



# Research Activities



U.S. Department of Health and Human Services • No. 279, November 2003

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## Fewer antibiotics are being prescribed for U.S. children

After decades of being on the rise, antibiotic use by American children fell by almost 25 percent from 1996 to 2000, according to a new study supported by the Agency for Healthcare Research and Quality (HS10391). More than half of the decrease came from a drop in antibiotics prescribed for childhood ear infections. Attention to the link between antibiotic resistance and antibiotic overprescribing by public health and professional groups and the news media may have contributed to this decline in antibiotic prescribing, explains Jonathan A. Finkelstein, M.D., M.P.H., of Harvard Medical School.

In this study, Dr. Finkelstein and his colleagues analyzed claims data for dispensed medication and physician visits from nine health maintenance organizations (HMOs), which are part of the HMO Research Network. The Network is one of seven Centers for Education and Research on Therapeutics (CERTs) supported by AHRQ. Each HMO provided data on 25,000 children aged 3 months up to 18 years enrolled between September 1, 1995 and August 31, 2000. The researchers linked antibiotic prescriptions with

diagnoses made during outpatient visits and calculated the contribution of each diagnosis to changes in the overall rate of antibiotic use.

From 1996 to 2000, rates of antibiotic use for children 3 months to less than 3 years decreased from 2.46 to 1.89 antibiotics (24 percent); for children 3 years to less than 6 years from 1.47 to 1.09 antibiotics (25 percent); and for children 6 to 18 years from 0.85 to 0.69 antibiotics (16 percent). In the youngest age group, a drop in antibiotic prescriptions for ear infections accounted for 59 percent of the total decrease. Fewer antibiotic prescriptions for cold/upper respiratory infection accounted for 8 percent of the decline; pharyngitis, 6 percent; sinusitis, 3 percent; and bronchitis, 4 percent. Also, use of first-line penicillin for antibiotic prescribing, as recommended by national guidelines, increased from 49 to 53 percent.

More details are in "Reduction in antibiotic use among U.S. children, 1996-2000," by Dr. Finkelstein, Christopher Stille, M.D., M.P.H., James Nordin, M.D., M.P.H., and others, in the September 2003 *Pediatrics* 112(3), pp. 620-627. ■

## Giving disadvantaged inner-city adults systemic corticosteroids after ED treatment for acute asthma may prevent relapses

**D**isadvantaged inner-city adults with poorly controlled asthma often end up in the emergency department (ED) or are hospitalized for acute asthma episodes. These same adults are prone to relapse for weeks following acute asthma treatment, which can lead to another hospital visit. A short course of oral corticosteroids (for example, prednisone) following ED treatment for an acute asthma episode may prevent these relapses, according to a recent study that was supported by the Agency for Healthcare Research and Quality (HS09461).

Yvonne M. Coyle, M.D., of the University of Texas Southwestern Medical Center, and her colleagues followed a group of 309 adults. Most of the subjects were black or

Hispanic and had been discharged from a public hospital ED following acute asthma care between 1997 and 1999. The researchers identified which care processes were effective for improving peak expiratory flow rate (PEFR, strength of expiration, a key indicator of lung function in people with asthma) 2 to 3 weeks after ED discharge. After adjusting for known patient risk factors for lower PEFR (for example, smoking, upper respiratory tract infection in the past month, and indoor allergen exposure), they assessed the association between recommended acute asthma care processes (inhaled beta-agonists, inhaled corticosteroids, systemic corticosteroids, asthma care followup, and patient asthma education) and PEFR change

between baseline (when they received acute asthma care) and followup.

Only the appropriate use of systemic corticosteroids at ED discharge had a significant effect on increasing the percentage change in PEFR at the 2- to 3-week followup. However, the appropriate use of all processes of acute asthma care was positively associated with an increase in the percentage change in PEFR.

More details are in “Effectiveness of acute asthma care among inner-city adults,” by Dr. Coyle, Corinne C. Aragaki, Ph.D., Linda S. Hynan, Ph.D., and others, in the July 14, 2003 *Archives of Internal Medicine* 163, pp. 1591-1596. ■

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AHRQ  
Office of Communications and Knowledge  
Transfer  
540 Gaither Road  
Rockville, MD 20850  
(301) 427-1360  
Mary L. Grady, Managing Editor  
Gail Makulowich, Contributing Editor  
Joel Boches, Design and Production  
Karen Migdail, Media Inquiries

## Use of antidepressants for elderly primary care patients has increased markedly

**B**y some estimates, as many as one-sixth of elderly Americans suffer from clinical depression. Elderly patients are more likely than younger ones to feel the stigma of depression, report fatigue and other somatic symptoms instead of psychological ones, and prefer treatment by their primary care physicians (PCPs). In fact, primary care prescribing of antidepressants for elderly patients increased markedly between 1985 and 1999, according to a study supported by the Agency for Healthcare Research and Quality (HS09566).

This was probably due to a combination of factors, says Stephen Crystal, Ph.D., of Rutgers University. These include: introduction of a new class of antidepressants in 1988—the selective serotonin reuptake inhibitors (SSRIs)—which have fewer side-effects than earlier antidepressants; increased recognition of depression by PCPs; and financial

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## Antidepressants

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incentives leading to more reliance on antidepressants instead of more costly psychotherapy. Dr. Crystal and his colleagues used data from the National Ambulatory Medical Care Survey, a nationally representative annual survey of visits to physicians in office-based practices, to examine changes from 1985 to 1999 in diagnosis of depression and prescription of antidepressant medications during visits by elderly patients to PCPs, psychiatrists, and other specialists.

The majority of depression visits and visits where an antidepressant was prescribed were to PCPs in all time periods examined. Prescribing of antidepressants more than doubled between 1985 and 1998-1999

(from 2.4 percent of visits to 4.9 percent), with PCPs increasing their use of antidepressants from 3 percent to 6.3 percent of visits. Between 1993-1994 and 1997-1999, there was a significant increase in the rate at which SSRIs were prescribed during visits by elderly patients, with SSRIs accounting for over half (52 percent) of all antidepressants prescribed in 1997-1999.

More details are in "Trends in elderly patients' office visits for the treatment of depression according to physician specialty: 1985-1999," by Jeffrey S. Harman, Ph.D., Dr. Crystal, James Walkup, Ph.D., and Mark Olfson, M.D., M.P.H., in the July 2003 *Journal of Behavioral Health Services & Research* 30(3), pp. 332-341. ■

## Nursing Research

### Computerized ICU information systems can significantly reduce time spent by nurses on documentation

Installing a modern computerized medical information management system in hospital intensive care units (ICUs) can significantly reduce the time spent by ICU nurses on documentation and give them more time for direct patient care, according to a study that was funded in part by the Agency for Healthcare Research and Quality (HS11375 and HS11521). These systems use Windows NT as the operating system for bedside workstations and servers, use a relational database to store and manipulate data, and have improved graphics and user interfaces.

A research nurse observed ICU care and recorded moment-to-moment all of the tasks performed by ICU nurses before and after installation of the information system in a 10-bed surgical ICU at a Veterans Affairs medical center. The results showed a decrease in the time spent

on documentation from 35.1 percent of the nurses' time to 24.2 percent of their time. This equates to saving 52 minutes in an 8-hour shift or more than 1 hour in a 12-hour shift. In addition, the number of times a nurse interrupted other tasks to document care decreased from eight times to less than three times per hour, thus enabling them to complete more tasks without interruption.

At the same time, the researchers documented an increase in time spent on direct patient care from 31 percent of nurses' time to 40 percent of their time. Time spent on patient assessment, considered a critical part of direct patient care, more than doubled to 9 percent of their total time.

Electronic information management systems similar to the one studied could be expected to reduce the amount of nurses' time spent on documentation tasks

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## Computerized information systems

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in similar ICU settings, after appropriate training, according to the study's lead author, David H.

Wong, Pharm.D., M.D., of the Veterans' Affairs Long Beach Healthcare System.

For more information, see "Changes in ICU nurse activity after installation of a third generation ICU information

system," by Dr. Wong, Yvonne Gallegos, R.N., M.S.N., Matthew B. Weinger, M.D., and others, in the October 2003 issue of *Critical Care Medicine* 31(10), pp. 2488-2494. ■

## Quality of Care/Patient Safety

### Researchers examine the impact of hospital volume on length of stay, readmissions, and patient outcomes

As evidence mounts that high-volume hospitals have better outcomes for selected surgical procedures, interest in volume-based referral initiatives is growing. On the other hand, payers want to know whether volume standards will also reduce costs and use of resources. The following two studies, which were supported in part by the Agency for Healthcare Research and Quality, address these issues.

**Hodgson, C.D., Zhang, W., Zaslavsky, A.M., and others. (2003, May). "Relation of hospital volume to colostomy rates and survival for patients with rectal cancer." (AHRQ grant HS09869). *Journal of the National Cancer Institute* 95(10), p. 708-716.**

This study found that patients with rectal cancer who undergo surgery at a hospital that performs a high volume of these surgeries

have better survival rates and are less likely to have a permanent colostomy than similar patients treated in low-volume hospitals. The investigators examined the association between hospital volume and colostomy rates, postoperative mortality, and overall survival of 7,257 patients with stage I, II, or III rectal cancer identified from the California Cancer Registry from 1994 through 1997. They linked the registry data to hospital discharge abstracts and zip-code-level data from the U.S. Census.

One-third of these patients received a permanent colostomy, which has been associated with depression, poor social functioning, and sexual dysfunction. After adjusting for demographic, clinical, and other factors, patients at hospitals that performed less than seven such surgeries each year (hospitals in the lowest volume

quartile) had 37 percent greater risk of having a permanent colostomy than those treated at hospitals that performed more than 20 such surgeries each year (highest volume quartile). Patients in the lowest volume hospitals also had nearly three times the likelihood of dying within 30 days and a 28 percent greater risk of dying within 2 years than those in the highest volume hospitals.

Stratifying patients by tumor stage and coexisting illness did not appreciably affect the results. Also, pathologists evaluated fewer lymph nodes surrounding tumors removed in low-volume hospitals, suggesting that cancer staging may be less thorough at these hospitals. Identifying processes of care that contribute to these differences may improve patients' outcomes in all hospitals, suggest the researchers.

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## Hospital volume

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**Goodney, P.P., Stukel, T.A., Lucas, F.L., and others. (2003, August). "Hospital volume, length of stay, and readmission rates in high-risk surgery." (AHRQ grant HS10141). *Annals of Surgery* 238(2), pp. 161-167.**

This study demonstrates that high-volume hospitals do not have shorter hospital stays or lower readmission rates than low-volume hospitals for Medicare patients undergoing high-risk procedures. To the extent that length of stay and readmission rates reflect overall hospital costs, referral of patients to high-volume hospitals seems more likely to decrease mortality than the cost of

delivering high-risk surgery, conclude the researchers.

They used the 1994-1999 national Medicare database to study postoperative length of stay and readmission rates within 30 days of hospital discharge after 14 high-risk cardiovascular and cancer procedures. They examined the relationship between length of stay, 30-day readmission, and hospital volume, adjusting for patient age, sex, race, coexisting illnesses, illness severity at admission, and mean social security income. The nature of the procedures themselves was a more important determinant of hospital stay and 30-day readmission rates than hospital volume.

Mean postoperative length of stay ranged from 3.4 days for

carotid endarterectomy to 19.6 days for esophagectomy. Mean length of stay at very-low-volume and very-high-volume hospitals differed by more than 1 day for six procedures. However, the mean length of stay was shorter in high-volume hospitals for three procedures (pancreatic resection, esophagectomy, and cystectomy) but longer for three other procedures (aortic and mitral valve replacement and gastrectomy). The 30-day readmission rate also varied widely by procedure, ranging from 9.9 percent for nephrectomy to 22.2 percent for mitral valve replacement. However, volume was not related to 30-day readmission rate for any procedure. ■

## Duration of catheterization and other factors increase the likelihood of catheter-related urinary tract infection

**H**ospital-acquired urinary tract infection (UTI) due to urinary catheters carries an almost three-fold increased risk of death, even when other factors are considered. In a study supported by the Agency for Healthcare Research and Quality (HS11540), University of Michigan Health System researchers Sanjay Saint, M.D., M.P.H., and Carol E. Chenoweth, M.D., examined factors that increase the risk of catheter-related UTI and proper management of such infections. They point out that urinary catheters develop biofilms (a collection of microbial organisms surrounded by a matrix of primarily polysaccharide materials) on their inner and outer surfaces once they are inserted. The biofilm allows microbes to attach to catheter surfaces in a way that makes it difficult to remove them with gentle rinsing.

Because the most important risk factor for UTI is duration of catheterization, the researchers recommend that indwelling urethral catheterization be avoided or at least limited whenever possible. Additional methods to

prevent catheter-related UTI include aseptic insertion and maintenance, use of a closed drainage system, anti-infective catheters in patients at high risk of infection, and use of systemic antibiotics in select patients.

Alternative urinary collection strategies may be appropriate in certain patient groups. Specifically, condom catheters should be considered in men likely to comply with this urinary collection method, suprapubic catheters should be considered in patients requiring long-term indwelling drainage, and intermittent catheterization may be appropriate in patients with injured spinal cords. The investigators call for more research on additional methods for preventing this common hospital infection, which entails an average cost of \$558 to \$676 per episode.

More details are in "Biofilms and catheter-associated urinary tract infections," by Drs. Saint and Chenoweth, in *Infectious Disease Clinics of North America* 17, pp. 411-432, 2003. ■

**Note:** Only items marked with a single (\*) or double (\*\*) asterisk are available from AHRQ. Items marked with a single asterisk (\*) are available from AHRQ's clearinghouse. Items with a double asterisk (\*\*) are also available through AHRQ InstantFAX. Three asterisks (\*\*\*) indicate NTIS availability. See the back cover of *Research Activities* for ordering information. Consult a reference librarian for information on obtaining copies of articles not marked with an asterisk.

## Fewer Medicare patients hospitalized for heart failure died in the 1990s, but shorter hospital stays may be a problem

About half of patients who develop heart failure, mostly elderly patients, will die within 5 years of their diagnosis. Among patients hospitalized for heart failure in Ohio, in-hospital mortality declined substantially between 1991 and 1997. But 30-day mortality declined far less than in-hospital mortality, indicating that mortality shortly after discharge increased, according to a recent study that was supported by the Agency for Healthcare Research and Quality (HS09969). This raises concerns that shorter hospital stays may be causing adverse consequences for heart failure patients, concludes David W. Baker, M.D., M.P.H., of Case Western Reserve University.

Dr. Baker and his colleagues linked databases from the Cleveland Health Quality Choice

(CHQC) program and Medicare to identify first hospital admissions for heart failure and death rate. They used medical chart data from CHQC to analyze trends in mortality adjusted for patient risk of death based on illness severity. At baseline (1991), crude in-hospital, 30-day, and 1-year mortality rates were 6.4 percent, 8.6 percent, and 36.5 percent, respectively. Risk-adjusted in-hospital mortality declined markedly, dropping 3.7 percent, a 52.8 percent relative decrease.

However, 30-day mortality only decreased by 1.4 percent, a 15.3 percent relative decrease, primarily due to a marked rise in the risk of death in the period immediately after discharge.

During the same time, the mean length of hospital stay for heart failure dropped steeply from 9.2

days to 6.6 days (a 33 percent relative decrease). This trend raises concerns that over time, more patients may have been discharged in unstable condition. One-year mortality dropped 5.3 percent, a 14.6 percent relative decrease. Expanded use of angiotensin-converting enzyme inhibitors and more aggressive treatment of hypertension in heart failure patients may have contributed to improvements in 30-day and 1-year survival.

See "Mortality trends for 23,505 Medicare patients hospitalized with heart failure in Northeast Ohio, 1991-1997," by Dr. Baker, Doug Einstadter, M.D., M.P.H., Charles Thomas, M.S., and Randall D. Cebul, M.D., in the *American Heart Journal* 146, pp. 258-264, 2003. ■

## California HMOs rely on informal evaluations of quality, not hospital report cards, to select hospitals for contracting

Geographic convenience and price may be the dominant considerations in hospital contracting among California health maintenance organizations (HMOs), according to this survey of California HMO executives. The survey found substantial interest in hospital quality measures but little evidence that HMOs weigh such measures heavily in selecting hospitals for their members. To the extent that HMOs consider hospital quality, they tend to rely on measures that poorly discriminate levels of quality, such as accreditation, or poorly defined concepts such as reputation and commitment to quality improvement. These are the findings of a recent study that was supported by the Agency for Healthcare Research and Quality (HS08574).

HMOs find it more expedient to "flag" problematic hospitals based on the Joint Commission on Accreditation of Healthcare Organizations' widely accepted review process or rare disciplinary actions by

public agencies than to use other available measures of quality, according to Julie A. Rainwater, Ph.D., and Patrick S. Romano, M.D., M.P.H., of the University of California, Davis. They contacted all 47 licensed HMOs and the sponsors of all 90 employee medical benefit plans in California that had at least 1,000 participants. Thirty of the 47 eligible HMOs responded.

HMO executives reported basing their contracting decisions primarily on hospital accreditation, location, and price. Although they considered hospital quality important, they relied primarily on accreditation, government disciplinary actions, reputation, and member satisfaction as measures of quality. HMO executives were concerned about the limitations of available data on hospital quality of care and uncomfortable weighting these data heavily in selecting network hospitals. Policymakers and

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## Quality evaluations

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producers of hospital quality report cards will need to address these problems by providing more timely data with longitudinal followup and external validation, conclude the researchers.

See "What data do California HMOs use to select hospitals for contracting?" by Drs. Rainwater and Romano, in the August 2003 *American Journal of Managed Care* 9(8), pp. 553-561. ■

## Researchers examine use of the Internet, e-mail, and telephone triage for medical advice

How Americans communicate with their doctors and obtain medical information has changed dramatically. Many of the two-thirds of U.S. adults with Internet access use the Internet for medical information. Many more would like to e-mail their doctors for advice, prescription refills, and other matters. A growing number of patients also receive after-hours advice from nurses at telephone-triage centers. The following two studies, which were supported by the Agency for Healthcare Research and Quality (HS10604), examined use of the Internet, e-mail, and telephone triage for medical advice.

**Baraff, L.J., Wall, S.P., Lee, T.J., and Guzy, J. (2003, July). "Use of the Internet and e-mail for medical advice and information by parents of a university pediatric faculty practice." *Clinical Pediatrics*, pp. 557-560.**

This survey of a sample of parents who brought their children to a university-affiliated pediatric practice for care found that 91 percent of them had Internet access, and 87.5 percent had an e-mail address. About half used the Internet for medical information, and about 30 percent used it to get information about a specific acute or chronic medical illness.

Only 15 percent had communicated with a physician by e-mail in the past year. However, an

additional 49 percent indicated that they would like to communicate with their physicians by e-mail. Three-quarters were willing to receive information about well child care and general health newsletters from the pediatric group practice by e-mail.

Parents more often rated physician telephone advice very good or excellent than nurse practitioner telephone advice (76 vs. 56 percent). Only 47 percent considered Internet information about a specific illness to be very good or excellent. About 70 percent would like to be able to ask their doctor medical-related questions by e-mail, make appointments, request prescription refills, and receive test results online. However, doctors do not currently use e-mail with their patients due to a perceived increase in workload and issues of patient confidentiality.

**Lee, T.J., Baraff, L.J., Guzy, J., and others. (2003, July). "Does telephone triage delay significant medical treatment?" *Archives of Pediatric and Adolescent Medicine* 157, pp. 635-641.**

By the end of 1996, telephone triage services were available to 35 million people and were expected to reach 100 million people by the end of 2001. Call centers in which specially trained nurses provide medical advice using standardized protocols have the potential to improve the quality of advice and

reduce the demand for health care services, according to this study. It found that the level of triage advice to parents from on-call pediatricians and advice nurses was remarkably similar, and that neither type of telephone advice delayed significant medical treatment (treatment that, if delayed, could potentially result in significant problems).

The investigators randomly assigned 1,182 calls to a university-affiliated general pediatrics practice to on-call pediatricians (566) or advice nurses (616) at a large telephone triage service. They classified advice as emergency department (ED) or urgent care (call 911, go to the ED, or obtain urgent care); office care (visit a doctor's office within 72 hours), and self-care. They conducted followup telephone interviews with callers 72 to 96 hours after the initial advice call about the advice they received and any health care visits made within 72 hours of the call.

The types of telephone triage advice given by the physician and advice nurse groups were not significantly different. There was no significant difference in the proportion of callers in each group who sought unadvised care (20 percent). Only 4 percent of patients in both groups received significant treatment after seeking unadvised care (most often a prescription for antibiotics). ■

### Lack of insurance and living in an area with greater managed care activity reduce access to care

Individuals who do not have health insurance coverage for part of a year or an entire year and those living in areas with more managed care are more likely to have problems accessing care than others. In fact, greater managed care activity is associated with less favorable access to care, regardless of insurance status, notes David Litaker, M.D., Ph.D., of the University Hospital of Cleveland, and Randall D. Cebul, M.D., of Case Western Reserve University.

In a study supported in part by the Agency for Healthcare Research and Quality (National Research Service Award training grant T32 HS00059), they surveyed Ohio households in 1998 to examine the association between managed care activity and individuals' access to care, medications, supplies, and/or medical equipment in the past year and differences in this relationship by insurance status.

Overall, 8 percent of the 15,613 adults surveyed said they had an access problem in the year prior to the survey. The most common problems reported were

inability to obtain dental care (30 percent), medications or prescriptions (22 percent), or care by a physician (14 percent). More of those who were continuously uninsured had access problems (31 percent) than those who were intermittently (25 percent) or continuously insured (5 percent).

The proportion of residents with access problems also differed significantly across zip codes, with 7.7 percent in areas of low managed care penetration reporting problems with access to care, compared with 9.2 percent of those in areas of high managed care penetration. Individuals living in areas with more managed care had 28 percent higher odds of reporting problems obtaining care than those elsewhere. Difficulties meeting health care needs within each stratum of insurance status were increasingly common as the level of managed care activity increased.

See "Managed care penetration, insurance status, and access to health care," by Drs. Litaker and Cebul, in the September 2003 *Medical Care* 41(9), pp. 1086-1095. ■

### Managed care patients' concerns about conflict of interest may be harming their relationship with their doctors

Managed care patients rarely ask doctors directly about conflict of interest. Yet, many doctors believe that patient concerns that doctors may withhold needed medical care from them due to pressures from insurers to reduce costs may be harming the doctor-patient relationship and damaging their own sense of professional worth. That's the conclusion of a study supported by the Agency for Healthcare Research and Quality (HS09982). Physicians should be alert to patients' implicit expressions of concern about conflicts of interest and practice communication techniques for responding to these concerns

effectively, suggests Wendy Levinson, M.D., of the University of Chicago.

Dr. Levinson and her colleagues audiotaped four in-depth focus group sessions held in May 2000, with 39 community physicians in Portland, OR, a highly penetrated managed care market. As part of the discussions, they also asked the physicians to listen to an interchange between a patient with headaches who wanted magnetic resonance imaging (MRI) to rule out cancer, despite the expense of the test, and to evaluate eight different hypothetical responses that physicians might make to the patient.

Four major themes surfaced multiple times throughout the discussion groups. Managed care patients rarely asked their physicians directly about conflicts of interest; instead, they raised the topic indirectly, for example, by asking the doctor for repeated explanations of why a specific referral or diagnostic test was unnecessary. Most of the physicians believed that patient concern about conflicts of interest was leading to worrisome changes in the doctor-patient relationship. Rather than being seen as a trusted source of health care advice, physicians believed some patients

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## Conflict of interest

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saw them as agents of the health plan, a perception that diminished their sense of professional worth. In response to the patient's MRI

request, physicians preferred strategies that addressed the worries of the patient or that identified a common goal through negotiation.

See "Patient-provider discussions about conflicts of

interest in managed care: Physicians' perceptions," by Rita Gorawara-Bhat, Ph.D., Thomas H. Gallagher, M.D., and Dr. Levinson, in the August 2003 *American Journal of Managed Care* 9, pp. 564-571. ■

## Health Care Costs and Financing

### Rising health care costs may underlie the decline in employment of people with costly chronic conditions

A new book presents the latest research on the causes of the decline in employment of working-aged people with disabilities. According to one chapter, the rising prevalence of high-cost chronic conditions and reduced employment of people with disabilities who have such conditions accounted for a small amount of the overall decline in employment.

In the chapter, Steven C. Hill, Ph.D., of the Agency for Healthcare Research and Quality, and his Cornell University colleagues analyzed data from the 1987 National Medical Expenditure Survey and the 1996 and 1997 Medical Expenditure Panel Surveys to chart the rising prevalence of chronic conditions and to compare expenditures and health insurance coverage of working-aged people with chronic health conditions in 1987 and 1996-1997.

They also used data from the 1984-1996 National Health Interview Survey to measure the rising prevalence of high-cost chronic conditions and trends in employment among working-aged people with work limitations. Analysis revealed that mean health care costs increased 10 percent between 1987 and 1996-1997 for all working-aged people, but they increased by 37 percent for those with high-cost chronic conditions such as HIV, liver cancer, multiple sclerosis, and schizophrenia.

The proportion of working-aged people with high-cost chronic conditions rose by nearly half from 1.1 percent in 1987 to 1.6 percent in 1996-1997. Among people with work limitations, the percentage with high-cost chronic conditions increased from 5.4 percent in 1984-1987 to 7.0 percent in 1993-1996. The employment rate of those with high-cost chronic conditions, including those without disabilities, fell by 3.4 percent over the period, while the employment rate of all other health care cost groups significantly increased. Among people with work limitations, those with high-cost chronic conditions were less likely to be employed than other disabled workers.

See "Rising health care expenditures and the employment of people with high-cost chronic conditions," by Dr. Hill, Gina A. Livermore, Ph.D., and Andrew J. Houtenville, Ph.D., in *The Decline in Employment of People with Disabilities: A Policy Puzzle* (pp. 181-215). David C. Stapleton and Richard V. Burkhauser, editors. Kalamazoo, MI: Upjohn Institute, 2003. Chapter reprints (AHRQ Publication No. 03-R062) are available from AHRQ.\* ■

## Celebrity spokespersons can have a substantial impact on cancer screening rates

Celebrity spokespersons are often used to market medications and other health-related products to the public. These spokespersons can also prompt people to get screened for cancer, concludes a new study. It found that a televised colon cancer awareness campaign by Katie Couric was temporally associated with an increase in colonoscopy use.

Following the tragic death of her 42-year-old husband from colon cancer, the NBC anchor-person underwent a live, on-air colonoscopy on the Today Show. This event was the cornerstone of a week-long series promoting colon cancer awareness and endorsing colorectal cancer screening. During colonoscopy, which is recommended every 10 years starting at age 50, a flexible tube with a light and camera on the end is inserted into the rectum to

permit visualization of the entire colon.

Peter Cram, M.D., M.B.A., of the University of Michigan School of Medicine, and colleagues compared colonoscopy use rates before and after Ms. Couric's televised series using two databases: one containing data on 95,000 colonoscopies performed by a voluntary consortium of 400 endoscopists from July 1998 to December 2000, and one containing data on colonoscopies received by 44,000 adult members of a managed care organization. The number of colonoscopies performed per consortium physician per month after Ms. Couric's campaign increased significantly from 15 before the campaign to 18 afterwards. Among managed care patients, colonoscopy use increased from 1.3 procedures per 1,000 members per month before the program to 1.9 procedures after the program.

A significantly higher post-campaign colonoscopy rate was sustained for 9 months after the campaign (1.3 per 1,000 members in the 14 months prior to the campaign versus 1.8 in the 9 months afterwards). This "Couric effect" did not extend to other cancer screening activities. For example, rates of prostate-specific antigen screening for prostate cancer and mammography testing for breast cancer did not increase among managed care members in the 9 months after the program. This study was supported in part by the Agency for Healthcare Research and Quality (National Research Service Award training grant HS00053).

See "The impact of a celebrity promotional campaign on the use of colon cancer screening," by Dr. Cram, Mark Fendrick, M.D., John Inadomi, M.D., and others, in the July 14, 2003 *Archives of Internal Medicine* 163, pp. 1601-1605. ■

## Individuals who are uninsured for 6 months or more are less likely to use preventive care services

Nearly one in five nonelderly U.S. adults—mostly the poor, minorities, and less educated individuals—were uninsured in the first half of 2000. Individuals without health insurance coverage for 6 months or more have reduced use of preventive care services, conclude Heather L. Bednarek, Ph.D., of St. Louis University, and Barbara Steinberg Schone, Ph.D., of the Agency for Healthcare Research and Quality. They used data from the 1996 Medical Expenditure Panel Survey to assess the association between preventive care services (for example, mammograms, cholesterol checks, Pap smears, and influenza shots) and the length of time with insurance during a 12-month period: insured all 12 months,

insured 7-11 months, insured 1-6 months, uninsured all 12 months.

Even after controlling for other factors, individuals who lacked insurance for longer periods had lower rates of preventive care use. Individuals who had continual insurance coverage during the entire period had dramatically higher rates of preventive service use than those who lacked coverage for all 12 months. Differences ranged from 10.2 percentage points for influenza immunizations (19.7 vs. 9.5 percent) to 37.6 percentage points for mammograms (66.7 vs. 29.1 percent). With the exception of blood pressure checks, physical exams, and prostate exams, they also found

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## Preventive care services

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modest differences in use of preventive care between the continually insured and those covered for only 1 to 6 months.

However, rates of preventive care use for individuals with 7 to 11 months of coverage (short-term uninsured) were indistinguishable from the continually insured. For the most part, there was no

difference in use of preventive care by people who were continually or partially insured with public or private insurance.

See "Variation in preventive service use among the insured and uninsured: Does length of time without coverage matter?" by Drs. Bednarek and Schone, in the *Journal of Health Care for the Poor and Underserved* 14(3), pp. 403-419, 2003. Reprints (AHRQ Publication No. 03-R066) are available from AHRQ.\*\* ■

## Independent task forces release recommendations on skin cancer prevention

Research results on skin cancer prevention published in the October 17, 2003, issue of the Centers for Disease Control and Prevention's *Morbidity and Mortality Weekly Report Recommendations and Reports* offer recommendations for educational and policy approaches in primary schools, as well as recreational and tourism settings, to encourage people to wear hats or other garments to limit sun exposure.

Among other findings are conclusions that further research is needed to understand the effectiveness of interventions in areas such as child care centers and workplaces, as well as mass media campaigns. The role that counseling by primary care clinicians plays in changing patient behaviors to reduce skin cancer risk also was reviewed.

This is the first combined publication from two leading independent panels: the U.S. Preventive Services Task Force, which is supported by the Agency for Healthcare Research and Quality, and the Task Force on Community Preventive Services, which is supported by CDC. By coordinating the release of their recommendations, the task forces provide a comprehensive perspective of what works in doctors' offices, workplaces, schools, and communities to promote health and prevent disease.

Skin cancer is the most common cancer in the United States. In 2003, it is estimated that about 54,000 Americans will be diagnosed with melanoma, the deadliest form of skin cancer, which is expected to account for 7,700 deaths. The most preventable risk factor for skin cancer is unprotected ultraviolet exposure, yet at least 50 percent of children and adults do not protect themselves adequately from exposure to the sun's UV rays. While knowledge of the risk of sun exposure and the use of sunscreen and other forms of sun protection have improved over the past two decades, a gap still exists between knowledge and behavior.

The U.S. Preventive Services Task Force and the Task Force on Community Preventive Services anticipate an opportunity for future joint releases on clinical and community approaches to disease prevention. An example is an upcoming report on the effectiveness of informed and shared decisionmaking strategies to help people decide about getting preventive screening tests. These findings will be released in the *American Journal of Preventive Medicine* in January 2004. In addition, CDC's Task Force on Community Preventive Services is evaluating the interventions to increase delivery of cancer screening tests recommended by the U.S. Preventive Services Task Force.

Since 1990, the U.S. Preventive Services Task Force recommendations, considered the gold standard for clinical preventive services, have been published in a wide variety of academic journals, and the recommendations are disseminated to clinicians. The Task Force on Community Preventive Services, established in 1996, releases its findings to a wide variety of public health decisionmakers as the *Guide to Community Preventive Services*. It represents the community-based counterpart to the U.S. Preventive Services Task Force. To date, 88 community guide findings have been published, providing new resources for public health leaders to help make decisions about the application of limited public health resources.

For more information on the new recommendations on skin cancer prevention, go to [www.cdc.gov/mmwr/mmwr\\_rr.html](http://www.cdc.gov/mmwr/mmwr_rr.html). For additional information on the Task Force on Community Preventive Services or the *Guide to Community Preventive Services*, go to [www.thecommunityguide.org/](http://www.thecommunityguide.org/). For more information on the U.S. Preventive Services Task Force recommendation, go to [www.ahrq.gov/clinic/3rduspstf/skacoun/skarr.htm](http://www.ahrq.gov/clinic/3rduspstf/skacoun/skarr.htm). For additional information on the U.S. Preventive Services Task Force's *Guide to Clinical Preventive Services*, go to [www.ahrq.gov/clinic/cps3dix.htm](http://www.ahrq.gov/clinic/cps3dix.htm). ■

### Nearly half of elderly Mexican Americans who suffer a heart attack die of another heart attack within 7 years

Nearly half of Mexican-American elders who said they had suffered a heart attack died of another heart attack within 7 years, according to a study supported in part by the Agency for Healthcare Research and Quality (HS11618).

Preventing heart attacks is particularly important in this ethnic group to avoid early mortality, conclude Max E. Otiniano, M.D., M.P.H., and colleagues at the University of Texas Medical Branch.

In the study, they examined the heart attack incidence, prevalence, and 7-year mortality rates among 3,050 Mexican-American elders in five Southwestern States. They assessed sociodemographic factors, health factors, and self-reported heart attack during interviews at baseline (1993-1994), as well as new heart attacks in 1995-1996, 1998-1999, and 2000-2001.

Overall, 9.1 percent of those interviewed said they had suffered a heart attack at baseline. New heart attack incidence was 6.1 percent, 9.1 percent, and 7.9 percent, respectively, for the three subsequent

followup interviews. Of the Mexican-American elders who said they had suffered a heart attack during the initial interview, nearly half (42.4 percent) had died of heart attack by the 7-year followup. Older age, male sex, diabetes, hypertension, and stroke were significantly associated with heart attack at baseline. Age was a significant predictor for new heart attack at each followup.

Having impaired function in activities of daily living, such as dressing or feeding oneself, nearly tripled the likelihood of self-reported heart attack. Limitations in carrying out instrumental activities of daily living, such as doing housework or shopping, more than doubled the likelihood of heart attack.

See "Self-reported heart attack in Mexican-American elders: Examination of incidence, prevalence, and 7-year mortality," by Dr. Otiniano, Kenneth J. Ottenbacher, Ph.D., Kyriakos S. Markides, Ph.D., and others, in the July 2003 *Journal of the American Geriatrics Society* 51, pp. 923-929. ■

### Racial differences exist in survival following cardiac arrest, specialty treatment for scleroderma, and access to care

Racial disparities exist in long-term mortality among elderly blacks and whites. Black patients are less likely than white patients to undergo a potentially life-saving procedure, which may explain in part their lower rate of survival following cardiac arrest, according to a recent study that was supported in part by the Agency for Healthcare Research and Quality. Similarly, even though blacks have more emergency visits and hospitalizations for scleroderma than whites, suggesting they have more severe disease, they are referred less often to specialized centers for treatment, according to

a second AHRQ-supported study. A third AHRQ-supported study confirms that blacks and other minorities have much more difficulty than whites in accessing care, and they use less care. The three studies are described here.

**Groeneveld, P.W., Heidenreich, P.A., and Garber, A.M. (2003, July). "Racial disparity in cardiac procedures and mortality among long-term survivors of cardiac arrest." (NRSA training grant T32 HS00028). *Circulation* 108, pp. 286-291.**

Implantable cardioverter-defibrillators (ICDs)—devices that automatically shock the heart to

convert irregular, life-threatening heartbeat to normal rhythm—can improve survival after cardiac arrest. In this study, the researchers examined Medicare records to assess whether there are racial disparities in the use of life-saving procedures after cardiac arrest, and whether differences in procedure rates may contribute to black-white differences in long-term mortality.

The researchers examined data on 5,948 Medicare beneficiaries (5,429 white and 519 black) aged 66 or older who survived to hospital discharge between 1990 and 1999 after admission for cardiac arrest. They developed a

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## Racial disparities

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model to identify predictors of death following cardiac arrest, including demographic and clinical factors and receipt of cardiac procedures, and followed the patients for a median of 4.8 years. By December 1999, 50 percent of patients had died.

After stratifying patients by race, ICDs reduced the mortality ratio by half for both white and black patients (0.53 and 0.50, respectively). However, blacks were only half as likely as whites to receive either an ICD or a coronary revascularization procedure (angioplasty or bypass surgery).

**Nietert, P.J., and Silver, R.M. (2003). "Patterns of hospital admissions and emergency room visits among patients with scleroderma in South Carolina, USA." (AHRQ grant HS10871). *Journal of Rheumatology* 30(6), pp. 1238-1243.**

Scleroderma is a disease characterized by degeneration of the connective tissue of the skin, lungs, and internal organs, especially the esophagus and kidneys. The disease can progress from thickening of skin on the face and fingers, to joint deformity and pain, and finally to kidney and heart failure from damaged organs. This study found that blacks and women are more affected by the disease than whites and men. In addition, blacks visit the hospital and emergency department (ED) for scleroderma crises more than whites, suggesting more severe disease, but they are less likely to be referred to a specialized scleroderma center.

These findings highlight a potential racial disparity in access to optimal health care services for

scleroderma patients, conclude the investigators. They analyzed data on all South Carolina hospitalizations from 1996 to 2000 to identify patients hospitalized for scleroderma and used the 2000 U.S. Census data to determine population incidence rates across race, sex, and age groups. Of the 785 scleroderma patients identified, blacks had a 66 percent higher rate of hospitalization for scleroderma than whites and a 78 percent higher rate of ED use. Blacks were more likely than whites or patients of other races to have hospital admissions classified as emergencies.

Even after adjusting for sex, age, income, insurance status, and other factors, blacks were 60 percent less likely than whites to receive inpatient treatment at the Medical University of South Carolina (MUSC), a major referral center for patients with scleroderma in the Southeastern United States. The researchers found similar results when they compared other minority patients with white scleroderma patients. Males and younger patients also were more likely to be referred to MUSC than women and older patients.

**Lurie, N., Zhan, C., Sangl, J., and others. (2003, July). "Variation in racial and ethnic differences in consumer assessments of health care." *American Journal of Managed Care* 9, pp. 502-509.**

Surveys of how white and minority consumers assess the health care they receive revealed that minority patients have much larger problems with access to care and less use of health care than whites. These differences suggest compromised quality of health care for minorities and opportunities for improving care quality, conclude AHRQ researchers Chunliu Zhan,

M.D., Ph.D., Judith Sangl, Sc.D., and Arlene S. Bierman, M.D., M.S. Along with their colleagues from RAND and the Centers for Medicare & Medicaid Services, they analyzed data from 160,694 responses from members of 307 commercial health plans and 177,489 responses from Medicare beneficiaries in 308 Medicare+Choice managed care plans to the 1999 Consumer Assessment of Health Plans Study (CAHPS®) survey.

The researchers compared global care and composite ratings as well as access to and use of care as reported by whites, blacks, Hispanics, and Asians. Blacks rated their care and their doctors higher than whites (82.35 and 83.94 vs. 80.42 and 81.59, respectively), while Asians rated their care and doctors lower than whites (78.52 vs. 80.42 and 80.29 vs. 81.59). Blacks reported better experience with care than whites (perhaps due to lower expectations), but Hispanics and Asians reported worse experiences.

All minority groups reported more problems with access to care and less use of health care than whites. Whites were consistently more likely than others to report having any medical visits, having a personal doctor, seeing a specialist, and seeing a specialist when they felt it was necessary. These racial differences in assessment of access and use varied greatly from plan to plan, suggesting that some plans have more serious disparities than others, note the researchers. They call for an in-depth study of "best practice" plans to eliminate disparities in care.

Reprints (AHRQ Publication No. 03-R063) are available from AHRQ.\*\* ■

## Kawasaki syndrome is the leading cause of noncongenital heart disease among U.S. children

A new study suggests that the incidence of Kawasaki syndrome (KS)—an acute febrile illness of unknown etiology—has not markedly changed in the United States over the past decade. KS usually strikes children under the age of 5 and is more common among boys and people of Asian descent. Children are typically hospitalized after they develop a fever, red eyes and lips, strawberry tongue, rash, and swollen lymph nodes. If KS is not diagnosed and treated rapidly with intravenous gamma globulin, it can result in heart damage and death.

Robert Holman, M.S., of the Centers for Disease Control and Prevention, along with other colleagues at the CDC and Claudia A. Steiner, M.D., M.P.H., of the Center for Delivery, Organization, and Markets, Agency for Healthcare Research and Quality, analyzed hospital discharge records from the 1997 and 2000 Kids' Inpatient Database (a large national all-payer database of pediatric hospital discharges) to identify children with a KS diagnosis. They weighted these KS discharges to estimate the number and rate of KS-associated hospitalizations for the United States.

In 2000, about 4,248 hospitalizations associated with KS occurred in the United States, and the median age of patients at admission was 2 years. Children

under 5 years of age accounted for 3,277 of these KS hospitalizations (77 percent), and there was a KS hospitalization rate of 17.1 per 100,000 children. This rate was similar to the 1997 rate of 17.6 per 100,000 children. These rates are similar to estimates in other U.S. studies for the late 1980s and 1990s, suggesting that incidence rates haven't changed much. This is in contrast to Japan—which has the highest annual incidence of KS in the world, with 112 cases per 100,000 children—where KS incidence reportedly has increased by more than 1.5 times between 1987 and 1998.

Among U.S. children younger than age 5 in 2000, the rate of KS hospitalizations was highest among Asian and Pacific Islander children, followed by the rate for black children (39 and 19.7 per 100,000 children, respectively). No deaths associated with KS were reported among hospitalized children.

See "Kawasaki syndrome hospitalizations in the United States, 1997 and 2000," by Robert C. Holman, M.S., Aaron Y. Curns, M.P.H., Ermias D. Belay, M.D., and others, in the September 2003 *Pediatrics* 112(3), pp. 495-501. Reprints (AHRQ Publication No. 04-R002) are available from AHRQ.\*\* ■

## Functional limitations and family stressors worsen psychosocial adjustment among disabled school-aged children

Disabled children with learning impairments and family burdens such as poverty or maternal depression are more likely to have poor psychosocial adjustment than other disabled children, according to a study supported in part by the Agency for Healthcare Research and Quality (HS11254 and National Research Service Award training grant T32 HS00063).

Whitney P. Witt, Ph.D., M.P.H., of Northwestern University and formerly of Johns Hopkins University, and colleagues analyzed data from the 1994 and 1995 National Health Interview Surveys, Disability Supplement, which provide data on a nationally

representative sample of disabled children aged 6 to 17 years and their mothers. They examined the association between the children's functional status, family stressors, and psychosocial adjustment.

Over one-fifth of disabled children suffered from more than one functional limitation, and 11 percent experienced poor psychosocial adjustment, especially in the areas of peer relations (17 percent) and hostility (13 percent). Nearly one-quarter of the families reported substantial work, sleep, or financial problems as a result of the child's disability.

Physical limitations by themselves were not detrimental to children's psychosocial adjustment.

Children with self-care or mobility problems did not have significantly different psychosocial adjustment scores than disabled children without such problems.

On the other hand, children with disabilities who also had limitations in learning or communication were 4 and 1.6 times, respectively, more likely to experience adjustment problems than disabled children without these limitations. Mothers with poor health and distress or depression were 70 and 90 percent more likely, respectively, to have a child who was maladjusted. When mothers reported that the child's disability caused a work, sleep, or

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## Disabled children

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financial burden and when families were impoverished, children were about twice as likely to have poor psychosocial adjustment as disabled children without these problems. These findings

underscore the need to support the mental health care needs of all family members in order to foster good mental health in children with disabilities.

See "Childhood functional status, family stressors, and psychosocial adjustment among

school-aged children with disabilities in the United States," by Dr. Witt, Anne W. Riley, Ph.D., and Mary Jo Coiro, Ph.D., in the July 2003 *Archives of Pediatric and Adolescent Medicine* 157, pp. 687-695. ■

## HIV/AIDS Research

### Immune activation and related loss of infection-fighting T cells are driven by HIV infection and not illicit drug use

Until now, it was believed that women infected with the human immunodeficiency virus (HIV) who use illicit drugs would have increased levels of immune system activation (due to chronic stimulation of antibodies in response to drugs recognized as "foreign" by the body) that leads to loss of infection-fighting CD4 T cells. However, the Women's Interagency HIV Study (WIHS) concludes that immune activation is driven by HIV infection and not illicit drug use.

This multicenter longitudinal study of the impact of HIV infection on women enrolled 2,059 HIV-positive and 569 HIV-negative women at six clinical sites in 1994 and 1995. WIHS is cosponsored by the Agency for Healthcare Research and Quality, the National Institutes of Health, and the Centers for Disease Control and Prevention.

For this WIHS study, lead author, Alan Landay, Ph.D., of Rush Medical College, and his colleagues examined levels and changes in markers of immune maturity, function, and activation in CD4 and CD8 T cells in 176 HIV-positive and 48 high-risk HIV-negative women at baseline and every 6 months over 3 years. Their goal was to investigate the relationship between

HIV-1 RNA level and these immune markers and to describe the impact of other HIV-specific factors (for example, use of highly active antiretroviral therapy) and demographic and behavioral factors on these relationships.

Higher HIV-1 RNA level (greater number of virus copies per mL of blood, an indicator of more advanced disease) was strongly associated with lower CD4 and CD8 cell counts. In CD4 cells, increased activation occurred at HIV-1 RNA levels greater than 40,000 copies/mL of blood, whereas increased activation in CD8 cells occurred at much lower HIV-1 RNA levels (less than 400 copies/mL). However, drug use was not significantly associated with activation or loss of CD4 or CD 8 cells in either baseline or later analysis. There was no significant difference in CD4 activation among drug users and non-drug users or among HIV-seronegative and HIV-seropositive women.

See "Correlates of immune activation marker changes in human immunodeficiency virus (HIV)-seropositive and high-risk HIV-seronegative women who use illicit drugs," by Dr. Landay, Lorie Benning, M.P.H., James Bremer, Ph.D., and others, in the July 15, 2003 *Journal of Infectious Diseases* 188, pp. 209-218. ■

### Researchers report recent findings from the HIV Cost and Services Utilization Study

The HIV Cost and Services Utilization Study (HCSUS) is a nationally representative study of 2,864 adults infected with the human immunodeficiency virus (HIV) that causes AIDS who received health care in the United

States in 1996. HCSUS was conducted under a cooperative agreement between RAND and the Agency for Healthcare Research and Quality (HS08578) and led by Martin F. Shapiro, M.D., Ph.D., of RAND and the University of

California, Los Angeles Medical School, and Samuel A. Bozzette, of RAND and the University of California, San Diego. Five recent HCSUS studies are summarized here.

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## HCSUS research

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**London, A.S., Foote-Ardah, C.E., Fleishman, J.A. and Shapiro, M.F. (2003, June).** "Use of alternative therapists among people in care for HIV in the United States." *American Journal of Public Health* 93(6), pp. 980-987.

These researchers found that about 15 percent of people receiving medical care for HIV also use complementary care provided by alternative therapists such as massage therapists, acupuncturists, or herbalists, and that certain patients are more likely to use complementary and alternative medicine (CAM) providers than others. The researchers analyzed baseline HCSUS interviews conducted with 2,754 patients that included questions about use of alternative therapists within the past 6 months. Among those who had used an alternative therapist, 54 percent had fewer than five visits in the past 6 months.

Gays and lesbians were more likely to use alternative providers than heterosexuals. Those whose income was above \$40,000 were also more likely to use alternative providers than people with an income below \$5,000, as were those who lived in the Northeast and West compared with those who lived in the South. Patients who were depressed were more likely than those who screened negatively for depression to use CAM providers, as were patients who wanted more information about and involvement in their care.

People who believed that antiretroviral therapy was definitely worthwhile were somewhat less likely to have visited an alternative therapist in the past 6 months than people who were not as confident about the medication. Among those

who had used an alternative therapist, people who had private insurance had significantly more visits than people who did not have insurance, suggesting that private insurance reduces financial access barriers to some kinds of CAM providers.

Reprints (AHRQ Publication No. 03-R046) are available from AHRQ.\*\*

**Tucker, J.S., Burnam, M.A., Sherbourne, C.D., and others. (2003, May).** "Substance use and mental health correlates of nonadherence to antiretroviral medications in a sample of patients with human immunodeficiency virus infection." *American Journal of Medicine* 114, pp. 573-580.

Antiretroviral medication regimens for HIV infection are complex and inconvenient, often produce side effects, and must be taken consistently for long periods of time. Not taking the medications as directed can compromise their long-term effectiveness and lead to development of HIV medication resistance. HIV-infected patients with substance abuse or mental health problems, which are common in HIV patients, are much less likely to comply with antiretroviral medication regimens, according to this study.

The study involved 1,910 HCSUS patients who reported their adherence to antiretroviral medication regimens over a 1-week period in 1997 and 1998. Patients were considered adherent if they missed no medications at all during the week and if all medications were taken exactly as directed "all of the time." Adherence was achieved by nearly half of patients who did not have a probable psychiatric disorder or use illegal drugs. However, only 36 percent of those with a psychiatric problem and 39 percent of those who used

illegal drugs reported adherence to their antiretroviral treatment.

Patients suffering from depression, generalized anxiety disorder, or panic disorder were more likely to not adhere to the therapy than those without a psychiatric disorder. Similarly, users of cocaine, marijuana, amphetamines, or sedatives in the previous month were more likely than other patients not to comply with therapy. Finally, compared with patients who did not drink, those who were moderate, heavy, or frequent heavy drinkers were more likely to be nonadherent. These associations could not be explained by demographic, clinical, or treatment factors.

**Chan, K.S., Orlando, M., Joyce, G., and others. (2003, May).** "Combination antiretroviral therapy and improvements in mental health: Results from a nationally representative sample of persons undergoing care for HIV in the United States." *Journal of Acquired Immune Deficiency Syndromes* 33, pp. 104-111.

An initial assessment of HCSUS patients in 1996 and 1997 indicated that nearly half suffered from a psychiatric problem such as depression or anxiety. However, mental health has improved for many individuals in this group in recent years, coinciding with use of combination ART that substantially lowers HIV-related complications and deaths. This is the first study to document a global improvement in mental health, regardless of treatment profile, in a broadly representative sample of HIV/AIDS patients during the ART era, possibly due to better quality of life and the promise of extended survival. It also shows an ART-specific effect on improved mental health.

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## HCSUS research

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To test whether mental health improvement among HIV-infected patients was directly related to ART or global optimism about HIV prognosis, these researchers examined the change in psychiatric symptoms among 2,466 HIV-infected people participating in HCSUS from a baseline (January 1996 to April 1997) to the first followup interview about 8 months later. They examined changes in psychiatric symptoms as a function of changes in CD4 counts (with higher counts indicating a stronger immune system), treatments for opportunistic infections (more common with advanced HIV disease), and HIV physical symptoms. They examined these changes separately in patients who maintained ART, initiated ART, never received ART, or changed to a less recommended drug regimen during the study.

Overall, the proportion of the sample screening positive for four psychiatric disorders (major depression, prolonged mild depression or dysthymia, generalized anxiety disorder, and panic attacks) declined from 48 percent to 37 percent at the followup interview. The reduction in psychiatric symptoms was comparable across all treatment groups, suggesting a global effect. However, in patients who initiated ART, fewer psychiatric symptoms were significantly related to all three markers of physical health: higher CD4 counts, fewer opportunistic infection treatments, and reduced HIV symptoms, suggesting a treatment effect. In contrast, for those who stopped taking ART or never received it during the study period, a decrease in psychiatric symptoms was primarily related to reductions in HIV symptoms.

**Galvan, F.H., Burnam, M.A., and Bing, E.G. (2003, May). "Co-occurring psychiatric symptoms and drug dependence or heavy drinking among HIV-positive people." *Journal of Psychoactive Drugs Suppl 1*, pp. 153-160.**

Based on data from 2,864 HCSUS participants, one-third of people receiving care for HIV in the United States in 1996 had psychiatric symptoms without drug dependence or heavy drinking problems in the previous year. About 6 percent had either or both drug dependence symptoms or heavy drinking without psychiatric symptoms. Overall, 13 percent had co-occurring psychiatric symptoms and either or both drug dependence symptoms or heavy drinking. Sixty-nine percent of those with a substance abuse problem also had psychiatric symptoms, and 27 percent of those with psychiatric symptoms also had a substance abuse problem.

The odds of having a coexisting condition were higher for males, heterosexuals, and people with more HIV-related symptoms. The odds were lower for people living with AIDS, blacks, people who were gay or sexually abstinent, those living with a spouse, those aged 50 or older, and those with private insurance.

**Dobalian, A., Andersen, R.M., Stein, J.A., and others. (2003, Spring). "The impact of HIV on oral health and subsequent use of dental services." *Journal of Public Health Dentistry 63*(2), pp. 78-85.**

More than one-third of HIV-infected people develop oral lesions. Untreated oral disease can interfere with talking, chewing, and swallowing and lead to weight loss and malnutrition. This HCSUS study is the first study to examine the relationship between the need

for dental care and potentially competing mental and physical health needs of people who have HIV. The researchers found that people who have more HIV-related symptoms and a diagnosis of AIDS have a greater need for dental care than those who have fewer symptoms and do not have AIDS. However, more pressing needs for physical and mental health services limit their access to dental services.

Health care providers need to give more attention to the oral health needs of people who have HIV and are in poor physical and mental health. Also, concerns about adequate treatment of the physical health needs of people with HIV should not preclude attention to dental needs, conclude the researchers. They examined differences in oral health and access to dental services among 2,864 HCSUS participants. They also studied predisposing characteristics (sex, education, age, race/ethnicity, and mode of HIV exposure), enabling factors (income, dental insurance, a usual source of dental care, and receipt of highly active antiretroviral therapy by December 1996), and need factors (AIDS diagnosis and intensity of HIV symptoms) associated with use of dental services.

More education, dental insurance, having a usual source of dental care, and poor oral health predicted a higher probability of having a dental visit. Blacks, Hispanics, those exposed to HIV through drug use or heterosexual contact, and those in poor physical health were less likely to visit the dentist. Of those who visited dental professionals, older people, those with dental insurance, and those in worse oral health had more visits. Blacks and people with mental health problems had fewer visits. ■

## AHRQ awards nearly \$4 million in challenge grants to help hospitals improve patient safety

The Agency for Healthcare Research and Quality has awarded almost \$4 million to fund 13 projects designed to improve patient safety. Six of the grants will assess patient safety risks and devise ways to prevent them. The remaining seven projects will implement safe practices that show evidence of eliminating or reducing known hazards to patient safety.

The 13 grants build on the Agency's 3-year, \$165 million investment in patient safety research. AHRQ currently has over 100 other research projects that comprise an extensive, user-driven patient safety research agenda designed to improve patient safety and enhance the quality of care. Below is a list of the institutions that have received a challenge grant, the city and State in which the project will be conducted, and the Federal dollars awarded.

The Agency will provide up to 50 percent of the total cost of the projects, while grant recipients will be required to provide a minimum of 50 percent of the total costs. However, some grant recipients will be providing far more than the minimum. For example, for the implementation project awarded to Johns Hopkins University in Baltimore, Blue Cross and Blue Shield of Michigan will provide up to \$10 million in incentive payments to hospital participants in Michigan, in addition to the commitments made by participating Michigan hospital teams and the Michigan Health & Hospital Association.

These cooperative agreements were announced in collaboration with the Patient Safety Task Force established by HHS Secretary Tommy G. Thompson to coordinate research efforts across HHS. The Task Force is composed of representatives from AHRQ, the

Centers for Disease Control and Prevention, the Centers for Medicare & Medicaid Services, and the Food and Drug Administration.

### **Risk Assessment Grants**

Boston Medical Center, Boston, MA	\$200,000
St. Jude's Children's Research Hospital, Memphis, TN	\$200,000
Beth Israel Deaconess Medical Center, Boston, MA	\$199,968
Veterans Medical Research Foundation, San Diego, CA	\$187,895
Oregon Department of Human Services, Portland, OR	\$165,205
University of Chicago, Chicago, IL	\$139,400

### **Implementation Grants**

Sacred Heart Medical Center Foundation, Eugene, OR	\$498,720
University of Missouri, Columbia, MO	\$470,620
Johns Hopkins University, Baltimore, MD	\$454,590
Kaiser Foundation Research Institute, Oakland, CA	\$443,767
University of Iowa, Iowa City, IA	\$400,000
Cincinnati Foundation for Biomedical Research and Education, Cincinnati, OH	\$327,721
University of Wisconsin, Madison, WI	\$270,175

■

## AHRQ leads HHS campaign with hospitals and physicians to distribute information about safer health care

The U.S. Department of Health and Human Services, in partnership with the American Hospital Association and the American Medical Association, has launched a campaign to distribute patient safety information to health care providers and

patients across the country. HHS is working with the AHA and the AMA to promote the new posters, *5 Steps to Safer Health Care*. The posters offer evidence-based, practical tips on the role that patients can play to help improve the safety of the care they receive.

Led by the Agency for Healthcare Research and Quality, HHS is working to reduce the risks that patients may face in the course of receiving health care services. The AHA and AMA have patient safety initiatives underway as well.

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## Safer health care campaign

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The new posters provide tips that could help patients avoid errors related to prescription medicines, laboratory tests and procedures, and surgery. The tips were developed through a joint effort of AHRQ, HHS' Centers for Medicare & Medicaid Services, the Office of Personnel Management, and the Department of Labor. In particular, these materials, which are available in English and Spanish, emphasize

that good communication between health care providers and patients often can reduce a potential source of problems in today's increasingly complex health care system. The tips are also included in the *Medicare & You* handbook, which is mailed to about 39 million Medicare households each year.

The AHA and AMA are encouraging hospital leaders and physicians to hang the posters in their waiting rooms and exam rooms to help encourage dialogue between patients and providers about health care safety. The

groups also are distributing the posters through mailings and meetings.

Copies of *5 Steps to Safer Health Care* are available on the Web in English at [www.ahrq.gov/consumer/5steps.htm](http://www.ahrq.gov/consumer/5steps.htm) and in Spanish at [www.ahrq.gov/consumer/cincorec.htm](http://www.ahrq.gov/consumer/cincorec.htm). Print copies of the 17" x 22" posters (AHRQ Publication No. 03-M007 English; 03-M008 Spanish) are available from AHRQ.\* See the back cover of *Research Activities* for ordering information. ■

## AHRQ partners with others to use information technology to put evidence-based care recommendations into the hands of clinicians

Evidence-based care recommendations developed with support from the Agency for Healthcare Research and Quality can be downloaded, uplinked, incorporated into software, or sent out as alerts. As new technologies continue to emerge, AHRQ will continue identifying ways to put science directly into clinicians' hands to improve the quality of everyday care, says AHRQ Director Carolyn M. Clancy, M.D., in a recent article. Dr. Clancy points out that AHRQ's research portfolio now includes more than 150 studies in medical informatics and information technology, and partnerships with technology vendors have been the cornerstone of numerous AHRQ initiatives.

The Agency's first technology partnership was established when ePocrates, a handheld physician network, agreed to publish ePocrates DocAlert messages featuring recommendations from the AHRQ-supported U.S. Preventative Services Task Force (USPSTF)—an independent panel of experts in preventive medicine—and other AHRQ research. DocAlert messages deliver clinical news such as medication safety alerts, customized information on medical specialties, and USPSTF recommendations

directly to clinicians' personal digital assistants (PDAs). AHRQ also partners with Clinical Content Consultants LLC to incorporate the latest Task Force recommendations in its Prevention Encounter Form software, which provides clinical decision support prompts that automatically alert the provider when preventive services are due and allows for easy documentation and tracking.

Another example is AHRQ's partnership with InfoPOEMs, Inc. (Patient-Oriented Evidence that Matters), which produces daily e-mails to healthcare professionals alerting them to the latest developments in clinical research. These infoPOEMs can also be accessed through Info retriever, an online database system that provides a full scope of information from decision-support tools to diagnostic calculators, and from clinical practice guidelines to Cochrane Systematic Review abstracts. Info retriever is also available as a PDA application.

See "AHRQ: A tradition of evidence," by Dr. Clancy in the August 2003 *Health Management Technology* 24(8), pp. 26-29. Reprints (AHRQ Publication No. 03-R065) are available from AHRQ. ■

## HHS Secretary appoints new members to AHRQ National Advisory Council

HHS Secretary Tommy G. Thompson has named nine new members to the National Advisory Council for the Agency for Healthcare Research and Quality. The council provides advice to the Secretary and to the Director of the Agency. The council comprises 21 members from the private sector and eight ex-officio members from other Federal health agencies.

The new council members are:

Andrew Balas, M.D., Ph.D., Dean, School of Public Health, St. Louis University, St. Louis

Doug Campos-Outcalt, M.P.A., Medical Director, Maricopa County Department of Public Health, Phoenix

Michael Everett, Ph.D., Founder and CEO, Avator International, Inc., Lake Mary, FL

Andrew Fishman, M.D., Cogent Healthcare, Inc., Los Angeles

Arthur Garson, M.D., M.P.H., Dean, School of Medicine, University of Virginia, Charlottesville

Jessie Gruman, Ph.D., President and Executive Director, Center for the Advancement of Health, Washington, DC

Terry Jacobson, M.D., Director, Office of Health Promotion and Disease Prevention, Grady Health Systems, Atlanta

James J. Rohack, M.D., Senior Staff Cardiologist, Scott and White Clinic, Temple, TX

Paul Wallace, M.D., Executive Director, Care Management Institute, Kaiser Permanente, Oakland, CA ■

## Announcements

### New publications now available from AHRQ

The following new publications are now available free from the Agency for Healthcare Research and Quality. They may be ordered online or by phone or mail from the AHRQ Publications Clearinghouse. Please use the AHRQ publication number when ordering. See the back cover of *Research Activities* for ordering information.

***Care of Children and Adolescents in U.S. Hospitals. HCUP Factbook No. 4 (AHRQ Publication No. 04-0004).***

This new AHRQ factbook presents statistics about the inpatient care of hospitalized children 0 to 17 years of age by stays for neonatal conditions, pediatric illness, and adolescent pregnancy. The publication, which draws its information from the Kids' Inpatient Database (KID) for the year 2000, gives statistics for topics such as the reasons why children and adolescents are hospitalized, the

procedures they undergo, the cost and length of hospital stays, what happens when children and adolescents are discharged, and how their hospital care is paid.

KID is part of the Healthcare Cost and Utilization Project (HCUP), a Federal-State-industry partnership, which includes data organizations and participating States.\*

***Children's Dental Care Access in Medicaid: The Role of Medical Care Use and Dentist Participation. CHIRI™ Issue Brief No. 2 (AHRQ Publication No. 03-0032).***

This Child Health Insurance Research Initiative (CHIRI™) Issue Brief reports on children's dental care use in the Alabama and Georgia Medicaid programs. Researchers found that less than 30 percent of children in the two States received dental care during the study period, and approximately half of these children received acute dental services, such as emergency and

restorative care. Nearly all of the children who received care also received preventive care. Children who received medical care during the study period were more likely to receive dental care than those who received no medical care. The number of dentists participating in Medicaid affected the likelihood of children receiving dental care.\*

***Outpatient Prescription Drug Expenses, 1999. MEPS Chartbook No. 12 (AHRQ Publication No. 04-0001), Stagnitti, M.N., Miller, G.E., and Moeller, J.F., editors.***

This Medical Expenditure Panel Survey (MEPS) chartbook gives information on spending for outpatient prescription medicines for the civilian noninstitutionalized (community) population in 1999. Various sections of the report present a summary of overall outpatient prescription medicine expenses and payments; expenses

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## New publications

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and payments for various population groups; and expenses by therapeutic class of medicine.

Outpatient prescription drug expenses in the community population totaled \$94.2 billion in 1999 and accounted for almost 16 percent of total health expenses. The average expense per person

was \$341; the average expense per person among those who had an expense (about 62 percent of the population) was \$547. Medicare beneficiaries comprised only 14 percent of the community population but accounted for more than 41 percent of prescription medicine expenses. The 10 percent of the population that had the highest drug spending accounted for 71 percent of expenses for the

non-Medicare population and 41 percent of expenses for Medicare beneficiaries. The five therapeutic classes of drugs accounting for the largest expenses in the community population in 1999 were cardiovascular agents, hormones, central nervous system agents, psychotherapeutic agents, and respiratory agents.\* ■

## Grant final reports now available from NTIS

The following grant final reports are now available for purchase from the National Technical Information Service. Each listing identifies the project's principal investigator (PI), his or her affiliation, grant number, and project period and provides a brief description of the project. See the back cover of *Research Activities* for ordering information.\*\*\*

Records of all 750,000 documents archived at the National Technical Information Service—including many AHRQ documents and final reports from all completed AHRQ-supported grants—can now be searched on the new NTIS Web site. Also, all items in the database from 1997 to the present now can be downloaded from the NTIS Web site. Go to [www.ntis.gov](http://www.ntis.gov) for more information.

**Editor's note:** In addition to these final reports, you can access information about these projects from several other sources. Most of these researchers have published interim findings in the professional literature, and many have been summarized in *Research Activities* during the course of the project.

To find information presented in back issues (1995-2002) of *Research Activities*, go the AHRQ Web site at [www.ahrq.gov](http://www.ahrq.gov) and click on "Research Activities: Online Newsletter" and then "Search Research Activities." To search for

information, enter either the grant/contract number or principal investigator's name in the query line. A reference librarian can help you find related journal articles through the National Library of Medicine's PubMed.

***Clinical Decision Rules for Pediatric Pneumonia.* E. Melinda Mahabee-Gittens, Children's Hospital Medical Center, Cincinnati, OH. AHRQ grant HS11038, project period 9/30/01-9/29/02.**

This project involved identification of clinical characteristics that best identify children with pneumonia on chest x-ray. Subjects were 2 to 59 months of age; they presented to an ER with cough and at least one of the following symptoms: difficulty breathing, chest or abdominal pain, and/or fever. The project enrolled 510 children, 44 of whom had pneumonia on chest x-ray. The following clinical characteristics were identified: combination of age greater than 12 months, a respiratory rate of at least 50, and an oxygen saturation rate less than 96 percent; in younger children (less than 12 months), nasal flaring identified children with lower respiratory symptoms who had radiographic pneumonia. (Abstract and executive summary, NTIS accession no. PB2003-102309;

11 pp, \$26.50 paper, \$14.00 microfiche)\*\*\*

***Combining Different Data Sources to Assess Treatments.* Christopher H. Schmid, Ph.D., New England Medical Center Hospital, Boston, MA. AHRQ grant HS10064, project period 9/30/98-9/29/02.**

The researchers compiled a database of 11 trials of angiotensin-converting enzyme (ACE) inhibitors for nondiabetic renal disease to evaluate the relative efficacy of meta-regression using study-level summary and individual patient-level data for detecting modifiers of treatment effect. They conclude that putting together such databases is a large and expensive task, but it can lead to important clinical insights and may be worth the investment. (Abstract, executive summary, and final report, NTIS accession no. PB2003-104247; 54 pp, \$31.50 paper, \$14.00 microfiche)\*\*\*

***Consumer Activation: Research in Practice.* Ravi Singh, Foundation for Accountability, Portland, OR. AHRQ grant HS10975, project period 1/15/02-1/14/03.**

This project provided support for a national 1-day conference held in Washington, DC, in 2002. Participants included representatives of patient advocacy

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## Grant final reports

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and consumer organizations. The topic was methods to translate research findings into practice and engage consumers more effectively in their own health care. (Abstract, executive summary, and final report, NTIS accession no. PB2003-103366; 84 pp, \$34.00 paper, \$14.00 microfiche)\*\*\*

***Effect of Medicaid Prescription Drug Copayment Policy on Health Outcomes and Expenditures in a Dually Enrolled Dialysis Population.* Neil Jordan, Ph.D., University of Minnesota, Minneapolis. AHRQ grant HS10791, project period 7/1/00-3/31/02.**

This project examined the effects of Medicaid prescription drug copayments on the use and expenditures for other medical services, particularly for patients with chronic illnesses. The sample included 13,756 patients from 30 States who were continually dually enrolled in fee-for-service Medicare and Medicaid during 1995. Results showed that patients living in States with sliding scale drug copayments had fewer hospital days and lower expenditures than patients who did not have drug copayments. Flat rate copayments were negatively associated with hospital use, but copayment policy was not significantly related to ER visits or mortality. Illness severity measures, demographic characteristics, and other Medicaid program characteristics were strong predictors of resource use and medical expenditures. The study found no evidence that nominal cost sharing for prescription drugs leads to higher resource use, mortality, or medical expenditures in low-income dialysis patients. (Abstract, executive summary, and

dissertation, NTIS accession no. PB2003-104573; 220 pp, \$54.50 paper, \$26.50 microfiche)\*\*\*

***Epistemology and Ethics of Quality Improvement.* Joanne Lynn, M.D., RAND, Santa Monica, CA. AHRQ grant HS10961, project period 7/1/01-6/30/02.**

This project provided support for a research conference held in December 2001. The conference goals were to articulate the major arguments about the nature of the knowledge that can be gained from quality improvement (QI) efforts and standards for assessing the validity of the knowledge; examine the potential risks, benefits, and harms of QI and determine what levels of benefit are necessary and what levels of risk are acceptable in performing QI work; identify privacy concerns and informed consent considerations that arise from QI work; and identify priority areas for research on the conceptual, ethical, and empirical dimensions of QI, especially in areas that relate to protection of human subjects. (Abstract, executive summary, and final report, NTIS accession no. PB2002-101587; 34 pp, \$29.50 paper, \$14.00 microfiche)\*\*\*

***Evaluation of a Guideline-Based Decision Support System.* David F. Lobach, M.D., Ph.D., Duke University, Durham, NC. AHRQ grant HS10814, project period 9/30/00-9/29/02.**

Computerized decision support systems may enhance the use of clinical practice guidelines in clinical settings. The goal of this randomized controlled trial was to evaluate the impact of a Web-based, interactive guideline presentation system on compliance with guideline recommendations and physician education. The study involved second- and third-year

medicine residents in the acute care clinic and general inpatient medicine wards at the VA hospital in Durham, NC. Compliance with guideline recommendations was measured using chart audits, and knowledge acquisition was assessed through topic-specific pre- and postintervention tests. Participants were surveyed to obtain their opinions about guidelines and the usefulness of the system. Time pressures in the clinic, technical barriers, and political considerations affected use and implementation of the system, such that rates of use were too low to permit evaluation. The survey revealed that residents had favorable attitudes regarding guidelines. The researchers conclude that guideline-based practice is acceptable to medicine residents, but the systems used to implement guidelines need to be integrated with practice workflow and be time-efficient for clinicians to use. (Abstract, executive summary, and final report, NTIS accession no. PB2003-104245; 30 pp, \$26.50 paper, \$14.00 microfiche)\*\*\*

***Guideline Standardization.* Richard N. Shiffman, M.D., Yale University School of Medicine, New Haven, CT. AHRQ grant HS10962, project period 7/1/01-6/30/02.**

This project provided support for the Conference on Guideline Standardization, which was held in April 2002, to identify a set of key guideline components necessary to assess guideline validity and to facilitate practical application. A panel of 23 experts identified 44 items as necessary for reporting in clinical practice guidelines. Items achieving a median rank of 7 or higher with a low disagreement index were included in a proposed

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checklist that was found by reviewers to be comprehensive and useful for guideline development. (Abstract, executive summary, and final report, NTIS accession no. PB2003-102313; 10 pp, \$14.00 paper, \$14.00 microfiche)\*\*\*

***Health Care Markets, Managed Care, and Hospital Performance.*** Glenn A. Melnick, Ph.D., RAND, Santa Monica, CA. AHRQ grant HS09211, project period 9/30/95-9/29/99.

This project involved multiple studies that examined the interaction among health care markets, managed care, and hospital performance in the United States between 1989 and 1997. Examples of findings include the following. Hospitals in high managed care penetration areas display a significantly lower rate of cost growth, but this depends on the level of hospital competition. Evidence suggests that greater levels of managed care penetration are associated with lower levels of uncompensated care delivery, after controlling for hospital market structure. In California, increased hospital competition reduced the rate of growth in hospital costs and revenues over a significantly longer time period than demonstrated in previous studies. (Abstract, executive summary, and final report, NTIS accession no. PB2003-104253; 44 pp, \$29.50 paper, \$14.00 microfiche).\*\*\*

***Health and Productivity Feasibility Study.*** R. W. Whitmer, M.B.A., Health Enhancements Research Organization, Birmingham, AL. AHRQ grant HS10099, project period 5/1/00-4/30/01.

This project provided support for a small conference for corporate medical directors, human resource

and finance executives, and government research leaders to discuss the general topic of health and productivity. The conference was held in Colorado Springs in March 2000. (Abstract, executive summary, and final report, NTIS accession no. PB2003-106086; 22 pp, \$26.50 paper, \$14.00 microfiche)\*\*\*

***Integrating Research on Spirituality and Health and Well-Being into Service Delivery.*** Charles T. Kaelber, M.D., Ph.D., International Center for the Integration of Health and Spirituality, Rockville, MD. AHRQ grant HS14033, project period 3/17/03-3/16/04.

This project provided support for a conference held in April 2003 in Bethesda, MD. The objectives were to identify research findings associating religious and spiritual variables to a broad spectrum of physical, mental, and social health outcomes; identify future research questions in this area; and encourage further research on this topic. (Abstract, executive summary, and proceedings, NTIS accession no. PB2003-106536; 164 pp, \$47.50 paper, \$20.00 microfiche)\*\*\*

***International Conference for Health Policy Research, 2001.*** William B. Smith, Ph.D., American Statistical Association, Alexandria, VA. AHRQ grant HS12074, project period 12/6/01-12/5/02.

This project provided support for a conference on methodological issues in health services and outcomes research that was held December 2001 in Boston. Conference topics included hierarchical models, longitudinal data, causal inference, techniques for assessing quality of care, profiling providers, techniques for inferring disparities,

decisionmaking, data mining, and survey design. (Abstract, executive summary, and appendix, NTIS accession no. PB2003-104250; 14 pp, \$26.50 paper, \$14.00 microfiche)\*\*\*

***Kansas Rural Practice Research Network.*** Ken J. Kallail, Ph.D., University of Kansas Medical Center, Kansas City. AHRQ grant HS11201, project period 9/30/00-9/29/02.

This project provided support for development of the Kansas Rural Practice Research Network, a collaboration between the Kansas University School of Medicine, the Great Plains Health Alliance, the Kansas Academy of Family Physicians, the Kansas chapter of the American College of Physicians, and 17 primary care practices located in rural medically underserved communities with 3,000 or fewer residents. It includes 31 physicians, 7 nurse practitioners, and 8 physician assistants. (Abstract, executive summary, and final report, NTIS accession no. PB2003-102311; 14 pp, \$26.50 paper, \$14.00 microfiche)\*\*\*

***Knowledge Systems for Better Care.*** Suzanne Fletcher, M.D., International Clinical Epidemiology Network, Philadelphia, PA. AHRQ grant HS12064, project period 1/28/02-1/27-03.

The project provided support for three workshops: (1) Knowledge Systems for Better Care, which focused on the use of emerging technologies and new knowledge systems to address adverse health care outcomes; (2) Shared Decisionmaking: Integration Sociocultural and Patients' Perspectives in Health Care, which focused on health care disparities associated with socioeconomic

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position, race, ethnicity, and sex; and (3) Measuring and Preventing Adverse Outcomes in Health Care, which focused on methods for measuring adverse outcomes. (Abstract and executive summary, NTIS accession no. PB2003-104574; 146 pp, \$41.50 paper, \$20.00 microfiche)\*\*\*

### ***Long-Term Care Research and Service Delivery. David Helms, Ph.D., Academy for Health Services Research and Health Policy, Washington, DC. AHRQ grant HS12057, project period 9/30/01-9/29/02.***

This project provided support for a conference focused on issues related to the increasing complexity of long-term care, including the growing demand for services, rising consumer expectations about quality, the changing capacity of families to provide care, and problems with the interface between acute health care and rehabilitative services. (Abstract, executive summary, and conference proceedings, NTIS accession no. PB2003-104246; 124 pp, \$38.00 paper, \$20.00 microfiche)\*\*\*

### ***Outcomes of Instability on Discharge in Urban Hospitals. Ethan Halm, M.D., Mount Sinai School of Medicine, New York, NY. AHRQ grant HS09973, project period 9/30/98-9/29/02.***

The researchers used data from three observational cohort studies to develop condition-specific criteria for measuring instability on discharge in community-acquired pneumonia, hip fracture, and asthma. They also examined associations between instability on discharge and post-hospital outcomes. Of the 680 pneumonia patients studied, 19.1 percent left the hospital prior to becoming

stable. Instability on discharge was associated with higher risk-adjusted rates of death or readmission and failure to return to usual activities. For 559 hip fracture patients, 17 percent had serious clinical issues on discharge, and 41 percent had new impairments; both were associated with worse functional mobility. The analyses of instability on discharge among asthma patients has not yet been completed. (Abstract, executive summary, and final report, NTIS accession no. PB2003-106085; 48 pp, \$24.50 paper, \$14.00 microfiche)\*\*\*

### ***Peer Counseling Intervention for Vulnerable Rural Elderly. Lee Sennott-Miller, Ph.D., University of Arizona, Tucson. AHRQ grant HS07741, project period 9/1/94-8/31/98.***

This research tested the ability of trained age-related peers to facilitate change in health knowledge and behavior for elderly Hispanic and white rural residents. After a survey of 841 community members 60 and over in a former mining town near the Mexican border, eight Hispanic and white older men and women visited 275 of those surveyed over 15 months. Both ethnicity and contact/no contact had significant effects on the increase in questions answered correctly post-test. In general, knowledge increased as contacts increased, but improvement was not uniform across groups. For behavior, visits by health peers had an effect, but the amount of contact was not a factor. Effects varied among the groups indicating the presence of interaction. Hispanics were least successful in making changes. The research demonstrates that trained counterparts of elderly community members, using a non-intensive, informally delivered cognitive intervention can increase levels of knowledge about self-

health care and foster appropriate behavior changes for better health. (Abstract, executive summary, and final report, NTIS accession no. PB2003-106087; 30 pp, \$26.50 paper, \$14.00 microfiche)\*\*\*

### ***PBRN Characterization and NAMCS by Patient Report. Kurt C. Stange, M.D., Ph.D., Case Western Reserve University, Cleveland, OH. AHRQ grant HS11176, project period 9/30/00-9/29/02.***

The goal of this project was to expand the infrastructure of a successful primary care practice-based research network by increasing the network's research capacity. This was accomplished by involving additional practices and populations from an integrated health care system, developing an electronic information infrastructure for the network, and establishing an Internet-based learning exchange to foster planning, communication, and implementation of research findings and quality improvement initiatives among participating practices. The Rainbow Pediatric Practice Network was established and the Practice-to-Practice Web site was developed and implemented. (Abstract, executive summary, and final report, NTIS accession no. PB2003-104248; 38 pp, \$29.50 paper, \$14.00 microfiche)\*\*\*

### ***Quality and Cost Containment in Pediatric Intensive Care. John M. Tilford, Ph.D., Arkansas Children's Hospital, Little Rock. AHRQ grant HS09055, project period 9/1/95-8/31/99.***

The mission of many children's hospitals is to provide care without concern for race or insurance status. In light of recent findings of differences in medical treatment according to race and insurance

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status for adult populations, this study examined whether such variations occurred in the setting of the pediatric intensive care unit (PICU). Data were collected on clinical and demographic measures, resource use, and outcomes for 5,749 patient admissions to the ICUs at three children's hospitals. Models to predict resource use and outcomes after controlling for differences in patient severity were developed to assess variations by race, sex, and insurance status. The primary hypothesis underlying this research project was that findings based on adult populations may not generalize to the PICU. The findings support this hypothesis. The study produced no evidence that therapies or outcomes differ by race or insurance status after controlling for illness severity. (Abstract, executive summary, and final report, NTIS accession no. PB2003-10442; 26 pp, \$26.50 paper, \$14.00 microfiche)\*\*\*

**Regional Community Health Center Practice-Based Research Network.** George S. Rust, M.D., M.P.H., Morehouse School of Medicine, Atlanta, GA. AHRQ grant HS11217, project period 9/30/00-9/29/02.

The Southeast Regional Clinicians' Network (SERCN) is a practice-based research network that includes health care professionals employed by 146 federally funded community health centers (CHCs) in eight Southeastern States. These health centers serve roughly 1.8 million people who are medically underserved, 84 percent of whom are poor, and 45 percent of whom are uninsured. During 2000, there were over 5 million medical encounters from a diverse population of medical users (45

percent black, 14 percent Hispanic, 0.8 percent American Indian/Alaska Native, 0.5 percent Asian, and less than 1 percent other). The network has concentrated on improving health outcomes related to high-impact, high-disparity conditions such as asthma and hypertension. This project involves conducting the National Ambulatory Medical Care Survey in a sample of participating network sites, as well as conducting tests to validate data collected routinely in community health center MIS systems. (Abstract, executive summary, and final report, NTIS accession no. PB2003-104251; 14 pp, \$26.50 paper, \$14.00 microfiche)\*\*\*

**Reliability and Efficacy of Telemedicine in Routine Pediatric Practice.** Kenneth M. McConnochie, M.D., University of Rochester, Rochester, NY. AHRQ grant HS10753, project period 9/30/00-9/29/02.

The goal was to examine the usefulness of telemedicine links for increasing access to quality health care. Participants were children who were seen in a hospital-based primary care facility because of illness and were examined by an experienced pediatrician. Patients were then randomly assigned to receive either a telemedicine or in-person duplicate exam. Patients needing skilled palpation or x-rays were excluded. Among the 492 valid cases, 54 (11 percent) had a disagreement between the two exams on primary diagnosis. Disagreement was marginally more common among cases randomized to telemedicine than to in-person exam. (Abstract, executive summary, and final report, NTIS accession no. PB2003-104249; 52 pp, \$31.50 paper, \$14.00 microfiche)\*\*\*

**Surf\*Net.** Theodore G. Ganiats, M.D., University of California,

**San Diego, La Jolla, CA. AHRQ grant HS11223, project period 9/30/00-9/29/02.**

This project involved a survey of clinicians and patients in the San Diego Unified Network for Research in the Family Medicine (Surf\*Net) Practice-Based Research Network. Data were collected on 49 clinicians and 1,319 patient encounters involving a random sampling of their patients over 22 weeks from February 2002-July 2002. Surf\*net provides care to a larger number of blacks than most practice-based research networks, but Surf\*Net patients are more likely than patients in other networks to have private insurance, more likely to be in capitated care, and less likely to be self-pay. The study demonstrated the ability of Surf\*Net to collect data using an extensive but simple design. (Abstract, executive summary, and final report, NTIS accession no. PB2003-104252; 22 pp, \$26.50 paper, \$14.00 microfiche)\*\*\*

**Synthesis of Health Services Research for Policymakers.** Jason Lee, Ph.D., Academy for Health Services, Washington, DC. AHRQ grant HS10947, project period 3/1/01-2/28/02.

This project provided support for a small working conference on ways to increase the policy relevance of health services research. A group of health policy experts and health services researchers discussed synthesizing, translating, and disseminating research findings focused on several current policy debates, including adding a prescription drug benefit to the Medicare program and private employer responses to health care inflation. (Abstract, executive summary, and final report, NTIS accession no. PB2003-104243; 110 pp, \$38.00 paper, \$20.00 microfiche)\*\*\* ■

**Amthauer, H., Gaglio, B., Glasgow, R.E., and others. (2003, July). "Lessons learned: Patient strategies for a type 2 diabetes intervention in a primary care setting." (AHRQ grant HS10123). *Diabetes Educator* 29(4), pp. 673-681.**

Recruitment of patients and physicians willing to participate in clinical trials continues to be a challenge. These authors report on the methods and strategies they used to increase participation in the Diabetes Priority Program to enhance diabetes self-management and care practices. A mailing recruitment process resulted in a participation rate of 83 percent among patients who were contacted and eligible. In contrast, only 3 percent of primary care physicians took part in the program despite efforts to make the program brief, noninvasive, and compatible with usual care.

**Baughman, K., Logue, E., Sutton, K., and others. (2003). "Biopsychosocial characteristics of overweight and obese primary care patients: Do psychosocial and behavior factors mediate sociodemographic effects?" (AHRQ grant HS08803). *Preventive Medicine* 37, pp. 129-137.**

These authors used available baseline data on 665 overweight or obese primary care patients from an ongoing obesity intervention trial to examine whether psychosocial and behavioral factors mediate the relationships between sociodemographic factors and body mass index (BMI). Lower educational attainment was associated with a higher BMI after controlling for decisional balance, social support, self-efficacy, energy

intake, and energy expenditure. In contrast, ethnicity was not associated with BMI after controlling for psychosocial and behavioral factors. However, the researchers did not find several expected relationships between psychosocial variables and behavior or BMI. They conclude that cross-sectional relationships between demographic, psychosocial, or behavioral variables and BMI appear to be complex. They call for more research so that better management strategies can be developed.

**Bennett, S.J., Oldridge, N.B., Eckert, G.J., and others. (2003, July). "Comparison of quality of life measures in heart failure." (AHRQ grant HS09822). *Nursing Research* 52(4), pp. 207-216.**

This study compared the ability of three quality of life measures to detect clinically important changes in heart failure patients over time. The investigators used the Chronic Heart Failure Questionnaire (CHQ), the Minnesota Living with Heart Failure Questionnaire (LHFQ), and the General Health Survey Short-form-12 (SF-12) during interviews with 211 patients with heart failure at baseline and at 4, 8, and 26 weeks after baseline (which 165 patients completed). Overall, patients reported low-to-moderate health-related quality of life. While all three instruments were reliable and valid, the CHQ and LHFQ were more sensitive than the SF-12 in detecting clinically important changes over time.

**Carter, R., Holiday, D.B., Stocks, J., and others. (2003, August). "Predicting oxygen uptake for men and women with moderate**

**to severe chronic obstructive pulmonary disease." (AHRQ grant HS08774). *Archives of Physical Medicine and Rehabilitation* 84, pp. 1158-1164.**

These authors developed regression equations for estimating peak oxygen consumption ( $\text{Vo}_2$ ) for men and women with moderate to severe chronic obstructive pulmonary disease (COPD) from the 6-minute walk test (6MWT). Knowledge of the peak  $\text{Vo}_2$  can be used for patient assessment, serial monitoring, evaluating disability, and as a common index of function. The investigators completed pulmonary function testing, cycle ergometry with gas exchange, and the 6MWT with 124 patients with moderate to very severe COPD. Of these tests, 6MWT was the strongest independent predictor of peak  $\text{Vo}_2$ . They then used generalized regression modeling to develop equations for the estimation of peak  $\text{Vo}_2$  for the 6MWT. The resulting model accounted for 79 percent of the variance for estimation of peak  $\text{Vo}_2$  in the patients studied.

**Casillas, J.N., Woods, W.G., Hunger, S.P., and others. (2003, August). "Prognostic implications of t(10;11) translocations in childhood acute myelogenous leukemia: A report from the children's cancer group." (AHRQ National Research Service Award training grant T32 HS00020). *Journal of Pediatric Hematology/Oncology* 25(8), pp. 594-600.**

This study identified 11 children out of 470 children newly

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## Research briefs

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diagnosed with acute myelogenous leukemia (AML) and myelodysplastic syndrome (MDS), whose blasts carried t(10;11) reciprocal translocations or other complex rearrangements involving chromosomes 10p and 11q. Nine of these patients relapsed within 12 months, an 82 percent relapse rate. This was higher than the 46 percent relapse rate of other AML children studied and higher than children with AML with other 11q23 chromosomal abnormalities.

However, survival and event-free survival at 6 years was not different from other children with AML studied. Further research is needed to determine the changes occurring at the molecular level for patients with t(10;11) translocations and other rearrangements of chromosomes 10 and 11 to gain insight into the mechanisms causing this clinical phenotype, which is associated with such a poor prognosis.

**Collard, H.R., Gruber, M.P., Weinberger, S.E., (2003, September).** “Anatomy of a diagnosis.” (AHRQ grant HS11540). *New England Journal of Medicine* 349, pp. 987-992.

In this article, a clinician presents the step-by-step diagnosis of a 33-year-old man who was initially seen for coughing up a tablespoon of bright red blood (hemoptysis). The eventual diagnosis underscores the importance of paying close attention to a patient's history, in this case a childhood heart surgery. Initial physical examination and complete blood count were normal, but the chest x-ray was suggestive of possible pneumonia. The patient was put on antibiotics but 5 weeks later spit up a full cup of blood. Following a series of tests, he was

given a high dose of corticosteroids, frequently used as a nonspecific treatment for many forms of diffuse alveolar hemorrhage, and discharged home. He was readmitted to the hospital 2 weeks later, after he coughed up two large cups of bright red blood. Magnetic resonance angiography of the aorta, site of a childhood surgical repair, revealed a pseudoaneurysm. Emergency surgery was performed to repair the aneurism and to repair an aortobronchial fistula, which solved the problem.

**Cress, R.D., Zaslavsky, A.M., West, D.W., and others. (2003).** “Completeness of information on adjuvant therapies for colorectal cancer in population-based cancer registries.” (AHRQ grant HS09869). *Medical Care* 41(9), pp. 1006-1012.

Population-based cancer registries represent a potentially valuable tool to evaluate treatment. However, completeness of treatment data in these registries varies by patient and hospital characteristics. Thus, use of registry data without supplementation could bias estimates of the proportion of patients treated and of the patient and provider characteristics associated with treatment, concludes this study. The investigators surveyed physicians or reviewed office records of 1,956 northern California patients diagnosed with colorectal cancer during 1996 and 1997 regarding use of adjuvant chemotherapy and radiation therapy. Receipt of chemotherapy and radiation therapy was in the original registry records for only 82 percent and 90 percent of patients, respectively. Completeness of therapy reporting in the registry varied by patient and hospital characteristics.

**Gardiner, J.C., Bradley, C.J., Polverejan, E., and others. (2003).** “Longitudinal assessment of cost in health care interventions.” (AHRQ grant HS09514). *Health Services & Outcomes Research Methodology* 3, pp. 149-168.

Identifying important determinants of cost and health outcomes is a critical step in the economic evaluation of health care interventions. These authors developed a method to estimate the cumulative cost of health interventions over a specified duration, while controlling for a mix of patient-specific variables using data on total cost and associated length of treatment. They estimated a two-equation model for total cost and duration of treatment and applied their method to hospital costs and length of stay of patients undergoing cardiac procedures. In this case, the method accounted for the differential impact of treatment duration on total cost.

**Gill, C.J., Lau, J., Gorbach, S.L., and Hamer, D.H. (2003, August).** “Diagnostic accuracy of stool assays for inflammatory bacterial gastroenteritis in developed and resource-poor countries.” (AHRQ National Research Service Award training grant T32 HS00060). *Clinical Infectious Diseases* 37, pp. 365-375.

Because acute bacterial gastroenteritis, a common cause of severe diarrhea, is often inflammatory, rapid stool assays that detect intestinal inflammation can be used to distinguish patients with bacterial (versus viral, parasitic, or toxin-caused) gastroenteritis who are more likely to benefit from antibiotic therapy. The researchers performed a meta-analysis of studies of rapid stool

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assays that test for lactoferrin, fecal leukocytes, fecal erythrocytes, and occult blood in developed and resource-poor countries. In developing countries, rapid stool assays performed poorly, whereas in developed countries, tests for fecal leukocytes, lactoferrin, and occult blood were moderately useful and could identify patients who were more likely to benefit from antibiotic therapy.

**Insinga, R.P. Dasbach, E.J., and Myers, E.R. (2003, June).** “The health and economic burden of genital warts in a set of private health plans in the United States.” (AHRQ National Research Service Award training grant T32 HS00083). *Clinical Infectious Diseases* 36, pp. 1397-1403.

Genital warts, caused by infection with the human papillomavirus (HPV), is estimated to be the most commonly occurring sexually transmitted disease in the United States. On average, individual episodes of care for genital warts involve 3.1 physician visits and incur costs of \$436, concludes this study. The researchers examined the prevalence of and costs associated with genital warts using claims data from a sample of 3,664,686 privately insured individuals. They identified 5,095 cases of genital warts (1.7 cases per 1,000 person-years) billed through health plans during 2000. The prevalence of and health plan costs associated with genital warts were highest among women aged 20-24 years (6.2 cases and \$1,692 in costs per 1,000 person-years) and men aged 25-29 years (5 cases and \$1,717 in costs per 1,000 person-years).

**Ma, J., Stafford, R.S., Cockburn, I.M., and Finkelstein, S.N. (2003,**

**February).** “A statistical analysis of the magnitude and composition of drug promotion in the United States in 1998.” (AHRQ grant HS13405). *Clinical Therapeutics* 25, pp. 1503-1517.

According to this study, the pharmaceutical industry invests heavily in promoting its products and concentrates its promotional expenditures on a small number of medications. Although promotion to professionals remains dominant, direct-to-consumer advertising has become key for a subset of common medications. The researchers analyzed nationally representative data on expenditures for the 250 most promoted medications in the United States in 1998 and the five most commonly used modes of promotion. During that year, the pharmaceutical industry spent \$12,724 million promoting its products in the United States, of which 86 percent was accounted for by the top 250 drugs and 52 percent by the top 50 drugs. Direct-to-consumer advertising was more concentrated on a small subset of medications than was promotion directed to professionals.

**Mofidi, M., Strauss, R., Pitner, L.L., and Sandler, E.S. (2003, May).** “Dental students’ reflections on their community-based experiences: The use of critical incidents.” (National Research Service Award training grant T32 HS00032). *Journal of Dental Education* 67(5), pp. 515-523.

The purpose of this study was to gain insight into the community-based experiences of dental students as documented in their critical incident essays and explore what learning outcomes and benefits students reported. Following two required community-based clinical rotations, each student wrote a reflection

essay on a self-defined critical incident that occurred during the rotations. Rotations took place in settings such as a public health clinic, special needs facilities, hospitals, and correctional institutions. Analysis of the essays revealed that as a result of these rotations, students developed increased self-awareness, empathy, communication skills, and self-confidence, and increased their appreciation for the influence of dentistry on people’s lives. The researchers conclude that community-based dental education that includes a process for reflection holds promise as a dental education strategy.

**Murray, M.E., and Henriques, J.B. (2003, July).** “An exploratory cost analysis of performing hospital-based concurrent utilization review.” (AHRQ grant HS10667). *American Journal of Managed Care* 9, pp. 512-518.

The purpose of this study was to determine the monetary costs to the hospital associated with conducting concurrent utilization review (UR). This is a process of evaluating a provider’s plan of clinical care against the criteria of medical necessity, appropriateness, and the terms of the contract with a payer. Care that meets these criteria is certified for reimbursement. The researchers divided the 29 clinical services of a 500-bed academic health center into nine clinical groups. They used time sampling and cost analysis methods to determine the cost to the hospital of conducting UR for the nine clinical groups. The pediatrics group spent more time preparing for the review than the cardiology and oncology groups. The total cost of the UR process was nearly \$166,000 annually. Given a denial rate of less than 2 percent and the

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high cost of the process, it may be beneficial to investigate alternative processes for conducting UR, conclude the researchers.

**Nielsen, K., and Trinkoff, A. (2003, May). "Applying ergonomics to nurse computer workstations." (AHRQ grant HS11990). *Computers, Informatics, Nursing* 21(3), pp. 150-157.**

Nursing is an occupation at high risk for developing cumulative trauma disorders because of job-related repetitive tasks, heavy lifting, and awkward postures. With more computer time required, nurses' injury risks will only increase unless interventions are implemented before problems occur. For instance, nurses may work nearly 2 to 5 hours per shift at standing workstations in the future. This article provides information about ergonomic computer workstation design that may be applied to nursing workstations. The authors review the literature on ergonomic recommendations; describe additional ergonomic factors that pertain to the nurse-computer interaction, such as taking breaks; discuss recent ergonomic policies; and make recommendations for future research.

**Nyden, P. (2003). "Academic incentives for faculty participation in community-based participatory research." *Journal of General Internal Medicine* 18, pp. 576-585.**

Recognizing the need to overcome the obstacles of traditional university- and discipline-oriented research approaches, these authors present a variety of incentives to promote community-based participatory research (CBPR). They cite the

following strategies for promoting CBPR: development of faculty research networks; team approaches to CBPR; mentoring faculty and students; using existing national CBPR networks; modifying tenure and promotion guidelines; development of appropriate measures of CBPR scholarship; earmarking university resources to support CBPR; using Institutional Review Boards to promote CBPR; making CBPR-oriented faculty appointments; and creating CBPR centers.

**Patrick, D.L., Curtis, R., Engelberg, R.A., and others. (2003). "Measuring and improving the quality of dying and death." (AHRQ grant HS09540) *Annals of Internal Medicine* 139, pp. 410-415.**

Improving end-of-life experience is a major challenge, with the goal being deaths that are reasonably free of discomfort, in accordance with patients' wishes, and within acceptable professional and ethical standards. These authors developed a 31-item measure of the quality of dying and death and applied it in a community sample and a sample of hospice patients. They collected the scores on the Quality of Dying and Death Instrument and measures of perceived quality of care from patients' loved ones after death. Higher overall after-death ratings of the quality of care received from all providers and from physicians were associated with higher quality dying and death. How well patients' symptoms were controlled in the community study and how well wishes were followed and explained in the hospice study were associated with higher quality dying.

**Punglia, R.S., D'Amico, A.V., Catalona, W.J., and others. (2003, August). "Effect of verification bias on screening for prostate**

**cancer by measurement of prostate-specific antigen." (AHRQ National Research Service Award training grant T32 HS00020). *New England Journal of Medicine* 349(4), pp. 335-342.**

Lowering the current threshold level of prostate-specific-antigen (PSA) for recommending prostate biopsy from 4.1 ng/ml to 2.6 ng/ml in men younger than 60 years may improve the clinical value of the PSA test, concludes this study. Between 1995 and 2001, 6,691 men underwent PSA-based screening for prostate cancer. Of these men, 11 percent subsequently underwent biopsy of the prostate. The researchers used a mathematical model to estimate adjusted receiver-operating-characteristic (ROC) curves. Adjusting for verification bias significantly increased the area under the ROC curve of the PSA tests, as compared with unadjusted analysis. Based on those calculations, if the threshold PSA value for undergoing biopsy were set at 4.1 ng per milliliter, 82 percent of cancers in younger men and 65 percent of cancers in older men would be missed. Lowering the threshold for biopsy from 4.1 to 2.6 ng/ml in men younger than 60 years would double the cancer detection rate from 18 percent to 36 percent, whereas the specificity would fall only from 0.98 to 0.94.

**Rosen, J., Mittal, V., Mulsant, B.H., and others. (2003, May). "Educating the families of nursing home residents: A pilot study using a computer-based system." (AHRQ grant HS11976). *Journal of the American Medical Directors Association* 4, pp. 128-134.**

Computer-based interactive videos can be used to educate family members of nursing home

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residents on dementia care, concludes this pilot study. Focus groups guided the design and development of the Web-based system, which provided interactive educational videos on dementia, agitation/aggression, and caregiver strategies, as well as interactive communication between family members of nursing home residents and the homes. The researchers then tested its usability and functionality with 18 family members of nursing home residents. Based on a pretest and posttest, knowledge of key principles of dementia care improved significantly, and user satisfaction and "ease of use" received high ratings. A complete curriculum of education and interactive bulletin boards for family inclusion in care planning are currently under development.

**Small, S.B., and Barach P. (2002, December).** "Patient safety and health policy: A history and review." (AHRQ grants HS11553 and HS11905). *Hematology/Oncology Clinics of North America* 16(6), pp. 1463-1482.

In this study, the researchers describe the emergence of the patient safety movement, development of policy at the State level, the role of accreditation, and the role of large payers. They also examine organizational factors in patient safety, educational initiatives, and legal policy. They suggest that any approach to improving patient safety should, at a minimum, include a nonpunitive in-depth mechanism for reporting incidents, post-incident evaluations for identification of system changes to prevent subsequent occurrences, and State-guaranteed legislative protection from discovery for all aspects of

information gathered to improve patient safety.

**Whitehall II Study: Ferrie, J.E., Shipley, M.J., Stansfeld, S.A., and others. (2003).** "Future uncertainty and socioeconomic inequalities in health: The Whitehall II study." (AHRQ grant HS06516). *Social Science & Medicine* 57, pp. 637-646; and **Stafford, M., and Marmot, M. (2003).** "Neighborhood deprivation and health: Does it affect us all equally?" (AHRQ grant HS06516). *International Journal of Epidemiology* 52, pp. 357-366.

These two papers examine results from the Whitehall II study, a longitudinal study of white-collar British civil servants. In the first study, the investigators examined the contribution of job and financial insecurity to health problems and cardiovascular risk factors. They observed dramatic increases in job insecurity among employed participants and in financial insecurity among both employed and unemployed participants, particularly non-employed men between 1985-1988 and 1997-1999. With the exception of depression, job insecurity had little effect on socioeconomic differences in health problems. However, financial insecurity contributed substantially to declines in self-rated health, longstanding illness, and depression in both employed and non-employed men, and substantially weakened ratings of health in non-employed women. The second study found no evidence that personal poverty combined with affluent neighborhood had negative health consequences. Rather, living in a deprived neighborhood may have the most negative health effects on poorer individuals, possibly because they are more dependent on collective resources in the

neighborhood. These findings were based on linking individual data on socioeconomic status and perceived status from the Whitehall II study to census data on neighborhood deprivation.

**Whitney, S.N. (2003).** "A new model of medical decisions: Exploring the limits of shared decision making." (AHRQ grant K08 HS11289). *Medical Decision Making* 23, pp. 275-280.

This article proposes a model of medical decisions based on two fundamental characteristics of each decision: importance and certainty. The proposed model uses these characteristics to predict who will have decisional priority for any given decision and shows how one class of decisions lends itself particularly well to shared decisionmaking. Three other types of decisions are less well suited to collaborative decisions. For major choices that have low certainty, this author believes patients should be encouraged to be the primary decisionmakers, with physician assistance as needed. Most minor decisions that have high certainty are expected to be made by physicians. Major decisions that have high certainty are likely to cause serious conflict when patients and physicians disagree.

**Wolinsky, F.D., Wyrwich, K.W., Babu, A.N., and others. (2003).** "Age, aging, and the sense of control among older adults: A longitudinal reconsideration." (AHRQ grants HS10234, HS11635). *Journal of Gerontology: Social Sciences* 58B (4), p. S212-S220.

These researchers conducted baseline face-to-face interviews and six followup telephone interviews over the following year with 1,662 chronically ill older patients at two medical centers.

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During the interviews, they used an eight-question survey to measure participants' sense of control over life events. They also considered factors that might confound the relationship between age and sense of control: demographic and socioeconomic status, psychosocial factors, physical and mental well-being, and the patient-practitioner

relationship. Older age at baseline and followup was significantly associated with less sense of control. Modest yet enduring and significant increases in sense of control occurred for whites compared with minorities over time and for better educated as opposed to less educated patients. Aside from the effects of age and baseline sense of control, mental well-being had the most substantial impact on sense of control over time. ■

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AHRQ Pub. No. 04-0021  
November 2003

ISSN 1537-0224