

## **Supporting Statement**

### **Health Resources and Services Administration: Uniform Data System**

#### **B. Statistical Methods**

##### 1. Respondent Universe and Sampling Methods

Grantees may report on the new measures by use of a sample of patient records specific to each measure, or by reporting on the universe of patients in the measurement year for each measure. The determination of whether or not to sample is made by the grantee, as the system capabilities and records systems vary across the respondents. Each measure has a defined universe from which all records may be utilized or a sample may be drawn. Specific instructions for determining the denominators and numerators for the measures are provided in the UDS manual.

As an example, the respondent universe for two of the performance measures is described below. The universe is specific to each proposed measure as follows:

Childhood immunization rate as a performance measure is defined as the percentage of children with 2<sup>nd</sup> birthday during the measurement year with appropriate immunizations. The universe for this measure is children with at least one medical encounter during the reporting period having their second birthday during the reporting period. Children who had a contraindication for a specific vaccine should be excluded. The numerator for this measure is the number of children with at least one medical encounter in the reporting period having their second birthday during the measurement year who have received all of the following: 4 DTP/DTaP, 3 IPV, 1 MMR, 3 Hib, 3 HepB, 1VZV (Varicella) and 4 Pneumococcal conjugate.

The performance measure for childhood lead testing is the percentage of children with their 3<sup>rd</sup> birthday during the measurement year having a blood test for elevated blood lead levels. The universe for this measure is all children with at least one medical encounter during the reporting period having their third birthday during the measurement year. The numerator for this measure is the number of children with at least one medical encounter in the reporting period having their third birthday during the measurement year that were tested for elevated blood lead levels during the measurement year.

While each performance measure has a population specific to that measure, detailed instructions on the appropriate numerators and denominators will be provided to grantees, as well as opportunities for training on the new requirements.

##### 2. Information Collection Procedures

For each performance measure, the population to be sampled will be identified, using the definitions and instructions specific to each measure. Once identified, each group of patient records will serve as the universe specific to a measure. From this universe a sample will be selected using the instructions in Appendix D of the UDS Manual. These

instructions provide information on identifying the patient population, determining the sample size, calculating the sampling interval, and selecting the sample.

### 3. Methods to Maximize Response Rates

All funded grantees are required to complete the UDS; however, the determination as to whether to sample from patient records or to use the universe for each measure is up to each grantee. This permits some flexibility for respondents, as the new measures are a substantial revision to the version of the UDS that has been in place for the past ten years. Permitting grantees the option of reporting a sample or reporting on the universe for each measure will provide respondents with an alternative method that is most appropriate for each grantee. Training will be provided for grantees, including web cast instruction, and technical assistance will be available for all grantees to facilitate reporting for the revised UDS. A toll free number is also available for assistance and to address questions (1-866-uds-help). Grantees may also receive help by asking questions via email at [submit330uds@bphcdata.net](mailto:submit330uds@bphcdata.net).

### 4. Tests of Procedures

Eight grantees were contacted to test the ability of grantees to report on the new proposed measures. A pilot was conducted in early 2007 jointly between HRSA and the Johns Hopkins Primary Care Policy Center for Underserved Populations to determine health centers' readiness in preparing and reporting selected quality and outcome measures. Eight health centers recorded their effort in preparing and reporting these measures and completed a survey on reporting experience. The effort reporting included time spent on such activities as programming, computing, chart abstracting, data inputting, and quality control.

The pilot tested the following five clinical and outcome measures:

1. Childhood Immunization Completion (i.e., percentage of children by 2 years of age with appropriate immunizations);
2. Female Cervical Cancer Screening (i.e., percentage of women 18-64 years of age who received one or more Pap tests within the last two years);
3. Childhood Lead Blood Levels Test (i.e., percentage of patients 9-36 months of age with a blood test for elevated blood lead levels);
4. Adult Hypertension Control (i.e., percentage of adult patients, 18 years and older, with diagnosed hypertension whose blood pressure was less than or equal to 140/90); and
5. Adult Diabetes HbA1c Levels (i.e., percentage of adult patients with type 1 or 2 diabetes with most recent hemoglobin A1c (HbA1c)  $\leq 7\%$ ,  $> 7\%$  or  $< 9\%$ , or  $\geq 9\%$ ).

The eight Pilot health centers were able to report most of the required measures. All Pilot health centers were able to report three of the five measures: female cervical cancer, adult hypertension and adult diabetes. Six of the eight pilot health centers were able to report

childhood immunization whereas five were able to report childhood lead. In terms of reporting experience, although some centers found it difficult to report the female cervical cancer and childhood immunization measures, all Pilot health centers either strongly agreed or agreed that these measures were useful and reliable. Most of the centers believed there were sufficient labor resources to report the measures and that it was cost efficient to report these measures.

#### 5. Statistical Consultants

Consultation on the sampling for the measures was obtained from the organization listed below. John Snow, Inc. is a public health research and consulting firm that has provided statistical consultation on the proposed UDS. JSI has worked with HRSA staff in developing and reviewing the instructions and materials for grantees, and has provided valuable technical and analytical expertise.

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