  |
| Yes | 89.0 | 88.5 | 95.3 | 97.7 |
| No | 11.0 | 11.5 | 4.7 | 2.3 |

Supplemental Table 1: General hospital information based on hospital size separated into quartiles by hospital staffed bed number.

| Control Variable | HCAHPS Variable | Correlation | $p$-value |
| :---: | :--- | :--- | :--- |
|  | Staff responsiveness | 0.600 | $<.001$ |
|  | Nurse communication | 0.552 | $<.001$ |
|  | Overall hospital rating | 0.547 | $<.001$ |
|  | Care transition | 0.534 | $<.001$ |
|  | Discharge information | 0.526 | $<.001$ |
|  | Communication about medicine | 0.487 | $<.001$ |
|  | Likelihood to recommend hospital | 0.486 | $<.001$ |
|  | Doctor communication | 0.475 | $<.001$ |
|  | Hospital cleanliness | 0.465 | $<.001$ |
|  | Hospital quietness | 0.422 | $<.001$ |
|  | Staff responsiveness | 0.522 | $<.001$ |
|  | Overall hospital rating | 0.504 | $<.001$ |
|  | Likelihood to recommend hospital | 0.490 | $<.001$ |
|  | Care transition | 0.489 | $<.001$ |
|  | Nurse communication | 0.486 | $<.001$ |
|  | Discharge information | 0.473 | $<.001$ |
|  | Communication about medicine | 0.403 | $<.001$ |
|  | Doctor communication | 0.394 | $<.001$ |
|  | Hospital cleanliness | 0.358 | $<.001$ |
|  | Hospital quietness | 0.333 | $<.001$ |

Supplemental Table 2: Pearson correlation between HCAHPS variables and survey response rate, controlling for hospital staffed bed number.

## Pearson Correlation

Small Hospitals

| HCAHPS Variable | Correlation | p-value | HCAHPS Variable | Correlation | $p$-value |
| :--- | ---: | ---: | :--- | ---: | ---: |
| Care transition | 0.479 | $<.001$ | Discharge information | 0.506 | $<.001$ |
| Likelihood to recommend hospital | 0.440 | $<.001$ | Staff responsiveness | 0.447 | $<.001$ |
| Staff responsiveness | 0.434 | $<.001$ | Nurse communication | 0.411 | $<.001$ |
| Overall hospital rating | 0.432 | $<.001$ | Likelihood to recommend hospital | 0.380 | $<.001$ |
| Hospital quietness | 0.381 | $<.001$ | Overall hospital rating | 0.379 | $<.001$ |
| Nurse communication | 0.353 | $<.001$ | Care transition | 0.321 | $<.001$ |
| Communication about medicine | 0.317 | $<.001$ | Communication about medicine | 0.299 | $<.001$ |
| Discharge information | 0.302 | $<.001$ | Doctor communication | 0.254 | $<.001$ |
| Doctor communication | 0.265 | $<.001$ | Hospital cleanliness | 0.235 | $<.001$ |
| Hospital cleanliness | 0.214 | $<.001$ | Hospital quietness | 0.020 | 0.683 |

Supplemental Table 3: Pearson correlations between HCAHPS variables and survey response rate in small and large hospitals defined by hospital staffed bed number.

|  | Univariable Models Small Hospitals |  | Univariable Models Large Hospitals |  | Difference Between Regression Models? |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HCAHPS Variable | Slope | 95\% CI | Slope | 95\% CI | Effect Size <br> ( $t$ ) | $p$ |
| Hospital Quietness | . 305 | . $217-.394$ | -. 005 | $-.117-.107$ | 4.121 | < . 001 |
| Discharge Information | . 126 | . $091-.160$ | . 216 | . $178-.254$ | -3.255 | <. 001 |
| Nurse Communication | . 159 | . 112 - . 206 | . 230 | . $180-.279$ | -1.874 | 0.061 |
| Care Transition | . 306 | . $240-.372$ | . 239 | . $175-.302$ | 1.324 | 0.186 |
| Overall Hospital Rating | . 316 | . $244-.387$ | . 368 | . $283-.454$ | -0.885 | 0.377 |
| Likelihood to Recommend Hospital | . 360 | . 277 - . 443 | . 418 | . $324-.512$ | -0.859 | 0.391 |
| Staff Responsiveness | . 321 | . $253-.390$ | . 366 | . $298-.434$ | -0.838 | 0.402 |
| Hospital Cleanliness | . 148 | . $084-.221$ | . 166 | . $093-.240$ | -0.363 | 0.717 |
| Doctor Communication | . 116 | . $065-.167$ | . 126 | . $083-.170$ | -0.271 | 0.786 |
| Communication About Medicine | . 321 | . $253-.390$ | . 173 | . $121-.224$ | -0.197 | 0.844 |

Supplemental Table 4: Linear regression model associations between HCAHPS measures and survey response rate stratified by total annual discharges. Small hospitals represent hospitals in the lowest quartile of total annual discharges. Large hospitals represent hospitals in the highest quartile of total annual discharges. The difference between the slopes of the regression models in large and small hospitals is reported. P values less than .05 is considered statistically signif icant and are emboldened.

