HEALTHCARE COST AND UTILIZATION PROJECT (HCUP) MEMORANDUM OF AGREEMENT

This Agreement is made between the <organization name>, a <hospital association / state data organization / private data organization> in the State of <state name>, hereinafter called Data Organization, and the Agency for Healthcare Research and Quality, U.S. Public Health Service, hereinafter called AHRQ. This agreement outlines the conditions of participation of the Data Organization in the Healthcare Cost and Utilization Project, hereinafter called HCUP, and the responsibilities of AHRQ to the Data Organization as an HCUP participant.

This Agreement contains four major sections: an Overview of HCUP, Description of HCUP Databases, Research Objectives of AHRQ, and Responsibilities of the Parties.

I. OVERVIEW OF HCUP

A. HCUP encompasses a family of administrative, longitudinal databases and related software tools and products that are developed by AHRQ in a Federal-State-Industry partnership. HCUP brings together the data collection efforts of state data organizations, hospital associations, private data organizations, and the federal government to create a national information resource of encounter-level health care data. This database enables research on a broad range of health policy issues, including cost and quality of health services, medical practice patterns, access to health care programs, and outcomes of treatments. State and private data organizations will be able to compare their health care statistics to those of other states, as well as to regional and national indicators.

   The goal for HCUP is to maintain and expand a multi-state health care data system for health services research, health policy analysis, and quality measurement and improvement. The mission of AHRQ is to support, conduct, and disseminate research that improves access to care and the outcomes, quality, cost, and utilization of health care services. The research sponsored and conducted by the Agency provides information that enables better decisions about health care. AHRQ was created specifically to respond to the nation's need for knowledge about the health care system, and within the scope of its mission, the Center for Delivery, Organization, and Markets (CDOM) maintains HCUP.

B. The HCUP databases are developed by AHRQ through its contractor, Medstat, and subcontractors, the National Association of Health Data Organizations (NAHDO), Social & Scientific Systems (SSS), and M. L. Barrett, Inc. Data are collected using existing hospital inpatient and outpatient databases maintained by state data organizations, hospital associations, and private data organizations. The HCUP databases are built around core data elements included in a typical discharge abstract, with safeguards to protect the privacy of individual patients and physicians.

   AHRQ requests data elements that are used only to develop research data files. Person-level identifiers, such as birth date or encrypted person and physician numbers, are either re-encrypted or used to create non-sensitive elements. When person-level identifiers are supplied by the Data Organization, HCUP re-encrypts the identifiers and only the re-encrypted identifiers are available on HCUP databases to AHRQ staff and their contractors. (See the HCUP Data Security Plan, Attachment D).

II. DESCRIPTION OF HCUP DATABASES

A. BASIC PARTICIPATION

Basic participation in HCUP is accomplished with this Memorandum of Agreement (MOA) and includes participation in the Intramural State Inpatient Databases (SID) and restricted access public release Nationwide Inpatient Sample (NIS).

1. **Intramural State Inpatient Databases (Intramural SID).** The HCUP Intramural State Inpatient Databases contain 100 percent of inpatient discharge abstracts for all or almost all hospitals in states selected by AHRQ and participating in HCUP. The states are selected to strengthen the representativeness of the HCUP family of databases with regard to geographic regions of the U.S., population characteristics, availability of discharges, encounters from multiple health care settings, and other database characteristics. The Intramural SID databases are restricted to AHRQ staff and their contractors, and are designed to permit analyses such as hospital market-area studies, analyses of patient flow, access to care, small-area variation, and the effects of competition on hospital outcomes and behavior. These analyses can only be conducted with statewide, full-year representation of hospitals and their discharges.

2. **Nationwide Inpatient Sample (NIS).** The HCUP Nationwide Inpatient Sample database contains inpatient discharge abstracts, in a uniform format, using data from state data organizations, hospital associations, and private data organizations participating in HCUP. The NIS approximates a 20 percent stratified sample of U.S. community hospitals. Hospitals are sampled from the HCUP Intramural SID and all discharges from sampled hospitals are included in the annual databases. The NIS excludes data elements that directly or indirectly might increase risk for re-identification of a person, such as patient names, addresses, identification numbers (e.g., unencrypted billing number and medical record number), social security numbers, and full dates of admission, discharge, procedures, and births. NIS datasets are available as restricted access public release files from the HCUP Central Distributor.

B. ADDITIONAL PARTICIPATION

1. **Intramural State Ambulatory Surgery Databases (Intramural SASD).** The HCUP Intramural State Ambulatory Surgery Databases are a powerful set of databases that capture surgeries performed on the same day in which patients are admitted and discharged. The data represent ambulatory surgery encounters in non-inpatient health care settings such as ambulatory surgery centers, freestanding clinics, and hospital outpatient departments from states selected by AHRQ. The Intramural SASD are restricted to AHRQ staff and their contractors, and are designed to allow analyses of patient flow, access to care, and practice variations in ambulatory care settings.

2. **Intramural State Emergency Department Databases (Intramural SEDD).** The HCUP Intramural State Emergency Department Databases contain information on health care services provided to patients who have encounters in hospital emergency departments. The Intramural SEDD are restricted to AHRQ staff and their contractors, and are designed to allow analyses of such emergency department-related concerns as patient flow, access to care, and practice variations in emergency department care settings.

3. **Specialized Databases.** These databases will be designed to address research questions on specific populations or types of discharges that the NIS or SID cannot ideally address. Examples of HCUP specialized databases are pediatric discharges (e.g., the Kids' Inpatient Database, referred to as the KID) and women's health. The HCUP specialized databases exclude data elements that directly or indirectly might increase risk for re-identification of a person, such as patient names, addresses, identification numbers (e.g., unencrypted billing number and medical record number), social security numbers, and full dates of admission, discharge, procedures, and births. AHRQ also imposes any additional confidential requirements agreed upon with specific Data Organizations.

   Specialized databases may become available as restricted access public release files only with the permission of Data Organizations and only after extensive evaluation by AHRQ. To date, AHRQ has developed the 1997, 2000, and 2003 KID. This series will be extended to include new releases of the KID approximately every three years. Other topics may be determined annually over the course of the HCUP contract.

   The KID is an administrative dataset designed specifically to assess use of hospital services by newborns, children, and adolescents, age 0-20. The KID enables studies of specific conditions, procedures, and subpopulations that often cannot be assessed with other databases because children account for a relatively small proportion of hospital stays. The sample is drawn from the HCUP Intramural SID and consists of approximately 10% of all normal births and 80% of all other pediatric cases in each stratum.

C. CENTRAL DISTRIBUTOR PARTICIPATION

The purpose of the HCUP Central Distributor is to prepare and distribute restricted access public release versions of the State Inpatient Databases (SID), State Ambulatory Surgery Databases (SASD), and State Emergency Department Databases (SEDD) available for research outside of AHRQ on behalf of participating Data Organizations. *Participation in the Central Distributor is voluntary on the part of the Data Organization and does not preclude participation in other areas of HCUP.*

The content of each Data Organization's HCUP Central Distributor files will be determined by the Data Organization and AHRQ to meet confidentiality requirements of AHRQ and each organization. Data Organizations determine the price of the organization's HCUP Central Distributor files. The payment for each database purchased by requestors is reimbursed to the Data Organization through AHRQ's contractors, Medstat and Social & Scientific Systems (SSS). The databases and documentation are developed by AHRQ through Medstat, and distributed by SSS at no cost to the Data Organization. Participation in the public release of the SID, SASD, and SEDD is accomplished by separate amendment to the HCUP Memorandum of Agreement.

The restricted access public release SID, SASD, and SEDD contain a subset of data elements from the Intramural SID, SASD, and SEDD. The data elements included in a state's SID, SASD, or SEDD may differ from other states. The HCUP Central Distributor files are available for purchase after requestors complete a data use agreement and application for the data, using a common application form. Data may not be used to identify individual patients, physicians, or institutions, and may only be reported in aggregate statistics. AHRQ does not release

unencrypted person identifiers or dates (only month and year) on HCUP Central Distributor databases.

III. RESEARCH OBJECTIVES OF AHRQ

The AHRQ research agenda is developed after consulting with many agencies within the U.S. Department of Health and Human Services, and with key outside organizations and institutions. The agenda is updated annually to reflect current priorities, and to respond to new policy issues as they emerge. The HCUP databases contain key data supporting the AHRQ research program.

AHRQ staff plan to use the HCUP databases to support their health services research and policy analyses on such issues as:

- variations in medical practice
- diffusion of medical technology
- effectiveness of medical treatments
- hospital costs and utilization
- utilization by special populations
- quality of care.

In addition, HCUP data gives AHRQ the capacity for research at many different levels — hospitalizations, patient care, treatment of diseases, physician practice, hospital group differences, small-area variations, state-to-state comparisons, and health services across time. AHRQ's inpatient hospital and outpatient services research focuses on cost (hospital/facility, disease, and treatment), quality (volume-outcome, treatment variations, adverse events, and guideline diffusion), and access (uncompensated care, HIV, organ transplant, and race/gender differences).

IV. RESPONSIBILITIES OF THE PARTIES

In consideration of the mutual promises contained herein, the parties agree as follows:

A. RESPONSIBILITIES OF DATA ORGANIZATION FOR PARTICIPATION IN HCUP

The Data Organization:

1. Agrees to provide for HCUP, in a timely and usable fashion, the <inpatient, ambulatory surgery, and emergency department> discharge data elements listed in Attachments <A-1, B-1, B-2> to this Agreement for development of the HCUP Intramural state databases, for the calendar year 2005. In the event that AHRQ extends the HCUP project, agrees to provide data for calendar years 2006-2009.

2. Agrees to provide documentation (for example, record layouts, data dictionaries, and hospital address lists) for the data files delivered for HCUP.

3. Agrees to allow AHRQ to release to authorized requestors, through the Central Distributor, the inpatient data elements indicated in Attachment A-2 to this Agreement, *HCUP Data Elements for Release, Nationwide Inpatient Sample*, in a subset of the HCUP discharge records for the Nationwide Inpatient Sample.

   An authorized requestor is one who has submitted a signed Data Use Agreement for the Nationwide Inpatient Sample to the HCUP Central Distributor (see Attachment F).

4. Agrees to provide the specified data files and documentation as they become available for the year(s) identified to:

   HCUP Data Coordinator
   Medstat
   5425 Hollister Ave., Suite 140
   Santa Barbara, CA 93111
   (805) 681-5800

5. Agrees to notify AHRQ promptly if unable to continue its participation in HCUP.

B. RESPONSIBILITIES OF AHRQ FOR PARTICIPATION IN HCUP

AHRQ (directly or through its contractors):

1. Agrees to purchase, consistent with provisions of the AHRQ contract with Medstat and applicable federal procurement regulations, <inpatient, ambulatory surgery, and emergency department> discharge data for the calendar year 2005 from the Data Organization, at a negotiated rate. In the event that AHRQ extends the HCUP project, agrees to purchase data for calendar years 2006-2009.

2. Agrees to provide to the Data Organization technical assistance, developed through research products of HCUP, that the Data Organization could incorporate into its research programs. The types of assistance available may include assistance in use and interpretation of quality indicators, Clinical Classifications Software (CCS), and processing programs to reproduce HCUP-based Fact Books.

3. Agrees to abide by the terms of the HCUP Data Security Plan described in Attachment D to this Agreement. The release of information collected, assembled, or used by AHRQ is controlled by the Privacy Act (as amended) (5 U.S.C. 552a) and by Section 924(c) of the Public Health Service Act (42 U.S.C. 299c-3(c)) (formerly, Section 903(c) of the Public Health Service Act). These Acts preclude releasing information that might identify individuals who have been described in, or who might have been the source of, the information.

4. Agrees to re-release, on the Nationwide Inpatient Sample, only the inpatient data elements specified in Attachment A-2 to this Agreement, *HCUP Data Elements for Release, Nationwide Inpatient Sample*, as amended and initialed by the authorized representative of the Data Organization.

5. Agrees to inform the Data Organization upon the completion of the *specialized databases*. Permission will be sought and required from the Data Organization for each proposed specialized database topic prior to its release. Agreement for each specialized database type will be amended to the HCUP Memorandum of Agreement, in Attachment C, as database topics are identified, with a corresponding data element list for each specialized database.

6. Agrees not to release outside AHRQ any data elements obtained from the Data Organization without the express written permission of the Data Organization other than those specified and authorized in: (1) Attachment A-2, *HCUP Data Elements for Release in HCUP Nationwide Inpatient Sample (NIS)*; (2) Amendments for participation in the HCUP Central Distributor; and (3) Amendments for other restricted access public release files such as specialized databases.

7. Agrees to observe and be bound by any state statutory requirements (incorporated herein by reference and attachment) governing the Data Organization's release of these data

   (reference: _____

   _____

   _____).

   If the Data Organization has any additional requirements, these shall be referenced above and included as a further Attachment to this Agreement.

8. Agrees to provide the Nationwide Inpatient Sample database and specialized databases to the Data Organization after receipt of a signed data use agreement (see Attachment F).

9. Agrees to return to each Data Organization the HCUP Intramural state databases in the uniform HCUP format for each inpatient, ambulatory surgery, and emergency department data set provided to HCUP, to be used for whatever purposes considered by the Data Organization to be consistent with its responsibilities.

10. Agrees to notify the Data Organization promptly if and when ready to purchase the next installment of the inpatient and/or ambulatory surgery and/or emergency department discharge data from the Data Organization.

11. All source data received from the Data Organization will be destroyed by Medstat approximately two (2) years after completing the annual HCUP files, at the direction of AHRQ. Certificate of destruction will be sent to the Data Organization following file destruction.

    At conclusion of the HCUP contract, and at the direction of the Data Organization and with permission of the HCUP Project Officer, all remaining source data will be destroyed or transferred to the next HCUP contractor (without regard to the time period said data have been in the possession of Medstat). After the termination of the HCUP contract, AHRQ may, at its sole discretion, choose to retain HCUP uniform databases derived from source data to support longitudinal research.

12. Agrees to notify the Data Organization promptly if unable to continue HCUP.

C. RESPONSIBILITIES RELATED TO THE CENTRAL DISTRIBUTOR

(May be added by separate amendment at Data Organization's discretion.)

D. RESPONSIBILITIES RELATED TO THE KIDS' INPATIENT DATABASE

1. The Data Organization:

   a. Agrees to allow AHRQ to release to authorized requestors, through the Central Distributor, the inpatient data elements indicated in Attachment C-3 to this Agreement, *HCUP Data Elements for Release, Kids' Inpatient Database (KID)*, in a subset of the HCUP discharge records for the KID. Agrees to permit AHRQ to release the KID every three years, beginning with calendar year <2000/2003/2006>.

      An authorized requestor is one who has submitted a signed Data Use Agreement for the Kids' Inpatient Database to the HCUP Central Distributor (see Attachment F).

2. AHRQ, directly or through its contractors:

   a. Agrees to inform the Data Organization when a version of the Kids' Inpatient Database is created.

   b. Agrees to re-release on the Kids' Inpatient Database only the inpatient data elements specified in Attachment C-3 to this Agreement, *HCUP Data Elements for Release, Kids' Inpatient Database (KID)*, as amended and initialed by the authorized representative of the Data Organization.

AGREEMENT FOR PARTICIPATION IN HCUP

Attachments A, B, C, D, E, and F to this Agreement are hereby made a part of this Agreement.

Each person signing this Agreement hereby represents that he or she is authorized to enter into this Agreement by the organization for which he or she is signing.

The undersigned acknowledges these conditions and agrees to abide by them:

By: _____ _____
Data Organization Representative, Signature Date

By: _____ _____
AHRQ Representative, Signature Date

Data Organization Representative: _____
(Please Print)

Name of Data Organization: _____

_____

Address of Data Organization: _____

_____

Telephone: _____ Fax: _____

AHRQ Representative: Jenny A. Schnaier, HCUP Project Officer
(Please Print)

Name of Agency: Center for Delivery, Organization, and Markets

Agency for Healthcare Research and Quality

Address of Agency: 540 Gaither Road

Rockville, MD 20850

Telephone 301-427-1442 Fax 301-427-1430

E-mail jschnaie@ahrq.gov _____

Attachments:

A-1. Data Elements Requested from Data Organizations for HCUP Intramural State Inpatient Databases (SID)

A-2. HCUP Data Elements for Release in Nationwide Inpatient Sample (NIS)

B. Data Elements Requested from Data Organizations for HCUP Intramural Outpatient Databases (Ambulatory Surgery and/or Emergency Department)

C. Data Elements for Additional Restricted Access Public Release Databases (Central Distributor and/or Specialized Databases)

C-1. <reserved for Data Organization's Authorized SID Variables for Release Through the Central Distributor>

C-2 <reserved for future use – Central Distributor SASD and SEDD Variables>

C-3. HCUP Data Elements for Release, Kids' Inpatient Database (KID)

D. HCUP Data Security Plan (revised January 2004)

E. AHRQ Staff/Contractor Agreement Regarding the Security of Data Maintained by the Center for Delivery, Organization, and Markets at the Agency for Healthcare Research and Quality

F. Data Use Agreement for HCUP Databases

ATTACHMENT A-1

INPATIENT DATA ELEMENTS
REQUESTED FROM DATA ORGANIZATIONS
FOR HCUP INTRAMURAL STATE INPATIENT DATABASES
<State Name>

This is the complete list of inpatient data elements requested from all HCUP State Data Organizations, Hospital Associations, and Private Data Organizations. If a Data Organization has a more limited list of data elements, its database may still be useful and requested for HCUP. Note that Data Organizations need not calculate measures (such as length of stay) that AHRQ is able to derive from other data elements (such as admission and discharge dates).

For each element in the list, **please place your initials in the appropriate box** provided below to indicate whether or not your organization (a) Collects and will supply the data element to HCUP, (b) Collects but will not supply the data element to HCUP, or (c) Does not collect and is unable to supply the data element to HCUP. **HCUP will use the data elements that you supply to construct the HCUP Intramural State Inpatient Databases.**

Note: Asterisked (*) data elements are used to develop uniform indicators and encrypted measures. They are stored in data development-only files, with access granted by permission of the HCUP Project Officer only under specific, limited circumstances. In these instances, only designated programmers will have access to the files on behalf of AHRQ researchers and their contractors. Handling of data development files is described in Section I.B of this agreement.

Inpatient Data Elements	**Collected, and will supply**	**Collected, but will not supply**	**Not collected, cannot supply**
LINKAGE ELEMENTS			
Hospital number (as assigned by the Data Organization)			
*Medical record number, encrypted			
*Person number, encrypted (e.g., encrypted SSN, unique person identifier, or other cross-hospital person identifier)			
Physician Identification Numbers			
*Attending physician ID number			
*Primary surgeon (or second physician) ID number			
*Third physician ID number			
* Fourth physician ID number			
PATIENT DEMOGRAPHICS			
*Date of birth			
Age in years at admission			
Age in days (when < 1 year)			
Age in months (when < 11 years)			
Sex			
Race			
Ethnicity (provided as a separate data element)			
*Patient ZIP Code (5-digit)			
Patient county			
*Patient town of residence (e.g., township, borough, parish, etc. where this is a political entity similar to a county)			
*Census tract			

Inpatient Data Elements	**Collected, and will supply**	**Collected, but will not supply**	**Not collected, cannot supply**
CLINICAL INFORMATION			
*Admission date (month, day, and year)			
*Discharge date (month, day, and year)			
Admission hour			
Discharge hour			
Length of stay (same day stay = 0 days)			
Admission day of week			
Scheduled vs. unscheduled admission			
Admission source			
Admission type			
Disposition of patient/Discharge status			
Birth weight of newborn (grams)			
Do not resuscitate indicator			
Time in observation status (hours and/or minutes)			
Readmission flag			
Diagnoses			
Principal diagnosis			
Secondary diagnoses (as many as are collected by the organization, including E codes)			
E code fields (Cause of Injury E codes and/or Place of Occurrence E codes)			
Diagnosis present at admission (e.g., distinguishes conditions and infections that occurred prior to hospitalization versus during a stay)			
Procedures			
Principal procedure			
Secondary procedures (as many as are collected by the organization)			
*Date of principal procedure			
*Dates of secondary procedures			
Service Detail (as defined by UB-92): ☐ ***Line item/Service detail provided as a separate file*** ☐ ***Summary groupings as defined and collected by the organization, provided on discharge records***			
Revenue codes/centers			
Charges (by revenue code)			
Units of service			
Daily rates of service			
PAYMENT INFORMATION			
Expected primary payer, grouped			
Expected secondary payer, grouped			
Expected tertiary payer, grouped			
Expected primary payer, by plan name			
Expected secondary payer, by plan name			
Expected tertiary payer, by plan name			
Total charges (e.g., for revenue center 001)			

Inpatient Data Elements	**Collected, and will supply**	**Collected, but will not supply**	**Not collected, cannot supply**
ADDITIONAL HCUP DATA ELEMENTS			
Medicare managed care indicator (if not already coded in expected payer)			
Medicaid managed care indicator (if not already coded in expected payer)			
*Medicare ID of patient			
*Medicaid ID of patient			
Physician Information			
* Physician name (as many as are collected by the organization)			
Physician specialty (for as many physicians as are collected by the organization)			
Physician licensing board (for as many physicians as are collected by the organization)			
Physician license type (UPIN, State license, hospital assigned, etc.)			
Clinical Groupers			
All Patient Refined DRG, MDC, risk of mortality, severity score (3M APR-DRG measures)			
All Patient DRG and associated variables (AP-DRG measures)			
Refined DRG & weight (RDRG) (HCIA/Solucient measures)			
MediQual total charges grouper variables			
All Payer Severity-adjusted DRGs (HSS APS-DRGs)			
***DATA PROCESSING ELEMENTS (for file development only, not included on HCUP databases):**			
EX: Service Type/Hospital setting where service was performed (inpatient, ambulatory surgery, emergency department, AS/ED, observation, etc. –ADAPT TO STATE'S NAME & CODES)			
ADDITIONAL DATA ELEMENTS TO BE SUPPLIED BY DATA ORGANIZATION (SPECIFY):			
Bill type (as defined by UB-92)			
Marital status			
Homeless indicator			
Patient state (if not derived from ZIP code)			
COMMENTS SPECIFIC TO SUPPLIED DATA:			

ATTACHMENT A-2

HCUP DATA ELEMENTS FOR RELEASE IN
NATIONWIDE INPATIENT SAMPLE DATABASE (NIS)
BASIC PARTICIPATION
<State Name>

This list includes the subset of the Inpatient Data Elements Requested from Data Organizations that will be released on the NIS. It omits elements that could identify individuals directly or indirectly. It adds other elements derived by AHRQ that will be used for research, analysis, and aggregate statistical reporting, without identifying individuals.

For each element in the list, **please place your initials in the appropriate box** provided below to indicate whether HCUP may or may not release the element in the NIS. **Alternatively, if you allow HCUP to release all of these data elements in the NIS, you may initial here: _____**

Nationwide Inpatient Sample (NIS) Data Elements	Yes, HCUP may release in NIS	No, HCUP may not release in NIS
LINKAGE ELEMENTS		
HCUP encrypted hospital number (assigned by AHRQ to each hospital in the state and required on all NIS records)		
Hospital number (as assigned by the organization)		
AHA hospital number (American Hospital Association identification number)		
AHA-defined hospital name, address, city, and ZIP code		
Hospital FIPS state-county code		
Hospital state postal code (e.g., CO; MI)		
Record sequence key (does not include hospital number)		
Synthetic Physician Identification Numbers		
Synthetic physician ID numbers (encrypted to protect identity)		
PATIENT DEMOGRAPHICS		
Age in years at admission		
Age in days (when < 1 year)		
Age in months (when < 11 years)		
Sex		
Race/ethnicity		
Median household income (in grouped categories for patient's ZIP Code)		
Urban-Rural location of patient's residence (4 categories)		
CLINICAL INFORMATION		
Discharge year; Discharge quarter		
Admission month		
Admission on weekend		
Length of stay (may be calculated by AHRQ or supplied by the Data Organization)		
Principal and secondary diagnoses; E code fields (Cause of Injury E codes and/or Place of Occurrence E codes); Maternal/neonatal discharge indicator; Number of diagnoses		
Principal and secondary procedures; Maternal/neonatal discharge indicator; Number of procedures		
Days from admission to procedure (for each supplied procedure)		

Nationwide Inpatient Sample (NIS) Data Elements	**Yes, HCUP may release in NIS**	**No, HCUP may not release in NIS**
Admission type; Elective versus non-elective admission		
Admission source		
Disposition of patient; Died during hospitalization indicator		
PAYMENT INFORMATION		
Expected principal and secondary payers		
Total charges		
ADDITIONAL HCUP DATA ELEMENTS		
National Weights		
HCUP sampling strata identifiers (bed size, census region, teaching hospital, urban/rural, control/ownership)		
National discharge weights		
National hospital weights		
Clinical Groupers		
DRG (Diagnosis Related Group); MDC (Major Diagnostic Category)		
AHRQ Clinical Classifications Software (CCS) (diagnosis and procedure groups developed by AHRQ)		
AHRQ Comorbidity Measures (indicators for 30 comorbidities)		
APR-DRG (category; severity and mortality subclasses)		
APS-DRG (category; weights for mortality, length of stay, and total charges)		
Disease staging (category; stage; predictive scales for mortality, length of stay, and total charges)		
Cost-To-Charge Ratios (Provided as a Separate File – linked by HCUP Encrypted Hospital Number and year)		
All-payer, inpatient cost-to-charge ratio, hospital-specific		
All-payer, inpatient cost-to-charge ratio, group average		
Hospital classification (seven hospital groupings)		
Number of observations for calculating group average		
Number of observations, if state average was used		
Total number of beds set up (AHA data)		
Total number of beds set up (CMS data)		
Area wage index		
FURTHER RESTRICTIONS (SPECIFIC TO THIS STATE'S DATA):		
COMMENTS:		

ATTACHMENT B

DATA ELEMENTS REQUESTED FROM DATA ORGANIZATIONS FOR HCUP INTRAMURAL AMBULATORY SURGERY AND EMERGENCY DEPARTMENT DATABASES

This section is included as a placeholder for future amendments that may specify data elements to provide for HCUP Intramural State Ambulatory Surgery Databases (SASD) and/or HCUP Intramural State Emergency Department Databases (SEDD).

If requested by AHRQ, and if the Data Organization agrees to provide ambulatory surgery and/or emergency department data, separate data element lists for the SASD and SEDD will be amended to this HCUP Memorandum of Agreement.

Data organizations may restrict the release of specific data elements to meet state or organizational confidentiality policies.

ATTACHMENT B-1

AMBULATORY SURGERY DATA ELEMENTS
REQUESTED FROM DATA ORGANIZATIONS FOR
HCUP INTRAMURAL AMBULATORY SURGERY DATABASES
<State Name>

This is the complete list of ambulatory surgery data elements requested from all HCUP State Data Organizations, Hospital Associations, and Private Data Organizations. If a Data Organization has a more limited list of data elements, its database may still be useful and requested for HCUP. Note that Data Organizations need not calculate measures (such as length of stay) that AHRQ is able to derive from other data elements (such as admission and discharge dates).

For each element in the list, **please place your initials in the appropriate box** provided below to indicate whether or not your organization (a) Collects and will supply the data element to HCUP, (b) Collects but will not supply the data element to HCUP, or (c) Does not collect and is unable to supply the data element to HCUP. **HCUP will use the data elements that you supply to construct the HCUP Intramural State Ambulatory Surgery Databases.**

Note: Asterisked (*) data elements are used to develop uniform indicators and encrypted measures. They are stored in data development-only files, with access granted by permission of the HCUP Project Officer only under specific, limited circumstances. In these instances, only designated programmers will have access to the files on behalf of AHRQ researchers and their contractors. Handling of data development files is described in Section I.B of this agreement.

Ambulatory Surgery Data Elements	**Collected, and will supply**	**Collected, but will not supply**	**Not collected, cannot supply**
LINKAGE ELEMENTS			
Facility number (as assigned by the organization)			
*Medical record number, encrypted			
*Person number, encrypted (e.g., encrypted SSN, unique person identifier, or other cross-hospital person identifier)			
Physician Identification Numbers			
*Attending physician ID number			
*Primary surgeon (or second physician) ID number			
*Third physician ID number			
*Fourth physician ID number			
PATIENT DEMOGRAPHICS			
*Date of birth			
Age in years at admission			
Age in days (when < 1 year)			
Age in months (when < 11 years)			
Sex			
Race			
Ethnicity (provided as a separate data element)			
*Patient ZIP Code (5-digit)			
Patient county			
*Patient town of residence (e.g., township, borough, parish, etc. where this is a political entity similar to a county)			
*Census tract			

Ambulatory Surgery Data Elements	**Collected, and will supply**	**Collected, but will not supply**	**Not collected, cannot supply**
CLINICAL INFORMATION			
*Admission date (month, day, and year)			
*Discharge date (month, day, and year)			
Admission hour			
Discharge hour			
Length of stay (same day stay = 0 days)			
Admission day of week			
Admission source			
Admission type			
Disposition of patient/Discharge status			
Do not resuscitate indicator			
Time in observation status (hours and/or minutes)			
Diagnoses			
Principal diagnosis			
Secondary diagnoses (as many as are collected by the organization, including E codes)			
E code fields (Cause of Injury E codes and/or Place of Occurrence E codes)			
Reason for Visit Diagnosis (ICD-9-CM codes) [May be listed as "Admitting Diagnosis"]			
Reason for Visit (narrative text)			
Ambulatory Payment Classification Groups (APCs)			
Procedures			
Principal procedure: ICD-9-CM			
Secondary procedures: ICD-9-CM (as many as are collected by the organization)			
*Date of principal procedure: ICD-9-CM			
*Dates of secondary procedures: ICD-9-CM			
Principal procedure: CPT/HCPCS			
Secondary procedures: CPT/HCPCS (as many as are collected by the organization)			
*Date of principal procedure: CPT			
*Dates of secondary procedures: CPT			
Procedure coding method (ICD-9-CM, HCPCS, CPT)			
Operating room time (excludes pre-op and post-op time)			
Surgical time (time under anesthesia)			
Method of anesthesia			
Service Detail (as defined by UB-92): ☐ ***Line item/Service detail provided as a separate file*** ☐ ***Summary groupings as defined and collected by the organization, provided on discharge records***			
Revenue codes/centers			
Charges (by revenue code)			
CPT/HCPCS codes			
CPT-4 code modifiers			
*Service dates (corresponds to revenue code or charges)			
Units of service			

Ambulatory Surgery Data Elements	**Collected, and will supply**	**Collected, but will not supply**	**Not collected, cannot supply**
PAYMENT INFORMATION			
Expected primary payer, grouped			
Expected secondary payer, grouped			
Expected tertiary payer, grouped			
Expected primary payer, by plan name			
Expected secondary payer, by plan name			
Expected tertiary payer, by plan name			
Total charges (e.g., for revenue center 001)			
ADDITIONAL HCUP DATA ELEMENTS			
Medicare managed care indicator (if not already coded in expected payer)			
Medicaid managed care indicator (if not already coded in expected payer)			
*Medicare ID of patient			
*Medicaid ID of patient			
Physician Information			
* Physician name (as many as are collected by the organization)			
Physician specialty (for as many physicians as are collected by the organization)			
Physician licensing board (for as many physicians as are collected by the organization)			
Physician license type (UPIN, State license, hospital assigned, etc.)			
***DATA PROCESSING ELEMENTS (for file development only, not included on HCUP databases):**			
EX: Service Type/Hospital setting where service was performed (inpatient, ambulatory surgery, emergency department, AS/ED, observation, etc. –ADAPT TO STATE'S NAME & CODES)			
ADDITIONAL DATA ELEMENTS TO BE SUPPLIED BY THE DATA ORGANIZATION (SPECIFY):			
Bill type (as defined by UB-92)			
Marital status			
Homeless indicator			
Patient state (if not derived from ZIP code)			
COMMENTS SPECIFIC TO SUPPLIED DATA:			

ATTACHMENT B-2

EMERGENCY DEPARTMENT DATA ELEMENTS
REQUESTED FROM DATA ORGANIZATIONS FOR
HCUP INTRAMURAL STATE EMERGENCY DEPARTMENT DATABASES
<State Name>

This is the complete list of emergency department data elements requested from all HCUP State Data Organizations, Hospital Associations, and Private Data Organizations. If a Data Organization has a more limited list of data elements, its database may still be useful and requested for HCUP. Note that Data Organizations need not calculate measures (such as length of stay) that AHRQ is able to derive from other data elements (such as admission and discharge dates).

For each element in the list, **please place your initials in the appropriate box** provided below to indicate whether or not your organization (a) Collects and will supply the data element to HCUP, (b) Collects but will not supply the data element to HCUP, or (c) Does not collect and is unable to supply the data element to HCUP. **HCUP will use the data elements that you supply to construct the HCUP Intramural State Emergency Department Databases.**

Note: Asterisked (*) data elements are used to develop uniform indicators and encrypted measures. They are stored in data development-only files, with access granted by permission of the HCUP Project Officer only under specific, limited circumstances. In these instances, only designated programmers will have access to the files on behalf of AHRQ researchers and their contractors. Handling of data development files is described in Section I.B of this agreement.

Emergency Department Data Elements	Collected, and will supply	Collected, but will not supply	Not collected, cannot supply
LINKAGE ELEMENTS			
Hospital number (as assigned by the organization)			
*Medical record number, encrypted			
*Person number, encrypted (i.e., encrypted SSN, unique person identifier, or other cross-hospital person identifier)			
Physician Identification Numbers			
*Attending physician ID number			
*Primary surgeon (or second physician) ID number			
*Third physician ID number			
*Fourth physician ID number			
PATIENT DEMOGRAPHICS			
*Date of birth			
Age in years at admission			
Age in days (when < 1 year)			
Age in months (when < 11 years)			
Sex			
Race			
Ethnicity (provided as a separate data element)			
*Patient ZIP Code (5-digit)			
Patient county			
*Patient town of residence (e.g., township, borough, parish, etc. where this is a political entity similar to a county)			
*Census tract			

Emergency Department Data Elements	**Collected, and will supply**	**Collected, but will not supply**	**Not collected, cannot supply**
CLINICAL INFORMATION			
*Admission date (month, day, and year)			
*Discharge date (month, day, and year)			
Admission hour			
Discharge hour			
Length of stay (same day stay = 0 days)			
Admission day of week			
Admission source			
Admission type			
Disposition of patient/Discharge status			
Do not resuscitate indicator			
Time in observation status (hours and/or minutes)			
Time in ER (hours and/or minutes)			
Diagnoses			
Principal diagnosis			
Secondary diagnoses (as many as are collected by the organization, including E codes)			
E code fields (Cause of Injury E codes and/or Place of Occurrence E codes)			
Reason for Visit Diagnosis (ICD-9-CM codes) [May be listed as "Admitting Diagnosis"]			
Reason for Visit (narrative text)			
Ambulatory Patient Classifications (APCs)			
Procedures			
Principal procedure: ICD-9-CM			
Secondary procedures: ICD-9-CM (as many as are collected by the organization)			
*Date of principal procedure: ICD-9-CM			
*Dates of secondary procedures: ICD-9-CM			
Principal procedure: CPT/HCPCS			
Secondary procedures: CPT/HCPCS (as many as are collected by the organization)			
*Date of principal procedure: CPT			
*Dates of secondary procedures: CPT			
Procedure coding method (ICD-9-CM, HCPCS, CPT)			
Service Detail (as defined by UB-92): ☐ ***Line item/Service detail provided as a separate file*** ☐ ***Summary groupings as defined and collected by the organization, provided on discharge records***			
Revenue codes/centers			
Charges (by revenue code)			
CPT/HCPCS codes			
CPT-4 code modifiers			
*Service dates (corresponds to revenue code or charges)			
Units of service			
PAYMENT INFORMATION			
Expected primary payer, grouped			
Expected secondary payer, grouped			
Expected tertiary payer, grouped			
Expected primary payer, by plan name			
Expected secondary payer, by plan name			

Emergency Department Data Elements	**Collected, and will supply**	**Collected, but will not supply**	**Not collected, cannot supply**
Expected tertiary payer, by plan name			
Total charges (e.g. for revenue center 001)			
ADDITIONAL HCUP DATA ELEMENTS			
Medicare managed care indicator (if not already coded in expected payer)			
Medicaid managed care indicator (if not already coded in expected payer)			
*Medicare ID of patient			
*Medicaid ID of patient			
Physician Information			
* Physician name (as many as are collected by the organization)			
Physician specialty (for as many physicians as are collected by the organization)			
Physician licensing board (for as many physicians as are collected by the organization)			
Physician license type (UPIN, State license, hospital assigned, etc.)			
***DATA PROCESSING ELEMENTS (for file development only, not included on HCUP databases):**			
EX: Service Type/Hospital setting where service was performed (inpatient, ambulatory surgery, emergency department, AS/ED, observation, etc. –ADAPT TO STATE'S NAME & CODES)			
ED revenue center indicator ("1" = rev. center 450-459)			
ED detail charge indicator ("1" = positive, non-zero ED charges)			
ED CPT code indicator ("1" = CPT/HCPCS 99281-99285)			
ADDITIONAL DATA ELEMENTS TO BE SUPPLIED BY THE DATA ORGANIZATION (SPECIFY):			
Bill type (as defined by UB-92)			
Marital status			
Homeless indicator			
Patient state (if not derived from ZIP code)			
COMMENTS SPECIFIC TO SUPPLIED DATA:			

ATTACHMENT C

DATA ELEMENTS FOR ADDITIONAL RESTRICTED ACCESS PUBLIC RELEASE DATABASES

This section is included as a placeholder for future amendments that may specify data elements to release in the Central Distributor SID, SASD, and SEDD files, and data elements included in each specialized database, such as the KID.

Separate data element lists will be proposed and submitted to the Data Organization for review for each Central Distributor state databases and each specialized database topic.

Data Element Lists will be amended to this Memorandum of Agreement when the Data Organization agrees to permit AHRQ to release each database.

Data organizations may restrict the release of specific data elements to meet state or organizational confidentiality policies.

ATTACHMENT C-3

HCUP DATA ELEMENTS FOR RELEASE IN
KIDS' INPATIENT DATABASE (KID)
<State Name>

This list includes a subset of the *Inpatient Data Elements Requested from Data Organizations*. It omits elements that could identify individuals directly or indirectly. It adds other elements derived by AHRQ that will be used for research, without identifying individuals.

If a data organization restricts the release of a data element in the NIS, the data element will be set to missing in the KID.

For each element in the list, **please place your initials in the appropriate box** provided below to indicate whether HCUP may or may not release the element in the KID. **Alternatively, if you allow HCUP to release all of these data elements in the KID, you may initial here: _____**

Kids' Inpatient Database (KID) Data Elements	Yes, HCUP may release in KID	No, HCUP may not release in KID
LINKAGE ELEMENTS		
HCUP encrypted hospital number (assigned by AHRQ to each hospital in the state and required on all KID records)		
Hospital number (as assigned by the organization)		
AHA hospital number (American Hospital Association identification number)		
AHA-defined hospital name, address, city, and ZIP code		
Hospital FIPS state-county code		
Hospital state postal code (e.g., CO; MI)		
Record sequence key (does not include hospital number)		
Synthetic Physician Identification Numbers		
Synthetic physician ID numbers (re-identified to protect identity)		
PATIENT DEMOGRAPHICS		
Age in years at admission		
Age in days (when < 1 year)		
Age in months (when < 11 years)		
Sex		
Race/ethnicity		
Median household income (in grouped categories for patient's ZIP Code)		
Urban-Rural location of patient's residence (4 categories)		
PEDIATRIC MEASURES		
Birth weight of newborn (grams)		
In-hospital birth		
Uncomplicated in-hospital birth		
CLINICAL INFORMATION		
Discharge year; Discharge quarter		
Admission month		
Admission on weekend		
Length of stay (may be calculated by AHRQ or supplied by the Data Organization)		

Kids' Inpatient Database (KID) Data Elements	**Yes, HCUP may release in KID**	**No, HCUP may not release in KID**
Principal and secondary diagnoses; E code fields (Cause of Injury E codes and/or Place of Occurrence E codes); Maternal/neonatal discharge indicator; Number of diagnoses		
Principal and secondary procedures; Maternal/neonatal discharge indicator; Number of procedures		
Days from admission to procedure (for each supplied procedure)		
Admission type; Elective versus non-elective admission		
Admission source		
Disposition of patient; Died during hospitalization indicator		
PAYMENT INFORMATION		
Expected principal and secondary payers		
Total charges		
ADDITIONAL HCUP DATA ELEMENTS		
National Weights		
HCUP sampling strata identifiers (bed size, census region, teaching hospital, urban/rural, control/ownership)		
National discharge weights		
NACHRI-defined children's hospital type (four categories)		
Weights for uncomplicated births, complicated births, and pediatric non-births		
Clinical Groupers		
DRG (Diagnosis Related Group); MDC (Major Diagnostic Category)		
AHRQ Clinical Classifications Software (CCS) (diagnosis and procedure groups developed by AHRQ)		
AHRQ Comorbidity Measures (indicators for 30 comorbidities)		
APR-DRG (category; severity and mortality subclasses)		
APS-DRG (category; weights for mortality, length of stay, and total charges)		
Disease staging (category; stage; predictive scales for mortality, length of stay, and total charges)		
Cost-To-Charge Ratios (Provided as a Separate File – linked by HCUP Encrypted Hospital Number and year)		
All-payer, inpatient cost-to-charge ratio, hospital-specific		
All-payer, inpatient cost-to-charge ratio, group average		
Hospital classification (seven hospital groupings)		
Number of observations for calculating group average		
Number of observations, if state average was used		
Total number of beds set up (AHA data)		
Total number of beds set up (CMS data)		
Area wage index		
FURTHER RESTRICTIONS (SPECIFIC TO THIS STATE'S DATA):		
COMMENTS:		

ATTACHMENT D

HCUP DATA SECURITY PLAN

The HCUP Data Security Plan incorporates privacy, confidentiality, and security protections to ensure adherence to agreements made with Data Organizations participating in the Healthcare Cost and Utilization Project (HCUP), a unique resource in the field of research. The term "Data Organization" refers to the state governments, hospital associations, and private data organizations that contribute administrative data to the project, making the creation of HCUP databases possible. The HCUP project team recognizes that careful consideration must be given in achieving the balance between protection of data privacy and our Nation's need for the use of data in health care research.

I. CONFIDENTIALITY AND PRIVACY PROTECTION

The Agency for Healthcare Research and Quality (AHRQ) is authorized to obtain data for research purposes "to enhance the quality, appropriateness, and effectiveness of health services."[1] AHRQ is also charged with promoting the protection of individually identifiable patient information used in health services research and health care quality improvement.

The identities of patients and physicians who might be included in the HCUP databases are protected from disclosure by the statutes that govern the activities of AHRQ. Additionally, AHRQ excludes identities of patients and physicians from publicly released HCUP databases and the HCUP data use agreements prohibit users from making any effort to determine the identity of any person contained in publicly released databases (including but not limited to patients, physicians, and other health care providers).

The identity of institutions (e.g., hospitals) included in the HCUP databases are protected from disclosure, according to the laws of the state providing the information, or according to this or any other Agreement between the Data Organization and AHRQ. Permission is obtained from the Data Organizations to include hospital identification on the publicly released HCUP databases. When such information appears in HCUP databases, it may be used only for the purpose of conducting research, which includes linking institutional information from outside data sets to enhance analysis and aggregate statistical reporting. Additionally, HCUP data use agreements preclude using information about individual establishments in the HCUP databases for commercial or competitive purposes involving those establishments, or to determine the rights, benefits, or privileges of those establishments. Users of the data must not identify establishments directly or by inference in disseminated material.

A. LEGAL PROTECTIONS

1. The statute that governs AHRQ activities (Section 924[c] of the Public Health Service Act [42 U.S.C. 299c-3(c)]) requires that information that might identify an individual cannot be used for any purpose other than the explicit purpose for which it is collected. In the case of the HCUP data, the purpose is limited to

[1] Amendment to Title IX of the Public Health Service Act, the Healthcare Research and Quality Act of 1999, P.L. 106129

Example

ATTACHMENT D (Continued)

conducting research and developing statistical estimates. Information that could be used to identify persons, either those included in the database or those who are the source of information, cannot be released without specific permission from the individual.

2. In addition to the statute that deals specifically with AHRQ, the Agency, like all federal agencies, must adhere to the protections included in the Privacy Act of 1974 (as amended) (5 U.S.C. 552a). This Act also restricts the use and dissemination of identifiable information and imposes criminal penalties for violations. The Privacy Act is similar to, but not as restrictive as, the specific AHRQ statutory protections.

3. AHRQ's use of the HCUP data acquired from the Data Organization is also subject to any other limitations that may be imposed on or by the Data Organization. Specifically, HCUP shall observe and be bound by any State statutory requirements governing the Data Organization's release of these data and any additional requirements specified in the HCUP Memorandum of Agreement (MOA) and its addenda between AHRQ and the Data Organization.

4. The HIPAA Privacy Rule protects individually identifiable health information by establishing conditions for its use and disclosure by "covered entities." Disclosure of identifiable data from covered entities for the purpose of research is allowed by the Privacy Rule under section 164.502 and 164.512(i). AHRQ and most data organizations participating in HCUP are not covered entities because they do not fit the definition of (1) a health plan, (2) a health care clearinghouse, or (3) a health care provider that electronically transmits health information in connection with standard financial or administrative transactions. AHRQ data policies are generally consistent with the requirements of the HIPAA Privacy Rule.

5. Contracts between the federal government and contractors authorized to have access to the HCUP databases contain sections governing the authorized use of data under the contracts. These sections restrict the publication and dissemination of material derived from the contracts, specify that the contractors have no rights to data collected or developed under the contracts, and specify provisions for debarment should these restrictions be violated.

B. WORKING WITH CONTRACTORS

Much of the work to create and analyze HCUP databases, tools, products, and reports is accomplished through contract services. Contractors are engaged to conduct essential functions of the HCUP project. "Primary Contractors" are responsible for creating the core components of the HCUP project such as data acquisition, data processing, database creation, documentation, and special analyses. "Secondary Contractors" are engaged to perform other work that contributes to the HCUP project such as development and validation of HCUP products and tools, and data programming for research projects conducted by AHRQ staff.

Exhibit

ATTACHMENT D (Continued)

1. Primary Contractor

The HCUP Project Officer oversees and directs all activities performed under contract by the Primary Contractor. This includes obtaining statewide discharge data and processing it into the uniformly formatted HCUP databases. Using the completed and delivered HCUP databases, the Primary Contractor provides additional support to AHRQ for the HCUP software tools, products, and reports. This includes maintaining existing HCUP tools (such as Clinical Classifications Software (CCS), comorbidity software, and AHRQ's cost-to-charge ratios), developing new tools (such as refining CCS classifications), developing the data analysis and content for HCUP fact books, and conducting data analysis for AHRQ reports to external audiences (such as the National Healthcare Quality Report and National Healthcare Disparities Report).

Medstat is AHRQ's Primary Contractor responsible for the core work of developing, maintaining, and expanding the HCUP databases. Medstat works with the subcontractors, Social & Scientific Systems (SSS), The National Association of Healthcare Data Organizations (NAHDO), and others to develop and maintain the HCUP databases on behalf of AHRQ.

2. Secondary Contractors

AHRQ Project Officers are assigned to oversee and direct all activities performed under independent contract by Secondary Contractors that utilize HCUP data. These activities may be directed by the Center for Delivery, Organization, and Markets (CDOM) or by other centers within AHRQ and are limited to specific AHRQ project objectives. This type of work includes data programming for AHRQ staff research projects and producing aggregate statistics for other federal agencies and other organizations at AHRQ's direction. It also includes activities such as the refinement, expansion, and validation of the AHRQ Quality Indicators (formerly titled "HCUP Quality Indicators"). The creation of most HCUP tools has been accomplished by Secondary Contractors, including, for example, the Clinical Classification Software (CCS) and the on-line HCUPnet statistical query resource.

3. Contractor Access to Data

While contractors have different levels of access to HCUP data, all data access is limited to the level required to accomplish AHRQ-specified work. Contracts between the federal government and HCUP-related contractors contain sections governing the authorized use of data under the contracts. These sections restrict the publication and dissemination of material derived from contracts, and they specify that the contractors have no rights to data collected or developed under the contracts. The contracts also contain provisions for penalty and debarment from federal contracting should these restrictions be violated. All contractors maintain responsibility for assuring compliance with contractual requirements and protection of data. All contractors assure that their subcontractors are held to the same level of responsibility for compliance with contractual requirements and protection of data.

Exhibit

ATTACHMENT D (Continued)

C. STRUCTURE OF FILES AND ACCESS TO HCUP DATA FILES

1. **Restricted access public release databases** include the Nationwide Inpatient Sample (NIS), the Central Distributor State Inpatient Databases (SID), the Central Distributor State Ambulatory Surgery Databases (SASD), State Emergency Department Databases (SEDD), and the Kids' Inpatient Database (KID). If developed in subsequent years of the HCUP contract, and with the permission of HCUP Data Organizations, other HCUP specialized databases may become available as restricted access public release databases. These databases are used for internal AHRQ research and are also released to public and private users outside of AHRQ.

   Restricted access public release databases include data elements approved by the Data Organization; at the same time, they exclude information that directly or indirectly might increase risk for re-identification of a person, such as patient names, addresses, identification numbers (e.g., billing number and medical record number), Social Security numbers, and full dates of admission, discharge, procedures, and births. If the Data Organization concludes that confidentiality also should be provided for its institutions (e.g., hospitals), the Data Organization's institutional identifiers shall be excluded as well.

   These data are made available to data users after receipt of a signed HCUP Data Use Agreement (DUA). (As an example, see Attachment F, Data Use Agreement for HCUP Databases.) In addition to a signed DUA, use of the Central Distributor SID, SASD, and SEDD databases requires an application process to assure that the data user's planned use is consistent with HCUP policies and with existing HCUP Memoranda of Agreement executed with each contributing Data Organization.

2. **Intramural databases** include internal versions of the SID, SASD, and SEDD. Intramural databases are utilized for internal purposes at AHRQ such as research; development of HCUP tools, products, and reports; producing aggregate statistics for technical assistance support to other federal agencies; and (with permission from Data Organizations) development of state discharge statistics used in HCUPnet.

   The Intramural databases exclude all direct identifiers and most indirect identifiers. Person identifiers are replaced by encrypted or derived data elements (e.g., length of stay). In rare instances, the Intramural databases may include indirect identifiers that the Data Organization excludes from Central Distributor SID, SASD, and SEDD databases (e.g., patient state-county FIPS code).

   Intramural databases are available only to authorized AHRQ research staff and their contractors who must sign and abide by federal limits on disclosure and the special restrictions imposed under the data use agreements. (See Section II.A of this HCUP Security Plan and Attachment E, AHRQ Staff/Contractor Agreement.)

Exhibit

ATTACHMENT D (Continued)

3. **Data Development (DD) files** contain the original, indirect identifiers supplied by Data Organizations that are used to create synthetic or derived uniform HCUP data elements. DD files contain person-level information that is not included in the Intramural SID, SASD and SEDD. Examples include five-digit ZIP Code, full dates of admission and discharge, full date of birth, and source-supplied encrypted medical record number or other person identifiers that are re-encrypted for the Intramural files.

   DD files can be linked to the Intramural databases for specific, restricted purposes: (1) DD files may be used, should the need arise, to address problems created when the HCUP databases were constructed; (2) DD files are available under specific, limited circumstances to AHRQ researchers and their contractors to develop research data files. Use of DD files must go through an internal review process that requires special permission from the HCUP Project Officer.

4. **Source data** are the files received from the Data Organization in their original format. Medstat is AHRQ's primary contractor responsible for obtaining statewide discharge data and processing it into the uniformly formatted HCUP databases. Medstat is the sole holder of the source data supplied by state and private data organizations. Unformatted source data received by Medstat are not released to AHRQ or any of the HCUP-related contractors. Source data may not be used by AHRQ or Medstat for purposes other than the development of HCUP databases as described in the HCUP Memorandum of Agreement.

II. PROCEDURAL AND PHYSICAL PROTECTIONS

A. DATA USE AGREEMENTS

1. AHRQ Staff/Contractor Agreements

   AHRQ and contractor staff with access to source data, data development files, or Intramural databases are required to sign Staff/Contractor Agreements that specify privacy protections and restrictions placed on the use of HCUP data. These persons are required to receive privacy and security training that includes information on the appropriate and inappropriate use of HCUP data. AHRQ and contractor staff are prohibited from giving access to HCUP files to unauthorized individuals or providing confidential information derived from such files or otherwise sharing such information with these individuals.

2. HCUP Data Use Agreements

   All persons (including AHRQ staff and contractors) given access to HCUP restricted access public release databases are required to sign an HCUP Data Use Agreement (DUA) before receipt of data. These agreements place strict limitations on how HCUP data may be used. Criminal and administrative penalties exist for anyone who violates the federal rules and data use agreements. If required by the Data Organization, these data use agreements shall be amended to incorporate any additional state-specific confidentiality restrictions that may be imposed on or by the Data Organization.

Exhibit

ATTACHMENT D (Continued)

B. PHYSICAL SECURITY OF HCUP DATA

1. Shipping

Source data on tapes, cartridges, disks, or CDs will be shipped by Data Organizations separately from documentation of these files and will be shipped only to the Primary Contractor, Medstat.

HCUP data on tapes, cartridges, disks, or CDs will be shipped between contractors and AHRQ or returned to Data Organizations separately from documentation of the files.

Media used to ship source data or HCUP data between Data Organizations, AHRQ, and contractors will be identified only by the tracking number assigned by the originating party. Contractors will notify AHRQ of data shipments by sending a confirmation communication.

Restricted access public release databases may be shipped together with accompanying documentation to AHRQ or to approved data users.

2. Storage

Physical media that contain the HCUP databases and source data files are kept in locked storage at AHRQ and contractor offices. HCUP tapes, cartridges, disks, CDs, reports, lists, or any other material containing potentially identifying information will be kept in locked files, locked offices, or controlled-access storage rooms at the end of each working day, and whenever not in immediate use, and supervised by authorized project staff. Backup files for disaster recovery will also be stored at a secure, offsite location.

3. Access to Electronic Data Files

AHRQ staff and contractors will use secure microcomputers or other secure platforms under their control to process the data for HCUP. Data files will be stored in controlled-access environments maintained by the contractors and AHRQ staff. Physical access to the computers and platforms that contain HCUP data files, and creation of backups of the data, will be limited to authorized AHRQ staff and contractor personnel. Furthermore, file passwords, which keep unauthorized users from accessing data, will be used to protect any source data or HCUP data in the possession of AHRQ or contractors from unauthorized electronic access.

After contractors complete the processing of source or HCUP data, all non-deliverable source and intermediate data files will be deleted from microcomputers and other platforms and/or archived in a separate, secure location. Access to secure storage locations will be controlled by the AHRQ Project Officer, contractor Project Directors, and/or a delegate, as appropriate to each site.

Exhibit

ATTACHMENT D (Continued)

4. Disposal

Printed output and documents containing confidential or identifying information will be shredded when disposal is required. Electronic or magnetic records will be erased or shredded to obliterate individual discharge data when necessary.

All source data received by Medstat from HCUP Data Organizations will be destroyed approximately two (2) years after completing the annual HCUP files, at the direction of AHRQ. Certification of destruction will be sent to the AHRQ Project Officer and the Data Organization following file destruction.

At the conclusion of the HCUP contract, and at the direction of the Data Organization and with permission from the HCUP Project Officer, all remaining source data at Medstat will be destroyed or transferred to the next HCUP contractor (without regard to the time period said data have been in the possession of the incumbent primary contractor).

In the event of termination of the AHRQ contract with Medstat, AHRQ may, at its sole discretion, choose to retain the HCUP intramural, data development, and restricted access public release databases derived from source data to support longitudinal research.

5. Electronic Security

Access to all computers that contain confidential information will be protected with user passwords. Electronic passwords are required for access to any HCUP source, intramural, or data development files. All database files delivered to AHRQ by contractors (other than the restricted access public release databases) are protected with file-specific passwords.

6. Physical Access to Facilities

AHRQ and its contractors control physical access to facilities using electronic methods and security procedures and/or personnel. Entering the AHRQ premises requires electronic screening and, for visitors, interaction with security personnel. Entrance to the Medstat offices requires that all visitors must first register with the receptionist, and thereafter must be escorted by a Medstat employee.

AHRQ and contractor offices are equipped with locking storage cabinets and/or locking doors. Medstat maintains an electronic code-key protected secure storage room for on-site archiving of data tapes, cartridges, disks, and CDs and a separate code-key protected secure environment for its Local Area Network microcomputer facilities. Removable tapes, cartridges, disks, or CDs with directly or indirectly identifiable information are stored in locked cabinets or secured areas.

Other contractors must employ similar procedures.

Exhibit

ATTACHMENT E

AHRQ STAFF/CONTRACTOR AGREEMENT
Regarding the SECURITY OF DATA Maintained by the Center for Delivery, Organization, and Markets at the Agency for Healthcare Research and Quality

This agreement must be signed by anyone seeking to use confidential or proprietary data maintained by the Center for Delivery, Organization, and Markets (CDOM) at the Agency for Healthcare Research and Quality (AHRQ) before access to such confidential or proprietary data can be granted. All data maintained by CDOM/AHRQ is confidential or proprietary except data specified for public release, or data authorized by CDOM/AHRQ and the original data source for re-release.

Your signature on this agreement acknowledges that you:

(1) Have read and understand this agreement;
(2) Understand the consequences of violating any provision of this agreement; and
(3) Agree to be bound by the statutory requirements and rules of CDOM/AHRQ and any contractual obligations that apply to specific confidential or proprietary data sets.

Scope of Agreement

The rules and regulations described below apply to all confidential or proprietary data purchased, collected, or otherwise acquired and maintained by CDOM/AHRQ. All officers, employees, and agents of the United States must execute this agreement before they shall be given access to such confidential or proprietary data; no one shall be given access without executing this agreement.

Sensitivity and Legal Status of Data Acquired and Maintained by CDOM/AHRQ

Databases acquired and maintained by CDOM/AHRQ contain information that is often considered sensitive by individuals and organizations. For example, data used for the Healthcare Cost and Utilization Project (HCUP) has confidential or proprietary data describing the clinical condition of specific individuals, and the medical services they received. In some cases, these confidential or proprietary data could identify patients (through complex analyses and linking to outside data sources), providers or institutions. In general, therefore, these confidential or proprietary data are subject to various legal provisions, including the U.S. Department of Health and Human Services Standards of Conduct and Section 924(c) of the Public Health Service Act (42 U.S.C. 299c-3(c)) as amended, which states:

> *No information, if an establishment or person supplying the information or described in it is identifiable, obtained in the course of activities undertaken or supported under this title may be used for any purpose other than the purpose for which it was supplied unless such establishment or person has consented (as determined under regulations of the Secretary) to its use for such other purpose. Such information may not be published or released in other form if the person who supplied the information or who is described in it is identifiable unless such person has consented (as determined under regulations of the Secretary) to its publication or release in other form.*

ATTACHMENT E (Continued)

Specific confidential or proprietary data sets maintained by CDOM/AHRQ may be subject to further restrictions because of contractual or other legal obligations. For example, special agreements were executed with data sources in constructing the HCUP databases maintained by CDOM/AHRQ. These agreements contain additional data protections and restrictions.

Rules for Using Confidential or Proprietary Data Maintained by CDOM/AHRQ

(1) You may not reveal, or cause to be revealed, the identity of a person represented in the confidential or proprietary data. You may not make available, reveal, or cause to be revealed, to any person not authorized to use the data, the identity of a health care provider, or other organization represented in the confidential or proprietary data, when the identities of these entities are confidential and not revealed in the public use data.

(2) You may not make available to any person not authorized to use the data, confidential or proprietary data or statistics that could identify a person, health care provider, or other organization represented in the confidential or proprietary data.

(3) You may not make documentation or other information that facilitates access to the confidential or proprietary data files available to anyone other than individuals authorized to receive such information.

(4) You may not use confidential or proprietary data to do anything other than AHRQ-sponsored and approved database development and/or research.

(5) You are not permitted access to the data after you have left the employment of AHRQ or the employment of your AHRQ contractor.

(6) You may not take any other action that could jeopardize the security of the confidential or proprietary data.

You are required by law to inform your supervisor immediately if you know or suspect that these rules are being violated. If you are unsure about what you can and cannot do in any specific circumstance, ask your supervisor, or if using HCUP data, ask the HCUP Project Officer.

What You Must Do

One copy of this document must be completed, signed, and sent to:

Center for Delivery, Organization, and Markets
Attention: HCUP Project Officer
Agency for Healthcare Research and Quality
540 Gaither Road
Rockville, MD 20850

Consequences of Violating These Rules

If you violate the rules described here or any other agreement protecting confidential data used in research by AHRQ, your affiliation with AHRQ may be terminated immediately. You may also be subject to civil litigation and criminal prosecution and you may be held liable financially for any damages that you cause. Title 18, Section 1905 of the U.S. Code provides for removal from office or employment and for fines of up to $1,000 and/or imprisonment of up to one year for unauthorized disclosure of confidential information.

Furthermore, HCUP data are subject to laws of participating states, laws which punish unauthorized disclosure of health care information. For example, the Wisconsin Statute 153.90 specifies penalties of not more than $10,000 or imprisonment for not more than 9 months, or both, for intentional violation of state rules on protection of patient confidentiality.

You shall be given access to CDOM/AHRQ confidential or proprietary data only after the Director, CDOM, has reviewed this document and authorized your access in writing.

ATTACHMENT E (Continued)

AHRQ STAFF/CONTRACTOR AGREEMENT
Regarding Security of Data Maintained by CDOM/AHRQ

I have read the AHRQ Staff/Contractor Agreement Regarding the Security of Data Maintained by the Center for Delivery, Organization, and Markets at the Agency for Healthcare Research and Quality. As a result, I understand

- the statutory prohibitions against release of any confidential or proprietary data that could identify individuals or organizations,
- the legal confidentiality provisions governing confidential or proprietary data collected for research by AHRQ, and
- the consequences of violating these statutes or the provisions of this data security agreement.

Further, I agree to be bound by any additional rules that govern the use of confidential or proprietary data available to me as established by the AHRQ Center/Office with which I am affiliated.

Requestor's Signature _____EXHIBIT – NO SIGNATURE REQUIRED_____ Date_____

Name _____

Title _____

Agency/Office[1] _____

Address _____

_____

Telephone Number _____

Authorized _____ Date_____

[Requestor's Center Director if AHRQ staff or Contract Project Director if AHRQ Contractor]

_____ Date_____

[CDOM Center Director]

_____ Date _____

[HCUP Project Officer]

[1] **If not an AHRQ employee, indicate your contractual affiliation with AHRQ.**

ATTACHMENT F

DATA USE AGREEMENT for the HCUP Databases from the Healthcare Cost and Utilization Project Agency for Healthcare Research and Quality

This Data Use Agreement ("Agreement") implements the data protections of the Health Insurance Portability and Accountability Act (HIPAA) of 1996 (Public Law 104-191) and the Agency for Healthcare Research and Quality (AHRQ) confidentiality statute. Any individual ("data recipient") seeking to obtain or use data from the Healthcare Cost and Utilization Project (HCUP) maintained by the Center for Delivery, Organization, and Markets (CDOM) within AHRQ, must sign and submit this Agreement to AHRQ or its agent before access to the HCUP Databases may be granted.

In accordance with HIPAA, the HCUP Databases may only be used or disclosed in the form of a *limited data set*, as defined by the HIPAA Privacy Rule (45 CFR § 164.514(e)).

The AHRQ confidentiality statute, Section 924(c) of the Public Health Service Act (42 U.S.C. 299c-3(c)), requires that data collected by AHRQ that identify individuals or establishments be used only for the purpose for which they were supplied. Data supplied to AHRQ for HCUP and disclosed in limited data set form are identifiable under the HIPAA Privacy Rule and are provided by the data sources only for research, analysis, and aggregate statistical reporting. Therefore, data recipients may use HCUP data only for these purposes.

No Identification of Persons–Any effort to determine the identity of any person contained in HCUP databases (including but not limited to patients, physicians, and other health care providers), or to use the information for any purpose other than for research, analysis, and aggregate statistical reporting, would violate the AHRQ confidentiality statute, the conditions of this Agreement, and the HIPAA Privacy Rule. Recipients of the data set are prohibited under the AHRQ confidentiality statute and the terms of this Agreement from releasing, disclosing, publishing, or presenting any individually identifying information obtained under this Agreement. AHRQ omits from the data set all direct identifiers that are required to be excluded from limited data sets as defined by the HIPAA Privacy Rule. It may be possible in limited situations, through deliberate technical analysis, and with outside information, to ascertain from the limited data sets the identity of particular persons. Considerable harm could ensue if this were to occur. Therefore, any attempts to identify individuals are prohibited and information that could identify individuals directly or by inference must not be released or published. In addition, users of the data must not attempt to contact individuals for any purpose, including verifying information supplied in the data set. Any questions about the data must be referred exclusively to AHRQ.

Use of Establishment Identifiers–Section 924(c) of the Public Health Service Act (42 U.S.C. 299c-3(c)) also restricts the use of any information that permits the identification of establishments for purposes other than those for which the information was originally supplied. Permission is obtained from the HCUP data sources (state data organizations, hospital associations, and data consortia) to use the identification of hospitals (when such identification appears in the data sets) for research, analysis, and aggregate statistical reporting. This may include linking institutional information from outside data sets for these purposes. Such purpose does *not* include the use of information in the data sets concerning individual establishments for commercial or competitive purposes involving those individual establishments, or to determine the rights, benefits, or privileges of establishments. Users of the data must not identify establishments directly or by inference in disseminated material. In addition, users of the data must not contact establishments for the purpose of verifying information supplied in the data set. Any questions about the data must be referred exclusively to AHRQ. Misuse of identifiable HCUP data about hospitals would violate the AHRQ confidentiality statute and trigger its penalty provisions.

ATTACHMENT F (Continued)

The undersigned gives the following assurances with respect to the [HCUP Databases] data set:

- I will not use and will prohibit others from using or disclosing the data set (or any part), except for research, analysis, and aggregate statistical reporting, and only as permitted by this Agreement.

- I will ensure that the data are kept in a secured environment and that only authorized users will have access to the data.

- I will not release or disclose, and will prohibit others from releasing or disclosing, any data that are individually identifiable under the HIPAA Privacy Rule, or any information that identifies persons, directly or indirectly, except as permitted under this Agreement and in accordance with the above-mentioned AHRQ confidentiality statute.

- I will not release or disclose information where the number of observations (i.e., individual discharge records) in any given cell of tabulated data is less than or equal to 10.

- I will not release or disclose, and will prohibit others from releasing or disclosing, the data set (or any part) to any person who is not a member, agent, or contractor of the organization (specified below), except with the approval of AHRQ.

- I will require others employed in my organization (specified below), and any agents or contractors of my organization, who will use or will have access to the data set, to sign a copy of this Agreement (specifically acknowledging their agreement to abide by its terms) and I will submit those signed Agreements to AHRQ or its agent before granting access.

- I will not attempt to link, and will prohibit others from attempting to link, the discharge records of persons in the data set with individually identifiable records from any other source.

- I will not attempt to use and will prohibit others from using the data set to learn the identity of any person included in the data set or to contact any such person for any purpose.

- In accordance with the AHRQ confidentiality statute, I will not use and will prohibit others from using the data set concerning individual establishments (1) for commercial or competitive purposes involving those individual establishments; (2) to determine the rights, benefits, or privileges of individual establishments; or (3) to report, through any medium, data that could identify, directly or by inference, individual establishments.

- When the identities of establishments are not provided in the data sets, I will not attempt to use and will prohibit others from using the data set to learn the identity of any establishment.

- I will not contact and will prohibit others from contacting establishments or persons in the data set to question, verify, or discuss data in the HCUP databases.

- [Nationwide Inpatient Sample users only] I acknowledge that the NIS contains data elements from proprietary restricted computer software (3M APR-DRGs, HSS APS-DRGs, and Medstat Disease Staging) supplied by private vendors to AHRQ for the sole purpose of supporting research and analysis with the NIS. While I may freely use these data elements in my research work using the NIS, I agree that I will not use and will prohibit others from using these proprietary data elements for any commercial purpose. In addition, I will enter into a separate agreement with the appropriate organization or firm for the right to use such proprietary data elements for commercial purposes. In particular, I agree not to disassemble, decompile, or otherwise reverse-engineer the proprietary software, and I will prohibit others from doing so.

Exhibit

ATTACHMENT F (Continued)

- I will indemnify, defend, and hold harmless AHRQ and the data organizations that provide data to AHRQ for HCUP from any or all claims and losses accruing to any person, organization, or other legal entity as a result of violation of this Agreement. This provision applies only to the extent permitted by Federal and State law.

- I will make no statement and will prohibit others from making statements indicating or suggesting that interpretations drawn are those of the data sources or AHRQ.

- [State Databases users only] I will provide an abstract and reference for any published research material resulting from the use of these HCUP State Inpatient Databases (SID), State Ambulatory Surgery Databases (SASD), or State Emergency Department Databases (SEDD) to the HCUP Central Distributor.

- [Nationwide Inpatient Sample users only] I will acknowledge in all reports based on these data that the source of the data is the "Nationwide Inpatient Sample (NIS), Healthcare Cost and Utilization Project (HCUP), Agency for Healthcare Research and Quality."

- [Kids' Inpatient Database users only] I will acknowledge in all reports based on these data that the source of the data is the "Kids' Inpatient Database (KID), Healthcare Cost and Utilization Project (HCUP), Agency for Healthcare Research and Quality."

- [State Database users only] I will acknowledge in all reports based on these data that the source of the data is the specific state(s) or data organization(s) that submitted data to the HCUP…
  - (e.g., "*state name(s)*, State Inpatient Databases (SID), Healthcare Cost and Utilization Project (HCUP), Agency for Healthcare Research and Quality.")
  - Or (e.g., "*state name(s)*, State Emergency Department Databases (SEDD), Healthcare Cost and Utilization Project (HCUP), Agency for Healthcare Research and Quality.")
  - Or (e.g., "*state name(s)*, State Emergency Department Databases (SEDD), Healthcare Cost and Utilization Project (HCUP), Agency for Healthcare Research and Quality.")

Safeguards. I agree to use appropriate safeguards to prevent use or disclosure of the data set other than as permitted by this Agreement.

Permitted Access to Limited Data Set. I shall limit the use or receipt of the data set to the individuals who require access in order to perform activities permitted by this Agreement. This Agreement must be signed by all such individuals and submitted to AHRQ or its agent before access to the data set may be granted.

Re-disclosure. I will not re-disclose (i.e., share) the data set (or any part), unless the individual who will receive the data has agreed in writing to be bound by the same restrictions and conditions that apply to me under this Agreement.

The HIPAA Privacy Rule. I agree not to use or disclose the data set in any manner that would violate the HIPAA Privacy Rule if I were a covered entity under the Privacy Rule.

Agents and Contractors. I shall ensure that any agents, including contractors and subcontractors to whom I provide the data set, agree in writing to be bound by the same restrictions and conditions that apply to me with respect to the limited data set.

Reporting Violations of this Agreement. I agree to report any violations to AHRQ within twenty-four (24) hours of becoming aware of any use or disclosure of the limited data set in violation of this Agreement or applicable law.

Exhibit

ATTACHMENT F (Continued)

Term, Breach, and Termination of this Agreement. This Agreement shall continue in full effect until the data recipient has returned all copies of the data set to AHRQ. Any noncompliance by the data recipient with the terms of this Agreement will be grounds for immediate termination of the Agreement if, at the sole determination of AHRQ, the data recipient knew or should have known of such noncompliance and failed to immediately take reasonable steps to remedy the noncompliance.

Reporting to the United States Department of Health and Human Services. If the data recipient fails to remedy any breach or violation of this Agreement to the satisfaction of AHRQ, and if termination of the Agreement is not feasible, AHRQ shall report the recipient's breach or violation to the Secretary of the United States Department of Health and Human Services, and the recipient agrees that he or she shall not have or make any claims against AHRQ with respect to such report(s).

I understand that this Agreement is requested by the United States Agency for Healthcare Research and Quality to ensure compliance with its statutory confidentiality requirement. My signature indicates my Agreement to comply with the above-stated requirements with the knowledge that any violation of the AHRQ confidentiality statute is subject to a civil penalty of up to $10,000 under 42 U.S.C. 299c-3(d), and that deliberately making a false statement about this or any matter within the jurisdiction of any department or agency of the Federal Government violates 18 U.S.C. 1001 and is punishable by a fine of up to $10,000 or up to five years in prison. Violators of this Agreement may also be subject to penalties under state confidentiality statutes that apply to these data for particular states.

Signed:_____EXHIBIT – NO SIGNATURE REQUIRED _____ Date:_____

Print or Type Name of Data Recipient: _____

Title:_____

Organization: _____

Address:_____

City: _____ State: _____ ZIP Code: _____

Phone Number: _____ Fax: _____

E-mail: _____

The information above is maintained by AHRQ for the purpose of enforcement of this Agreement. This information may also be used by AHRQ to create an HCUP mailing list. The mailing list allows AHRQ to send users information such as notices about the release of new databases and errata when data errors are discovered.

☐ **I do not wish to be included on the HCUP mailing list.**

Note to Purchaser: Shipment of the requested data product will only be made to the person who signs this Agreement, unless special arrangements that safeguard the data are made with AHRQ or its agent.

Agency for Healthcare Research and Quality
Rockville, Maryland
http://www.hcup-us.ahrq.gov/home.jsp
I

Exhibit