



Research Activities

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Attention researchers:
See page 23 for a new RFA on
domestic violence.

President Clinton announces new actions to improve patient safety and assure health care quality

President Clinton recently unveiled a series of landmark initiatives to boost patient safety. These initiatives will help create an environment and a system in which providers, consumers, and private and public purchasers work to achieve the goal set by the National Academy of Science's Institute of Medicine (IOM) to reduce preventable medical errors by 50 percent over 5 years.

The initiatives are set forth in detail in a new report on medical errors compiled by the Quality Interagency Coordination Task Force (QuIC), which is co-chaired by HHS Secretary Donna Shalala and Secretary of Labor Alexis Herman. John M. Eisenberg, M.D., Director of the Agency for Healthcare Research and Quality, serves as QuIC chairman for day-to-day operations. The report is being disseminated by AHRQ on behalf of the QuIC. The goal of the QuIC is to ensure that all Federal agencies involved in purchasing, providing, studying, or regulating health care services are working in a coordinated way toward the common goal of improving quality of care.

Developed in response to the President's call for action in December 1999, the QuIC response endorses virtually every IOM recommendation proposed and includes actions that surpass those recommended by IOM. Consistent with the QuIC recommendations, the new initiatives call for:

1. A new center for patient safety.
2. A requirement that each of the over 6,000 hospitals participating in Medicare have error reduction programs in place.
3. New actions to improve the safety of medications, blood products, and medical devices.
4. A mandatory reporting system in the 500 military hospitals and clinics which serve over 8 million patients.
5. A phased-in nationwide State-based system of mandatory and voluntary error reporting.

Medical errors are common and costly. The IOM estimates that over half of adverse medical events are due to preventable

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Medical errors report

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medical errors, causing up to 98,000 deaths a year and costing as much as \$29 billion annually. One study of over 30,000 patients

indicated that nearly 60 percent of patients suffering adverse events in a hospital stay were subjected to a preventable medical error.

Copies of the report, *Doing What Counts for Patient Safety*

(Publication No. OM 00-0004), are available from the AHRQ Clearinghouse.* See the back cover of *Research Activities* for ordering information.

Children's Health

Simple resuscitation method is best for children in out-of-hospital emergency settings

Researchers urged paramedics to stop using intubation to resuscitate children after finding that a simple artificial respiration method saves the lives of children who have stopped breathing as well as the more risky intubation procedure. The 3-year study of 830 patients, funded jointly by the Agency for Healthcare Research and Quality (HS09065) and the Health Resources and Services Administration's Maternal and Child Health Bureau, is published in the February 9 issue of the *Journal of the American Medical Association*.

Researchers at Harbor-UCLA Medical Center in Los Angeles in cooperation with the emergency medical services agencies of Los Angeles and Orange Counties conducted the study. They compared how two types of emergency breathing or respiration—bag-valve-mask ventilation (BVM) and BVM followed by endotracheal

intubation (ETI)—affected the survival and neurological outcomes, such as coma or mild to severe disability, of children who stopped breathing due to injury, choking, or critical illness. BVM involves placing a mask on the face and squeezing a bag to push oxygen into the lungs. ETI involves inserting a plastic tube into the windpipe (trachea) to provide oxygen. Specially trained emergency medical providers often administer these procedures in paramedic ambulances or at emergency sites. Intubation is taught in 97 percent of paramedic training schools.

The children—ranging from infants to 12 years old or weighing less than 80 pounds—were assigned to receive either BVM or BVM followed by ETI. The study found no significant difference in survival or in achieving a good neurological outcome among children receiving either procedure.

Researchers questioned the widespread use of intubation for children because of its potentially deadly complications, such as misplacement or dislodgement of the tube, which can result in no oxygen getting to the child's lungs. They determined that the less risky BVM should be the only paramedic procedure used to keep children needing artificial respiration alive on their way to the hospital. If pediatric intubation is necessary, researchers recommended that it be performed in the more controlled hospital setting.

This was the first controlled study comparing these treatments in either adults or children, even though BVM and ETI are widely used by paramedics. It also is the longest and largest controlled trial to date of treatments for children in a prehospital setting. More than 2,500 licensed paramedics in Los Angeles and Orange Counties received pediatric airway management training prior to the study.

For more details, see "Effect of out-of-hospital pediatric endotracheal intubation on survival and neurological outcome: A controlled clinical trial," by Marianne Gausche, M.D., Roger J. Lewis, M.D., Ph.D., Samuel J. Stratton, M.D., M.P.H., and others, in the January 9, 2000 *JAMA* 283(6), pp. 783-790.

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Persistent middle ear effusion in the first 3 years of life is not associated with behavior problems or parental stress

Several previous studies have attributed both heightened parental stress and various disturbances in children's behavior to persistent or recurrent middle ear inflammation early in the children's lives. However, these results are questionable because all of the studies have had methodologic problems such as selection bias or inadequate sample size. Now, a recent controlled study has found that chronic middle ear inflammation during the first 3 years of a child's life has little to do with parent-child stress or the child's behavior problems during that time. The study was part of a long-term study of the possible effects on development of otitis media (middle ear inflammation) in early life, which was supported by the Agency for Healthcare Research and Quality (HS07786).

Jack L. Paradise, M.D., of the Children's Hospital of Pittsburgh, and his colleagues tested

relationships between parents' ratings of parent-child stress at ages 1, 2, and 3 years, their children's behavior problems at ages 2 and 3 years, and the children's cumulative duration of middle-ear effusion (MEE) in the first 3 years of life. The researchers obtained standardized baseline measures of parental stress, intensively monitored the children's middle-ear status by pneumatic otoscopy and tympanometry during their first 3 years of life, and treated children for otitis media according to specified guidelines.

In 2,278 children, they found no substantial relationships between parents' ratings of parent-child stress or children's behavior problems and the cumulative duration of the children's MEE. On the other hand, ratings of both parent-child stress and behavior problems were consistently highest among the most socioeconomically disadvantaged children and lowest

among the most socioeconomically advantaged children. Ratings also tended to be highest among children whose parents' baseline stress scores were highest.

See "Parental stress and parent-rated child behavior in relation to otitis media in the first three years of life," by Dr. Paradise, Heidi M. Feldman, Ph.D., M.D., D. Kathleen Colborn, B.S., and others, in the December 1999 *Pediatrics* 104(6), p. 1264-1273.

Both children and parents are at risk for posttraumatic stress disorder following childhood traffic injuries

Traffic injury remains the leading health threat to children in the United States, resulting in nearly 1 million injuries each year. Even children with minor injuries following a traffic accident are at risk for developing posttraumatic stress disorder (PTSD). In fact, PTSD is a common but often overlooked result of a childhood traffic injury in both children and their parents, according to a study supported by the Agency for Healthcare Research and Quality (HS09058).

Physicians treating children for traffic-related injuries, even minor injuries, should screen the children and their parents for PTSD and refer them for treatment when appropriate, recommends the study's principal investigator Flaura K. Winston, M.D., Ph.D., of the University of Pennsylvania School of Medicine and Director of TraumaLink at the Children's Hospital of Philadelphia. The researchers conducted telephone interviews with parents from 102

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Childhood traffic injuries

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families in which children suffered traffic-related injuries. The interviews were conducted 7 to 12 months after the incident, and parents were asked about their and their children's reactions to the incident.

Older children, as well as those whose parents developed PTSD, were most likely to develop PTSD after an accident. In contrast, parents were more likely to have PTSD after the incident if their

child was younger, if their child developed PTSD, or if the parent witnessed the incident in which their child was injured. Overall, 25 percent of the children and 15 percent of the parents suffered PTSD. Only 46 percent of the parents of affected children sought help of any kind for their child, and only 20 percent sought help for themselves.

PTSD is a psychological reaction that sometimes occurs in response to a traumatic event. It can include problems such as relentless disturbing thoughts, images, or memories of the crash,

feeling jumpy or extra watchful for signs of danger, and having trouble concentrating, eating, or sleeping. Help is needed when these symptoms become severe and lengthy and impair daily functioning.

More details are in "Looking beyond the physical injury: Posttraumatic stress disorder in children and parents after pediatric traffic injury," by Aiko P. de Vries, Nancy Kassam-Adams, Ph.D., Avital Cnaan, Ph.D., and others, in the December 1999 *Pediatrics* 104(6), pp. 1293-1299.

Women's Health

Vaginal delivery after prior c-section remains relatively safe

A woman who has delivered a baby by cesarean section has an increased risk of uterine rupture due to uterine scarring if she attempts a vaginal birth with the next child. However, the risk of uterine rupture is low enough (.5 percent) that vaginal birth after cesarean (VBAC) remains a relatively safe procedure, concludes a study supported in part by the Agency for Healthcare Research and Quality (contract 290-90-0039, Childbirth Patient Outcomes Research Team, PORT). The study findings support recommendations by the National Institutes of Health and the Department of Health and Human Services to reduce cesarean rates by widespread VBAC.

The researchers used California hospital discharge data for over 500,000 women delivering babies

in the State in 1995 to calculate attempted and successful VBAC rates and uterine rupture rates. The overall cesarean rate was 21 percent, and 12.5 percent of the women had histories of cesareans. Of women with prior cesareans, 61 percent attempted VBAC, and 35 percent were successful. The uterine rupture rate was 0.07 percent for all deliveries and 0.43 percent for women with prior cesareans who attempted VBAC. Although a woman's ethnicity and payer source were independent risk factors for cesarean, they did not appear to be risk factors for uterine rupture, according to first author Kimberly D. Gregory, M.D., M.P.H.

Among women with prior cesareans, those who attempted a trial of labor were nearly twice as likely to have uterine rupture as women who did not attempt

vaginal delivery. Women who delivered in hospitals with higher attempted VBAC rates were 20 percent less apt to have cesarean deliveries, 17 percent more likely to have successful VBACs, and 56 percent more likely to experience uterine rupture. Overall, California's 35 percent rate of successful VBACs was higher than the 25 percent national average. However, the overall uterine rupture rate for all women and those with prior cesareans was similar to previous estimates.

See "Vaginal birth after cesarean and uterine rupture rates in California," by Dr. Gregory, Lisa M. Korst, M.D., Patricia Cane, Ph.D., and others, in the December 1999 *Obstetrics & Gynecology* 94(6), pp. 985-989.

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

White women are more likely than minority women to be prescribed hormone replacement therapy

White women 50 years of age and older are more apt to be prescribed hormone replacement therapy (HRT) than women who are black, Asian, or Hispanic, or who are Soviet immigrants. Yet, with the exception of osteoporosis, women from these other ethnic groups are more likely to have medical conditions that would warrant HRT, concludes a study supported in part by the Agency for Healthcare Research and Quality (HS07373).

Among the participants in this study, black women were more likely than white women to have hypertension, diabetes, and coronary heart disease (CHD) but less likely to have osteoporosis. Asian women were significantly more likely to have hypertension and diabetes, while Latinas were more apt to have hypertension. Soviet immigrants were more apt than whites to have hypertension and diabetes but less apt to have osteoporosis. There were no significant differences in breast cancer, usually a contraindication to HRT.

White women were significantly more likely to be prescribed HRT (33 percent) than Asians (21 percent), blacks (25 percent), Latinas (23 percent), or Soviet immigrants (6.6 percent). Also, women with

osteoporosis were more than twice as likely (odds ratio, 2.28) to be prescribed HRT, but those with CHD were not. These findings suggest that risk for osteoporosis is a more influential factor in doctors' decisions to prescribe HRT than known CHD risk factors.

This finding is particularly significant for black women, who have coronary mortality rates over 30 percent higher than white women and have not been included in most trials of postmenopausal HRT on CHD, according to lead author Arleen F. Brown, M.D. Dr. Brown, principal investigator A. Eugene Washington, M.D., M.Sc., and their colleagues at the Medical Effectiveness Research Center for Diverse Populations at the University of California, San Francisco (UCSF) analyzed the medical records of nearly 9,000 UCSF Medical Center female outpatients aged 50 and older who were prescribed HRT sometime during the 3-year study period.

More details are in "Ethnic differences in hormone replacement prescribing patterns," by Dr. Brown, Eliseo J. Perez-Stable, M.D., Eric E. Whitaker, M.D., M.P.H., and others, in the *Journal of General Internal Medicine* 14, pp. 663-669, 1999.

For many women, sexual functioning improves after hysterectomy

Every year more than a half million U.S. women undergo hysterectomy to treat chronic gynecologic problems. The most common concern among these women is the negative impact of a hysterectomy on their sexual functioning. The findings from a recent study may relieve their anxiety. It shows that many women had overall improved sexual functioning after hysterectomy, ranging from more frequent and more satisfying sexual relations to less vaginal dryness and painful intercourse. The 2-year Maryland Women's Health Study was led by Kristen H. Kjerulff, Ph.D., of the University of Maryland Baltimore County and supported by the

Agency for Healthcare Research and Quality (HS06865).

Dr. Kjerulff and her colleagues interviewed 1,101 women (aged 35 to 49 years) about their sexual functioning prior to hysterectomy and again at 6, 12, 18, and 24 months after surgery. The percentage of women who had engaged in sexual relations in the prior month increased significantly from 71 percent before hysterectomy to 77-78 percent 1 and 2 years after the operation. The rate of frequent dyspareunia (painful intercourse) dropped from 19 percent before hysterectomy to 4 percent 1 and 2 years later. The percentage of women experiencing orgasms increased from 63 percent

before hysterectomy to 72 percent 1 and 2 years later. Low libido rates (desiring sexual relations less than once a month) also decreased significantly from 10 percent prior to the operation to 6 percent 1 and 2 years after it. Finally, those who did not experience vaginal dryness (which can cause pain during intercourse) rose from 37 percent before surgery to 47 percent afterwards.

These findings included adjustment for menopausal status before surgery and posthysterectomy use of hormone replacement therapy. The researchers note that relief from

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Functioning after hysterectomy

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symptoms such as pelvic pain and painful intercourse may have led to increased sexual enjoyment and increased orgasm frequency. This

symptom relief also may have outweighed any lost sensation due to removal of the cervix. Freedom from vaginal bleeding and fear of pregnancy could account for some of the observed improvements.

See "Hysterectomy and sexual functioning," by Julia C. Rhodes,

M.S., Dr. Kjerulff, Patricia W. Langenberg, Ph.D., and Gay M. Guzinski, M.D., in the November 24, 1999 *Journal of the American Medical Association* 282(20), pp. 1934-1941.

More targeted efforts are needed to improve women's health care

According to Carolyn M. Clancy, M.D., Director of the Agency for Healthcare Research and Quality's Center for Outcomes and Effectiveness Research, future efforts to improve the health care provided to women should focus on three areas: coordination of care, interaction with the health care system, and the relationship between socioeconomic status and health. Another priority is finding ways to maintain and, when possible, enhance the functional status and independence of older women.

Women live longer than men, but they spend more years being disabled, notes Dr. Clancy. In a recent book chapter, she points out that the separation of reproductive from "all other" health needs has often meant that women have had to cope with a health care system that has not been organized to provide coordinated, woman-centered care. A substantial number of women have chosen to obtain care from more than one doctor, which creates redundancy or gaps in care.

What's more, medical services are often provided differently to women than men. For instance, women are less likely to receive costly, high-technology medical services than men. Also, care for conditions unique to women—such as childbirth and breast cancer—often varies depending on geography and socioeconomic status. Before 1980, women were often underrepresented in clinical trials, so the knowledge base to guide clinical decisions is underdeveloped in many areas of women's health. Also, the existence and

generosity of insurance coverage is closely linked with employment and social status, which may place women at risk of undertreatment.

Fortunately, changes in medical education and health care delivery offer great promise in alleviating some of these problems, says Dr. Clancy. Since 1969, the family medicine specialty has trained physicians who can provide both general and gynecologic care, and internal medicine training programs are now required to include training in primary care gynecology. Since 1995, residency programs in obstetrics-gynecology have included a nonreproductive primary care component. And finally, the number of female physicians is increasing, with a nearly equal number of men and women beginning medical school in 1999.

More details are in "Gender issues in women's health care," by Dr. Clancy, in *Women and Health* edited by Marlene B. Goldman and Maureen C. Hatch. New York: Academic Press, 1999, pp. 50-54. Reprints (AHRQ Publication No. 00-R010) are available from AHRQ.**

Editor's note: Identification of health services research issues of particular relevance to women is of great interest to AHRQ's cross-cutting initiative on women's health. For additional information on funding opportunities related to women's health services research, please visit our Web site or contact Marcy Gross, Senior Adviser for Women's Health, at 301-594-2429.

Dear subscriber: Due to a printing error, some copies of the January 2000 issue of *Research Activities* were printed with duplicate pages 5, 6, 7, and 8 and missing pages 9, 10, 11, and 12. Also, these issues carry duplicate author and subject indexes at the back of the publication. If you received one of these misprinted copies and would like a replacement, please call our clearinghouse at 800-358-9295 to receive a new copy by return mail. Remember, you also may access *Research Activities* through our Web site at www.ahrq.gov and via AHRQ InstantFax by calling 301-594-2800 from the telephone handset of your fax machine. We apologize for any inconvenience this may have caused you.

Clinical Decisionmaking

Lipid-lowering medications are not associated with increased risk of injury

Early trials of lipid-lowering medications to lower blood cholesterol levels showed reductions in coronary heart disease problems and death, but these may have been offset by increased injury-related deaths. In addition, it was speculated that lipid lowering could lead to psychiatric conditions such as depression or hostility and, in turn, self-destructive and violent behavior. However, a recent study suggests no association between lipid-lowering medications and elevated risk of injury and supports recent clinical trials and current recommendations for use of these medications to lower blood cholesterol. The study was supported by the Agency for Healthcare Research and Quality

(HS08469) and led by Viktor E. Bovbjerg, Ph.D., of the University of Virginia School of Medicine.

Dr. Bovbjerg and colleagues studied death registries, hospital discharge diagnoses, pharmacy databases, and medical records of adult members of a large health maintenance organization. They identified patients prescribed lipid-lowering agents over a period of 7 years and those who were injured or died from motor vehicle collisions, self-inflicted injury, or assault. They examined the association of lipid-lowering medication use with fatal and nonfatal injuries in 298 cases and 332 controls.

The researchers found no increased injury risk among current users of lipid-lowering medications

(odds ratio, OR, 0.46; 1 is equal odds) or past users (OR, 0.92), after adjustment for behavioral disorders, medical conditions, and health status. In fact, current use of these medications was associated with lower risk of injury among patients who did not have behavioral disorders. Both current and past use were associated with reduced injury risk in those with clinical cardiovascular disease (CVD) but not among those without CVD.

More details are in "Lipid-lowering medication and risk of injury," by Dr. Bovbjerg, David S. Siscovick, M.D., Bruce M. Psaty, M.D., and others, in the *Journal of Clinical Epidemiology* 52(12), pp. 1197-1200.

Vascular surgery works better than medication alone to improve functioning of patients with peripheral vascular disease

Lower extremity bypass grafting surgery and angioplasty have traditionally been reserved for patients with limb-threatening ischemia (poor circulation to the feet), usually signaled by leg pain at rest, gangrene, or skin ulcers. However, vascular surgeons are seeing increasing numbers of older patients who have difficulty walking due to mild or moderate lower extremity arterial occlusive disease. In these patients, pain and weakness often occur during walking but then subside after a period of rest. These peripheral vascular disease patients may also benefit from revascularization procedures, according to a new study supported by the Agency for Healthcare Research and Quality (HS07184).

The researchers found that on average patients who underwent these procedures reported significant improvement over 18 months of followup in physical functioning (14 to 17 percent) bodily pain (13 to 18 percent), and the distance they were able to walk (22

to 28 percent). They also reported fewer leg symptoms than similar patients who received medication only. These gains were much higher for the 60 percent of patients who had "technically successful" procedures and much more modest for the 40 percent of patients with little improvement in blood flow after the procedure. While most patients who received medication only declined on all outcome measures, the subgroup of patients who were most disabled at baseline improved 5 percent on the walking distance score.

Most of the functional improvement achieved by patients who underwent revascularization procedures appeared to be related to surgical or endovascular treatment of leg blood vessels, explains Joe Feinglass, Ph.D. He and colleagues at Northwestern University Medical School prospectively studied the outcomes of 526 patients seen at 16 Chicago-area vascular surgery

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Vascular surgery

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clinics who had abnormal ankle-brachial blood pressure index (ABI, an indicator of the severity of lower extremity vascular disease) without signs of rest pain, ulcer, or gangrene and without prior lower extremity revascularization procedures. They compared the

outcomes of patients undergoing revascularization with those of patients receiving medication only.

See "Functional status and walking ability after lower extremity bypass grafting or angioplasty for intermittent claudication: Results from a prospective outcomes study," by Dr. Feinglass, Walter J. McCarthy, M.D., Rael Slavensky, R.N., M.A., and others, in the January 2000 *Journal of Vascular Surgery* 31, pp. 93-103.

Outcomes of patients hospitalized for syncope usually are determined by age and coexisting illness

From 1 to 6 percent of people hospitalized are admitted to the hospital for syncope (brief loss of consciousness). Studies during the 1980s concluded that syncope due to cardiovascular causes led to more deaths than noncardiovascular or unexplained syncope. The findings from a recent study appear to contradict this earlier conclusion. The study, which was supported in part by the Agency for Healthcare Research and Quality (National Research Service Award training grant T32 HS00069), demonstrates that patient survival is not related to the cause of syncope.

In fact, doctors cannot be sure that hospitalized elderly patients with noncardiovascular and unexplained syncope will have excellent outcomes, conclude William S. Getchell, M.D., M.P.H., and colleagues at the Oregon

Health Sciences University and Portland Veterans Affairs Medical Center. They used databases of three diverse health care systems in Oregon to identify 1,516 elderly patients diagnosed with syncope and to determine factors that influenced their survival after discharge. The treating clinicians identified cardiovascular causes (most commonly arrhythmias) of syncope in 19 percent of patients and noncardiovascular causes such as anemia, seizures, dehydration, or drug-induced syncope, in 40 percent. The remaining 42 percent of patients were discharged with unexplained syncope.

Death from all causes was 1 percent during hospitalization, 13 percent 1 year later, and 41 percent 4 years later. However, the relative risk of dying for individuals with cardiovascular syncope (relative risk, RR 1.18) did not differ from

that for unexplained syncope (RR 1.0) and noncardiovascular syncope (RR 0.94). On the other hand, age and coexisting illness had a profound impact on survival. Individuals under age 55 had generally excellent outcomes compared with those aged 85 and older (91 percent vs. 31 percent survival 4 years after hospitalization). Similarly, individuals with no other illness had better survival than those with several coexisting illnesses (81 percent vs. 23 percent at 4 years).

More details are in "Epidemiology of syncope in hospitalized patients," by Dr. Getchell, Greg C. Larsen, M.D., Cynthia D. Morris, Ph.D., M.P.H., and John H. McAnulty, M.D., in the *Journal of General Internal Medicine* 14, pp. 677-687, 1999.

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Health Care Costs and Financing

Programs to help the poor purchase nongroup health insurance may not have the intended effect

Employment-based health insurance coverage is declining in the United States. In fact, many recent efforts to increase insurance coverage promote the purchase of individual versus group insurance. But based on earlier trends, such programs may simply widen coverage gaps between the less educated, poor, and minority groups and others, concludes a study supported by the Agency for Healthcare Research and Quality (HS07253).

The study found that in the late 1980s, lower income and less wealthy households were much less likely to purchase nongroup insurance than higher income and wealthier households. Also, minorities had less than half the odds of non-Hispanic whites, and people with less than a high school education had less than half the odds of college graduates, of purchasing nongroup insurance.

These findings held after adjustment for other factors affecting health plan purchase, such as health status and attitudes toward health care.

A number of States have established programs aimed at making health insurance financially more accessible to uninsured residents, often subsidizing premiums based on a sliding scale for lower income individuals. If premium subsidies are to be used to "level the playing field" for income as a potential barrier to obtaining health insurance in subsidized programs, these findings support some subsidy. However, for the uninsured, the price of nongroup insurance appeared to play a more abstract than particular role, since the majority who remained uninsured never priced insurance. Only 37 percent of uninsured households had ever priced health insurance,

and only 4.2 percent reported ever being refused or limited in coverage.

University of Washington researchers Barry G. Saver, M.D., M.P.H., and Mark P. Doescher, M.D., M.S.P.H., based their findings on analysis of data from 2,574 households participating in the 1987 National Medical Expenditure Survey (NMES) who were either uninsured or purchased nongroup, private health insurance for 1987. They correlated minority group membership, educational attainment, income, and wealth with the purchase of nongroup insurance.

See "To buy, or not to buy: Factors associated with the purchase of non-group, private health insurance," by Drs. Saver and Doescher, in the February 2000 *Medical Care* 38, pp. 141-151.

Hospital data can be used to track the impact of the State Children's Health Insurance Program

Appropriate treatment of certain conditions, such as asthma, in primary care settings can prevent or reduce hospitalizations for the condition. Hospitalizations for these so-called ambulatory-care-sensitive (ACS) conditions can indicate the inadequacy of primary care, and a number of States plan to use ACS admission rates as a measure in tracking the impact of their State Children's Health Insurance Program (S/CHIP).

A recent study shows that hospitalizations for ACS conditions increased for uninsured and Medicaid-insured children between 1990 and 1995. During the same period, the hospital admission rates for privately insured children with the same conditions fell by more than one-third. The 19 States included in the study

varied in their rates of hospital admissions for asthma for all children regardless of payer, from a low of 1.37 per 1,000 children in Iowa to 4.75 per 1,000 in New York where there was a higher proportion of self-pay and Medicaid-enrolled cases.

These data, which are from the period prior to State initiatives to expand health insurance coverage for low-income children through the S/CHIP, can be used by States as benchmark data. S/CHIP was established by Congress in 1997 for States to develop programs to expand health insurance coverage to uninsured children via different benefits packages, eligibility levels, cost-sharing, outreach, or other activities.

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Hospital data and S/CHIP

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To the degree that focusing on ACS conditions as one aspect of improving quality of primary care for the uninsured leads to improvement in local practice patterns, it could benefit insured populations as well, suggest Agency for Healthcare Research and Quality researchers Bernard Friedman, Ph.D., Claudia Steiner, M.D., M.P.H., and Arlene Bierman, M.D., M.S.. The researchers, along with colleague Joanne Jee, M.P.H., of the Office of the Secretary, Department of Health and Human Services, based their findings on national

and State hospital data for 19 States from AHRQ's Healthcare Cost and Utilization Project (HCUP) inpatient sample of hospital discharge records for ACS conditions.

More details are in "Tracking the State Children's Health Insurance Program with hospital data: National baselines, State variations, and some cautions," by Dr. Friedman, Ms. Jee, and Drs. Steiner and Bierman, in the December 1999 *Medical Care Research and Review* 56(4), pp. 440-455. Reprints (AHRQ Publication No. 00-R009) are available from AHRQ.**

Turnover of primary care physicians during the last two decades was common and costly

Health care market forces are quickly driving primary care physicians (PCPs), once largely individual entrepreneurs in private practice, into group practices and salaried positions with health maintenance organizations. For instance, 48 percent of PCPs involved in patient care reported being employed in 1995 compared with only 23 percent in 1983. PCP turnover is a problem, with managed care organizations experiencing a shortage of PCPs as early as 1992. In fact, in 1991, slightly more than half (55 percent) of all PCPs surveyed nationally had left the practice in which they had been employed in 1987, according to a study supported by the Agency for Healthcare Research and Quality (HS08984).

Over one-third of this nationally representative group of PCPs who were leavers (20 percent of the

whole sample) had left two employers in that same 5-year period. Mean recruitment and replacement costs for individual PCPs for the three specialties studied were \$236,383 for general/family practice, \$245,128 for general internal medicine, and \$264,645 for pediatrics. Turnover costs for all PCPs in the surveyed group by specialty were \$24.5 million for general/family practice, \$22.3 million for general/internal medicine, and \$22.2 million for pediatrics. Turnover costs for all PCPs in the group studied totaled over \$69 million.

Research into PCP job satisfaction and turnover thus far does not point to simple solutions, notes Sharon Buchbinder, R.N., Ph.D., formerly of Johns Hopkins University and now at Towson University, and her colleagues at the Schools of Medicine and Public Health at Johns Hopkins and the

Greater Baltimore Medical Center. The researchers analyzed data from two national PCP recruiters and one national survey of physician compensation and productivity to estimate the costs of PCP turnover. They concluded that turnover of PCPs causes health care institutions to lose large investments in human resources, commit resources to their replacement, and increase the salaried labor costs of health services organizations.

See "Estimates of costs of primary care physician turnover," by Dr. Buchbinder, Modena Wilson, M.D., M.P.H., Clifford F. Melick, Ph.D., and Neil R. Powe, M.D., M.P.H., M.B.A., in the November 1999 *American Journal of Managed Care* 5(11), pp. 1431-1438.

Health Care Quality

Total quality management appears to have little impact on outcomes of coronary bypass surgery patients

Total quality management (TQM) is a process increasingly used by hospitals to improve the quality and outcomes of care. It is the systematic involvement of health care teams in identifying the underlying causes of unnecessary variation in processes and outcomes of care and taking corrective and preventive action with the goal of continually improving patient care delivery.

Although specific TQM interventions to improve care have met with some success, most of these have been limited to a single site and a narrow set of outcomes. A recent study of 16 hospitals that perform at least 200 coronary artery bypass graft (CABG) surgeries a year found that little of the two- to four-fold difference among hospitals in CABG outcomes was associated with TQM or a supportive

organizational culture emphasizing collaboration and teamwork.

The study was supported in part by the Agency for Healthcare Research and Quality (HS08523) and led by Stephen M. Shortell, Ph.D., of the University of California, Berkeley. The researchers surveyed an average of 54 clinicians and administrative support staff at each site who were directly involved in the care of CABG patients to assess the hospital's TQM implementation and culture. Patients undergoing CABG from hospitals with high TQM scores were more satisfied with their nursing care but were more apt to have hospital stays greater than 10 days. A supportive group culture was associated with shorter postoperative intubation time and higher patient physical and mental functioning scores 6 months after CABG; however, operating room times were longer. There was no association between

risk-adjusted mortality and either TQM scores or culture.

The researchers note that the provision of medical care is a complex, highly interdependent process influenced by multiple variables. They highlight the need to further examine the relationships between and among individual professional skills and motivation, group and microsystem team processes, and specifically tailored interventions, along with larger, organization-wide issues involving culture, leadership, decision support systems, and incentives.

See "Assessing the impact of total quality management and organizational culture on multiple outcomes of care for coronary artery bypass graft surgery patients," by Dr. Shortell, Robert H. Jones, M.D., Alfred W. Rademaker, Ph.D., and others, in the February 2000 *Medical Care* 38(2), pp. 207-217.

"Best practices" guidelines can facilitate quality of care improvements in the emergency department

Quality of care at hospital emergency departments (EDs) improves when their directors get feedback on how well their and similar EDs comply with process-of-care guidelines for medical problems typically seen in the ED, and they collaborate to design quality improvement interventions to improve compliance with these "best practices," finds a new study. The study was led by Helen R. Burstin, M.D., M.P.H., formerly of Brigham and Women's Hospital and now Director of the Agency for Healthcare Research and Quality's Center for Primary Care Research.

The study compared how well five Harvard-affiliated EDs complied with process-of-care guidelines for six chief complaints seen in the ED: abdominal pain, shortness of breath, chest pain, hand

laceration, head trauma, or vaginal bleeding. The researchers analyzed patients' reports of care (via on-site questionnaires) during a 1-month period in 1993 and examined medical records for all patients with these complaints to determine each ED's guideline compliance. The researchers provided ED directors with feedback on each ED's baseline compliance, helped them to design quality improvement strategies to improve quality of care in their own EDs, and then analyzed guideline compliance 2 years later.

Results showed that compliance with process-of-care guidelines increased from 55.9 percent to 60.4 percent, and the rate of patient-reported problems with

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ER quality of care

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ED care decreased from 24 percent to 20 percent, both small but significant improvements. Following quality improvement changes, patients reported that they were less apt to have difficulty getting a message to family or friends, and no patients reported problems with translation services due to improved access to interpreters. Also, fewer patients reported that they did not understand how to take their medications or the possible side effects, and more patients filled their

prescriptions. There were no significant improvements in patient ratings of satisfaction with care, which remained at 3.8 on a 1 (poor) to 5 (excellent) scale. The study was supported in part by an AHRQ-funded National Research Service Award fellowship (F32 HS00062).

More details are in "Benchmarking and quality improvement: The Harvard emergency department quality study," by Dr. Burstin, Alasdair Conn, M.D., Gary Setnik, M.D., and others, in the November 1999 *American Journal of Medicine* 107, pp. 437-449.

Level of education attained by patients is important when evaluating physician performance

One way to evaluate doctors' performance is to assess the physical and mental health status of their patients. In other words, if their patients are doing well, they are probably doing a good job. These evaluations, or physician profiles, usually are not adjusted for the educational level of the patients. Yet physicians who were caring for patients with less education were ranked significantly higher for patient physical and mental health status after adjustments were made for their patients' level of education, according to a study supported by the Agency for Healthcare Research and Quality (HS09397).

This finding challenges the validity of physician profiling that does not control for patients' socioeconomic status because it may underestimate the performance of doctors who care for the

disadvantaged and overestimate the performance of those who care for socioeconomically advantaged patients. In fact, this bias in physician profiling may encourage selective enrollment of socioeconomically advantaged patients to improve physician performance ratings, conclude Kevin Fiscella, M.D., M.P.H., and Peter Franks, M.D., of the University of Rochester School of Medicine and Dentistry. Although routine adjustment of physician profiles or use of HMO report cards for patient socioeconomic status is clearly controversial, the authors recommend it.

The researchers surveyed patients of 100 primary care physician practices in New York on how they ranked their physicians. They then evaluated the effect of patients' educational level on the rank of physicians' practices, which

was determined by three performance measures: patient physical health status, patient mental health status, and patient satisfaction. After adjustment for patients' level of education, each 1-year decrease in mean educational level was associated with a rank that improved by 8.1 for patient physical health status and by 4.9 for patient mental health status. Adjustment for education had similar effects for practices with more educated patients and those with less educated patients. This result was not seen for patient satisfaction.

More details are in "Influence of patient education on profiles of physician practices," by Drs. Fiscella and Franks, in the November 16, 1999 *Annals of Internal Medicine* 131, pp. 745-751.

Elderly/Long-Term Care

Middle-aged children often provide money, caregiving time, and shared living space to help their disabled elderly parents

Adults in their 50s, members of the so-called “sandwich generation,” often have elderly parents prone to frailty and disability. Indeed, nearly three out of four people in the age range of 50 to 54 have at least one living parent and one living child. One-fifth of middle-aged households include at least one elderly parent who cannot be left alone and needs help with activities of daily living (e.g., eating, dressing, using the toilet). These are mostly multigenerational households that also include children and even grandchildren. In 29 percent of these households, adult children provide caregiving time (hours of caregiving), give money for needed care and assistance, and/or share living space with their disabled elderly parents.

These are the findings of a recent study supported by the Agency for Healthcare Research and Quality (HS08232) and based on the 1992 Health and Retirement Survey. The study included 1,298

households in which at least one adult was between ages 51 and 62 and lived with a spouse or domestic partner. The provision of caregiving time was increased when an elderly parent could not be left alone and he or she was very dependent on others for help with personal care. Financial assistance was more likely when parents were not married, and coresidence was more likely when parents had few or no other family members with whom they could live. Surprisingly, in 55 percent of all caregiving households, both spouses were caregivers; men were sole caregivers in 7 percent, and women were the only caregivers in 38 percent of these households.

The study was led by Rachel F. Boaz, Ph.D., of the City University of New York. Dr. Boaz and colleagues conclude that the three types of assistance are interdependent, although providing caregiving time is the primary means of helping a disabled elderly parent. When financial support

and/or coresidence are involved, there is a substantial increase in caregiving time.

More details are in “The transfer of resources from middle-aged children to functionally limited elderly parents: Providing time, giving money, sharing space,” by Dr. Boaz, Jason Hu, M.B.A., and Yongjia Ye, Ph.D., in the December 1999 issue of *The Gerontologist* 39(6), pp. 648-657.

Editor’s note: The unit of analysis in this study is the household, not the individuals in the household, because the household is the economic unit whose members pool the resources that are transferred to parents. The HRS sample includes both one-respondent (n=370) and two-respondent (n=1,298) households that have at least one parent who needs help with personal care. The present study is based only on the larger and more complicated sample of two-respondent households.

Nursing home quality of care improved during the early 1990s

Based on a substantial decline in the rate of pressure ulcers experienced by nursing home residents, nursing home quality of care has improved, according to a study supported by the Agency for Healthcare Research and Quality (HS09768). Pressure ulcers are a standard measure of nursing home quality because avoiding these skin wounds requires coordinated care efforts to turn and take care of bedridden residents.

Pressure ulcers range from stage 1 (persistent area of skin redness that does not disappear when pressure, usually from the resident’s mattress, is relieved) to stage 4 (severe and gaping wounds that expose muscle

and/or bone). The study found that between 1991 and 1995, pressure ulcer rates declined by over 25 percent (after adjusting for patients’ risk of developing ulcers).

The researchers evaluated pressure ulcer preventive care among residents in 107 nursing homes that were part of a for-profit nursing home chain operating in nine States. During the 5-year period, nurses assessed 30,510 nursing home residents (77 percent were women; average age 82.4) for the presence of pressure ulcers at admission, every 90 days in stable patients, and whenever there was a significant change in health status. Nearly 60 percent of residents had difficulty

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Nursing home quality

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with bed mobility, and 69 percent needed help to transfer from their bed to a chair or other location. The nurses used the federally mandated Minimum Data Set (MDS) to record the results of their assessments. The MDS is a comprehensive resident assessment instrument that contains detailed information describing the clinical, behavioral, and socioeconomic status of residents.

The study revealed that the proportion of new stage 3 or 4 ulcers declined from 30 percent to 22 percent between 1991 and 1995, so ulcers in more recent years were less apt to be severe. Furthermore, it would have cost an estimated \$800,000 to treat the 127 additional ulcers that would have occurred in this group of nursing home residents in 1995 if the rate had not changed since 1991. Finally, if these results are generalized to the more than 1.5 million nursing home

residents across the Nation, they suggest that tens of thousands fewer patients are developing pressure ulcers each year. This demonstrates improved quality of care in nursing homes from 1991 to 1995, concludes principal investigator Dan R. Berlowitz, M.D., M.P.H., of Boston Medical Center and the Bedford VA Hospital.

Improving pressure ulcer care has long been a priority. AHRQ supported the development of two clinical practice guidelines in the early 1990s on the prevention and treatment of pressure ulcers. The authors of this study suggest that these guidelines may have contributed to the improvements in care they found.

See "Are we improving the quality of nursing home care? The case of pressure ulcers," by Dr. Berlowitz, Herminio Q. Bezerra, M.D., Gary H. Brandeis, M.D., and others in the January 2000 *Journal of the American Geriatrics Society* 48, pp. 59-62.

HIV/AIDS Research

Work and other daily activities cause one-third of people with HIV infection to delay or forgo needed medical care

One-third of the individuals infected with the human immunodeficiency virus (HIV) that causes AIDS say that they have either postponed or gone without medical care because they had to put other things first, such as paying the rent or going to work. They either could not get out of work, had no way of getting to the doctor, or were too sick to get medical care. As a result, many did not receive medical care such as antiretroviral therapy that could extend their lives. Also, 8 percent of these patients said they went without food, clothing, or housing because they needed to spend their money on medical care, according to the first national study to examine barriers to medical care for people with HIV.

More resources must be devoted to providing food, clothing, housing, transportation, home care,

and employment support for these patients if they are to be kept healthy, suggests the study's lead author, William E. Cunningham, M.D., M.P.H., of the University of California, Los Angeles. Dr. Cunningham and colleagues surveyed a nationally representative sample of 2,864 adults receiving HIV care.

They found that people who were most likely to have gone without or postponed medical care were members of a minority group, drug users, and/or members of lower socioeconomic groups. People with at least one competing need were significantly more apt to have emergency department (ED) visits without being hospitalized (an indicator of lack of primary care to prevent ED visits), less likely to have received antiretroviral therapy, and more than twice as likely to report low

overall access to care (such as office visits) in the prior 6 months.

These findings are part of the larger HIV Cost and Services Utilization Study (HCSUS), the first large-scale effort to collect information on a nationally representative sample of people in care for HIV and AIDS. It is directed by Martin F. Shapiro and Samuel A. Bozzette of RAND and supported under a cooperative agreement between RAND and the Agency for Healthcare Research and Quality (HS08578).

See "The impact of competing subsistence needs and barriers on access to medical care for persons with human immunodeficiency virus receiving care in the United States," by Dr. Cunningham, Ronald M. Andersen, Ph.D., Mitchell H. Katz, M.D., and others, in *Medical Care* 37(12), pp. 1270-1281, 1999.

CD4 cell count is a strong predictor of short-term survival among HIV-infected women

Among women infected with the human immunodeficiency virus (HIV) that causes AIDS, CD4 cell count, an indicator of immune function, is as strong an indicator of short-term survival as HIV-1 RNA blood levels (viral burden). Even in the presence of a low viral burden, a substantially decreased CD4 cell count remained a strong predictor of mortality, according to recent findings from the Women's Interagency HIV Study (WIHS).

The WIHS is cosponsored by the Agency for Healthcare Research and Quality, the National Institutes of Health, and the Centers for Disease Control and Prevention. It is a multicenter prospective study of the natural history of HIV-1 infection in women conducted in five U.S. cities: New York City (two sites), Washington, DC, Chicago, Los Angeles, and San Francisco. Every 6 months, enrolled women, many of whom

may have been infected for 15 or more years, are interviewed and receive a physical examination.

The goal of this study of 1,769 HIV-infected women enrolled during 1994 and 1995 was to determine the predictive role of CD4 cell count and viral load on short-term survival during the first 2.5 years of followup. During the study period, 252 women died. Lower CD4 cell count, higher quantitative plasma HIV-1 RNA, and the presence of a self-reported AIDS-defining condition were significantly associated with shorter survival. CD4 cell count had as strong a prognostic value as HIV-1 RNA level, particularly among women with more advanced immunodeficiency.

The relative hazard of dying was 1.17, 3.27, and 8.46, respectively, for women with baseline CD4 cell counts of 200-349, 50-199, and less than 50 compared with women who had CD4 cell counts of 350 or

more. Compared with women with HIV-1 RNA levels of less than 4,000 copies/ml plasma, the relative hazard of dying for women with baseline HIV-1 RNA measurements of 4,000-20,000, 20,000-100,000, 100,000-500,000 and greater than 500,000 copies/ml, was 2.19, 2.17, 3.16, and 7.25, respectively. Eliminating from the analysis all followup time during which the women could have received highly active antiretroviral therapy did not change the results. These findings differ from several studies of men, in which HIV-1 RNA levels were a stronger predictor of survival than CD4 cell count.

See "The relative value of CD4 cell count and quantitative HIV-1 RNA in predicting survival in HIV-1 infected women: Results of the Women's Interagency HIV Study," by Kathryn Anastos, Leslie A. Kalish, Nancy Hessol, and others, in *AIDS* 13(13), pp. 1717-1726, 1999.

AHRQ News and Notes

AHRQ is seeking partners for an integrated delivery system research network

The Agency for Healthcare Research and Quality is seeking research partners for a new Integrated Delivery System Research Network (IDSRN). The network will conduct high-priority research projects on a fast track. A synopsis of the Request for Proposals (RFP) was published in the February 8 online issue of the *Commerce Business Daily*. The RFP is open to managed care plans, vertically integrated hospital systems, large physician group practices, and other health care organizations with research and data capabilities. Potential applicants are encouraged to collaborate with academic institutions, consulting firms, or other research organizations in developing and submitting a proposal.

According to AHRQ Director John M. Eisenberg, M.D., one of the reasons for creating the IDSRN is the challenge posed by the rapid pace of market, organizational, and technological changes to developing effective strategies for conducting and disseminating research. AHRQ's partnerships with delivery systems will permit real-time evaluation of how these changes are affecting health care access, cost, and quality. Another factor behind creation of the IDSRN is the investment by integrated delivery systems in a health information infrastructure, which has produced a rich source of data for use in research.

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New research network

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It is anticipated that as many as five private-public research partners will receive awards funded at a total of approximately \$4 million for the first 3-year period with an optional 2-year additional period funded at approximately \$2 million. Applicants selected as designated IDSRN partners will have an opportunity to compete for funds to conduct research and demonstrations on select, high-priority topics.

Each of the IDSRN partners will be expected to have the capability to address a broad range of pressing questions relevant to health care management and public policy decisions within relatively short

timeframes. Priority research projects may include evaluating the impact of specific clinical interventions, organizational strategies, and structures, and identifying organizational factors that facilitate timely diffusion of evidence from researchers to caregivers.

Applicants have 60 days from the issuance of the RFP (issued approximately February 25, 2000) to submit their proposals for designation as an IDSRN partner. Awards are expected to be announced in late July 2000.

Requests for the full RFP must be in sent in writing by mail or fax to Daryl Grant, Division of Contracts Management, Agency for Healthcare Research and Quality, 2101 East Jefferson Street, Suite 601, Rockville, MD 20852; fax 301-443-7523.

AHRQ names Deborah A. Zarin, M.D., as new director for technology assessment

The Agency for Healthcare Research and Quality has named Deborah A. Zarin, M.D., as the new Director of the Technology Assessment Program within AHRQ's Center for Practice and Technology Assessment (CPTA). She comes to this position from the American Psychiatric Association where she served as Deputy Medical Director and Director of the Office of Quality

Improvement and Psychiatric Services.

Dr. Zarin is a graduate of Stanford University and Harvard University's School of Medicine. She performed her residency in psychiatry at McLean Hospital, Belmont, MA. She served as a technical expert for AHRQ's evidence reports on the treatment of depression and on the treatment of attention deficit/hyperactivity

disorder. Over the past 4 years she has served as project director and co-director of such projects as the Psychiatric Research Network of the National Institute on Drug Abuse and the Practice Research Network of the American Psychiatric Association. Dr. Zarin has published extensively and is a contributing editor for the *Journal of Practical Psychiatry and Behavioral Health*.

Announcements

New resource can help people over 50 stay healthy

A new publication—*Staying Healthy at 50+*—is now available to help older Americans understand and incorporate preventive care into their lives. It is the result of a public-private partnership between the Agency for Healthcare Research and Quality, the Health Resources and Service Administration, and AARP.

The information in *Staying Healthy at 50+* comes from the research-based recommendations of the newly reconvened AHRQ-supported U.S. Preventive Services Task Force. The guide is the latest component of AHRQ's Put Prevention into Practice program. The U.S. Preventive Services Task Force, first convened in 1984, systematically reviews the evidence of effectiveness of a wide range of clinical preventive

services, including screening tests, counseling, and immunizations.

Staying Healthy at 50+ includes tips and recommendations on health habits, screening tests, and immunizations, as well as easy-to-use charts to help track personal health information, questions to ask health care providers, and resources to contact for more information.

Staying Healthy at 50+ (AHRQ Publication Nos. 00-0002, English and 00-0010, Spanish) is available from AHRQ. You may request up to three free copies of the guide. Contact the AHRQ Clearinghouse for information on bulk orders. See the back cover of *Research Activities* for ordering information.

AHRQ releases CAHPS® 2.0 version

The Agency for Healthcare Research and Quality has released the Consumer Assessment of Health Plans (CAHPS®) 2.0 survey and reporting kit, which has updated versions of all questionnaires, reporting templates, and a computer program for analyzing CAHPS® data. In addition to the updates, the CAHPS® package has been streamlined by providing all the elements on three CD-ROMs. Basic instructions for using the surveys and reports are included in a notebook called the Primer, as well as on CD-ROM. The package includes a videotape to help survey participants understand the intent of the project.

CAHPS® is a set of survey and reporting tools, developed by AHRQ, that is designed to measure consumers' experience with health plans and report that experience back to other consumers and purchasers to help them choose among health plans. Surveys and reports have been tested to ensure they will provide reliable and valid information in easily understood formats.

The CAHPS® 2.0 package (AHRQ Publication No. 99-0039) is available from AHRQ. See the back cover of *Research Activities* for ordering information.

AHRQ announces availability of audiotapes from User Liaison Program workshops

The Agency for Healthcare Research and Quality's User Liaison Program (ULP) coordinates and hosts workshops for State and local health officials. These workshops are designed to provide policymakers and other officials at the State and local levels with timely information on emerging and critical health care topics.

Audiotapes from a number of recent ULP workshops are listed below. All of the tapes are available from AHRQ; some of the tapes are free, and others are available for purchase. See the back cover of *Research Activities* for ordering information. The tapes are listed in reverse chronological order (most recent first) according to workshop date. Please be sure to use the AV number when ordering.

Reducing Violence: Issues, Options and Opportunities for State Governments, February 7-9, 2000, Albuquerque, NM (AHRQ 00-AV09).

Designed to help State officials, particularly health officials, promote and support collaborative

strategies to address violence and associated problems. Cost \$25 per set.

Prescription Drug Coverage: What Can We Afford? How Do We Decide? January 10-12, 2000, Atlanta, GA (AHRQ 00-AV08).

Covers rising pharmaceutical costs; research on drug safety, quality of care, and appropriate pharmaceutical use; and strategies being used by States to make decisions about drug formularies, pharmacy benefits, and disease management programs. Cost \$25 per set.

Designing Health Care Systems that Work for People with Chronic Illnesses and Disabilities, December 1-3, 1999, Houston, TX (AHRQ 00-AV07).

Focuses on State initiatives to improve the delivery of health and long-term care services to people with chronic illnesses and disabilities. Cost \$25 per set.

Children with Special Health Care Needs: Developing Integrated Systems of

Care, November 3-5, 1999, Independence, OH (AHRQ 00-AV06).

Describes the design, financing, and administration of health care programs for children, particularly those with special needs. Also covers complementary quality assurance programs. Free.

Health Care Workforce and the States: Issues, Options, and Consequences, October 18-20, 1999, Philadelphia, PA (AHRQ 00-AV05).

Provides an overview of issues that shape the health care workforce and the role of States in dealing with the issues. Free.

Managed Care, Medicine, and Public Health: Building Collaborations that Work, September 13-15, 1999, Portland, OR (AHRQ 99-AV13).

Discusses how State and local policymakers can foster collaboration between three groups of influential health system stakeholders: managed care, medicine, and public health. Free

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ULP audiotapes

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Improving the Outcomes of State Health and Human Service Initiatives: Integrating Substance Abuse and Mental Health Strategies, July 19-21, 1999, Albuquerque, NM (AHRQ 00-AV04).

Provides information on the nature of the mental health and substance abuse problems within the populations served by health and human services' programs; discusses the financing and delivery of MH/SA services, and examines the cutting-edge efforts of States to enhance outcomes by incorporating effective MH/SA strategies in broader public program initiatives. Free.

Using Evidence: Making Disease Management and Health Benefit Coverage Decisions, July 12-14, 1999, Nashville, TN (AHRQ 00-AV03).

Provides information to build the capacity of State and local governments to implement disease-management protocols and make evidence-based decisions. Free.

Providing Care to Diverse Populations: State Strategies for Promoting Cultural Competency in Health Systems, June 9-11, 1999, Charleston, SC (AHRQ 00-AV02).

Focuses on promoting cultural competency within State and local health care delivery systems and personnel to enhance health care services and access to services for diverse populations. Free.

CHIP - What's Happening? What's Next? May 26-28, 1999, Portland, ME (AHRQ 99-AV10).

Reviews current research findings and offers case studies on implementation and evaluation of State CHIP (Children's Health Insurance Program) initiatives. Particularly useful for State officials who have oversight responsibility for SCHIP programs. Free.

New Directions in Long-Term Care, April 14-16, 1999, Kansas City, KS (AHRQ 99-AV08).

Covers current State initiatives in long-term care and managed

care, research related to long-term care policy and program priorities, and national assisted-living trends and models. Free.

The Uninsured and the Safety Net: Trends and Challenges, March 10-12, 1999, Los Angeles, CA (AHRQ 99-AV07).

Describes the uninsured population, examines the latest research findings on the uninsured, discusses factors that affect survival of safety net providers, examines innovative managed care programs for the medically indigent, discusses State strategies for expanding coverage to uninsured workers, and reviews key elements of proposed Federal tax reforms. Free.

Purchasing Health Care for Maximum Value, December 14-16, 1998, Asheville, North Carolina (AHRQ 99-AV04).

Describes the elements of a value-based purchasing system and the tools needed to create such a system; presents case studies of multi-State agency and public-private collaboration. Free.

AHRQ expenditure surveys are subject of new book

A new resource, entitled *Informing American Health Care Policy: The Dynamics of Medical Expenditure and Insurance Surveys, 1977-1996*, provides a critical perspective on national medical expenditure surveys from the Agency for Healthcare Research and Quality. The surveys are the National Medical Care Expenditure Survey, conducted in 1977, the National Medical Expenditure Survey, conducted in 1987, and the ongoing Medical Expenditure Panel Survey that began in 1996.

The book includes essays from well-known economists, sociologists, and survey researchers who review the evolution of the surveys, the research findings and their relevance to policy, and lessons learned from the survey methods. The authors reflect on the challenges faced in adapting the surveys in the future to make them more effective and responsive to

changes in health care delivery and policy. They also discuss how AHRQ's surveys have contributed to the Nation's basic understanding of how individuals and families use and pay for health care and how the surveys have influenced strategy and changes in national health policy.

A limited number of free copies of the 256-page hardcover book *Informing American Health Care Policy* (AHRQ Publication No. OM 99-0018) are available from AHRQ.* See the back cover of *Research Activities* for ordering information. When free copies are exhausted, the book may be purchased from the publisher, Jossey-Bass for \$44.95 plus shipping. Visit the Jossey-Bass Web site at www.josseybass.com for more information, or call them at 800-956-7739.

AHRQ funds new projects

The following research grants, small project grants, and conference grants were funded recently by the Agency for Healthcare Research and Quality. Readers are reminded that research findings usually are not available until a project is finished or nearing completion.

Research Projects

Benefits of regionalizing surgery for Medicare patients

Project director: John D. Birkmeyer, M.D.
Organization: Dartmouth College
Hanover, NH
Project number: AHRQ grant HS10141
Project period: 4/1/00 to 3/31/03
First year funding: \$284,709

Managed care, financial incentives, and physician practice

Project director: Carol Simon, Ph.D.
Organization: Boston University
Boston, MA
Project number: AHRQ grant HS10596
Project period: 3/1/00 to 2/28/03
Funding: \$751,529

SES differences in HMO utilization by older Americans

Project director: Jose J. Escarce, M.D., Ph.D.
Organization: RAND Corporation
Santa Monica, CA
Project number: AHRQ grant HS09630
Project period: 4/1/99 to 3/31/02
First year funding: \$123,581

Small Grants

Barriers to antiinflammatory use in childhood asthma

Project director: Hannelore Yoos, Ph.D.
Organization: University of Rochester
Rochester, NY
Project number: AHRQ grant HS10689
Project period: 3/1/00 to 2/28/01
Funding: \$79,566

Cognitive retraining in sudden cardiac arrest survivors

Project director: Mary J. Sauve, R.N.
Organization: University of California
Davis, CA

Project number: AHRQ grant HS10701
Project period: 2/1/00 to 1/31/01
Funding: \$72,868

High-risk periods for child injury among siblings

Project director: David C. Grossman, M.D.
Organization: University of Washington
Seattle, WA
Project number: AHRQ grant HS10724
Project period: 3/1/00 to 2/28/01
Funding: \$75,450

Inpatient practices of hospitalists vs. traditional PCPs

Project director: Melissa K. Rowe, Ph.D.
Organization: RAND Corporation
Santa Monica, CA
Project number: AHRQ grant HS10696
Project period: 4/1/00 to 3/31/01
Funding: \$77,300

Longitudinal study of rural physician retention

Project director: Donald E. Pathman, M.D., Ph.D.
Organization: University of North Carolina
Chapel Hill, NC
Project number: AHRQ grant HS10654
Project period: 3/1/00 to 5/31/01
Funding: \$71,460

Stability of psychiatric symptoms in primary care patients

Project director: David Katerndahl, M.D.
Organization: University of Texas
San Antonio, TX
Project number: AHRQ grant HS10676
Project period: 4/1/00 to 3/31/01
Funding: \$59,697

Conference Grants

CALNOC millennium invitational conference

Project director: Jo Anne Powell
Organization: American Nurses Association
San Francisco, CA
Project number: AHRQ grant HS10089
Project period: 1/15/00 to 7/15/00
Funding: \$24,275

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New projects

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Changing physician behavior workshop

Project director: Jan Z. Temple, Ph.D.
Organization: Medical University of South Carolina
Charleston, SC
Project number: AHRQ grant HS10088
Project period: 1/24/00 to 1/23/01
Funding: \$20,130

Deploying idealized design of clinical office practices

Project director: Charles M. Kilo, M.D.
Organization: Institute for Healthcare Improvement
Boston, MA
Project number: AHRQ grant HS10093
Project period: 2/18/00 to 2/17/01
Funding: \$44,534

Income inequality, socioeconomic status, and health

Project director: James A. Auerbach, M.A.
Organization: National Policy Association
Washington, DC

Project number: AHRQ grant HS10083
Project period: 2/1/00 to 1/31/01
Funding: \$20,000

Managed care quality monitoring conference

Project director: Lynn A. Blewett, M.A.
Organization: University of Minnesota
Minneapolis, MN
Project number: AHRQ grant HS10091
Project period: 3/1/00 to 2/28/01
Funding: \$49,990

Purchasers and medical specialists discuss quality improvement

Project director: Mark W. Legnini, Ph.D.
Organization: Economic and Social Research Institute
Washington, DC
Project number: AHRQ grant HS10090
Project period: 1/18/00 to 1/17/01
Funding: \$18,729

Research Briefs

Barnett, S., and Franks, P. (1999, November). "Telephone ownership and deaf people: Implications for telephone surveys." (AHRQ grant HS09539). *American Journal of Public Health* 89(11), pp. 1754-1756.

Of the 23 million Americans with hearing loss, 4.8 million people cannot hear or understand normal speech. Little is known about the health status and use of health services by deaf people. Often researchers who need to gather public health data use less costly telephone surveys instead of in-home interviews. However, telephone surveys risk marginalizing prelingually deafened adults (adults who became deaf before 3 years of age), concludes this study. This is because of low telephone

ownership by this group and language barriers between the deaf and the hearing communities. The researchers used 1990 and 1991 data from the National Health Interview Survey to examine the relationship between telephone ownership and age at onset of deafness. They found that prelingually deafened adults were less apt than members of the general population to own a telephone, whereas those who lost their hearing after age 3 (postlingually deafened adults) were as likely as members of the general population to own a telephone.

Dionne, C.E., Von Korff, M., Koepsell, T.D., and others. (1999). "A comparison of pain, functional limitations, and work status indices as outcome measures in back pain

research." (AHRQ grant HS06168). *Spine* 24(22), pp. 2339-2345.

The outcomes of patients with back pain are measured by pain, functional limitations, and work status. These outcomes are often considered interchangeable in back pain research. However, this study shows that these indexes of back pain outcome are related but not equivalent and should not be regarded as interchangeable. These results argue for a clearer distinction of outcome measures in back pain research, conclude the researchers. They studied the outcomes of 720 patients who sought care for back pain in primary care settings of a large health maintenance organization in 1989 and 1990. They interviewed the patients 1 month and 2 years

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later and found moderate agreement between pain and functional limitation measures and work status. Pain and functional limitation change scores agreed moderately with improvement in work status but were poorly associated with decline in work status.

Donaldson, G.W., Moinpour, C.M., Bush, N.E., and others. (1999, December). "Physician participation surveys: A randomized study of inducements to return mailed research questionnaires." (AHRQ grant HS09407). *Evaluation and the Health Professions* 22(4), pp. 427-441.

A modest financial reward can significantly improve physician response rates to research surveys, but telephone followup may be inefficient and even ineffective, according to a recent study. The authors randomly selected 400 doctors providing followup care to patients who received bone marrow or blood stem cell transplants at a cancer research center to determine interest in receiving Internet-based transplant information. The doctors were assigned to receive mailed surveys with either no compensation or a \$5 check and either no followup call or a followup call 3 weeks after the mailing. Overall, 52 percent of doctors returned the surveys. Including the \$5 check in the mailer significantly increased the probability of returning the surveys (58 percent vs. 46 percent). In contrast, the telephone followup had no overall effect.

Harris, L.E., Swindle, R.W., Mungai, S.M., and others. (1999). "Measuring patient satisfaction for quality improvement."

(AHRQ grant HS08823). *Medical Care* 37(12), pp. 1207-1213.

Surveys used for health plan quality reporting are usually administered annually to health plan enrollees to assess satisfaction with both the health plan and health care services. However, these researchers developed and tested a visit-specific questionnaire/patient-satisfaction instrument that may be used for quality improvement. The instrument was reliable and valid for identifying differences in satisfaction between primary care practice sites. The survey, conducted in five adult and pediatric primary care sites, focused on patient satisfaction with the provider, office, and access to care. It included the Medical Outcomes Study Visit-specific Questionnaire, the American Board of Internal Medicine Patient Satisfaction Questionnaire, and locally developed items.

Satisfaction with the provider and with the office were independently correlated with overall satisfaction in both adult and pediatric samples. Satisfaction with access was significantly correlated with overall satisfaction only for adults. Adult patients who disenrolled from the health plan were less satisfied with the office compared with patients who remained with the plan.

Iezzoni, L.I., Davis, R.B., Palmer, R.H., and others. (1999). "Does the complications screening program flag cases with process of care problems?" (AHRQ grant HS09099). *International Journal for Quality in Health Care* 11(2), pp. 107-118, 1999.

The Complications Screening Program (CSP) aims to identify 28 potentially preventable complications of hospital care using computerized discharge abstracts, including demographic information, and

diagnosis and procedure codes. The researchers applied the CSP to computerized hospital discharge abstracts from Medicare beneficiaries admitted in 1994 to hospitals in California and Connecticut for major surgery or medical treatment. Of 28 CSP complications, 17 occurred sufficiently frequently to study. The final sample included 740 surgical and 416 medical discharges. Rates of process of care problems were high, ranging from 24.4 percent to 82.5 percent across CSP screens for surgical cases. Problems were lower for medical cases, ranging from 2 percent to 69.1 percent across CSP screens. However, the CSP did not flag discharges with significantly higher rates of explicit process problems than unflagged discharges, indicating that such an approach to identifying complications of care should be evaluated cautiously.

Kravitz, R.L., Bell, R.A., and Franz, C.E. (1999, November). "A taxonomy of requests by patients (TORP): A new system for understanding clinical negotiation in office practice." (AHRQ grant HS09812). *Journal of Family Practice* 48(11), pp. 872-878.

Requests are the primary means of patient-initiated action in office practice. But these requests can be problematic because they consume time and resources. In particular, patients' requests for diagnostic tests, medications, and referrals can be costly to capitated practices and may cause physician-patient discord if not handled appropriately. These researchers developed a new system—the Taxonomy of Requests by Patients (TORP)—for capturing and categorizing patients' requests in adult primary care. They used input

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from researchers, clinicians, and patient focus groups and assessed its reliability and validity in audiotaped encounters between 139 patients and 6 northern California internists. The 139 patients made 772 requests. Patients with better health status made fewer requests. Having more chronic diseases was associated with more requests for physician action. More patient requests were also associated with physician reports of longer visit times and increased visit demands. Patients with more unfulfilled requests had lower visit satisfaction.

Kuntz, K.M., Tsevat, J., Weinstein, M.C., and Goldman, L. (1999, December). "Expert panel vs. decision-analysis recommendations for postdischarge coronary angiography after myocardial infarction." (AHRQ grant HS07081). *Journal of the American Medical Association* 282(23), pp. 2246-2251.

Expert panels and decision-analytic techniques are increasingly used to determine the appropriateness of medical interventions, but these two approaches use different methods to process evidence. In fact, formal syntheses of both these approaches is warranted in future efforts at guideline development, concludes this study. The researchers compared the degree of importance of the clinical variables considered in expert panel ratings of appropriateness for postdischarge coronary angiography after myocardial infarction with a previously published decision-analytic model. They identified 36 clinical scenarios from the expert panel that could be simulated by the decision-analytic model. They

found moderate to good agreement between the appropriateness score and both the health gain and the incremental cost-effectiveness ratio of coronary angiography compared with no angiography in the convalescent phase of acute myocardial infarction. However, several scenarios judged as inappropriate by the expert panel had cost-effectiveness ratios comparable with many generally recommended medical interventions.

Lin, A., Lenert, L.A., Hlatky, M.A., and others. (1999, December). "Clustering and the design of preference-assessment surveys in healthcare." (AHRQ grant HS08362). *Health Services Research* 34(5), pp. 1033-1045.

Many decisions regarding medical care depend on the relative importance that patients attach to different outcomes of care. Employing a clustering algorithm to analyze health status survey data enables researchers to gain a data-driven, concise summary of the experiences of patients, concludes this study. The authors surveyed 224 patients with ventricular arrhythmias treated at one site. They used the clustering algorithm to identify prototypical health states in which patients in the same cluster shared similar responses to items in surveys on physical and mental functioning and vitality. Cluster 1 (21 percent of patients) was characterized by high scores on physical functioning, vitality, and mental health. Cluster 2 (33 percent) had low physical function but high scores on vitality and mental health. Cluster 3 (29 percent) had low physical function and low vitality but preserved mental health. Cluster 4 (17 percent) had low scores on all scales. These clusters served as the basis of written descriptions of health states.

Myer, M.L. (1999, December). "Using Medicaid claims to construct dental service market areas." (AHRQ grants HS06993 and HS06993). *Health Services Research* 34(5), pp. 1047-1062.

Few sources of data on private dental insurance claims exist. However, the Federal Government does mandate that State Medicaid programs cover dental services. Thus, for the under-21 population, Medicaid dental claims provide a rich source of data on dental care use and may be useful in delineating dental service market areas at the State level. These authors used North Carolina Medicaid data to construct market areas for dental services using a patient origin approach. They found that Medicaid claims data, when combined with provider licensure files, can be used to construct county-based market areas. Compared with market areas constructed using patient origin data, county-based market areas were an adequate proxy for dental markets. Using the county as the market area also avoided the time and computational costs associated with using a patient origin-based approach and facilitated the use of widely available data.

Selden, T.M. (1999). "Premium subsidies for health insurance: Excessive coverage vs. adverse selection." *Journal of Health Economics* 18, pp. 709-725.

In the United States, employment-related health insurance coverage is subsidized through the tax system. This tax subsidy can lead to excessive coverage and excessive spending on medical care. Yet the potential also exists for adverse selection to result in the opposite problem—insufficient coverage and underuse of medical care. Thomas M.

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Selden, Ph.D., an economist in AHRQ's Center for Cost and Financing Studies uses the well-known R-S model of adverse selection to show that a simple linear premium subsidy can correct market failure due to adverse selection. The optimal linear subsidy balances welfare losses from excessive coverage against welfare gains from reduced adverse selection. Indeed, a capped premium subsidy may mitigate adverse selection without creating incentives for excessive coverage, concludes Dr. Selden. Reprints (AHRQ Publication No. 00-R012) are available from AHRQ.*

Shapiro, M.F., Berk, M.L., Berry, S.H., and others. (1999, December). "National probability samples in studies of low-prevalence diseases. Part 1:

Perspectives and lessons from the HIV Cost and Services Utilization Study;" and Frankel, M.R., Shapiro, M.F., Duan, N., and others, "Part II: Designing and implementing the HIV Cost and Services Utilization Study Sample." (AHRQ grant HS08578). *Health Services Research* 34(5), pp. 951-968 and 969-992.

This two-part study examines the trade-offs inherent in selecting a sample design for a national study of HIV/AIDS and the adaptations, opportunities, and costs associated with the choice of national probability sampling. To produce a valid nationally representative probability sample of people with HIV/AIDS for the HIV Cost and Services Utilization Study (HCSUS), the researchers combined a provider-based multistage design with the M.D.-colleague recruitment model often

used in non-probability site-specific studies. They collected data across the country on reported AIDS cases for metropolitan areas and rural counties. In selected areas, they analyzed the caseload of known providers for HIV patients and a random sample of other providers. For selected providers, they used anonymous patient visit records. The researchers concluded that it was possible to obtain all data necessary to implement a multistage design for sampling individual HIV-infected people under medical care with known probabilities. They succeeded in obtaining in-person or proxy interviews from individuals representing over 70 percent of the eligible target population.

AHRQ seeks study proposals to conduct research on domestic violence against women

The Agency for Healthcare Research and Quality is seeking proposals to conduct research on the outcomes, effectiveness, and cost-effectiveness of programs for early identification and treatment of domestic violence against women. The goals of this Request for Applications (RFA) are to develop new knowledge in the prevention of domestic violence, improve the identification of female patients at risk, and evaluate outcomes and the effectiveness of health care interventions designed to treat domestic violence victims. This RFA is part of the Secretary of Health and Human Services' FY 2000 initiative on violence against women.

AHRQ expects to award up to \$1.0 million in fiscal year 2000 to support the first-year total costs of approximately one to three projects under this RFA. Letters of intent are requested by March 24, 2000; applications must be received by April 27, 2000.

The Agency encourages partnerships between health plans, service providers, researchers, and community-based programs. Projects funded under this RFA may address any health care issues relating to domestic violence, including the adoption and implementation of protocols and practice guidelines, routine screening for domestic violence, the ability to provide treatment and safety planning, and followup of victims.

The RFA, "Violence Against Women: Evaluating Health Care Interventions" (RFA HS-00-006), was published February 16, 2000, in the *NIH Guide to Grants and Contracts*. For more information, visit AHRQ's Web site and click on "funding opportunities" or request a copy of the RFA from AHRQ's InstantFax.** Grant application kits are available from AHRQ's Clearinghouse. See the back cover of *Research Activities* for ordering information.

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