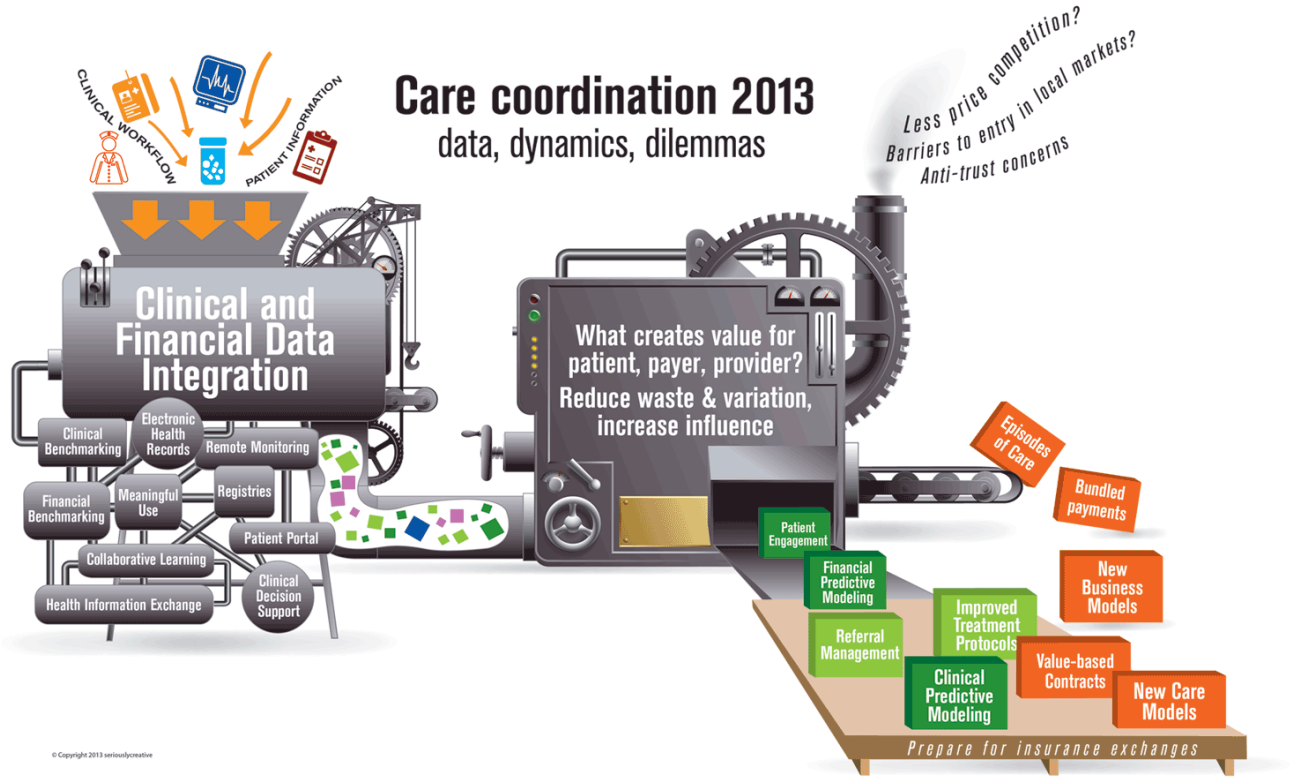
MEETING SUMMARY



May 1-2, 2013

Health Sector Advisory Council & Collaborative on Healthcare for Aging Populations and Advanced Illnesses (HSAC/CHAPI)

Health Sector Management, Fuqua School of Business, Duke University

"Care Coordination: Data, Dynamics, Dilemmas" was an important update since our April 2011 HSAC meeting in which we discussed the CMS-proposed models/incentives for "accountable care organizations." Our May 2013 meeting examined several trends we observed since 2011 following several questions:

- As we have move toward "value-based" payments and greater care coordination, are we appropriately rewarding physician activities that are associated with "quality" from a patient perspective?
- How are local health care markets being influenced by the convergence of "care coordination" structures, payment reform, and increasing access to clinical and financial data?
- How are providers and payers positioning themselves in anticipation of the health insurance exchanges?

- As communities engage in care of the most vulnerable populations, what strategies are being used to control rising Medicaid and Medicare costs?
- Is greater care coordination inadvertently undermining competitive pressures on prices and quality?

Following the agenda from the May meeting are brief summaries of the presentations by our speakers. Biographical sketches and photos of each speaker follows the agenda and summaries.

Wednesday, May 1, 2013

Collaborative on Healthcare for Aging Populations and Advanced Illnesses (CHAPI)

The World Is Changing Panel Discussion and Presentations

David Cannady – Vice President, Strategic Resource Group, HCA
Samira Beckwith – CEO Hope Healthcare Services, FL
John Barkley – Chief Medical Officer, Post Acute Care Services, Carolinas Healthcare System
Tim Clontz -- Executive Vice President, Cone Health System/President, NC PACE Assoc.
Mary Bethel – Advocacy Director, AARP of NC
Myra Christopher – Foley Chair in Pain and Palliative Care, Center for Practical Bioethics
David Sevier – Moderator

With the implementation of the ACA and the graying of America, there is growing pressure to manage costs and provide care coordination. The way people live with chronic disease and reach end of life is undergoing change. The panel explored contrasting perspectives to address these issues, with active CHAPI audience member participation.

Role of Medical Homes
Leaders say they see their future as in tandem with the physicians in the community and other providers. Developing a continuum of care is about revamping primary care and patient-centered medical homes. Medical homes are the lynchpin that will allow hospitals to appropriately leverage acute care and other care sites or supports.

Addressing Technology Gaps
More meaningful clinical data is needed closer to real time to drive different processes of care and better decision making. For example, the time a patient is on a respirator after surgery is variable. A physician might be able to pull charts and see that Surgeon A waits a certain period of time before taking patients off a respirator, and those patients have shorter lengths of stay and fewer complications. That's interesting data, but it's too late. The goal is to move the data upstream so physicians can get the data more quickly and it affects the process of care vs. retrospectively looking back.

Some hospitals are investing in new systems. One hospital system recently bought three IT systems to help process both the clinical and financial outcomes, and to be able to do

risk stratification. Another has installed an integrated EMR, to avoid the reproduction of tests and diagnostics. Yet another system is investing in HIE capabilities for more of a robust exchange of data.

As they invest in systems, they're also thinking about which data points should be captured, moving from more administrative data to a more clinically rich data set. There's a cost, of course. The infrastructure needed for a value-based system is very expensive. Add to that a drop in hospital surgeries and it creates a financially challenging environment for hospital systems.

Hospital leaders are faced with the fact that going from a production model to a value-based model requires riding two horses at once. They're wondering, "When do we step off the production horse onto the value-based horse?"

Providing Care Further Along the Continuum

Can hospitals provide care further along in the continuum? For example, the Pace program is an intensive model that provides comprehensive care for very frail patients, but can that model reach more of the population?

Some hospitals are exploring new models to do just that. For example, one system owns a portion of hospice, to ensure there's some type of home- or community-based service for its entire population. Another system is partnering with hospices, including those that provide palliative care and skilled nursing in the home setting. One leader says, "We need to look beyond the four walls" to consider the entire continuum of care. "We need to know the quality of care that's coming from those providers, because it's starting to affect us from the perspective of value-based performance."

Others are looking at ways to keep patients within the hospital network, such as more care coordination and patient engagement – which makes sense in the current fee-for-service world.
Hospital leaders point out that they may be approaching things slightly differently, but they're all trying to reach the goal of more coordinated care.

The best of times
"It's the best of times in healthcare, because others understand that coordinated care is good for everyone," noted a panelist at the start of this session. Hospice leaders feel encouraged that managed care organizations and other payers have aligned behind the idea of delivering the right care at the right time by the right people.

Integrating care within the system
The idea of communities coming together and caring for all people is a positive one. But panelists wonder, "How can we do that in an integrated way, while avoiding duplication of effort. John Barkley of Carolinas Healthcare System suggests that minimizing duplication will require inventorying and collaborating, so that a system like theirs will "understand what home health networks, skilled nursing facilities and hospice care can do."

Distribution of expenditures within the system

Moderator David Sevier shared that the US spends 29.3% of its GDP on health and social services. Of that total, 54% is spent on medical care and 46% on social services. What would be the impact of flipping those numbers?

Panelist Tim Clontz believes there would be more empty hospitals, in that case. Programs like Pace, he said, provide social support to keep folks out of the healthcare system, by helping with things such as appropriate nutrition and housing. If the system did a better job with those things, we'd spend much less on Medicare. The challenge regarding Pace, says Samira Beckwith, is there are too many regulations around it for it to expand significantly. So to flip those numbers, it's necessary to streamline the system and make it easier to expand Pace. If those numbers were flipped, HCA would have many new lines of business, says David Cannady. HCA will follow where the regulations and reimbursement codes go. He noted that there's still a lot of skepticism, when it comes to the idea of integrating the continuum of care.

It's worth thinking about ways to integrate care financially and clinically, because the current healthcare structure is unsustainable, says Jeffrey Moe of the Fuqua School of Business. He notes, "We've got a mix of patients that are fee-for-service and others that use some other payment model, and we're still struggling with that. We've been talking about that for 30 years. What will it take for us to say, we can manage a mixed payment model?"

New business models

We may need a third party, or an honest broker, to look at how benefits and costs will be shared among hospital systems and community groups or other entities, says Myra Christopher. We need to redefine these relationships, in order to share both the benefits and burdens involved.

"A Personal Perspective on End of Life Care in the US"
Presenter Robert Martenson

[A summary of Dr. Martenson presentation is not available]

Health Sector Advisory Council & Collaborative on Healthcare for Aging Populations and Advanced Illnesses (HSAC/CHAPI)

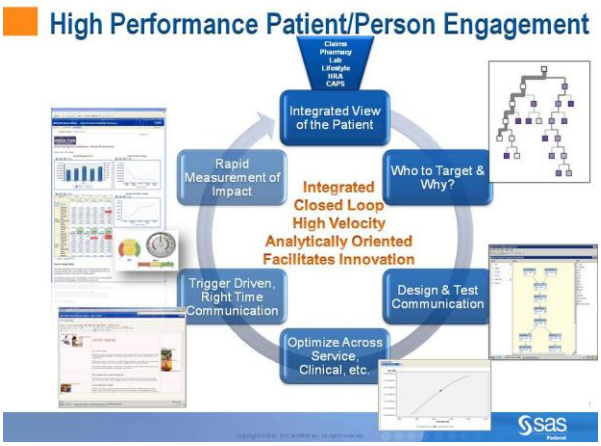
Data Integration and Care Coordination: Examples and Trends

Rick Ingraham, SAS

One of the big pieces we miss, when it comes to care coordination during care delivery, is engaging with patients and their families. Little Data – or the data points gathered about individual patients at the point of care – can help with this. Little Data will make the most impact for now, until Big Data gets organized. But analyzing all those data points is a challenge. For example, there are 500 medical electronic record vendors; 100 don't even have customer yet. And none of them can speak to one another yet.

Even as we see the growth of data, we can see a gap between the total data set that's available and the data that is relevant and needed. For example, in order to survive in a

capitated world, ACO management teams need analytics telling them which patients use which payment models, which factors link to financial risk, and which patient subpopulations are going to put our bundled payment at risk.
How could Little Data be used to improve patient engagement?



We've learned that a patient adheres differently in various stages of disease. We should use Little Data in creating patient engagement models. What is all-important is being *predictive*. Whom do we target and why? What is the data showing about follow-ups, readmissions, and prescription refills? Data helps us design and test patient communication, and create a tailored engagement program that, for example, triggers sending documents to a patient based on something in the EMR. Providers are able to pull that data together so they have near real-time ability to identify what they have to do to change their program to improve patient adherence and acuity.
At SAS, we're building out evidence-informed episodes. We've rolled out an episodic grouper for both cost and condition, geared toward living in a world of episode-based payments, bundled payments, and shared savings through an ACO. It's focused on assessing performance and identifying variance. Eventually there will be over 200 evidence-informed groupers.

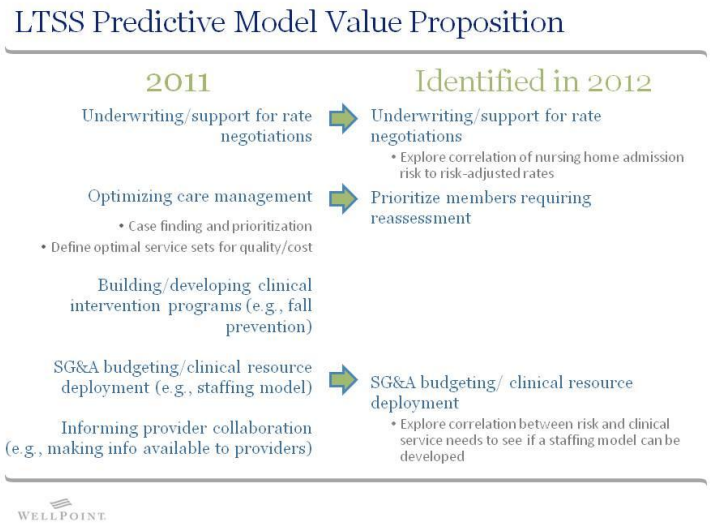
Analytics are using social networks. One type of analytics uses social networks to identify linkages or correlations. This allows us to take large bunches of data, set certain parameters, and show you the networks related to a patient, a condition, a doctor, or a facility. For example, this tool is allowing the FDA to look at linkages between surgical implant devices and readmissions. A second type of analytics uses social media networks to capture information about sentiment.
Here's one final example of using Little Data: Kraus Memorial Hospital in Syracuse used to have a substantial readmission rate for post-operative hip-replacement patients. But they began data mining to pull out sub-segmentations. After doing modeling of patient profiles, they identified nine profiles for whom they decided to move the timing of the pre-op and post-op antibiotics application. Result: They dropped the readmission rate by 65%. That's the power of using analytics on existing Little Data, which by volume and velocity and ferocity *is* Big Data.

Predicting nursing home placement among participants in a community-based care management program

Bonnie Burke, Amerigroup/Wellpoint

Bonnie Burke first introduced Amerigroup as WellPoint's Medicaid business unit. Amerigroup has 17 years' experience providing access to healthcare for 2.7 million Medicaid members, and now coordinates services for 4.5 million members in 20 states.

Medicaid enrollees who qualify for long-term care (LTC) have high utilization of home- and community-based services, such as attendant care and emergency response systems. There's a high associated cost. Currently 55% of medical expenses for Medicaid enrollees directly relate to long-term services and supports. That number will rise; by 2019, the majority of health spending will be public, and the frail elderly will make up a larger portion of costs. States look to managed care organizations to help with these challenges.



"Our view isn't that this isn't just about saving money," said Burke. ROI is achieved by keeping these folks healthy and in the most independent environment possible. It's a win-win-win, for patients, taxpayers and managed care organizations. Analytics can help uncover that win-win-win sweet spot.

Amerigroup sought a predictive model for nursing-home placement that could be used to do underwriting, optimize care management, and build clinical intervention programs.

They found some predictors of nursing –home placement through literature review. But the predictors weren't easy to find in claims data, and when they tested those predictors, the models weren't any more accurate than flipping a coin.

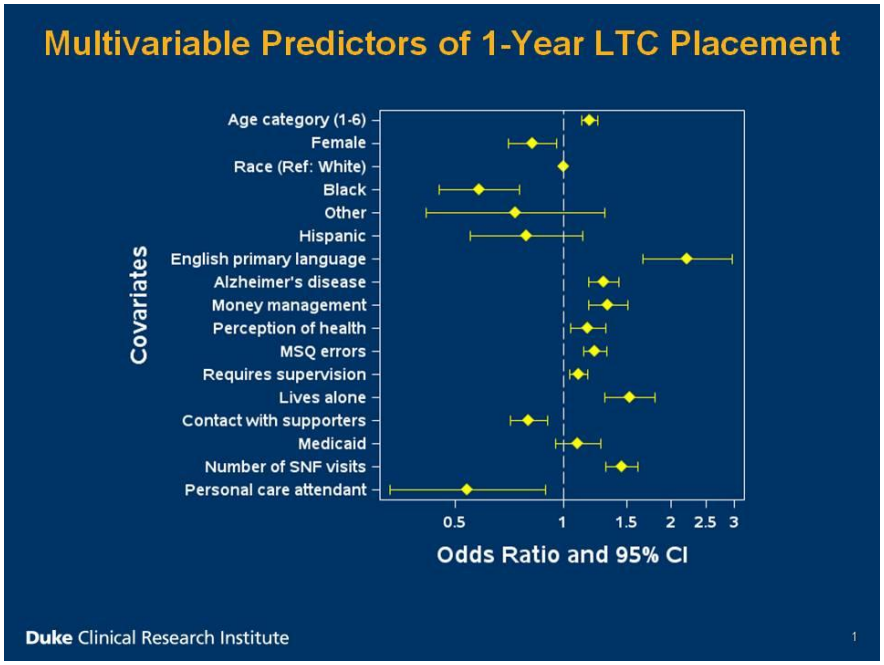
That's when Amerigroup turned to the Duke Clinical Research Institute as a research partner.

Melissa Greiner, Duke Clinical Research Institute
In partnering with Amerigroup, the objectives of the Duke Clinical Research Institute were:

- To predict the risk of long-term care (LTC) placement among participants in a state- and waiver-funded HCBS program
- To identify participant characteristics associated with LTC placement, and
- To identify program services which might prevent LTC placement.

They aimed to create a model that would predict the risk of being placed in LTC within six months or one year being assessed.
There were 11,000 participants in the program. The median age was 75-79; three-quarters were female; and three-quarters were white. Characteristics of participants

included: Alzheimer's disease (20% of participants), diabetes (33%), housework dependency (97%), money management dependency (75%), toileting dependency (14%), meets nursing home level of care (76%), Medicaid eligibility (68%), and lives alone (56%).



The average monthly cost of services for these patients was about $2,300 – and one-third of these costs were for medical services. The rest was for social services.

Research results: Overall 11% of participants were placed in LTC within the first year.

The research group learned that age was a major determinant of being placed in LTC. Risk of placement increased with older age. The lowest age group (age 65-69) had a less than 5% risk of LTC placement in a year; that jumped to 25% for the 90-and-older group. Alzheimer's also increased risk. Those without risk had about a 9% risk of placement within one year. Roughly one-third of those with advanced Alzheimer's were placed in a nursing home in the first year.

The Forest plot (above) shows key predictors. Bars to the right represent a characteristic that increases the risk of LTC. Those to the left lower the risk of LTC.

Implications: If assessors were able to identify a certain percentage of those at risk – for example, the top 15% -- providers could create effective interventions or tailored services to keep those at highest risk out of long-term care.

HCA: The design and execution of care plans that minimize hospital days

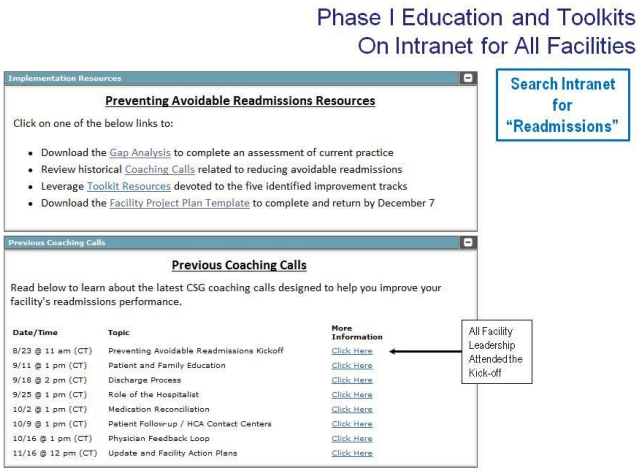
Tom Garthewaite, HCA

What's notable about the CMS's Readmission Reduction Program, as mandated in the ACA is that there's a downside risk only. The best a hospital can do is to have no excess readmissions and retain full reimbursement. Excess readmissions are determined by comparing a hospital's readmissions with those of other Medicare hospitals after applying risk adjustment methodology. In other words, there's a curve.

The curve is already shifting, as US hospitals have reduced the rate of readmissions by over 1%. Determining *why* the shift is happening is not as simple as one might think. Readmission rates are variable. Garthewaite noted that the *New England Journal of Medicine* published an article about the correlation between readmissions and overall admissions within a region.

There are data challenges involved. The CMS data used to calculate the penalty is at least 15 months old. And hospitals don't have access to the exactly data that CMS is using. So you may be directionally correct with internal data, but you can't know if you're having the full impact you'd like to have.

What do the published data show about avoidable readmissions? Several observational studies find significant opportunity for improving the discharge process. For example, at the time of discharge, the encounter between practitioners and patients averages only eight minutes. Only 37% of patients were able to state the purpose of their medications. Only 14% of patients knew their medications' common side effects. And as many as 41% were discharged with test results pending, with 37% of those needing a physician action; two out of three doctors were unaware of the results of the pending tests.



So, what improvements in care would result in fewer inpatient days? And who is responsible for making those improvements?

HCA hospitals have been working on readmission reduction initiatives for several years. HCA's current strategies include some nationally recognized programs – such as Hospital to Home, BOOST, Project RED and STAAR. Also, five interventions are being piloted in the 24 hospitals with greatest reductions in Medicare payments for 2013. Interventions revolve around five areas: patient and family education, case management, role of the hospital, medication reconciliation, and patient follow-up. The pilot includes written improvement plans, regular coaching calls, and data collection through case management software.

An intranet toolkit – available to all facilities -- recaps insights from the coaching calls, which can improve readmissions performance. For example, insights around "case management" include the fact that "38% of readmissions did not have a PCP visit scheduled prior to patient discharge." Survey data available on the intranet provide useful gathered data on reasons for patients' readmissions, their disposition at discharge, and which post-acute providers were used.
HCA plans to continue implementing interventions in 24 facilities and expanding the readmission data collection to all facilities.

Using Big Data for Discovery

Dean Torres, Teradata

Dean Torres opened by proposing a scenario:
Imagine you're a health plan executive and you want to know, "Are there ways that I can increase the number of care-management enrollees?" Of, if you're a provider wondering, "Are there ways I can determine who's been accessing our medical records?"

His presentation promised to focus on what people are actually doing with Big Data, and how others can use it. He introduced a case study: A health plan client wants to find ways to reduce musculoskeletal surgeries, so turned to Teradata/Aster.

The opportunity of Big Data is in looking at the interactions leading up to an event. In this case study, the "event" is a musculoskeletal surgery. But the event could be anything, such as hospital readmissions.

For the client, this particular surgery was cost-ineffective. They said, "Let's see what patterns emerge." They wondered whether there might be a way for them to intervene earlier in the process, so that a patient didn't turn to surgery.
The data that they used was in medical claims, third-party risk scores, the volume of how often people were coming in, and lab data.

Teradata/Aster took the data available, and looked for patterns. Aster's tools are able to generate statistics around data points. The tool discovered patterns around procedure codes used prior to the surgery. In other words, it showed a pattern in the interactions that led up to surgery. A report showed which five procedures were most visited prior to surgery. Ultimately, the analysis revealed the most commonly occurring path to surgery. So a nursing staff could now narrow down a list of who to identify for a care-management program or some other intervention, based on the patient's path.

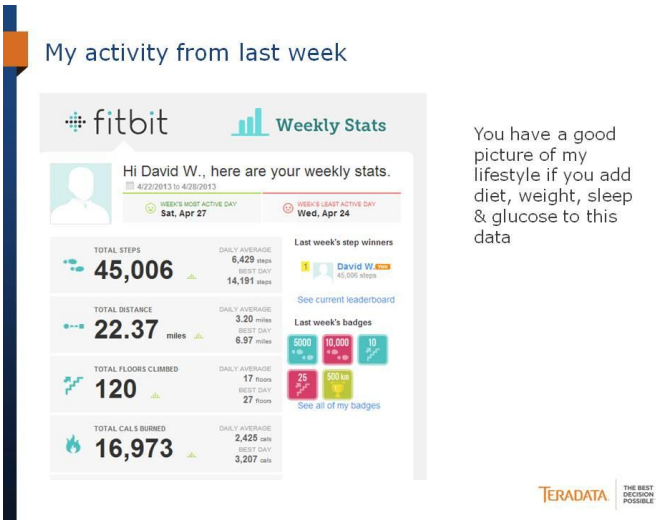
Before Big Data analysis, this sort of analysis was a manual process that high-paid clinicians could spend months doing. Teradata/Aster has narrowed down the process to 100 hours. And the process can be repeated as your information needs change.

Next Generation Care Management & Patient Engagement

David Wiggin, Teradata

The person in the CMO role may be feeling more acute pressure than in the past, given the growing calls for evidence-based medicine, better access to care, quality measures, EHR/EMR implementation, and meaningful use. Meanwhile, the nation is facing an epidemic of chronic disease and obesity: The CDC says 7 out of 10 deaths are related to chronic disease. More than 75% of healthcare costs are due to chronic disease. Most chronic disease is the result of lifestyle choices – diet, activity, smoking and drinking.

Care management, disease management and wellness programs have all helped. But is there something else that can be done by care providers?
People today are taking charge of their own health by using "rogue" health tech devices. Seven out of 10 of physicians say they have had mobile health data presented to them by their patients over the past three months.
What if we could provide these data to clinicians through a normal channel, where we could connect more formally and make it part of care management? Think of the richness of data that these kinds of monitoring devices can afford.
Consider what would happen if you targeted an audience at risk for type 2 diabetes. Even if you invested $2,000 per patient in monitoring feedback systems, you would still save far more during a year than the cost of the intervention.
Consider what would happen if you targeted an obese audience. If a care team knew right away that a patient was falling back into poor eating habits, they could get the patient back on track.



How much more targeted and effective could clinicians be, if patients and clinicians were all looking at the same reliable data? How much more impact could nurse case managers have if they had easy, panoramic access to wellness and healthcare data?

My thesis is that this next generation of technology provides new visibility, more engagement and new insights.
One example of this technology is Fitbit (above). It captures activity and a range of data, then reports it automatically. As a result, says Wiggin, his behavior is changing. mHealth devices have the potential to improve compliance, improve patient engagement, and lead to less consumption of healthcare.

"Putting the patient perspective into 'value-based purchasing' and local 'care coordination' " *Holly Korda*

[A summary of Holly Korda's presentation is not available]

Thursday, May 2

CMS Initiatives to 'Coordinate Care'

Bob Berenson, Urban Institute

Bob Berenson's task was to give an overview the projects and initiatives taking place at the national level that relate to care coordination.

Shift away from fee for service
Everyone agrees on the need for a shift from volume-based reimbursement (fee for service) to value-based reimbursement. Some are making improvements on the fee-for-service structure. For example, some medical homes are creating CPT codes for coordinated care activities, such as phone consultations. Generally, though, fee-for-service creates fragmented care.

Value-based reimbursement
An advantage to Shared Savings, as CMS has designed it, is that it provides incentive for providers to come in under targeted spending, based on their own experience. The downside is that it can penalize the best performers, unless they're careful. It's viewed by some as a transition model.

The major driver is prices, not utilization. The US spends more on healthcare than other countries. Per capita spending in 2010 was up 3.3%, with utilization down -5%. The average hospital payment has increased from 115% to 135%.

So the question is, will ACOs make the cost issue better or worse? Many had hopes that ACOs, once we get through shared savings phase, will hold down prices. But some wonder whether these large systems will reduce competition.

"Value-based payment" often refers to a pay-for-performance system, where performance is measured and either rewarded or penalized. A number of provisions in the Affordable Care Act relate to value-based purchasing – including the Physician Quality Reporting System (PQRS), the Physician Compare website, and the Premier program. Only a small percentage of physicians participate in PQRS, and hospitals in the Premier program didn't do any better than any other hospitals. These ACA measures didn't make an impact.

CMS's investment
CMS has spent $10 billion on new projects, such as ACOs and PCMHs. One of these is a comprehensive primary care initiative that's very much targeted to caring for the 5% of patients who generate 50%-60% of cost. There are a number of approaches being tried, including the hiring of care coordination nurses.

Other programs include the Shared Savings program, Bundled Payment, Independence at Home, and Hospital Readmissions Reduction.
One of the biggest demonstrations is the Centers for Medicare and Medicaid Innovation Financial alignment initiative for dual eligibles. Dual eligibles make up 25%-40% of spending in both Medicaid and Medicare, making this a $300 billion opportunity. Seven million full dual eligibles are in the demonstration. The initiative is experimenting with two models: capitated and managed fee-for-service.
What is CMS's care coordination strategy? Let 1000 flowers bloom and see what happens. There's not great consensus about the best way to proceed.

Local Community "Care Coordination" and Market Effects

Michael Lee, Atrius Health

Atrius Health is made up of seven large medical groups, with 1200 physicians, covering the eastern part of Massachusetts. Atrius interfaces with 30 hospitals but don't actually own or operate any of them. They use a single IT network, which counts each patient as a single record as the patient moves through the system. Atrius participates in a Pioneer ACO.

Because Atrius Health has a long history with capitated products and care management, the organization felt good about taking part in the Pioneer program. They had been part of a BCBS contract in which a portion of reimbursement had been tied to quality improvement and performance measures. As an example of their strong performance, they found they were able to achieve a high composite measure for 45% of their diabetic patients – tripling the number of diabetic patients who had all their measures under control over a five-year period.

For the first year of the Pioneer program, they merely reported on quality measures. That seemingly small step required updating technology and standardizing operations and clinical practices. They've put in technology around discharge planning, so they know what's going on with patients. They have a real-time hospital database, and web portals that allow them to connect with affiliated hospitals. They're integrating information about social determinants into medical records.

Even with all those tools, Atrius Health still must manually review charts in order to report on some of the 33 measures that are required by CMS. The measures themselves are critical. In order to gain a higher percentage of shared savings, Atrius will have to hit certain performance measures on quality. Right now, Atrius and other Pioneer ACOs are negotiating with CMS over which targets might be reasonable.

So far, it looks as if Atrius is doing well with meeting its cost-savings targets. The group has been able to show that costs went down and quality went up for Q2 of 2012 – not just for ACO patients, but for Medicare Advantage patients, as well. If that trend continues, they may be able to demonstrate positive outcomes as an ACO.

But Lee has a lot of concerns about ACOs and the Pioneer program. CMS originally stated that Pioneer ACOs were spending 18% less than equivalent networks. By the time the data was more solid, it was revealed that ACOs were spending 2% over. He wonders how health systems will manage to afford investing in the IT and infrastructure needed to make ACOs work, and how they'll structure compensation models to reward the right behavior.
"Fee for service doesn't work. We know that," says Lee. "The question is, What do we transition into?" He believes that having real data on outcomes will help make the ACO model work. But making the transition still requires investment and experimentation.

Ron Paulus, *Mission Health*

First, an introduction: Mission Health is a healthcare system, including five hospitals, serving the 18 westernmost NC counties. It's also the biggest employer west of Charlotte, responsible for one out of 27 jobs in 18 counties. It employs roughly 350 physicians. Many of its five hospitals are socially motivated by the idea of keeping care and jobs available in communities that have been devastated by the outmigration of textiles and other industry in those markets.
Mission Health uses 17 different IT systems on the physician side, with more on inpatient side. It's in the process of migrating to a single inpatient platform and narrowing down to a handful of ambulatory platforms.

What's unique about the system is that it operates under something called a "Certificate of Public Advantage," which puts the system under state regulatory power. The certificate limits the system's margin, cost and ability to hire physicians, without getting state, FTC and DOJ approval.

When Paulus joined, he began putting pieces together to change the way care is delivered. He has already achieved some success. In 2012, the system was doing well in terms of value-based purchasing. And Mission Health was named one of the top 15 health systems in America.

So far, the system has added a number of lower-cost settings to the infrastructure, including a couple of critical access hospitals. Paulus recently announced the intent to merge with the largest post-acute care provider with a geographic overlap to Mission Health. This will add hospice, a palliative care program, skilled nursing, and a Pace program to the system.

Paulus has spent a lot of time on safety net infrastructure creation. He's also trying to create a subscription program called Mission Care, which gives small businesses access to unlimited primary care and adds a catastrophic wrapper. The goal is to provide chronic disease management and disease prevention.
In follow-up questions, Paulus called himself an "anti-ACO guy," saying he believes ACOs are designed wrong, with their lack of assignment, control and data flow. When he was part of Geisinger and participated in the Physician Group Practice demonstration, the results weren't good, "because none of the engagement, activation, alignment, or network restrictions existed in the PGP demonstration."

If you want to do capitation, then do capitation. ACOs, though, are not the best model.

Local Market Effects on Competition and 'Taking Risk'

Clint Haley, Tenet

Clint Haley spoke to the group about the trend of health plans being owned by providers. Already, there are a number of hospitals with health plans. Some are highly integrated, such as Geisinger and Kaiser. But a new generation is coming, such as Sutter, ProCare, and the Georgia Health Collaborative.
Market forces are driving the creation of collaborative networks that don't look like traditional networks, and some of these collaborations are offering health plans. Haley focused the group's attention on the Piedmont/WellStar network.
It's a Kaiser-looking, integrated model that is a collaborative between Piedmont Healthcare and WellStar Health System in Atlanta.
How are they affecting utilization positively?
They're able to eliminate duplication by integrating IT and coordinating interfacing systems. And they're able to enhance patient satisfaction and improved outcomes.
Haley notes that this is how hospitals may be integrating in the near future. Other independent hospitals may still have a lot of market share. But in markets where these integrations are taking place, these independents may also decide to come together in an alliance.

David Cannady, HCA

The key question for senior-level executives within hospitals is, "When is the right time to make a move?" David Cannady's role is to help markets think through a range of considerations, as they consider their strategies related to reform.

There is no one-size-fits-all strategy for HCA hospitals. HCA has 162 hospitals, operates in 20 states, and has an entire universe of 60,000 physicians.

Instead, they use a framework in order to think through growth, which is called the "Growth Galaxy." Cannady led the group through the thinking process:

We think about access: How do we put assets, physicians and healthcare centers in the places where we can grow market share? That includes making the facilities easy to come into, by focusing on customer relationship management, improving the patient experience, and helping patients navigate the system. They focus on key service lines that may provide some competitive advantage. And they'll look at physician integration.

As they consider how reform may impact a particular market, they try to understand the macro conditions – including immediate forces, such as pricing pressures, and things that are coming down the road, such as exchanges. What are competitors doing? What are physicians and payers thinking about? Cannady believes that most payers have narrow-network formation on their minds now.

After answering those questions, it's time to consider organizational capabilities. What's your ability to manage change? What is physician engagement like? What's your governance model? What other capabilities might you need to execute on reform models? What are your clinical capabilities?

They must understand the market dynamics of a particular market – for example, market share, volume, footprint within that market, and margins. What's the physician profile? What's the payer mix, and how willing are payers to pursue risk or look at narrow networks? What are employers in the market going to do? Will they discontinue employer-sponsored plans, take the penalty, and have employees go straight to the exchanges? Do they want to pursue pay-for-performance models?

They think through the physician side, as well. There are a number of ways to integrate with physicians, as well as contracting strategies. There's no need to abandon some of the methods used in the past, in order to follow highly aggressive models, such as an ACO model.
Once they've assessed a market, they consider what scenarios may play out there. For example, if there's a concentration of larger employers in a market, they consider how many of those may want to pursue direct contracting. If a state decides to expand Medicaid eligibility, they consider what they might need to do to prepare for that. From a payer perspective, they try to understand which premium payments may be increasing. They look at provider share concentration and payer share concentration, and how those may influence strategy.

Hospitals must continue to monitor and asses their markets. Through this framework, executives can better determine what their strategy will be, how much time they'll need to build an infrastructure, and what sort of physician alignment strategy they should use.

Affordable Care Act, Care Coordination, and Anti-Trust

Barak Richman, Duke Law

There's been an interesting dynamic in the unfolding of rule-making for the Affordable Care Act: The Federal Trade Commission (FTC) has been left out. Anti-trust regulators are the guys saying, "We know you're motivated by best intentions but you can't create all these consolidations that increase market power."

Richman's perspective is that market concentration is problem, both on the quality and the cost end. The FTC is rightfully concerned about the formation of ACOs.

The motivation behind concern is that there's a lot of evidence that suggests that when there is market concentration, prices go up. In an earlier session, we heard that prices have been going up dramatically over the past couple of decades. A lot of that is chiefly or solely responsibility for increasing costs. We don't see increases in output, just increases in cost. Evidence suggests that market concentration has been the cause of price increases. Wherever there have been hospital mergers or physician practice mergers, we've seen prices have gone up. Also, where we've seen increase in market power we've seen a decline in quality. One paper suggests that where there are increases in market power, there are higher mortality rates.

Of course, the market saw an enormous wave of hospital mergers in the '80s, '90s and the early part of the last decade. It's been the collective failure of the FTC that led to all the hospital mergers. It's very hard to orchestrate an additional hospital merger now; the vast majority of markets already have them. To the degree that we believe mergers are a problem, they're a problem that it's too late to solve.

The interesting story now is vertical integrations, or hospitals buying doctors. Here's why it's interesting: The economic theory is that when there's a vertical merger, there's no creation of market power, therefore antitrust law should be very permissive. But we still see a phenomenon that when hospital systems with market power buy physicians, the costs for outpatient clinic go through the roof. Why? There are several possibilities. The bottom line is that these acquisitions replace a low-cost structure with high cost.

Richman's concern is that ACOs are not reflecting quality improvements. ACOs talk about "coordination" and "collaboration," but that's the same thing as "collusion." There may be efficiencies within ACOs, but there's still enormous merit to concern over market power.
Are there alternate ways of solving the problems within the healthcare system? Yes. The system could move toward narrow networks of competition, allow government takeovers, or move toward a regulated utility model.

For now, the development of ACOs presents new challenges. We haven't figured out a long-term game plan, and maybe we don't have one. We do know that what we have is undesirable, so we're stumbling toward a solution. We just need to make sure the stumbling doesn't happen without the FTC.

Speakers

John Barkley is the Post Acute Care Services Chief Medical Officer at Carolinas HealthCare System (CHS). Barkley is a nationally recognized palliative care expert. Locally, he is helping to implement the new Carolinas Palliative Care & Hospice Network (CPCHN) at CHS.

His formal hospice experience began in 1994 while serving as a staff physician in San Diego Hospice's 24-bed inpatient unit. He subsequently served as Medical Director for Hospice of Metro Denver, before relocating to Charlotte in 1997. He then spent five years as a practicing pulmonary and critical care physician, with a focus on patients with lung cancer. While in private practice, Dr. Barkley developed and led a multi-disciplinary thoracic oncology program at CMC-Mercy. August 2002, his passion for hospice work led him to join Hospice & Palliative Care Charlotte Region as Chief Medical Officer.

Barkley serves as a member of the Center to Advance Palliative Care National Consensus Panel, which has published multiple reports promoting best practices in hospital-based palliative care. Most recently, Dr. Barkley was selected as the Association for Home and Hospice Care of North Carolina's (AHHC) "Physician of the Year." One of the oldest and largest organizations of its kind in the nation,

He received a bachelor's degree in zoology and completed medical school at UNC-Chapel Hill. He completed his internship and residency in internal medicine at Barnes Hospital-Washington University with fellowships in pulmonary and critical care, and pulmonary oncology at the University of California at San Diego. Barkley is a fellow of the American College of Chest Physicians and is board certified in internal medicine, pulmonary, critical care and hospice & palliative medicine.

Samira K. Beckwith is President and CEO of Hope HealthCare Services providing a variety of programs to more than 2,000 individuals daily. Beckwith currently serves as Chair for the National Hospice Foundation, Treasurer for the National Hospice and Palliative Care Organization, Secretary for the Hospice Action Network, Vice Chair for the Florida Hospice and Palliative Care Association, and Vice Chair of the National Coalition for Cancer Survivorship. In addition, she is also the Founding President of the Florida PACE Association and a Founding Director of the National Hospice Work Group.

Beckwith received appointments to the Health Care Transition Team for Florida Governor Scott, The White House Conference on Aging, The Alzheimer's Purple Ribbon Task Force for the Florida Department of Elder Affairs, and the Florida's Long-Term Care Policy Council under Governor Bush. She was awarded the Ellis Island Medal of Honor, bestowed upon distinguished Americans who exemplify outstanding qualities in their personal and professional lives, while continuing to preserve the richness of their heritage. She was also awarded The Ohio State Alumni Association's highest recognition, The Medalist Award, which is presented to alumni who have gained national

or international distinction in a chosen field, who have brought extraordinary credit to the university and significant benefit to humankind. Beckwith has also received the Lifetime Achievement Award from the Stevie Awards for Women in Business, the Community Action Hero from the National Association of Social Workers, The Senator's Award from Senator Mike Bennett, The Gulfshore Woman of the Year, and the Gulfshore Business FACE Award, among other awards of distinction.

In addition to her commitments to Hope, Beckwith also hosts the annual Celebration of Reading in Southwest Florida and raised funds for the Red Cross as the winning contestant in the 2010 StarStruck event. She is also active in service groups such as the Rotary International and Leadership Florida.

Beckwith holds a Bachelor of Sociology Degree and a Masters in Social Work from The Ohio State University, as well as a Doctor of Humane Letters from Southwest Florida College.

Robert Berenson is an Institute Fellow at the Urban Institute in Washington, D.C. He has published widely on a range of topics, including physician payment, private plan contracting in Medicare, health care cost containment and malpractice reform. From 1998-2000, he was in charge of Medicare payment policy and managed care contracting in the Centers for Medicare and Medicaid Services. In the Carter Administration, he served on the White House Domestic Policy Staff. Effective July 2009, he became a Commissioner of the Medicare Payment Advisory Commission (MedPAC) and was named Vice-Chair in July 2010. A graduate of the Mount Sinai School of Medicine in New York City, Dr. Berenson is a board-certified internist who practiced for twelve years in a Washington, D.C. group practice and is Fellow of the American College of Physicians. For ten years he was medical director of the National Capital PPO. He has co-authored two books -- *The Managed Care Blues & How to Cure Them* and *Medicare Payment Policy and the Shaping of U.S. Health Care.*

Mary Bethel is Associate State Director for Advocacy with AARP North Carolina where she oversees, develops and implements AARP's advocacy activities and initiatives throughout North Carolina. Mary focuses on state, national, and other broad initiatives and campaigns across a diversity of issues.

Prior to coming to AARP in October 2005, Mary worked for 29 years with the N.C. Division of Aging and Adult Services. Over her tenure, she served in a variety of administrative, supervisory and program capacities. For her last 11 years with the Division, Mary was Special Assistant to the Director. She previously served as lead staff person for external and legislative affairs covering issues in health, consumer advocacy, prescription drugs, and special population groups.

Mary is a the recipient of numerous awards for her advocacy work, including the 2012 National AARP Lyn Bodiford Award for Excellence in Advocacy and the 2011 Jim Long

Award given by the Seniors' Health Insurance Information Program of the N.C. Department of Insurance.

Bonnie Burke is currently the Vice President of Health Care Analytics at WellPoint. With over 15 years in health care research and 8 years in Managed Care, she leads the health care analytics team exploring medical cost and utilization trends in Medicaid/Medicare as well as applications of predictive modeling and clinical program evaluation to drive improved health care outcomes at lower taxpayer cost. A major focus is developing effective Medical Homes for Medicaid recipients. She is a doctorally-trained biostatistician and formerly served as full time, then adjunct faculty at both Old Dominion University and Eastern Virginia Medical School prior to joining Amerigroup, recently acquired by WellPoint, full time. With over 25 publications, her research interests include multivariate longitudinal models, provider profiling, and turning data into human stories to build robust public policy. She sees ample opportunity within the Managed Care arena for dynamic, cross-functional, service-focused healthcare professionals to impact the future of health care for all Americans, particularly with regard to information-sharing and analytics innovation.

David Cannady is the Vice President of the Strategic Resource Group at Nashville, Tenn.-based, HCA, the nation's leading provider of healthcare services. His primary responsibility is overseeing an internal consulting group that provides consulting, advisory, and project management services for HCA corporate and field initiatives.

He joined HCA in 2002 from Cap Gemini Ernst & Young and has experience in hospital operations, strategic planning, and health care consulting.

He is a current board member and immediate past board chair of Progress, Inc., a non-profit agency serving adults with development disabilities. He is a current member of the Health Sector Advisory Council at Duke University's Fuqua School of Business.

David earned a bachelor's degree from the University of North Carolina at Chapel Hill School of Public Health in 1988 and earned his MHA from Duke University Fuqua School of Business in 1992.

Myra Christopher holds the Kathleen M. Foley Chair in Pain and Palliative Care at the Center for Practical Bioethics. Prior to Dec. 2011, Ms. Christopher was President and CEO of the Center since its inception in 1985. Christopher assisted Senator John Danforth in drafting and introducing the Patient Self-Determination Act which became law in 1990. She consulted with the Joint Commission on the Accreditation of Healthcare

Organizations on patients' rights and organizational ethics standards and developed Beyond Compliance, resource materials and a seminar for the Joint Commission that was presented across the country. She has worked with Federal agencies (CMS), State governments and non-governmental agencies (National Association of Attorneys General, Community State Partnerships to Improve End-of-Life Care, RAND Institute) regarding many care at the end of life programs. Christopher has received many awards for the work she has done to improve care for those suffering from advanced illness and chronic pain. In December 2011, she received an Honorary Doctorate from National University Health Sciences in Chicago.

Tim Clontz, is the Executive Vice President, Health Services of Cone Health, a not-for-profit health system based in Greensboro, NC with five hospitals and over 100 locations in the Triad. In his current role, he is responsible for non-acute institutional services across the continuum of care: surgery centers, skilled nursing facilities, small health care business entities, medical office properties, MedCenter operations, construction management and physician recruitment.
Tim also serves as the Cone Health senior representative on a number of Boards: PACE of the Southern Piedmont (Chairman); PACE of the Triad; StayWell Senior Care, Advanced Home Care, Inc.; Call-A-Nurse; Triad Adult and Pediatric Medicine (FQHC LA); Guilford Adult Health, Inc.
Tim is the inaugural Board Chairman of the North Carolina PACE Association and serves on the National PACE Association's Public Policy and Education Committees. He is a Fellow of the American College of Healthcare Executives. Tim obtained a baccalaureate degree from UNC-Chapel Hill and has a MHA from Duke University.

Thomas Garthwaite is a graduate of Cornell University and the Temple University School of Medicine. He received training in internal medicine and endocrinology at the Medical College of Wisconsin where he went on to become an Associate Professor of Medicine and Associate Dean. He was Chief of Staff at the Milwaukee VA Medical Center for 8 years prior to becoming the Deputy and then Under Secretary for Health in the Department of Veterans Affairs (1995-2002). During his tenure as Deputy and then Under Secretary for Health, the VA underwent a profound transformation. The VA is now seen as a leader in quality of care and the clinical use of computers.

From 2002 until 2006, Dr. Garthwaite served as the Director and Chief Medical Officer of the Los Angeles County Department of Health Services with broad responsibilities for the health of over 10 million residents and visitors.

From 2006 until 2010, Dr. Garthwaite served as the Executive Vice President and Chief Medical Officer for Catholic Health East, a large, not-for-profit health system with operating revenues of $4.6 billion. There he provided leadership in clinical services

through system-wide efforts to improve the quality of care, assure patient safety, assess new technology, enhance physician relationships, expand the use of clinical information technology and maximize performance.

In June of 2011, Dr. Garthwaite joined HCA as the Chief Operating Officer of the Clinical Services Group. His special interest in HCA is the reduction of unintended clinical variation through physician partnership.

Melissa Greiner received an M.S. in Applied Mathematics from Clemson University in 1989. Prior to joining the Duke Clinical Research Institute, she worked at the Frank Porter Graham Child Development Institute at the University of North Carolina-Chapel Hill as a statistical analyst for social science and educational research projects. Ms. Greiner has nine years of previous experience as a software engineer with AT&T Bell Laboratories working on the analysis, design and development of large scale business systems. For the last 7 years at the Duke Clinical Research Institute, she has worked as a lead biostatistician doing observational and comparative effectiveness research using Medicare claims and clinical registry data sets. She has over 20 publications including articles in *JAMA, Circulation* and *Archives of Internal Medicine*.

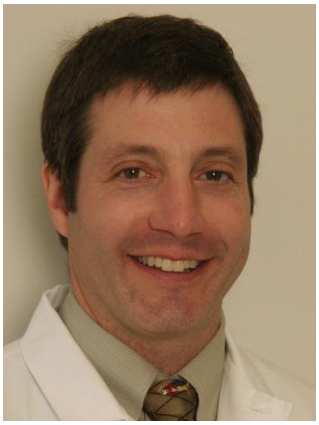
Clint Hailey serves as SVP, Chief Managed Care Officer for the Tenet Healthcare Corporation. Hailey, 48, oversees the company's managed care payor relationships and portfolio performance. He developed and oversaw Tenet's move to a national managed care contracting strategy for all of Tenet's hospitals, majority-owned freestanding outpatient centers and employed physicians nationally. He also oversees Tenet's Corporate Marketing function. He reports to Britt Reynolds, Tenet's President of Hospital Operations.

Clint joined Tenet in May 2006. He is a lawyer who has focused his entire career on working with managed care companies on behalf of providers. He came to Tenet after spending eight years with HCA, with his last position being vice president, managed care, for HCA Texas. Previously, he worked in various managed care contracting and other positions with Texas Health Resources in Dallas from 1993 to 1998. From 1991 to 1993, he was a staff associate at PricewaterhouseCoopers LLP.

Clint holds a bachelor's degree and a master's degree in business administration from Texas Christian University and a law degree from Texas Wesleyan University School of Law. He is a member of both the American and Texas Bar Associations and is a fellow in the American College of Healthcare Executives.

Rick Ingraham is the Healthcare Intelligence Officer for SAS Federal, LLC providing insight & strategy for leveraging high performance analytics at the federal agency level to impact health quality, cost, safety, outcomes, efficacy and efficiency. In addition to his role at SAS, he is on the Advisory Board for the newly re-organized Health Data Consortium, a collaboration among government, non-profit, and private sector organizations working to foster the ability and innovative use of data to improve health and health care. A proven executive relationship builder, he presents senior management experience in the health care, insurance, software and regulatory industries. As a "healthcare evangelist", his insight into the opportunities for improved collaboration and coordination across the healthcare spectrum has served as a foundation for thought leadership within the health arena with focus on health reform and exchanges, clinical performance, emerging value-based reimbursement and care delivery models, patient safety & engagement and fraud detection. A 35-year path has also taken him to leadership roles within the Florida public health system, HCA/Equicor, CIGNA, SAS Health & Life Sciences and Teradata Healthcare.

Holly Korda is a health services policy and research leader with extensive public and private sector experience in health care program and system design and evaluation. Her expertise includes value-based health care models; payment methods and incentives that improve quality, affordability and consumer self efficacy; population health analysis and performance measurement. She has consulted with national and regional health plans including United Health Care, Centene and Magellan Behavioral Health; developed and evaluated health care pilots and demonstrations involving health plans serving Medicare, Medicaid and TRICARE beneficiaries; and implemented and evaluated a wide range of community and population health innovations. An expert in health systems research and evaluation, she has conducted trainings and workshops and served on numerous expert panels and review groups throughout the Federal sector and in academic and applied settings on evaluating systems of care for vulnerable populations. With IMPAQ International and Altarum Institute, she recently completed a nationwide evaluation of community-based providers and state delivery networks implementing the Chronic Disease Self Management Program (CDSMP) for the Administration for Community Living. She also directed a Congressionally mandated study for the Centers for Medicare & Medicaid Services to assess prevention and wellness programs for Medicare beneficiaries. She received her B.A. in Sociology and Political Economy at McGill University, Montreal, Canada; an M.A. in Sociology and Ph.D. in Health Services Research from Tufts University, Boston, MA.



Michael Lee is the Director, Clinical Informatics Atrius Health and a practicing physician at Dedham Medical Associates (DMA) in Norwood, MA. From 2003 - 2006 he was Chairman, Board of Trustees of Atrius Health, a collaboration of 5 medical groups in the Greater Boston area under the corporate not-for-profit parent. The member groups include Harvard Vanguard Medical Associates, Dedham Medical Associates, South Shore Medical Center, Southboro Medical Group and Granite Medical.

Atrius Health is a national leader in clinical quality and electronic patient record use, and cares for about 750,000 ambulatory patients. Dr. Lee led the installation of the electronic record at DMA and since 2007 has been the clinical leader of the platform for Atrius Health. He also directs a vibrantly growing patient portal with over 100,000 active members and led one of the largest installations for physicians of speech recognition software in the country. He serves on the Security and Privacy Workgroup of the State HIT council, which is establishing the Massachusetts Health Information Exchange.

Dr. Lee received his medical degree from McGill University and interned and did his residency in pediatrics at Tufts Medical Center. He has a BA-Engineering Sciences from Yale and an MBA from the University of Massachusetts.

Robert Martensen's training in emergency medicine and the history of science gives him wide-ranging interests. Currently, he is writing *Habits for Emergency: self-preservation in extended crises* (FSG Books). In 2009 he co-edited *Surgical Palliative Care: A Resident's Guide* for the American College of Surgeons, a text now used in 70 U.S. training programs and 15 foreign countries. In 2008 FSG Books published his *A Life Worth Living: reflections on illness in a high-tech era*. Robert serves as Executive Director of The Cunniff-Dixon Foundation and is a Lecturer at Harvard Medical School. He has degrees from Harvard (BA), Dartmouth (MD), and UCSF (Ph.D).

Jeffrey Moe is an Executive in Residence and Adjunct Associate Professor, Fuqua School of Business, Duke University. Jeff has led the Health Sector Advisory Council since its inception in 2002. His research focuses on incentives for research on rare and neglected diseases, health care delivery and financing innovation and the strategies of global pharmaceutical firms. Jeff is a social psychologist and adult educator by training and has co-authored several papers with economists on novel incentives to encourage R&D on neglected diseases. Before joining the faculty at Duke, Jeff was an executive at GlaxoSmithKline. Jeff's most recent

paper is a case study of the One Family Health "health posts" in Rwanda. Jeff received his Ph.D. in Organization Development and Institutional Studies from the University of North Carolina at Chapel Hill. Jeff graduated from the Executive Development Program at the Kellogg School, Northwestern University.

Ronald Paulus is President and CEO of Mission Health System, a more than $1 billion healthcare system serving the citizens of Western North Carolina.

Prior to joining Mission in September, 2010, Dr. Paulus served as Executive Vice President, Clinical Operations at Geisinger Health System, where he was responsible for the operations of its $1.3 Billion clinical enterprise (including 3 hospitals, a 750+ multispecialty group practice, and more than 40 ambulatory care facilities). While at Geisinger, Dr. Paulus also served as Chief Innovation Officer, responsible for ensuring system-wide innovation. In that role, he has provided leadership, oversight and direction for work related to: ProvenCare®, Geisinger's episode-based care model with a "warranty"; ProvenHealth Navigator®, Geisinger's patient-centered medical home model and chronic disease optimization approach; ProvenTransitions®, Geisinger's model to ensure safe, reliable and seamless transitions across care settings and thoughtful, compassionate end-of-life care; ProvenEngagement®, where Geisinger seeks to activate and engage patients in their own self care; EHR (Epic) analytic and workflow optimization; and the Clinical Decision Intelligence System, Geisinger's enterprise-wide data warehouse and analytic environment.

Prior to joining Geisinger, Dr. Paulus was co-founder, President and CEO of CareScience, Inc. (previously NASDAQ: CARE), now part of Premier healthcare informatics, is a clinical solutions and data analytics provider which aims to improve the quality and efficiency of healthcare. Before that, he served as Vice President – Operations at Salick Health Care, Inc. (previously NASDAQ: SHCI), a national provider of oncology and dialysis services acquired by Zeneca Pharmaceuticals.

Dr. Paulus received his MD degree from The School of Medicine, University of Pennsylvania, and his MBA, concentration in healthcare management, and BS in Economics from The Wharton School, University of Pennsylvania. He has published and speaks regularly on the topics of health care quality and efficiency, innovation, physician leadership, and new models of care.

Richard Payne is the Esther Colliflower Professor of Medicine and Divinity at Duke. His research interests are in pain management, analgesic pharmacology and clinical trials, and models of delivery of community-based palliative care and advanced illness management to medically underserved communities. He is the former Chief of Pain and Palliative Care programs at M.D. Anderson Cancer Center in Houston, and Memorial Sloan-Kettering Cancer Center in New York City. He is a co-founder of the Collaborative on Healthcare for Aging Populations and Advanced Illness (CHAPI) at Duke. Rich serves

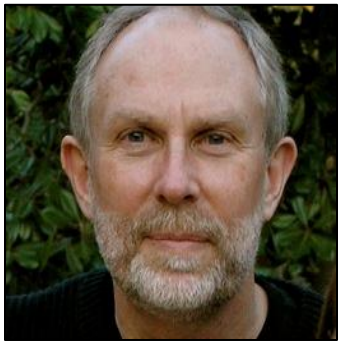
on the board of directors of the Hastings Center and the National Coalition of Cancer Survivors (former board chair),and is a past president of the American Pain Society. Rich received his B.A. from Yale in Molecular Biophysics and Biochemistry; M. D. from Harvard Medical School.

Barak Richman is Professor of Law at Duke University. His research interests include the economics of contracting, new institutional economics, antitrust, and healthcare policy. He teaches contracts, antitrust, and health law, and he has guest taught classes at The Fuqua School of Business and the Sanford School of Public Policy. He was invited to the Yale/Stanford Junior Faculty Forum in 2004, received Duke Law School's Blueprint Award in 2005, and was a recipient of the Provost's Common Fund award in 2006.

Professor Richman received an A.B., magna cum laude, from Brown University; an M.A. in Economics from the University of California at Berkeley; a J.D., magna cum laude, from Harvard Law School; and a Ph.D. in Business Administration from the Haas School of Business at the University of California at Berkeley. Professor Richman also spent one year at the Pardes Institute in Jerusalem, Israel, studying biblical and Talmudic texts.

His recent work has been published in the *Columbia Law Review*, the *University of Pennsylvania Law Review*, *Law and Social Inquiry*, and *Health Affairs*, and he recently co-edited with Clark Havighurst a symposium volume of *Law and Contemporary Problems* entitled "Who Pays? Who Benefits? Distributional Issues in Health Care."

Catherine Harvey Sevier joins CHAPI/HSAC bringing a backgound in clinical nursing and academic cancer center administration. She was the founding Executive Director of the National Comprehensive Cancer Network (NCCN) and was a faculty member in the MHA program at the Medical University of South Carolina. Prior to 2010, Catherine served as Executive Vice President (Community Programs and Publications) for the American Diabetes Association (ADA) where she led ADA's focus for the Preventive Health Partnership, a joint initiative with the American Cancer Society and the American Heart Association. Catherine has served on boards of many national organizations, including founding President of the American College of Oncology Administrators, and the Association of Community Cancer Centers. She recently served chaired the National Coalition for Cancer Survivorship board. As a consultant in palliative care, cancer and chronic disease, Catherine worked nationally with many academic medical centers and health systems to establish and evaluate care coordination. She has held grants and contracts with the Institute of Medicine, the National Cancer Institute, and the Centers for Disease Control and Prevention. Her doctoral research in public health focused on establishing national cancer registries and disease reporting.



David Sevier comes to CHAPI/HSAC following an extensive career in health policy and health services research in both public and private sectors. While in the US Navy, he developed national health policy for the Secretary of Defense and the US Congress. In his last command, David established and directed a Health Services Research Center at the Naval Postgraduate School, in Monterey, CA. Under his leadership, the Center conducted research for and developed the legislative program to create the US military's healthcare system (TRICARE), now providing services for over 12 million individuals.

Following service in the Navy, David established and directed a joint DoD / State Department program working at the highest levels of government to assist developing nations to best utilize health resources. David served four years as director of international programs with the humanitarian organization, Mercy Ships. Returning to the US in 2000, David created and managed the US Medicine Institute, a Washington, DC-based "think tank" conducting research and evaluating US federal health policy. From 2006 - 2009, David directed a Commission to develop a 20-year strategy for the US Department of Veterans Affairs Health Administration. The Sevier's consult internationally on health programs and lead a non-profit entity developing new paradigms for health services delivery.

Dean Torres works with healthcare clients and prospects to driving innovation using data-driven information to make better business and clinical decisions. He joined Teradata after 15 years of healthcare operations experience - working with providers and payers.

Before Teradata, Torres worked at PacifiCare, now part of United Health Care. His teams worked with providers and hospitals to resolve contractual & financial, claims, customer service, and appeals & grievance issues. Dean worked at Kaiser Permanente, leading hospital departments, identified best practices, re-engineered work flows, and coordinated hardware and software implementations. Lastly, Dean worked at Georgetown University Medical Center and Scripps Health. Dean received his Master's Degree in Health Services Administration from The George Washington University in Washington, DC.

Torres helps companies unleash their business intelligence and advanced analytics potential. The need for data-driven decision making in health care is exploding. Dean's work with forward-thinking companies provides him a unique perspective on helping health care companies make the best decisions possible.

David Wiggin is the Program Director, Healthcare and Life Sciences, for Teradata Corporation. His responsibilities include global industry strategy, marketing, offer development and field enablement and support. He is also a faculty member with the International Institute for Analytics, Health Care Analytics Research Council, and a regular speaker at Duke University Health Sector events. Prior to joining Teradata, David was with the healthcare business of Thomson Reuters, now Truven Health Analytics, for 25 years, supporting employer, health plan, provider and government markets. He has worked in a variety of roles including product management, product development, project management, data warehousing, operations management, and systems architecture. David has experience with both the business and IT dimensions of the healthcare industry and is a frequent industry speaker. David has also held executive and management positions at Stern Stewart & Co. and Exxon Corporation.

David received a BS degree from Ithaca College and earned his MBA from the State University of New York at Albany.