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AHRQ Tools and Resources for Better Health Care

Introduction

Health policymakers, health care administrators, employers who purchase health insurance, and clinicians want high-quality, safe health care that is accessible and affordable for Americans. They need current information to develop policies and programs that improve access to health care, help guide consumer choices, ensure accountability, measure the quality of care patients are receiving, help track the costs of health care, and guide clinical decisionmaking. Recognizing these needs, the Agency for Healthcare Research and Quality (AHRQ) has devoted significant funding to the creation of tools and resources that will help meet the needs of the U.S. health care system.

This report briefly describes the tools and resources that AHRQ has made available, such as data sets, assessment and performance measures, clinical care guidelines, and quality measurement indicators. Examples of how these tools and resources are being used by Federal, State, and local governments; private industry; health service providers; hospital associations; and health maintenance organizations to improve health care quality and help consumers make more informed choices are also provided.

Background

Health care decisionmakers require accurate and timely information to be able to identify problems in health care

delivery and develop a strategy to overcome them. State legislators, legislative staff members, and State health agency managers have indicated that reading all of the available health research is challenging simply because of its volume.¹ These policymakers further said that when they need information, they turn to experts and simple, easily understood materials to find their answers.¹ To assess availability of health insurance, access to care, and costs as well as to prevent overuse, underuse, and misuse of health care services, tools must be available to measure patient outcomes and the quality of health care that patients receive.² The tools and resources that AHRQ has developed

Making a Difference

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can help decisionmakers by providing information they can use for comparison and as quality indicators to assess their own performance.

Data resources provide survey information to help track and identify trends in health insurance, health services, hospitalizations, cost, access, and quality of care. AHRQ data resources include:

- **The Medical Expenditure Panel Survey (MEPS)**—A nationwide survey of families and individuals that collects information and helps produce reports containing annual estimates of health status, health insurance coverage, health care use and expenses, and sources of payment for health care services.³ MEPSnet is an online tool that provides instant statistics.⁴
- **The Healthcare Cost and Utilization Project (HCUP)**—A data system consisting of inpatient information collected from over 1,000 hospitals nationwide, State community hospitals, and hospital-affiliated ambulatory surgical care sites.⁵ HCUPnet is an online tool that analyzes statistics on hospital care.⁶ Clinical Classifications Software, created for HCUP, can be used to analyze diagnoses and procedures.^{7,8}
- **HIVnet**—An online tool for service providers, program planners, policymakers, and health services researchers that calculates selected statistics on health services use for HIV-related care.⁹

Assessment tools capture patients' experiences with their health care services. They also evaluate the ability of the Nation's health system to meet the public's health needs. Assessment tools provided by AHRQ include:

- **CAHPS® (formerly known as the Consumer Assessment of Health Plans)**—A set of rigorously tested and standardized questionnaires and reporting formats that can be used to collect and report meaningful and reliable information about the experiences of consumers enrolled in health plans in many health care settings.¹⁰
- **Hospital Bioterrorism Preparedness Tool**—A questionnaire for hospitals developed to assess the capacity of hospitals and health systems to respond to bioterrorism.¹¹

Clinical care tools assist providers in delivering needed health services. AHRQ clinical care tools include:

- **Put Prevention into Practice (PIIP)**—A national program to help improve delivery of appropriate clinical preventive services.¹²
- **The National Guideline Clearinghouse (NGC)**—An online public resource for clinicians, providers, and others that includes detailed information on evidence-based clinical practice guidelines.¹³

Quality measurement tools can be used to assess clinical performance. AHRQ provides access to the following quality measurement tools:

- **Child Health Toolbox**—An online collection of performance measures for child health programs.¹⁴
- **AHRQ Quality Indicators (QIs)**—Online software programs to help hospitals, State and local health agencies, and others screen hospital discharge data for potential problems with the quality of inpatient and ambulatory care.^{15,16}

Links to AHRQ tools and resources on the Internet are shown in Box 1.

Box 1. Links to AHRQ tools on the internet

Data resources—

MEPS: <http://www.meps.ahrq.gov/>

HCUP: <http://www.ahrq.gov/data/hcup/>

HIVnet: <http://www.ahrq.gov/data/hivnet.htm>

Assessment tools—

CAHPS®: <http://www.ahrq.gov/qual/cahpsix.htm>

Hospital bioterrorism preparedness tool:
<http://www.ahrq.gov/about/cpcr/bioterrorism.htm>

Clinical care tools—

PIIP: <http://www.ahrq.gov/clinic/ppipix.htm>

NGC: <http://www.guideline.gov>

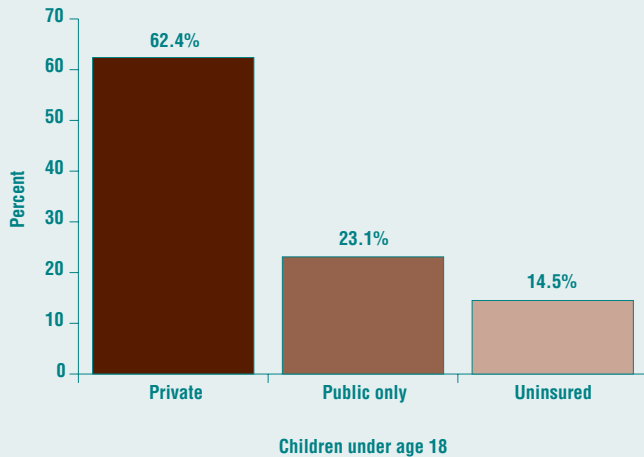
Quality measurement tools—

Child Health Toolbox: <http://www.ahrq.gov/ctoolbx/>

Prevention Quality Indicators:
<http://www.ahrq.gov/data/hcup/prevqi.htm>

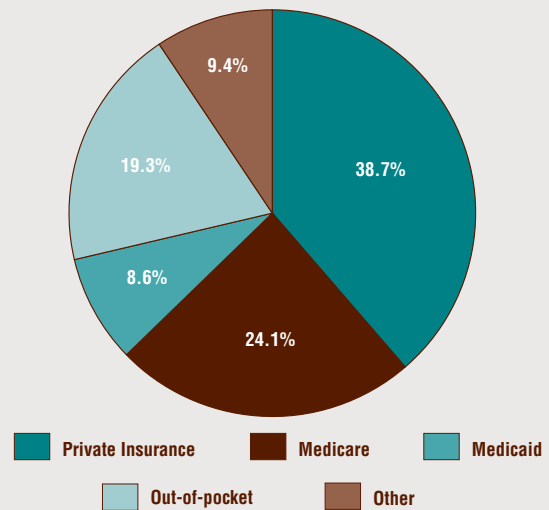
Inpatient Quality Indicators:
<http://www.ahrq.gov/data/hcup/inpatqi.htm>

Figure 1. Health insurance coverage of children under age 18: United States, first half of 2001



Source: Agency for Healthcare Research and Quality. Statistical Brief #4. The uninsured in America – 2001. Rockville (MD); 2002. AHRQ Web site: <<http://www.meps.ahrq.gov/papers/st4/stat04.htm>>. Accessed Sept. 25, 2002.

Figure 2. Medical expenses by source of payment: United States, 1998



Source: Agency for Healthcare Research and Quality. Health care expenses in the U.S. civilian noninstitutionalized population, 1998. Rockville (MD); June 2002. AHRQ Web site: <<http://www.meps.ahrq.gov/compendiumtables/98ch1/compendiumtables.htm>>.

AHRQ data resources and tools

MEPS has information on use of health services

MEPS is designed to provide policymakers, health care administrators, business executives, and others with timely, comprehensive information about health care use and costs in the United States.³ Information is collected either by talking directly with people in households, nursing homes, and hospitals, and with businesses, physicians, and home care providers, or by gathering data from databases. MEPS data provide answers about the specific health services that Americans use, how frequently they use them, the cost of these services, and how they are paid for, as well as data on the cost, scope, and breadth of private health insurance held by and available to the U.S. population. The information collected is organized into three components:

- The Household Component (HC) collects data from a sample of families and individuals across the Nation.
- The Medical Provider Component (MPC) supplements information received from respondents to the MEPS HC

with data from hospitals, physicians, and home health care providers.

- The Insurance Component (IC) consists of detailed information on the health insurance held by and offered to those surveyed in the MEPS HC and a representative sample of business establishments and governments throughout the United States.

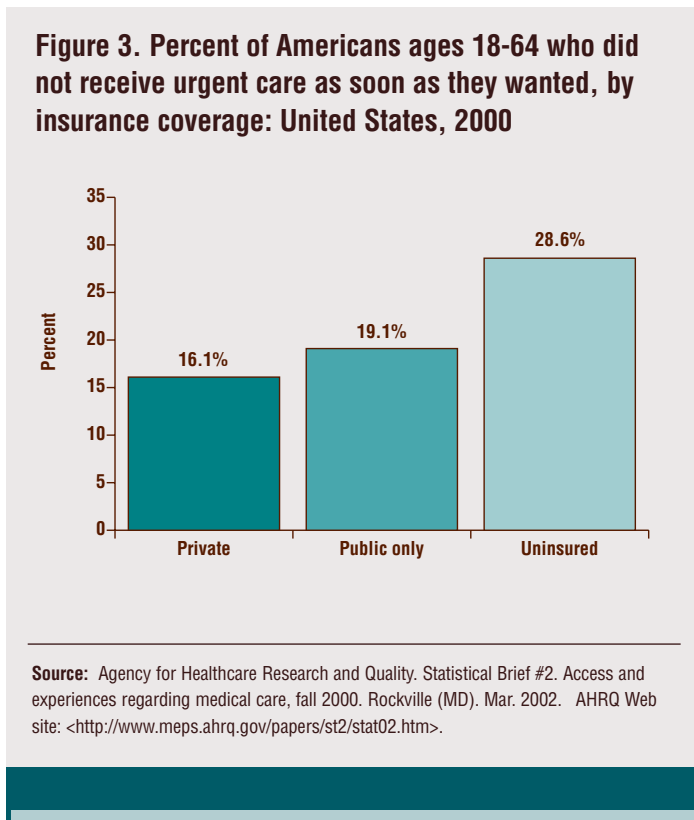
Decisionmakers can compare their experience with national trends using these findings. For example, MEPS HC data show that during the first half of 2001, 23.1 percent of children under age 18 were covered by public health insurance, primarily Medicaid (Figure 1). However, 14.5 percent of children remained uninsured during this time.¹⁷ Data on expenses from the 1998 MEPS HC indicate that most medical expenses were paid for by either private or public insurance (Figure 2).¹⁸

MEPS HC data are very detailed, so data on health services spending and health insurance can be linked to the demographic, employment, economic, health status, and other characteristics of the people who are surveyed.³ It is

the only national survey whose findings can be used to help estimate how changes in sources of payment and insurance coverage impact different people, such as the poor, elderly, families, veterans, the uninsured, and racial and ethnic minorities.³ While the MEPS HC can provide this information only on a national level, not at the State level, decisionmakers can use national estimates to evaluate how local communities compare with the Nation as a whole and identify areas that are doing well, along with those areas that need improvement.

MEPS can also help evaluate Americans' experiences with health care based on questions taken from CAHPS®. For instance, MEPS respondents were asked CAHPS®-based questions about the timeliness of the urgent and routine medical care they received. People without insurance were more likely than those with coverage to report that they sometimes or never received urgent care as soon as they wanted (Figure 3).

The MEPS Insurance Component uses the health insurance information gathered from people in the Household Component and interviews their employers and union officials about that health insurance, and it also interviews a sample of employers nationwide.³ Specifically, the



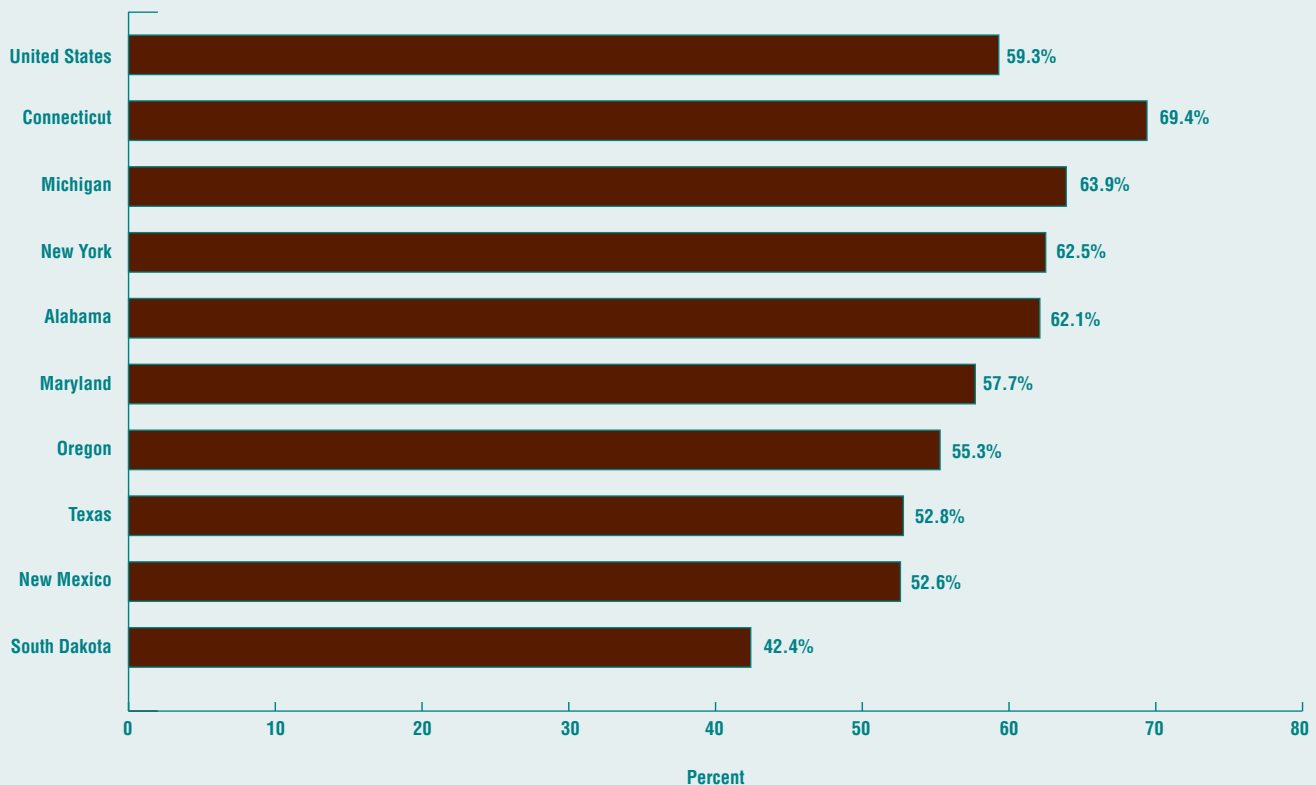
MEPS IC collects information on the amount, types, and costs of health insurance available to Americans at their work places.³ This information is available at the State level for all 50 States. For example, MEPS IC data for 2000 show that nearly 60 percent of private-sector establishments in the United States offer health insurance (Figure 4). However, the percent of private employers varies widely among States, from Connecticut at 69.4 percent to South Dakota at 42.4 percent.¹⁹

MEPSnet is an online tool that allows anyone to get MEPS statistics immediately. MEPSnet/HC currently provides access to 1997 and 1998 information on family composition, geographic and demographic variables, income and tax filing, employment, health insurance, health status, health care use, expenditures, and sources of payment. MEPSnet/IC provides easy access to national statistics and trends about health insurance offered by private employers and State and local governments for 1996 through 2000.³

MEPS data have been used by government, private, and public organizations

- MEPS 1996 data on medical conditions were used to help formulate recommendations of the 2001 Institute of Medicine Report, *Crossing the Quality Chasm: A New Health System for the 21st Century*.²⁰
- In 2001, the Heritage Foundation in Washington, DC, sought MEPS data on employer-based health insurance relevant to the Patients' Bill of Rights legislation being debated on Capitol Hill.
- Since the second quarter of 2000, the U.S. Commerce Department's Bureau of Economic Analysis has used the MEPS IC in its estimate of the Gross Domestic Product (GDP). The Commerce Department also used the MEPS IC in its revisions of GDP estimates from 1997 through the first quarter of 2000.
- From March to June 2001, AHRQ's Center for Cost and Financing Studies responded to requests from the Council of Economic Advisors, the Treasury Department, and the Congressional Budget Office regarding information from the 1996 MEPS on individual premiums. These requests stemmed from proposals in the 107th Congress intended to reduce the number of uninsured people by offering tax credits to subsidize health insurance premiums.

Figure 4. Percent of private-sector establishments that offer health insurance by selected States: United States, 2000



Source: Agency for Healthcare Research and Quality. 2000 Medical Expenditure Panel Survey—Insurance Component. Table II.A.2(2000) Percent of private-sector establishments that offer health insurance by firm size and State: United States, 2000. Rockville (MD). AHRQ Web site: <<http://www.meps.ahrq.gov/mepsdata/ic/2000/index200.htm>>. Accessed Sept. 25, 2002.

- In October 2000, 19 State government agencies joined together to place a special data request for employer data from the MEPS IC. The request was part of an Institute for Health Policy Solutions project to work with States interested in coordinating public subsidies with private coverage on behalf of low-income children, workers, and families (for example, under State Children’s Health Insurance Programs, or SCHIP).

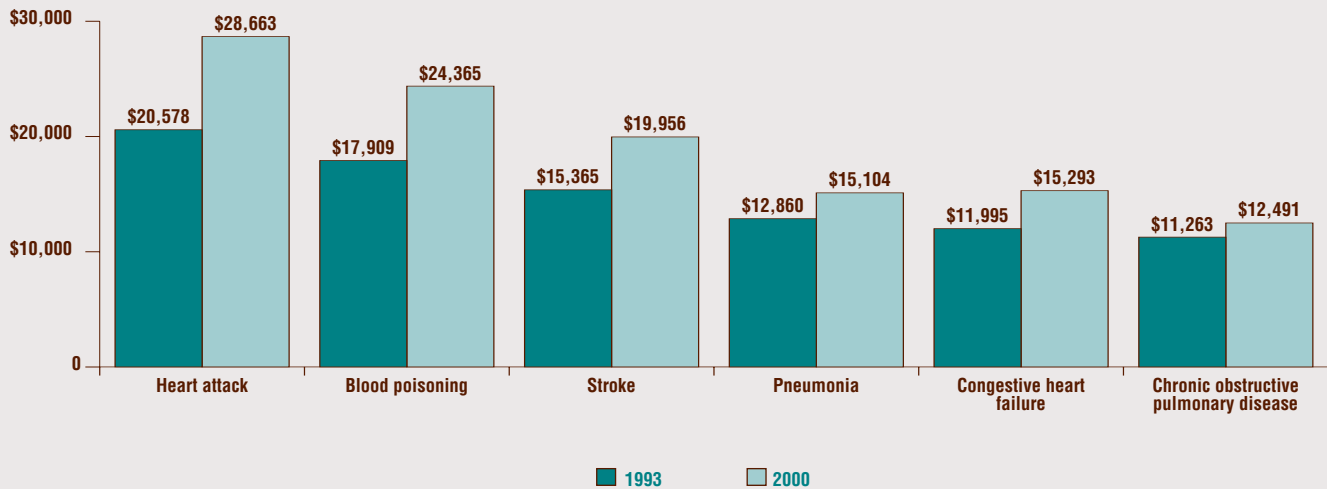
HCUP provides data about hospitalizations

HCUP can be used to examine hospital use, access to care, charges, quality, and outcomes for diseases and hospital procedures, and to study the care furnished to population subgroups such as minorities, children, women, and the

uninsured. HCUP data come from AHRQ-funded databases: the Nationwide Inpatient Sample (NIS), the State Inpatient Databases (SID), the State Ambulatory Surgery Databases (SASD), and the Kids’ Inpatient Database (KID). Researchers and policymakers use HCUP data to identify, track, analyze, and compare hospital statistics at the national, regional, and State levels.⁵ For example, for some common conditions, hospitalization charges increased between 1993 and 2000 but the average length of stay decreased (Figures 5 and 6).²¹

HCUPnet is an online interactive tool that can be used to identify, track, analyze, and compare statistics on hospital care at the national level as well as for selected States. Users can conduct analyses on outcomes and measures of specific conditions, including length of stay, total hospital

Figure 5. Average hospital charge per patient: United States



Source: Agency for Healthcare Research and Quality. AHRQ data show rising hospital charges, falling hospital stays. Press release. Sept. 18, 2002. AHRQ Web site: <<http://www.ahrq.gov/news/press/pr2002/rishospr.htm>>.

charges, in-hospital deaths, and discharge status. These can then be compared with data on patients by age, sex, primary payer and income, and on types of hospitals.⁶

Clinical Classifications Software (CCS) is a tool developed for HCUP data that clusters patient diagnoses and procedures into a manageable number of clinically meaningful categories. CCS collapses diagnosis and procedure codes from the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM), and the International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10). CCS is used for grouping conditions and procedures without having to wade through thousands of codes. This “clinical grouper” makes it easier to quickly understand patterns of diagnoses and procedures so that health plans, policymakers, and researchers can analyze costs, utilization, and outcomes associated with particular illnesses and procedures.^{7,8}

HCUP and CCS measure the quality of health care delivered by providers

- The Oklahoma Department of Health’s Healthcare Information Division used the Nationwide Inpatient Sample and the Clinical Classifications Software to

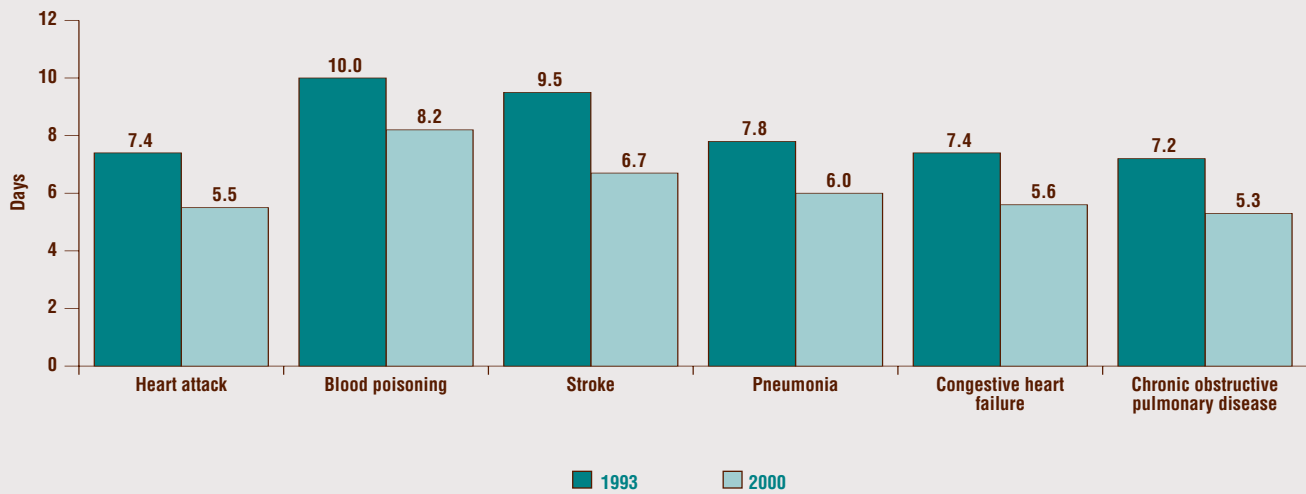
develop a comprehensive annual report of hospital admissions in the State and to make comparisons with national figures. The data have prompted the development of several prevention campaigns aimed at encouraging seniors to get their flu and pneumonia vaccines.

- Insurers use CCS to develop clinically based utilization profiles. For example, one insurer integrated CCS into inhouse software that develops profiles of patient populations and purchasers.
- Researchers use CCS in risk-adjustment models and as a way to predict future health resource use. Investigators in one study found that categorizing patients using CCS predicted over 40 percent of the subsequent year’s medical expenses.

HIVnet has statistics on HIV-related medical care

HIVnet is an online tool that provides information on inpatient and outpatient use by people with HIV disease. HIVnet provides easy access to selected statistics on patterns of HIV-related care based on data collected by the HIV Research Network. The HIV Research Network obtains, analyzes, and disseminates current information on

Figure 6. Average hospital stay: United States



Source: Agency for Healthcare Research and Quality. AHRQ data show rising hospital charges, falling hospital stays. Press release. Sept. 18, 2002. AHRQ Web site: <<http://www.ahrq.gov/news/press/pr2002/rishospr.htm>>.

the delivery of services to people with HIV infection. It presently includes 18 medical practices located across the United States that treat more than 14,000 patients. Each practice collects information on clinical and demographic characteristics, medications prescribed, frequency of outpatient clinic visits, and number of inpatient admissions for each patient with HIV infection.⁹

AHRQ cosponsors the HIV Research Network with other Federal agencies: the Center for Substance Abuse Treatment in the Substance Abuse and Mental Health Services Administration, the HIV/AIDS Bureau in the Health Resources and Services Administration, and the Office of AIDS Research in the Office of the Director of the National Institutes of Health.⁹

AHRQ assessment tools

CAHPS® assesses consumers' experiences with health services

CAHPS® is a family of rigorously tested and standardized questionnaires and reporting formats that can be used to collect and report meaningful and reliable information about the experiences of consumers with a variety of health

services. The goal of CAHPS® is for consumers to use its data to make informed decisions about their health care services. Supplemental questions have been added to a core set of items to address specific populations such as Medicaid recipients, Medicare beneficiaries, people with chronic conditions, and children with special health care needs, as well as particular health care services such as prescriptions and transportation. The latest version, the CAHPS® 3.0 Survey and Reporting Kit, contains a set of questions that ask consumers about their experiences with their health plans, sample formats for reporting results to consumers, software to assist in data analysis, and guidance and instructions. The questionnaires are in both English and Spanish.¹⁰

Examples of questions include:

- Since you joined your health plan, how much of a problem, if any, was it to get a personal doctor or nurse you are happy with?
- In the last 12 months, how much of a problem, if any, was it to see a specialist that you needed to see?
- In the last 12 months, when you called during regular office hours, how often did you get the help or advice you needed?

To receive copies of the survey instruments and reporting tools or for guidance in implementation, please contact the CAHPS® Helpline at 1-800-492-9261 or e-mail cahps1@westat.com.

CAHPS® is used to monitor the quality of health plans

- In 1999, the U.S. Office of Personnel Management adopted CAHPS® for use by the Federal Employees Health Benefits Program to survey Federal employees. The results are reported to 9 million Federal employees and their dependents in an annual guide to help them choose health plans.
- CAHPS® also was adopted into the Health Plan Employer Data and Information Set (HEDIS®), which is used to evaluate and accredit managed care plans. HEDIS® is sponsored by the National Committee for Quality Assurance, and measures clinical services and use such as preventive care, cancer screening, prenatal care, mental health, and access to care.²²
- The Centers for Medicare & Medicaid Services (CMS) (formerly the Health Care Financing Administration) has used a specially developed version of CAHPS® to survey 130,000 Medicare enrollees in managed care plans. The results of the Medicare survey were released in February 1999 to help CMS's 39 million beneficiaries select a health plan.
- State health departments in 34 States have used CAHPS® to assess member satisfaction with their health care.

Bioterrorism preparedness tool gauges health system capabilities

The hospital bioterrorism preparedness tool helps assess the current capacity of hospitals and health systems to respond to a bioterrorist attack, in particular the capacity of existing hospital and public health systems to communicate and to develop an effective medical response to a bioterrorist threat. The methodology for assessing regional medical capacity and plans involves use of the data collection tool, model criteria, and a simulation and analysis model. The Bioterrorism Emergency Planning and Preparedness Questionnaire for Healthcare Facilities is available in both

PDF and text format. Examples of questions asked include:

- Does your hospital's emergency preparedness plan address mass casualty incidents involving biological agents?
- Does your hospital have a coordinator designated to oversee all preparedness efforts as they relate to your hospital's bioterrorism preparedness efforts?
- Does your hospital experience problems staffing your emergency department, general medical, pediatrics, and surgical floors with nurses employed by the hospital?¹¹

The methodology could be further refined in a larger study and pilot tested in a region to identify additional needs and requirements. Once completed, this methodology could be used by city and State planners to assess medical capacity and the adequacy of emergency medical response plans. Developing this standardized approach would help State planners better communicate medical resource needs for a bioterrorist event or other mass casualty event.¹¹

AHRQ clinical care tools

PPIP helps clinicians and patients practice prevention

Put Prevention Into Practice (PPIP) is a program sponsored by AHRQ to increase the appropriate use of clinical preventive services, such as screening tests, immunizations, chemoprevention, and counseling.²³ PPIP is derived from the evidence-based recommendations of the U.S. Preventive Services Task Force. New and updated Task Force recommendations and important evidence reviews are available in two convenient three-ring binders and on the AHRQ Web site. PPIP tools enable health care providers to determine which services their patients should receive and provide guidance on setting up a system to facilitate their delivery. PPIP patient materials make it easier for patients to understand and keep track of their preventive care.^{12,23} PPIP materials include:

- *The Clinician's Handbook of Preventive Services*, second edition. This is both a reference tool and a practical guide to delivering clinical preventive services in a variety of settings.²³
- *A Step-by-Step Guide to Delivering Clinical Preventive Services: A Systems Approach*. This new Guide describes steps to help office staff and clinicians

implement a formal system for delivering clinical preventive services. Chapters explain how to establish a process, assess current practice and readiness, develop a protocol, and evaluate the system. The Guide provides easy-to-follow steps, encourages teamwork, and is adaptable to all practice settings.²⁴

- The *Guide* also includes health risk profiles, preventive care flow sheets, and waiting room and prevention timeline posters.²³
- Pocket-sized guides for patients and the general public, including the *Personal* and *Child Health Guides* and *Staying Healthy at 50+* (all available in English and Spanish).²³
- Other prevention products include reminder postcards and brief, easy-to-read summaries of recent Task Force recommendations entitled *What's New from the U.S. Preventive Services Task Force*.²³

PPIP has been used by clinicians and health systems

- In 1994, the Texas Department of Health (TDH) established support systems throughout the State to encourage the implementation of PPIP. TDH also provided startup funds to primary care sites statewide. Specially trained registered nurses are stationed around the State to provide one-on-one instruction in the use of materials and PPIP implementation. In addition, TDH developed companion pieces, including a 20-item comprehensive health risk assessment, a 10-item targeted risk assessment, and a self-administered risk assessment.
- PPIP tools are part of the STEP-UP (Study To Enhance Prevention by Understanding Practice) clinical trial. STEP-UP, launched in 1997, involves 80 family practices and clinics across Northeast Ohio in urban, rural, and suburban areas. This study evaluates a preventive service delivery intervention that is tailored to the unique characteristics of each practice. PPIP materials included in the STEP-UP manual include adult and child preventive care flow sheets, child immunization flow sheets, posters, and patient reminder postcards.
- The U.S. Air Force adopted the PPIP materials in 1995 and continues active use of the *Clinician's Handbook*, *Personal Health Guide*, *Child Health*

Guide, and posters to help stimulate discussions between clients and providers about preventive care. The timeline posters are displayed in the examining rooms of 84 family practice clinics. The Air Force also uses the adult and child health guides as teaching tools and as vehicles to encourage patients to be active participants in their own preventive care by keeping track of services received and future preventive care needs.²⁵

The NGC provides access to clinical guidelines

The National Guideline Clearinghouse™, sponsored by AHRQ in partnership with the American Medical Association and the American Association of Health Plans, is an online database of evidence-based clinical practice guidelines. The NGC contained 200 guidelines when it was launched in December 1998. Since then, the content of the NGC has grown to over 1,000 clinical practice guidelines submitted by more than 165 health care organizations and other entities in the United States and other countries. Its key components include:

- Summaries of guideline recommendations and development.
- Side-by-side comparison of two or more guidelines.
- Syntheses of guidelines covering similar topics.
- Links to full-text guidelines.
- E-mail notification of new and updated guidelines.
- Annotated bibliographies on guideline development methodology, evaluation, implementation, and structure.¹³

Clinical practice guidelines included in the NGC meet the following criteria:

- The clinical practice guideline meets the Institute of Medicine's definition of a clinical practice guideline: systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances.^{26,27}
- It was produced under the auspices of medical specialty associations; relevant professional societies; public or private organizations; government agencies at the Federal, State, or local level; or health care organizations or plans.²⁶

- A systematic literature search and review of existing scientific evidence published in peer-reviewed journals was performed during guideline development.²⁶
- The guideline is current and the most recent version produced. The guideline was developed, reviewed, or revised within the last 5 years.²⁶

The NGC has been used by clinicians, medical schools, and health systems

- Georgetown University's Department of Family Medicine uses the NGC and the U.S. Preventive Services Task Force materials as part of the training students receive in family medicine. The Web-based reference (<http://www.family.georgetown.edu/webref/>) is used in conjunction with live classroom instruction and also used by students before, during, and after class to prepare or follow up on discussion.
- The University of Michigan Health System (UMHS) in Ann Arbor has developed a program entitled Guidelines Utilization, Implementation, Development and Evaluation Studies (GUIDES). Now in its sixth year, UMHS has 10 of its guidelines in the NGC. The NGC is especially valuable in disseminating UMHS work to other institutions and is used by medical librarians, students, and physicians to search for existing guidelines on new topics.

AHRQ quality measurement tools

The Child Health Toolbox helps measure quality

Because children's health care needs are different from those of adults, AHRQ has collected various measurement sets to assess the performance of child health programs and has made them accessible in its Child Health Toolbox. This online resource can help State and local policymakers, program directors, and staff develop plans that reliably measure the performance of child health programs, such as whether children are receiving quality health care and whether a health program is functioning effectively. Specifically, this Web site has access to tools and information on how to measure performance, access, quality, and health service delivery, as well as concepts, tips, and tools for evaluating Medicaid, the State Children's Health Insurance Program (SCHIP), Title V, and other health care service programs for children. Information

about how to develop performance guidelines can also be found at this site.¹⁴

The NQMC will expand access to quality measures

AHRQ is sponsoring the development of the Internet-based National Quality Measures Clearinghouse™ (NQMC) to promote widespread access to quality measures. This resource of health quality measures significantly enhances, updates, and essentially replaces AHRQ's Computerized Needs-oriented Quality Measurement Evaluation System (CONQUEST), an earlier database of performance measures. The NQMC will use the Internet to effectively and efficiently reach a broad audience within the health care community. The database will help practitioners and organizations quickly identify and access quality measures. The NQMC Web site is expected to be available by winter 2002. Summaries of quality measures will be retrievable by many parameters, including topic, target population, and setting of care. NQMC users will be able to search the NQMC and the NGC simultaneously.²⁸

AHRQ Quality Indicators will improve hospital care

AHRQ is developing three sets of Quality Indicators (QIs) to identify specific areas where problems may exist in a hospital: prevention, inpatient care, and patient safety. These indicators use hospital inpatient administrative data to measure health care quality. Program managers, researchers, and other health care decisionmakers can use the AHRQ QI software and user's guide to help them apply the QIs to their own data. The QIs can identify areas that need further study and investigation and can track changes over time.¹⁵

The Prevention QIs are a set of measures that can identify ambulatory-care-sensitive conditions. These are conditions for which good outpatient care might prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease. Such conditions include bacterial pneumonia, urinary tract infections, congestive heart failure, and asthma.¹⁶

Inpatient QIs reflect the quality of care inside hospitals and include:

- Inpatient mortality for 13 medical conditions.
- Inpatient mortality for 9 procedures.
- Utilization rates of procedures for which there are questions of overuse, underuse, or misuse.

- Volume of procedures for which there is evidence that a higher volume of procedures is associated with lower mortality.¹⁵

The Inpatient QI software contains information at the hospital and area levels. Hospitals can use these data to identify questionable use of procedures to investigate quality problems and make improvements.²⁹

Patient Safety QIs also reflect quality of care inside hospitals but focus on surgical complications, adverse events, infections acquired in the hospital, and other problems that may result from medical treatment. This module is currently under development by the University of California at San Francisco-Stanford Evidence-based Practice Center and will become available in winter 2002.¹⁵

Conclusion

AHRQ has supported the development of a wide variety of tools and resources to provide accurate, timely, and relevant information on the status of health services. Federal and State agencies, legislators, clinicians, health plan administrators, employers, and universities use these tools and resources to make decisions, inform the public, educate health care professionals, and identify areas where health care services can be improved. By providing these tools, AHRQ has helped enhance the quality of health care and contributed to efforts to improve patient safety.

For more information

For further information on AHRQ tools and resources, contact:

- MEPS, Center for Cost and Financing Studies, (301) 594-1400, e-mail: mepsd@ahrq.gov
- HCUP, Center for Organization and Delivery Studies, (301) 594-1410, e-mail: hcup@ahrq.gov
- HIVnet, John Fleishman, Ph.D., (301) 594-2007, e-mail: jfleishm@ahrq.gov
- CAHPS®, Christine Crofton, Ph.D., (301) 594-2003, or Charles Darby, M.A., (301) 594-2050, e-mail: cahps@ahrq.gov
- Bioterrorism, Center for Primary Care Research, (301) 594-1357, e-mail: info@ahrq.gov
- PPIP, Hazel Keimowitz, M.A., (301) 594-6393, e-mail: hkeimowi@ahrq.gov
- NGC, Jean R. Slutsky, P.A., M.S.P.H., (301) 594-4042, e-mail: info@guideline.gov
- Child Health Toolbox, Denise M. Dougherty, Ph.D., (301) 594-2051, e-mail: ddougher@ahrq.gov
- Quality Indicators, e-mail: support@qualityindicators.ahrq.gov

References

1. Sorian R, Baugh T. Power of information: closing the gap between research and policy. *Health Aff* 2002;21(2):264-73.
- *2. Eisenberg JM, Power EJ. Transforming insurance coverage into quality health care. *JAMA* 2000; 284(16):2100-7.
- *3. Agency for Healthcare Research and Quality. Overview of the Medical Expenditure Panel Survey. AHRQ Web site: <<http://meps.ahrq.gov/whatis/meps/overview.htm>>. Accessed May 17, 2002.
- *4. Agency for Healthcare Research and Quality. MEPSnet. AHRQ Web site: <<http://www.meps.ahrq.gov/mepsnet/mepsnetintro.htm>>. Accessed May 17, 2002.
- *5. Agency for Healthcare Research and Quality. HCUP: multi-State administrative data system and software tools. Fact Sheet. Rockville (MD); Jan 2000. AHRQ Pub. No. 00-P021. Also available on AHRQ Web site: <<http://www.ahrq.gov/data/hcup/multstat.htm>>. Accessed June 10, 2002.
- *6. Agency for Healthcare Research and Quality. Welcome to HCUPnet. AHRQ Web site: <<http://www.ahrq.gov/data/hcup/qifact.htm>>. Accessed May 17, 2002.
- *7. Agency for Healthcare Research and Quality. Clinical Classifications Software. Fact Sheet. Rockville (MD); Jan 2000. AHRQ Pub. No. 00-P019. Also available on AHRQ Web site: <<http://www.ahrq.gov/data/hcup/ccsfact.htm>>. Accessed Sept 30, 2002.
- *8. Agency for Healthcare Research and Quality. Clinical Classifications Software (ICD-10) summary and download . AHRQ Web site: <<http://www.ahrq.gov/data/hcup/ccsicd10.htm>>. Accessed Sept 30, 2002.
- *9. Agency for Healthcare Research and Quality. Welcome to HIVnet. AHRQ Web site: <<http://www.ahrq.gov/data/hivnet.htm>>. Accessed July 26, 2002.
- *10. Agency for Healthcare Research and Quality. Consumer Assessment of Health Plans (CAHPS®). Fact Sheet. Rockville, MD; April 2000. AHRQ Pub. No. 00-P047. Also available on AHRQ Web site: <<http://www.ahrq.gov/qual/cahpfact.htm>>. Accessed May 17, 2002.
- *11. Agency for Healthcare Research and Quality. Understanding needs for health system preparedness and capacity for bioterrorist attacks. AHRQ Web site: <<http://www.ahrq.gov/about/cpcr/bioterrorism.htm>>. Accessed Sept 25, 2002.
- *12. Agency for Healthcare Research and Quality. About PPIP. AHRQ Web site: <<http://www.ahrq.gov/ppip/ppipabou.htm>>. Accessed Sept 11, 2002.
- *13. The National Guideline Clearinghouse™ (NGC) Web site: <<http://www.guideline.gov>>. Accessed May 17, 2002.
- *14. Agency for Healthcare Research and Quality. Child Health Toolbox. AHRQ Web site: <<http://www.ahrq.gov/chtoolbox/>>. Accessed May 17, 2002.
- *15. Agency for Healthcare Research and Quality. AHRQ Quality Indicators. AHRQ Web site: <<http://www.ahrq.gov/data/hcup/qinext.htm>>. Accessed May 17, 2002.
- *16. Agency for Healthcare Research and Quality. Prevention Quality Indicators, Version 2.1. AHRQ Web site: <<http://www.qualityindicators.ahrq.gov/data/hcup/prevqi.htm>>. Accessed May 17, 2002.
- *17. Rhoades J. Statistical Brief #4. The uninsured in America—2001. Rockville (MD): Agency for Healthcare Research and Quality; 2002. AHRQ Web site: <<http://www.meps.ahrq.gov/papers/st4/stat04.htm>>. Accessed Sept 25, 2002.
- *18. Agency for Healthcare Research and Quality. Table 1. Total health services—median and mean expenses per person with expense and distribution of expenses by source of payment: United States, 1998. AHRQ Web site: <<http://www.meps.ahrq.gov/compendiumtables/98ch1/compendiumtables.htm>>. Accessed Oct 7, 2002.
- *19. Agency for Healthcare Research and Quality. 2000 Medical Expenditure Panel Survey—Insurance Component. Table II.A.2(2000) Percent of private-sector establishments that offer health insurance by firm size and State: United States, 2000. AHRQ Web site: <<http://www.meps.ahrq.gov/mepsdata/ic/2000/index200.htm>>. Accessed Sept 25, 2002.
20. Institute of Medicine. Crossing the quality chasm: a new health system for the 21st Century. National Academy Press. Washington (DC); 2001. Web site: <<http://www.nap.edu/books/0309072808/html/>>. Accessed Sept 30, 2002.

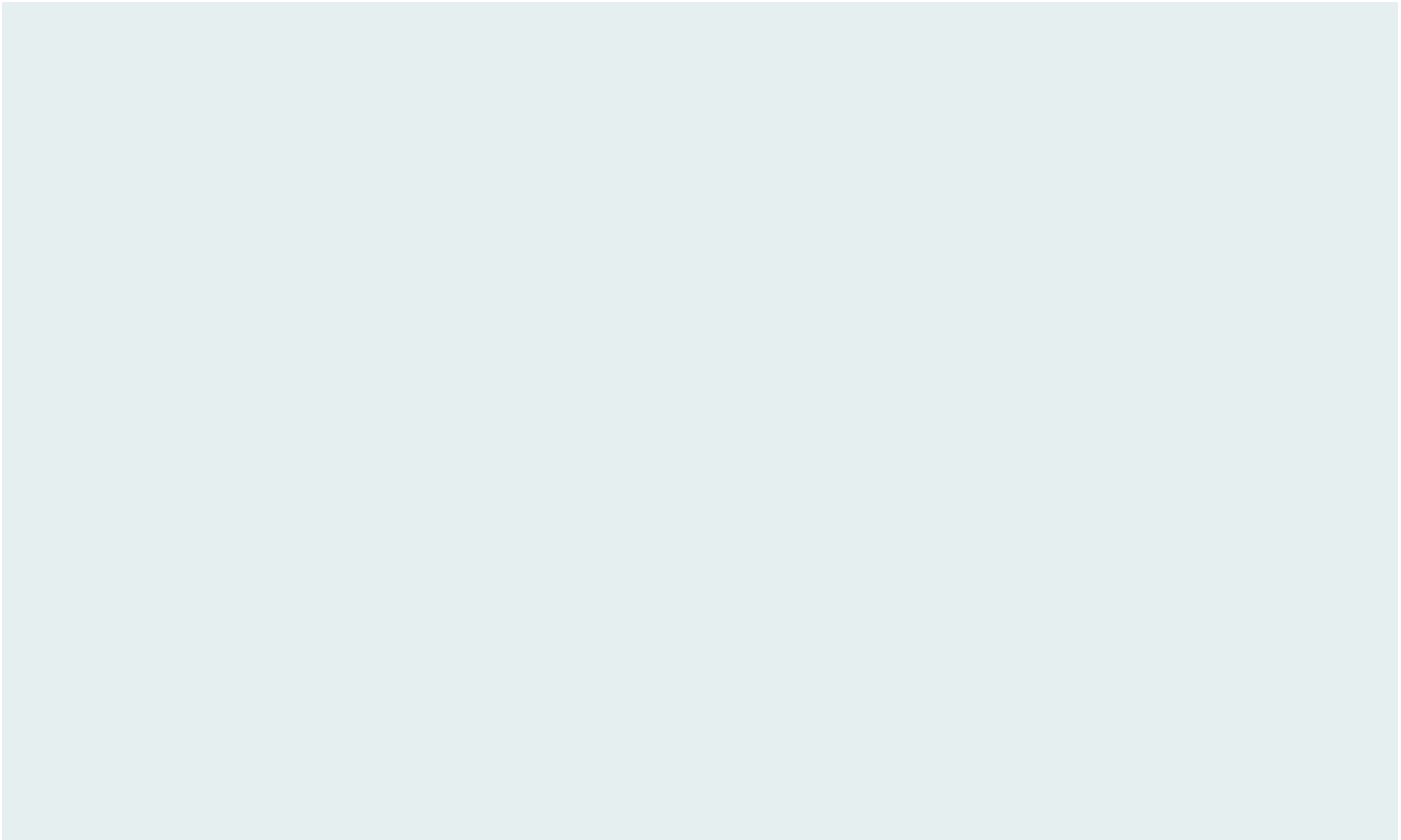
**AHRQ-funded/sponsored research*

- *21. Agency for Healthcare Research and Quality. AHRQ data show rising hospital charges, falling hospital stays [press release]. Sept 18, 2002. AHRQ Web site: <<http://www.ahrq.gov/news/press/pr2002/rishospr.htm>>. Accessed Sept 25, 2002.
22. National Committee for Quality Assurance. The Health Plan Employer Data and Information Set (HEDIS®). NCQA Web site: <<http://www.ncqa.org/programs/hedis/index.htm>>. Accessed June 10, 2002.
- *23. Agency for Healthcare Research and Quality. Partners in Prevention. Rockville (MD); March 2001. AHRQ Pub. No. APPIP 01-0008. Also available on AHRQ Web site: <<http://www.ahrq.gov/clinic/prev/partners.htm>>. Accessed Sept 11, 2002.
- *24. Agency for Healthcare Research and Quality. 10 steps: implementation guide. Rockville, (MD); 1998. AHRQ Pub. No. APPIP 98-0025. Also available on AHRQ Web site: <<http://www.ahrq.gov/ppip/impsteps.htm>>. Accessed Sept 11, 2002.
- *25. Agency for Healthcare Research and Quality. PPIP in practice: case studies. AHRQ Web site: <<http://www.ahrq.gov/ppip/ppipcase.htm>>. Accessed Sept 11, 2002.
- *26. National Guideline Clearinghouse™. Inclusion criteria. Web site: <<http://www.guideline.gov/static/about.inclusion.asp?view=about.inclusion>>. Accessed June 3, 2002.
27. Institute of Medicine. Clinical practice guidelines: directions for a new program. Field MJ, Lohr KN (eds). Washington (DC): National Academy Press, 1990, page 38.
- *28. Agency for Healthcare Research and Quality. Electronic Newsletter. 2001 Oct 26; 36. AHRQ Web site: <<http://www.ahrq.gov/news/enews/enews36.htm>>. Accessed June 19, 2002.
- *29. Agency for Healthcare Research and Quality. Hospitals get new software tool to improve clinical care [press release]. July 18, 2002. AHRQ Web site: <<http://www.ahrq.gov/news/press/pr2002/inptqipr.htm>>. Accessed July 24, 2002.

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