

Data Preparation Guide for Benchmarking Changes in Hospital Resource Use in the AF4Q Improving Management of Health Care Super-Utilizers Program

Rutgers University Center for State Health Policy

The Robert Wood Johnson Foundation has engaged Rutgers Center for State Health Policy to evaluate the *Aligning Forces for Quality* (AF4Q) Improving Management of Health Care Super-Utilizers Program. The evaluation has three objectives: (1) to document the experiences of program sites in adapting super-utilizer strategies; (2) to assess how patient needs are addressed through new care management strategies; and (3) to document changes in hospital resource use by enrolled patients.

This *Data Preparation Guide* provides technical details of our request for data from the project sites to address the third evaluation objective, documenting hospital resource savings. In brief, we request de-identified hospital utilization records (e.g., from billing systems) for enrolled patients for a period before, during and after program enrollment. The evaluation team is prepared to work with each project site, to obtain approvals and execute data use agreements, as needed.

Overview of Benchmarking Hospital Resource Use

The purpose is to examine the degree to which hospital resource use changes for individual patients as a result of care management interventions. These changes would be measured by tracking patients over time and analyzing their utilization before, during and after enrollment in the AF4Q Health Care Super-Utilizers Program. Utilization will be measured by the number of admission/readmission episodes, length of stay, days in intensive care units (ICU), number of ED visits, hospital charges, and other outcomes.

In order to systematically assess any change in hospital resource use, we will also need to adjust for underlying trends in resource use (including those due to “regression to the mean”), by matching enrolled patients to comparison patients who have similar utilization history, diagnoses, comorbidities, health insurance payer, demographic and other characteristics. Comparison data will be drawn from available state-wide hospital billing record databases. In order to make valid comparisons, we will require a minimum of 12 months of pre-enrollment utilization data for each patient as well as data collected through their enrollment and after graduation from the program.

Data Needed

The Rutgers team is requesting de-identified hospital utilization records (e.g., from billing systems) for enrolled patients for a period before, during and after program enrollment. The table starting on page 3 lists the specific data elements requested. Direct patient identifiers (e.g., names, SSNs) are *not* needed or requested¹, but we will require a patient-level variable that will allow us track multiple episodes of utilization by each patient. The Rutgers team is prepared to work with each site to obtain institutional approvals and execute data use agreements, as needed.

The Rutgers team has extensive experience securing and analyzing confidential patient data. We understand the highly sensitive nature of these records and the regulations guiding their use for research purposes. We

¹ The clinical sites may need to receive direct identifiers in order to link information from multiple-hospitals for individual patients or for their own clinical management needs. For the purposes of Benchmarking, these identifiers should be replaced with an encrypted common identifier.

also understand that some of our project sites will face challenges in obtaining the data. We are prepared to create a tailored plan for obtaining data from each site and to execute mutually acceptable plans for data transfer and analysis. The results of this analysis will be provided to each of our project sites for discussion prior to any further release.

Preferred Data Collection and Transmission Protocol

- ◆ Please obtain hospital data in Excel format and transmit via secure channels (contact us if you have questions about secure transmission).
- ◆ Minimum timeframe requested: For each enrolled patient, please obtain hospital claims data starting at 12 months (preferably more) prior to enrollment until most current, including during the period of enrollment in the AF4Q care management intervention and following program completion.
- ◆ Data will be collected in approximately 2 waves during the project period (and possibly one wave following the project to enable long-term follow up); with first wave requested as soon as possible.
- ◆ In order to benchmark changes in hospital resource utilization among enrolled patients, please provide as many of the requested data elements (see the table on the following page) as possible.
- ◆ It is possible that some of the data elements listed are derived from other data elements not listed. Please obtain all relevant variables needed to construct the requested data elements.
- ◆ Hospital source data may need to be re-coded in order to make variables uniform for analysis. Please obtain and provide a source data code book or data dictionary/description if available.
- ◆ Please contact Oliver Lontok with questions about data collection or transmission.

Important Note - Under our IRB authorization, CSHP can only receive a HIPAA-compliant “limited data set” and **cannot** accept data with the following direct identifiers:

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| 1. Names. | 10. Certificate/license numbers. |
| 2. Postal address information, other than town or city, state, and ZIP Code. | 11. Vehicle identifiers and serial numbers, including license plate numbers. |
| 3. Telephone numbers. | 12. Device identifiers and serial numbers. |
| 4. Fax numbers. | 13. Web universal resource locators (URLs). |
| 5. Electronic mail addresses. | 14. Internet protocol (IP) address numbers. |
| 6. Social security numbers. | 15. Biometric identifiers, including fingerprints and voiceprints. |
| 7. Medical record numbers. | 16. Full-face photographic images and any comparable images. |
| 8. Health plan beneficiary numbers. | |
| 9. Account numbers. | |

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