Abstract Session B1: Hamolsky Finalists

Identifying top doctors in health systems using clinical performance, productivity, and patient experience data. Clemens Hong [1]; Richard Grant [1]; He Wei [1]; Lulu Liu [1]; Charlotte Ward [1]; Steven J. Atlas[1].
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BACKGROUND: Physicians are increasingly evaluated based on measures of clinical performance, visit-based productivity and patient-experience surveys. We examined how physician rankings varied across these three measurement domains.

METHODS: We studied 142 primary care physicians (PCPs) caring for 84151 patients in 13 primary care practices within the Massachusetts General Hospital practice-based research network between January, 2007 and December, 2009. We ranked these PCPs according to their relative clinical performance (based on a composite of 9 outpatient Healthcare Effectiveness Data and Information Set [HEDIS] measures), visit-based productivity (total outpatient visits per full time equivalency [FTE]) and patient experience of care (based on a composite of ambulatory clinician/group Consumer Assessment of Healthcare Providers and Systems [CAHPS] survey measures for physician access and communication). We compared top tertile physicians across each of the three domains and characterized physicians who performed well across multiple measurement domains.

RESULTS: Of the 142 PCPs, 60.7% were women, 31.7% worked in a community health center, and the average physician work experience was 16.0 years. Patients were predominately female (58.3%), white (78.6%), English-speaking (92.1%), college graduates (59.5%), and privately insured (68.7%). Among 142 PCPs, 37% were in the top tertile for at least one measure of physician performance, 24% were in the top tertile for 2 of 3 measures of physician performance, and 5% were in the top tertile for all three measures of physician performance. Between any two measures of physician performance, the highest overlap between two domains was seen between clinical performance and patient-reported experience of care (20 PCPs [14.1%] in the top tertile for both measures). Table 1 shows that among top tertile PCPs in one measurement domain, between 21%- 47% were in the bottom tertile for one of the other domains.

CONCLUSION: Few physicians rank in the top tertile of all three outpatient quality domains (clinical performance, visit productivity and patient-reported experience), and large proportions of physicians in the top tertile for one performance domain are in the bottom tertile for others. Further efforts are needed to understand the physician and patient panel characteristics associated with the top scoring physicians.

The Health of Safety-Net Hospitals after Massachusetts Healthcare Reform: Changes in Volume, Revenue and Operating Margins from 2006 to 2009

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(Proposal ID # 8579)

BACKGROUND: Prior to Massachusetts health care reform many uninsured, poor and minority patients were cared for primarily in safety net hospitals (SNH). A key element of the reform altered the financing of care for vulnerable populations by shifting government payments from safety net hospitals toward financing new subsidized private insurance for low-income residents. Little is known, however, about the impact of the reform on the use and financial performance of safety-net hospitals. Such knowledge could help inform implementation of the Patient Protection and Affordable Care Act which is closely modeled on the Massachusetts reform.

METHODS: We used data from the Massachusetts Department of Healthcare Finance and Policy to assess the potential impact of the Massachusetts healthcare reform on changes in volume, revenue, and operating margins at SNH (n=7), pre (2006) and post (2009) reform and contrasted this with contemporaneous changes seen among the 58 non-safety net hospitals (NSNH). We defined SNH as those with a high level of utilization by patients with Medicaid (> 1 SD above the mean) and a low-level of utilization by patients with commercial insurance (< 1 SD below the mean). For each outcome measure we calculated the mean percentage change at SNH and NSNH from 2006 to 2009. We then estimated the absolute difference (and 95% confidence intervals) in changes between SNH and NSNH over this time, often referred to as a difference-in-differences [DD] analysis, using the student's t-test. Estimates for DD for operating margins and revenue per inpatient discharge and outpatient visit were weighted to hospital volume. Analyses using alternative definitions of SNH yielded similar results.

RESULTS: Outpatient revenue per visit declined 9.0% at SNH and increased 23.7%; at NSNH for a DD of -$174;(95% CI, ,-$281 to -66, p = .004), indicating a reduction at SNH compared with NSNH. Inpatient revenue per discharge declined 10.0% at SNH and increased 20.7%; at NSNH (DD = -$1,050 [95% CI, -$1,455 to -644, p < .0001]) and operating margins declined 3.5% at SNH and increased 0.8%; at NSNH (DD = -4.27%; 95% CI, -6.0% to -2.5%, p < .001)., There were also substantial, but not statistically significant differences for inpatient discharges (2.3% decline at SNH vs. 3.5% increase at SNSH; DD = - 598 [95% CI, -1,559-363, p =.22]), outpatient visits (14.7% increase vs 1.6% increase; DD = 45,343 [95% CI, -23,640-114,325, p=.16]), inpatient revenue (2.6% increase vs. 7.7% increase; DD = -$17.0 million [95% CI, -47.9 million -14.0 million , p=.27]) and outpatient revenue (4.4% increase vs. 25.6% increase; DD = -$22.3 million [95% CI, -63.4 million -18.8 million, p=.28]).We also found that in 2009, patients receiving Medicaid, self-pay, and other government insurance accounted for 40.8% of all discharges at SNH and 19.1% at NSNH, while they represented 53.4% of outpatient visits at SNH and 21.8% at NSNH.

CONCLUSION:
While SNH in Massachusetts continue to play a disproportionately large role in caring for disadvantaged patients, their financial performance has declined appreciably after implementation of Massachusetts health care reform compared with NSNH. If poorer financial performance lessens SNH capacity to care for vulnerable patients, this and similar reform efforts could have effects opposite to those intended.

Eligible But Uninsured: Predictors of Medicaid Take-Up Among Adults Benjamin Sommers [1]; Meredith Roberts Tomasi [1]; Katherine Swartz [1]; Arnold M. Epstein[1]. [1]Harvard School of Public Health, Boston, Massachusetts . (Proposal ID # 9216)

BACKGROUND: Millions of Americans are eligible for public insurance coverage through Medicaid, yet are currently uninsured. The importance of solving the puzzle of why they are eligible but not enrolled is heightened by the passage of the Affordable Care Act, which will expand Medicaid eligibility in 2014 to non-elderly adults with incomes up to 133% of the Federal Poverty Level. For the impending Medicaid expansion to be effective in improving health care access and health outcomes among low-income Americans, we need to know what factors determine whether eligible individuals actually enroll.

METHODS: Our data come from two sources â€“ the Current Population Surveyâ€™s (CPS) Annual Social and Economic Supplement (2005-2010), and a primary dataset of state-level eligibility policies assembled from previous research. Using state and year-specific eligibility criteria, we estimated Medicaid take-up rates among eligible U.S. citizens aged 19-64, who have no other form of health insurance (n = 36,013). Estimates were adjusted for underreporting of coverage in the CPS. We tested for statistical differences across states and years using survey-weighted chi-square tests. We used multivariate logistic regression to identify predictors of participation in Medicaid and then to generate adjusted predicted probabilities of enrollment for each variable. Covariates were demographic variables such as age, gender, and race/ethnicity; self-reported health status; state of residence; and category of eligibility (disabled, parent of dependent children, or non-disabled non-parent).

RESULTS: Nationally, among Medicaid-eligible adults with no other form of health insurance, 62.2% were enrolled in Medicaid (95% Confidence Interval 61.4-63.0%), leaving 37.8% who were uninsured. There was no significant time trend in take-up rates from 2005-2010, though the total number of eligible adults rose significantly in 2009-2010. Take-up rates varied significantly across states (p = 0.001), and these differences remained large even after multivariate adjustment for population characteristics, with predicted enrollment rates ranging from 39.9% in Arkansas and 41.6% in Louisiana to 75.2% in Maine and 78.3% in Massachusetts. In terms of individual characteristics, Medicaid participation was most likely among disabled adults (adjusted predicted probability 72.1%), less likely among parents of dependent children (53.2%), and least likely among non-disabled childless adults (40.3%; group difference p = 0.001). Participation was higher among adults with fair or poor self-reported health status than those with excellent health (63.3% vs. 54.8%, p = 0.001). Racial differences existed as well, with take-up highest among blacks (62.7%) and lowest among whites (57.8%, p = 0.001). Take-up was higher among younger adults, single adults, those with less education, and women.

CONCLUSION: Millions of adults who are currently eligible for Medicaid remain uninsured. There is great variability in take-up rates across states that exceeds the variation from individual-level factors such as race and health status. Participation is particularly low among healthy adults without disabilities and without children â€“ who comprise the majority of the individuals who will become newly eligible for Medicaid under the Affordable Care Act. The success of the impending Medicaid expansion under health reform will depend on statesâ€™ ability to design approaches that achieve high participation rates among newly-eligible adults.

Physician incentives to improve quality and delivery of high quality ambulatory medical care Tara F Bishop [1]; Alex D Federman [2]; Joseph S. Ross[3]. [1]Weill Cornell Medical College, New York, New York ; [2]Mount Sinai Medical Center, New York, New York ; [3]Yale University School of Medicine, New York, New York . (Proposal ID # 10281)

BACKGROUND: Financial incentives for quality and public reporting are mechanisms used to promote high quality medical care. We sought to determine the association between incentives for quality and high quality ambulatory care.

METHODS: We performed a cross-sectional study using data from the 2006 and 2007 National Ambulatory Medical Care Survey. We included ambulatory visits by adult, non-pregnant patients to generalists and internal medicine specialists practicing in non-federally funded, non-hospital-based ambulatory practices in the U.S. We examined the association between 3 physician incentives for quality (financial compensation partially based on quality, financial compensation partially based on satisfaction, and public reporting of performance measures) and 12 measures of high quality ambulatory care. The 12 measures of high quality care were categorized by patient diagnosis and visit type. We examined 4 measures during preventative care visits: smoking cessation counseling for smokers, body mass index (BMI) screening, weight reduction counseling for overweight patients, and urinalysis not performed or ordered. We examined 1 measure of high quality diabetes care: blood pressure measurement of less than 130/80 mmHg. We examined 2 measures of high quality heart failure care: prescription of either angiotensin converting enzyme inhibitor (ACE-I) or angiotension receptor blocker (ARB) therapy and beta-blocker therapy. We examined 2 measures of high quality coronary artery disease care: prescription of oral antiplatelet therapy and beta-blocker therapy. Finally, we examined 3 additional measures: no prescription of antibiotic therapy for upper respiratory infection, prescription of anticoagulation therapy for patients with atrial fibrillation, and 3 prescription of bronchodilator therapy for patients with COPD. For each measure, we excluded patients for which the quality measure might be contraindicated or not applicable. We used multivariable logistic regression to assess the independent effect of physician incentives on the delivery of each of the 12 quality indicators

RESULTS: Overall, 20.8% of visits were to physicians whose financial compensation was partially based on quality, 17.7% of visits were to physicians whose financial compensation was partially based on patient satisfaction, and 10.0% of visits were to physicians who publicly reported performance measures. Quality of ambulatory care varied: weight reduction counseling occurred in 12.0% of preventative care visits by obese patients whereas urinalysis was not performed in 93.0% of preventative care visits. In multivariable analyses, there were no statistically significant associations between financial incentives for quality and delivery of high quality care for any of the 12 measures, nor for 11 of the 12 measures when examining the association with financial incentives for satisfaction; the exception was an association with BMI screening in preventative visits (Adjusted Odds Ratio (aOR)= 2.45, 95% confidence interval [CI] 1.3-4.6, p=0.005). There was also no statistically significant association between public reporting of performance measures and delivery of high quality care for 11 of 12 measures; the exception was weight reduction counseling for overweight patients (aOR=2.05, 95% CI 1.2-4-3.4, p=0.007).

CONCLUSION: We found no consistent association between incentives for quality and 12 measures of high quality ambulatory care. Our finding that on a national level financial incentives and public reporting were not associated underscores concerns about the potential impact of current quality incentive programs for improving health care quality in the U.S.

Prospective association between body mass index (BMI) and receipt of preventive services: Results from the Central Pennsylvania Womenâ€™s Health Study (CePAWHS) Jennifer L. Kraschnewski [1]; Jennifer McCall-Hosenfeld [1]; Carol Weisman[1]. [1]The Pennsylvania State University College of Medicine, Hershey, Pennsylvania . (Proposal ID # 11394)

BACKGROUND: Optimizing preventive service receipt, as recommended by the U.S. Preventive Services Task Force and the Centers for Disease Control and Prevention, is important for providing high-quality, comprehensive primary care for reproductive-aged women. Previously published, cross-sectional studies have not conclusively shown whether overweight and obesity affect receipt of these services. Some studies suggest underutilization of preventive services in women who are overweight and obese, perhaps due to physician bias, whereas other studies show the opposite, perhaps due to greater need for preventive services associated with obesity-related comorbidities. Utilizing a unique, prospective population-based cohort, we investigate the effect of body mass index (BMI) on the receipt of guideline-concordant preventive services among reproductive-aged women. We employ the behavioral model of healthcare utilization to determine the association between BMI and preventive service receipt.

METHODS: We used data from the Central Pennsylvania Women's Health Study (CePAWHS) population-based longitudinal survey of women ages 18-45. The analytic sample consisted of 1,420 women who completed a telephone survey during 2004/05 and a follow-up survey 2 years later. Women who were either underweight (BMI <18.5; n=23) or pregnant at baseline during the study period (n=54) were excluded from the analysis. Multiple logistic regression models assessed the independent contribution of BMI category (normal weight [BMI 18.5-24.9], overweight [BMI 25-29.9], and obese [BMI >= 30]) to the receipt of preventive screenings (pap smear, cholesterol screening, diabetes screening) and counseling services (dietary/nutritional, exercise, weight management), and reproductive counseling (defined as counseling for pregnancy planning, birth control or preconception care). All models controlled for variables that *predispose* individuals to use of health services (age, race/ethnicity, educational level), variables that *enable* healthcare access (having a usual healthcare provider or using an obstetrician-gynecologist, poverty status, and continuous health insurance coverage), and *need*-based variables (overall health status, a single item from the Short Form 12 and metabolic comorbidities (at least one of the following: hypertension, high cholesterol or diabetes mellitus).

RESULTS: Overall, women who were obese were older, had lower educational attainment, and were more likely to be in or near- poverty status. Additionally in unadjusted analysis, women who were obese were less likely to see an obstetrician-gynecologist, had lower overall self-rated health status and higher rates of co-morbidities (hypertension, high cholesterol, diabetes mellitus). In multivariable analyses, women who were overweight and obese did not differ from normal weight women in receipt of pap smear or reproductive care counseling, but did receive greater rates of cholesterol (51.4% and 65.8% vs. 42.3%, p<0.001) and diabetes screening (44.6% and 57.1% vs. 35.7%, p<0.001) as well as greater preventive counseling for diet or nutrition (50.3% and 65.8% vs. 28.5%, p<0.001), exercise or physical activity (47.0% and 59.2% vs. 32.6%, p<0.001), and weight management (37.0% and 62.5% vs. 11.5%, p<0.001) (see Table).

CONCLUSION: Overall rates of preventive services received in this study were low, below levels expected for optimal primary care. Of particular concern is the low rate of reproductive care counseling provided to overweight and obese women of reproductive age, given their elevated risk for adverse pregnancy outcomes. Reassuringly, our data suggest that primary care physicians are appropriately targeting women who are overweight and obese for services that address comorbidities associated with increased BMI (i.e. cholesterol and diabetes screening, and counseling on nutrition, physical activity and weight management). However, these services remain underutilized, provided to less than half of overweight and less than two-thirds of obese women in this study. The overall low rates of preventive services and counseling suggest future work is necessary to improve the receipt of these important services, particularly among the overweight and obese population.

Chronic Disease and the Medicaid Expansion Under Health Reform: Unmet Medical Needs Among Uninsured Adults

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BACKGROUND: The Patient Protection and Affordable Care Act expands Medicaid eligibility as of 2014 to all adults with incomes up to 133% of the federal poverty level, with the promise of increasing access to care for millions of uninsured individuals. Appropriate policy planning in the areas of provider workforce and budgeting will be critical. Such planning requires estimates of the chronic disease burden and need for increased medical services among uninsured adults who will become eligible for Medicaid under health reform.

METHODS: Our analysis uses nationally-representative data from the Medical Expenditure Panel Survey (MEPS) Household Component 2004-2008. Our sample contains all adults aged 19-64 without any health insurance, who have family incomes below 133% of the poverty level â€“ meaning that they will be eligible for Medicaid in 2014 (n = 11,279). We linked household data on income, demographics, and health care utilization with the MEPS Medical Conditions Files, which provide detailed information on self-reported conditions by ICD-9 code. We calculated survey-weighted means to estimate the prevalence of chronic diseases (including hypertension, diabetes, HIV, obesity, and schizophrenia, among others) in this population. We then compared each individualâ€™s health care utilization with national guidelines for needed therapeutic services and monitoring (e.g. at least two visits a year for hypertensive patients to monitor blood pressure according to JNC-7), and calculated the number of adults who received suboptimal care. Then we constructed a measure called a â€œvisit deficitâ€ to estimate how many additional outpatient encounters each year would be needed to provide guideline-consistent medical care (assuming multiple conditions could be addressed at the same visit), and how many additional health care providers would be needed to provide this care.

RESULTS: Among uninsured adults who will be eligible for Medicaid under health reform, 51.5% reported at least one chronic medical condition, and 22.5% reported two or more. The most common conditions were obesity (27.3%), hypertension (17.6%), dyslipidemia (11.3%), depression (9.5%), asthma (9.3%), and diabetes (5.5%). 61.3% of adults with chronic conditions had received suboptimal care in the previous 12 months, with an average â€œvisit deficitâ€ of 1.16 visits per person. This translates into an additional 7.8 million visits nationally per year to provide appropriate monitoring and follow-up, corresponding to roughly 3500 additional health care providers who will be necessary in order to care for the chronic conditions among these adults.

CONCLUSION: Chronic disease is common among uninsured adults who will be eligible for Medicaid under health reform beginning in 2014. Though some of these eligible adults may not end up enrolling in Medicaid, overall our analysis probably underestimates the actual chronic disease burden given that we are using self-reported health measures and many of these conditions are likely still undiagnosed in this population. The majority of adults in our sample did not receive even the minimally recommended care for their chronic conditions. Effective outreach, appropriate case management, and significant increases in the number of Medicaid providers will be necessary to ensure that health reform leads to higher quality care for low-income adults with chronic disease.