Measuring Primary Care Access: Using Complementary Methodologies to Inform Health Policy

April 13, 2012
University of Pennsylvania, Leonard Davis Institute of Health Economics, Philadelphia PA

Conference Proceedings
## Conference Proceedings

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## Conference Organizers:
- **Karin Rhodes, MD, MS**, Director, Emergency Care Policy Research, Dept of Emergency Medicine, Perelman School of Medicine and School of Social Policy & Practice, University of Pennsylvania
- **Daniel Polsky, PhD**, Executive Director, Leonard Davis Institute of Health Economics, Professor of Medicine, Professor of Health Care Management, The Wharton School
- **Genevieve Kenney, PhD**, Senior Fellow, Urban Institute
- **Marjorie A. Bowman, MD, MPA**, Professor and Founding Chair, Department of Family Medicine & Community Health University of Pennsylvania Health System, Founding Director, Center for Public Health Initiatives
- **Ari Friedman**, 5th year MD/PhD Student, Perelman School of Medicine and The Wharton School
- **Charlotte Lawson (Proceedings Editor), MS4**, Doris Duke Clinical Research Fellow, Perelman School of Medicine
CONFERENCE AGENDA
Measuring Primary Care Access

8:00  Breakfast/Networking

9:00  Introductions
→ Welcome: David A. Asch, MD MBA, Executive Director, Penn Medicine Center for Innovation

Historical Context: Primary Care in U.S.
Marjorie A. Bowman, MD MPA, Chair, Department of Family Medicine and Community Health, Founding Director, Center for Public Health Initiatives, UPHS

Access to Care under Health Reform in Massachusetts: An Assessment from the Perspective of Insured Adults
→ Sharon Long, PhD, Senior Fellow, Health Policy Center, the Urban Institute
Discussant: David Grande, MD MPA, Assistant Professor of Medicine, UPHS and Senior Fellow, Leonard Davis Institute of Health Economics

Break

10:45  Physician Acceptance of New Medicaid Patients in 2011
→ Sandra Decker, PhD, Distinguished Consultant, National Center for Health Statistics of the Centers for Disease Control and Prevention
Discussant: Genevieve Kenny, PhD, Senior Fellow and economist, the Urban Institute

Using Audit Methodology to Measure Primary Care Access Before and After Health Care Reform
Karin Rhodes, MD MS, Director, Emergency Care Policy Research Group, Penn Dept. of Emergency Medicine; Daniel Polsky, PhD, MPP, Executive Director, Leonard Davis Institute, Professor of Medicine, UPHS; and Genevieve Kenny, PhD, Senior Fellow, the Urban Institute
Discussant: Peter Cunningham, PhD, Senior Fellow, Center for Studying Health System Change, Washington, D.C.

12:45  Break for Lunch

Monitoring California Physician Participation in Medicaid through a Re-Licensure Survey
→ Andy Bindman, MD, Professor of Medicine, Health Policy, Epidemiology and Biostatistics, UCSF; Director of the University of California Medicaid Research Institute; Director of UCSF’s Primary Care Research Fellowship
Discussant: Joel Cantor, ScD, Director, Center for State Health Policy; Professor for Public Policy, Rutgers University

2:45  Using Mixed Methods to Monitor Access to Primary Care: The Community Tracking Study Experience
→ Peter Cunningham, PhD, Center for Studying Health System Change
Discussant: Peter Shin, PhD, Associate Professor of Health Policy at George Washington University and Research Director, Geiger Gibson – RCHN Community Health Foundation

Break

Group Discussion – Using Complementary Methodologies to Inform Health Policy
Moderator: Daniel Polsky, PhD, MPP, Professor of Medicine, Professor of Health Care Management, The Wharton School, Executive Director, Leonard Davis Institute of Health Economics

5:00  Adjourn
INTRODUCTION

The 2008 health reform legislation will expand health insurance to an estimated 32 million currently-uninsured individuals by 2014. One consequence may be strain on the current primary care capacity, potentially affecting the currently-insured though fewer appointment slots and longer wait times for care. Access to primary care became a substantial political concern when Massachusetts passed its version of health reform in 2006, and national access issues are likely to be no less significant. Consequently, accurate measurement of access to care before and after the Affordable Care Act (ACA) is fully implemented in 2014 is a key input to health policy.

Access is a key issue not only because of the political relevance of the measurements, but because the complex structure of health reform gives researchers an opportunity to test a variety of theories about the health system structure. For instance, at the same time the ACA expands insurance coverage, it encourages new financial arrangements among providers and payers in order to extend health system reach into the community through accountable care organizations providing support for primary care medical homes, with the goal of improving population-based health. It also varies primary care physician’s compensation for Medicaid patients—increasing it for two years, and then returning to baseline. However the impact of these changes, especially the effect of the short-term primary care stimuli on access to primary care remains unknown. Access itself remains a multifaceted concept, with a variety of potential metrics being considered. Understanding the interaction of all these factors will be key to sorting out the effects of health reform and presenting the results to the public in an unbiased manner.

Because there are many different aspects of access and because these aspects interact in complex ways that vary by state and region, an open discussion among health service researchers can help define a more comprehensive picture and enable us to track the impact of health reform on access to care across the insurance spectrum. To facilitate such dialogue, the Leonard Davis Institute for Health Economics (LDI) hosted an interdisciplinary conference to specifically discuss the challenges and potential for generating valid and complementary methods of measuring and monitoring access to care under the ACA.

This one-day conference was held at the University of Pennsylvania, inviting health service researchers to be presenters, discussants, and interactive members of the audience. Presenters were all actively in the process of measuring primarily the supply-side of access to care using a range of methodologies. After an overview providing the historical context for the current state of the U.S. primary care workforce, the conference was run as a series of ‘research-in-progress’ presentations, each with a formal discussant followed by audience discussion of the pros and cons of the methodology and suggestions for enhancing the work.

It is the organizers’ hope that sharing the proceedings from this dynamic conference will stimulate interdisciplinary communication and encourage coordination of measurement objectives across research teams. By furthering the ability of individual research teams to study different aspects of access to primary care and critically examining and improving the methodologies of planned studies, the goal is to foster a community of researchers and funders interested in developing such metrics and generating studies that will contribute in a meaningful way to the on-going national health reform debate.

HISTORICAL CONTEXT: PRIMARY CARE, HISTORY OF WORKFORCE AND VALUE
Marjorie A. Bowman, MD MPH, Chair, Department of Family Medicine and Community Health, Founding Director, Center for Public Health Initiatives, University of Pennsylvania Health System

Access to primary care is related to: the ratio of primary care providers to the total population and the expectations of activities to be provided by each provider. The value of primary care has been studied extensively (Barbara Starfield) and has been shown to result in higher quality, more equitable and less costly care resulting in lower mortality for patients. The 2010 AMA Masterfile identified 295,000 primary care providers, one third of which are nurse practitioners (NPs) and physician assistants (PAs). Looking back over the last 60 years, we can see that the percentage of MDs practicing primary care as opposed to specialty care has plummeted from approximately 60% in the 1950s to 33% in the 1990s. Of note, this shift corresponds temporally with the initiation of Medicare.
An examination of the physician to population ratio from 1980-2006 shows that the number of doctors per 100,000 persons has been increasing, with the curves for both specialty and primary care physicians on the rise. Indeed, our MD to total population ratio (1:1100) is greater than that of our Western European peers. In fact, we have the largest, best-trained primary care workforce in US history. However, these ratios vary tremendously by location. Using HRSA data, the Robert Graham Center has identified 1381 counties in the US (44% of all counties) that qualify as Primary Care Health Professional Shortage Areas. An additional 667 counties (21%) are considered “partial” PC HPSAs. This mal-distribution of primary care providers on a state-by-state basis illustrates the influence of state policy on access to care.

A number of factors influence the size of our primary care provider workforce. First, there is the belief that specialty care is superior to primary care and the attitude that more is better. Our reimbursement system represents a second driving force.

The benefits of primary care include decreased mortality and less health care expenditure. In a study by Barbara Starfield, adults with a PCP (versus specialist) as their personal physician had 33% lower cost of care and were 19% less likely to die (after controlling for age, gender, income, insurance, smoking status, perceived health and 11 major health conditions). Similarly, data from the Robert Graham Center shows that in states with higher numbers of FPs/NPs/PAs per 100,000 people, Medicare Part A expenditures and avoidable hospitalizations are considerably lower. This data can additionally be used to estimate an ideal PCP to population ratio for lowering costs and hospitalizations. For a workforce comprised only of FPs, NPs and PAs this ideal balance lies between 1500:1 and 2000:1. After including other PCPs, the ideal ratio is closer to 1000:1. This further suggests that within primary care, the greater number of activities a provider does, the lower the overall costs of medical care.

The inverse relationship between cost and quality of care is reiterated by data comparing the quality ranking of healthcare by state to the state’s annual spending per Medicare beneficiary. At the 75th percentile, each Medicare beneficiary costs $5200 per year whereas at the 25th percentile, costs are closer to $6,800 per year. Overlying data on the numbers of family practitioners in each state shows that on average there are 40% more FPs per capita at the 75th percentile than at the 25th percentile. Thus, this data underscores the relationship between higher PCP/population ratios, lower cost and higher quality care.

Unfortunately access to needed primary care is becoming more challenging. A 2008 study from the Commonwealth Fund surveyed adults with any chronic condition who needed after-hours care in the United States, among other developed nations. Other countries are not without difficulty, however, the United States stands out as nation with pronounced access and care coordination problems. Patients in the US were most likely to report that it was “very difficult” to get care on nights, weekends or holidays without going to the Emergency Room (ER). Furthermore, for 24% of US respondents, relevant test results/records were not available at the time of their appointment and for 20% a duplicate test was performed. US adults with a chronic condition were also the most likely to experience one or both coordination problems over a two-year time period. What’s more, the US is paying extra in spite of these challenges. As of 2010, health care spending per capita in the United States was twice that of Germany, the next highest spender.
Lack of access can be attributed in part to lack of capacity. Data from the American Association of Medical Colleges (AAMC) Graduation Questionnaire revealed that the percent of medical school graduates pursuing residencies in primary care (family medicine, general internal medicine and general pediatrics; adjusted for the percent who will be generalists, as opposed to pursuing a specialty) has decreased from 40% in 1997 to less than 15% in 2008. The income of family medicine doctors relative to specialists certainly plays a part in this decline. To achieve the desired ratio of practicing primary care physicians, the average incomes of these physicians must achieve at least 70% of median incomes of all other physicians. Investment in primary care office practice infrastructure will also be needed to cope with the increasing burdens of chronic care and to provide comprehensive, coordinated care. Payment policies should be modified to support both of these goals.

ACCESS TO CARE UNDER HEALTH REFORM IN MASSACHUSETTS: AN ASSESSMENT FROM THE PERSPECTIVE ON INSURED ADULTS
Sharon Long, PhD, Senior Fellow, Health Policy Center, Urban Institute

In 2006, Massachusetts implemented statewide health reform with the goals of extending comprehensive coverage to nearly all residents while improving access, affordability and quality of health care. The reform bill included provisions for the expansion of Medicaid (MassHealth), new income-related subsidies for the purchase of private coverage (CommCare), a health insurance exchange (the Connector), requirements for employers to offer coverage to workers and an individual mandate to obtain coverage.

Since the introduction of health reform, Massachusetts has seen gains in both public and private coverage despite the recession. There have been measurable improvements in the access to preventive care visits and improvements in the affordability of care for individuals, particularly in the early years under reform.

In many ways, health reform in Massachusetts served as a model for the Affordable Care Act (ACA); studying the effects of reform in Massachusetts may therefore be helpful as we try to predict the impact of the ACA on access to care. To get an overview of access for insured adults in Massachusetts under health reform, a team from The Urban Institute created the Massachusetts Health Reform Survey (MHRS). From 2006 to 2010, the MHRS interviewed approximately 3,000 non-elderly adults per year using a random digit dial sample frame. Landline phones only were included in 2006-2009 with cell phone numbers added to the sample in 2010. The analysis presented at this conference focused on insured adults, defined as those who had insurance coverage for the 12 months prior to being surveyed (~88% of non-elderly adults in the sample). Data was analyzed both in aggregate and for the following subgroups: family income (less than 300% Federal Poverty Level vs above), insurance status (employer sponsored insurance (ESI) coverage vs public and other) and access problems (reporting an access problem vs not). All analyses were weighted to account for survey under-coverage and survey non-response.

Looking first at the data through the lens of family income, a few findings stand out. Although most lower income adults reported having a usual source of care (89%), they were far less likely than higher-income adults to have had the same usual source of care for five years or more (58% vs 73%). Reasons for this difference included clinic location, hours, quality and ease of getting an appointment. When

Type of Care for Which Encountered Problems, by Family Income, 2010

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<th>Type of Care</th>
<th>All Insured Adults</th>
<th>Higher Income</th>
<th>Lower Income</th>
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<tr>
<td>Primary care</td>
<td>67%</td>
<td>63%</td>
<td>71%</td>
</tr>
<tr>
<td>Specialty care</td>
<td>45%</td>
<td>45%</td>
<td>45%</td>
</tr>
<tr>
<td>Both</td>
<td>12%</td>
<td>8%</td>
<td>16%</td>
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*(**) Significantly different from higher-income adults at .05 (.01) level, two tailed test
compared to higher income adults, those with low incomes were more likely to have experienced problems obtaining care (27% vs 14%), to have been told the doctor’s office or clinic was not accepting new adults (17% vs 9%) and to be told that the doctor’s office or clinic did not accept their insurance type (17% vs 5%). Adults of all incomes were more likely to report a problem accessing primary care than specialty care. 1 in 5 adults of any income reported being unable to access some type of needed care with low-income adults experiencing more unmet needs (29% vs 14%). Low-income adults were far more likely to use the Emergency Department (ED) and were more likely to report inability to get a timely outpatient appointment as a reason for ED utilization. Finally, an assessment of provider availability under their health insurance plan by income showed that low-income adults were significantly less likely to report excellence with regard to their choice of doctors, location of doctors and ability to see a specialist.

In a separate analysis, demographics of adults who reported problems accessing care were assessed. Relative to other adults, those reporting provider access issues tended to be younger (45% under age 35 vs. 29%), female (65% vs. 50%) and non-white/non-Hispanic (27% vs. 17%) with lower family income (57% under 300% FPL vs. 36%). Adults reporting problems tended to be in worse health (20% report fair or poor health vs. 11%) with more disability (32% report an activity limitation due to a health problem vs. 14%). They had shorter relationships with their usual source of care and tended to see multiple providers over the course of a year. They reported needing care after regular office hours more and tended to have more ED visits, including visits for non-emergent care. They were more likely to have public or other coverage than employer-sponsored insurance and were more likely to rate their quality of the care and their health plan less favorably.

In summary, the findings from the Massachusetts Health Reform Survey show that while insurance does improve access to care it does not guarantee access to care. The type of insurance matters when it comes to access. Adults with provider access problems were more likely to have public or other coverage than ESI and adults who report access problems rely heavily on the Emergency Department, with non-emergent visits often attributed to an inability to get an appointment at a clinic. Ultimately, the data tells a cautionary tale about the ability of expanded coverage alone to address barriers to care. Eliminating barriers to access requires addressing those barriers directly.

**Discussant: David Grande, MD MPA, Assistant Professor of Medicine, University of Pennsylvania Perelman School of Medicine and Senior Fellow, Leonard Davis Institute of Health Economics**

The experience in Massachusetts is highly informative particularly as we try to anticipate what will happen in the rest of the nation as the ACA rolls out. It sheds some light on the challenges we face with regard to primary care access and access overall, challenges that may be partly addressed by expanding coverage but not fully addressed.

The policy changes in Massachusetts mimic what will happen nationally. Dr. Long’s work highlights the disparities in access that exist between public and private coverage. Given that Medicaid will cover half of the new enrollees under the ACA, these disparities will impact a larger population as the publicly insured population grows. One question that arises is: how do we begin to address these disparities as the simultaneously impact a larger percentage of the population?

This work also emphasizes the need to develop and maintain monitoring systems for the purpose of tracking these access disparities and the factors that drive them over time. Certainly, payment rate can explain some of the differences in access that Dr. Long has highlighted today. However, as we move forward in our efforts to address this problem, we must not ignore additional reasons for these inequalities. For example, the administrative burden of insurance programs for providers and the geographic distribution of practices relative to population are examples of additional factors that warrant further study and monitoring. Some of these issues will require better data. For example, household surveys are typically not able to measure small area variations within cities and towns.

Of course, there have been some successes in Massachusetts: the number of adults with a usual source of care is remarkably high compared to national estimates and the increase represents a striking improvement. But it is notable that this improvement has not translated into better access. Ultimately,
Massachusetts tells a cautionary tale about the short-term changes we can expect from expanded coverage.

The problem of the overall supply of primary care providers, as Dr. Bowman pointed out, is a chronic problem, and one that certainly needs to be addressed. However in the meantime, we need to learn to do more with the workforce we have because the workforce is quite static in the short-run. A shorter term solution, therefore, might focus on panel management and panel optimization. We ought to ask: who in primary care has been able to care for a larger panel size while maintaining access and quality? What can we learn from these practices? How do practices respond to increasing demand? We should learn from this variation.

**Audience Discussion**

- How was mental health considered during Mass. Health Reform? To what extent has mental health been integrated with primary care?
  - There was not a specific integration of mental health with primary care as part of the Massachusetts Health Reform legislation. Additionally, we did not have questions on mental health in the survey. In part because when the survey was designed, mental health questions were viewed as sensitive items to ask in a household survey.

- With expanded care comes increased demand. What were your observations of the system’s response in Massachusetts to this change?
  - In the first year under health reform, there was improved access to care overall; however, there were also more reports of unmet need among adults who required follow-up care. These findings suggest that while more people were able to see a doctor some of those who needed additional care afterwards had difficulty getting that care. This did place a stress on the system but that had disappeared the next year. So it seems there was a bump up in demand for care in the initial period of reform as more people were covered that faded over time.
  - Emergency Department utilization has remained high under health reform. We suspect that high ED use is, in part, a cultural issue, that people don’t just use the ED because they don’t have insurance or access to a primary care physician. If you are in an area with eight major hospitals, many people have learned that if you want to get care quickly, you go to the ED.

- Is there also culture among physicians of sending patients to the ER?
  - We did have that as one of the options in our question on why individuals had gone to the ED for what they considered a non-emergent condition. It was a minority of adults who reported that they were told to go by their physician (34%). Other factors were more important.
  - It seems like that would be a good thing to track over time, perhaps as a way of measuring the stress placed on the primary care system.
  - Of note, the adults who seek care in the ED does vary by time of day, with lower income adults coming more often after hours.

- Strategies to stabilize ED use?
  - In California, Primary care and ED visits cost payers the same amount, which means insurance providers have little incentive to dissuade adults from using the ED
  - ED utilization comes with a variety of incentives that appeal particularly to lower income populations (food, warm, immediacy); because of the many factors involved, health reform alone will not address the ED utilization issue

- What should the goal be? The same care for everyone? Or are we okay with satisfaction variation?
  - There is an issue here of equity versus cost and we need to figure out how we want to balance that.
  - What should the goal be with regard to satisfaction?
  - We need to define satisfaction and what represents success in a system where more of the population has access
Physician Acceptance of New Medicaid Patients in 2011

Sandra Decker, PhD, Distinguished Consultant, National Center for Health Statistics of the Centers for Disease Control and Prevention

[Details about the analysis are contained in: Decker, Sandra L. 2012. “In 2011, Nearly One-Third of Physicians Said They Would Not Accept New Medicaid Patients, But Rising Fees May Help” Health Affairs, 31(8): 1673-1679.]

Provisions of the Affordable Care Act (ACA) will result in millions of additional Medicaid enrollees and individuals purchasing health insurance through exchanges. Concern has been expressed about the capacity of the existing healthcare workforce to provide care to newly insured individuals. Evaluation of the capacity of the healthcare workforce and access difficulties will require appropriate data at the state level both before and after policy changes, data that have not been available to date.

This work provides a current snapshot of physician workforce capacity use as measured by the acceptance rate of new patients into medical practices. It summarizes for the first time the percent of physicians accepting new patients with Medicaid for each state in the US and explores cross-sectional correlates of physician acceptance of new Medicaid patients.

Physician acceptance of new patients is a common measure of access to care. MedPAC (the Medicare Payment Advisory Commission) annually reports to Congress the percentage of physicians accepting new Medicare patients as one measure of Medicare physician payment adequacy and access to care for Medicare beneficiaries. MACPAC (the Medicaid and CHIP Payment and Access Commission) also reported the percent of physicians accepting new Medicaid patients in its first report to Congress.

Of course, other measures of access are important as well. For example: the percent of beneficiaries with a usual source of care; the percent who do not access care due to inability to find a participating provider; the percent who do not access care due to long wait times for appointments. If these data were available by state, they might show different patterns than the data presented here.

This study used data from the 2011 National Ambulatory Medical Care Survey Electronic Medical Records Supplement. 4,326 physicians responded to the survey, representing a response rate of 64%.

The data were used to estimate the percent of physicians accepting new patients overall and with particular payment sources. I compared: the acceptance rate for new patients with Medicaid to acceptance rate for patients with other payment sources; the acceptance rates for physicians in primary care to those in other specialties; each state’s acceptance rate for new Medicaid patients to the national rate.

I also examined acceptance of new Medicaid patients as a function of physician and practice-level variables (physician age, gender, and specialty; practice size and whether or not in a metropolitan statistical area (MSA)) and state-level variables (number of Medicaid enrollees per capita, Medicaid managed care penetration rate, number of physicians per capita, Medicaid-to-Medicare fee ratios).

The study found that about 96.1 percent of office-based physicians accepted new patients in 2011. Nationally, 69.1% of physicians accepted new patients with Medicaid. This was lower than the percent accepting new self-pay (91.8), Medicare (83.1), or privately-insured patients (81.7). The percent of office-based physicians accepting new patients was lower for those in primary care specialties (about 94.0) compared to other specialties (97.7). Patients that do not pay were not examined in the study. When comparing each state to the rest of the nation, New Jersey was the only one with a statistically significantly lower acceptance rate (40%). Twenty-two states had statistically significantly higher acceptance rates compared to other states. The sample size in this study was insufficient to consider acceptance rates by state for subsets of physicians, such as those in primary care. An additional limitation is that the analysis of correlates of state acceptance rates for new Medicaid patients is purely cross-sectional.

The percentage of office-based physicians accepting new patients in 2011 was shown to be higher in states with higher Medicaid to Medicare fee for service fee ratios. On average, a 10 percentage point increase in the fee ratio raises the acceptance of new Medicaid patients by 4 percentage points. As part of the ACA, Medicaid payments for primary care services provided by primary care physicians (PCPs) will increase to 100% of the Medicare payment rates for 2013 and 2014. The information presented today
suggests that this change may increase the number of physician visits among Medicaid patients and shift the site of care away from hospitals and towards physician offices. But many questions remain:

- What will be the implications of very large increases in the fee ratio in some states?
- What will be the effect of the fact that the intended increase in Medicaid physician fees is temporary?
- What will be the effect of increases in Medicaid eligibility? Will there be capacity issues?

Discussant: Genevieve Kenny, PhD, Senior fellow and economist at The Urban Institute

This data is clear, accessible to a policy audience and very recent, if not real-time. It will be a great advantage to our field if it continues to be collected, and we hope it will. Even though this analysis is cross-sectional, the impact of this information should not be denied. Sometimes, descriptive numbers move the policy world more powerfully than fancy econometrics.

In terms of ways the data could be extended or reframed: there is a nationally high acceptance of Medicaid, but we do not know the degree to which acceptance rates vary across specialties; this is something the survey could be used to assess. The differences in each specialty’s acceptance of Medicaid versus private insurance and Medicare could also be reviewed. The data could get more analytic power as well by acknowledging that the denominator varies within a state – along rural versus urban lines, for example.

We know from prior research that payment rate influences Medicaid acceptance but we are not at all clear on how the temporary fee increase will affect access in each state. This survey could be a nice tool for tracking any changes over time.

In terms of the other ways we could benefit from this rich dataset, we could ask: how well have these Medicaid acceptance rates tracked with provider location? What do these data mean for access to care? How does willingness to accept new patients affect other measures of access (ED utilization, population-level un-met need, etc.)? How should we think about these data given that the Medicaid population is not evenly distributed across each state? A lack of providers accepting new Medicaid patients means little in areas without patients on Medicaid. It is therefore important to show how acceptance rates intersect with the geography of the population.

Audience Discussion

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New patient acceptance rates as a measure of access
- There is an assumption that ability to find a provider who accepts Medicaid is an issue for the population covered by it.
- Perhaps using “no new patients” as the dependent variable in an analysis versus “no new Medicaid patients” would highlight any discrimination and would take out those who are not accepting anybody new, regardless of insurance type.
- Patients with dual-eligibility are often considered Medicare patients from a billing perspective; this is important but difficult to account for. This survey did not count dually-eligible patients as “Medicaid”.
- Acceptance rates for specialty physicians may be affected by the expectation that this will be a short-term relationship (as opposed to the ongoing care expected by a PCP). Additionally, some specialists only see new Medicaid patients when the hospital they are affiliated with requires them to; for example, in the case of an ED patient who needs orthopedic follow-up after a fracture. Thus, patient acceptance rates among specialists may mean something different than they do for a PCP.

Reasons for provider non-acceptance of Medicaid
- When asked, providers do highlight cost as a major reason for non-acceptance however other factors always come up too, some of which are more important to the providers. Finding specialty care for patients on Medicaid can be very difficult for PCPs; it is a frustrating experience and the extra time involved to properly care for the patients limits provider willingness to do so. So it’s not just a low reimbursement rate that’s the problem, it’s lower payment for more time-consuming work.
- Might there also be an effect of state policies on Medicaid acceptance rates? With additional years of data collection, more state variables could be considered in the analysis.

Understanding the effects of managed care
- Managed care is not clearly portrayed universally. In the past, when states reported their percent managed care, they were not always talking about capitated plans. Primary Care Case Management (PCCM) programs, for example, feel like managed care to a patient but from a billing perspective these programs are essentially fee-for-service. So one state might have said they have 80% managed care while another has 50% but it doesn't mean that the state with 80% had more capitated patients.
- As of October 2010, the Managed Care Survey has collected its data by managed care payment models so going forward it may be possible to say something more concrete about the effects of capitation.

Simulated patient or audit methodology had long been used in consumer industries, including healthcare, to evaluate customer service. Recently, in the lay press such “mystery shopper” studies have been condemned as deceptive. Most notably, in June 2011, the Department of Health and Human Services in response to overwhelming negative press and opposition from the American Medical Association (AMA), announced that it would shelve its plans to study access to primary care through simulated patient encounters.

The purpose of the methodology, however, is not to study individuals but to study the system. By observing what people do, not what they say they do, researchers are able to measure real-world behavior. The methodology overcomes the influence of social desirability and response bias found in physician surveys. Further, by pairing calls to a service provider and altering just one trait, the design allows researchers to control for all other patient factors and examine the influence of the variable of interest (insurance status, for instance). In essence it is the ideal design for studying the impact of a single trait on service.

Of course, audit methodology comes with its own set of limitations. For one, is most useful for measuring entry into a marketplace. So it is best at measuring access, not quality; although most people would agree that access is a prerequisite to quality. Additionally, the methodology does not identify reasons for the observed behaviors – for that you need to add qualitative methods. Finally, to successfully simulate the patient experience, the caller must be able to supply the same information a real patient would have.

The overall goal of our study is to measure changes in primary care access for non-elderly adults following the implementation of the major coverage provisions of the ACA using a simulated patient methodology that tracks the experiences of trained research staff who pose as new patients seeking appointments. The larger study will be completed in two phases, with baseline data to be collected in 2012-13 and then again after the implementation of the ACA in 2014-15.
The specific aims of the baseline study will be to produce estimates of primary care access for 10 selected states for non-elderly adults. We will measure the proportion of physician offices accepting new patients overall and by insurance type (private, Medicaid and uninsured) for both for routine care and an urgent medical concern. We will also seek to estimate changes in rates of primary care access for adults covered by Medicaid following the implementation of the 2013 Medicaid primary care rate increases.

The unit of analysis in this study will be the provider office. Thus, a new appointment with any provider in the office qualifies as “access”. The appointment does not have to be with a pre-specified physician. The rationale for using offices as the primary unit of analysis (as opposed to individual physicians) is tied to the need to simulate real scheduling situations. It fits with the expectations of the scheduler and the behavior of new customers: they may have a physician in mind when calling an office but will take any appointment based on availability. Of course, an alternative view of access as work force capacity might be better captured using physicians as the unit of analysis. Thus, we adopted a layered call script.

Note: The team’s sampling strategy has changed considerably since this presentation was delivered. At the time of the conference, plans were in place to build the sampling frame from the AMA Masterfile, with data cleaned by the linking provider information with data from the NPI. Our subsequent work on identifying a sample frame is presented below for the benefit of other researchers.

We rapidly determined that AMA Masterfile data were not ideal for the study, based on overestimates of PCPs, and poor quality of addresses and phone numbers. Likewise identifying clinics through individual physicians on the NPI lists also proved inefficient. Of a random sample of 230 cases called, we were able to make an initial determination of PCP eligibility in just under half of the cases (47%). Fully a third of the phone numbers supplied by NPI did not result in contact with a person, thus requiring additional calls or web searches in order to rule the case in- or out-of-scope and, for eligible cases, to obtain appropriate clinic contact information. Eventually we found another vendor, SK&A, which is able to supply a clean clinic-level sample of PCPs.

We conducted a rigorous validation exercise in one state to determine the extent of missing eligible PCPs in the SK&A sample and whether data were systematically missing in any way. We did this by merging NPI data – which also contains information on mid-level providers like NPs, and PAs – with SK&A data and de-duplicating by name address and phone numbers to see what we would gain by supplementing SKA clinic lists with information from NPI. Then the survey lab called the non-duplicated sample of NPI providers. Results found that:

1. The NPI supplement only added 8% more offices
2. There were no detected biases in the NPI eligibles vs. SKA eligibles.
3. It is difficult to remove trainees and retired physicians from NPI
4. The NPI records that were called only had a yield of 21% eligibles vs. 86% eligibles for SKA.
Based on the analysis of the data collected during this validation study, the Penn team decided to just use SK&A data for the call through and audit. We will also conduct a two-step calling process. The “call through” or initial call to a clinic is non-deceptive and serves to collect other relevant data that is not easily captured during an audit call, such as the total number of primary care providers at each clinic and the distribution of these providers between the MD/DO and physician extender categories.

The study will be conducted in ten states (AR, GA, IA, IL, MA, MT, NJ, OR, PA and TX), which collectively account for 28 percent of the non-elderly population nationwide. With available resources, the study can provide separate estimates for each of the ten states. The states were purposively selected to vary with regard to: regional location, population size, population density, primary care supply, expected increase in the insured population under the ACA, Medicaid payment rates and managed care penetration. The variation between the study states should allow us to capture the range of experiences across states at baseline and the range of changes under the ACA.

We expect that we will be able to detect: within-state differences in access between privately insured and Medicaid patients at a point in time as small as 8.6 percentage points; within-state differences in access within an insurance category over time as small as 8.6 percentage points; differences across states in the access rate for private insurance (or Medicaid) of 9.9 percentage points; and smaller differences in the overall state rates than those detectable for the separate components. We will also examine other differences, such as those between the uninsured and Medicaid patients, urban/suburban/rural location by combining information across multiple states.

The importance of this study lies in its ability to provide unique insights about real-world experiences of non-elderly adults seeking primary care. It complements information that will be available on primary care access from provider and household surveys. But perhaps most notably it is well-timed to take advantage of the limited window to gather baseline 2012 data prior to the PCP rate increase and major expansions in plan enrollment.

**Discussant:** Peter Cunningham, PhD, Senior Fellow at the Center for Studying Health System Change, Washington, D.C.

Audit methodology is a very appropriate approach to monitoring primary care access and the impact of the ACA. However, for many studying this question, other instruments, such as the physician survey, are more familiar. In fact, we heard just one presentation previously about a physician survey that asks similar questions: what percent of physicians are taking new patients? How does insurance type impact one’s ability to get a new patient appointment? It seems natural then to contrast these two methodologies, simulated patient studies and the physician survey, with each other.

The issue of social desirability bias is certainly a concern when administering a physician survey, particularly in the context of questions around Medicaid acceptance. Simulated patient studies circumvent this issue nicely. The methodology additionally avoids the problems associated with low response rate; no response says something in and of itself in a design that replicates the patient experience. On the other hand, as was acknowledged by the presenters, physician surveys allow investigators to probe a lot more about why providers do not accept publicly insured or uninsured patients. In the end, the two are complementary methodologies.

One of the most critical issues for this study in particular is the unit of analysis; what are the pros and cons of using the office as opposed to provider? It is true that when making a new patient appointment a person would be more likely to call a clinic versus a specific doctor. But often patients do have certain provider characteristics in mind when they seek out a physician: age, gender, language and cultural background for example. Thus, access to a desired provider may be different than access to any provider.

I think it is a great idea to do a follow-up call in 2013 to measure the effect of the Medicaid rate increase but I did notice that the lack of a counterfactual group. It will be difficult for the study to exclude a market change as the reason for any observed differences.
Audience Discussion

→ Audit Methodology versus Physician Survey: does one have a cost-advantage?

- Audit methodology seems like the right approach for a county health department to use when monitoring variations in access by neighborhood. It sounds less resource intensive than physician surveys, it doesn’t rely on subject incentives or high response rates, and the results are available more quickly.

- Cost-advantage may be debatable though: simulated patient studies require trained and supervised callers. If you can obtain good response rates, physician surveys can save money. Simple choices such as the type of letterhead used can go a long way. The 2011 National Ambulatory Medical Care Survey Electronic Medical Records Supplement used CDC stationary and suspects that this was an important factor in their success.

→ Politics of “Deception Studies”

- If providers come to feel that the health services community is spying on them, it will not leave us as researchers in a good position, regardless of the merits of the methodology. How do respondents feel after they learn that they have participated in one of these studies?

- In a similar study, which audited a random sample of providers in ten cities, the entire sample received a follow-up letter, which explained the research and acknowledged that the provider “may or may not” have been called. The team received zero complaints.

- Within the physician community, opposition to the HHS study was largely from the AMA, whose membership and representation is heavily weighted towards medical specialists as opposed to primary care physicians. Audit methodology is simple, clean and easy to understand. Thus, it is politically persuasive. The political power the study may have if it identifies a need for more investment in primary (as opposed to specialty) care may have something to do with the opposition it received from organized medicine.

- The family medicine doctors had not heard of the study in advance; ultimately they thought it would be helpful data to have. In fact, many family medicine departments, including the one here at Penn, are effectively conducting their own “audits” by hiring calling companies and sending students door-to-door in an effort to learn more about where and how doctors in the community are practicing. That said, the students and callers are not representing themselves as patients.

- Framing research that uses audit methodology as an investigation at the system (as opposed to individual) level can help.

- Lessons learned from the HHS experience: it is important to line-up stakeholders and assure their support before making the study public. Ultimately, many primary care physician organizations and state Medicaid directors felt positively towards the HHS study, but these reactions were largely received in response to the negative press, not beforehand.

MEASURING CALIFORNIA PHYSICIAN PARTICIPATION IN MEDICAID THROUGH A RE-LICENSEURE SURVEY

Andrew B. Bindman, MD, Professor of Medicine, Health Policy, Epidemiology and Biostatistics, UCSF; Director of the University of California Medicaid Research Institute

California Medicaid (Medi-Cal) provides health insurance to over 7 million Californians annually. The population served is multi-ethnic and multi-lingual, and about half of the beneficiaries are children. Medi-Cal provider rates are among the lowest in the nation at 47th, additional cuts were made as recently as 2009 and 2011. Yet, under health reform, an estimated 2 million beneficiaries are expected to join Medi-Cal in 2014, most of them low-income childless adults.
Presently, Medi-Cal does not have a method for conducting a unique count of physicians actively participating in the program. This makes it difficult to monitor the workforce serving publicly insured patients in California. In an attempt to fill this void, the UCSF research team developed and administered surveys to random samples of approximately 1000 physicians in 1996, 1998 and 2001. The goal was to get an estimate on: how many doctors participate in Medi-Cal, the number and concentration of Medi-Cal patients in their practice and the number of Medi-Cal providers accepting new patients. In 2002, UCSF partnered with the California Medical Board to distribute a mandatory survey with re-licensure. This survey allowed for the tracking of demographic information, training history, practice location, hours worked and language skills. Initially, it did not ask about payer mix. To learn more about this issue, in 2008 the UCSF team distributed a time-limited, supplemental, voluntary survey with the mandatory materials. The voluntary survey was included again in 2011 and there are plans to conduct the next wave in 2013.

Physicians undergo renewals based on birthdate, thus sending the voluntary survey out for a two-month time period allowed for a “natural” random sample to be collected. Physicians were excluded if they were not eligible for re-licensure in California. Specifically, surveys did not go out to those doctors who had retired or passed away, who were not in California, who were in training and who were applying for their first license. The survey results were combined with the mandatory information from the Medical Board on physician demographics, including practice location zip code. Responses were weighted according to California physician population based on age, gender and mailing address for all in the Medical Board Masterfile.

Between 2008 and 2011 the response rate increased from 60% to 68%, in part because of improvements in identifying physicians who were ineligible. When compared to survey non-respondents, respondents were slightly more likely to be in primary care (37% vs 33%) and their mean age was one year older (51.4 vs 50.5).

Survey data from 2008 showed that regardless of physician type (specialty vs primary care), over 90% of physicians accepted private insurance. Patient on Medi-Cal were as likely to have their insurance accepted as patients with no insurance; this was true with PCPs and non-PCPs alike. Acceptance of Medi-Cal by specialty revealed data consistent with national trends: Pediatrics had the highest participation rate at 76% while Psychiatry had the lowest at 43%. Non-PCPs were slightly more likely to be accepting new Medi-Cal patients, possibly a reflection of the typically shorter-term relationships between patients and specialists. Facility-based practices were much more likely to accept a new Medi-Cal patient, perhaps in part because the decisions regarding payer mix are often set by the institution. Looking at Medi-Cal participating by physician age did not reveal any significant trends.

The survey also allowed us to examine the geography of Medi-Cal participation. Among PCPs, the biggest shortages of Medi-Cal participation are in Los Angeles, Orange County and the San Diego areas. The Bay Area and Northern California have above average participation rates. Throughout the state, PCPs and non-PCPs practicing in rural settings accepted Medi-Cal more than their urban counter-parts. Of note, when physicians take Medi-Cal, there are vast discrepancies in degree of participation. Even in rural settings, one third of PCPs who take Medi-Cal reported that only 1-5% of their panel has this insurance. In fact, when looking at the distribution of

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**Distribution of Medi-Cal Visits Across Physicians, 2008**

![Distribution of Medi-Cal Visits Across Physicians, 2008](image-url)
Medi-Cal visits across physicians in 2008, we can see that 25% of the doctors take care of 80% of the Medi-Cal patients.

Thus, as we go about determining the adequacy of our PCP supply as part of the effort to improve access, it is clearly not enough to simply ask if a provider accepts Medicaid patients or not. Instead, we should also factor in the percentage of their work effort that is directed toward the care of Medicaid patients (in this case Medi-Cal). Weighting doctors by the percent of their patients on Medi-Cal supports a more accurate estimate of the ratio of doctors available to Medi-Cal beneficiaries. For example, if a doctor sees 5% Medi-Cal, he or she would be classified as .05 of a Medi-Cal physician. Combining these proportions allows one to calculate the total number of full time equivalent physicians available for Medi-Cal patients. HRSA recommends 60 PCPs per 100,000 people. However, when we look at “Medi-Cal Physician Equivalents”, we found that there were only 50 per 100,000 beneficiaries in the state of California.

Increased Medi-Cal enrollment under health reform will further challenge the adequacy of the physician workforce. Moving forward, it will be critical to monitor whether federally financed reforms to expand coverage translate into broader access. Using a survey linked to re-licensure process has proved itself to be an efficient method of tracking physician practices. Going forward, we plan to resurvey the same cohort of birthdates every 2 years.

Limitations to this methodology include questions about reliability and validity of physician self-reports. It may be possible to use Medi-Cal claims data to validate reports. Other opportunities to enhance the assessment of access could include combining/comparing the survey data with simulated patient experiences and with data on preventable hospitalization and ED visit rates in a geographic area.

**Discussant: Joel Cantor, Sc.D.** - Director, Center for State Health Policy; Professor for Public Policy, Rutgers University

There are a great number of advantages to this methodology. It is efficient, low-burden, simple and quick. As was mentioned, there is the availability to resurvey the same cohort. This raises key follow-up questions: can we link responses and begin to build a longitudinal file? Ideally, this kind of survey could be implemented annually and perhaps in more depth, allowing us to build a sampling frame from this data.

Of course, with simplicity comes a number of gaps. For example, many physicians have more than one office. This survey does not assess multiple offices nor does it ask about the hours of each office, both of which impact access. In any case, if and when the opportunity arises to get at some of the characteristics of physician practices, that will be important to do. Additionally, it may be worthwhile to consider utilizing this methodology to survey other prescribers (osteopathic doctors, nurse practitioners, physician assistants and so forth).

The idea of using audit methodology to validate or enhance the data collected from re-licensure surveys sounds perfect. Linking the data to Medicaid claims may be a tall order but certainly linkage to Medicaid provider lists should be possible. Are there physicians on these Medicaid provider lists who report that they are not taking Medicaid? That is something Medi-Cal would want to know. Since you have the location of provider practices, you may consider opportunities to do more small area analysis, especially as the sample builds over time. The full-time equivalent (FTE) metric is a great way for us to understand availability for the population. If we could drill down on smaller areas using this tool, it would really give us a sense of where the shortages are. A number of other states (in the teens), collect data through re-licensure surveys as well; could you consider doing a cross state comparison?

Finally, would you be willing to talk more about the politics involved in getting this project financed and implemented? We would like to do something similar in New Jersey and have tried to do so but are continually stonewalled by the Medical Board. How can other investigators begin to think about collecting this data in their own states?
Audience Discussion

→ In response to the political environment surrounding the re-licensure survey

  - Working through the legislature and being careful have certainly helped but as it stands, the project has not experienced “push back” or been told to refrain from asking a particular question. Perhaps if the survey touched on more controversial issues, this would be different. The questionnaire was developed with the input of an advisory group that included members of the California Medical Association (CMA) as well as the Medical Board. In fact, CMA has been one of the more interested customers due to their constant battles with Medicaid programs over the provider cuts. It turns out that they saw value in getting the lay of the land. Additionally, you may recall from back in the 90’s there were strong concerns regarding the efflux of doctors from California and the data we were collecting at that time allowed the state to get a sense of how many physicians were actually practicing. In some ways that experience may have set the stage for this project by illustrating how these data can be used to further their interests as well. It also helps that our staff member works in the Medical Board and that during their downtime they help out with the mandatory survey. In this way, we are better integrated with them on a personnel level.

→ How are you looking at the uninsured?

  - For the question on payer mix, respondents estimate this for us by dividing 100 percentage points across provided categories. Self-pay is one such category. In the question that asks about willingness to accept new patients, the survey lists uninsured patients who are unable pay as an additional category, separate from the self-pay group. So for that question the uninsured population ends up getting split.

→ How does the instrument ask about Medi-Cal Managed Care?

  - Medi-Cal Managed Care is currently mandatory for the women and children’s program and as of June 2012 is also mandatory for seniors and persons with disabilities. The only place where it is not currently mandatory is in the rural counties however over 90% of Medi-Cal beneficiaries live in an urban county. In many of our surveys we have asked physicians to specify if they take Medi-Cal managed care, Medi-Cal Fee for Service (FFS) or both. Most who accept Medi-Cal patients, accept both. Data from other areas of the country has shown that managed care is not a driver of participation and that is consistent with our findings as well. One example of a provider who would not take both would be a Kaiser doctor who would only participate through managed care.

→ How, if at all, has Medi-Cal used this data for policy analysis?

  - In 2009, California proposed cuts to the Medi-Cal provider rates. This proposal went all the way to the Supreme Court. CMS did ultimately approve California's decision to cut Medi-Cal provider rates and as part of the approval, the state committed to reporting out its own access to care. However, instead of opting to use the re-licensure data to monitor access, California opted to use their own database. This data source relies on lists of physicians who have asked to bill Medi-Cal. They include providers participating in both Medi-Cal managed care and FFS, and likely include doctors who have left the state, stopped practicing, or even died since the list was created. The estimates they have produced do not take into account full-time equivalents (FTEs) either and on the whole, do not seem fully credible. They in return are raising questions regarding whether or not the self-report system is credible.

    - Of note, comparison of the re-licensure data with another source, the AMA Masterfile, shows that the Masterfile overestimates the number of doctors in California by 20%. This is partly due to death, retirement and relocation. This speaks to the power of the licensing board as a sampling frame.

→ Is it possible that DOs and midlevel providers account for the difference between the survey’s estimated 50 FTE per 100,000 and the recommended 60? Have there been efforts to include these providers in the survey?

  - The team would certainly like to include all of these providers in the survey. The DO board has been approached and is interested in participating; the nurse practitioners have responded similarly. We
would also like to include dentists, however we have not seen the same level of cooperation and interest from this group yet. HRSA is trying to create common instruments across the various medical professions, which is ultimately the end goal.

→ What would it take to get the FTE data in more places? Could NPI numbers be tracked to get FTE estimates without surveying physicians?
   
   - In the Medicaid program, use of the National Provider Index (NPI) is sometimes attributed to the clinic (for example, an FQHC) versus the individual provider. Thus it becomes very challenging to use NPI data to estimate the concentration of Medicaid patients among providers. There is some work going on to try and address that. It is not clear how often that happens but at present a best estimate seems to be ~25%. So, that’s the limitation.

→ Did you look at academic medical center (AMC) affiliation and their willingness to take Medi-Cal?
   
   - Yes, questions were asked about practice type (academic institutions versus office-based, etc). Specialists at AMCs do take a decent number of Medi-Cal, however because there are a large number of public hospitals in California, many of which rely on publicly insured patients for payment, AMCs institutions may not play as large of a role in California as they do in other states.

This presentation will discuss why it’s important to consider a “mixed-methods” approach when monitoring access to primary care, focusing especially on qualitative methods that can allow researchers to “get behind the numbers” in understanding changes in the health care delivery system. We will share our experiences with the Community Tracking Study – a longitudinal study that combined site visits and surveys of households and physicians – as a way to highlight both the strengths and limitations of mixed-methods studies. In particular, findings from the CTS site visits will be used to demonstrate that issues of primary care capacity and access need to be considered more broadly than survey-based estimates of the number of providers or physicians who are accepting Medicaid patients. With payment and delivery system reforms being a key part of national reform efforts, the organization of health care in a community – including the relationship between physicians and hospitals, the extent of competition between providers, use of mid-level providers, and the level of care integration and coordination – are all important factors when considering access to care, although difficult to measure quantitatively.

The Community Tracking Study (CTS) was an idea conceived by the Robert Wood Johnson Foundation (RWJF) in response to health reform under Clinton. The objective was to track changes in health systems at a local level. The CTS is very broad in scope, studying both private and public sector changes, and includes both quantitative and qualitative methods. The components of the CTS included physician and household surveys from a clustered sample of 60 randomly selected communities as well as site visits to 12 randomly selected metropolitan areas (out of the 60). As of this presentation, 10 rounds of site visits have been completed. Today’s presentation will focus on these site visits and the role of qualitative research in the CTS.

The CTS uses qualitative methods to get at something that’s too expensive to get at quantitatively. Qualitative methods allow for the assessment of dynamics and the reasons behind the numbers, in this way, they complement quantitative data. Some of the questions asked through the CTS site visits include:

→ How does primary care fit within the larger health care system? What is the relationship like between primary care providers, specialists, and hospitals?

→ What can we learn about practice organization (small single specialty groups vs. large multi-specialty groups)? How are mid-level providers being utilized in primary care practices? How does organization
and delivery of primary care differ across communities? We also looked at the degree of competition between primary care providers (e.g. do additional PCPs add more capacity or just compete for existing patients?)

→ What is the composition and role of the health care safety net?
→ To what extent is care fragmented versus coordinated? Just because an ACO sounds like a great idea, doesn’t mean providers in a community are going to be able to pull it off.
→ We also assess the local political environment by asking: what’s the history of the community? What’s the leadership doing? Are they supportive of efforts to expand primary care? We assess readiness for reform and willingness to engage in new payment and delivery system reforms.

When selecting respondents, a broad cross-section was desired. We sought interviews from providers, health plans/purchasers and policy makers. We used standardized interview protocols and coded responses by topic. Atlas software was used to generate output based on question number, topic, respondent type, site, etc.

Results from the site visits revealed an increasing hospital employment of MD’s, perhaps as positioning for Accountable Care Organizations (ACOs). FQHCs are expanding secondary to increased sources of funding from the ACA and ARRA. Although we observed efforts to create integrated delivery systems, the site visits ultimately revealed how fragmented the safety nets are. Hospital owned rural health clinics have increased. These clinics do not have to take uninsured patients thus they effectively compete with FQHCs for their Medicaid patients (and primary payment source). It is unclear the extent to which the addition of such clinics increase capacity versus shift patients from one provider to another. Electronic medical records are being used to improve coordination however many barriers still exist, especially between EDs and PCPs. EDs don’t seem to have a lot of incentive to coordinate with their outpatient colleagues.

The qualitative portion of the CTS has been helpful in identifying emerging trends before it becomes clear how we can measure them quantitatively. This data has helped us formulate hypotheses that can later be tested through quantitative measures. Some limitations to this methodology include concern about the methodological rigor, questions regarding researcher bias and lack of generalizability, and of course the demand from policy makers for numbers.

Going forward, we seek to understand the impact of coverage expansion on providers. What strategies for expanding PCP capacity within communities are being used and which are successful? How effectively is health information technology being used? What are the implications of attempts to expand capacity through urgent care and retail clinics? Are we increasing capacity or simply further fragmenting care?

Discussant: Peter Shin, PhD is an Associate Professor of Health Policy at George Washington University and Research Director Geiger Gibson – RCHN Community Health Foundation

These site visits offer a more real-time view of what is going on in the communities studied. They allow us to see, as the presentation alluded to, the dynamic relationships between pieces of the healthcare delivery system. We can see the degree to which providers, clinics and hospitals compete versus complement each other and thus make more informed statements about their impact on capacity and access. Qualitative methodology additionally makes it possible to examine many types of services. It would be great to hear more about the different aspects of the safety net examined by CTS.

Other facets of the healthcare system that could be examined using this methodology might include emerging issues such as immigrant health and family planning. Social determinants that affect access to care and health outcomes would also be good subjects for exploration via qualitative research. The field also needs to assess the organizational issues that make access possible (or not); qualitative methodologies, particularly site visits such as those utilized here, can help shed light on these sometimes complex dynamics.
Audience Discussion

→ How have the qualitative components of this work affected policy at the state or local level?

- The results from the CTS been cited by people testifying to Congress. On a community level there were some more clear-cut examples of impact. In Greenville, SC for example, the safety net was observed to be particularly weak. The report from CTS did seem to spur a community effort and led to increased involvement of local foundations.
- When New Jersey hospitals were closing the work done by CTS helped the team from the Center for State Health Policy tell the story to reporters.
- On the whole, safety net providers seem to be more interested in the results than the private hospitals. The CTS has found that it is harder to have direct impact on policy with a qualitative study. People want numbers.
- Part of the reason for this may be that we do not do a good job of bringing out the narrative. That’s what really grabs people, especially when it is matched with the quantitative data. That’s how you make policy changes.
- Don’t want to rely excessively on anecdotes out of a goal to present a “broad and balanced” message.
- There are tradeoffs to be made when we define our scope: sometimes when the message is broad, it is more difficult to capture the variation within communities. For example, northern New Jersey includes Newark and some of the wealthiest zip codes in the country. When you zoom out too far, you risk missing the stories within smaller areas.

→ Did you experience any issues with regard to participant burnout?

- Typically, the CTS does not have problems with safety net providers; these individuals and organizations view the study and their participation in it as an opportunity to be heard. It is more difficult getting hospital executives to participate although we do not believe this is secondary to burnout.

CONCLUDING NOTES

Karin Rhodes MD MS, Emergency Care Policy Research, Department of Emergency Medicine, Perelman SOM
Daniel Polsky, PhD, MPP, Executive Director, Leonard Davis Institute of Health Economics, Professor of Medicine, Professor of Health Care Management, The Wharton School

Health care reform is designed to address large problems in the U.S. health care system, which is known for its high cost, fragmented care, poor access, and wide disparities in quality and outcomes. Under the Affordable Care Act (ACA), we are currently in the process of making a number of dramatic changes in the health care delivery system, including massive expansions in coverage for currently uninsured and restructuring of payment structures and incentives with the goal of improving population-based health and access to care for all Americans.

This one day conference, focused on how to measure access to care before and after the major provisions of the ACA. Tracking access during the period of coverage expansions is critical to understanding the impact of the ACA as coverage expansions alone don’t guarantee adequate access. Coverage expansions are likely to increase the care demanded and received, but it will put added pressure on the workforce to meet this demand. As a result, there may be an increasing number of people who have difficulties finding providers for the care they need despite improved insurance coverage. To better understand the various approaches being developed to monitor access during this transition period, we convened a remarkable group of presenters, discussants, and participants who all study...
access through variety of methodologies. Each of the methods has strengths and weaknesses but each provide important information. The conference goal was to see how the combination of methodologies may together adequately track access to care or whether gaps remain.

Marge Bowman provided the historical context and presented data from the Graham Center's geographical analysis of PCP distribution. She pointed out that it is not our absolute number of PCPs but a mal-distribution of PCPs that drives much of the country’s PCP access concerns, with 44% of all US counties being categorized as PC shortage areas.

Sharon Long reported on the Urban Institute’s Massachusetts Health Reform Survey. Since health care reform in Massachusetts served as the model for the ACA, it is extremely helpful as we try to predict the impact of the ACA on access to care. The random digit dial survey targeted the 88% of Massachusetts adults who have insurance coverage. Rates of having a usual source of care (a standard measure of access) among low income publicly-insured patients were close to 90%. However, this same group was more likely to report problems finding a provider who will accept their insurance and long delays to outpatient care than higher-income patients with private insurance. Patient surveys are subject to recall bias and cannot control for patient-level barriers such as need, culture, language, and preferences for care.

The Massachusetts Health Reform Survey’s cautionary note that insurance-related disparities in access to outpatient primary care will continue to exist after health care reform, is reinforced by Sandra Decker's newly released NAMCS findings from a national probably survey of providers who responded to the Medical Records Supplement of the 2011 CDC’s National Ambulatory Medical Care Survey. Decker found that nationally over a third of doctors say they are not accepting new patients with Medicaid. Two additional policy-relevant statistics stand out; states with higher Medicaid to Medicare fee for service fee ratios had significantly higher Medicaid acceptance rates and the percent of office-based physicians accepting new patients in 2011 was lower for those in primary than specialty care. These findings beg the question of whether the ACA’s planned primary care rate bump will help remedy this situation. Provider surveys are notorious for low response rates, which raise concerns regarding non-response bias. Perhaps because Decker's survey was conducted under the authority of the CDC, it had a response rate of 64%, which is almost twice the usual provider survey response rate.

Andy Bindman’s California provider survey was also able to achieve the very high rates for a provider survey of 68%, when the survey was included with the California Medical Board physician re-licensure materials. The state Medical Board re-licensure provider survey methodology has the advantage of being able to track the same cohort providers over time. Although this has yet to be done, it would get away from the problems inherent in a cross-sectional survey. There is the additional potential for providers’ responses to be impacted by social desirability bias and other survey demand characteristics. For example, both the California Medical Board and CDC NAMCS surveys focused on the adoption of electronic health records (EHR) and providers who accept portion of Medicaid patients receive financial incentives to help defray the costs of EHR. So it is possible that nonresponders might both be less likely to see Medicaid patients and less likely to be getting this Medicaid-associated EHR financial benefit. Bindman also proposed that he could potentially validate provider responses through the use of Medicaid claims data – or through simulated patient methodology.

The use of simulated patient or audit methodology to measure access to care – presented as research-in-progress by the conference organizers (Rhodes, Kenney, and Polsky) – has the advantage of being able to provide precise estimates of access for those who seek care by insurance status over time, while controlling for need for care and other patient-level access barriers; it also eliminates nonresponse and social desirability biases. The disadvantage of audit methodology is that it is best at measuring access to an appointment for new (as opposed to established) patients. However, this methodology is appropriate for purposes of tracking provider participation in Medicaid and overall access to care over time. This methodology can also generate point estimates on wait times for care, allowing for measurement of diminished access, in addition to denied access. Tracking these dual measures of access will be very relevant if the ACA’s expected increased enrollment in both public and private insurance strains the
existing primary care capacity, resulting in long wait times for care. Likewise, to the extent that we can measure access by a number of practice-level variables (such as practice structure, location, number and type of providers, academic affiliation, and reimbursement strategy), it will be helpful for informing and testing future incentives that might improve access and reduce disparities. Missing from this methodology is an in-depth understanding of the underlying reasons for any identified access barriers or disparities. That important piece of information requires qualitative methods.

The need for supplemental qualitative methods to inform quantitative results from a number of methods was addressed by Peter Cunningham’s presentation of the mixed method approach that is being used in the RWJF-funded Community Tracking Study (CTS). The CTS is a longitudinal study that combines site visits and surveys of households and physicians. The site visits in particular are used to identify and explore issues of primary care capacity that are influenced by the relationship between physicians and hospitals, provider work hours, the extent of competition between providers, use of mid-level providers, and the level of care integration and coordination, all factors that are simultaneously occurring with the restructuring of our care delivery systems and have potential to impact access to care in both negative and positive ways.

What emerged from the rich set of discussions provoked by the presentations is that ACCESS is a multi-faceted multi-dimensional issue and requires all of these methods and more to be utilized in complementary fashion. A critical gap that was recognized was that access to providers must be combined with other measures tracking the demand for care, as access - as measured by many of these methodologies - may appear to diminish as more people seek care. Only when the rate of seeking care is combined with the rate of successfully accessing care among those who seek care can a full picture of population access.

Conference presenters, discussants, and audience members alike were excited about opportunities to bring different methodologies together in efforts to link and validate each other, as way to overcome the limitations of each design. Participants also came to this meeting with more focused interests than have been addressed in broad studies of access: immigration, prescription meds, and mental health, for example. It is helpful to consider the range of methodologies available for addressing these more specific questions about access. Audience members pointed out that while most research is being done on the supply side, we need to consider the beneficiaries as well. A number of very important questions were raised in the general discussion, such as:

To what extent is “realized access to care” driven by consumers as opposed to providers?

What barriers are created when patients are unable to navigate our complex health care system?
Can we use the access barriers experienced by vulnerable populations as sentinels of how well our system is doing?

To what extent does a focus on the access issues of high-risk, under-served populations influence policy, compared to identifying access issues influenced by the majority of privately-insured Americans?

To what extent is Emergency Department (ED) utilization something we want to avoid versus consider complementary in this “ideal” world of access? Perhaps we should consider an ED visit to be a consumer preference for unscheduled care, as opposed to a failure of outpatient access? Could ED care for ambulatory care sensitive conditions be provided at outpatient prices? What role will the rising number of urgent and retail care centers play in expanding access to acute unscheduled care vs. increasing the fragmentation of care. Can EDs and urgent care centers be incentivized to improve care coordination and supplement our primary care capacity? If ED providers can communicate and arrange follow up appointments with PCPs, can more costly admissions or readmissions be avoided? What other ways could we use the Emergency Department more efficiently?

Some audience members felt that there might still be a large sense in the health policy world that - with health care reform and more widespread health insurance - the access box has been checked. We can’t
assume that is the case; we must also to ask: how good is this access? As we move towards this model of holding states accountable for access, the question becomes: how can we best assure that our measures do what we need them to do? We need measures at both the local level and population levels. Many participants reiterated their interest in developing access measures for smaller geographic areas.

There was a call to develop a National Access Forum. To have a national conversation about these issues, it will be important to have a common vocabulary and ways of measuring access. Unlike Medicare, there are large differences in the way Medicaid is administrated at the state level. So it will be important to have state and county-level measures of PCP, so we need to know what capacity issues exist for each state.

As we try to achieve an increase in access and quality while cutting costs, the various components of the ACA are rolling out in phases providing both the opportunity and imperative to rigorously measure the impact of the new policy initiatives. Moreover, there will likely be a great deal of state-by-state variation in the way the ACA is implemented, particularly in the case of public insurance. With the Supreme Court ruling, there is a possibility that individual states could reject the ACA’s Medicaid expansion. If that happens, the cross-state variation will provide an opportunity for understanding how coverage interacts with access. Likewise, assuming the planned components of the ACA proceed, the natural experiment afforded by the 2013 primary care rate increase – which will occur prior to the increased enrollment – will specifically allow us to isolate the impact of reimbursement and determine whether this financial investment increases provider participation in public insurance, increasing access and reducing previously identified access disparities.

Dissemination and generalizability of results are also important. It is not good enough to do an excellent job measuring access and disparities in access and quality. We need to link these findings to both individual and population-based health outcomes. We also need to also do an excellent job communicating our results and making them accessible to the public as well as policy makers, if our studies are going to help inform guide national health policy.

It is our hope that by posting the proceedings of this conference online it will help to open up a national dialogue on how the various methodologies for measuring access, which is a prerequisite for quality, can complement each other to give a fuller picture of access to care in the United States.
David Asch, MD, MBA, Executive Director, Penn Medicine Center for Innovation, Robert D. Eilers Professor of Health Care Management and Economics, Associate Director, Robert Wood Johnson Clinical Scholars. Recently appointed as the inaugural executive director of the Penn Medicine Center for Innovation, Asch was previously the executive director of the Leonard Davis Institute of Health Economics (LDI). Under his leadership, the Center for Innovation was formed as a partnership between LDI and Penn Medicine. It combines the expertise of faculty members at the Perelman School of Medicine and The Wharton School to facilitate innovation and its implementation within the Health System and the School of Medicine. Initial areas of focus include improving the patient experience, anticipating and responding to changes in health-care financing, and identifying ways to achieve better health outcomes for our employees, patients and community. Dr. Asch also co-directs the Robert Wood Johnson Health & Society Scholars Program at the University of Pennsylvania. Recipient of the national Glaser Award for outstanding medical student education, Dr. Asch received his AB degree from Harvard University, his MD degree from Weill Cornell Medical College, and his MBA from the Wharton School, University of Pennsylvania.

Andrew B. Bindman, MD Professor of Medicine, Health Policy, Epidemiology and Biostatistics, at the University of California San Francisco (UCSF). He is Director of the University of California Medicaid Research Institute and Director of UCSF’s Primary Care Research Fellowship. He has practiced, taught and performed health services research at San Francisco General Hospital for over 20 years. From 1995-2010 he served as the Chief of the Division of General Internal Medicine at San Francisco General Hospital where he helped the Division to become a nationally recognized leader in developing physicians and scholars caring for and improving the care for some of the nation’s most vulnerable patients. Dr. Bindman has published more than 110 peer-reviewed scientific articles evaluating the impact of health policies on low-income persons access to and quality of care. He has developed innovative strategies for using health information and natural experiments to monitor Medicaid health care policies and the performance of health care systems. During 2009-2010 he served as a Robert Wood Johnson Health Policy Research Fellow on the staff of the Energy and Commerce Committee of the US House of Representatives. In 2010-2011 he served as a consultant to MACPAC providing expert review and advice regarding the establishment of an early warning system for access to care in the Medicaid and CHIP programs.

Marjorie A. Bowman, MD, MPA, Professor and Founding Chair, Department of Family Medicine & Community Health UPHS, Founding Director, Center for Public Health Initiatives. Dr. Bowman is dual board-certified in family medicine and public health and general preventive medicine. In addition to her medical degree, Dr. Bowman has a Masters in Public Administration degree, and previously worked in the Department of Health and Human Services in health policy work, and as a commissioned officer in the U.S. Public Health Services. Since arriving at Penn as the first woman chair of a clinical department in the School of Medicine, and as a founder of the Department of Family Medicine and Community Health, she has led the Department to one with over 40,000 outpatient visits in two offices in West Philadelphia, and championed education and research in family, preventive and community medicine within the university.

Joel Cantor Sc.D, is the Director of the Center for State Health Policy and Professor of Public Policy at the Edward J. Bloustein School of Planning and Public Policy at Rutgers, The State University of New Jersey. Dr. Cantor’s research focuses on issues of health care regulation, financing and delivery. His recent work includes studies of health insurance market regulation, access to care for low-income and minority populations, the health care safety net, and the supply of physicians. Prior to joining the faculty at Rutgers, Dr. Cantor served as Director of research at the United Hospital Fund of New York and Director of evaluation research at The Robert Wood Johnson Foundation. He received his doctorate in health policy and management from the Johns Hopkins University School of Hygiene and Public Health in 1988,
and was elected a Fellow of the AcademyHealth (formerly the Academy for Health Services Research and Health Policy) in 1996. Dr. Cantor has published widely on health policy topics, and serves on the editorial board of the policy journal Inquiry. Dr. Cantor serves frequently as an advisor on health policy matters to New Jersey state agencies; he currently serves as Chair of the New Jersey Mandated Health Benefit Advisory Commission and as a member of the Department of Health and Senior Services Quality Improvement Advisory Committee.

Peter Cunningham, PhD, is a Senior fellow at the Center for Studying Health System Change (HSC) in Washington, D.C. He has been extensively involved in the design, planning, management, and analysis of the Community Tracking Study (CTS), a large nationally representative and longitudinal study of the U.S. health care system funded by the Robert Wood Johnson Foundation. His main areas of interest include trends in public and private health care coverage, access to medical care for the uninsured, the effects of high medical bills and costs on access, physician charity care, and the viability of the health care safety net. He has published extensively in medical and health services research journals, including JAMA, Health Affairs, Health Services Research, Inquiry, Medical Care, and Medical Care Research and Review. Prior to joining HSC in 1995, Dr. Cunningham was a researcher at the Agency for Health Care Policy and Research (now the Agency for Healthcare Research and Quality). While there, he was extensively involved in the design and analysis of the National Medical Expenditure Survey (NMES). Dr. Cunningham received his Ph.D. in medical sociology and health services research from Purdue University in 1988.

Sandra Decker, PhD – is an economist and Distinguished Consultant at the National Center for Health Statistics of the Centers for Disease Control and Prevention. Most of her current work examines the effect of state Medicaid eligibility and provider payment policies on insurance status, labor supply, access to health care, and health outcomes for women and children. She is also examining the effect of the geographic availability of safety-net providers on the use of health services. Dr. Decker's work has been published in the Journal of Health Economics, Health Economics, the Journal of the American Medical Association, Health Affairs, and others. She earned a Ph.D. in economics from Harvard University, and an A.B. in economics from Dartmouth College, Summa cum Laude.

David Grande, MD MPA, is an Assistant Professor of Medicine, a Senior Fellow at the Leonard Davis Institute of Health Economics, and an Associate Program Director of the Robert Wood Johnson Clinical Scholars Program at the University of Pennsylvania. Dr. Grande’s research and work focuses on medical professionalism, influences of marketing in medicine, and health care for vulnerable populations. He is a founding board member of Healthy Philadelphia, an organization chartered by the City of Philadelphia focused on improving the quality of care in the health care safety net. He chaired Philadelphia Mayor Michael Nutter’s health transition team and is a member of the Advisory Committee on Public Health Law for the Commonwealth of Pennsylvania. Dr. Grande attended medical school at the Ohio State University College of Medicine. He trained in internal medicine at the Hospital of the University of Pennsylvania. Following his clinical training, he completed a Masters in Public Affairs (MPA) at the Woodrow Wilson School at Princeton University and was a Robert Wood Johnson Foundation Health & Society Scholar at the University of Pennsylvania.

Genevieve M. Kenney, Ph.D., is a senior fellow and economist at The Urban Institute, with over twenty years of experience conducting policy research. She is a nationally renowned expert on Medicaid, The Children’s Health Insurance Program (CHIP), and the broader health insurance coverage and health issues facing low-income children and families. She has led a number of Medicaid and CHIP evaluations and published over 80 articles and briefs on insurance coverage and access to care for low-income children, pregnant women, and other adults. In her current research, she is examining the implications of the Affordable Care Act, Medicaid coverage of family planning services, and state efforts to enroll more children and adults in Medicaid and CHIP. Dr. Kenney is a graduate of Smith College and received a Ph.D. in Economics and an MA in Statistics from the University of Michigan.
Sharon Long, PhD, Senior Fellow in the Health Policy Center at the Urban Institute. Dr. Long is an applied economist with over 25 years of experience conducting timely research on health care issues, including work addressing state and national health reform. Dr. Long was recently awarded AcademyHealth's 2012 Health Services Research Impact Award for her research evaluating the impacts of health reform in Massachusetts. While Dr. Long has spent most of her career at the Urban Institute, she was a Professor in the School of Public Health at the University of Minnesota from 2010 to 2012, where she worked with states on health reform issues as a senior economist at the State Health Access Data Assistance Center. Dr. Long holds a Ph.D. in economics from the University of North Carolina at Chapel Hill.

Daniel Polsky, PhD Executive Director, Leonard Davis Institute of Health Economics, Professor of Medicine, Professor of Health Care Management, The Wharton School Director of Research, University of Pennsylvania. In 2007-08 he was the Senior Economist on health issues at the President’s Council of Economic Advisers. His research areas include health insurance and financial access to health care, economic evaluation of medical and behavioral health interventions, and the health care workforce. He received a Ph.D. in Economics from the University of Pennsylvania in May 1996 and a Master of Public Policy from the University of Michigan in 1989. He was awarded the Samuel Martin Health Evaluation Sciences Research Award in 2005. In addition to his publications in the Journal of Health Economics, Health Economics, Health Services Research, and Medical Care, he is a coauthor of the book “Economic Evaluation in Clinical Trials” recently published by Oxford University Press.

Karin Rhodes, MD, MS, is an Assistant Professor and Director of the Center for Emergency Care Policy Research in the Department of Emergency Medicine, with secondary appointments Psychiatry and the School of Social Policy & Practice at the University of Pennsylvania. Her research focuses on use of the acute health care setting for screening/intervention for injury and major public health risks as well as on access to care for vulnerable populations. She completed a residency in emergency medicine, a Master’s degree in Health Studies, and the Robert Wood Johnson Clinical Scholars Program, all at the University of Chicago. Dr. Rhodes has been a principal investigator on a number of federal and foundation-funded projects, including two high profile audit studies. The first audited access to care for adults needing urgent primary care follow up after an ED visit and the second (done as a collaborative project with the state of Illinois Department of Medicaid) assessed children’s access to subspecialty health care with a goal of identifying, measuring, and assisting in the correction of any disparities in access for publicly-insured children.

Peter Shin, Ph.D., M.P.H. is an Associate Professor of Health Policy at George Washington University and is the Geiger Gibson – RCHN Community Health Foundation Research Director. Dr. Shin focuses on the study of community health systems and integration of care for vulnerable populations and is author of nearly 100 health policy reports on the safety net, community health centers, quality of care, medically underserved populations, health care financing, and health information technology. He is an expert in survey design, the management and analysis of data, policy analysis, and program evaluation and has provided technical assistance to federal/state/local agencies and organizations. He graduated from Oberlin College and received his M.P.H. in epidemiology and Ph.D. in public policy from George Washington University.
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