



Research Activities

No. 259, March 2002

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AHRQ mourns the loss of John Eisenberg

The Agency for Healthcare Research and Quality lost a leader, colleague, and friend on March 10, 2002, with the passing of Director John M. Eisenberg, M.D., M.B.A. He passed away peacefully at home after a year-long illness caused by a brain tumor. Dr. Eisenberg was AHRQ's Director from 1997 to 2002.

A highly respected national leader in health care, Dr. Eisenberg's career was dedicated to ensuring that health care is based on a strong foundation of research and that the services provided reflect the needs and perspectives of patients. As Director of AHRQ, Dr. Eisenberg spearheaded the efforts of the Federal Government to reduce medical errors and improve patient safety in American health care.

Dr. Eisenberg also worked to increase research in areas that have been relatively neglected in the past, especially improving health care quality, health care disparities, and translating evidence-based medicine into improved health care.

A devoted husband and father, Dr. Eisenberg also was a friend, teacher, and mentor to many of this

Nation's current and future leaders in health care as well as to his colleagues at AHRQ.

Before his appointment at AHRQ, Dr. Eisenberg was Chairman of the Department of Medicine and Physician-in-Chief at Georgetown University. Previously, he was Chief of the Division of General Internal Medicine at the University of Pennsylvania. From 1986 through 1995, Dr. Eisenberg was a founding Commissioner of the Congressional Physician Payment Review Commission, serving as its Chairman from 1993 to 1995. Dr. Eisenberg also was a member of the Institute of Medicine of the National Academy of Sciences.

Dr. Eisenberg was born in Atlanta, GA, in 1946. He was a magna cum laude graduate of Princeton University (1968) and the Washington University School of Medicine in St. Louis (1972). After his residency in internal medicine at the University of Pennsylvania, he was a Robert Wood Johnson Foundation Clinical Scholar and earned a Master of Business Administration degree at the Wharton School with distinction. ■



Aspirin use has increased in patients who have heart disease, but underuse continues to be a concern

A recent study supported by the Agency for Healthcare Research and Quality (HS10548) found that the percentage of patients with heart disease who report taking aspirin regularly increased from 59 percent to 81 percent between 1995 and 1999. These results reflect substantial improvements in practice, but additional patients could benefit from this inexpensive, effective treatment that reduces deaths from heart disease, recurrent heart attacks, and strokes.

Researchers at one of seven AHRQ-supported Centers for Education and Research on Therapeutics (CERTs), the Duke University Medical Center, surveyed more than 25,000 patients from the Duke Databank for Cardiovascular Diseases. They examined trends in aspirin use, patient characteristics, and long-term outcomes for aspirin effectiveness.

According to the researchers, patients who didn't take aspirin to lower their risk of heart attack had nearly twice the risk of dying as those who took the drug regularly. Study findings show a number of clear characteristics that were predictors of aspirin use. Patients who were more likely to take the drug were younger males, nonsmokers, and those who had suffered prior heart attacks or undergone

revascularization procedures in which clogged arteries were unblocked. Those who were unlikely to take aspirin regularly were patients with heart failure, diabetes, or hypertension. Clinical trials have consistently shown that patients who have diabetes benefit more from aspirin therapy than patients who do not have diabetes.

For more information, see "Underuse of aspirin in a referral population with documented coronary artery disease," by Robert M. Califf, M.D., Elizabeth R. DeLong, Ph.D., Truls Ostbye, M.D., M.Ph. and others, in the March 15, 2002 *American Journal of Cardiology* 89(6), pp. 653-661.

Editor's note: The AHRQ-supported U.S. Preventive Services Task Force (USPSTF) recently issued a recommendation to clinicians to discuss the benefits and risks of aspirin therapy with healthy adults who are at risk of coronary heart disease. The USPSTF recommendation was published in the January 15 issue of the *Annals of Internal Medicine*. Go to the AHRQ Web site at www.ahrq.gov/clinic/prevenix.htm for additional information on the USPSTF and this recommendation. ■

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Insurance type influences medication costs and the choice of brand-name or generic drugs

Private insurance and Medicaid provided coverage for 74 percent of outpatient prescription drug purchases in the United States in 1996, while 19 percent of drug purchases were not covered by any type of insurance. A substantial portion of Americans still lack any insurance coverage for drugs. Moreover, the type of health insurance individuals have influences whether they purchase brand-name or generic drugs and the price they pay for the drugs, according to Agency for Healthcare Research and Quality investigators G. Edward Miller, Ph.D., and John F. Moeller, Ph.D.

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Medication costs

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Drs. Miller and Moeller analyzed data on household prescription drug purchases, excluding refills, from the 1996 Medical Expenditure Panel Survey (MEPS) Household Component and the 1996 MEPS Pharmacy Component (which included computerized records of household drug purchases). People covered by Medicaid were the most likely (54 percent) to receive a generic drug for their prescriptions, and those who had private insurance were the least likely (42 percent) to choose a generic drug. Uninsured individuals fell in between the two groups (47 percent). People with private insurance used fewer generic drugs than either Medicaid recipients or uninsured people in each of six therapeutic classes of drugs.

To compare retail drug prices across insurance types, the investigators used standardized prices, that is, the retail unit price of each drug relative to a benchmark price. They found that uninsured individuals paid standardized prices that were, on

average, 16.5 percent higher than the standardized prices paid by those with private insurance and 8.4 percent higher than the standardized prices paid by Medicaid recipients. Thus, people who are uninsured face higher out-of-pocket costs for drugs than those who have insurance for two reasons: they pay the full cost of their drug purchases, and they do not have access to the discounts and rebates that insurance plans negotiate on behalf of their enrollees.

More details are in “Outpatient prescription drug prices and insurance coverage: An analysis by therapeutic drug class and user characteristics from the 1996 Medical Expenditure Panel Survey,” by Drs. Miller and Moeller, *Investing in health: The social and economic benefits of health care innovation* 14, pp. 23-57, 2001. Reprints (AHRQ Publication No. 02-R021) are available from AHRQ.* ■

Health Care Delivery

Researchers examine why some patients with chronic kidney disease are referred late to a nephrologist

People suffering from chronic kidney disease (CKD)—either due to long-term diabetes, hypertension, or other problems—benefit greatly from early referral to a nephrologist. Late referrals (first nephrologist visit less than 90 days before the onset of renal dialysis) miss the opportunity to slow the progression of CKD and perhaps postpone the need for renal dialysis. They also are more likely than those referred earlier to die from kidney failure, be less ready for dialysis, have fewer options for dialysis, and have more hospitalizations.

According to a recent study, certain patients with CKD are more likely than others to be referred late to a nephrologist. The

study was supported in part by the Agency for Healthcare Research and Quality (HS09398).

First author, Wolfgang C. Winkelmayr, M.D., Sc.D., and principal investigator, Jerry Avorn, M.D., of Brigham and Women’s Hospital, and their colleagues developed a model to correlate specific demographic and clinical factors with delayed nephrologist referral for 3,014 Medicare- and Medicaid-insured adult patients in New Jersey. These patients began dialysis (renal replacement therapy) during the period 1990 through mid-1996 and had experienced renal insufficiency for more than a year before beginning dialysis.

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Chronic kidney disease

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Overall, 65.5 percent of the patients were referred to a nephrologist early. Patients who were 75 to 84 years of age were 73 percent more likely to be referred late compared with the reference group of 65- to 74-year-old patients. For patients aged 85 or older, this effect was even more pronounced. Black and white patients did not differ in referral

patterns. However, people of other races were at nearly 70 percent greater risk for late referral, and men tended to be referred late compared with women.

CKD patients who had additional medical problems—hypertension, coronary artery disease, any cancer, and diabetes—were much less likely to have a late referral than people who did not. Doctors may be more likely to refer these patients early because they are aware of the relationship

between certain diseases and CKD progression. They also tend to see CKD patients with coexisting medical problems more often and may have earlier opportunities to refer them to a nephrologist.

See “Determinants of delayed nephrologist referral in patients with chronic kidney disease,” by Dr. Winkelmayr, Robert J. Glynn, Sc.D., Raisa Levin, M.S., and others, in the December 2001 *American Journal of Kidney Diseases* 38(6), pp. 1178-1184. ■

Minority Health

Racial differences in indoor allergen sensitivity are consistent with differences in asthma problems

Asthma, which affects a greater number of minority and socially disadvantaged children, is often associated with greater exposure to indoor and outdoor allergens. A new study shows for the first time that racial differences in indoor allergen sensitivity are consistent with racial differences in asthma-related illness and are especially marked in inner cities. The researchers found that disadvantaged black and Mexican-American children had greater exposure to the indoor allergens—dust mite, cockroach, and the common fungus, *Alternaria alternata*—than white children. These allergens have been linked to increased problems with asthma, and *A. alternata*, which is more likely in homes with interior water leaks, has been linked to increased risk of death from asthma.

Racial disparities in exposure to environmental factors in housing and/or the community may play a role in determining national patterns of asthma-related illness, concludes Peter J. Gergen, M.D., M.P.H., of the Agency for Healthcare Research and Quality. Dr. Gergen and his colleagues suggest that national public health and housing policies are needed to reduce allergen exposure among children, especially in minority communities. They analyzed results of

allergen testing of a representative sample of 4,164 U.S. children aged 6 to 16 years between 1988 and 1994 as part of the Third National Health and Nutrition Examination Survey. They analyzed skin prick reactions to cat, cockroach, dust mite, and *A. alternata*.

Black children had more than twice and Mexican-American children had nearly twice the odds of cockroach sensitivity as white children. Racial disparities in cockroach sensitivity were strongest in the inner city as well as in crowded households (2.5 or more people per room). Compared with white children, both black and Mexican-American children had higher odds of dust mite sensitivity, and black children had twice the odds of *A. alternata* sensitivity. Race was not associated with cat sensitivity, but there was a lower prevalence of cat sensitivity among children in low-income households.

See “Sociodemographic correlates of indoor allergen sensitivity among United States children,” by Lori A. Stevenson, M.P.H., Dr. Gergen, Donald R. Hoover, Ph.D., M.P.H., in the November 2001 *Journal of Allergy and Clinical Immunology* 108, pp. 747-752. Reprints (AHRQ Publication No. 02-R043) are available from AHRQ.** ■

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Minority patients have increased access to elective surgeries in areas where there are more primary care physicians

Many studies have shown that racial and ethnic minorities consistently receive fewer referral-sensitive procedures—that is, procedures that usually require referral from a primary care physician (PCP). Typical referral-sensitive (elective or nonemergency) surgeries range from hip or joint replacements to pacemaker insertion. Minorities, especially blacks, are more likely to receive these high-cost surgical procedures when there is a high density of PCPs in their area, according to researchers at the Agency for Healthcare Research and Quality.

Increased PCP density may significantly narrow the racial disparity and improve the referral process for these procedures for minorities, according to Jayasree Basu, Ph.D., of AHRQ's Center for Primary Care Research, and Carolyn Clancy, M.D., director of

AHRQ's Center for Outcomes and Effectiveness Research. The researchers examined 1995 hospital discharge files for nonelderly adult New York residents, who were hospitalized either in New York or in one of three nearby States. They linked the discharge data to county census data and hospital survey files to compare the effect of PCP supply on referral-sensitive hospital admissions versus marker admissions (urgent and insensitive to primary care, for example, heart attack or hip fracture) for whites, blacks, and Hispanics.

Black adults from high PCP-density areas had a 25 percent higher rate of referral-sensitive admissions per 1,000 adult black population of the area than those from low-PCP areas. In contrast, high PCP density was not associated with more referral-sensitive admissions for whites or Hispanics.

At the mean PCP level of the county (0.58 per 1,000 relevant population), blacks were 27 percent and Hispanics were 25 percent less likely than whites to be hospitalized for referral-sensitive admissions compared with marker admissions. However, an addition of one PCP per 1,000 population (a three-fold increase in PCP density) would result in a 102 percent increase in the odds of referral-sensitive admissions among blacks, 64 percent among Hispanics, and 36 percent among whites, relative to marker admissions.

More details are in "Racial disparity, primary care, and specialty referral," by Drs. Basu and Clancy, in the December 2001 *Health Services Research* 36(6), Part II, available online at www.hsr.org/AliceHersh/Download.cfm. Reprints (AHRQ Publication No. 02-R036) are available from AHRQ.** ■

Asian Americans are less satisfied with the quality of primary care they receive than any other racial/ethnic group

Researchers and policymakers have attributed the poorer health of minority Americans in part to their reduced access to care and the lower quality of primary care they receive. Indeed, when asked about the primary care they receive, minority patients—particularly Asians—give the primary care they receive lower marks than white patients do, according to a study supported in part by the Agency for Healthcare Research and Quality (HS08841). These ethnicity-based differences in patients' primary care experiences call attention to health care quality differences that need to be addressed. To do so will require that we ask the hard questions about how and why these differences arise, notes principal investigator Dana Gelb Safran, Sc.D., of the New England Medical Center and Tufts University.

The researchers surveyed 6,092 Massachusetts employees about their impression of the primary care

they receive in seven areas: access (ability to pay for and get an appointment), continuity (length of relationship with doctor and number of visits), comprehensiveness (knowledge of the patient, preventive counseling), integration of care (coordination of specialist or hospital care), clinical interaction (communication, thoroughness of exams), interpersonal treatment, and trust.

After adjustment for socioeconomic and other factors, Asians gave their primary care significantly lower scores (out of 100 total) than whites for communication (69 vs. 79) and comprehensive knowledge of patients (48 vs. 56), as well as all other areas of primary care except continuity of care and integration of care. Blacks and Hispanics reported significantly less financial access to care than whites (60 and 56, respectively, vs. 65), and blacks reported

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Care satisfaction among Asian Americans

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significantly less continuity of care than whites (74 vs. 78), but their assessments of other aspects of primary care did not differ significantly from whites. This study agrees with others showing that Asian Americans tend to be the least satisfied with quality of care. However, this study was limited by the small

number of Asian and Hispanic patients surveyed, as well as the lack of patient's country of origin and physician's ethnicity, factors that may affect patient evaluations of primary care.

See "Do patient assessments of primary care differ by patient ethnicity?" by Deborah A. Taira, Sc.D., Dr. Safran, Todd B. Seto, M.D., and others, in the December 2001 *Health Services Research* 36(6), pp. 1059-1071. ■

Children's Health

Mild or moderate asthma does not significantly impair quality of life for children

Children who have mild to moderate asthma judge their quality of life (QOL) to be generally good, with most saying they are bothered "just a bit" or "hardly at all" by their asthma. However, children who are anxious and those who sometimes must restrict their activities because of their moderate asthma are more likely to have less robust quality of life than other children with mild or moderate asthma. These are the findings of a recent study that was supported in part by the Agency for Healthcare Research and Quality (HS09123) and led by Robert D. Annett, Ph.D., of the University of New Mexico Health Sciences Center.

Dr. Annett and his colleagues analyzed asthma symptom data (based on parent and child daily logs), child-reported health status, and QOL scores from the Pediatric Asthma Quality of Life Questionnaire for 339 children (aged 5 to 12 years). The

questionnaire asked children to list activities that they were not able to do in the previous week because of their asthma—for example, running, playing with pets, playing at recess, and sleeping. Children also filled out an anxiety scale that asked them if they often had trouble catching their breath, worried a lot, or felt that others did not like the way they did things; a depression inventory; and a behavior checklist. Overall, 63 percent of the children had moderate asthma, and 37 percent had mild asthma.

The children had almost no symptoms in the 2 weeks prior to their annual clinic visit, and parents indicated normal levels of psychosocial competence and no marked rise in behavior problems. QOL scores revealed that most children were bothered "just a bit" or "hardly at all" by asthma in the week prior to their 12-month followup visit. There were no differences between children with

mild and moderate asthma in emotional functioning, symptoms, or total QOL scores. However, those with moderate asthma reported more activity limitations than those with mild asthma. Child-reported QOL was not associated with asthma symptoms or parent-reported dimensions of psychosocial competence, but it was strongly correlated with total anxiety score and asthma-related activity restrictions.

See "Predicting children's quality of life in an asthma clinical trial: What do children's reports tell us?" by Dr. Annett, Bruce G. Bender, Ph.D., Jodi Lapidus, Ph.D., and others, in the *Journal of Pediatrics* 139(6), pp. 854-861, 2001. ■

Outreach efforts are needed to enroll more poor children in Medicaid and boost their use of dental care

Poor children have significantly fewer preventive dental visits than those with higher incomes, according to a study supported by the Agency for Healthcare Research and Quality (HS10129). This underscores the need for more health promotion outreach efforts to increase enrollment of eligible children in Medicaid and the State Children's Health Insurance Program (SCHIP) to improve their access to and use of dental care, according to the University of Maryland Dental School researchers who conducted the study.

Richard J. Manski, D.D.S., M.B.A., Ph.D., who is also a Senior Scholar with AHRQ's Center for Cost and Financing Studies, and his colleagues analyzed data from the 1996 Medical Expenditure Panel Survey (MEPS) on use of preventive dental care by children and adolescents. They calculated national estimates for visits in which preventive dental procedures (such as dental prophylaxis and fluoride and sealant applications) were completed for children in each of several socioeconomic and demographic categories. Preventive dental visits for both poor (annual income of about \$16,500 for a family of four) and near-poor youths were only about half as likely as they were

among of young people in middle or high income groups across racial/ethnic groups (about 16 percent vs. 26 percent for blacks, 18 percent vs. 33 percent for Hispanics, and 25 percent vs. 46 percent for non-Hispanic whites).

No other studies have found differences in dental preventive care by income. Overall, the proportion of Medicaid-insured children who had received preventive care was unexpectedly low, given that coverage for pediatric dental services has been part of the Medicaid program for more than three decades. Poor and near-poor families may not know how to use available resources effectively, suggest the researchers. They conclude that educating families eligible for Medicaid and SCHIP programs about how to enroll and access the system may be essential for the success of these programs.

See "The impact of income on children's and adolescents' preventive dental visits," by Maria Rosa Watson, D.D.S., M.S., M.P.H., Dr. Manski, and Mark D. Macek, D.D.S., Dr.P.H., in the November 2001 *Journal of the American Dental Association* 132, pp. 1580-1587. Reprints (AHRQ Publication No. 02-R034) are available from AHRQ.** ■

Women's Health

Major successes in prenatal care have been related more to preserving maternal health than improving fetal outcomes

Infant mortality rates in the United States continue to be higher than those in most industrialized countries. Unfortunately, current prenatal interventions appear to have limited potential to reduce the prevalence of the major fetal problems that increase the risk of infant death: prematurity, intrauterine growth restriction (IUGR), and birth defects.

Evidence suggests that these conditions are initiated by events early in pregnancy, and prenatal interventions may not occur early enough in pregnancy to affect them. More attention should be focused on improving women's

health care and health habits, for the main success of prenatal care has been in the preservation of women's health, according to participants at a conference that was supported in part by the Agency for Healthcare Research and Quality (HS09528).

Participants at the 1997 conference examined the effects of prenatal care on both mother and child. They concluded that prenatal targets offering some promise for reducing premature births include antibiotic treatment of bacterial vaginosis (a risk factor for preterm delivery) during pregnancy, reducing maternal tobacco use, supplementing deficient maternal

iron stores, and reducing maternal stress.

Providing routine prenatal care, as well as specific interventions such as enhanced nutrition, use of drugs to inhibit labor, and the early identification of labor through home uterine monitoring, have not been shown to be effective in reducing the incidence of low birthweight infants. In fact, the major arguments for the cost-effectiveness of prenatal care have focused on the benefits of prenatal care in preventing low birthweight and prematurity, but evidence is

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Successes in prenatal care

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lacking to substantiate these arguments. Nevertheless, approaches ranging from use of perinatal and neonatal care units to

early preschool education can mitigate the impact of prematurity (congenital malformations, reactive airway disease, and neurodevelopmental disorders), note Marie C. McCormick, M.D., Sc.D., and Joanna E. Siegel, Sc.D.,

of the Harvard School of Public Health.

See “Recent evidence on the effectiveness of prenatal care,” by Drs. McCormick and Siegel, in the November 2001 *Ambulatory Pediatrics* 1(6), pp. 321-325. ■

HIV/AIDS Research

HIV suppression, smoking cessation, and selective use of medications can reduce dry mouth associated with HIV infection

Nearly 30 percent of people infected with the human immunodeficiency virus (HIV) that causes AIDS are bothered by dry mouth. This condition may be associated with salivary gland dysfunction and can affect a persons’ ability to chew food and speak. Optimizing HIV suppression, smoking cessation, and tailoring antidepressant and antituberculosis(TB)/anti-*Mycobacterium avium* (MAC) drugs may decrease dry mouth symptoms among HIV-infected individuals, according to a recent report from the HIV Cost and Services Utilization Study (HCSUS), which is supported in part by the Agency for Healthcare Research and Quality (HS08578).

Researchers from the University of California, Los Angeles, and RAND analyzed the relationship between patient reports of oral dryness and demographic, economic, behavioral, clinical, and treatment characteristics in a nationally representative population of adults receiving HIV care in the United States. An estimated 29 percent of people with HIV, or about 65,000 people, complained of dry mouth. Of these, 37 percent had extreme discomfort, 33 percent had moderate discomfort, and 30 percent had little or no discomfort.

Compared with whites, Hispanics were 61 percent more likely to report dry mouth. Those who were unemployed (perhaps a proxy for debilitation) were more likely to report dry mouth than employed people. Compared with nonsmokers, current smokers also were more likely to report dry mouth. Users of antidepressant drugs and anti-TB/anti-MAC antibiotics were more likely to report dry mouth than those not using these drugs. Finally, compared with patients who had an undetectable viral load, those with a viral load of more than 100,000/mm³ (advanced HIV disease) were more likely to complain of dry mouth, indicating a potential link between HIV disease progression and increased salivary gland dysfunction. The researchers suggest that doctors examine the salivary glands of HIV patients and monitor those with early dry-mouth symptoms.

More details are in “Self-reported oral dryness and HIV disease in a national sample of patients receiving medical care,” by Fariba S. Younai, D.D.S., Marvin Marcus, D.D.S., M.P.H., James R. Freed, D.D.S., M.P.H., and others, in the December 2001 *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology and Endodontics* 92, pp. 629-636. ■

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Hospital use and mortality rates for people with AIDS vary substantially by race/ethnicity and location

The rates at which AIDS patients die and use hospitals vary substantially across States and among racial/ethnic groups within States, even after controlling for severity of illness, according to the first State-wide study of the issue by Fred J. Hellinger, Ph.D., and John A. Fleishman, Ph.D., of the Agency for Healthcare Research and Quality. They analyzed 1996 data on all AIDS-related hospitalizations (120,772) in 10 States.

The most AIDS-related hospital admissions per AIDS patient were in New York, with a ratio of 1.11. Maryland, Pennsylvania, and Iowa also had ratios above 1.0, suggesting that multiple admissions may be occurring for some people with AIDS. Rates in Colorado and California were notably smaller. New York also had the longest

average length of hospital stay (12.4 days) followed by New Jersey (11.3 days); Colorado had the shortest length of stay (6 days).

Over all 10 States, admission rates per AIDS patient were .689 for whites, 1.02 for blacks, and .657 for Hispanics. Admission rates for blacks were higher than for whites in all States except Iowa and New Jersey, and admission rates for whites were higher than for Hispanics in all States except California and Colorado. Blacks and Hispanics had longer hospital stays and were more likely to die while in the hospital than whites. These racial/ethnic differences persisted even after controlling for insurance coverage and severity of illness and may reflect barriers faced by minorities in accessing outpatient services that typically reduce or prevent AIDS-related hospitalizations.

The probability that an AIDS-related hospital admission would end in death was highest in South Carolina and lowest in Colorado (10 vs. 5.7 percent). Most States had probabilities of death between 7 and 8 percent. AIDS patients in States with enhanced Medicaid HIV reimbursement rates or a home and community-based waiver program (which provides AIDS patients with services intended to reduce hospital stays) had lower odds of dying in the hospital.

More details are in "Location, race, and hospital care for AIDS patients: An analysis of 10 States," by Drs. Hellinger and Fleishman, in the fall 2001 *Inquiry* 38, pp. 319-330. Reprints (AHRQ Publication 02-R028) are available from AHRQ.** ■

Managed Care

State shifts to Medicaid managed care may limit poor patients' access to specialists

A growing number of State Medicaid programs for the poor are converting from fee-for-service (FFS) to managed care, a move that may limit poor patients' access to specialists, suggests a study supported by the Agency for Healthcare Research and Quality (HS09557). A representative sample of California specialists were as likely as primary care physicians (PCPs) to have Medicaid (Medi-Cal) patients in their practices at the time of the study. However, among those accepting new Medi-Cal patients, 62 percent of specialists and 80 percent of PCPs were willing to take Medi-Cal managed care patients.

Specialists and PCPs in group practices—especially those in group model health maintenance organizations (HMOs)—were significantly more likely to accept new Medi-Cal managed care patients than physicians in solo practice. Also, black, Asian, and Hispanic doctors were nearly three times as likely as white doctors to accept new Medi-Cal managed care patients.

Decreased access to specialists may be mitigated if States are able to contract with group model HMOs and to recruit minority physicians, note the researchers. They point out, however, that the lack of

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Access to specialists

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sufficient numbers of group model HMOs willing to contract with Medicaid and recent declines in minority enrollments in U.S. medical schools may mean that States will have to seek other ways to deal with decreased access to specialists. For this study, the researchers surveyed 962 specialist physicians and 713 PCPs practicing in California in 1998. At the time,

California had 47 percent of Medicaid-insured individuals in managed care and paid among the Nation's lowest physician fees.

See "Specialists' and primary care physicians' participation in Medicaid managed care," by Lisa Backus, M.D., Ph.D., Dennis Osmond, Ph.D., Kevin Grumbach, M.D., and others, in the December 2001 *Journal of General Internal Medicine* 16, pp. 815-821. ■

Rural hospitals are more likely to pursue managed care strategies in highly competitive markets

Half of the community hospitals in the United States are in rural areas, and these hospitals have been struggling to survive for some time. In fact, 9 percent of rural hospitals closed due to poor financial performance during the 1980s, and many are still reporting negative operating margins. Apparently, increased market competition increases the likelihood that rural hospitals will pursue managed care strategies to bolster their financial status. High patient demand decreases that likelihood, according to a study supported by the Agency for Healthcare Research and Quality (HS08610).

University of Iowa researchers surveyed the chief executive officers of 139 rural hospitals in Iowa and Nebraska in 1997 about the hospitals' financial strategies, such as multihospital system membership, managed care

activities, and joint ventures. They also analyzed data from the 1996 American Hospital Association's annual survey on hospital performance, competition, and hospital characteristics. Only 6 percent of rural hospitals reported no engagement in managed care activity, 90 percent reported having contractual agreements with managed care organizations (MCOs), 20 percent owned or partially owned MCOs, and one-third were in the process of developing an MCO.

Hospital performance measures (occupancy rates and case-mix-adjusted expenses per admission) did not increase a hospital's likelihood of establishing an MCO. However, hospitals facing greater competition (more hospitals in their service area) were more likely than other hospitals to pursue establishing an MCO alone or with other parties. Either they believe a large patient base can sustain more

than one hospital, or MCOs outside the market area may be interested in a strategic partnership with a local hospital that has an established presence in that market. The higher patient demand was in an area, the less likely rural hospitals were to pursue managed care strategies, since they did not need the stable patient flow provided by managed care arrangements.

More details are in "Rural hospitals and the adoption of managed care strategies," by Shadi S. Saleh, Ph.D., Thomas Vaughn, Ph.D., and James E. Rohrer, Ph.D., in the Summer 2001 *Journal of Rural Health* 17(3), pp. 210-219. ■

Providing patients with direct access to specialists does not necessarily increase medical expenditures

Individuals in point-of-service (POS) health insurance plans have direct access to specialists, while those who belong to traditional health maintenance organizations (HMOs) must first see their primary care physician (PCP) who acts as a “gatekeeper” to approve or disapprove referral to a specialist. This gatekeeper approach has been used by HMOs as one way to reduce high specialty care costs. However, the direct access to specialists provided to individuals in a POS plan who shared the same network of providers as enrollees in an HMO plan did not result in higher medical expenditures, according to a recent study supported by the Agency for Healthcare Research and Quality (HS09414).

When enrollees are required to choose PCPs, as they were in both the POS and HMO plans in this study, patient cost-sharing, physician financial incentives, and utilization review may control expenditures without the need to constrain direct patient access to specialists, explains Jose J. Escarce, M.D., Ph.D., of the RAND Health Program. Dr. Escarce and his colleagues used administrative data files for the HMO and POS plans for 1994 and 1995 to assess total medical care expenditures and spending for various health services.

Overall, 87 percent of HMO enrollees and 78 percent of POS enrollees used some type of medical care annually. Total expenditures for medical care, including office visits, hospitalizations, outpatient hospital services, and prescription drugs, ranged from equal in both plans to 7 percent higher in the gatekeeper HMO, depending on the copayments for physician visits. The findings were similar for enrollees with or without chronic conditions. For example, total medical care expenditures for healthy enrollees in the HMO and POS plans with no copayments for PCP and PCP-referred specialist visits were predicted to be \$1,050 and \$1,037, respectively. For \$10 copayments, the predictions were \$1,057 and \$909, respectively.

More details are in “Medical care expenditures under gatekeeper and point-of-service arrangements,” by Dr. Escarce, Kanika Kapur, Ph.D., Geoffrey F. Joyce, Ph.D., and Krista A. Van Vorst, M.S. in the December 2001 *Health Services Research* 36(6), pp. 1037-1057. ■

Researchers examine ways to assess the quality of care provided by preferred provider organizations

Although preferred provider organizations (PPOs) now enroll the majority of individuals with commercial health insurance in the United States, State and Federal regulation of PPOs is limited, and PPOs have almost no performance reporting requirements. This contrasts sharply with health maintenance organizations (HMOs), which have been increasingly scrutinized by regulatory agencies, consumer and provider groups, and others regarding appropriateness of care, access to care, and member satisfaction.

This discrepancy in oversight has prompted some to call for

similar scrutiny of PPOs. Yet, PPOs often argue that without HMO mechanisms like required designated primary care providers, capitated payments to serve as a financial incentive for providers, and utilization management systems applicable to all subscribers, they cannot be held accountable for provider behavior.

The Agency for Healthcare Research and Quality awarded a grant to URAC (HS10105) to support a national conference, “PPO Performance Measurement: Agenda for the Future.” Conference participants examined approaches for assessing PPO quality. The conference was

cosponsored by URAC, the Consumer Coalition for Quality Health Care, the Joint Commission on Accreditation of Healthcare Organizations, the National Committee for Quality Assurance, and the Centers for Disease Control and Prevention. Four commissioned papers from the conference, along with commentaries, were published recently in a supplement to *Medical Care Research and Review*. Publication of the supplement was sponsored by the Robert Wood Johnson Foundation and the California Health Care Foundation. The papers are summarized here.

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Quality of care in PPOs

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Scanlon, D.P., Chernew, M., Doty, H.E. and Smith, D.G. (2001). "Options for assessing PPO quality: Accreditation and profiling as accountability strategies." *Medical Care Research and Review* 58(S1), pp. 70-100.

PPOs argue that providers, not the PPO health plans, are responsible for quality of care. Therefore, process and structure oversight such as accreditation and provider-focused systems such as provider profiling are more relevant than are plan-level measurement systems—such as the Health Plan Employer Data and Information Set (HEDIS) or the Consumer Assessment of Health Plans Study (CAHPS®)—which are used to evaluate HMOs. Although accreditation and provider profiling are feasible options for assessing PPO quality, both approaches are currently limited, according to these researchers. This is largely because no public or private purchasers or regulators demand that PPOs become accredited or report data about clinical quality of care.

PPO accreditation by groups such as URAC and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) focuses primarily on structural characteristics, for example, whether PPOs contract with enough providers of various specialties to guarantee that physicians are accessible to PPO members. These features are important for ensuring members' access to care and monitoring member satisfaction. However, current PPO accreditation programs are weak in their ability to monitor the quality and appropriateness of the clinical care provided by network physicians.

Physician profiling is an available option for assessing the appropriateness and quality of care provided by PPOs and could be used in concert with accreditation programs to monitor PPO clinical care. However, profiling systems require more clinical data than PPOs currently have access to, and they can be costly to implement, note the researchers. They conclude that although enhanced PPO clinical accountability is possible, it is unlikely to happen without the upstream investment of purchasers who begin to demand PPO performance accountability.

Kleinman, L.C. (2001). "Conceptual and technical issues regarding the use of HEDIS and HEDIS-like measures in preferred provider organizations." *Medical Care Research and Review* 58(S1), pp. 37- 57.

Some HEDIS measures, which are designed to assess the quality and value of HMOs, may be premature or inappropriate to use with PPOs. However, there are significant opportunities to apply others, suggests this author. It may be possible to use some HEDIS measures, such as process of care measures, despite the loose structures among the components of many PPOs that present challenges to the measurement process compared with HMOs. For example, PPOs lack the ready access that HMOs have to clinical encounter data for either management or assessment purposes.

Process (effectiveness) of care measures for patients with defined conditions (for example, asthma) are among the most straightforward to use for assessing PPOs. Because the population is identified by diagnostic codes on a claim, the absence of PPO enrollment data does not limit population

identification. Preventive service measures, such as breast and cervical cancer screening, require careful definition of the population eligible for such screening. This can be problematic in a PPO, in which complete data on the enrolled population may be unavailable. Similarly, measures that look at clinician followup after hospitalization are made more difficult by the fact that PPO patients may be admitted to hospitals in or out of networks, without the PCP's referral or even knowledge.

The author concludes that PPOs lack strong administrative leadership and a culture committed to quality, as well as the necessary data infrastructure needed for adoption and implementation of HEDIS measures. Increasing market demand for performance information makes it likely that PPOs will have to rise to meet the challenge to be accountable for the care their providers deliver.

Smith, D.G., and Scanlon, D.P. (2001). "Covered lives in PPOs." *Medical Care Research and Review* 58(S1), pp. 16-33.

Efforts to increase PPO accountability may require PPOs to devote additional resources for the collection and management of accurate enrollment data, conclude these authors. They examined issues that affect the adequacy of PPO enrollment data systems via review of the published literature, analysis of data on PPO enrollment from the new Interstudy PPO database (a national data set of PPOs), and discussions with health actuaries.

Although enrollment data may not be required for day-to-day PPO operations (for example, routine cost accounting), such data are important for tracking vital performance measures, since

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calculation of most clinical, health care use, and cost-based performance measures requires a population-based denominator.

Unfortunately, it is difficult for PPOs to obtain enrollment data, and PPO enrollment estimates typically depend on assumptions about the number of dependents per subscriber, assumptions that vary across plans. Uncertainty may exist even when enrollment data are available and complete because of challenges that PPOs face in linking enrollment data with claims and administrative data.

PPOs also vary in how they track enrollment both at the regional and company levels. Variations in tracking dependents and lack of information on the demographic characteristics of PPO subscribers affect a PPO's ability to

produce standardized performance measures comparable to those of HMOs.

Schauffler, H.H., and McMenamin, S. (2001). "Assessing PPO performance on prevention and population health." *Medical Care Research and Review* 58(S1), pp. 112-136.

These authors compared PPO and HMO performance on the use of preventive care services and consumer satisfaction with preventive care. They conducted surveys of California health plans, employers, and the insured population between 1996 and 1999 and found that people enrolled in PPO plans were less likely than those in HMOs to receive blood pressure and mammography screenings or preventive counseling on gun safety, smoking, and sexually transmitted disease or

HIV/AIDS prevention. Individuals in PPOs also were less satisfied with preventive care than those in HMOs. Moreover, cost sharing for preventive services had a negative impact on use of these services, especially for enrollees in PPOs who, on average, faced higher cost-sharing requirements than HMO enrollees.

Firms with a majority of their workers in PPOs were more likely to offer work-site wellness programs than firms with a majority of their workers in HMOs, and self-insured PPOs were more likely to offer work-site wellness programs to their workers than fully insured PPOs, independent of firm size. The authors note that their findings suggest specific strategies to assess, increase access to, and improve the quality of preventive care in PPOs. ■

Health Care Costs and Financing

Expanding State Children's Health Insurance Programs to higher income children would not "crowd out" private insurance

State Children's Health Insurance Programs (SCHIPs) provide health insurance to indigent children who are not poor enough to qualify for Medicaid (family income 133 percent or less of the federal poverty level, FPL) with health insurance. These programs have sparked concerns that they would prompt families to disenroll from private insurance (so-called "crowd out"). Families currently eligible for SCHIPs have incomes of 134-200 percent of the FPL.

Based on the experience of the Massachusetts Children's Medical Security Plan (CMSP), which has modest premiums and is open to children regardless of income, SCHIP coverage could be expanded to children with incomes from 200 to 300 percent of the FPL without crowding out employer-sponsored insurance (ESI). That's the conclusion of a study supported in part by the Agency for Healthcare Research and Quality (HS10207) and led by Emily

Feinberg, Sc.D., of the Massachusetts Department of Public Health.

Dr. Feinberg and her colleagues surveyed by telephone the parents/guardians of 996 children who were enrolled in CMSP as of April 1998, to detect differences in access to and uptake of ESI between Medicaid-eligible, SCHIP-eligible, and SCHIP-ineligible children (family income above 200 percent of the FPL). They found that children's access to ESI was limited (19 percent), and uptake was low (13 percent). Of the children surveyed who were recently covered by ESI (59 percent), 70 percent were no longer eligible, usually due to parental job change. Few children who had ESI at enrollment dropped this coverage to enroll in CMSP (1, 4, and 2 percent, respectively, of Medicaid-eligible, SCHIP-eligible, and SCHIP-ineligible children).

There were no significant differences in crowd out between SCHIP-eligible and SCHIP-ineligible

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children. However, the applicability of study findings in other areas may be limited by the fact that the CMSP, unlike SCHIP programs, is not a comprehensive insurance program and does not cover hospitalizations. This difference may have made higher income families less willing to drop private coverage and enroll in CMSP.

More details are in "Family income and crowd out among children enrolled in Massachusetts Children's Medical Security Plan," by Dr. Feinberg, Katherine Swartz, Ph.D., Alan Zaslavsky, Ph.D., and others, in the December 2001 *Health Services Research* 36(6), available online at www.hsr.org/AliceHersh/Download.cfm. ■

Despite health care system changes during the early 1990s, use of care and financial burden for the uninsured changed very little

Despite some fundamental changes in the health care system from 1987 to 1996, the overall experience of the uninsured changed very little during that time. In 1996, the uninsured continued to use fewer services and to pay more out of pocket for medical care than the privately insured, according to a study by researchers in the Center for Cost and Financing Studies, Agency for Healthcare Research and Quality.

Amy K. Taylor, Ph.D., Joel W. Cohen, Ph.D., and Steven R. Machlin, M.S., analyzed data from the 1996 Medical Expenditure Panel Survey and the 1987 National Medical Expenditure Survey to examine the use of medical services, expenditures, and burden of out-of-pocket spending for the uninsured and privately insured in both periods. The proportion of the noninstitutionalized civilian U.S. population under age 65 that was uninsured throughout the year increased from 11.6 percent in 1987 to 14 percent in 1996. During this period, the proportion of the full-year uninsured population that was under age 18 declined from 28

to 23 percent, likely due at least in part to initiation of Medicaid program expansions to cover low-income children.

At the same time, the proportion of the full-year uninsured population who were aged 30 and over increased from 39 to 47 percent, and the proportion of the uninsured who were employed for the full year grew from 39 percent to 55 percent. The composition of the uninsured population by race/ethnicity did not change substantially during this time. In both years, however, Hispanics were much more likely to be uninsured than those in other racial or ethnic groups.

The poor made up one-third of the uninsured in 1987, but only one-fourth of the uninsured by 1996. The proportion of the uninsured population in fair or poor health also declined between 1987 and 1996, from 18 percent to 11 percent of the total. The uninsured in fair or poor health, however, were more likely to have out-of-pocket expenses that constituted a high financial burden. More of this group, compared with the uninsured in good to excellent health, had out-of-pocket spending

that equaled 20 percent or more of family income (9 vs. 5 percent in 1987 and 12 vs. 3 percent in 1996).

Use of services was much lower for the uninsured than for the insured in both years, and while the probability of having an outpatient hospital, office-based nonphysician, or dental visit increased for the privately insured, it remained unchanged for the uninsured. In addition, the uninsured were much less likely than the privately insured to use preventive services, such as blood pressure checks or mammograms, although use of the latter increased dramatically for both groups.

See "Being uninsured in 1996 compared to 1987: How has the experience of the uninsured changed over time?" by Dr. Taylor, Dr. Cohen, and Mr. Machlin, in a supplement to the December 2001 *Health Services Research* 36(6), Part II, available online at www.hsr.org/AliceHersh/01-Taylor.pdf. Reprints (AHRQ Publication No. 02-R038) are available from AHRQ.** ■

Private-sector experts use AHRQ evidence report as a basis for guidelines on weaning and discontinuing ventilatory support

Over 90 percent of critically ill patients require mechanical ventilation, and 40 percent of the time the patient is on mechanical ventilation is spent on weaning the patient from ventilation. Once the conditions that warranted the ventilator stabilize and begin to resolve, doctors try to remove the ventilator as quickly as possible to decrease the likelihood of ventilation-related complications such as pneumonia or airway trauma. On the other hand, premature discontinuation of mechanical ventilation carries its own set of problems, including fatigue, cardiac instability, difficulty in reestablishing artificial airways, and compromised gas exchange.

To address the many issues involved in management of mechanically ventilated patients, the Agency for Healthcare Research and Quality provided support to the McMaster University Evidence-based Practice Center (contract 290-97-0017) for a comprehensive review of the scientific evidence on ventilator weaning/discontinuation. Led by Deborah Cook, M.D., this exhaustive review of several thousand articles resulted in an evidence report that was published by AHRQ in 1999 (see editor's note below). The American College of Chest Physicians, the American College of Critical Care Medicine, and the American Association for Respiratory Care formed a task force that used the McMaster EPC report to produce evidence-based clinical practice guidelines for managing the ventilator-dependent patient during the discontinuation process.

The guidelines address five issues:

1. The pathophysiology of ventilator dependence.
2. The criteria for identifying patients who are capable of ventilator discontinuation.
3. Ventilator management strategies to maximize the discontinuation potential (for example, spontaneous breathing trials that are slow-paced and gradually lengthened before consideration of permanent ventilator discontinuation).
4. The role of tracheotomy (often used when the patient requires prolonged ventilator assistance).
5. The role of long-term care facilities, for example, for chronically ventilated patients.

An article describing the guidelines and eight related articles were published in a supplement to the

December 2001 issue of *CHEST* 120(6). These articles are cited here.

- Collective Task Force, "Evidence-based guidelines for weaning and discontinuing ventilatory support," December 2001 *CHEST* 120(6) pp. 375S-395S.
- Cook, D., Meade, M., Guyatt, G., and others, "Trials of miscellaneous interventions to wean from mechanical ventilation," December 2001 *CHEST* 120(6), pp. 438S-444S.
- Cook, D., Meade, M., and Perry, A., "Qualitative studies on the patient's experience of weaning from mechanical ventilation," December 2001 *CHEST* 120(6), pp. 469S-473S.
- Ely, E.W., Meade, M., Haponik, E.F., and others, "Mechanical ventilator weaning protocols driven by nonphysician health care professionals," December 2001 *CHEST* 120(6), pp. 454S-463S.
- Meade, M., Guyatt, G., Butler, R., and others, "Trials comparing early vs. late extubation following cardiovascular surgery," December 2001 *CHEST* 120(6), pp. 445S-453S.
- Meade, M., Guyatt, G., Cook, D., and others, "Predicting success in weaning from mechanical ventilation," December 2001 *CHEST* 120(6), pp. 400S-424S.
- Meade, M., Guyatt, G., Cook, D., and others, "Trials of corticosteroids to prevent postextubation airway complications," December 2001 *CHEST* 120(6), pp. 464S-468S.
- Meade, M., Guyatt, G., Griffith, L., and others, "Section II: Systematic reviews of the evidence base for ventilator weaning," December 2001 *CHEST* 120(6), pp. 396S-399S.
- Meade, M., Guyatt, G., Sinuff, T., and others, "Trials comparing alternative weaning modes and discontinuation assessments," December 2001 *CHEST* 120(6), pp. 425S-437S.

Editor's note: Copies of the AHRQ evidence report (AHRQ Publication No. 01-E010)* and summary (AHRQ Publication No. 00-E028)** are available from AHRQ. See the back cover of *Research Activities* for ordering information. ■

New MEPS materials now available from AHRQ

A new report, a data file, and an online statistical brief are now available from the Medical Expenditure Panel Survey (MEPS). MEPS is the third in a series of nationally representative surveys of medical care use and expenditures sponsored by the Agency for Healthcare Research and Quality. MEPS is cosponsored by the National Center for Health Statistics (NCHS). The first survey, the National Medical Care Expenditure Survey (NMCES) was conducted in 1977; and the second survey, the National Medical Expenditure Survey (NMES), was carried out in 1987.

MEPS collects detailed information on health care use and expenses, sources of payment, and insurance coverage of individuals and families in the United States. MEPS is a panel survey begun in 1996. It comprises four component surveys: the Household Component, the Medical Provider Component, the Insurance Component, and the Nursing Home Component. The new materials and their availability are described here.

Projecting National Medical Expenditure Survey Data: A Framework for MEPS Projections. *MEPS Methodology Report No. 13* (AHRQ Publication No. 02-0009). Moeller, J.F., Cohen, S.B., Hock, E., and others.

This report describes the procedures used to project data from the 1987 NMES household survey to future years. The 1987 NMES provided extensive information on health expenditures by or on behalf of American families and individuals, the

financing of these expenditures, and use of services. NMES data have been “aged” based on more recent household population estimates from government sources and data from the National Health Accounts of the Centers for Medicare & Medicaid Services. The NMES data have been released in public use data sets projected to the years 1996 and 2005. This report describes the categories of expenditures and payment sources in the projected data, the population and expenditure reweighting procedures, and alignment of the 1987 NMES to the 1987 National Health Accounts.

MEPS HC-031, 1999 Full-Year Population Characteristics File.

This public use file is available online for download only at www.meps.ahrq.gov/Data_Pub/HC_FYData99.htm#hc031. It provides information collected on a nationally representative sample of the civilian noninstitutionalized population of the United States for calendar year 1999. This file consists of MEPS survey data obtained in rounds 2, 3, 4, and 5 of panel 3 and rounds 1, 2, and 3 of panel 4 (that is, the rounds for the MEPS panels covering calendar year 1999), and it contains variables pertaining to survey administration, demographics, employment, health status, health insurance, and person-level medical care use counts. The 1999 full-year expenditure and income data will be forthcoming.

MEPS Statistical Brief on National Estimates of Health Care Quality.

Starting in 2000, a self-administered questionnaire was

added to MEPS to collect a variety of health status and health care quality measures. The health care quality measures for this study were taken from the Consumer Assessment of Health Plans Study (CAHPS®), an AHRQ-sponsored instrument to measure quality of care through consumer feedback. AHRQ’s Center for Cost and Financing Studies prepared a statistical summary of the national estimates for posting on the agency’s Web site. Comparable data summaries for the quality of health care received by children, as collected in the MEPS Parent Administered Questionnaire (PAQ), will be available soon. Examples of summaries include:

Getting urgent care when needed. In 2000, 34.4 percent of the U.S. civilian noninstitutionalized population age 18 or older reported that they had an illness or injury that needed care right away from a doctor’s office, clinic, or emergency room. Just over half of those needing urgent care said they always received care as soon as they wanted. Older people were more likely than adults under age 65 to say they needed urgent care, and of those needing care, older people were more likely than adults under age 65 to say they always received care as soon as they wanted. Among people aged 18-64, those with only public insurance were the most likely to have an illness or injury needing urgent care. Among those getting urgent care, the uninsured were more likely than those with insurance to report sometimes or never receiving urgent care as soon as they wanted.

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New MEPS products

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Receiving needed care in a doctor's office or clinic. In 2000, 72.3 percent of the survey population aged 18 and over reported going to a doctor's office or clinic to get care in the last 12 months, and those receiving care, 82.6 percent reported that they had no problems receiving the care they or their doctor believed necessary. Those describing their health status

as fair/poor were more likely than those who said their health was excellent or good/very good to receive care. Among those receiving care, people describing their health as fair/poor were less likely than those in better health to indicate it was not a problem receiving needed care. Among those age 18-64, the uninsured were less likely than those with public-only insurance or with any private insurance to go for care,

and of those receiving care, the uninsured and those with public only coverage were less likely than those with any private insurance to say they had no problem receiving needed care.

For more information, go to AHRQ's Web site at <<http://www.meps.ahrq.gov/papers/st2/stat02.pdf>> to access the detailed statistical brief. ■

Grant final reports now available from NTIS

The following grant final reports are now available for purchase from the National Technical Information Service (NTIS). 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.

Adult Medicaid Patients' Dental Visits in Hospital Emergency Departments. Leonard A. Cohen, D.D.S., M.P.H., University of Maryland, Baltimore. AHRQ grant HS10129, project period 7/1/99-9/30/01.

This study examined the use of emergency departments (EDs) during the 4-year period February 16, 1991 to February 15, 1995 for the treatment of mouth pain and infections associated with the teeth and periodontal tissues. The study involved a natural experiment, the change in Maryland Medicaid policy that eliminated dentist reimbursement and participation in the program, to establish two study periods. Data tapes describing 3,639 Medicaid patients' use of EDs were obtained from the Maryland Medicaid Management Information System. Controlling

for age, race, and sex, the rate of ED claims was 12 percent higher in the post-change period. ED visits were higher among the 21-44 age group, whites, and males. Comparisons between periods show significant increases in the rates during the post-change period for males, whites, blacks, and the 21-44 and 45-64 age groups. Although there were more claims in the post-change period, total costs were lower in the pre-change period. (Abstract, executive summary, and final report, NTIS accession no. PB2002-101215; 52 pp, \$27.00 paper, \$12.00 microfiche)***

Agenda for Research in Ambulatory Safety. Glenn T. Hammons, M.D., Medical Group Management Association, Englewood, CO. AHRQ grant HS10106, project period 8/1/00-7/31/01.

This report provides a synthesis of a multidisciplinary conference held November 30-December 1, 2000, to develop an agenda for research in ambulatory patient safety. It reviews what is known about patient safety in ambulatory care and synthesizes information from presentations and discussions at the conference, including 11

consensus recommendations for research and demonstrations. (Abstract, executive summary, and conference synthesis, NTIS accession no. PB2002-102308; 24 pp, \$23.00 paper, \$12.00 microfiche)***

Beneficiaries' Use of Quality Reports for Choosing Medicare Plans. Jennifer D. Uhrig, Ph.D., Pennsylvania State University, University Park. AHRQ grant HS10797, project period 6/14/00-8/31/01.

Cognitive interviews and a randomized laboratory experiment were conducted to determine how Medicare beneficiaries use comparative quality information when choosing a health plan and whether providing such information affects beneficiaries' choice of plan. The effects of providing quality information on plan choice differed by plan type. Providing information about plan quality did not significantly influence the choice between original Medicare and an HMO, but it did affect the choice of HMO. Providing comparative information about plan quality did not make the task of choosing a plan easier for Medicare

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beneficiaries, and it did not increase the confidence they had in their plan choice. (Abstract and executive summary of dissertation, NTIS accession no. PB2002-101463; 18 pp, \$23.00 paper, \$12.00 microfiche)***

***Can High Quality Overcome Consumer Resistance to Restricted Provider Access? Evidence from the Health Plan Choice Experiment.* Katherine M. Harris, M.A., Ph.D., RAND, Santa Monica, CA. AHRQ grant HS10367, project period 9/30/99-9/39/01.**

The objective was to investigate the impact of quality information on the willingness of consumers to enroll in health plans that restrict provider access. A survey was administered to respondents between the ages of 25 and 65 in the West Los Angeles area who had private health insurance. The presence of quality information reduced the importance of provider network features in plan choices. However, differences by type of quality measure were not statistically significant. Overall, the results provide empirical evidence that consumers are willing to trade unrestricted provider access for better quality, and that quality measures based on the assessments of medical experts are valued at least as much as those based on consumer judgment. (Abstract, executive summary, and final report, NTIS accession no. PB2002-102314; 56 pp, \$27.00 paper, \$12.00 microfiche)***

***Community-Based Health Services Research Curriculum.* Charles J. Homer, M.D., M.P.H., Children's Hospital, Boston, MA. AHRQ grant HS09792, project period 7/1/98-6/30/01.**

The goal was to develop research capacity at the interface between traditional child health care and community systems. First, the researchers developed, implemented, and evaluated a curriculum in community-based child health services research, including a monthly seminar using the case method. Second, they developed and implemented six community-based child health services research cases including one interactive, hypermedia, Web-based case. Third, they conducted two annual conferences on community-based child health services research. They reported positive changes following the seminars in awareness of issues, confidence, and readiness to carry out community-based research studies. (Abstract, executive summary, and final report, NTIS accession no. PB2002-101688; 22 pp, \$23.00 paper, \$12.00 microfiche)***

***Crisis of Academic Medical Centers.* Henry J. Aaron, Ph.D., Brookings Institution, Washington, DC. AHRQ grant HS10108, project period 8/15/00-8/14/01.**

This report summarizes a conference focused on issues surrounding the financial distress now affecting many academic medical centers (AMCs). AMCs link three critical functions: training physicians and other health professionals; delivering state-of-the-art medical care; and carrying out laboratory and clinical research. Some attribute the financial distress facing many AMCs to a dramatically worsened financial environment. Others claim that the AMCs are responsible for their own problems, which have arisen from poor administration. (Abstract and executive summary, NTIS accession no. PB202-101695; 18

pp, \$23.00 paper, \$12.00 microfiche)***

***Developing a Latino Health Agenda for 2010.* Hector G. Balcazar, Ph.D., University of North Texas Health Science Center, Fort Worth, TX. AHRQ grant HS10079, project period 5/16/00-9/29/01.**

This 3-day national conference focused on Latino health issues—including disparities and barriers to overcoming them—and development of a Latino health agenda for 2010. The conference outcome was establishment of the National Latino Health Collaborative to focus on eliminating Latino health disparities and promoting collaboration among partners in Latino research monitoring advocacy and policy implementation. (Abstract and executive summary, NTIS accession no. PB2002-101697; 8 pp, \$12.00 paper, \$12.00 microfiche)***

***Development of a Child Health Status Measure.* Anne W. Riley, M.D., M.P.H., Johns Hopkins University, Baltimore, MD. AHRQ grant HS08829, project period 8/1/96-7/31/01.**

The Child Health and Illness Profile-Child Edition (CHIP-CE™), a generic child health status questionnaire, was developed and validated. The CHIP-CE™ comprehensively describes the health of children 6-11 years of age in the domains of satisfaction, comfort, resilience, risk avoidance, achievement and, for parents only, disorders. The Child Report Form (CHIP-CE/CRF) is fully illustrated with cartoon-type characters that anchor the 5 responses for the 45 health items. It is complemented by a standard, 45-item, parent report form (PRF) and a comprehensive

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PRF with 76 items. The field research was conducted in four geographically and culturally distinct areas, with six samples involving approximately 2,000 children and 1,300 parents. The CRF and Standard PRF require 15 minutes to complete, and the comprehensive six-domain (with disorders) parent version requires 20 minutes. They are practical in medical settings, homes, and classrooms. (Abstract, executive summary, and final report, NTIS accession no. PB2002-101694; 20 pp, \$23.00 paper, \$12.00 microfiche)***

Effects of a Nursing-Based Intervention in Two Emergency Departments. Robert M. Palmer, M.D., M.P.H., Cleveland Clinic Foundation, Cleveland, OH. AHRQ grant HS09725, project period 6/1/99-5/31/01.

This randomized clinical trial was carried out in two emergency departments (ED) to test the Systematic Intervention for a Geriatric Network of Evaluation and Treatment (SIGNET), which included a six-item triage risk screening tool (TRST), a geriatric assessment by a trained advance practice nurse in the ED, and referral to community agencies of patients discharged from the ED but thought to be at risk for adverse health outcomes. The trial involved 650 participants: 326 were randomized to the intervention and 324 to usual care. Subsequently, 45 percent of the participants were stratified by the TRST as "high risk," 146 in the intervention group and 145 in the usual care group; 541 participants completed the 4-month study. At 30 and 120 days after the index ED visit, the outcomes of repeat ED visit, hospitalization, and nursing home

admission were similar for participants in both groups. Health care costs did not differ between the two groups, but there were fewer nursing home admissions among high-risk intervention participants compared with usual care participants. (Abstract, executive summary, and final report, NTIS accession no. PB2002-101691; 40 pp, \$25.50 paper, \$12.00 microfiche)***

Efficiency Improvements via Monitoring in Medical Group Practice. Noelle Molinari, A.B., A.B.D., Wayne State University, Detroit, MI. AHRQ grant HS11275, project period 9/30/00-9/29/01.

The researcher tested the hypothesis that medical partnerships can effectively respond to moral hazard by monitoring their members using methods employed by firms. A partnership model was developed to describe the decisionmaking process in medical groups. To evaluate the impact of group structure on choice of compensation scheme, surveillance system, and technical efficiency, empirical analysis was performed using data collected by the Medical Group Management Association. (Abstract and executive summary of dissertation, NTIS accession no. PB2002-102309; 16 pp, \$23.00 paper, \$12.00 microfiche)***

Employee Response to Health Plan Performance Ratings. Michael E. Chernew, Ph.D., University of Michigan, Ann Arbor. AHRQ grant HS10050, project period 3/1/99-2/28/01.

This project examined how the release of health plan performance information influences employee health plan choices. It was based on the observed enrollment patterns of employees of a large auto manufacturer in 1996 and 1997, who for the first time, were given

health plan performance ratings for all available HMOs as part of open enrollment materials. The results show that employees avoid plans with many below average ratings, and that individuals are willing to pay between \$5 and \$45 to avoid a plan with one additional below average rating. (Abstract, executive summary, and final report, NTIS accession no. PB2002-102264; 24 pp, \$23.00 paper, \$12.00 microfiche)***

Examination of Flexible Spending Accounts. Mark H. Showalter, Ph.D., Brigham Young University, Provo, UT. AHRQ grant HS10829, project period 9/1/00-11/30/01.

The researchers developed a framework for analyzing flexible spending account (FSA) participation and usage. They explored patterns of usage of FSA accounts using data from a medium-sized benefits firm for 1996. FSA participation was found to be lower than what might reasonably be expected from an economic framework. The evidence suggests that much of an FSA election amount is based on foreknowledge of expenditures. (Abstract, executive summary, and final report, NTIS accession no. PB2002-102313; 50 pp, \$25.50 paper, \$12.00 microfiche)***

Expanding Partnership in Primary Care Research Training. Robert C. Like, M.D., M.S., Robert Wood Johnson Medical School, Piscataway, NJ. AHRQ grant HS09788, project period 8/1/98-7/31/01.

This project involved the development, piloting, and integration of an applied primary care/health services research curriculum into a postdoctoral primary care research fellowship program. The curriculum was well

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received by fellows and faculty and contributed to their scholarly productivity. (Abstract, executive summary, and final report, NTIS accession no. PB2002-102312; 36 pp, \$25.50 paper, \$12.00 microfiche)***

***Exploring Provider Supply, Practice Volume, and Practice Site in an Analysis of Cataract Management.* Stephanie L. Maxwell, B.A., Johns Hopkins University, Baltimore, MD. AHRQ grant HS08470, project period 8/1/94-7/31/96.**

Cataract extraction is the most commonly performed Medicare surgical procedure, with about 1.5 million extractions annually. Previous studies found that extensive variation exists before, during, and after surgery in cataract management. This study used 1991-1992 Medicare claims data to examine three provider factors (ophthalmologist supply, cataract surgery volume, and type of facility) and their association with the use of six pre-operative diagnostic tests and YAG laser capsulotomy. Area population and physician data also were incorporated, and a model was developed to estimate the odds of undergoing each of seven ophthalmic services. Significant variation in service use existed by practice volume and site. In particular, high-volume practices, ambulatory surgical centers, and office-based surgical sites were associated with increased use of services. High rates of provider supply were associated with relatively little variation in use. The study also confirmed the importance of controlling for health status. Patients with glaucoma, diabetic retinopathy, or corneal disease were significantly more

likely to undergo the services studied than patients without those conditions. (Abstract, executive summary, and dissertation, NTIS accession no. PB2002-101477; 260 pp, \$54.00 paper, \$23.00 microfiche)***

***False-Positive Mammograms and Detection-Controlled Estimation.* Andrew N. Kleit, Ph.D., Pennsylvania State University, University Park. AHRQ grant HS10068, project period 7/1/99-6/30/01.**

In addition to the usual costs associated with mammography, other costs are incurred when there is a false-positive reading that leads to further tests. Although estimates vary, it appears that up to 10 percent of all mammograms fall into the false-positive category. This project examined the incidence of false-positive mammograms using detection controlled estimation (DCE), together with an extensive database from a large hospital-based mammography program in a medium-sized Southern city. Study results imply that access to a previous mammogram greatly reduces the incidence of false-positive readings by as much as 50 to 80 percent. (Abstract, executive summary, and final report, NTIS accession no. PB2002-101464; 32 pp, \$25.50 paper, \$12.00 microfiche)***

***Family Influences on Children's Health and Health Care.* Whitney P. Witt, M.P.H., Johns Hopkins University, Baltimore, MD. AHRQ grant HS11254, project period 9/1/00-6/30/01.**

This study examined the correlates of psychosocial adjustment and mental health care use in 1994-1995 among 4,000 disabled children ages 6-17 years. Mothers reported on children's health, psychosocial problems, mental health services use, and

who, if anyone, coordinated the child's medical care. Results show that family stressors are strongly associated with poor psychosocial adjustment and mental health care use among children with disabilities. Among children with poor psychosocial adjustment, only 40 percent received mental health services, suggesting that there are substantial barriers to these services. These children were more likely to receive outpatient mental health services and avoid hospitalization if their medical care was jointly coordinated by a family member and their physician. (Abstract and executive summary of dissertation, NTIS accession no. PB2002-100381; 20 pp, \$23.00 paper, \$12.00 microfiche)***

***Health Education in an HMO: Effectiveness and Efficiency.* Ronald W. Toseland, Ph.D., Research Foundation of the State University of New York, Albany. AHRQ grant HS09788, project period 9/30/96-9/29/01.**

This project evaluated the short and long-term effectiveness of a health education program (HEP) for spouses of frail older people in a staff model HMO. HEP includes emotional and problem-focused coping strategies, education, and support in eight weekly 2-hour group sessions and 10 monthly 2-hour followup sessions. For caregivers, HEP was more effective than usual care in the short-term for reducing depression, maintaining social integration, increasing problem-solving effectiveness, increasing knowledge of community services and how to access them, enhancing feelings of competence, and improving the way caregivers responded to the care recipient. Most of these changes persisted at 1 and 2 years after intervention. (Abstract, executive summary, and final report, NTIS

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accession no. PB2002-102311; 38 pp, \$25.50 paper, \$12.00 microfiche)***

Health Expense Risk Assessment Using Administrative Data.

Richard T. Meenan, Ph.D., Kaiser Foundation Research Institute, Oakland, CA. AHRQ grant HS10688, project period 7/1/00-6/30/01.

This project used a large multi-HMO administrative data set for 1995-1996 to compare various risk-adjustment models as population-based screens for enrollees at relatively higher risk of generating large future medical expenditures. Early identification of these enrollees can promote effective secondary and tertiary prevention through care or disease management. The Global Risk-Adjustment Model (GRAM-96) was somewhat more accurate in identifying "high-cost" cases, but all models demonstrated fair to good accuracy. (Abstract, executive summary, and final report, NTIS accession no. PB2002-101465; 77 pp, \$29.50 paper, \$12.00 microfiche)***

Health-Related Quality of Life Issues for Dialysis Patients.

Michael G. Trisolini, M.B.A., Brandeis University, Waltham, MA. AHRQ grant HS10580, project period 7/1/99-9/30/01.

Until now, evaluations of care for dialysis patients have focused on biomedical quality, use of services, and cost indicators. The patient's self-assessed, health-related quality of life (HRQOL) has received much less attention. This study evaluated factors affecting HRQOL and the impact on patient outcomes. The results showed that a wide range of psychosocial factors affect HRQOL, which

implies that Medicare should consider modifying its reimbursement policy for dialysis centers to promote expanded use of allied health and home health services, enhanced family and social support networks, and improved rehabilitation through increased staff encouragement. (Abstract and executive summary of dissertation, NTIS accession no. PB2002-101214; 18 pp, \$23.00 paper, \$12.00 microfiche)***

Historically Black Colleges and Universities and Health Care Administration Health Services Research Conference:

***Investigating Determinants of Health Disparities.* Betty W. Fomby, Southern University, Baton Rouge, LA. AHRQ grant HS10932, project period 9/15/00-9/14/01.**

This report describes a conference held in New Orleans, LA, in September 2000. There were four main objectives: (1) enhance the capabilities of HBCUs to partner with Federal agencies and with each other; (2) learn about the research and educational opportunities available at AHRQ, the Centers for Medicare and Medicaid Services, and the Office of Rural and Minority Health; (3) develop strategies to address the differences in health status and disparities experienced by blacks; and (4) learn from examples of current research conducted at HBCUs that investigated the determinants of health disparities in blacks. (Abstract and executive summary of conference, NTIS accession no. PB2002-101462. 18 pp, \$23.00 paper, \$12.00 microfiche)***

Improving Clinical and Economic Outcomes of NSAID Therapy.

Wayne A. Ray, Ph.D., Vanderbilt University, Nashville, TN. AHRQ

grant HS07768, project period 7/1/93-7/31/99.

These researchers conducted outcomes studies that identified nonsteroidal antiinflammatory drugs (NSAIDs) as associated with substantial excess adverse clinical outcomes and costs, demonstrated that these costs could be reduced by increased use of generic medications, and suggested that a safer approach was increased use of acetaminophen and topical medications to control musculoskeletal symptoms. They also conducted two randomized controlled trials of an educational program designed to reduce use of NSAIDs among the elderly living in the community and in nursing homes. (Abstract, executive summary, and final report, NTIS accession no. PB2002-102310; 26 pp, \$23.00 paper, \$12.00 microfiche)***

***Medical Innovation and Changes in Practice Patterns.* Michael Chernew, Ph.D., University of Michigan, Ann Arbor. AHRQ grant HS09838, project period 8/1/98-7/31/01.**

The goal of this project was to identify the managed care mechanisms that influence the extent to which medical innovations change medical practice. The researchers focused on practice patterns for patients with coronary artery disease (CAD) in four diverse delivery systems. A total of 27 individuals were interviewed, including physicians and administrators from health plans and physician groups. Preliminary results suggest that managed care plans are hesitant to micro-manage physician practices in clinical areas in which they do not have clear evidence. Most of the effect of managed care comes through more general pressure placed on physician groups. In the

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absence of evidence, authority lies with the physicians. Physicians are very aware of evidence, but they are willing to adopt technology prior to strong evidence if there is reason to believe the technology might resolve known clinical concerns and if anecdotal evidence suggests it may help. (Abstract and executive summary, NTIS accession no. PB2002-101698; 11 pp, \$23.00 paper, \$12.00 microfiche)***

Organization Typology of Emerging Health Organizations. **Stephen M. Shortell, M.B.A., Ph.D., Northwestern University, Evanston, IL. AHRQ grant HS09524, project period 6/1/97-5/31/98.**

The goal of this project was to use existing theory and data to empirically develop a taxonomy of health networks and systems that share common strategic and structural features. The taxonomy is based on three key dimensions: (1) differentiation referring to the number of different products/services provided along a continuum of care; (2) integration referring to the mechanisms used to achieve unity of effort across organizational components; and (3) centralization referring to the extent activities take place at centralized versus dispersed locations. (Abstract and executive summary, NTIS accession no. PB2002-101692; 32 pp, \$25.50 paper, \$12.00 microfiche)***

Process and Outcomes of Long-Term Care Decisionmaking Among Korean-American Elders. **Jong Won Min, Ph.D., University of California, Los Angeles. AHRQ grant HS10785, project period 7/1/00-6/30/01.**

Decisionmaking about long-term care is largely determined by cultural context. The purpose of this study was to examine processes and outcomes of long-term care decisions among older Korean immigrants when they lose functional independence. Findings are from a cross-sectional survey involving face-to-face interviews with a sample of 153 Korean-American elders in Los Angeles. The study revealed that as the impairment worsened, requiring longer and more intensive care, the respondents' willingness to rely on an "informal source" of care decreased. Acculturation and the level of adherence to traditional values exerted significant effects on long-term care decisions in this population. (Abstract, executive summary, and dissertation, NTIS accession no. PB2002-101687; 275 pp, \$54.00 paper, \$23.00 microfiche)***

Psychosocial Interventions for Metastatic Breast Cancer. **Ruvanee M. Pietersz, Ph.D., University of Chicago. AHRQ grant HS10565, project period 9/30/99-6/30/01.**

Research goals were to explore the changes that occur in the lives of women with metastatic breast cancer and examine the impact of two interventions (expressive-supportive group psychotherapy and an online support group) for increasing psychosocial well-being. Women with metastatic breast cancer were randomly assigned to either an intervention group or a control group. The findings indicate that women with metastatic disease tend to decline in social connection, activity, and coping because of the difficulties they encounter in their daily lives. Both interventions prevented psychosocial declines, although the two interventions differed in the use of specific therapeutic

methods, the presence of a skilled professional, and the physical proximity of group members. This research also suggests that the ideal online support group for this population is characterized by frequent interaction, discussions that are not restricted to breast-cancer related topics, and early establishment of health norms of disclosure. (Abstract, executive summary, and dissertation, NTIS accession no. PB2002-10140; 291 pp, \$56.00 paper, \$23.00 microfiche)***

Second Rocky Mountain Workshop on How to Practice Evidence-Based Health Care. **Phoebe L. Barton, Ph.D., University of Colorado Health Sciences Center, Denver. AHRQ grant HS10102, project period 7/1/00-6/30/01.**

This workshop was designed to introduce and teach the concepts of evidence-based medicine to clinicians and other decisionmakers. Using a problem-based, small group format, participants developed questions, identified and synthesized relevant evidence, critically appraised the evidence, and learned to apply these skills in a clinical setting. Participants included a diverse group of clinicians and policymakers. (Abstract, executive summary, and final report, NTIS accession no. PB2002-101689; 22 pp, \$23.00 paper, \$12.00 microfiche)***

Secondary Pharmacologic Prevention of Ischemic Stroke in an Elderly Nursing Home Population. **Brian Quilliam, R.Ph., Brown University, Providence, RI. AHRQ grant HS11256, project period 9/30/00-9/29/01.**

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The researchers used cross-sectional, cohort, and case-control study designs to describe treatment patterns, estimate the relative beneficial effects (subsequent stroke and mortality) and the relative bleeding effects of secondary stroke prevention agents among a population of elderly stroke survivors living in a nursing home. They found that nearly two-thirds of residents were not being treated with secondary stroke prevention agents. Age, comorbidity, race/ethnicity, and cognitive and physical functioning were all predictive of treatment. Both antiplatelets and anticoagulants decreased rates of all-cause mortality relative to non-use. There was an increased risk of hospitalization for bleeding among people taking aspirin or warfarin, yet the absolute risk was small. (Abstract and executive summary of dissertation, NTIS accession no. PB2002-101213; 18 pp, \$23.00 paper, \$12.00 microfiche)***

***Stability of Psychiatric Symptoms in Primary Care.* David A. Katerndahl, M.D., University of Texas, San Antonio. AHRQ grant HS10676, project period 4/1/00-3/31/01.**

The goal of this project was to design and evaluate methods to test the Dynamic Model of Mental Health Problems. The researchers recruited 80 primary care patients, employed three different methods

for six monthly interviews, and conducted qualitative interviews of 16 patients. No difference between interview methods was found. Recruitment was difficult, and about half of the subjects crossed a distress-nondistressed threshold at least once; 25 percent developed at least one DSM diagnosis. This preliminary research provided essential information for use in designing a study to evaluate the Dynamic Model of Mental Health Problems. (Abstract, executive summary, and final report, NTIS accession no. PB2002-108254; 54 pp, \$27.00 paper, \$12.00 microfiche)***

***Temporal Variations in U.S. Infant Death from Perinatal Causes by Race, Birthweight, and Time Period of Birth.* Amanda J. Liddle, B.S.N., M.P.H., University of Alabama, Birmingham. AHRQ grant HS11259, project period 9/30/00-9/29/01.**

This population-based study examined the effects on time to death of various technologies that evolved in the late 1980s and early 1990s to improve infant survival. The researchers used national and State vital records data for the period 1985-1995 to examine time to infant death from perinatal causes at varying birthweights and for two races (black and white). The researchers found that mortality and total number of days to death decreased, death was postponed for some infants, and there was a continuing but

changing racial disparity. This may have policy and fiscal implications for maternal and child health policymakers, health care delivery organizations, use of resources, outcomes research, and clinical care. (Abstract, executive summary, and dissertation, NTIS accession no. PB2002-101459; 214 pp, \$47.00 paper, \$23.00 microfiche)***

***Timing of Prophylactic Surgery for Diverticulitis.* Robert J. Richards, M.S., University of Kansas Medical Center, Kansas City. AHRQ grant HS10827, project period 8/1/00-7/31/01.**

Although surgery is recommended after two or more bouts of uncomplicated diverticulitis, the optimal timing for surgery in terms of cost-effectiveness is unknown. These researchers compared the costs (estimated from Medicare reimbursement rates) and outcomes of performing surgery after one, two, or three uncomplicated attacks in 60-year old hypothetical cohorts. They found that surgery after the third attack is cost saving, yielding more years of life and quality adjusted life years at a lower cost than the other two strategies. (Abstract, executive summary, and final report, NTIS accession no. PB2002-101693; 28 pp, \$23.00 paper, \$12.00 microfiche)*** ■

Bailey, J.J., Berson, A.S., Handelsman, H., and Hodges, M. (2001, December). "Utility of current risk stratification tests for predicting major arrhythmic events after myocardial infarction." *Journal of the American College of Cardiology* 38(7), pp. 1902-1911.

These researchers examined methods used to identify recent heart attack patients who are at highest risk for sudden cardiac death from heart rhythm problems and thus are most likely to benefit from prophylactic insertion of an implantable cardioverter-defibrillator. They analyzed 44 research reports to estimate prediction values for five common tests for risk of major arrhythmic events (MAEs) after heart attack: signal-averaged electrocardiography; heart rate variability; severe ventricular arrhythmia on ambulatory electrocardiography; left ventricular ejection fraction; and electrophysiology study. Sensitivities and specificities for the five tests were similar, and no one test was satisfactory for predicting risk for MAEs. However, combinations of tests in stages did stratify 92 percent of patients as either high-risk or low-risk. Reprints (AHRQ Publication No. 02-R042) are available from AHRQ**

Bierman, A.S., Lawrence, W.F., Haffer, S.C., and Clancy, C.M. (2001, December). "Functional health outcomes as a measure of health care quality for Medicare beneficiaries." *Health Services Research* 36(6), available online at www.hsr.org/AliceHersh/Download.cfm.

The Medicare Health Outcomes Survey (HOS) is a new quality measure in the Health Plan Employer Data and Information Set (HEDIS), which is designed to assess physical and mental functional health outcomes of Medicare beneficiaries enrolled in Medicare+Choice plans. These authors discuss the rationale for the HOS measure together with methodologic challenges in its use and interpretation. In this study, the HOS measure revealed plan-level variation across all baseline measures of sociodemographic characteristics and illness burden. At the individual level, socioeconomic position as measured by educational attainment was strongly associated with functional status. The least educated beneficiaries had the highest burden of illness on all measures examined, and there was a consistent and significant gradient in health and functional status across all levels of education. Reprints (AHRQ Publication No. 02-R037) are available from AHRQ.*

Brunner, E., Stallone, D., Juneja, M., and others. (2001). "Dietary assessment in Whitehall II: Comparison of 7d diet diary and food-frequency questionnaire and validity against biomarkers." (AHRQ grant HS06516) *British Journal of Nutrition* 86, pp. 405-414.

Diet diaries are probably the most accurate self-report measurements of nutrient intake in motivated groups. A less laborious approach is to use a machine-readable pre-coded questionnaire. These authors compared the estimated nutrient intakes obtained from the two methods with one

another, and with biomarkers of fatty acid and anti-oxidant vitamin intake, in a group of British civil servants. The two methods showed satisfactory agreement, together with an expected level of systematic differences, in their estimates of nutrient intake. Nutrient intakes estimated by the questionnaire proved to be well correlated with biomarker levels and within estimates from the generally more accurate daily diary collected at the same study phase. Given the moderate agreement between methods, and the similarity of the respective biomarker correlations, it may be that a combination of intake estimates from both methods has better predictive power for nutritional effects on health and disease than daily diary estimates alone.

Chapman, G.B., Brewer, N.T., Coups, E.J., and others. (2001). "Value for the future and preventive health behavior." (AHRQ grant HS09519). *Journal of Experimental Psychology: Applied* 7(3), pp. 235-250.

Three studies examined the relationship between scenario measures of time preference and preventive health behaviors that require an upfront cost to achieve a long-term benefit. Responses to time preference scenarios showed weak or no relationship to influenza vaccination, adherence to a medication regimen to control high blood pressure, and adherence to cholesterol-lowering medication. The finding that scenario measures of time preference have surprisingly little relationship to actual behaviors places limits on

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the applications of time preference research to the promotion of preventive health behavior. This finding is consistent with the fact that people are often reluctant to adopt preventive health behaviors or to engage in other future-minded activities, such as investing for retirement.

Johnson, K.B. (2001, December). "Barriers that impede the adoption of pediatric information technology." (Cosponsored by AHRQ and the American Academy of Pediatrics). *Archives of Pediatric and Adolescent Medicine* 155, pp. 1374-1379.

Despite the presence of electronic medical records since the 1970s, between 3 and 30 percent of U.S. physicians use this technology. The poor penetration of information technology (IT) contributes to the large number of laboratory tests that are reordered because of lost results, as well as the 30 percent of treatment orders that are undocumented. According to this literature review, many barriers impede the adoption of IT by pediatric professionals. For example, situational barriers include challenges imposed by the current national health environment, financial and legal risks associated with technology purchasing and use, and access to technology. The most significant barrier is that pediatric health care practitioners may lack the knowledge or training to use IT effectively. While some barriers may be difficult to overcome, lack of knowledge about the uses of IT can be solved through education.

Keller, R.B., Griffin, E., Schneider, E.J., and others. (2002, January). "Searching for quality in medical care: The Maine

Medical Assessment Foundation." (AHRQ grant HS06813). *Journal of Ambulatory Care Management* 25(1), pp. 63-79.

This article describes an alternative method of dealing with the challenges of cost and quality in the current health care system. The method preserves the integrity of the patient-physician relationship and cultivates cooperation among physicians in changing their own behavior. This alternative involves a quality improvement foundation (QIF), which functions at a State or regional level, to provide physicians with a supportive, nonregulatory educational resource that facilitates and disseminates a broad range of information about the use and effectiveness of local health care. The Maine Medical Assessment Foundation is a successful example of a QIF. Maine physicians have been participating in specialty study groups that provide a confidential, educational forum for physicians to learn from their peers. As a result, many participating physicians have voluntarily modified their practices, which has reduced practice variation.

Mandelblatt, J.S., Bierman, A.S., Gold, K., and others. (2001, December). "Constructs of burden of illness in older patients with breast cancer: A comparison of measurement methods." (AHRQ grant HS08395). *Health Services Research* 36(6), pp. 1085-1107.

Burden of illness can affect disease management and treatment decisions as well as health outcomes and care costs. There are limited data comparing the performance of different measures of illness burden. These authors assessed the correlations between five previously validated measures of illness burden and global health

and physical function (Charlson index, Index of Co-existent Diseases, cardiopulmonary burden of illness, patient-specific life expectancy, and disease counts) and evaluated how each measure correlated with breast cancer treatment patterns in a group of 718 older women with early-stage breast cancer. All of the measures were significantly correlated with each other and with physical function and self-rated health. After controlling for age and cancer stage, life expectancy had the largest effect on surgical treatment, followed by self-rated physical function and health. For example, women with longer life expectancy and better self-rated physical function and health were more likely to receive breast conservation and radiation than sicker women. Although several measures of illness burden were associated with breast cancer therapy, each measure accounted for only a small amount of variance in treatment patterns. Reprints (AHRQ Publication No. 02-R044) are available from AHRQ.*

Marshall, G.N., Morales, L.S., Elliott, M., and others. (2001). "Confirmatory factor analysis of the Consumer Assessment of Health Plans Study (CAHPS) 1.0 core survey." (AHRQ grant HS09204 and contract 290-95-2005). *Psychological Assessment* 13(2), pp. 216-229.

The Consumer Assessment of Health Plans Study (CAHPS®) is currently the most widely used instrument to assess consumer evaluations of health care. The CAHPS 1.0 Core Survey assesses both reports about specific health care experiences (for example, delays in gaining access to care) and specific health care providers and settings. It also retains the ability to measure global ratings of

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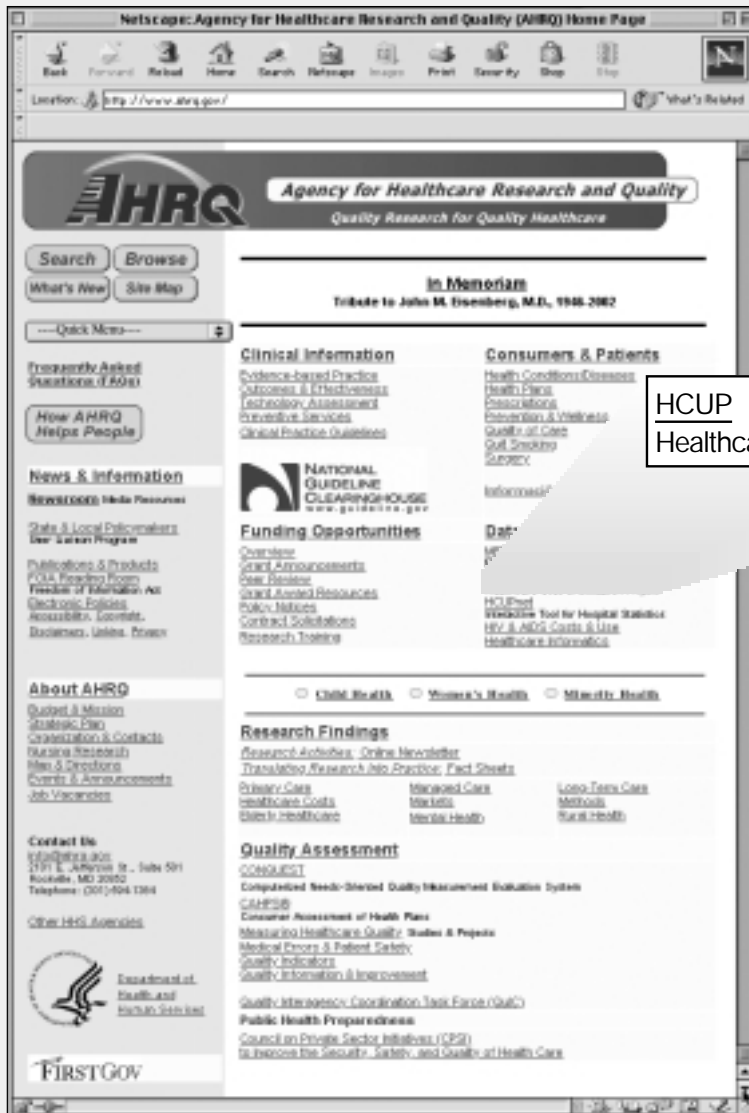
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care received. In this study, the authors used the CAHPS Benchmarking Database to assess the factor structure and invariance of the CAHPS 1.0 Core Survey. The researchers conducted separate analyses with Latinos and non-Latino whites drawn from commercial and Medicaid sectors. Results showed that the 23 CAHPS

1.0 report items measured consumer reports of experiences with 5 aspects of health plan performance: access to care, timeliness of care, provider communication, health plan consumer service, and office staff helpfulness. Four items assessed global ratings of care. Care ratings and reports of care showed marked convergence. ■

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