

PubMed Search: Medical Expenditure Panel Survey

Crossed with keywords: Job, Work, Employment, Occupation, and Vocation

Conducted on: Tuesday, January 5, 2009

1. BMC Health Serv Res. 2008 May 9;8:101.

Body mass index and employment-based health insurance.

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BACKGROUND: Obese workers incur greater health care costs than normal weight workers. Possibly viewed by employers as an increased financial risk, they may be at a disadvantage in procuring employment that provides health insurance. This study aims to evaluate the association between body mass index [BMI, weight in kilograms divided by the square of height in meters] of employees and their likelihood of holding jobs that include employment-based health insurance [EBHI]. **METHODS:** We used the 2004 Household Components of the nationally representative Medical Expenditure Panel Survey. We utilized logistic regression models with provision of EBHI as the dependent variable in this descriptive analysis. The key independent variable was BMI, with adjustments for the domains of demographics, social-economic status, workplace/job characteristics, and health behavior/status. BMI was classified as normal weight (18.5-24.9), overweight (25.0-29.9), or obese (> or = 30.0). There were 11,833 eligible respondents in the analysis. **RESULTS:** Among employed adults, obese workers [adjusted probability (AP) = 0.62, (0.60, 0.65)] (P = 0.005) were more likely to be employed in jobs with EBHI than their normal weight counterparts [AP = 0.57, (0.55, 0.60)]. Overweight workers were also more likely to hold jobs with EBHI than normal weight workers, but the difference did not reach statistical significance [AP = 0.61 (0.58, 0.63)] (P = 0.052). There were no interaction effects between BMI and gender or age. **CONCLUSION:** In this nationally representative sample, we detected an association between workers' increasing BMI and their likelihood of being employed in positions that include EBHI. These findings suggest that obese workers are more likely to have EBHI than other workers.

PMCID: PMC2387152

PMID: 18471293 [PubMed - indexed for MEDLINE]

2. J Occup Environ Med. 2008 May;50(5):527-34.

The association of diabetes with job absenteeism costs among obese and morbidly obese workers.

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Comment in:

J Occup Environ Med. 2008 Oct;50(10):1094; author reply 1094-5.

OBJECTIVE: To determine the extent to which absenteeism costs associated with obesity and morbid obesity are traceable to diabetes, and whether obesity and morbid obesity remain predictors of absenteeism costs after controlling for diabetes. **METHODS:** Data from the Medical Expenditure Panel Survey for 2000-2004 are examined. Outcomes are probability of missing work in the previous year and number of workdays missed. Predictors include diabetes, obesity and morbid obesity, age, education, occupation category, and race. Models are estimated by gender. **RESULTS:** Probability of missing work in the past year, number of days missed, and absenteeism costs rise significantly with diabetes among the obese

and morbidly obese, with costs higher for the morbidly obese, after controlling for diabetes. CONCLUSIONS: Diabetes is strongly predictive of absenteeism among obese and morbidly obese workers. Employer efforts to reduce absenteeism should include consideration of anti-obesity interventions and diabetes prevention.

PMID: 18469621 [PubMed - indexed for MEDLINE]

3. Health Aff (Millwood). 2003 May-Jun;22(3):203-13.

Health insurance for workers who lose jobs: implications for various subsidy schemes.

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A number of proposals have been made to help laid-off workers purchase health insurance. We use data from the 1996 Medical Expenditure Panel Survey to profile the insurance status of workers who left a job. Our descriptive analysis suggests that it might be difficult to design policies that target those who would otherwise be uninsured and that large subsidies might be needed to help laid-off workers.

PMID: 12757286 [PubMed - indexed for MEDLINE]

4. Health Aff (Millwood). 2003 Mar-Apr;22(2):139-53.

Pathways to access: health insurance, the health care delivery system, and racial/ethnic disparities, 1996-1999.

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We examine the roles that insurance coverage, the delivery system, and external factors play in explaining persistent disparities in access among racial and ethnic groups of all ages. Using data from the 1996-1999 Medical Expenditure Panel Surveys and regression-based decomposition methods, we find that our measures of health care system capacity explain little and that while insurance clearly matters, external factors are equally important. Employment, job characteristics, and marital status are key determinants of disparities in access to insurance but are difficult for health policy to affect directly. Much of existing disparities remains unexplained, presenting a challenge to developing policies to eliminate them.

PMID: 12674417 [PubMed - indexed for MEDLINE]

1. Psychiatr Serv. 2009 Oct;60(10):1323-8.

County-level estimates of mental health professional shortage in the United States.

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Comment in:

Psychiatr Serv. 2010 Jan;61(1):95; author reply 95-6.

OBJECTIVE: This study examined shortages of mental health professionals at the county level across the United States. A goal was to motivate discussion of the data improvements and practice standards required to develop an adequate mental health professional workforce. **METHODS:** Shortage of mental health professionals was conceptualized as the percentage of need for mental health visits that is unmet within a county. County-level need was measured by estimating the prevalence of serious mental illness, then combining separate estimates of provider time needed by individuals with and without serious mental illness derived from National Comorbidity Survey Replication, U.S. Census, and Medical Panel Expenditure Survey data. County-level supply data were compiled from professional associations, state licensure boards, and national certification boards. Shortage was measured for prescribers, nonprescribers, and a combination of both groups in the nation's 3,140 counties. Ordinary least-squares regression identified county characteristics associated with shortage. **RESULTS:** Nearly one in five counties (18%) in the nation had unmet need for nonprescribers. Nearly every county (96%) had unmet need for prescribers and therefore some level of unmet need overall. Rural counties and those with low per capita income had higher levels of unmet need. **CONCLUSIONS:** These findings identified widespread prescriber shortage and poor distribution of nonprescribers. A caveat is that these estimates of need were extrapolated from current provider treatment patterns rather than from a normative standard of how much care should be provided and by whom. Better data would improve these estimates, but future work needs to move beyond simply describing shortages to resolving them.

PMID: 19797371 [PubMed - in process]

2. Diabetes Care. 2009 Dec;32(12):2187-92. Epub 2009 Sep 3.

Health care and productivity costs associated with diabetic patients with macrovascular comorbid conditions.

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OBJECTIVE: To examine and quantify from the societal perspective the impact of macrovascular comorbid conditions (MVCCs) on health care and productivity costs in diabetic patients in the U.S. **RESEARCH DESIGN AND METHODS:** With use of the pooled Medical Expenditure Panel Survey (MEPS) 2004 and 2006 data, a nationally representative adult sample (aged ≥ 18 years) was included in the study. Health care cost was measured by the annual health care expenditure. Productivity cost was calculated from the lost productivity from missed work days and additional bed days due to illness/injury based on the 2006 average national hourly wage. Both 2004 and 2006 cost data were adjusted to 2006 dollars. Given the heavily right-skewed distribution of the cost data, the generalized linear model with log-link function and gamma variance was used to identify the relationship between MVCCs and costs after controlling for age, sex, race, ethnicity, education, income, employment status, smoking status, health insurance, diabetes severity, and comorbidities. Negative binomial models were applied to analyze the outcomes of missed work days and bed days. All statistics were adjusted using the proper sampling weight from MEPS. **RESULTS:** Compared with diabetic patients without MVCCs ($n = 3,320$), those with MVCCs ($n = 913$) had statistically significant higher annual health care costs (5,120 USD, $P < 0.001$), more missed work days (13.03 days, $P < 0.001$), and more bed days (7.60 days, $P = 0.025$) per patient after controlling for differences in sociodemographics, smoking, diabetes severity, and comorbidities. The marginal lost productivity cost was 2,388 USD annually per patient. **CONCLUSIONS:** From the U.S. societal perspective, MVCCs in diabetic patients are associated with increased health care and lost productivity costs.

PMCID: PMC2782975 [Available on 2010/12/1]
PMID: 19729528 [PubMed - in process]

3. Spine (Phila Pa 1976). 2009 Sep 1;34(19):2077-84.

Trends in health care expenditures, utilization, and health status among US adults with spine problems, 1997-2006.

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STUDY DESIGN: Analysis of nationally representative survey data for spine-related health care expenditures, utilization and self-reported health status. **OBJECTIVE:** To study trends from 1997 to 2006 in per-user expenditures for spine-related inpatient, outpatient, pharmacy, and emergency services; and to compare these trends to changes in health status. **SUMMARY OF BACKGROUND DATA:** Although prior work has shown overall spine-related expenditures accounted for \$86 billion in 2005, increasing 65% since 1997, the study did not report per-user expenditures. Understanding population-level per-user expenditure for specific services relative to changes in the health status may help assess the value of these services. **METHODS:** We analyzed data from the Medical Expenditure Panel Survey, a multistage survey sample designed to produce unbiased national estimates of health care utilization and expenditure. Spine-related hospitalizations, outpatient visits, prescription medications and emergency department visits were identified using ICD-9-CM diagnosis codes. Regression analyses controlling for age, sex, comorbidity, and time (years) were used to examine trends from 1997 to 2006 in inflation-adjusted per-user expenditures, and utilization, and self-reported health status. **RESULTS:** An average of 1774 respondents with spine problems was surveyed per year; the proportion suggested an increase in the number of people who sought treatment for spine problems in the United States from 14.8 million in 1997 to 21.9 million in 2006. From 1997 to 2006, the mean adjusted per-user expenditures were the largest component of increasing total costs for inpatient hospitalizations, prescription medications, and emergency department visits, increasing 37% (from \$13,040 in 1997 to \$17,909 in 2006), 139% (from \$166 to \$397), and 84% (from \$81 to \$149), respectively. A 49% increase in the number of patients seeking spine-related care (from 12.2 million in 1997 to 18.2 million in 2006) was the largest contributing factor to increased outpatient expenditures. Population measures of mental health and work, social, and physical limitations worsened over time among people with spine problems. **CONCLUSION:** Expenditure increases for spine-related inpatient, prescription, and emergency services were primarily the result of increasing per-user expenditures, while those related to outpatient visits were primarily due to an increase in the number of users of ambulatory services.

PMID: 19675510 [PubMed - indexed for MEDLINE]

4. Med Care. 2009 Jul;47(7 Suppl 1):S104-8.

Econometric modeling of health care costs and expenditures: a survey of analytical issues and related policy considerations.

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BACKGROUND: Econometric modeling of healthcare costs and expenditures has become an important component of decision-making across a wide array of real-world settings. **OBJECTIVES:** The objective of this article is to provide a brief summary

of important conceptual and analytical issues involved in econometric healthcare cost modeling. To this end, the article explores: outcome measures typically analyzed in such work; the decision maker's perspective in econometric cost modeling exercises; specific analytical issues in econometric model specification; statistical goodness-of-fit testing; empirical implications of "upper tail" (or "high cost") phenomena; and issues relating to the reporting of findings. DATA: Some of the concepts explored here are illustrated in light of samples drawn from the 2005 Medical Expenditure Panel Survey and the 2005 Nationwide Inpatient Sample. RESULTS AND CONCLUSIONS: Analysts of healthcare cost data have at their disposal an increasingly sophisticated tool kit for analyzing such data that can in principle and in fact yield increasingly interesting insights into data structures. Yet for such analyses to usefully inform policy decisions, the manner in which such studies are designed, undertaken, and reported must accommodate considerations relevant to the decision-making community. The article concludes with some preliminary thoughts on how such bridges might be constructed.

PMID: 19536020 [PubMed - indexed for MEDLINE]

5. Acad Pediatr. 2009 Jul-Aug;9(4):263-9. Epub 2009 May 31.

The impact of childhood activity limitations on parental health, mental health, and workdays lost in the United States.

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OBJECTIVE: The aim of this study was to determine if and to what extent the onset and persistence of childhood activity limitations (ongoing, resolved, or newly reported) resulted in subsequent adverse health, mental health, and work attendance outcomes among parents in the United States. METHODS: A study was conducted using 10 panels (1996-2005) of the Medical Expenditure Panel Survey (MEPS), a household survey of a nationally representative sample of the civilian noninstitutionalized population in the United States. Participants in this study were 18 827 parents and their children aged 0 to 17 years. RESULTS: During the 2-year study period, 15.6% of parents reported caring for a child aged 0 to 17 years with a limitation. Parents of children with any activity limitation were significantly more likely to experience subsequent poor health and mental health. Parents of children with ongoing or newly reported limitations had an increased number of lost workdays as compared with parents of children without limitations. Moreover, caring for multiple children with activity limitations was predictive of adverse parental mental health outcomes. Parents of children with ongoing activity limitations had significantly increased odds of poor mental health compared with parents of children with resolved limitations. CONCLUSIONS: Caring for a child with activity limitations affects the health, mental health, and work attendance of parents. These findings indicate that child health can importantly influence the health and work behavior of the family and that health care providers should consider a family-centered approach to care.

PMCID: PMC2743933 [Available on 2010/7/1]

PMID: 19487173 [PubMed - indexed for MEDLINE]

6. Qual Life Res. 2009 Aug;18(6):727-35. Epub 2009 May 8.

Reliability and validity of the SF-12v2 in the medical expenditure panel survey.

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OBJECTIVE: Evaluate the reliability and validity of the Medical Outcomes Study Short-Form version 2 (SF-12v2) in the 2003-2004 Medical Expenditure Panel Survey (MEPS). **RESEARCH DESIGN:** Data were collected in the self-administered mail-out questionnaire and face-to-face interviews of the MEPS (n = 20,661). Internal consistency and test-retest reliability and construct, discriminate, predictive and concurrent validity were tested. The EQ-5D, perceived health and mental health questions were used to test construct and discriminate validity. Self-reported work, physical and cognitive limits tested predictive validity and number of chronic conditions assessed concurrent validity. **RESULTS:** Both Mental Component Summary Scores (MCS) and Physical Component Summary Scores (PCS) were shown to have high internal consistency reliability ($\alpha > .80$). PCS showed high test-retest reliability (ICC = .78) while MCS demonstrated moderate reliability (ICC = .60). PCS had high convergent validity for EQ-5D items (except self-care) and physical health status ($r > .56$). MCS demonstrated moderate convergent validity on EQ-5D and mental health items ($r > .38$). PCS distinguished between groups with different physical and work limitations. Similarly, MCS distinguished between groups with and without cognitive limitations. The MCS and PCS showed perfect dose response when variations in scores were examined by participant's chronic condition status. **CONCLUSIONS:** Both component scores showed adequate reliability and validity with the 2003-2004 MEPS and should be suitable for use in a variety of proposes within this database.

PMID: 19424821 [PubMed - indexed for MEDLINE]

7. Obesity (Silver Spring). 2008 Sep;16(9):2155-62.

The effect of obesity and cardiometabolic risk factors on expenditures and productivity in the United States.

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OBJECTIVE: To examine the effect of obesity and cardiometabolic risk factors on medical expenditures and missed work days. **METHODS AND PROCEDURES:** The 2000 and 2002 Medical Expenditure Panel Survey (MEPS), a nationally representative survey of the US population, was used to estimate the marginal effect of obesity (BMI ≥ 30) on annual per-person medical expenditures and missed work days for patients with diabetes, dyslipidemia, or hypertension using multivariate regression methods controlling for age, sex, race, ethnicity, education, income, insurance, and smoking status. Maximum Likelihood Heckman Selection with Smearing retransformation was used to assess medical expenditures, and Negative Binomial regression was used for missed work days. **RESULTS:** Normal weight individuals with diabetes, dyslipidemia, or hypertension had significantly greater medical expenditures than those without the respective condition (\$6,006 (5,124-6,887), \$4,760 (4,102-5,417), \$3,911 (3,345-4,476)) and obesity significantly exacerbated this effect (\$7,986 (7,397-8,574), \$7,636 (7,072-8,200), \$6,197 (5,745-6,649); \$2007; all $P < 0.05$). In addition, diabetes, dyslipidemia, and hypertension resulted in greater missed work days (3.1 (0.94-6.21), 3.2 (0.42-7.91), 1.4 (0.0-3.52)) (all $P < 0.05$ except hypertension), which resulted in greater lost productivity (\$433, \$451, \$199) and obesity significantly exacerbated the deleterious effect on work days (8.7 (4.44-15.2), 5.5 (2.18-10.5), 4.5 (2.92-6.34)) and lost productivity (\$1,217, \$763, \$622) (all $P < 0.05$). In addition, medical expenditures increased for increasing weight category and increasing number of risk factors. **DISCUSSION:** Obesity significantly exacerbates the deleterious effect of diabetes, dyslipidemia, and hypertension on medical expenditures and productivity loss in the United States. Obesity is preventable and public health efforts need to be undertaken to prevent its alarming increase

in order to reduce the incidence and effect of cardiometabolic risk factors.

PMID: 19186336 [PubMed - indexed for MEDLINE]

8. J Cancer Surviv. 2009 Mar;3(1):43-58. Epub 2008 Dec 10.

Preventive health services and lifestyle practices in cancer survivors: a population health investigation.

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INTRODUCTION: Long term health in cancer survivors require both preventive health services and certain health behavior practices in order to prevent the major chronic diseases that can occur for any adult in the general population. Despite this we currently do not know the pattern of clinical preventive services and health behaviors of cancer survivors in the US population. The present study examines the patterns of preventive health activities in two domains: clinical preventive services and healthy lifestyle practices in a heterogeneous population of cancer survivors. **METHODS:** Longitudinal analyses of Medical Expenditure Panel Survey (MEPS) data, a nationally representative health survey, for the calendar years 2000 through 2004 were conducted. Cancer survivors were defined as individuals diagnosed with cancer in the baseline year and alive in the subsequent year. To address both provider based and behavioral health activities, two categories of care were included: clinical preventive services consisting of influenza immunization, routine physical examination, and a dental check up within the last year using the follow-up year data and healthy lifestyle practices including engaging in moderate/vigorous exercise three times per week, maintaining a body mass index (BMI) within normal range, and not currently smoking. Chi-square tests and Poisson regressions were performed to identify factors that were associated with these preventive health activities. **RESULTS:** Unadjusted rates of preventive health activities were as follows: 78% had a routine physical check up, 66% visited the dentist at least annually, and 54% received an influenza immunization. Across healthy lifestyle practices, 80% did not smoke, 52% engaged in regular exercise, and 37% maintained their BMI within normal range. Only 31% received all three clinical preventive services and only 16.5% engaged in all three healthy lifestyle practices. Across both domains of preventive health activities, age, marital status, and education were positively associated with the number of services. Presence of diabetes and poorer mental health were associated with greater number of clinical preventive services and lower number of healthy lifestyle practices. Cancer survivors with fair/poor perception of their mental health had lower number of clinical preventive services and those with fair/poor perception of physical health engaged in lower number of healthy lifestyle practices. Demographic and health status factors impacted the two domains differentially. **DISCUSSION/CONCLUSIONS:** The rates and predictors of preventive care varied by type of service/domain suggesting that individualization is needed in creating a comprehensive preventive service and lifestyle activity plan that accounts for the survivor's specific total care needs, including all comorbidities. However, it was also found that cancer survivors are less likely to engage in all types of preventive activities; a one-size-fit-all approach is not recommended for preventive health education and planning for this population. **IMPLICATIONS FOR CANCER SURVIVORS:** Our study findings suggest the need to address the overall long term healthcare of cancer survivors by prioritizing and developing individualized preventive plans to optimize care that emphasize education, self care perceptions, and incorporate other comorbidities.

PMID: 19067178 [PubMed - indexed for MEDLINE]

9. Women Health. 2008;47(4):1-17.

Disparities in preventive care by body mass index categories among women.

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OBJECTIVE: The present analyses examined the relationship of body mass index (BMI) categories to receiving age-appropriate preventive services among women. **METHOD:** Data from the Medical Expenditure Panel Survey (2003, N = 10,954) were analyzed using multiple logistic regressions. Outcomes were: age-appropriate Pap-test, mammography, colorectal, cholesterol and blood pressure screening, and influenza immunization. **RESULTS:** Overall, 3% of participants were underweight, and 26.3% were obese. Obese women were less likely to receive Pap-tests ($p < .01$), and underweight women less likely to receive mammography ($p < .001$). Dental care was less likely across all BMI groups outside the normal weight range. **CONCLUSIONS:** The association between BMI categories and preventive services use varied by type of preventive care.

PMID: 18843937 [PubMed - indexed for MEDLINE]

10. Obesity (Silver Spring). 2008 Jun 26. [Epub ahead of print]

The Effect of Obesity and Cardiometabolic Risk Factors on Expenditures and Productivity in the United States.

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Objective:To examine the effect of obesity and cardiometabolic risk factors on medical expenditures and missed work days.**Methods and Procedures:**The 2000 and 2002 Medical Expenditure Panel Survey (MEPS), a nationally representative survey of the US population, was used to estimate the marginal effect of obesity (BMI ≥ 30) on annual per-person medical expenditures and missed work days for patients with diabetes, dyslipidemia, or hypertension using multivariate regression methods controlling for age, sex, race, ethnicity, education, income, insurance, and smoking status. Maximum Likelihood Heckman Selection with Smearing retransformation was used to assess medical expenditures, and Negative Binomial regression was used for missed work days.**Results:**Normal weight individuals with diabetes, dyslipidemia, or hypertension had significantly greater medical expenditures than those without the respective condition (\$6,006 (5,124-6,887), \$4,760 (4,102-5,417), \$3,911 (3,345-4,476)) and obesity significantly exacerbated this effect (\$7,986 (7,397-8,574), \$7,636 (7,072-8,200), \$6,197 (5,745-6,649); \$2007; all $P < 0.05$). In addition, diabetes, dyslipidemia, and hypertension resulted in greater missed work days (3.1 (0.94-6.21), 3.2 (0.42-7.91), 1.4 (0.0-3.52)) (all $P < 0.05$ except hypertension), which resulted in greater lost productivity (\$433, \$451, \$199) and obesity significantly exacerbated the deleterious effect on work days (8.7 (4.44-15.2), 5.5 (2.18-10.5), 4.5 (2.92-6.34)) and lost productivity (\$1,217, \$763, \$622) (all $P < 0.05$). In addition, medical expenditures increased for increasing weight category and increasing number of risk factors.**Discussion:**Obesity significantly exacerbates the deleterious effect of diabetes, dyslipidemia, and hypertension on medical expenditures and productivity loss in the United States. Obesity is preventable and public health efforts need to be undertaken to prevent its alarming increase in order to reduce the incidence and effect of cardiometabolic risk factors.Obesity (2008) doi:10.1038/oby.2008.325.

PMID: 18719635 [PubMed - as supplied by publisher]

11. Pediatrics. 2008 Aug;122(2):e480-486.

Access to and use of paid sick leave among low-income families with children.

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OBJECTIVE: The ability of employed parents to meet the health needs of their children may depend on their access to sick leave, especially for low-income workers, who may be afforded less flexibility in their work schedules to accommodate these needs yet also more likely to have children in poor health. Our goal was to provide rates of access to paid sick leave and paid vacation leave among low-income families with children and to assess whether access to these benefits is associated with parents' leave taking to care for themselves or others. **METHODS:** We used a sample of low-income families (<200% of the federal poverty level) with children aged 0 to 17 years in the 2003 and 2004 Medical Expenditure Panel Survey to examine bivariate relationships between access to and use of paid leave and characteristics of children, families, and parents' employer. **RESULTS:** Access to paid leave was lower among children in low-income families than among those in families with higher income. Within low-income families, children without ≥ 1 full-time worker in the household were especially likely to lack access to this benefit, as were children whose parents work for small employers. Among children whose parents had access to paid sick leave, parents were more likely to take time away from work to care for themselves or others. This relationship is even more pronounced among families with the highest need, such as children in fair or poor health and children with all parents in full-time employment. **CONCLUSIONS:** Legislation mandating paid sick leave could dramatically increase access to this benefit among low-income families. It would likely diminish gaps in parents' leave taking to care for others between families with and without the benefit. However, until the health-related consequences are better understood, the full impact of such legislation remains unknown.

PMID: 18676534 [PubMed - indexed for MEDLINE]

12. J Occup Environ Med. 2008 May;50(5):527-34.

The association of diabetes with job absenteeism costs among obese and morbidly obese workers.

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Comment in:

J Occup Environ Med. 2008 Oct;50(10):1094; author reply 1094-5.

OBJECTIVE: To determine the extent to which absenteeism costs associated with obesity and morbid obesity are traceable to diabetes, and whether obesity and morbid obesity remain predictors of absenteeism costs after controlling for diabetes. **METHODS:** Data from the Medical Expenditure Panel Survey for 2000-2004 are examined. Outcomes are probability of missing work in the previous year and number of workdays missed. Predictors include diabetes, obesity and morbid obesity, age, education, occupation category, and race. Models are estimated by gender. **RESULTS:** Probability of missing work in the past year, number of days missed, and absenteeism costs rise significantly with diabetes among the obese and morbidly obese, with costs higher for the morbidly obese, after controlling

for diabetes. CONCLUSIONS: Diabetes is strongly predictive of absenteeism among obese and morbidly obese workers. Employer efforts to reduce absenteeism should include consideration of anti-obesity interventions and diabetes prevention.

PMID: 18469621 [PubMed - indexed for MEDLINE]

13. JAMA. 2008 Feb 13;299(6):656-64.

Expenditures and health status among adults with back and neck problems.

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Erratum in:

JAMA. 2008 Jun 11;299(22):2630.

Comment in:

JAMA. 2008 Jun 11;299(22):2627; author reply 2627-8.

CONTEXT: Back and neck problems are among the symptoms most commonly encountered in clinical practice. However, few studies have examined national trends in expenditures for back and neck problems or related these trends to health status measures. OBJECTIVES: To estimate inpatient, outpatient, emergency department, and pharmacy expenditures related to back and neck problems in the United States from 1997 through 2005 and to examine associated trends in health status. DESIGN AND SETTING: Age- and sex-adjusted analysis of the nationally representative Medical Expenditure Panel Survey (MEPS) from 1997 to 2005 using complex survey regression methods. The MEPS is a household survey of medical expenditures weighted to represent national estimates. Respondents were US adults (> 17 years) who self-reported back and neck problems (referred to as "spine problems" based on MEPS descriptions and International Classification of Diseases, Ninth Revision, Clinical Modification definitions). MAIN OUTCOME MEASURES: Spine-related expenditures for health services (inflation-adjusted); annual surveys of self-reported health status. RESULTS: National estimates were based on annual samples of survey respondents with and without self-reported spine problems from 1997 through 2005. A total of 23 045 respondents were sampled in 1997, including 3139 who reported spine problems. In 2005, the sample included 22 258 respondents, including 3187 who reported spine problems. In 1997, the mean age- and sex-adjusted medical costs for respondents with spine problems was \$4695 (95% confidence interval [CI], \$4181-\$5209), compared with \$2731 (95% CI, \$2557-\$2904) among those without spine problems (inflation-adjusted to 2005 dollars). In 2005, the mean age- and sex- adjusted medical expenditure among respondents with spine problems was \$6096 (95% CI, \$5670-\$6522), compared with \$3516 (95% CI, \$3266-\$3765) among those without spine problems. Total estimated expenditures among respondents with spine problems increased 65% (adjusted for inflation) from 1997 to 2005, more rapidly than overall health expenditures. The estimated proportion of persons with back or neck problems who self-reported physical functioning limitations increased from 20.7% (95% CI, 19.9%-21.4%) to 24.7% (95% CI, 23.7%-25.6%) from 1997 to 2005. Age- and sex-adjusted self-reported measures of mental health, physical functioning, work or school limitations, and social limitations among adults with spine problems were worse in 2005 than in 1997. CONCLUSIONS: In this survey population, self-reported back and neck problems accounted for a large proportion of health care expenditures. These spine-related expenditures have increased substantially from 1997 to 2005, without evidence of corresponding improvement in self-assessed health status.

PMID: 18270354 [PubMed - indexed for MEDLINE]

14. J Occup Environ Med. 2007 Dec;49(12):1367-75.

Medical costs and sources of payment for work-related injuries among Hispanic construction workers.

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OBJECTIVE: To assess medical costs of occupational injuries and sources of payment among Hispanic and non-Hispanic construction workers. METHODS: More than 7000 construction workers, including 1833 Hispanic workers were examined using the Medical Expenditure Panel Survey, 1996 to 2002. Univariate and multivariate analyses were conducted using SUDAAN. RESULTS: Annually, work-related injuries in construction cost \$1.36 billion (2002 dollars), with 46% paid by workers' compensation. Compared with non-Hispanic workers, Hispanic workers were 53% more likely to have medical conditions resulting from work-related injuries, but 48% less likely to receive payment for medical costs from workers' compensation ($P < 0.05$). CONCLUSIONS: This study suggests an urgent need to reform the current workers' compensation system to reduce the burden shifted to injured workers and society. Such reforms should include easier access and more assistance for Hispanic and other immigrant workers.

PMID: 18231083 [PubMed - indexed for MEDLINE]

15. J Occup Environ Med. 2007 Dec;49(12):1317-24.

Occupation-specific absenteeism costs associated with obesity and morbid obesity.

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OBJECTIVE: To document the absenteeism costs associated with obesity and morbid obesity by occupation. METHODS: Data from the Medical Expenditure Panel Survey for 2000-2004 are examined. The outcomes are probability of missing any work in the previous year and number of days of work missed in the previous year. Predictors include clinical weight classification, age, education, and race. Models are estimated separately by gender and occupation category. RESULTS: The probability of missing work in the past year, number of days missed, and costs of absenteeism rise with clinical weight classification for both women and men, and vary across occupation. Absenteeism costs associated with obesity total \$4.3 billion annually in the United States. CONCLUSION: Substantial absenteeism costs are associated with obesity and morbid obesity. Employers should explore workplace interventions and health insurance expansions to reduce these costs.

PMID: 18231079 [PubMed - indexed for MEDLINE]

16. Value Health. 2007 Nov-Dec;10(6):443-50.

Productivity costs associated with cardiometabolic risk factor clusters in the United States.

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OBJECTIVE: Cardiometabolic risk factors such as overweight/obesity, hyperlipidemia, diabetes, and hypertension are prone to cluster together in the same individual and result in an elevated risk of cardiovascular disease and mortality. The purpose of this study was to examine and quantify the impact of cardiometabolic risk factor clusters independent of heart disease on productivity in a nationally representative sample of US adults. METHODS: The current study estimated the impact of cardiometabolic risk factor clusters on missed work days and bed days, controlling for sociodemographic characteristics, comorbidity, and smoking status in a nationally representative, pooled 2000 and 2002 Medical Expenditure Panel Survey sample. Cardiometabolic risk factor clusters included BMI ≥ 25 and two of the following three: diabetes, hyperlipidemia, and/or hypertension. All estimates were expressed in \$US 2005. Sensitivity analyses were conducted to examine the impact of varying assumptions on the results. RESULTS: After controlling for differences in sociodemographics, smoking and comorbidity, individuals with cardiometabolic risk factor clusters missed 179% more work days and spent 147% more days in bed (in addition to lost work days) than those without. Lost work days and bed days resulted in \$17.3 billion annually in lost productivity attributable to cardiometabolic risk factor clusters in the United States. Sensitivity analyses resulted in a range of annual lost productivity costs from \$3.2 to \$23.1 billion. CONCLUSIONS: Common cardiometabolic risk factor clusters have a significant deleterious impact on the US economy, resulting in \$17.3 billion in lost productivity.

PMID: 17970926 [PubMed - indexed for MEDLINE]

17. Med Care. 2007 Jul;45(7):602-9.

Global self-rated mental health: associations with other mental health measures and with role functioning.

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BACKGROUND: A large body of research shows that global self-rated health is related to important outcome variables. Increasingly, studies also obtain a single global self-rating of mental health, but understanding of what this item measures is limited. OBJECTIVE: To clarify interpretation of self-reported mental health, we examine its associations with other validated measures of mental health and role functioning. RESEARCH DESIGN: We conducted cross-sectional analyses of nationally representative data from the Medical Expenditure Panel Survey. MEASURES: In-person household interviews obtained data on global self-reported mental health and any limitations in work, school, or housekeeping activities. Adult respondents (N = 11,109) completed the SF-12 health status survey, the K6 scale of nonspecific psychologic distress, and the Patient Health Questionnaire (PHQ-2) depression screener in a self-administered questionnaire. We used the SF-12 Mental Component Summary and the mental health subscale. Analyses examined associations among mental health measures and regressed activity limitations, and the SF-12 physical and emotional role functioning scales on mental health measures, controlling for demographics and selected chronic conditions. RESULTS: The 4 multi-item mental health measures were strongly correlated with each other ($r > 0.69$), but correlated less strongly with the self-reported mental health item (r approximately 0.4). In an exploratory factor analysis, self-reported mental health loaded on both mental and physical health factors. In multivariate analyses, each mental health variable was significantly associated with activity limitations and with role functioning, but the association of self-reported mental health with emotional role functioning was relatively weak. CONCLUSIONS: Although global self-rated mental health is related to symptoms of psychologic distress, it cannot be considered to be a substitute for them.

PMID: 17571008 [PubMed - indexed for MEDLINE]

18. AJR Am J Roentgenol. 2006 Nov;187(5):1160-5.

How could the radiologist shortage have eased?

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OBJECTIVE: In 2000, a severe shortage of diagnostic radiologists existed in the United States. We seek to explain how the shortage eased greatly by 2003, despite the fact that the total imaging workload usually grows much faster than the number of radiologists in practice, which would be expected to intensify the shortage. **MATERIALS AND METHODS:** We measured the contribution of eight possible explanations, predominantly using simple quantitative analyses. We analyzed published data, data on the volume of imaging from Medicare and from the Medical Expenditure Panel Survey, data on residents and fellows from the American College of Radiology's (ACR) membership department, data on residents from the American Board of Radiology, data from the ACR's 1995 and 2003 Surveys of Radiologists, and data from interviews about nighthawk services. **RESULTS:** From these data sources, we determined the following. Total imaging and imaging by radiologists continued to grow rapidly--by > 20% from 2000 to 2003 (measured in relative value units), which was somewhat faster than in the years preceding 2000 when the shortage was building. Foreign imagers took on a negligible portion of the workload. No reductions in retirement occurred among radiologists during 2000-2003, a 10-20% decrease in the annual number of residency graduates occurred, and no increase in residents going directly into the workforce rather than taking a fellowship was noted. Radiologists' average annual work hours were relatively constant, increasing by perhaps 2%. Work done per hour--that is, productivity--increased sharply (by approximately 15%) during this period. **CONCLUSION:** Increased productivity is the predominant explanation of how the radiologist shortage eased. The contribution of other factors was, in comparison, small or even in the opposite direction.

PMID: 17056900 [PubMed - indexed for MEDLINE]

19. Ment Retard. 2006 Aug;44(4):249-59.

Women with cognitive limitations living in the community: evidence of disability-based disparities in health care.

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Using data from the Medical Expenditure Panel Survey for 2000 and 2002, we compared potential and realized use of health care for a national sample of working-age women with cognitive disabilities. Despite having similar likelihoods of potential access to health care as compared to nondisabled women, they had markedly worse rates of receiving cervical cancer and breast cancer screenings, similar rates of routine check-ups, and yet had better rates of receipt of influenza shots. They were also less likely to be satisfied with their medical care than were nondisabled women. Policy recommendations are suggested to address the disability-based disparities in reproductive health care for women with cognitive limitations.

PMID: 16834462 [PubMed - indexed for MEDLINE]

20. Headache. 2006 Apr;46(4):563-76.

Workplace absenteeism and aspects of access to health care for individuals with migraine headache.

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OBJECTIVES: (1) To examine the relationship between access to care and the number of missed workdays, and (2) to determine how this relationship is confounded by the presence of having health insurance and health care use among migraineurs. **DESIGN/METHODS:** This retrospective, pooled, cross-sectional study used 1996 to 1999 Medical Expenditure Panel Survey data. Employed migraineurs who were between 18 and 65 years of age were included. Individuals reporting a neoplastic or an acute pain condition were excluded. An access to care index was developed using Rasch Partial Credit Analysis. A 2-part model was used to estimate the annual number of missed workdays. **RESULTS:** Of the 703 migraineurs, 538 (77%) reported missing work time. Of those who missed work, the mean (SE) annual number of missed workdays was 4.4 (.39). A higher level of access to care ($P = .025$) and presence of depression ($P = .033$) were significantly associated with missing a greater number of workdays. We created a proxy for migraine severity based on migraine-related prophylactic medication use and hospitalization(s). Severe migraines were significantly ($OR = 2.01$, $SE = .51$, $P = .006$) associated with an increased likelihood to miss workdays. When health insurance was included in the model, a higher level of access to care was significantly associated with the increased likelihood to miss workdays ($OR = 1.04$, $SE = .021$, $P = .05$). From the original model, the odds ratio (1.035 to 1.040) and the SE (.020 to .021) increased slightly. When health care use was included in the model and health insurance was removed, (1) emergency department visits were significantly ($P = .006$) associated with missing a greater number of workdays, and (2) access to care was significantly associated with missing a greater number of workdays ($P = .028$). When having health insurance and health care use were simultaneously included in the model, a higher level of access to care was significantly associated with greater likelihood to miss work ($OR = 1.040$, $SE = .0212$, $P = .05$) and missing a greater number of workdays ($P = .005$). However, a change of 1 standard deviation in the score would be associated with a 12% change in the odds to miss work and only 8 percentage points change in the number of missed workdays. **CONCLUSIONS:** Contrary to expectations, a higher level of access to care is significantly associated with an increased likelihood to miss work and with missing a greater number of workdays. Depression, migraine severity, and health care use are important explanatory variables. Having health insurance may be a confounder between access to care and workplace absenteeism.

PMID: 16643549 [PubMed - indexed for MEDLINE]

21. Med Decis Making. 2006 Jan-Feb;26(1):18-29.

Estimating the association between SF-12 responses and EQ-5D utility values by response mapping.

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BACKGROUND: Reliably mapping from generic or disease-specific health status measures into health state utilities would assist health economists. Existing studies mainly use ordinary least squares (OLS) regression equations to predict utility values for particular health states. The authors examine an alternative

approach to map between 2 generic health status instruments, the SF-12 and the EQ-5D. METHODS: Multinomial logit regression is used to estimate the probability that a respondent will select a particular level of response to questions in the EQ-5D, using individual question responses and summary scores from the SF-12 as predictors. Monte Carlo simulation methods are used to generate predicted EQ-5D responses, and utility scores (tariffs) are then attached. Results are compared with an alternative approach based on direct mapping to utility scores using OLS. DATA: The authors estimate equations using 12,967 adult survey responses—from the 2000 US Medical Expenditure Panel Survey. They report mean squared error (MSE) and mean absolute error (MAE) of their predicted utilities within this sample, and out-of-sample using 13,304 adults from the 1996 Health Survey for England. RESULTS: The authors obtain an in-sample and out-of-sample MSE of 0.03, compared with 0.02 for the OLS approach. Their MAE of 0.11 is similar to OLS results. The authors' method predicts group mean utility scores and differentiates between groups with or without known existing illness. CONCLUSIONS: The authors' approach has higher MSE than the direct OLS approach but gives more descriptive data on domains of health effects. Further out of sample prediction work will help test the validity of these methods.

PMID: 16495197 [PubMed - indexed for MEDLINE]

22. Am J Manag Care. 2005 Oct;11(10):641-6.

A cost-benefit simulation model of coverage for bariatric surgery among full-time employees.

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OBJECTIVE: To use a simulation model to estimate the costs and benefits of bariatric surgery among full-time employees. STUDY DESIGN: Multivariate regression analysis of nationally representative survey data sets to estimate the costs of obesity and a simulation model of the number of years until breakeven under alternate assumptions about the costs and benefits of bariatric surgery. METHODS: We used a 2-part model to estimate medical costs of obesity based on the 2000-2001 Medical Expenditure Panel Survey. We estimated work loss with a negative binomial regression based on the 2002 National Health Interview Survey. Using these results, we simulated the expected number of years required for a bariatric surgery procedure to become cost saving. RESULTS: Nine percent of the full-time US workforce, or 29% of the obese workforce, is eligible for bariatric surgery. Obese workers eligible for bariatric surgery have 5.1 ($P < .01$) additional days of work loss and USD 2230 (in 2004 dollars) ($P < .01$) higher annual medical costs than persons of normal weight. CONCLUSION: Although the cost implications of bariatric surgery among full-time employees depend on many factors, the simulations reveal that 5 or more years of follow-up are most likely required for these operations to become cost saving unless the employee bears a significant fraction of the total costs of the surgery.

PMID: 16232005 [PubMed - indexed for MEDLINE]

23. J Gerontol A Biol Sci Med Sci. 2005 Sep;60(9):1184-9.

Obesity and mortality in elderly nursing home residents.

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BACKGROUND: The increasing prevalence of obese Americans over the last several decades has been well documented. A number of studies have analyzed the relationship of obesity and mortality in community-dwelling elderly persons, but little work has analyzed this issue within the institutionalized elderly population. METHODS: In an analysis of the 1996 Medical Expenditures Panel Study, we used logistic regression methods to examine the excess mortality associated with obesity, as defined by body mass index (BMI), over calendar year 1996 for existing and new nursing home residents. RESULTS: Across the total sample of existing and new residents, there was not a statistically significant difference in mortality for "obese" (BMI > 28 kg/m²) nursing home residents (odds ratio [OR] 0.89; 95% confidence interval [CI], 0.67-1.17) compared to the "normal" group, but obesity was associated with significantly less mortality among existing residents (OR 0.75; 95% CI, 0.57-0.98). For "thin" (BMI < 19 kg/m²) nursing home residents, there was significantly higher mortality among both current residents (OR 1.40; 95% CI, 1.11-1.77) and new admissions (OR 1.63; 95% CI, 1.17-2.28). For "very obese" (BMI > 35 kg/m²) individuals, there was a significantly higher mortality among new admissions (OR 1.75; 95% CI, 1.10-2.80), but not existing residents (OR 0.67; 95% CI, 0.38-1.15). These effects persisted for "very obese" individuals (BMI > 40 kg/m²). CONCLUSIONS: Very obese nursing home residents experience higher mortality early in their stay, but this association diminishes over time with some evidence suggesting that a higher BMI may be protective among long-stay residents.

PMID: 16183961 [PubMed - indexed for MEDLINE]

24. J Am Dent Assoc. 2005 Feb;136(2):221-8.

An analysis of preventive dental visits by provider type, 1996.

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BACKGROUND: Understanding preventive dental visit utilization patterns facilitates planning of the dental health services delivery system. The authors examine these patterns by analyzing the receipt of preventive dental services in the United States by type of dental provider. METHODS: The authors analyzed data from the 1996 Medical Expenditure Panel Survey (MEPS) for the U.S. community-based population. They developed national estimates for the population with preventive dental visits by provider type, including the population with a preventive dental visit and mean number of preventive dental visits per person for socioeconomic and demographic categories. RESULTS: Respondents who are white, are older, are female, have dental insurance, are from higher income and education backgrounds, and reside in small metropolitan areas were more likely ($P < .05$) to receive preventive care from a dental hygienist than from a dentist. CONCLUSION: MEPS data showed that people's socioeconomic background and other demographic factors were associated with having a preventive dental visit with a dentist or dental hygienist. These factors also influence the per-person number of preventive visits by type of dental practitioner. These elements must be considered when planning for future dental work force needs. PRACTICE IMPLICATIONS: Estimating future dental work force needs through this analysis assists dentists in meeting patient demand and maximizing the productive output of all services rendered in their practices, including preventive services.

PMID: 15782529 [PubMed - indexed for MEDLINE]

25. J Child Adolesc Psychopharmacol. 2005 Feb;15(1):88-96.

Race/ethnicity and insurance status as factors associated with ADHD treatment patterns.

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Using data from the 1997-2000 Medical Expenditure Panel Survey (MEPS), disparities in different stages of attention-deficit/hyperactivity disorder (ADHD) health care were investigated, from initial detection to follow-up physician visits and psychotherapy appointments. Differences in ADHD diagnoses, stimulant usage, and health-care visits were examined by age, race/ethnicity, region, and type of insurance. Major significant findings were: (1) children without insurance had lower levels of care in all stages relative to children with insurance, (2) Hispanic-American and African-American children were less likely to be diagnosed with ADHD by parent report than were white American children, and (3) African-American youths with ADHD were less likely to initiate stimulant medication relative to white American children. Implications for expanding childhood health insurance coverage, and for future work on minority mental health care in regard to ADHD, are discussed.

PMID: 15741790 [PubMed - indexed for MEDLINE]

26. Prev Chronic Dis. 2005 Jan;2(1):A11. Epub 2004 Dec 15.

Direct and indirect costs of asthma in school-age children.

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INTRODUCTION: Asthma is one of the most common chronic diseases of childhood and is the most common cause of school absenteeism due to chronic conditions. The objective of this study is to estimate direct and indirect costs of asthma in school-age children. **METHODS:** Using data from the 1996 Medical Expenditure Panel Survey, we estimated direct medical costs and school absence days among school-age children who had treatment for asthma during 1996. We estimated indirect costs as costs of lost productivity arising from parents' loss of time from work and lifetime earnings lost due to premature death of children from asthma. All costs were calculated in 2003 dollars. **RESULTS:** In 1996, an estimated 2.52 million children aged five to 17 years received treatment for asthma. Direct medical expenditure was 1009.8 million dollars (401 dollars per child with asthma), including payments for prescribed medicine, hospital inpatient stay, hospital outpatient care, emergency room visits, and office-based visits. Children with treated asthma had a total of 14.5 million school absence days; asthma accounts for 6.3 million school absence days (2.48 days per child with asthma). Parents' loss of productivity from asthma-related school absence days was 719.1 million dollars (285 dollars per child with asthma). A total of 211 school-age children died of asthma during 1996, accounting for 264.7 million lifetime earnings lost (105 dollars per child with asthma). Total economic impact of asthma in school-age children was 1993.6 million dollars (791 dollars per child with asthma). **CONCLUSION:** The economic impact of asthma on school-age children, families, and society is immense, and more public health efforts to better control asthma in children are needed.

PMCID: PMC1323314

PMID: 15670464 [PubMed - indexed for MEDLINE]

27. Med Care. 2004 May;42(5):456-64.

The admission of blacks to high-deficiency nursing homes.

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BACKGROUND: Although the presence of racial and ethnic disparities in nursing home care has been established, there is no work to date examining the relationship between race and government-cited nursing home deficiencies. Deficiencies are evaluations of poor quality made by state surveyors under the federal nursing home certification regulations. **OBJECTIVE:** The objective of this study was to examine whether blacks and other minority elders are disproportionately admitted to high-deficiency nursing homes. **RESEARCH DESIGN:** This observational study used a merged file containing individual-level data from the Nursing Home Component of the 1996 Medical Expenditures Panel Study (MEPS) and facility-level quality information from the Online Survey, Certification, and Reporting System. **SUBJECTS:** The subjects were a 1996 nationally representative sample of 2690 nursing home admissions from the MEPS. **MEASURES:** The key variables of interest were the race and ethnicity of newly admitted nursing home residents and the facility's count of government-assigned deficiency citations. **RESULTS:** Controlling for individual, facility, and market characteristics, blacks were disproportionately admitted to nursing homes with a higher number of deficiencies. In a model that controlled for resident and home characteristics, blacks were admitted to nursing homes that exceeded the mean state deficiency level by 1.32. **CONCLUSIONS:** Policymakers might wish to consider initiatives that provide better quality information to black nursing home consumers, and, to the extent that black consumers lack choice, provide greater resources and better oversight of facilities that care for predominantly black residents.

PMID: 15083106 [PubMed - indexed for MEDLINE]

28. J Occup Rehabil. 2004 Mar;14(1):1-11.

Employment and disability: evidence from the 1996 medical expenditures panel survey.

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The relationship between employment and disability has gained national attention, as the ability to maintain employment is inconsistent among those with limitations. This cross-sectional study of employment among individuals (N = 1691, age 21-62 years) with self-reported limitations in the 1996 Medical Expenditures Panel Survey seeks to identify predictors of employment despite physical and/or cognitive limitations. Two predictive models of employment including 10 variables are explored; 1 included insurance ($\chi^2 = 3856.85$, $p < 0.00$) and the other removed the insurance variable ($\chi^2 = 280.21$, $p < 0.00$). Individuals with limitations who are employed are more likely to have a college-level education, have better physical and mental health perceptions and have private insurance. This analysis demonstrates that people do work despite reported activity, functional or sensory limitations and that socioeconomic factors are crucial in why someone is able to attain employment.

PMCID: PMC1805460

PMID: 15055500 [PubMed - indexed for MEDLINE]

29. Med Care. 2003 Jul;41(7 Suppl):III75-III86.

Demographic variation in SF-12 scores: true differences or differential item functioning?

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BACKGROUND: Demographic differences have been reported in summary measures of physical and mental health based on the SF-12 instrument. **OBJECTIVES:** This study examines the extent to which differential item functioning (DIF) contributes to observed subgroup differences in health status. DIF refers to situations in which the psychometric properties of items are not invariant across different groups. The presence of DIF confounds interpretation of subgroup differences. **SUBJECTS:** A national sample of 11,626 adult respondents in the 2000 Medical Expenditure Panel Survey who completed a self-administered questionnaire. **MEASURES:** In addition to the SF-12, we collected data on demographic characteristics (age, gender, education, and race/ethnicity) and whether the person had ever been diagnosed with six chronic medical conditions. **RESULTS:** Multiple-indicator multiple-cause latent variable models showed significant differences in physical health by gender, age, and education. Adjusting for DIF reduced but did not eliminate age and education differences. However, for mental health, adjusting for DIF resulted in Black-White differences becoming nonsignificant, and the effect for the oldest age group switched from positive to negative. Race/ethnicity was not associated with physical health status. **CONCLUSIONS:** Age group comparisons of mental health may be particularly affected by DIF. Differences in education, as well as age and gender, need to be controlled when making group comparisons. Additional work is needed to understand factors that give rise to demographic differences in reported health status.

PMID: 12865729 [PubMed - indexed for MEDLINE]

30. Value Health. 2003 Mar-Apr;6(2):107-15.

Economic costs of influenza-related work absenteeism.

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BACKGROUND: Influenza vaccinations are currently advocated only for individuals over age 50. However, vaccination of all working-age people may be warranted based on reduced absenteeism from work. **OBJECTIVE:** This study aims to quantify the association between lost workdays and influenza, controlling for other factors. A secondary aim of the study is to assess the net benefit of expanded vaccination in a workplace setting. **RESEARCH DESIGN:** Multivariate regression analyses of the 1996 Medical Expenditure Panel Survey Household Component are used to estimate the number of workdays missed because of influenza-like illness (ILI) when controlling for other health, demographic, and employment factors. Mean productivity costs are measured in terms of absences from work and valued in dollar terms. The net benefit of influenza vaccination is estimated using a simple decision analysis. **SUBJECTS AND MEASURES:** Health, demographic, and employment data for employed individuals between the ages of 22 and 64 years are analyzed. **RESULTS:** The average number of workdays missed due to ILI was 1.30 days, and the average work loss was valued at 137 US dollars per person. The vaccine strategy was not preferred in the baseline analysis; however, this result was sensitive to assumptions regarding the incidence of influenza, the cost of delivering the vaccine, and the productivity impact of worker absenteeism. Moreover, nonproductivity benefits of vaccination were omitted. **CONCLUSIONS:** The economic attractiveness of expanded investment in influenza vaccination hinges on employer- and population-specific assumptions. Our analysis provides a simple framework within which competing considerations of disease epidemiology, worker

productivity, and economic cost may be weighed.

PMID: 12641861 [PubMed - indexed for MEDLINE]

31. Health Aff (Millwood). 2001 Sep-Oct;20(5):241-51.

Are the benefits of newer drugs worth their cost? Evidence from the 1996 MEPS.

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Comment in:

Health Aff (Millwood). 2007 May-Jun;26(3):880-6.

Health Aff (Millwood). 2001 Nov-Dec;20(6):306-7.

This study analyzes data on prescribed medicines from the 1996 Medical Expenditure Panel Survey (MEPS) to examine the association between the use of newer medicines and morbidity, mortality, and health spending. We find that people consuming newer drugs were significantly less likely to die by the end of the survey and were significantly less likely to experience work-loss days than were people consuming older drugs. Our most notable finding, however, is that use of newer drugs tends to lower all types of nondrug medical spending, resulting in a substantial net reduction in the total cost of treating a given condition.

PMID: 11558710 [PubMed - indexed for MEDLINE]

32. Dev Health Econ Public Policy. 1998;6:35-49.

The demand for health: an empirical test of the Grossman model using panel data.

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Grossman derives the demand for health from an optimal control model in which health capital is both a consumption and an investment good. In his approach, the individual chooses his level of health and therefore his life span. Initially an individual is endowed with a certain amount of health capital, which depreciates over time but can be replenished by investments like medical care, diet, exercise, etc. Therefore, the level of health is not treated as exogenous but depends on the amount of resources the individual allocates to the production of health. The production of health capital also depends on variables which modify the efficiency of the production process, therefore changing the shadow price of health capital. For example, more highly educated people are expected to be more efficient producers of health who thus face a lower price of health capital, an effect that should increase their quantity of health demanded. While the Grossman model provides a suitable theoretical framework for explaining the demand for health and the demand for medical services, it has not been too successful empirically. However, empirical tests up to this date have been exclusively based on cross section data, thus failing to take the dynamic nature of the Grossman model into account. By way of contrast, the present paper contains individual time series information not only on the utilization of medical services but also on income, wealth, work, and life style. The data come from two surveys carried out in 1981 and 1993 among members of a Swiss sick fund, with the linkage between the two waves provided by insurance records. In all, this comparatively rich data set holds the promise of permitting the Grossman model to be adequately tested for the first time.

PMID: 10662408 [PubMed - indexed for MEDLINE]

33. Telemed J. 1998 Winter;4(4):293-304.

A cost-effectiveness analysis of shipboard telemedicine.

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BACKGROUND: The U.S. Navy is considering the installation of telemedicine equipment on more than 300 ships. Besides improving the quality of care, benefits would arise from avoiding medical evacuations (MEDEVACs) and returning patients to work more quickly. Because telemedicine has not yet been fully implemented by the Navy, we relied on projections of anticipated savings and costs, rather than actual expenditures, to determine cost-effectiveness. OBJECTIVES: To determine the demand for telemedicine and the cost-effectiveness of various technologies (telephone and fax, e-mail and Internet, video teleconferencing (VTC), teleradiology, and diagnostic instruments), as well as their bandwidth requirements. METHODS: A panel of Navy medical experts with telemedicine experience reviewed a representative sample of patient visits collected over a 1-year period and estimated the man-day savings and quality-of-care enhancements that might have occurred had telemedicine technologies been available. The savings from potentially avoiding MEDEVACs was estimated from a survey of ships' medical staff. These sample estimates were then projected to the medical workload of the entire fleet. Off-the-shelf telemedicine equipment prices were combined with installation, maintenance, training, and communication costs to obtain the lifecycle costs of the technology. RESULTS AND CONCLUSIONS: If telemedicine were available to the fleet, ship medical staffs would initiate nearly 19,000 consults in a year-7% of all patient visits. Telemedicine would enhance quality of care in two-thirds of these consults. Seventeen percent of the MEDEVACs would be preventable with telemedicine (representing 155,000 travel miles), with a savings of \$4400 per MEDEVAC. If the ship's communication capabilities were available, e-mail and Internet and telephone and fax would be cost-effective on all ships (including small ships and submarines). Video teleconferencing would be cost-effective on large ships (aircraft carriers and amphibious) only. Teleradiology would be cost-effective on carriers only. Telemedicine's bandwidth requirement is small-1% of a month's time. However, if the ships' medical departments need to resort to a commercial satellite, E-mail and Internet would be the only telemedicine modality generating enough monetary benefits to offset the costs.

PMID: 10220469 [PubMed - indexed for MEDLINE]

34. Am J Ther. 1997 Jul-Aug;4(7-8):259-73.

Calcium and bone health in children: a review.

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The recent national survey shows that dietary calcium intake is variable in children and adolescents, with about half consuming less than the intake recommended by the Recommended Dietary Allowances or the National Institutes of Health Consensus Panel on Optimal Calcium Intake. Osteoporosis is a major disease in adults, resulting in 1.5 million fractures and over \$10 billion in medical expenditures annually. Osteoporosis is of growing interest in the research, public health, and health consumer-lay communities and to the many primary care and specialty physicians and other health care professionals who work directly with patients with osteoporosis. Treatment of osteoporosis to prevent fracture is

improving with newly introduced medications and approaches, but it is not as effective as needed. Effective prevention strategies are critical to decreasing the morbidity and mortality of the disease. Peak bone mass, obtained during childhood and adolescent growth, is one of the major determinants for the risk of developing osteoporosis and fracture. Genetic potential, gender, ethnic origins, nutritional factors such as calcium and vitamin D intake, growth patterns, and physical activity influence the accretion of bone mineral during childhood and determine the peak bone mass. Randomized, placebo-controlled intervention trials conducted in healthy children who are consuming amounts of dietary calcium in accordance with the US recommendations show that bone mass can be increased by calcium supplementation. Retrospective studies in adults suggest that childhood calcium intake is associated with risk of later osteoporosis and fracture. In addition, common childhood clinical conditions, such as low calcium intake related to lactose intolerance or the use of glucocorticoid medications for chronic illness, are risk factors for the development of osteoporosis in childhood, not just in adulthood. An approach for physicians and other pediatric care providers for screening children for low dietary calcium intake, low bone density, and other osteoporosis risk factors using dual-energy X-ray absorptiometry and the use of calcium supplementation in clinical care are presented.

PMID: 10423619 [PubMed - indexed for MEDLINE]

35. Pediatrics. 1996 Aug;98(2 Pt 1):226-30.

Parental availability for the care of sick children.

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OBJECTIVE. Parents have always played a critical role in the care of sick children. Although parents' roles remain crucial to children's health, parental availability has declined during the past half century. The percentage of women with preschool children who work has risen almost fivefold in 45 years from 12% in 1947 to 58% in 1992. The percentage of women in the paid work force with school-aged children has almost tripled in the same period, from 27.3% to 75.9%. Research has examined the effects of a variety of parental work conditions on children. However, past research has not examined how working conditions affect the ability of parents to care for their sick children. In this article, we examine how often the children of working parents get sick and whether parents receive enough paid leave to care for their sick children. **METHODOLOGY.** This analysis makes use of two national surveys, which provide complementary information regarding the care of sick children. The National Longitudinal Survey of Youth is a longitudinal survey of a nationally representative probability sample of 12,686 men and women; the National Medical Expenditure Survey is a panel survey of 34,459 people. First, we estimated the family illness burden. Second, we looked in detail at the number of days of sick leave mothers had. Third, we examined whether mothers who had sick leave had it consistently during a 5-year period. Finally, we conducted a logistic regression to determine what factors were significant predictors of both lacking sick leave. **RESULTS.** More than one in three families faced a family illness burden of 2 weeks or more each year. Yet, 28% of mothers had sick leave none of the time they were employed between 1985 and 1990. Employed mothers of children with chronic conditions had less sick leave than other employed mothers. Thirty-six percent of mothers whose children had chronic conditions had sick leave none of the time they were employed. Although 20% of working parents who did not live in poverty lacked sick leave, 38% of parents who did live in poverty lacked sick leave. The problem is also more marked for nonwhite parents. Although 23% of working white parents lacked paid sick leave, 31% of nonwhite parents lacked sick leave. One in six families that lacked sick leave had to cover for more than 4 weeks of family

illness during the year. CONCLUSION. In 1993, the US Congress passed the Family and Medical Leave Act (FMLA). However, by limiting the medical leave to the care of major illnesses, primarily those requiring hospitalization, the FMLA does not address the majority of children's sick care needs. For the common childhood illnesses that are not covered by the FMLA, employed parents often must rely on their sick leave if they are to care for their sick children themselves. Yet, we found that many employed parents lack sick leave. This is particularly true of parents of children with chronic conditions and poor and minority families.

PMID: 8692622 [PubMed - indexed for MEDLINE]

1. Matern Child Health J.. [Epub ahead of print]

Household Exposure to Secondhand Smoke is Associated with Decreased Physical and Mental Health of Mothers in the USA.

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Secondhand smoke is one of the most common toxic environmental exposures to children, and maternal health problems also have substantial negative effects on children. We are unaware of any studies examining the association of living with smokers and maternal health. To investigate whether non-smoking mothers who live with smokers have worse physical and mental health than non-smoking mothers who live in homes without smokers. Nationally representative data from the 2000-2004 Medical Expenditure Panel Survey were used. The health of non-smoking mothers with children <18 years (n = 18,810) was assessed, comparing those living with one or more smokers (n = 3,344) to those living in households with no adult smokers (n = 14,836). Associations between maternal health, household smoking, and maternal age, race/ethnicity, and marital, educational, poverty and employment status were examined in bivariable and multivariable analyses using SUDAAN software to adjust for the complex sampling design. Scores on the Medical Outcomes Short Form-12 (SF-12) Physical Component Scale (PCS) and Mental Component Scale (MCS) were used to assess maternal health. About 79.2% of mothers in the USA are non-smokers and 17.4% of them live with ≥ 1 adult smokers: 14.2% with 1 and 3.2% with ≥ 2 smokers. Among non-smoking mothers, the mean MCS score is 50.5 and mean PCS is 52.9. The presence of an adult smoker and increasing number of smokers in the home are both negatively associated with MCS and PCS scores in bivariable analyses ($P < 0.001$ for each). Non-smoking mothers with at least one smoker in the household had an 11% (95% CI = 0.80-0.99) lower odds of scoring at or above the mean MCS score and a 19% (95% CI = 0.73-0.90) lower odds of scoring at or above the mean PCS score compared to non-smoking mothers with no smokers in the household. There is an evidence of a dose response relationship with increasing number of smokers in the household for PCS ($P < 0.001$). These findings demonstrate a previously unrecognized child health risk: living with smokers is independently associated with worse physical and mental health among non-smoking mothers.

PMID: 20012677 [PubMed - as supplied by publisher]

2. Diabetes Care. 2009 Dec;32(12):2187-92. Epub 2009 Sep 3.

Health care and productivity costs associated with diabetic patients with macrovascular comorbid conditions.

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OBJECTIVE: To examine and quantify from the societal perspective the impact of macrovascular comorbid conditions (MVCCs) on health care and productivity costs in diabetic patients in the U.S. **RESEARCH DESIGN AND METHODS:** With use of the pooled Medical Expenditure Panel Survey (MEPS) 2004 and 2006 data, a nationally representative adult sample (aged ≥ 18 years) was included in the study. Health care cost was measured by the annual health care expenditure. Productivity cost was calculated from the lost productivity from missed work days and additional bed days due to illness/injury based on the 2006 average national hourly wage. Both 2004 and 2006 cost data were adjusted to 2006 dollars. Given the heavily right-skewed distribution of the cost data, the generalized linear model with log-link function and gamma variance was used to identify the relationship between MVCCs and costs after controlling for age, sex, race, ethnicity, education, income, employment status, smoking status, health insurance, diabetes severity, and comorbidities. Negative binomial models were applied to analyze the outcomes of missed work days and bed days. All statistics were adjusted using the proper sampling weight from MEPS. **RESULTS:** Compared with diabetic patients without MVCCs ($n = 3,320$), those with MVCCs ($n = 913$) had statistically significant higher annual health care costs (5,120 USD, $P < 0.001$), more missed work days (13.03 days, $P < 0.001$), and more bed days (7.60 days, $P = 0.025$) per patient after controlling for differences in sociodemographics, smoking, diabetes severity, and comorbidities. The marginal lost productivity cost was 2,388 USD annually per patient. **CONCLUSIONS:** From the U.S. societal perspective, MVCCs in diabetic patients are associated with increased health care and lost productivity costs.

PMCID: PMC2782975 [Available on 2010/12/1]

PMID: 19729528 [PubMed - in process]

3. Am J Public Health. 2009 Jul;99(7):1315-21. Epub 2009 May 14.

The relationship between living arrangement and preventive care use among community-dwelling elderly persons.

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Comment in:

Am J Public Health. 2009 Oct;99(10):1733-4.

OBJECTIVES: We sought to examine the relationship between living arrangements and obtaining preventive care among the elderly population. **METHODS:** We obtained data on 13,038 community-dwelling elderly persons from the 2002 to 2005 Medical Expenditure Panel Survey and used multivariate logistic regression models to estimate the likelihood of preventive care use among elderly persons in 4 living arrangements: living alone (38%), living with one's spouse only (52%), living with one's spouse and with one's adult offspring (5%), and living with one's adult offspring only (5%). Preventive care services included influenza vaccination, physical and dental checkup, and screenings for hypertension, cholesterol, and colorectal cancer. **RESULTS:** After we controlled for age, gender, race, education, income, health insurance, comorbidities, self-reported health, physical function status, and residence location, we found that elderly persons living with a spouse only were more likely than were those living alone to obtain all preventive care services, except for hypertension screening. However, those living with their adult offspring were not more likely to obtain recommended preventive care compared with those living alone. These results did not change when the employment status and functional status of adult offspring were considered. **CONCLUSIONS:** Interventions to improve preventive care use should target not only those elderly persons who live alone but also those living with

adult offspring.

PMCID: PMC2696673 [Available on 2010/7/1]
PMID: 19443817 [PubMed - indexed for MEDLINE]

4. Diabetes Care. 2009 Jun;32(6):983-9. Epub 2009 Feb 27.

Usual source of care as a health insurance substitute for U.S. adults with diabetes?

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OBJECTIVE: The purpose of this study was to examine the effects of health insurance and/or a usual source of care (USC) on receipt of diabetic-specific services and health care barriers for U.S. adults with diabetes. **RESEARCH DESIGN AND METHODS:** Secondary analyses of data from 6,562 diabetic individuals aged ≥ 18 years from the nationally representative Medical Expenditure Panel Survey from 2002 to 2005 were performed. Outcome measures included receipt of seven diabetic services plus five barriers to care. **RESULTS:** More than 84% of diabetic individuals in the U.S. had full-year coverage and a USC; 2.3% had neither one. In multivariate analyses, the uninsured with no USC had one-fifth the odds of receiving A1C screening (odds ratio 0.23 [95% CI 0.14-0.38]) and one-tenth the odds of a blood pressure check (0.08 [0.05-0.15]), compared with insured diabetic individuals with a USC. Similarly, being uninsured without a USC was associated with 5.5 times the likelihood of unmet medical needs (5.51 [3.49-8.70]) and three times more delayed urgent care (3.13 [1.53-6.38]) compared with being insured with a USC. Among the two groups with either insurance or a USC, diabetic individuals with only a USC had rates of diabetes-specific care more similar to those of insured individuals with a USC. In contrast, those with only insurance were closer to the reference group with fewer barriers to care. **CONCLUSIONS:** Insured diabetic individuals with a USC were better off than those with only a USC, only insurance, or neither one. Policy reforms must target both the financing and the delivery systems to achieve increased receipt of diabetes services and decreased barriers to care.

PMCID: PMC2681031 [Available on 2010/6/1]
PMID: 19252167 [PubMed - indexed for MEDLINE]

5. Matern Child Health J. 2008 Nov 26. [Epub ahead of print]

The Well-Being of Parental Caregivers of Children with Activity Limitations.

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This paper describes well-being (health status/quality of life, healthcare utilization, employment, and financial status) of parental caregivers of children with activity limitations and compares their well-being to parental caregivers with children without activity limitations. Using Medical Expenditure Panel Survey data from 1996 to 2001, we examined the well-being of parents of children with and without an activity limitation. Children were considered as having an activity limitation if they reported a limitation in school, play or social activities. Analyses include weighted descriptive statistics and multivariable regressions. Seventy-five percentage of parents of children with activity limitations experienced at least one adverse outcome compared to 66% of parents of children without activity limitations. Parents of children with activity

limitations exhibited poorer reported quality of life as indicated by lower SF-12 physical health scores (coefficient = -2.24 CI -3.38 to -1.11) and lower EuroQol scores (coefficient = -.07 CI -.10 to -.03). Parents of children with activity limitations have slightly higher utilization of sick visits. One measure of preventive care use was not significant and one showed a slight increase in use among parents of children with activity limitations. Employment and financial outcomes were less favorable for parents of children with activity limitations. Across a variety of domains, parental caregivers of children with activity limitations are at a disadvantage compared to other parents suggesting that public and private parental supports might be helpful.

PMID: 19034635 [PubMed - as supplied by publisher]

6. Pediatrics. 2008 Aug;122(2):e480-486.

Access to and use of paid sick leave among low-income families with children.

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OBJECTIVE: The ability of employed parents to meet the health needs of their children may depend on their access to sick leave, especially for low-income workers, who may be afforded less flexibility in their work schedules to accommodate these needs yet also more likely to have children in poor health. Our goal was to provide rates of access to paid sick leave and paid vacation leave among low-income families with children and to assess whether access to these benefits is associated with parents' leave taking to care for themselves or others. **METHODS:** We used a sample of low-income families (<200% of the federal poverty level) with children aged 0 to 17 years in the 2003 and 2004 Medical Expenditure Panel Survey to examine bivariate relationships between access to and use of paid leave and characteristics of children, families, and parents' employer. **RESULTS:** Access to paid leave was lower among children in low-income families than among those in families with higher income. Within low-income families, children without ≥ 1 full-time worker in the household were especially likely to lack access to this benefit, as were children whose parents work for small employers. Among children whose parents had access to paid sick leave, parents were more likely to take time away from work to care for themselves or others. This relationship is even more pronounced among families with the highest need, such as children in fair or poor health and children with all parents in full-time employment. **CONCLUSIONS:** Legislation mandating paid sick leave could dramatically increase access to this benefit among low-income families. It would likely diminish gaps in parents' leave taking to care for others between families with and without the benefit. However, until the health-related consequences are better understood, the full impact of such legislation remains unknown.

PMID: 18676534 [PubMed - indexed for MEDLINE]

7. J Cancer Surviv. 2007 Sep;1(3):237-45.

Marriage, employment, and health insurance in adult survivors of childhood cancer.

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INTRODUCTION: Adult survivors of childhood cancer are at risk for disease- and

therapy-related morbidity, which can adversely impact marriage and employment status, the ability to obtain health insurance, and access to health care. Our aim was to identify factors associated with survivors' attainment of these outcomes. METHODS: We surveyed 1,437 childhood cancer survivors who were >18 years old and >10 years past diagnosis. We compared our cohort's data to normative data in the Medical Expenditure Panel Survey and the U.S. Census Bureau's Current Population Surveys. Respondents were stratified by hematologic malignancies, central nervous system tumors, or other solid tumors and by whether they had received radiation therapy. RESULTS: Most respondents were survivors of hematologic malignancies (71%), white (91%), and working full-time (62%); 43% were married. Compared with age- and sex-adjusted national averages, only survivors of hematologic malignancies who received radiation were significantly less likely to be married (44 vs. 52%). Full-time employment among survivors was lower than national norms, except among survivors of hematologic malignancies who had not received radiation therapy. The rates of coverage of health insurance, especially public insurance, were higher in all diagnostic groups than in the general population. While difficulty obtaining health care was rarely reported, current unemployment and a lack of insurance were associated with difficulty in obtaining health care ($P < 0.05$ and $P < 0.001$, respectively). CONCLUSIONS/IMPLICATIONS FOR CANCER SURVIVORS: Subgroups of cancer survivors do experience long-term differences in functional outcomes that should be addressed early. Survivors who are unmarried, unemployed, and uninsured experience difficulty accessing health care needed to address long-term health concerns.

PMID: 18648974 [PubMed - indexed for MEDLINE]

8. Dis Manag. 2008 Jun;11(3):153-60.

Co-occurring mental illness and health care utilization and expenditures in adults with obesity and chronic physical illness.

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The objectives of the study were to compare health care expenditures between adults with and without mental illness among individuals with obesity and chronic physical illness. We performed a cross-sectional analysis of 2440 adults (older than age 21) with obesity using a nationally representative survey of households, the Medical Expenditure Panel Survey. Chronic physical illness consisted of self-reported asthma, diabetes, heart disease, hypertension, or osteoarthritis. Mental illness included affective disorders; anxiety, somatoform, dissociative, personality disorders; and schizophrenia. Utilization and expenditures by type of service (total, inpatient, outpatient, emergency room, pharmacy, and other) were the dependent variables. Chi-square tests, logistic regression on likelihood of use, and ordinary least squares regression on logged expenditures among users were performed. All regressions controlled for gender, race/ethnicity, age, marital status, region, education, employment, poverty status, health insurance, smoking, and exercise. All analyses accounted for the complex design of the survey. We found that 25% of adults with obesity and physical illness had a mental illness. The average total expenditures for obese adults with physical illness and mental illness were \$9897; average expenditures were \$6584 for those with physical illness only. Mean pharmacy expenditures for obese adults with physical illness and mental illness and for those with physical illness only were \$3343 and \$1756, respectively. After controlling for all independent variables, among adults with obesity and physical illness, those with mental illness were more likely to use emergency services and had higher total, outpatient, and pharmaceutical expenditures than those without mental illness. Among individuals with obesity and chronic physical illness, expenditures increased when mental illness is added. Our study findings suggest cost-savings efforts should examine the reasons for high utilization and expenditures for those with obesity, chronic physical illness, and mental illness.

PMID: 18564027 [PubMed - indexed for MEDLINE]

9. BMC Health Serv Res. 2008 May 9;8:101.

Body mass index and employment-based health insurance.

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BACKGROUND: Obese workers incur greater health care costs than normal weight workers. Possibly viewed by employers as an increased financial risk, they may be at a disadvantage in procuring employment that provides health insurance. This study aims to evaluate the association between body mass index [BMI, weight in kilograms divided by the square of height in meters] of employees and their likelihood of holding jobs that include employment-based health insurance [EBHI]. **METHODS:** We used the 2004 Household Components of the nationally representative Medical Expenditure Panel Survey. We utilized logistic regression models with provision of EBHI as the dependent variable in this descriptive analysis. The key independent variable was BMI, with adjustments for the domains of demographics, social-economic status, workplace/job characteristics, and health behavior/status. BMI was classified as normal weight (18.5-24.9), overweight (25.0-29.9), or obese (> or = 30.0). There were 11,833 eligible respondents in the analysis. **RESULTS:** Among employed adults, obese workers [adjusted probability (AP) = 0.62, (0.60, 0.65)] (P = 0.005) were more likely to be employed in jobs with EBHI than their normal weight counterparts [AP = 0.57, (0.55, 0.60)]. Overweight workers were also more likely to hold jobs with EBHI than normal weight workers, but the difference did not reach statistical significance [AP = 0.61 (0.58, 0.63)] (P = 0.052). There were no interaction effects between BMI and gender or age. **CONCLUSION:** In this nationally representative sample, we detected an association between workers' increasing BMI and their likelihood of being employed in positions that include EBHI. These findings suggest that obese workers are more likely to have EBHI than other workers.

PMCID: PMC2387152

PMID: 18471293 [PubMed - indexed for MEDLINE]

10. J Rural Health. 2008 Winter;24(1):1-11.

Uninsured rural families.

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CONTEXT: Although research shows higher uninsured rates among rural versus urban individuals, prior studies are limited because they do not examine coverage across entire rural families. **PURPOSE:** This study uses the Medical Expenditure Panel Survey (MEPS) to compare rural and urban insurance coverage within families, to inform the design of coverage expansions that build on the current rural health insurance system. **METHODS:** We pooled the 2001 and 2002 MEPS Household Component survey, aggregated to the family level (excluding households with all members 65 and older). We examined (1) differences in urban, rural-adjacent, and rural nonadjacent family insurance coverage, and (2) the characteristics of rural families related to their patterns of coverage. **FINDINGS:** One out of 3 rural families has at least 1 uninsured member, a rate higher than for urban families-particularly in nonadjacent counties. Yet, three fourths of uninsured rural families have an insured member. For 42% of rural

nonadjacent families, this is someone with public coverage (Medicaid/SCHIP or Medicare); urban families are more likely to have private health insurance or a private/public mix. CONCLUSIONS: Strategies to expand family coverage through employers may be less effective among rural nonadjacent than urban families. Instead, expansions of public coverage or tax credits enabling entire families to purchase an individual/self-employment plan would better ensure that rural nonadjacent families achieve full coverage. Subsidies or incentives would need to be generous enough to make coverage affordable for the 52% of uninsured rural nonadjacent families living below 200% of the federal poverty level.

PMID: 18257865 [PubMed - indexed for MEDLINE]

11. Value Health. 2007 Nov-Dec;10(6):443-50.

Productivity costs associated with cardiometabolic risk factor clusters in the United States.

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OBJECTIVE: Cardiometabolic risk factors such as overweight/obesity, hyperlipidemia, diabetes, and hypertension are prone to cluster together in the same individual and result in an elevated risk of cardiovascular disease and mortality. The purpose of this study was to examine and quantify the impact of cardiometabolic risk factor clusters independent of heart disease on productivity in a nationally representative sample of US adults. METHODS: The current study estimated the impact of cardiometabolic risk factor clusters on missed work days and bed days, controlling for sociodemographic characteristics, comorbidity, and smoking status in a nationally representative, pooled 2000 and 2002 Medical Expenditure Panel Survey sample. Cardiometabolic risk factor clusters included BMI ≥ 25 and two of the following three: diabetes, hyperlipidemia, and/or hypertension. All estimates were expressed in \$US 2005. Sensitivity analyses were conducted to examine the impact of varying assumptions on the results. RESULTS: After controlling for differences in sociodemographics, smoking and comorbidity, individuals with cardiometabolic risk factor clusters missed 179% more work days and spent 147% more days in bed (in addition to lost work days) than those without. Lost work days and bed days resulted in \$17.3 billion annually in lost productivity attributable to cardiometabolic risk factor clusters in the United States. Sensitivity analyses resulted in a range of annual lost productivity costs from \$3.2 to \$23.1 billion. CONCLUSIONS: Common cardiometabolic risk factor clusters have a significant deleterious impact on the US economy, resulting in \$17.3 billion in lost productivity.

PMID: 17970926 [PubMed - indexed for MEDLINE]

12. Res Social Adm Pharm. 2006 Jun;2(2):232-53.

Drug insurance instability and its correlates: results from the 2000 Medical Expenditure Panel Survey.

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BACKGROUND: Health insurance instability (ie, temporal gaps in health insurance coverage) is a prevalent phenomenon in the United States. To date, most studies have focused on the factors that affect the intermittent lack of health insurance

coverage. However, no studies known to the authors have examined the factors associated with prescription drug insurance instability (ie, temporal gaps in drug insurance coverage) among working-age adults. Developing an accurate profile of persons with unstable drug insurance is essential to formulate rational policy to address this problem. OBJECTIVES: The objectives of this study were to (1) document the prevalence of prescription insurance instability among working-age adults and (2) describe the association between prescription drug insurance instability and demographic, socioeconomic status, and employment characteristics. METHODS: The data source used in this study was the 2000 Medical Expenditure Panel Survey. This study used a cross-sectional design using data provided by respondents at each of the 3 interviews conducted during the year 2000. Chi-square and hierarchical multinomial logistic regression analyses were used to describe the associations among (1) demographics, (2) socioeconomic status, and (3) employment characteristics and drug insurance status (classified as continuous, absent, or unstable). RESULTS: During the year 2000, 12.5% (21.1 million) of the working-age adults in the United States had unstable prescription drug coverage. Persons aged 35-54 years had lower rates of drug insurance instability compared with those aged 18-24 [adjusted odds ratio 0.66 (95% confidence interval 0.54-0.80)]. The least educated (12 or fewer years of education) were more likely than those with more education (13-16 years) to experience at least one period without drug coverage (62% vs 32%, $P < 0.01$). The poorest respondents (those at less than 200% of the federal poverty level) were more likely than the wealthiest respondents (those at more than 400% of the poverty level) to report at least some time without drug coverage (37% vs 28%, $P < 0.01$). Those experiencing a divorce or death of a spouse were more than twice as likely as stably married persons to experience at least one period without drug insurance [adjusted odds ratio 2.23 (95% confidence interval 1.68-2.96)]. Adults who were unstably employed during the year and/or who worked for small firms generally experienced higher rates of drug insurance instability. CONCLUSIONS: Prescription drug insurance instability is a prevalent phenomenon among working-age adults in the United States, with approximately 1 in 8 experiencing this problem during 2000. Our results suggest that demographics, socioeconomic status, and employment characteristics all play important roles in predicting prescription drug insurance status, with the least educated and poorest being particularly vulnerable to interruptions in drug coverage. Premium assistance programs providing subsidies to small firms' low-income employees and permitting small firms to form insurance pools may help to decrease the number of drug coverage uninsurance spells in this population.

PMID: 17138510 [PubMed - indexed for MEDLINE]

13. Health Aff (Millwood). 2006 Nov-Dec;25(6):1568-79.

Tax subsidies for employment-related health insurance: estimates for 2006.

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Employment-related health insurance is subsidized through exemptions from federal and state income taxes, as well as from taxes for Social Security and Medicare. Proposals to modify this subsidy are a perennial subject of policy debate. We present tax-subsidy projections from a new data resource constructed using a statistical linkage between the establishment and household components of the Medical Expenditure Panel Survey (MEPS). We project that the total federal and state tax subsidy in 2006 for employment-related coverage of active workers will exceed 200 billion dollars. We present per worker tax-subsidy estimates and an analysis of insurance incidence by establishment characteristics.

PMID: 17102182 [PubMed - indexed for MEDLINE]

14. Med Care. 2006 May;44(5 Suppl):I12-8.

Workers who decline employment-related health insurance.

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BACKGROUND: Families of workers who decline coverage represent a substantial share of the uninsured and publicly-insured population in the United States. **OBJECTIVE:** We examined health status, access to health care, utilization, and expenditures among families that declined health insurance coverage offered by employers using data from the Medical Expenditure Panel Survey for 2001 and 2002. **RESULTS:** We found differences in insurance status for adults and children among families with offers. We found that among low-income families with offers, children are less likely to have private insurance compared with adults. However, the majority of children who decline private insurance end up with public coverage, whereas most of adults who decline offers remain uninsured. Decliners are more likely to report poor health, yet they are also less likely to have high cost medical conditions. Families declining coverage have weaker preferences for insurance than families that take up. Although access to care is lower among the decliners who remain uninsured, decliners with public insurance have similar access to care as those with private insurance. Families turning down coverage are more likely to face high expenditure burdens as a percentage of income and more likely to have financial barriers to care. Families who decline coverage rely heavily on the safety net. Public sources and uncompensated care account for 72% of total expenditures among adults who decline coverage. **CONCLUSIONS:** Our results suggest that policy initiatives aimed at increasing take up among workers need to take into account the incentives workers face given the availability of care through public sources and uncompensated care.

PMID: 16625059 [PubMed - indexed for MEDLINE]

15. Int J Health Care Finance Econ. 2006 Mar;6(1):25-47.

Employer choices of family premium sharing.

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In 1997, nearly two-thirds of married couples with children under age 18 were dual-earner couples. Such families may have a variety of insurance options available to them. If so, declining a high employee premium contribution may be a mechanism for one spouse to take money wages in lieu of coverage while the other spouse takes coverage rather than high wages. Employers may use these preferences and the size of premium contributions to encourage workers to obtain family coverage through their spouse. The purpose of this paper is to explore the effects of labor force composition, particularly the proportion of dual-earner couples in the labor market, on the marginal employee premium contribution (marginal EPC) for family coverage. We analyze data from the 1997-2001 Medical Expenditure Panel Survey--Insurance Component (MEPS-IC) List Sample of private establishments. We find strong evidence that the marginal EPC for family coverage is higher when there is a larger concentration of women in the workforce, but only in markets with a higher proportion of dual-earner households.

PMID: 16612570 [PubMed - indexed for MEDLINE]

16. J Rural Health. 2005 Winter;21(1):21-30.

Rural-urban differences in employment-related health insurance.

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CONTEXT: Rural residents are disproportionately represented among the uninsured in the United States. PURPOSE: We compared nonelderly adult residents in 3 types of nonmetropolitan areas with metropolitan workers to evaluate which characteristics contribute to lack of employment-related insurance. RESEARCH DESIGN AND ANALYSIS: Data were obtained from the Medical Expenditure Panel Survey, pooled across 3 panels (1996--1998) to enhance the rural sample size. Econometric decomposition was used to quantify the contribution of employment structure to differences in the probability of being offered employment-related health insurance. FINDINGS: The most rural workers are 10.4 percentage points less likely to be offered insurance compared with urban workers; the difference is smaller for residents of other rural areas. In rural counties not adjacent to urban areas, lower wages and smaller employers each account for about one-third of the total difference. CONCLUSIONS: Health insurance disparities associated with rural residence are related to the structure of employment. Major factors include smaller employers, lower wages, greater prevalence of self-employment, and sociodemographic characteristics.

PMID: 15667006 [PubMed - indexed for MEDLINE]

17. Arthritis Rheum. 2004 Jul;50(7):2317-26.

Medical care expenditures and earnings losses of persons with arthritis and other rheumatic conditions in the United States in 1997: total and incremental estimates.

Yelin E, Cisternas MG, Pasta DJ, Trupin L, Murphy L, Helmick CG.

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OBJECTIVE: To provide estimates of the total medical care expenditures and earnings losses associated with arthritis and other rheumatic conditions (AORC), as well as the increment in such costs specifically attributable to these conditions, in the US in 1997. METHODS: The estimates were derived from the 1997 Medical Expenditures Panel Survey (MEPS), a national probability sample of 14,147 households including 34,551 persons, of whom 4,776 self-reported arthritis. After weighting, those who self-reported AORC represent 38.4 million persons. We tabulated all medical care expenditures of the adult MEPS respondents, stratified by arthritis and comorbidity status, and then used regression techniques to estimate the increment in health care expenditures attributable to AORC, after taking comorbidity, demographic characteristics, and insurance status into account. Using the same methods, we also estimated the magnitude of the earnings losses sustained by persons of working ages (18-64 years) who had AORC. RESULTS: Persons with AORC incurred mean total medical care expenditures of 4,865 dollars (total 186.9 billion dollars). The largest components of these expenditures were inpatient care (39%), ambulatory care (29%), and prescriptions (14%). The mean increment in medical care expenditures specifically attributable to AORC among those ages 18 years and older was 1,391 dollars (total approximately 51.1 billion dollars). Persons with AORC ages 18-64 years earned 3,812 dollars less on average than did other persons of these ages (total 82.4 billion dollars). Of this average, 1,579 dollars was attributable to the AORC (total 35.1 billion dollars).

CONCLUSION: In 1997, persons with AORC incurred direct and indirect costs of 269.3 billion dollars, of which 86.2 billion dollars was attributable to these conditions.

PMID: 15248233 [PubMed - indexed for MEDLINE]

18. J Occup Rehabil. 2004 Mar;14(1):1-11.

Employment and disability: evidence from the 1996 medical expenditures panel survey.

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The relationship between employment and disability has gained national attention, as the ability to maintain employment is inconsistent among those with limitations. This cross-sectional study of employment among individuals (N = 1691, age 21-62 years) with self-reported limitations in the 1996 Medical Expenditures Panel Survey seeks to identify predictors of employment despite physical and/or cognitive limitations. Two predictive models of employment including 10 variables are explored; 1 included insurance ($\chi^2 = 3856.85$, $p < 0.00$) and the other removed the insurance variable ($\chi^2 = 280.21$, $p < 0.00$). Individuals with limitations who are employed are more likely to have a college-level education, have better physical and mental health perceptions and have private insurance. This analysis demonstrates that people do work despite reported activity, functional or sensory limitations and that socioeconomic factors are crucial in why someone is able to attain employment.

PMCID: PMC1805460

PMID: 15055500 [PubMed - indexed for MEDLINE]

19. Int J Health Care Finance Econ. 2002 Nov;2(4):297-318.

Employer offers, private coverage, and the tax subsidy for health insurance: 1987 and 1996.

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Economists have long been interested in the effect of tax-based subsidies on private health insurance coverage. We examine this relationship using pooled data from the 1987 National Medical Expenditure Survey and the 1996 Medical Expenditure Panel Survey. Our main tax price elasticity estimates for employer offers and for private coverage are near the mid-point of the existing literature. However, these estimates may mask substantial differences in tax-price responsiveness across subsets of workers. Our more disaggregated analysis reveals tax price responsiveness to be significantly above average for low-income workers, workers with low health risks, and workers in small firms--precisely those groups whose continued participation in employment-related risk pooling is of greatest policy concern. In addition, we present family-level elasticities that allow for joint decision-making in two-worker families.

PMID: 14625996 [PubMed - indexed for MEDLINE]

20. Med Care. 2003 Jul;41(7 Suppl):III53-III64.

Persistence in health expenditures in the short run: prevalence and consequences.

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BACKGROUND: Knowing whether persons in the top percentiles of the health expenditure distribution exhibit persistently high expenditure is fundamental to developing health plan payment policies, containing costs, and understanding the consequences of costly illnesses. **OBJECTIVES:** To determine the extent of high expenditure persistence over a 2-year period. To identify the correlates and consequences of expenditure persistence. **SUBJECTS:** A national sample of the population from a longitudinal panel of the Medical Expenditure Panel Survey (MEPS). **METHODS:** Changes in a person's position in the expenditure distribution were examined. chi2 tests were used to identify differences in characteristics between high and low spenders. Logistic regression was used to predict the likelihood of expenditure persistence. Changes in income, employment, out-of-pocket expenditure burden, and health insurance were compared for high and low spenders. **RESULTS:** Of the top 5% of spenders in 1996, 30% retain this position in 1997 and 45% are in the top decile of 1997 spenders. High expenditures begin to regress to the mean over the study period. Cancer, mental disorders, diabetes, and infectious diseases and being in the top decile of 1996 spenders increase the probability of expenditure persistence ($P < 0.05$ for all). This probability also has a strong random component. An increased proportion of persons in the top expenditure decile for both years had out-of-pocket health spending greater than 20% of income in 1997 ($P < 0.10$). Persons with persistently high expenditures were less likely than low spenders to lose employment-based coverage (5.4% vs. 8.8%, $P < 0.05$) but no changes in income or employment status were detected. **CONCLUSIONS:** A sizable minority of persons exhibits persistently high expenditures, creating incentives for favorable risk selection. Few consequences of short-run expenditures persistence are observed.

PMID: 12865727 [PubMed - indexed for MEDLINE]

21. Med Care. 2003 Jul;41(7 Suppl):III35-III43.

Workers' decisions to take-up offered health insurance coverage: assessing the importance of out-of-pocket premium costs.

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BACKGROUND: Many proposed policy initiatives involve subsidies directed toward encouraging employers to offer coverage and toward workers to encourage enrollment in offered plans. Given that insurance coverage reflects employers' decisions to offer coverage, eligibility requirements for such coverage, and employees' take-up decisions, all three elements are important when considering mechanisms to decrease the number of uninsured individuals. **RESEARCH DESIGN:** In this study, we examine the relationship between workers' decisions to take-up offers of health insurance and annual out-of-pocket contributions, total premiums, and employer and workforce characteristics. We model the take-up decision using cross-sectional data from approximately 18,000 establishments per year from the 1997 to 1999 Medical Expenditure Panel Survey - Insurance Component. **RESULTS:** We find that workers are less likely to enroll in coverage as single employee contributions increase. Our results for family contributions are much smaller than for single contributions and are not statistically significant in all years. Our simulation results suggest that reducing employee contribution levels for single coverage from existing levels in 1999 to zero would yield an increase in take-up rates of roughly 6% points in establishments that had

required a positive level of contributions. Our results also indicate that of the 13.8 million private sector workers who decline coverage from their employers, 2.5 million would potentially enroll in employer-sponsored coverage if the cost of single coverage were to fall to zero. CONCLUSION: Reducing employee contributions will increase take-up rates; however, even when employees pay nothing for their coverage, some employees elect not to enroll.

PMID: 12865725 [PubMed - indexed for MEDLINE]

22. J Public Health Dent. 2003 Spring;63(2):104-11.

Charges for oral health care during a period of economic growth in the US: 1987-96.

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OBJECTIVES: This study aimed to provide estimates of amounts charged for dental care during 1996 for the US adult population and its major sociodemographic subgroups, and to evaluate whether charges had increased since 1987. METHODS: We used data from the 1996 Medical Expenditures Panel Survey and report results for 12,931 adults aged 19-64 years. For comparison with previously published charges, we converted 1987 charges to their 1996 "constant dollar" value to control for inflation. Data were analyzed using SUDAAN and the results can be generalized to the US adult population. RESULTS: In 1996, 43.7 percent (95% CI=42.7%, 44.6%) of the US population incurred dental care charges, which did not differ significantly from the 1987 estimate of 44.5 percent. In 1996, mean per capita charge for dental care was 182 dollars (95% CI=171 dollars, 192 dollars), which did not differ significantly from the inflation-adjusted 1987 estimate of 174 dollars. The average charge per patient who incurred charges in 1996 was 416 dollars (95% CI=394 dollars, 438 dollars), which was only 7 percent greater than the inflation-adjusted 1987 estimate of 389 dollars (P=.08). Sociodemographic variations were observed in per capita charges, but were less apparent in mean charge per patient who incurred charges. CONCLUSIONS: During a period when economic growth and other market forces were expected to increase delivery of dental services, there was little or no change in percentage of US adults incurring charges or in mean per capita charges. The booming US economy did not raise dental charges significantly and did not increase utilization of dental care services.

PMID: 12816141 [PubMed - indexed for MEDLINE]

23. Health Aff (Millwood). 2003 May-Jun;22(3):203-13.

Health insurance for workers who lose jobs: implications for various subsidy schemes.

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A number of proposals have been made to help laid-off workers purchase health insurance. We use data from the 1996 Medical Expenditure Panel Survey to profile the insurance status of workers who left a job. Our descriptive analysis suggests that it might be difficult to design policies that target those who would otherwise be uninsured and that large subsidies might be needed to help laid-off workers.

PMID: 12757286 [PubMed - indexed for MEDLINE]

24. Health Aff (Millwood). 2003 Mar-Apr;22(2):139-53.

Pathways to access: health insurance, the health care delivery system, and racial/ethnic disparities, 1996-1999.

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We examine the roles that insurance coverage, the delivery system, and external factors play in explaining persistent disparities in access among racial and ethnic groups of all ages. Using data from the 1996-1999 Medical Expenditure Panel Surveys and regression-based decomposition methods, we find that our measures of health care system capacity explain little and that while insurance clearly matters, external factors are equally important. Employment, job characteristics, and marital status are key determinants of disparities in access to insurance but are difficult for health policy to affect directly. Much of existing disparities remains unexplained, presenting a challenge to developing policies to eliminate them.

PMID: 12674417 [PubMed - indexed for MEDLINE]

25. Value Health. 2003 Mar-Apr;6(2):107-15.

Economic costs of influenza-related work absenteeism.

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BACKGROUND: Influenza vaccinations are currently advocated only for individuals over age 50. However, vaccination of all working-age people may be warranted based on reduced absenteeism from work. **OBJECTIVE:** This study aims to quantify the association between lost workdays and influenza, controlling for other factors. A secondary aim of the study is to assess the net benefit of expanded vaccination in a workplace setting. **RESEARCH DESIGN:** Multivariate regression analyses of the 1996 Medical Expenditure Panel Survey Household Component are used to estimate the number of workdays missed because of influenza-like illness (ILI) when controlling for other health, demographic, and employment factors. Mean productivity costs are measured in terms of absences from work and valued in dollar terms. The net benefit of influenza vaccination is estimated using a simple decision analysis. **SUBJECTS AND MEASURES:** Health, demographic, and employment data for employed individuals between the ages of 22 and 64 years are analyzed. **RESULTS:** The average number of workdays missed due to ILI was 1.30 days, and the average work loss was valued at 137 US dollars per person. The vaccine strategy was not preferred in the baseline analysis; however, this result was sensitive to assumptions regarding the incidence of influenza, the cost of delivering the vaccine, and the productivity impact of worker absenteeism. Moreover, nonproductivity benefits of vaccination were omitted. **CONCLUSIONS:** The economic attractiveness of expanded investment in influenza vaccination hinges on employer- and population-specific assumptions. Our analysis provides a simple framework within which competing considerations of disease epidemiology, worker productivity, and economic cost may be weighed.

PMID: 12641861 [PubMed - indexed for MEDLINE]

26. Health Care Financ Rev. 2002 Spring;23(3):115-30.

Employment-related health insurance: federal agencies' roles in meeting data needs.

Wiatrowski W, Harvey H, Levit KR.

Employer-sponsored health insurance accounts for almost one-third of all health care spending. As health care cost growth accelerates affecting the availability of employer-sponsored insurance and depth of coverage, the importance of timely and accurate information for measuring and monitoring these changes and formulating policy options increases. Identifying a growing gap between the need for and availability of data to inform policy on employment-related health insurance issues, the Office of Management and Budget (OMB) established a committee of Federal Agency representatives to evaluate and advise data collection efforts. This article reports on the committee's current efforts, focusing on evaluation of results from the Medical Expenditure Panel Survey-Insurance Component (MEPS-IC) and the National Compensation Survey (NCS).

PMID: 12500352 [PubMed - indexed for MEDLINE]

27. Am J Psychiatry. 2002 Nov;159(11):1914-20.

National trends in the use of outpatient psychotherapy.

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OBJECTIVE: This article reports recent trends in the use of outpatient psychotherapy in the United States. **METHOD:** Data from the household sections of the 1987 National Medical Expenditure Survey and the 1997 Medical Expenditure Panel Survey were analyzed. Trends in the rate of psychotherapy use from these nationally representative samples are presented by age, sex, race/ethnicity, marital status, education, employment status, and income. Psychotherapy users are compared over time by provider specialty, concomitant psychotropic medication use, number of annual visits, and costs. In addition, trends in payment source and primary diagnosis are assessed for psychotherapy visits. **RESULTS:** Between 1987 and 1997, there was no statistically significant change in the overall rate of psychotherapy use (3.2 per 100 persons in 1987 and 3.6 per 100 in 1997). However, significant increases were observed in psychotherapy use by adults aged 55-64 years and by unemployed adults. Among psychotherapy patients, there was a marked increase in the use of antidepressant medications (14.4% to 48.6%), mood stabilizers (5.3% to 14.5%), stimulants (1.9% to 6.4%), and psychotherapy provided by physicians (48.1% to 64.7%). A smaller proportion of patients made more than 20 psychotherapy visits in 1997 (10.3%) than in 1987 (15.7%). Over this period, psychotherapy visits for mood disorders became more common. In 1997, 9.7 million Americans spent \$5.7 billion on outpatient psychotherapy. **CONCLUSIONS:** From 1987 to 1997, access to psychotherapy in the United States remained constant overall but was characterized by increased use by some socioeconomically disadvantaged groups. However, the number of visits per user markedly decreased during this period. Psychotherapy was increasingly administered by physicians and provided in conjunction with psychotropic medications. These changes occurred during a period of expansion in the number of available psychotropic medications and growth in managed behavioral health care.

PMID: 12411228 [PubMed - indexed for MEDLINE]

28. J Health Care Poor Underserved. 2002 Nov;13(4):504-25.

Latino adults' health insurance coverage: an examination of Mexican and Puerto

Rican subgroup differences.

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Lack of health insurance is a serious problem in the United States. Using data from the 1996 Medical Expenditure Panel Survey, this paper examines how insurance varies between black, white, and Latino adults. Because Latino subgroups are not homogeneous, the paper also compares the factors associated with health insurance status for Mexican and Puerto Rican adults. Results indicate that access to private health insurance for Latino adults was more closely associated with workplace characteristics than employment itself. Time lived in the United States was a major factor associated with being uninsured for Mexican adults, while language barriers were a major factor limiting Puerto Rican individuals' access to private health insurance. The paper suggests two approaches for decreasing uninsurance among Latino adults: (1) strengthening the link between employment and private health insurance and (2) addressing disparities in access to public coverage for racial and ethnic groups, including recent immigrants.

PMID: 12407965 [PubMed - indexed for MEDLINE]

29. Acad Emerg Med. 2002 Sep;9(9):916-23.

Usual source of care and nonurgent emergency department use.

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OBJECTIVE: To examine whether dissatisfaction with one's usual source of care (USC) and perceived access difficulties to one's USC were associated with nonurgent emergency department (ED) use. **METHODS:** Variables that measured USC satisfaction and access were identified in the 1996 cohort of the Medical Expenditure Panel Survey (MEPS), a nationally representative sample administered by the Agency for Healthcare Research and Quality. The main outcome measured was nonurgent ED use at least once during 1996. **RESULTS:** A total of 9,146 adults had a USC other than the ED, had at least one contact with the health care system or were unable to get needed care, and had complete data for all the variables in the final model. Dissatisfaction with the USC, dissatisfaction with the USC staff, lack of confidence in the USC's ability, difficulty scheduling an appointment, difficulty reaching the USC by phone, and long waiting times with an appointment were all associated with having a nonurgent ED visit in 1996 (all at $p < 0.05$). The positive associations between both dissatisfaction and perceived access barriers and nonurgent ED use persisted even in multiple logistic regression that adjusted for age, sex, race, education, health status, employment status, income, insurance, region of residence, and rural vs. urban residence. **CONCLUSIONS:** Patients who are dissatisfied with their USC or perceive access barriers to their USC are more likely to have a nonurgent ED visit.

PMID: 12208681 [PubMed - indexed for MEDLINE]

30. Pediatr Dent. 2002 Jan-Feb;24(1):11-7.

Child dental expenditures: 1996.

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PURPOSE: Because little has been reported about child dental expenditures, federal data were used to estimate dental care expenditures for U.S. children by age, sex, ethnic/ racial background, family income, parental education and parental employment. **METHODS:** Parentally reported data on dental expenditures and sources of expenditures were extracted from the most recent available federal healthcare expenditures studies, the 1996 federal Medical Expenditure Panel Survey (MEPS). Using the survey's large sample and complex design, these data represent the entire U.S. child population. **RESULTS:** Nearly 12 billion dollars were expended for children's dental care averaging \$375 per child who obtained care. Overall sources of payment were 47% out of pocket, 45% insurance and 8% "other" including primarily Medicaid. Disproportionately little spending was made on behalf of low-income and minority children despite their higher disease experience. The proportion of spending that was paid out of pocket was high for all groups of children including those eligible for Medicaid even though Medicaid prohibits cost sharing. **CONCLUSIONS:** Dental care for children accounts for approximately one-quarter of U.S. dental spending and is a major component of child health care costs. Income and racial disparities in expenditures favor higher income children despite Medicaid coverage for lower income children. High levels of reported out-of-pocket costs for Medicaid eligible children suggest that Medicaid fails to meet families' needs in obtaining care. Meeting the oral health needs of poor children will require considerably greater expenditures, particularly through improved Medicaid financing and administration.

PMID: 11874052 [PubMed - indexed for MEDLINE]

31. J Am Dent Assoc. 2001 May;132(5):655-64.

Dental services. An analysis of utilization over 20 years.

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BACKGROUND: Utilization studies serve as an important tool for oral health policy decision-making. A number of important reports have been published that help to characterize the dental utilization patterns of most Americans. For the most part, these studies have focused on utilization estimates for a particular survey period or year. Fewer studies have examined changing utilization patterns over time. **METHODS:** This article focuses on dental utilization and the changes in utilization for the civilian, community-based U.S. population during 1977, 1987 and 1996. Using data from the National Medical Care Expenditure Survey, National Medical Expenditure Survey and Medical Expenditure Panel Survey, the authors provide national estimates of dental visits for each of several socioeconomic and demographic categories during 1977, 1987 and 1996. **RESULTS:** Although the dental use rates for children between 6 and 18 years of age were the highest of any age group in each of the three years studied, the use rate for children and the elderly increased during this same 20-year period. Data also showed that the gap in use rates between lower- and higher-income people widened during the 20-year period. Generally, use rates according to sex and race/ethnicity were unchanged in each of the survey years, except for a narrowing of the gap between whites and nonwhites by 1996. **CONCLUSION:** These data are unique and comparable and establish a mechanism by which dental visits can be compared during a 20-year period. While aggregate utilization rates generally were stable during this 20-year period, some differences within socioeconomic and demographic groups are notable. For instance, the use rate increased during the 20-year period for people 65 years of age and older and for children younger than 6 years of age. **PRACTICE IMPLICATIONS:** By understanding these analyses, U.S. dentists will be better positioned to provide care and meet the needs of all Americans.

PMID: 11367970 [PubMed - indexed for MEDLINE]

32. Health Aff (Millwood). 2001 Jan-Feb;20(1):267-75.

Assessing the impact of health plan choice.

Schone BS, Cooper PF.

Many health policy researchers have argued that increased insurance plan choice will enhance the efficiency of the health care system. However, relatively little is known about plan choice and its association with insurance coverage and access to and satisfaction with health care. Using data from the 1996 Medical Expenditure Panel Survey, we find that 55 percent of workers had plan choice in that year. Approximately 26 percent of workers with choice obtained it through a family member. Controlling for other factors, plan choice is associated with higher levels of employment-based insurance coverage and a greater likelihood that workers are satisfied that their families' health care needs are being met.

PMID: 11194850 [PubMed - indexed for MEDLINE]

33. Health Aff (Millwood). 2001 Jan-Feb;20(1):240-6.

Patterns of insurance coverage within families with children.

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This paper examines patterns of health insurance within families with children, using the 1996 Medical Expenditure Panel Survey (MEPS). Four and a half million families (14 percent) had insurance for some, but not all, family members. These partially insured families generally obtained coverage because of one of three situations: (1) A parent earned relatively higher wages and received the concomitant benefits of such jobs but could not afford dependent coverage; (2) the family had young children who were covered by Medicaid through more generous eligibility thresholds for children under age six, while other family members were ineligible; or (3) the family had a member who was eligible for public coverage because of a disability. Each of these situations offers the platform from which incremental policies might efficiently expand coverage to families.

PMID: 11194847 [PubMed - indexed for MEDLINE]

34. Womens Health Issues. 2000 Sep-Oct;10(5):268-77.

Gender impacts on health insurance coverage: findings for unmarried full-time employees.

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Probit regression is applied to a sample of fully employed unmarried respondents from the 1996 Medical Expenditure Panel Survey to determine the likelihood of private health insurance vs. no insurance coverage. Gender-related employment segregation is a strong indicator for insurance coverage, since those in male-dominated industries are more likely to have coverage. The strong impact of unions and number of plans offered on insurance coverage suggests that insurance purchasing cooperatives and managed competition may increase availability of

affordable coverage, thus alleviating some of the financial barriers to health care.

PMID: 10980444 [PubMed - indexed for MEDLINE]

35. Pediatrics. 1996 Aug;98(2 Pt 1):226-30.

Parental availability for the care of sick children.

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OBJECTIVE. Parents have always played a critical role in the care of sick children. Although parents' roles remain crucial to children's health, parental availability has declined during the past half century. The percentage of women with preschool children who work has risen almost fivefold in 45 years from 12% in 1947 to 58% in 1992. The percentage of women in the paid work force with school-aged children has almost tripled in the same period, from 27.3% to 75.9%. Research has examined the effects of a variety of parental work conditions on children. However, past research has not examined how working conditions affect the ability of parents to care for their sick children. In this article, we examine how often the children of working parents get sick and whether parents receive enough paid leave to care for their sick children. METHODOLOGY. This analysis makes use of two national surveys, which provide complementary information regarding the care of sick children. The National Longitudinal Survey of Youth is a longitudinal survey of a nationally representative probability sample of 12,686 men and women; the National Medical Expenditure Survey is a panel survey of 34,459 people. First, we estimated the family illness burden. Second, we looked in detail at the number of days of sick leave mothers had. Third, we examined whether mothers who had sick leave had it consistently during a 5-year period. Finally, we conducted a logistic regression to determine what factors were significant predictors of both lacking sick leave. RESULTS. More than one in three families faced a family illness burden of 2 weeks or more each year. Yet, 28% of mothers had sick leave none of the time they were employed between 1985 and 1990. Employed mothers of children with chronic conditions had less sick leave than other employed mothers. Thirty-six percent of mothers whose children had chronic conditions had sick leave none of the time they were employed. Although 20% of working parents who did not live in poverty lacked sick leave, 38% of parents who did live in poverty lacked sick leave. The problem is also more marked for nonwhite parents. Although 23% of working white parents lacked paid sick leave, 31% of nonwhite parents lacked sick leave. One in six families that lacked sick leave had to cover for more than 4 weeks of family illness during the year. CONCLUSION. In 1993, the US Congress passed the Family and Medical Leave Act (FMLA). However, by limiting the medical leave to the care of major illnesses, primarily those requiring hospitalization, the FMLA does not address the majority of children's sick care needs. For the common childhood illnesses that are not covered by the FMLA, employed parents often must rely on their sick leave if they are to care for their sick children themselves. Yet, we found that many employed parents lack sick leave. This is particularly true of parents of children with chronic conditions and poor and minority families.

PMID: 8692622 [PubMed - indexed for MEDLINE]

1. J Occup Environ Med. 2008 May;50(5):527-34.

The association of diabetes with job absenteeism costs among obese and morbidly obese workers.

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Comment in:

J Occup Environ Med. 2008 Oct;50(10):1094; author reply 1094-5.

OBJECTIVE: To determine the extent to which absenteeism costs associated with obesity and morbid obesity are traceable to diabetes, and whether obesity and morbid obesity remain predictors of absenteeism costs after controlling for diabetes. **METHODS:** Data from the Medical Expenditure Panel Survey for 2000-2004 are examined. Outcomes are probability of missing work in the previous year and number of workdays missed. Predictors include diabetes, obesity and morbid obesity, age, education, occupation category, and race. Models are estimated by gender. **RESULTS:** Probability of missing work in the past year, number of days missed, and absenteeism costs rise significantly with diabetes among the obese and morbidly obese, with costs higher for the morbidly obese, after controlling for diabetes. **CONCLUSIONS:** Diabetes is strongly predictive of absenteeism among obese and morbidly obese workers. Employer efforts to reduce absenteeism should include consideration of anti-obesity interventions and diabetes prevention.

PMID: 18469621 [PubMed - indexed for MEDLINE]

2. J Occup Environ Med. 2007 Dec;49(12):1317-24.

Occupation-specific absenteeism costs associated with obesity and morbid obesity.

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OBJECTIVE: To document the absenteeism costs associated with obesity and morbid obesity by occupation. **METHODS:** Data from the Medical Expenditure Panel Survey for 2000-2004 are examined. The outcomes are probability of missing any work in the previous year and number of days of work missed in the previous year. Predictors include clinical weight classification, age, education, and race. Models are estimated separately by gender and occupation category. **RESULTS:** The probability of missing work in the past year, number of days missed, and costs of absenteeism rise with clinical weight classification for both women and men, and vary across occupation. Absenteeism costs associated with obesity total \$4.3 billion annually in the United States. **CONCLUSION:** Substantial absenteeism costs are associated with obesity and morbid obesity. Employers should explore workplace interventions and health insurance expansions to reduce these costs.

PMID: 18231079 [PubMed - indexed for MEDLINE]

1. J Occup Environ Med. 2007 Dec;49(12):1317-24.

Occupation-specific absenteeism costs associated with obesity and morbid obesity.

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OBJECTIVE: To document the absenteeism costs associated with obesity and morbid obesity by occupation. **METHODS:** Data from the Medical Expenditure Panel Survey for 2000-2004 are examined. The outcomes are probability of missing any work in the previous year and number of days of work missed in the previous year. Predictors include clinical weight classification, age, education, and race. Models are estimated separately by gender and occupation category. **RESULTS:** The probability of missing work in the past year, number of days missed, and costs of

absenteeism rise with clinical weight classification for both women and men, and vary across occupation. Absenteeism costs associated with obesity total \$4.3 billion annually in the United States. CONCLUSION: Substantial absenteeism costs are associated with obesity and morbid obesity. Employers should explore workplace interventions and health insurance expansions to reduce these costs.

PMID: 18231079 [PubMed - indexed for MEDLINE]