



Research Activities



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Medical disparities for elderly Medicare beneficiaries are narrowing

A new study shows that an increasing percentage of black enrollees in Medicare managed care plans are being screened for breast cancer or treated for diabetes or heart disease in accordance with nationally recognized quality measures. The study was supported in part by the Agency for Healthcare Research and Quality (HS10803)

Researchers at Brigham and Women's Hospital and Harvard Medical School found that the percentages of black enrollees with diabetes who had their low-density lipoprotein (LDL) or "bad cholesterol" levels measured rose from 61 percent in 1999 to 92 percent in 2003—a 31 percent gain. The percentage of black enrollees with diabetes who had their LDL levels controlled increased even more—by 46 percent (from 23 percent in 1999 to 66 percent in 2003). These gains resulted in a narrowing of the gaps between blacks and whites for both LDL testing (from 9 percent to 2 percent) and LDL control (from 13 percent to 17 percent). The rates of LDL testing and control increased for whites as well over the study period.

Between 1997 and 2002, the percentage of enrollees prescribed a beta-blocker drug within 7 days of hospital discharge following a heart attack, heart bypass surgery, or angioplasty rose from 64 percent to 93 percent for blacks and 76 percent to 94 percent for whites. This progress resulted in many more patients getting optimal care, and also narrowed the gap from 12 percentage points to only 1 percentage point between blacks and whites with cardiovascular disease.

Blacks fell further behind whites on only one quality measure between 1999 and 2002. The proportion of black enrollees with diabetes who had their blood sugar levels controlled according to nationally recognized clinical performance standards rose by only 8 percentage points (from 67 percent to 75 percent), while for whites the numbers rose 11 percentage points (from 71 percent to 82 percent).

The researchers analyzed Health Plan Employer Data and Information Set (HEDIS) measures involving 1.5 million individuals enrolled in 183

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Medical disparities for Medicare patients

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Medicare managed care plans over the study period. Health plans participating in Medicare have been

required to submit publicly reported data using specific HEDIS quality indicators since 1997.

Details are in "Trends in the quality of care and racial disparities in Medicare managed care," by

Amal N. Trivedi, M.D., M.P.H., Alan M. Zaslavsky, Ph.D., Eric C. Schneider, M.D., M.Sc., and John Z. Ayanian, M.D., M.P.P., in the August 18, 2005 *New England Journal of Medicine* 353, pp. 692-700. ■

Disparities/Minority Health

Efforts beyond expanding health coverage may be needed to improve access and quality for low-income and minority children

Lisa Simpson, M.B., B.Ch., M.P.H., former Deputy Director of the Agency for Healthcare Research and Quality and now with the Department of Pediatrics at the University of South Florida, and her colleagues from AHRQ and the Harvard School of Public Health recently published the fifth in a series of reports analyzing patterns of coverage, use of health services, quality, and expenditures for the Nation's children aged 0 to 17.

Dr. Simpson and her colleagues found that, for example, children from low-income families were more likely than children from middle- to high-income families to be uninsured (13 vs. 5.8 percent) or

covered by public insurance (50.8 vs. 7.3 percent), and they were less likely to be privately insured (36.2 vs. 87 percent). Children from low-income families were also less likely to have had a medical office visit (63.7 vs. 76.5 percent) or dental visit (28.8 vs. 51.4 percent), to have medicines prescribed (45.1 vs. 56.4 percent), or to have used hospital outpatient services (5.2 vs. 7 percent) in a year.

On the other hand, low-income youth are more likely to have made trips to the emergency department (14.6 vs. 11.4 percent) and to have been hospitalized for conditions that usually can be managed with good outpatient care. Low-income children were more likely than middle- to high-income children to have their parents report significant problems in getting necessary care (2.4 vs. 1 percent), getting a referral to a specialist (11.5 vs. 5.3 percent), and communicating with physicians. Regardless of income, black children had lower health care use and expenditures than white children.

Although low-income children account for nearly 40 percent of the U.S. child population, only one-quarter of total medical expenditures are for these children. Expanding health insurance coverage alone may not be enough to improve care access and quality for low-income children overall and for minority children regardless of income, conclude the researchers. Their findings are based on an analysis of data from the 2000-2002 Medical Expenditure Panel Survey and the 2001 Nationwide Inpatient Sample from the Healthcare Cost and Utilization Project.

See "Health care for children and youth in the United States: Annual report on patterns of coverage, utilization, quality, and expenditures by income," by Dr. Simpson, Pamela L. Owens, Ph.D., Marc W. Zodet, M.S. and others, in the Jan/Feb 2005 *Ambulatory Pediatrics* 5(1), pp. 6-44, 2005. Reprints (AHRQ Publication No. 05-R048) are available from AHRQ.*

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AHRQ
Office of Communications and Knowledge
Transfer

540 Gaither Road
Rockville, MD 20850
(301) 427-1360

Mary L. Grady, Managing Editor
Barbara L. Kass, MPH, CHES,
Contributing Editor

Gail Makulowich, Contributing Editor
Joel Boches, Design and Production
Karen Migdail, Media Inquiries

Black and Hispanic mothers are much more likely than white mothers to suffer from early postpartum depression

Black and Hispanic mothers are substantially more likely to suffer from early postpartum depression than white mothers. However, similar factors play a role in depression for all of them, according to a study supported in part by the Agency for Healthcare Research and Quality (HS09698). Screening for postpartum depressive symptoms is important, particularly in women of color, conclude the researchers who conducted the study. Two weeks after delivery, nearly one half (47 percent) of Hispanic mothers and 45 percent of black mothers reported depressive symptoms compared to about 31 percent of white mothers. These differences persisted, even after controlling for demographic, personal, and situational factors, such as a colicky infant.

Despite these racial differences in depression prevalence, the burden of physical symptoms, lack of social support, and lack of self-confidence in infant care were factors independently associated

with postpartum depression among all the women. Worse physical symptoms (for example, severe fatigue) were associated with 17 percent greater likelihood of postpartum depression and infant colic with nearly twice the likelihood. In contrast, social support and confidence in managing the infant and household were both associated with 10 percent less likelihood of postpartum depression.

Unlike previous reports, the study found no link between past depression history and early postpartum depression. The study findings were based on responses to a telephone survey by 655 white, black, and Hispanic mothers between 2 and 6 weeks postpartum. They were asked about demographic characteristics, physical symptoms, social support, confidence in infant care, provider access, and other issues.

More details are in “Racial and ethnic differences in factors associated with early postpartum depressive symptoms,” by Elizabeth

A. Howell, M.D., M.P.P., Pablo A. Mora, Ph.D., Carol R. Horowitz, M.D., M.P.H., and Howard Leventhal, Ph.D., in the June 2005 *Obstetrics & Gynecology* 105(6), pp. 1442-1450. ■

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Traditional values underlie older Korean Americans' preference for informal over formal long-term care arrangements

Minority and immigrant elderly in the United States use long-term care (LTC) services less often than their white counterparts. Aside from other factors, preference may play a role in use of LTC, suggests a study of older Korean Americans. Traditional values, especially those of children's devotion and obligation to care for elderly parents, appear to underlie their preference for informal over formal LTC arrangements, concludes

Jong Won Min, Ph.D., of San Diego State University, in a study funded by the Agency for Healthcare Research and Quality (HS10785).

Using two disability scenarios—hip fracture and stroke—Dr. Min surveyed 153 community-dwelling Korean Americans aged 60 years or older, who had lived in the United States for an average of 17 years about their LTC preferences. When faced with a scenario of hip

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Long-term care arrangements

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fracture, about half of those surveyed preferred to have a mixed formal (paid care) and informal (care by a relative) arrangement in their own or their children's home. About one-third (35 percent) said they would turn to informal caregivers at their own or their children's home, and only 16

percent would rely on paid helpers at formal care facilities.

In the stroke scenario, which requires more care, 51 percent preferred a formal care arrangement in terms of both caregiver and care location. About 28 percent preferred an informal care arrangement, and 21 percent preferred a mixed care arrangement. Taking into account all factors, those with stronger adherence to traditional values and

better self-rated health status were significantly less likely to choose a mixed arrangement over an informal care arrangement for hip fracture and stroke.

See "Preference for long-term care arrangement and its correlates for older Korean Americans," by Dr. Min, in the June 2005 *Journal of Aging and Health* 17(3), pp. 363-395. ■

Differences in education and health status account for virtually all racial/ethnic differences in leisure-time physical activity

Leisure-time physical activity (LTPA) is associated with a lower risk for coronary heart disease and cancer and better cardiorespiratory fitness. The relationship between work-related physical activity (WRPA), heavy household chores and strenuous job activities and health outcomes is less clear. A recent study that examined differences in LTPA, WRPA, and total physical activity (TPA) found that differences in educational attainment and health status accounted for virtually all of the racial and ethnic differences in LTPA. In addition, after accounting for WRPA, total physical activity was similar across racial, ethnic, and education subgroups.

Blacks, Hispanics, and people with lower educational attainment spent less time in leisure time activities than whites and people with higher educational attainment. In contrast, work-related physical activity was lowest for whites and more educated individuals. After accounting for several factors, education was a far more important determinant of LTPA and WRPA than race/ethnicity. Furthermore, after adjusting for differences in overall

health and physical functioning, mean total physical activity scores were similar across racial/ethnic and education categories.

These findings are based on an analysis of data from the 1992 Health and Retirement Study of a nationally representative group of 9,621 community-dwelling adults aged 51-61. Xiaoxing Z. He, M.D., M.P.H., and David W. Baker, M.D., M.P.H., of Northwestern University, examined physical activity scores for LTPA, WRPA, and TPA based on self-reported frequency of light or vigorous recreational activities, heavy household chores, and strenuous job-related physical activities. Their work was supported in part by the Agency for Healthcare Research and Quality (HS10283).

More details are in "Differences in leisure-time, household, and work-related physical activity by race, ethnicity, and education," by Drs. He and Baker, in the March 2005 *Journal of General Internal Medicine* 20, pp. 259-266, 2005. ■

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Fears about the digital divide between advantaged and disadvantaged families may not be warranted

Concern about the digital divide between advantaged and disadvantaged families may be unwarranted, suggests a new study. Study results show that regardless of socioeconomic status, most families visiting pediatric clinics in the State of Washington liked using computers and felt comfortable using the Internet. Thus, fears about using the Internet should not be seen as a barrier to developing Internet-based health interventions for a pediatric clinic population, according to first author Aaron E. Carroll, M.D., M.S., of the Indiana University School of Medicine, and his colleagues. Their work was supported by the Agency for Healthcare Research and Quality (HS13302).

The researchers conducted a telephone survey among a population-based sample of parents with children aged 1 to 11 years who received medical care from a community-based clinic network in one Washington county. They asked parents about their education and income, attitudes toward computers, concerns about Internet confidentiality, and comfort using the Internet. Overall, 88 percent of respondents used a computer once a week or more, and 83 percent had favorable attitudes toward computers. Computer use was not restricted to those who owned computers. Even among those who did not own home computers, 45 percent used a computer at least once a week.

Families with Internet access were more comfortable using the

Internet (93 percent) than families without access (75 percent), but even among households with the smallest annual income, 82 percent said they felt comfortable using the Internet. Although 97 percent of respondents were willing to share personal information over the Internet, many considered data security important. Household income and parental education were associated with comfort and familiarity with computers, but the effect was small.

See "Perceptions about computers and the Internet in a pediatric clinic population," by Dr. Carroll, Frederick J. Zimmerman, Ph.D., Frederick P. Rivara, M.D., M.P.H., and others, in the March 2005 *Ambulatory Pediatrics* 5, pp. 122-126. ■

Patient Safety and Quality

Resident work hour limits in New York teaching hospitals were not associated with improved safety for surgery patients

Since July 2003, the work hours of physician residents in training have been limited to 80 hours per week in the hopes of limiting physician fatigue that has been linked to medical error. However, a recent study found that resident work hour limits were not associated with improved safety among surgery patients at a teaching hospital in New York, the first State to enforce such limits in 1998. The study, which was supported by the Agency for Healthcare Research and Quality (T32 HS13833), found worsening trends for two of the five types of surgical patient safety indicators (PSIs) evaluated.

The researchers analyzed Nationwide Inpatient Sample data on New York hospitals from 1995 to 2001 on an average of 2.6 million mean New York discharges per year. They examined the impact of work hour limits on five surgical PSIs developed by AHRQ: accidental puncture or laceration (APL), postoperative pulmonary

embolus or deep venous thrombosis (PEDVT), foreign body left during procedure (FB), iatrogenic (care-caused) pneumothorax (PTX), and postoperative wound dehiscence (reopening, WD). They compared rates of the PSIs before and after implementation of work hour limits in New York teaching hospitals and in two control groups, New York nonteaching hospitals and California teaching hospitals.

The researchers found increased rates over time (expressed per 1,000 discharges each quarter) for both APL and PEDVT after enforcement of work hour limits in New York teaching hospitals. No changes were observed in either control group for these PSIs or in New York teaching hospital rates of FB, PTX, or WD. Because of study design limitations, the reasons for increased rates of APL and PEDVT remain elusive. The researchers suggest that fewer hours for surgical

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Resident work hour limits

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trainees to become technically proficient could have led to more technical errors during procedures (APL). Also, more shifts and hence more information exchanges necessitated by shorter work schedules might have led to higher rates of postoperative PEDVT

if appropriate and timely anticoagulant measures were not communicated and instituted.

See “Resident work hour limits and patient safety,” by Benjamin K. Poulouse, M.D., Wayne A. Ray, Ph.D., Patrick G. Arbogast, Ph.D., and others, in the June 2005 *Annals of Surgery* 241(6), pp. 847-860. ■

One hospital's experience suggests that communication problems may underlie a substantial number of hospital adverse events

Hospitals make every effort to avoid adverse events (AEs), that is, harm or injury to a patient due to health care. A study supported in part by the Agency for Healthcare Research and Quality (HS11563) highlights the importance of good communication in preventing AEs.

Investigators from the Vanderbilt University School of Medicine analyzed risk management files from one urban hospital's department of obstetrics and gynecology to identify factors that may have contributed to or caused unanticipated AEs. They categorized 90 AE cases into three department service areas: gynecologic surgery, inpatient

obstetrics, and outpatient clinic. AEs ranged from operative injury and postoperative complications, to missed diagnosis, inadequate treatment or monitoring, and inappropriate medication.

Communication failures (disrupted flow of critical information from caregiver to caregiver or between patient and caregiver) were associated with 31 percent (28 cases) of AEs. In 19 of these cases, communication failures appeared to contribute directly to the AE. Also, communication failures may have worsened 7 of the 28 cases involving surgery or treatment errors and 5 of the 16 cases involving diagnostic errors. Clinical performance issues

contributed to 31 percent of adverse events; diagnostic issues, 18 percent; and patient behavior (for example, substance abuse or treatment noncompliance), 14 percent. Although these findings are not generalizable to other hospitals, the researchers suggest that review of risk management files may help uncover system problems that are unique to other hospitals.

More details are in “Cause and effect analysis of closed claims in obstetrics and gynecology,” by Andrew A. White, M.D., James W. Pichert, Ph.D., Sandra H. Bledsoe, R.N., A.R.M., and others, in the May 2005 *Obstetrics & Gynecology* 105(5), pp. 1031-1038. ■

Hospital fall prevention programs should target certain patient, medication, and care-related factors that increase falling risk

Falls account for up to 70 percent of accidents among hospitalized patients. A new study recently identified patient, medication, and care-related factors that increase the likelihood of falls. Patients most likely to fall suffered from gait and lower extremity problems or confusion, used certain medications (sedatives/hypnotics or diabetes medications), or needed assistance to get out of bed. Many falls occurred while an unassisted patient was walking or getting out of bed, usually to go to the bathroom, according to the study supported by the Agency for Healthcare Research and Quality (HS11898).

Hospital fall prevention programs should target patients with risk factors, monitor and adjust medication use related to falls, and consider scheduled mobilization and toileting to reduce falls, conclude the researchers who conducted the study. They used nurse and patient interviews and medical records to compare potential risk factors and circumstances of falls among 98 inpatients who fell and 318 matched controls who did not fall at the same hospital. Compared with controls, patients with gait/balance deficits or lower extremity problems were nine times as likely to fall, confused patients and those using sedatives/hypnotics were about four times as likely to fall, and

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Fall prevention programs

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those taking diabetes medications were three times as likely to fall.

Also, increasing the patient-to-nurse ratio nearly doubled the likelihood of a fall. Those who were only supposed to “get up with assistance” were much more likely than those with bathroom privileges to fall.

Having one or more side rails raised was associated with a decreased risk of falling.

See “A case-control study of patient, medication, and care-related risk factors for inpatient falls,” by Melissa J. Krauss, M.P.H., Bradley Evanoff, M.D., M.P.H., Eileen Hitcho, M.S., and others, in the February 2005 *Journal of General Internal Medicine* 20, pp. 116-122. ■

Women’s Health

Women with atherosclerosis and high cholesterol receive less intense cholesterol management than men

Women with atherosclerosis (arteries clogged with plaque) receive less intense management of their cholesterol than men, but management of black and white patients with the condition is similar, according to a new study supported in part by the Agency for Healthcare Research and Quality (T32 HS00020). Researchers led by Stephen D. Persell, M.D., M.P.H., of Northwestern University, retrospectively examined the cholesterol management of 243 patients of primary care practices affiliated with the same academic medical center. The patients had coronary heart disease, cerebrovascular disease, or peripheral vascular disease and high low-density lipoprotein cholesterol (LDL-C) (over 130 mg/dl).

Cholesterol management by either medication intensification or LDL-C monitoring occurred at

31.2 percent of women’s and 38.5 percent of men’s visits, and 37.3 percent of black and 31.7 percent of white patients’ visits. After adjusting for other factors, women were 23 percent less likely than men to have their cholesterol managed. Patients who saw a provider at their primary care site other than their primary care physician or those having a new clinical problem addressed were 77 percent and 40 percent, respectively, less likely to have their cholesterol managed.

Despite many visits, LDL-C levels below 130 mg/dl occurred less often for women than men (41 percent vs. 61 percent, respectively) 1 year after the initial visit. Also, at 12 months, black patients were less likely than white patients to achieve target LDL-C levels (39 percent vs. 58 percent, respectively), as were patients with Medicare only compared with those who had private insurance

(37 percent vs. 58 percent, respectively).

Less intense cholesterol management accounted for some of the disparity in cholesterol control between women and men, but not between black and white patients. Lack of prescription drug coverage may have contributed to less cholesterol control among blacks and those with only Medicare insurance, suggest the researchers.

More details are in “Ambulatory hypercholesterolemia management in patients with atherosclerosis,” by Dr. Persell, Saverio M. Maviglia, M.D., David W. Bates, M.D., M.Sc., and John Z. Ayanian, M.D., M.P.P., in the *Journal of General Internal Medicine* 20, pp. 123-130, February 2005. ■

Note: Only items marked with a single (*) asterisk are available from the AHRQ Clearinghouse. Items with a double asterisk (**) are available from the National Technical Information Service. See the back cover of *Research Activities* for ordering information. Consult a reference librarian for information on obtaining copies of articles not marked with an asterisk.

Supracervical and total abdominal hysterectomy result in similar sexual functioning and quality of life 2 years later

Women who undergo supracervical hysterectomy (SCH, not including the cervix) or total abdominal hysterectomy (TAH, including the cervix) achieve similar sexual functioning and quality of life 2 years after the procedure, according to a study supported by the Agency for Healthcare Research and Quality (HS09478). Lead author, Miriam Kuppermann, Ph.D., M.P.H., of the University of California, San Francisco, and colleagues randomly assigned 135 premenopausal women scheduled to undergo abdominal hysterectomy in four U.S. clinical centers to either SCH or TAH. Women underwent the procedures for uterine fibroids that caused bleeding, pressure, or pain or for abnormal uterine bleeding that did not respond to hormonal treatment.

Researchers examined the women's sexual functioning 2 years later and health-related quality of

life (HRQOL) at 6 months and at 2 years. Sexual problems improved dramatically in both groups during the first 6 months and reached a plateau by 1 year. At 2 years, both groups reported few problems with sexual functioning. On a scale of 0 to 100, with 100 meaning no problems, the SCH group scored an 82 and the TAH group scored an 80. Both groups also demonstrated substantial improvement in most HRQOL measures (psychological well-being, overall health, symptoms, and sleep problems).

More details are in "Sexual functioning after total compared with supracervical hysterectomy: A randomized trial," by Dr. Kuppermann, Robert L. Summitt Jr., M.D., R. Edward Varner, M.D., and others, in the June 2005 *Obstetrics & Gynecology* 105(6), pp. 1309-1318. ■

Estrogen therapy with progestin has higher discontinuation rates in women with diabetes and cardiovascular disease

The Women's Health Initiative (WHI) trial, whose results were released in 2002, found that menopausal estrogen plus progestin therapy (EPT) was associated with increased risk for breast cancer, stroke, and pulmonary embolism and decreased risk for fracture and colon cancer. Women with diabetes and a history of cardiovascular disease were considered to be at highest risk from use of EPT.

A new study, supported in part by the Agency for Healthcare Research and Quality (HS11843), found a greater decline in use of EPT by women with diabetes or cardiovascular disease than other women after the WHI results were released. However, these and other coexisting conditions had little

impact on overall post-WHI prevalence or initiation of EPT and estrogen-only therapy (ET).

Researchers examined data on hormone use among nearly 170,000 women aged 40 to 80 years old from five HMOs, which are part of the HMO Research Network Center for Education and Research in Therapeutics. EPT and ET use declined 45 percent and 22 percent, respectively, from prior to the WHI EPT trial results to 5 months afterwards. Discontinuation rates increased nearly seven-fold among women with diabetes, nearly six-fold among women with cardiovascular disease, and four-fold among those with a bone fracture or no coexisting illness. ET discontinuation rates among these same groups were also elevated.

After the release of the WHI results, coexisting conditions had little impact on changes in overall prevalence or initiation of ET or EPT.

See "The impact of comorbidities on hormone use after the 2002 release of the women's health initiative," by Katherine M. Newton, Ph.D., Diana S.M. Buist, Ph.D., Diana L. Miglioretti, Ph.D., and others, in the April 2005 *Journal of General Internal Medicine* 20, pp. 350-356. ■

Age, not height and weight, may be a better marker for assessing risk to children riding in vehicles with air bags

The National Highway Traffic Safety Administration requires warnings on motor vehicles that children age 12 years and under can be seriously injured or killed by an air bag. A new study concludes that the risk of serious air-bag-related injury may extend to age 14 when children in this age group are seated in the right front passenger seat in vehicles equipped with air bags.

Craig D. Newgard, M.D., M.P.H., of Oregon Health and Science University, and Roger J. Lewis, M.D., Ph.D., of the University of California, Los Angeles, examined the impact of height, weight, and age on air-bag-related injury in a national group of 3,790 children age 1 month to 18 years. The study was supported in part by the Agency for Healthcare Research and Quality (F32 HS00148). The researchers examined crash data from the National Automotive Sampling System Crashworthiness Data System between 1995 and 2002 on children seated in the right front passenger seat of motor vehicles equipped with air bags. Children age 14 years and younger seemed to be

at nearly three times the risk of serious injury when involved in frontal collisions in vehicles with air bags and over six times the risk of serious injury when that air bag deployed compared with older children.

Children aged 15 to 18 years involved in frontal collisions were 81 percent less likely to be injured when an air bag was present and a 69 percent less likely to be injured when the air bag deployed. The researchers did not find any relationship between height or weight and injury, suggesting that age may be a better marker than height or weight for risk assessment regarding children and air bags. Changes in body composition and bone mass associated with the onset of puberty (typically at age 11 for girls and 13 for boys) may play a role in susceptibility to injury from air bags and could be one explanation for their findings.

See "Effects of child age and body size on serious injury from passenger air-bag presence in motor vehicle crashes," by Drs. Newgard and Lewis, in the June 2005 *Pediatrics* 115(6), pp. 1579-1585. ■

Few adolescents with special health care needs receive adequate transition from pediatric to adult-oriented health care

Approximately one in five adolescents in the United States has special health care needs (SHCN). Each year, 750,000 of these adolescents become adults and need to transition to adult-oriented health care. However, few adolescents with SHCN receive adequate transition services when moving into adult-oriented health care, according to a study supported in part by the Agency for Healthcare Research and Quality (HS15511).

Promoting high-quality parent-physician interactions may be one means to improve the delivery of health care transition services,

suggest University of Minnesota Medical School researchers Peter Scal, M.D., M.P.H., and Marjorie Ireland, Ph.D. They analyzed data for 4,332 adolescents (aged 14 to 17 years) from the 2000-2001 National Survey of Children with Special Health Care Needs. They examined parent reports to gauge the adequacy of transition services.

Overall, 50 percent of parents said that they had discussed transition issues with their adolescent's doctor. Only 30 percent had developed a plan for addressing those needs, and 30 percent had discussed seeing a doctor who treats adults. However,

only 16 percent of parents had discussed and developed a plan with their providers for addressing the adolescent's changing health care needs. Adolescents with SHCN who were older, were female, had more complicated needs, and had a high-quality relationship with their doctors were more likely to receive adequate health care transition.

More details are in "Addressing transition to adult health care for adolescents with special health care needs," by Drs. Scal and Ireland, in the June 2005 *Pediatrics* 115(6), pp. 1607-1612. ■

Certain managed care organization characteristics can increase specialty care use among chronically ill low-income children

Certain characteristics of managed care organizations (MCOs) can increase specialty care use among chronically ill, low-income children, according to a study supported in part by the Agency for Healthcare Research and Quality (HS09949). After controlling for health status, children with chronic conditions cared for in MCOs that had more pediatricians in their primary care physician (PCP) network and offered financial incentives for meeting quality of care standards had 17 and 71 percent, respectively, greater odds of seeing an outpatient specialist.

MCOs using these strategies would provide better access to specialty care for these vulnerable children, suggests Elizabeth Shenkman, Ph.D., of the University of Florida. Dr. Shenkman and her colleagues examined the association between MCO characteristics (prior authorization procedures, availability of pediatricians in the networks, type of PCP reimbursement, and use of financial incentives to promote meeting of pediatric quality of care standards) and outpatient specialist use among 2,333 children with conditions such as asthma, diabetes, and cystic fibrosis. All of the children in this

study were receiving care in MCOs in which PCPs served as gatekeepers and were insured through a State Children's Health Insurance Program for poor children.

Researchers found that for each 10 percent decrease in the percentage of PCPs paid on a fee-for-service basis, children had 5 percent lower odds of visiting an outpatient specialist. These findings suggest that capitated providers who are not at financial risk for making specialty referrals may be more likely to make discretionary referrals to specialists. Also, children who saw a physician specialist in the year prior to the study interview were 52 percent more likely to see a physician specialist in the subsequent year. Overall, black children were only half as likely to receive specialty care than white children.

See "Managed care organization characteristics and outpatient specialty care use among children with chronic illness," by Dr. Shenkman, Lili Tian, Ph.D., John Nackashi, M.D., Ph.D., and Desmond Schatz, M.D., in the June 2005 *Pediatrics* 115(6), pp. 1547-1554. ■

Routine pertussis vaccination of adolescents would be beneficial and reasonably cost effective

Despite high childhood vaccination rates against pertussis (whooping cough), the vaccine's waning immunity by the mid-teens has resulted in sharply increased rates of pertussis among adolescents and adults. Routine pertussis vaccination of adolescents in the United States may benefit health and be relatively cost effective, concludes a study supported in part by the Agency for Healthcare Research and Quality (T32 HS00063 and HS13908).

Researchers led by Grace M. Lee, M.D., M.P.H., of Harvard Medical School, modeled health outcomes over the lifetime of a hypothetical group of 4 million adolescents, presuming baseline incidence rates of 155 and 11 cases

per 100,000 adolescents and adults, respectively.

Researchers calculated that about 85,000 cases would occur if no vaccination program were implemented. The adolescent and adult vaccination with boosters strategy would prevent the most pertussis cases (35,000 cases or 41 percent), but it could potentially cause 253,000 adverse events (mostly minor). The one-time adolescent vaccination strategy would prevent almost as many cases (30,800, or 36 percent), with many fewer adverse events (91,000). The one-time adult vaccination, adult vaccination with boosters, and postpartum vaccination strategies each would prevent less than 8 percent of cases because of the relatively low

baseline incidence of disease among adults.

When patient preferences about disease and vaccination were incorporated into the analysis through quality-adjusted life years (QALYs), the one-time adolescent vaccination, at a vaccination cost of \$15 and vaccine coverage of 76 percent, would cost \$1,100 to \$1,200 per case prevented or \$20,000 to \$23,000 per QALY saved (\$50,000 or less is considered cost effective for medical interventions).

See "Pertussis in adolescents and adults: Should we vaccinate?" by Dr. Lee, Charles LeBaron, M.D., Trudy V. Murphy, M.D., and others, in the June 2005 *Pediatrics* 115(6), pp. 1675-1684. ■

Elderly individuals with financial problems face more disability and risk of death after hospital discharge

Over 10 percent of older Americans live below the Federal poverty line, with little ability to pay for medicine and other medical expenses after they have been hospitalized. Financial problems make the elderly particularly vulnerable to functional decline and death when they are discharged from the hospital, concludes a new study supported in part by the Agency for Healthcare Research and Quality (KO2 HS00006). Researchers led by Kenneth E. Covinsky, M.D., M.P.H., of the University of California, San Francisco, followed 2,200 patients 70 years and older, who were admitted to two teaching hospitals in Ohio. The researchers interviewed patients at hospital

discharge to determine their financial ability to pay for six needs: groceries, general bills, medications, medical bills, a small emergency, and a major emergency. They also determined functional decline in ability to perform activities of daily living from discharge to 90 days after discharge, and death 1 year after discharge. One out of five patients (21 percent) had severe financial disability and was unable to pay for three to six needs, while 36 percent of patients had moderate disability and were unable to pay for one to two needs.

Only 15 percent of elderly patients with no financial disability showed functional decline three months after hospital discharge,

compared with 20 percent of those who had moderate financial disability, and 25 percent with severe financial disability. Corresponding 1-year mortality rates were 24 percent, 27 percent, and 32 percent, respectively. Alleviating the financial disability of elderly individuals may improve their health outcomes following hospital discharge, conclude the researchers.

See “Reports of financial disability predict functional decline and death in older patients discharged from the hospital,” by Alexander K. Li, M.D., Dr. Covinsky, Laura P. Sands, Ph.D., and others, in the *Journal of General Internal Medicine* 20, pp. 168-174, February 2005. ■

Patients most likely to benefit from stroke rehabilitation are least likely to be selected

Between 1987 and 1998, hospital stays for stroke patients declined by half, but Medicare nursing home admissions for stroke increased nearly three-fold. However, the patients most likely to benefit from stroke rehabilitation in nursing homes—such as those who are cognitively impaired, incontinent, or unable to conduct ordinary daily activities—are not being selected for it, according to a study by Case Western Reserve University researchers.

In a study supported in part by the Agency for Healthcare Research and Quality (T32 HS00059), they examined the outcomes of 2,013 stroke patients admitted from an acute care hospital to 945 Medicaid-certified nursing homes in Ohio between 1994 and 1996. Using data from the *Ohio Minimum Dataset Plus* and Ohio death certificate files, the researchers compared patients who received stroke rehabilitation with those who did not.

After adjusting for patient need for rehabilitation and severity of illness, patients who received rehabilitation were 1.58 times as likely to be discharged to the community than those who did not. However, those most likely to benefit from stroke rehabilitation based on clinical factors (high need) were less likely to be discharged to the community than those least likely to benefit. Patients who were less likely to receive rehabilitation were more likely to have do-not-resuscitate orders and to have Medicaid as their primary insurance.

More details are in “Are we selecting the right patients for stroke rehabilitation in nursing homes?” by Patrick K. Murray, M.D., M.S., Neal V. Dawson, M.D., Charles L. Thomas, B.S., and Randall D. Cebul, M.D., in the May 2005 *Archives of Physical and Medical Rehabilitation* 86, pp. 876-880. ■

Diagnostic test information often reassures patients who have chest pain suggestive of coronary artery disease

When patients experiencing chest pain suggestive of coronary artery disease (CAD) undergo treadmill stress testing to evaluate their pain, many tend to benefit psychologically. They feel less anxiety and uncertainty about their health and anticipate a longer life 1 week after testing compared with before testing. Also, for many patients, symptoms are less bothersome after testing than they were before. Apparently, even patients whose test diagnosed CAD were not harmed psychologically, according to a study supported by the Agency for Healthcare Research and Quality (HS06901).

Alvin I. Mushlin, M.D., Sc.M., of Weill Medical College of Cornell University, and his

colleagues studied the reactions of 320 patients (mean age of 56) who had chest pain but no prior CAD diagnosis who were referred for treadmill testing for CAD from 44 primary care practices. The researchers assessed patients' current health status, perceived life expectancy, anxiety, uncertainty, and health state preferences before testing and 1 week after testing and receipt of test results. Most patients were white and had private insurance.

Overall, 78 percent of patients expected that they would feel less anxious after testing. Compared with how they felt before the test, after the test patients generally perceived a small decrease in physical pain (mean score 71 vs. 69, with higher scores indicating

less pain) and were more likely to think that their health was better than it was 1 year ago. Perceived life expectancy increased from a mean of 23 to 24.5 years, anxiety scores decreased from a mean of 33 to 28.4, and perceived uncertainty decreased from a mean of 13.7 to 10.2. Other perceptions of current health and functional status did not appear to change.

See "The value of diagnostic information to patients with chest pain suggestive of coronary artery disease," by Dr. Mushlin, Lisa M. Kern, M.D., M.P.H., Mary Paris, M.P.H., and others in the March/April 2005 *Medical Decision Making* 25, pp. 149-157. ■

Study explores physician job satisfaction and quality of care and outcomes for managed care patients with pain and depression

For primary managed care patients with pain or depression, their physician's job satisfaction is associated with some of their perceptions of quality of care, but not health outcomes. That's the conclusion of a study supported by the Agency for Healthcare Research and Quality (HS11712) and led by University of Washington researcher, David Grembowski, Ph.D. His team surveyed 1,514 patients with pain only, 575 patients with depressive symptoms only, and 761 patients with pain and depressive symptoms, who visited 261 primary care physicians (PCPs) in private practices in Seattle.

The researchers measured intensity of managed care controls for each patient and measured physician job satisfaction at baseline via a six-item scale. They asked patients in a 6-month follow-up survey to rate quality of care provided by the PCP, patient trust and confidence in the physician, and continued relationship with the PCP. They examined the

correlation of these factors with changes in pain and depressive symptoms at follow-up.

Patients with pain and depression had greater trust and confidence in their PCPs when those doctors were more satisfied with their jobs. Patients with pain only were less likely to change doctors in the follow-up period when their PCPs reported more job satisfaction. Patients who had depression whose physicians were satisfied rated their care more highly than those of dissatisfied physicians. Finally, physician job satisfaction was not associated with patient health outcomes such as bothersome pain symptoms, depression symptoms, or their interference in carrying out daily activities.

See "Managed care, physician job satisfaction, and the quality of primary care," by Dr. Grembowski, David Paschane, M.S., Paula Diehr, Ph.D., and others, in the *Journal of General Internal Medicine* 20, pp. 271-277. ■

It will be difficult to achieve strict cholesterol goals in many patients with diabetes and cardiovascular disease

Cholesterol management with diet and/or lipid-lowering medications such as statins is essential in the preventive care of patients with diabetes who are at high risk for cardiovascular disease (CVD). New National Cholesterol Education Program guidelines recommend a low density lipoprotein (LDL) cholesterol goal of less than 70 mg/dl for patients at very high risk for CVD, which includes patients with established CVD plus one or more problems such as diabetes or acute coronary syndromes.

To attain this goal, about 25 percent of patients with diabetes and CVD will need two lipid-lowering drugs at maximal dosage, notes Amanda G. Kennedy, Pharm.D., B.C.P.S., of the

University of Vermont College of Medicine. In a study supported in part by the Agency for Healthcare Research and Quality (HS13891), researchers categorized primary care patients with diabetes into high-risk and very-high-risk cardiovascular status and examined their lipid profiles and medications. They then assessed the required changes in therapy to achieve the LDL goal for patients not yet at the goal.

Overall, about 30 percent of patients said they had known CVD, placing them in the very-high-risk category. Of the entire group of 650 patients, about half were already taking lipid-lowering medication, and 49 percent had LDL less than 100 mg/dl, the target LDL for high-risk patients. However, only 16

percent of those at very high risk for CVD had an LDL less than 70 mg/dl. Based on best-case scenarios, the researchers estimated that nearly 4 percent of high-risk patients would require more than two lipid-lowering drugs to achieve an LDL less than 100 mg/dl, and 26 percent of the very-high-risk group would not reach an LDL less than 70 mg/dl with two lipid-lowering medications.

More details are in “The challenge of achieving national cholesterol goals in patients with diabetes,” by Dr. Kennedy, Charles D. MacLean, M.D., Benjamin Littenberg, M.D., and others, in the May 2005 *Diabetes Care* 28(5), pp. 1029-1934. ■

Clinical Decisionmaking

Decision support systems that minimize clinicians' efforts to receive and act on system recommendations can improve care

Four features are strongly associated with a decision support system's ability to improve clinical practice, according to a recent study conducted by researchers at Duke University Medical Center and Old Dominion University. All four of the features make it easier for clinicians to receive and act on system recommendations. These features include providing decision support automatically as part of clinician workflow, delivering it at the time and location of decisionmaking, providing actionable recommendations, and being computer-based.

For example, systems that provided a recommendation (such as initiation of beta-blocker therapy in patients at high risk of coronary artery disease) were significantly more likely to succeed in improving patient care than systems that provided only an assessment of the patient (such as “Patient is at high

risk of coronary disease”). The researchers correlated 15 decision support features with the systems' ability to significantly improve patient care, after analyzing 70 randomized control trials on the topic.

Decision support systems significantly improved clinical practice in 68 percent of trials. Further analysis identified four features as independent predictors of improved clinical practice. Of 32 systems possessing all four features, 30 (94 percent) significantly improved clinical practice. Clinicians and other stakeholders should implement clinical decision support systems that incorporate these features whenever feasible and appropriate, suggest the researchers. Their work was supported in part by the Agency for Healthcare Research and Quality (HS10472 and HS10814).

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Decision support systems

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More details are in “Improving clinical practice using clinical decision support systems: A systematic review of trials to identify features critical to success,”

by Kensaku Kawamoto, B.A., Caitlin A. Houlihan, M.S., E. Andrew Balas, M.D., Ph.D., and David F. Lobach, M.D., Ph.D., in the March 2005 *British Medical Journal* 330, available online at www.bmj.com. ■

Patients' beliefs are not an important barrier to effective pain management

Cancer patients, many of whom are now treated in primary care offices, suffer both from cancer pain and from pain not related to cancer or its treatment. A recent study supported in part by the Agency for Healthcare Research and Quality (HS08691) examined the role of patients' beliefs in pain management. Results suggest that provider practices are more likely than patient beliefs to determine the level of pain relief achieved. In particular, the most important determinant of patients' recent pain was whether they experienced sustained relief when treated for pain.

To explore the role of patients' beliefs in pain management, the

researchers studied 342 cancer patients seen by primary care providers in eight clinics in a managed care system. The patients complained of pain that would not dissipate on its own or when treated by over-the-counter medication. About half of the patients suffered from pain that was not cancer-related, such as arthritis pain.

Patients' beliefs were not associated strongly with reporting pain or taking medication and played a limited role in predicting recent pain intensity. The providers' pain management practices, however, seemed to have a far greater predictive role. For patients with moderate to severe pain, the association between their

beliefs and their history of pain and pain treatment suggests that beliefs are likely to be formed partly as a consequence of the care they receive. The results did not depend on whether the cause of pain was related to cancer.

See “Do patients' beliefs act as barriers to effective pain management behaviors and outcomes in patients with cancer-related or noncancer-related pain?” by Ree Dawson, Ph.D., Deborah E. Sellers, Ph.D., Judith A. Spross, Ph.D., R.N., A.O.C.N.[®], F.A.A.N., and others, in the *Oncology Nursing Forum* 32(2), pp. 363-374, March 2005. ■

Physicians welcome patients' participation in medical decisionmaking

Physicians appear to have a positive and flexible approach when it comes to including patients in clinical decisionmaking, concludes a study supported by the Agency for Healthcare Research and Quality (HS11289). Researchers interviewed 53 academic and private practice physicians from primary care and surgical specialties, ranging from first year residents to recently retired physicians. The physicians identified three primary justifications for including patients in decisionmaking: respect for autonomy, better health outcomes, and self-interest.

Physicians stressed the importance of patient autonomy and the patient's right to make decisions

affecting their own health. However, patient autonomy was not the sole or even primary justification for many. Many physicians engaged patients in decisionmaking largely because they hoped it would result in better health outcomes. They believed that involving patients in decision-making promotes trust and honesty that leads to better diagnosis and care. Several physicians felt that they gained significant legal protection by involving patients in medical decisions. They believed that an informed patient would be more satisfied and less likely to sue them if complications arose.

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Medical decisionmaking

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Physicians integrated patients in decisions in different ways. Most saw themselves as an expert who has the responsibility to explain the clinical situation to the patient and make recommendations. Some doctors deliberately promoted a collaborative approach by inviting the patient to participate directly in the decision by outlining treatment options and allowing the patient to make the choice. Time spent discussing

decisions with patients varied with patient level of education, intellectual capacity, ability to understand the decision, and patient's desire for education and participation.

See "Missed expectations? Physicians' views of patients' participation in medical decision-making," by Amy L. McGuire, J.D., Ph.D., Laurence B. McCullough, Ph.D., Susan C. Weller, Ph.D., and Simon N. Whitney, M.D., J.D., in the May 2005 *Medical Care* 43(5), pp. 466-470. ■

Pharmaceutical Research

Laboratory drug monitoring of outpatients taking long-term medications could be improved

Patients taking long-term medications such as cholesterol-lowering statins and blood-thinning warfarin should be monitored for drug-related problems via laboratory tests. Yet, lapses in such monitoring among outpatients are common, according to a study supported by the Agency for Healthcare Research and Quality (Contract No. 290-00-0015). Among patients taking an average of nine medications each in 2001, nearly half did not receive one or more recommended laboratory tests to monitor drug safety.

Researchers examined claims data from two HMOS to determine

rates of missed laboratory tests in 1999, 2000, and 2001 in patients receiving certain chronic medications for which specific laboratory monitoring is recommended. The total patients studied each year ranged from about 30,000 to 37,000.

Among these patients, 47 percent in 1999, 45 percent in 2000, and 44 percent in 2001 did not receive one or more laboratory tests recommended for safety monitoring. For example, 22 to 27 percent of patients taking statins, which can impair liver function, did not receive a liver function test during a 12-month period. Even when doctors believe laboratory

monitoring is clinically important, they may be hampered by the patient not accessing health care, lack of time during patient visits, not having easy access to records of the patient's current drug regimen, and lack of tracking tools such as computerized reminders for the physician or mailed reminders to the patient.

More details are in "Laboratory safety monitoring of chronic medications in ambulatory care settings," by Judith S. Hurley, M.D., R.D., Melissa Roberts, M.S., Leif I. Solberg, M.D., and others, in the *Journal of General Internal Medicine* 20, pp. 331-333, 2005. ■

Hydroxychloroquine can reduce risk of organ damage in patients with lupus

Systemic lupus erythematosus (SLE) is an autoimmune disease that affects every organ system in the body. Individuals with the disease typically suffer from periodic episodes of inflammation and damage to joints, connective tissues, and organs. Certain medications to treat the disease can also lead to damage ranging from heart attacks to strokes. One of the more commonly prescribed medications for lupus in the United States is hydroxychloroquine (HCQ), an antimalarial drug that

appears to reduce the risk of new damage in patients who have not yet developed damage when they begin HCQ treatment, according to a new study.

With partial support from the Agency for Healthcare Research and Quality (HS10389), researchers at the Center for Education and Research on Therapeutics at the University of Alabama and colleagues examined the outcomes of lupus patients who had the disease for 5 years or less. They measured the patients'

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Medication management in lupus patients

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demographic characteristics, clinical and serological manifestations of the disease, as well as disease activity (by the Systemic Lupus Activity Measure, SLAM), and damage (by the Systemic Lupus International Collaborating Clinics damage index, SDI).

Patients who were not treated with HCQ on enrollment (44 percent) had higher SLAM and SDI scores than patients who were treated (56 percent), and they were significantly more likely to have major organ involvement such as renal disease or central

nervous system disease. Even after adjustment for factors that influence lupus activity and/or damage accrual, HCQ usage was still associated with 27 percent reduced risk of developing new damage. Patients receiving HCQ who had no damage at study entry had a 45 percent decrease in the risk of damage accrual. HCQ did not decrease the risk of damage for those who already had damage at study entry.

More details are in "Systemic lupus erythematosus in three ethnic groups," by Barri J. Fessler, M.D., Graciela S. Alarcon, M.D., M.P.H., Gerald McGwin Jr., Ph.D., M.S., and others, in the May 2005 *Arthritis & Rheumatism* 52(5), pp. 1473-1480. ■

HIV/AIDS Research

Delays and missed opportunities persist in diagnosing patients with unrecognized HIV infection

An estimated 900,000 people in the United States are infected with HIV, and about 40,000 new HIV infections occur annually. However, timely diagnosis of HIV remains a critical barrier to effective treatment. A new study, supported in part by the Agency for Healthcare Research and Quality (F32 HS11509), recently documented missed opportunities and delays in the diagnosis of patients with HIV infection.

Jason S. Haukoos, M.D., M.S., of the University of Colorado Health Sciences Center, and his colleagues examined medical records and other data on newly diagnosed HIV-infected patients. The patients, most of whom were minorities, were seen at an urban medical center during 1998 and 1999. Researchers analyzed data from all emergency department and

clinic visits at the medical center for a 3-year period preceding the first diagnosis of HIV infection to determine delays and missed opportunities for HIV diagnosis.

Of the 76 newly diagnosed patients, 69 had made a diagnostic health care visit (DHV), and 23 had made a combined total of 53 health care visits preceding the diagnosis of their HIV infection. The median delay in diagnosis of HIV infection for patients who had a DHV was 2 days, although 19 patients had a delay in diagnosis of 30 days or more. The median delay in diagnosis for patients who had a previous visit was 112 days. Half (38) of the 76 patients had at least one risk factor for HIV documented during a medical visit.

Researchers also found that documenting of specific risk factors (such as risky sexual practices, injection drug use, or

blood transfusion between 1977 and 1985) and clinical characteristics suggestive of HIV infection (such as unexplained weight loss, active tuberculosis, recurrent pneumonia, or hepatitis B or C infection) was poor. These findings underscore the need for clinicians to maintain a high awareness for the possibility of HIV infection in all patients.

See "Recognition of undiagnosed HIV infection: An evaluation of missed opportunities in a predominantly urban minority population," by Albert M. Kuo, M.D., Dr. Haukoos, Mallory D. Witt, M.D., and others in the April 2005 *AIDS Patient Care and STDs* 19(4), pp. 239-246. ■

Cancer survival is lower among Medicaid than non-Medicaid patients, especially for those enrolled after cancer diagnosis

Medicaid-insured patients with breast, colorectal, or lung cancer have lower survival rates than non-Medicaid-insured patients with the same types of cancer. A recent study found that this disparity is even more pronounced for patients who enroll in Medicaid after cancer diagnosis, usually with late-stage disease. The study was supported in part by the Agency for Healthcare Research and Quality (HS14206).

Cancer survival in the Medicaid population cannot be improved as long as 40 percent of the population enrolls in Medicaid after diagnosis with late-stage disease, notes first author Cathy Bradley, Ph.D., of Virginia Commonwealth University. Dr. Bradley, Joseph Gardiner, Ph.D., of Michigan State University, and their colleagues used the Michigan Tumor Registry to compare the survival of patients enrolled in Medicaid—either before or after the month of a breast, colorectal, or lung cancer diagnosis—with the survival of non-Medicaid cancer patients over an 8-year period.

Patients who were enrolled in Medicaid before diagnosis survived twice as long as patients who enrolled after cancer diagnosis (median of 38 vs. 19 months), partly due to the high proportion of lung cancer and other late-stage cancers among those enrolled after diagnosis. Nevertheless, the likelihood of death was two to three times as great for patients enrolled in Medicaid relative to those who were not enrolled in Medicaid, once the analysis was stratified by cancer site and stage.

About 54 percent of the non-Medicaid sample and 40 percent of the Medicaid sample had early-stage cancers (in situ and local cancers combined). Yet, only 27 percent of those who enrolled in Medicaid after diagnosis had early-stage cancers, due in part to the preponderance of lung cancer in this group. Lung cancer is almost always diagnosed at late stages, note the researchers.

See “Cancer, Medicaid enrollment, and survival disparities,” by Drs. Bradley and Gardiner, Charles W. Given, Ph.D., and Caralee Roberts, Ph.D., in *Cancer* 103, pp. 1712-1718, April 2005. ■

Study calls for reform of policies that reject candidates for cardiac transplantation due to lack of insurance or finances

Patients with end-stage heart failure currently need to have health insurance or another funding source to be considered eligible for cardiac transplantation. Yet, 23 percent of organ donors are uninsured. Thus, individuals can donate their hearts, but they would not be eligible to receive a heart transplant if they needed one, notes Laura A. Siminoff, Ph.D., of Case Western University, in a recent study supported by the Agency for Healthcare Research and Quality (HS08209).

Although the Federal government has acknowledged the inequities of the status quo, little governmental action has been taken to date. Dr. Siminoff and colleagues hope their paper will spark debate on this subject.

They suggest that, during the informed consent process, donor families be informed that organ recipients must be able to pay, especially when the potential donor is uninsured. Blacks agree to donate their organs at about half the rate of whites for a variety of reasons, including belief that the system of organ allocation in the United States is unfair. This perception may stem from the reality that blacks are less likely than whites to be insured and to be put on transplant lists.

The researchers assert that removing the present funding requirement for transplants will not only rectify an unacceptable inequity in the current system, but also has the potential to expand the overall donor pool. Members of economically disadvantaged

segments of the population, including blacks, may be more willing to donate their organs if they perceive the allocation system to be equitable. Given that the Medicare program presently pays for kidney transplants in those with end-stage renal disease, a similar mechanism could be used to pay for cardiac transplantation for those with end-stage heart failure, suggest the authors.

See “Health insurance and cardiac transplantation: A call for reform,” by Louise P. King, J.D., Dr. Siminoff, Dan M. Meyer, M.D., and others, in the May 2005 *Journal of the American College of Cardiology* 45(9), pp. 1388-1391. ■

New MEPS statistical briefs available from AHRQ

The Agency for Healthcare Research and Quality has released new statistical briefs from the Agency's Medical Expenditure Panel Survey (MEPS). MEPS is the third in a series of nationally representative surveys of medical care use and expenditures sponsored by AHRQ. MEPS is cosponsored by the National Center for Health Statistics. 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 began in 1996 and is ongoing.

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 comprises four component surveys: the Household Component, the Medical Provider Component, the Insurance Component, and the Nursing Home Component.

The following MEPS statistical briefs are now available on the MEPS Web site.

- ***The Uninsured in America, 2004: Estimates for the U.S. Civilian Noninstitutionalized Population under Age 65, Statistical Brief #83***
- ***The Uninsured in America, 1996–2004: Estimates for the U.S. Civilian Noninstitutionalized Population under Age 65, Statistical Brief #84***
- ***Health Insurance Status of Children in America, 1996–2004: Estimates for the U.S. Civilian Noninstitutionalized Population under Age 18, Statistical Brief #85***

Data from the 2004 MEPS household component indicate that Hispanics make up 15 percent of the U.S. population and almost 29 percent of the uninsured. More than one in three Hispanics is uninsured, and 25 percent have only public health insurance. In addition, Hispanics constitute 36 percent of all uninsured children under 18. Additional MEPS findings indicate that in 2004:

- White non-Hispanics adults under age 65 made up 65 percent of the U.S. population and almost 50 percent of the uninsured. About one in seven whites was uninsured, and 10 percent had only public insurance.

- Black non-Hispanic adults under age 65 made up almost 13 percent of the population and almost 15 percent of the uninsured. About one in five blacks was uninsured, and 28 percent had only public insurance.
- For people under age 65, 19 percent (48 million) were estimated to be without health insurance.
- For children under age 18, nearly 12 percent (8.5 million) were uninsured. These most recent estimates of children without health insurance were significantly lower than estimates from the previous decade, mostly due to public insurance expansions aimed at children, including Medicaid and the State Children's Health Insurance Program.
- Young adults aged 19-24 were at greatest risk of being uninsured, with 35 percent having no insurance coverage for the first part of 2004. This lack of coverage was worst for young Hispanic adults, with 56 percent uninsured.

Findings on uninsured Americans in a given year are often presented in three ways: people uninsured for a full year, those ever uninsured during a year, and those uninsured for a specific point in time. The MEPS provides data for all three categories and also covers a 2-year period. The data provided in this most recent MEPS release reflect insurance status for a specific point in time—the first part of 2004.

Employer-Sponsored Health Insurance for Large Employers in the Private Sector, by Industry Classification, 2003, Statistical Brief #89

Data from the MEPS Insurance Component indicate that about 64 percent of American workers in large, private-sector companies (those with 50 or more employees) were enrolled in health insurance plans offered by their employers in 2003, but enrollment rates varied substantially by type of industry.

Enrollment rates ranged from a high of nearly 82 percent in the mining and manufacturing industries to a low of roughly 41 percent of employees in "Other Services Industries"—a category that includes hotel and restaurant workers, sanitation workers, and laundry employees. Enrollment rates in other large employers by industry type were:

- Wholesale trade (79 percent).
- Financial services and real estate (77 percent).

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New MEPS statistical briefs

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- Transportation (72 percent).
- Professional services (68 percent).
- Construction (63 percent).
- Retail trade (49 percent).

The average employee contribution toward premiums was \$627 for single coverage and \$2,242 for a family of four, also varying by type of industry.

Editor's note: To access these statistical briefs and other MEPS products, including MEPS data and research findings, visit the MEPS Web site at www.meps.ahrq.gov and click on "Data and Publications." ■

Announcements

Grant final reports now available from NTIS

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

Records of all 750,000 documents archived at NTIS—including many AHRQ documents and final reports from all completed AHRQ-supported grants—can now be searched on the NTIS Web site. For information about findings from the projects described here, please access the relevant final reports at the NTIS Web site. Also, all items in the database from 1997 to the present can be downloaded from the Web site. Go to www.ntis.gov for more information.

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

To find information presented in back issues of *Research Activities*, go to the AHRQ Web site at www.ahrq.gov and select "Research Activities" from the "A-Z Quick Menu." Then select "Search Research Activities" and enter either the grant or contract number or the principal investigator's last name in the query line. A reference librarian can help you find related journal articles through the National Library of Medicine's PubMed.[®]

***Prescription Benefits as a Quality Measure*, Barry G. Saver, Washington University, Seattle. AHRQ grant HS10318, project period 9/30/99-9/29/02.**

Researchers studied the impact of having or not having a generous prescription benefit, and the effect this had on hypertension, diabetes, coronary artery disease, and/or congestive heart failure among Medicare beneficiaries in a group-model HMO. Findings indicated an increase in medication accessibility, as well as medication adherence, and some significant decreases in hospital utilization. However, there were no differences in blood pressure, glycemic control, or lipid levels. Additional findings show that out-of-pocket prescription spending was lower than what has

been reported nationally, and there was a cost offset from having a prescription benefit. (Abstract, executive summary, and final report, NTIS accession no. PB2005-105210; 92 pp, \$34.00 paper, \$14.00 microfiche)**

***Hospitalized Care for Patient With Work-Related Conditions*, Allard E. Dembe, Sc.D., University of Massachusetts Medical School, Worcester. AHRQ grant HS11497, project period 7/1/01-12/31/02.**

Researchers examined three years of data (1997–1999) from the Nationwide Inpatient Sample to describe inpatient hospital care for patients with occupational injuries and illnesses covered by workers' compensation (WC) insurance. The average total charge per WC hospitalization was \$14,966, compared with \$11,852 for hospitalizations paid by other sources. After adjusting for age, sex, diagnostic grouping, and hospital location, inpatient hospital care for work-related conditions covered under WC was found to involve 13 to 24 percent more procedures, have a slightly longer (4 percent) length of stay, and take 23 to 54 percent less time from admission to performance of the

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Grant final reports

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principal procedure than inpatient care for comparable diagnoses paid for by other sources. Inpatient care for disc and spinal disorders paid by WC had 16 percent higher charges than similar non-WC cases. Trends over 3 years showed a steady decline in the number of WC hospitalizations, but a sharp 16 percent rise in total charges per WC stay. (Abstract, executive summary, and final report, NTIS accession no. PB2005-102774; 28 pp, \$26.50 paper, \$14.00 microfiche)**

***Meeting People Where They Are: Palliative Care Across Health Care Settings.* Susan K. Rogers, B.S.N., Americans for Better Care of the Dying, Washington, DC. AHRQ grant HS12090, project period 7/1/02-6/30/03.**

This project provided support for a conference held to expand the findings from the Institute of Medicine report, *Improving Palliative Care for Cancer*, to hospice and palliative care professionals, present effective models of palliative care being used throughout the Nation, foster increased interdisciplinary care of dying patients and their families, and promote increased access to interdisciplinary palliative care through attention to cultural barriers. (Abstract, executive summary, and final report, NTIS accession no. PB2005-102772; 24 pp, \$26.50 paper, \$14.00 microfiche)**

***Using DEA to Profile Surgeon Efficiency.* Jon A. Chilingirian, Ph.D., Brandeis University, Waltham, MA. AHRQ grant HS09562, project period 9/30/97-9/29/99.**

The purpose of this study was to demonstrate that estimates of

clinical efficiency based on data envelopment analysis (DEA) are stable, identify factors that explain variations in clinical efficiency for surgeons and hospitals, and identify surgeons and hospitals with both high efficiency and low mortality profiles that may serve as potential role models for clinical improvement. Findings indicate that the DEA estimates of efficiency were consistent over 1994 and 1995. Volume was not associated with a surgeon's efficiency, however, the number of years in practice was associated with higher clinical inefficiency. Annual completion of more than 50 hours of continuing medical education was associated with higher efficiency, and physicians operating in hospitals where heart surgeries represented a greater portion of all admissions were more efficient. (Abstract, executive summary, final report, and appendixes, NTIS accession no. PB2005-102773; 60 pp, \$31.50 paper, \$14.00 microfiche)**

***American Medical Informatics Association (AMIA) 2001: A Medical Informatics Odyssey.* Suzanne B. Henry, Ph.D., American Medical Informatics, Bethesda, MD. AHRQ grant HS10976, project period 9/30/01-9/29/02.**

This project provided support for a conference held November 3-7, 2001 in Washington, D.C. The overall aim of this conference was to critically examine and promote the role of informatics research in enhancing patient safety and preventing medical errors. (Abstract, executive summary, and final report, NTIS accession no. PB2005-102770; 20 pp, \$26.50 paper, \$14.00 microfiche)**

***Palliative and Supportive Care in Advanced Heart Failure.* Sarah**

Goodlin, LDS Hospital, Salt Lake City, UT. AHRQ grant HS13804, project period 9/20/02-9/29/03.

This project provided support for a conference held September 5-6, 2002. The goals were to: (1) identify gaps in current knowledge, practice, and research relating to patients with congestive heart failure and their families; (2) prepare a consensus statement about care for patients with advanced heart failure, including optimal medical management, advance care planning, and other care options; (3) identify a research agenda on care for advanced heart failure; and (4) develop partnerships with organizations such as the major societies for cardiology, cardiovascular surgery, and congestive heart failure. (Abstract, executive summary, and final report, NTIS accession no. PB2005-102775; 36 pp, \$29.50 paper, \$14.00 microfiche)**

***Statistical Study on Measures of Continuity of Care.* W. Wendy Lou, Ph.D., Mount Sinai School of Medicine, New York NY. AHRQ grant HS09474, project period 9/02/98-8/31/02.**

This project supported development of a statistical framework for the study of continuity of care. A new continuity measure was developed and studied and is the first statistic to simultaneously capture both the concentration of providers as well as the sequential continuity over a series of patient visits. The statistical methodology was applied to datasets from the CMS Health Care Financing Administration and the Mount Sinai AIDS Center. (Abstract, executive summary, and final report, NTIS accession no. PB2005-106483; 14 pp, \$26.50 paper, \$14.00 microfiche)** ■

Andersen, S.R., Belcourt, G.M., and Langwell, K.M. (2005, May). “Building healthy tribal nations in Montana and Wyoming through collaborative research and development.” (AHRQ grant HS14034). *Government, Politics, and Law* 95(5), pp. 784-789.

This paper describes the work of a collaborative consortium formed to reduce health disparities affecting Montana and Wyoming tribal nations, while promoting health-protective practices and interventions among these populations. Under the auspices of the Montana-Wyoming Tribal Leaders Council, the consortium has undertaken activities to establish the research infrastructure needed for conducting ongoing health disparities research and to develop a targeted research agenda that addresses tribally identified priority health issues, such as hepatitis C, West Nile virus, and methamphetamine use.

Atherly, A., Herbert, P.L., and Maciejewski, M.L. (2005, May). “An analysis of disenrollment from Medicare managed care plans by Medicare beneficiaries with diabetes,” (AHRQ contract 500-92-0014) *Medical Care* 43(5), pp. 500-506.

A study of patients with diabetes who were insured through Medicare from 1995-1998 found that those who were at high risk for complications of diabetes tended to disenroll from Medicare HMOs sooner than those who were at low risk. This effect was mitigated by plans offering better prescription drug benefits. Clinical factors such as heart complications and vision complications indicated higher risk for complications and were significantly associated with a

shorter duration of HMO enrollment. However, patients at high risk for diabetes complications who enrolled in HMOs in counties with better drug benefits remained in their HMOs longer.

Bolton, L.B., Shihady, I.R., Bennett, C., and others. (2005, May). “Engaging nurse leaders in health services research.” (AHRQ grant HS11334). *Journal of Nursing Administration* 35(5), pp. 238-243.

These authors describe effective methods to engage nurse leaders in structured interview research. They interviewed nurse managers and directors of 225 California hospital labor and delivery (L&D) units about hospital organizational factors, clinical policies and staffing on their L&D unit, and nurse satisfaction. They used a multilevel approach to engage nurse leaders in the research, such as endorsements and “detailing” by nurse opinion leaders, followup phone calls and electronic mail to reschedule interviews, and incentives. This was an effective strategy that resulted in 91 percent of the survey interviews being completed by L&D unit managers or directors and only 9 percent being delegated to a staff nurse.

Hyle, E.P., Lipworth, A.D., Zaoutis, T.E., and others. (2005, May). “Risk factors for increasing multidrug resistance among extended-spectrum β -lactamase-producing *Escherichia coli* and *Klebsiella* species.” (AHRQ grant HS10399). *Clinical Infectious Diseases* 40, pp. 1317-1324.

This study examined risk factors for multidrug resistance (MDR) among extended-spectrum β -

lactamase-producing *Escherichia coli* and *Klebsiella* species (ESBL-EK) of bacteria. The investigators used clinical cultures to identify patients at one hospital with ESBL-EK from June 1, 1997 through December 31, 2002. They identified MDR ESBL-EK by cultures resistant to trimethoprim-sulfamethoxazole, aminoglycosides, and quinolones. Of 361 total ESBL-EK isolates, 18.8 percent were MDR. However, the prevalence of MDR more than doubled from 12.5 to 26.9 percent during the study period. The only independent risk factor for MDR ESBL-EK was the infecting organism, *Klebsiella pneumoniae*, suggesting that the epidemiology of *K. pneumoniae* may be unique.

Pignone, M., DeWalt, D.A., Sheridan, S., and others. (February 2005). “Interventions to improve health outcomes for patients with low literacy.” (AHRQ contract 290-00-0016). *Journal of General Internal Medicine* 20, pp. 185-192.

Several interventions have been developed to improve health for people with low literacy. This systematic review of studies examined the effect of such interventions on the health outcomes of this group. Health knowledge was the most common outcome studied in the 20 articles that met review criteria. Fewer studies examined health behaviors, intermediate markers, or measures of disease prevalence or severity. Only five articles examined the interaction between literacy level and the effect of the intervention. Limitations in study design, interventions tested, and outcomes assessed made drawing conclusions

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Research briefs

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about effectiveness difficult. Further research is required to better understand the most effective and efficient interventions to overcome literacy-related barriers to good health.

Siderowf, A., Newberg, A., Chou, K.L., and others. (2005, May). “[99mTc] TRODAT-1 SPECT imaging correlates with odor identification in early Parkinson

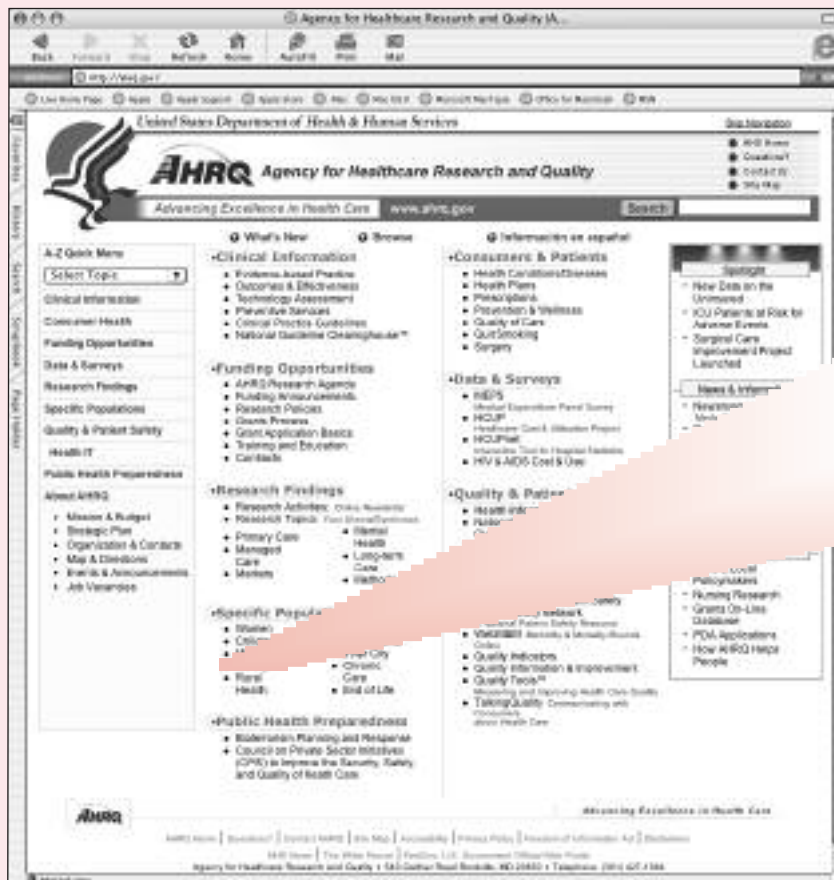
disease.” (AHRQ grant HS00004). *Neurology* 64, pp. 1716-1720.

Impairment in olfactory function is an early manifestation of Parkinson disease (PD), and an impaired sense of smell may precede development of overt motor symptoms. In vivo imaging of the dopamine transporter with [99mTc]TRODAT-1 and olfactory testing have both been proposed as potential biomarkers in PD. This study examined the relationship between TRODAT SPECT imaging,

odor identification skills, and motor function in 24 patients with early PD. Smell identification test scores were correlated with TRODAT uptake in the *striatum* as a whole. The correlation between dopamine transporter density in the caudate and smell identification test scores was moderate but not significant. The researchers conclude that olfactory function is highly correlated with dopamine transporter imaging abnormalities in early PD. ■

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