

WORKING P A P E R

Measuring the Effectiveness of a Collaborative for Quality Improvement in Pediatric Asthma Care: Does Implementing the Chronic Care Model Improve Processes and Outcomes of Care?

Technical Appendix

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Technical Appendix to Manuscript

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I) Survey Imputation Methods

To retain observations with one or two missing values, we imputed those values. Observations were grouped into 16 different categories based on demographic variables, e.g., gender, race/ethnicity, insurance type. Slightly different strata were used to impute different variables to avoid strata with large numbers of missing values. Clinical site was not used. Within each stratum missing values were imputed using the hot-deck procedure.

II) Rationale for not Analyzing Three of the Eleven Indicators Separately

The first indicator examined whether all patients > 5 years prescribed an inhaler had also been prescribed a spacer. Because this was a one-time event, a patient could not be eligible in both periods and change scores for individuals could not be defined. The second examined whether patients ever received a beta-blocker medication, which would be contraindicated in an asthmatic, and only two children failed. The third examined whether referral to an asthma specialist had occurred for children who had had an intensive care unit admission for asthma, required continuous treatment with oral steroids, or required more than two 5-day steroid bursts annually. Eligibility for this indicator was too rare for scores or their differences to be valid.