The Pittsburgh Regional Health Initiative (PRHI) convened a conference on September 9 to consider whether our region was interested in exploring a new healthcare delivery and payment concept that is attracting interest in Washington, D.C. and around the country – the accountable care organization.

Special guest speakers at this ACO conference included experts from the Brookings Institution and Dartmouth, two organizations that have pioneered the ACO concept. Other key speakers included James Costlow, MD, who described an innovative hospital readmission reduction project with potential ACO significance, and the head of a local physician-hospital organization (PHO), who outlined the role that a PHO could play in managing an ACO.

Conference participants were 75 senior representatives from community hospitals, primary care practices and commercial insurers, and key state Medicaid officials. After morning presentations, these participants, our guest speakers and PRHI staff split into several afternoon break-out groups, including a discussion between the expert from Dartmouth and local payors, and facilitated discussions among participants from individual community hospital and physician clusters. The program concluded with presentation of summaries of these sessions to the whole group, and discussion of potential next steps.

Conference presentations are at: http://www.prhi.org/documents/PresentationsfromSept92009ACNMeeting.pdf.

“The next big thing: Accountable Care

PRHI Regional Conference on Accountable Care

An Accountable Care Organization is an entity that is clinically and fiscally responsible for the entire continuum of care that patients may need.”

Stephen M. Shortell, PhD, MPH
Dean and Blue Cross of California Distinguished Professor of Health Policy and Management at the School of Public Health, University of California-Berkeley
**SETTING THE STAGE**

Karen Wolk Feinstein, PhD, President and CEO of PRHI, introduced the conference and its purpose. She outlined the financial, organizational and informational structures that would be required for ACOs: governance, payor negotiations, distribution of payments to participants, and collection and analysis of quality improvement information.

Feinstein acknowledged that large, vertically integrated health systems (e.g., Mayo Clinic, Kaiser Permanente) should be able to develop these capabilities. But she also pointed out that community hospitals and aligned physician practices generally lack the resources and internal structures to move directly to ACOs. To help these smaller organizations coordinate and improve care, PRHI envisions a transition step -- informal but progressive accountable care networks, or ACNs.

An ACN would be comprised initially of a community hospital and aligned practices that would agree to coordinate care and seek measurably better outcomes for a defined patient population (e.g., better outcomes among shared patients with a specific chronic disease). According to Feinstein, an ACN could create opportunities for a wider range of providers to cooperate for improving healthcare quality and efficiency, as well as the possibility of a transition step toward developing an ACO, which would integrate care across settings for all patients.

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**The Accountable Care Organization (ACO) has been proposed by leading health policy experts as a means of addressing significant problems with the U.S. healthcare system, including high costs, variable quality and a lack of care coordination. An ACO would seek to address these issues by linking payments to groups of providers with quality and utilization.**

A typical ACO would include a hospital, primary care physicians, specialists and potentially other medical professionals and providers of healthcare services (e.g., nursing homes). ACO members would coordinate care for their shared patients, and would share in cost savings that resulted from improved patient outcomes.

According to Dartmouth’s Dr. Elliott Fisher, one of the developers of the ACO concept, “The goal is to be as adaptable as possible to the local circumstances of physicians.” An ACO could develop under the umbrella of an integrated delivery system, through an existing physician-hospital organization, or might evolve as a virtual ACO among a group of independent but allied providers.

A key ACO attribute is that it be large enough so that cost savings could be tied credibly to quality improvement, not to year-to-year fluctuations in care. The current consensus is that this means a minimum of 15,000 patients with private insurance, or 5,000 Medicare beneficiaries.
**The Speakers: James Costlow, MD**

Jim Costlow, M.D., of Premier Medical Associates, a 55-physician, multi-specialty group based in Monroeville described a disease management / readmissions reduction project that could serve as a model for development of ACN pilots. The PRHI-sponsored project, Chronic Disease Readmission Reduction (CDRR), involves three local hospitals, two closely aligned primary care practices, and their shared chronic obstructive pulmonary disease (COPD) patients.

With the generous financial support of the R.K. Mellon Foundation, the CDRR project was conceived as a means to show the potential for better transitions of care and care coordination to reduce high rates of 30-day hospital readmissions among COPD patients.

A detailed account of the project is set forth in the second section of this Executive Summary. The project’s success, however, suggests that it could serve as a model for ACN pilots to test a local provider network’s or a community’s readiness to move toward more formal ACO status. As described by Dr. Costlow, readmission reduction partnerships patterned after the CDRR project would require essential collaborations among levels of care and measurable improvements that are the foundations for ACOs.

**The Speakers: Julie Lewis**

Julie Lewis, Policy Director at the Dartmouth Institute for Health Policy and Clinical Practice, used Dartmouth Atlas data to illustrate opportunities for regional clinical improvement and greater efficiency. Dartmouth Atlas data show wide variations in average Medicare spending, both among and within geographic regions – as much as 300% variation in per-capita Medicare spending, with southwestern Pennsylvania entrenched in the highest-cost quintile.

High-spending regions have highest rates of preventable admissions, highest number of per-capita physician visits, highest amounts of per-capita spending on imaging, lowest ratio of primary care physician visits to specialist visits, highest percentage of Medicare beneficiaries that see more than 10 physicians in a year.

Resolving this huge variation and getting Medicare spending growth under control is critical to the country’s fiscal and economic future. Medicare is on a glide path to multi-trillion deficits by 2050, but a reduction of just 1% in the growth rate of Medicare spending would save $1.42 trillion by 2023.

According to Lewis, the key factors in regional variation are: (1) regional healthcare capacity (i.e., beds, MRIs, specialists, etc.) and reimbursement systems based on volume and intensiveness of services; and (2) clinical judgment. She added that high Medicare per-capita spending generally means high costs for those with commercial health insurance.

Within Pennsylvania, Lewis presented data that showed lowest per-capita Medicare spending is in Lancaster, Danville (home of Geisinger Health System) and Sayre (home to the integrated Guthrie Health System). Although our region is, on average, a high-cost area, there is large variation among Pittsburgh area hospitals in Medicare spending during the last two years of life. Also, the percentage of local Medicare beneficiaries who see more than 10 physicians in a given year is very high – indicative of a fragmented, poorly coordinated care.

(CONT’D ON PAGE 4)
Dartmouth Atlas data prove that regional healthcare expenditure variations do not correspond to quality of care. In fact, there is often an inverse relationship between high costs and measurable patient outcomes. However, the correlation between effectively integrated care and lower average costs has provided a foundation for the ACO model: clinical improvement and savings through joint provider accountability for the care of a defined patient population. The next step is for Congress to authorize expedited trials and demonstrations for ACOs and new reimbursement methods.

### What if...

<table>
<thead>
<tr>
<th>Area</th>
<th>Population</th>
<th>Rates</th>
<th>Surplus/Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sayre, PA</td>
<td>25,479</td>
<td>$6,409</td>
<td></td>
</tr>
<tr>
<td>Philadelphia, PA</td>
<td>268,697</td>
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<td>$875,016,714</td>
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<td>Allentown, PA</td>
<td>132,876</td>
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<td>Reading, PA</td>
<td>62,641</td>
<td>$7,675</td>
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<td>Harrisburg, PA</td>
<td>114,810</td>
<td>$7,444</td>
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<td>Erie, PA</td>
<td>84,523</td>
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<td>Altoona, PA</td>
<td>30,293</td>
<td>$7,261</td>
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<td>York, PA</td>
<td>47,893</td>
<td>$7,096</td>
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<td>Lancaster, PA</td>
<td>67,393</td>
<td>$6,851</td>
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<tr>
<td>Danville, PA</td>
<td>58,865</td>
<td>$6,790</td>
<td>$22,460,786</td>
</tr>
</tbody>
</table>

Per capita Medicare spending in Pennsylvania was at the **Sayre** level?

Savings for...
- Just Medicare
- Just for Part A & B
- Just 2006

Would have been: **$2.2 Billion**

Savings from Pittsburgh alone: **$470 Million**

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### The Speakers: Sue Flynn

**Sue Flynn, CEO of Vale-U-Health**, a PHO centered around Mon Valley Hospital, presented one model of intermediary services – the physician-hospital organization (PHO) – that may be needed for an ACO. She described the value-added services that Vale-U-Health and other PHOs already offer to physicians and hospitals, including credentialing, billing, quality improvement consulting, and health information technology services. She made a persuasive case that PHO capabilities were very well-suited to the administrative and other needs that would be occasioned by development of ACOs.
The Speakers: Aaron McKethan, PhD

In his presentation, Aaron McKethan, PhD, Research Director at the Brookings Institution Engelberg Center for Health Care Reform, emphasized that the ACO concept is not an off-the-shelf model, but an approach to improving quality and containing costs that will need to be fitted to local healthcare market circumstances. He stressed that, "The ACO concept is a mechanism ... it's a work in progress."

McKethan set forth three critical elements for implementing the ACO concept: local provider accountability, standardized performance measures and payment reform. He discussed a number of payment reform ideas that could provide a foundation for ACOs, including “shared savings” and partial or global capitation. (For a thorough discussion of payment reform issues, go to www.chqpr.com).

He also stressed “organic” nature of ACO implementation, the importance of accommodating local market differences, and of alignment and commitment among participating providers, as is the case within integrated systems like the Geisinger Health System. McKethan described Geisinger as "close to an ACO model." (The PRHI visit to Geisinger earlier this year is described in the June 2009 Executive Summary: http://www.prhi.org/docs/June%202009%20PRHI%20Executive%20Summary%20WEB.pdf.)

ACOs Figure Prominently in Congressional Health Reform Measures

The major health reform bills developed on both sides of Capitol Hill – the House-passed bill and the pending, majority-authored measure in the Senate – not only direct the Centers for Medicare and Medicaid Services (CMS) to recognize and create new payment mechanisms for voluntarily organized ACOs, but also require Medicare to undertake a series of regional ACO and payment demonstrations.

Furthermore, both bills would relax budget neutrality requirements and other restrictions for CMS demonstrations, and obligate CMS to implement new policies broadly if interim ACO demonstration results yield quality and efficiency improvements.
Morning presentations were succeeded by a series of afternoon break-out sessions that allowed discrete stakeholder groups – commercial payors, and individual hospital-and-physician/practice clusters to consider what they had heard and learned about ACOs, the CDRR project, and transitional ACNs. These facilitated sessions helped participants to consider practical issues related to participation in an ACN pilot program – for individual community hospitals and aligned primary care practices that comprised natural accountable care networks, and for commercial payors interested in supporting ACNs through small-scale reimbursement experiments.

Questions for Brookings and Dartmouth

1. What about anti-trust issues? Safe harbor changes and recent FTC anti-trust rulings that give considerable weight to quality improvement are significant. Brookings-Dartmouth is developing a toolkit to help people think about legal, anti-trust, malpractice issues, etc.

2. What would an ACO look like? ACO configurations will vary, reflecting the diversity of local markets. Essential ACO characteristics: (1) capacity to manage care across continuum, as a real or virtual integrated delivery system; (2) sufficient size to support comprehensive performance management and expenditure projections; and (3) internal capability to plan budgets and resource needs, negotiate and manage bundled or shared savings reimbursements.

3. How do ACO’s reduce expenditures? Through systematic efforts to improve quality and reduce costs across the continuum of care; timely, actionable data for feedback and improvement; strengthening primary care through access to providers (e.g., extended office hours) and chronic disease management; managing care coordination and care transitions; informed patient decisions; and workforce and infrastructure capacity planning.

4. How would shared savings work? A number of payment reform models will be tested by Medicare (see accompanying figure that outlines shared savings).

5. Is this a return to capitation? Yes, but with important differences from earlier capitation attempts: patient risk-adjustment (including outlier payments), adequate rewards for good outcomes and efficiency, claims analysis by providers not required, give patients flexibility to make choices and elect medical homes.

6. Why isn’t mental health included in the ACO? Mental illness and behavioral issues are significant cost and health issues. Brookings-Dartmouth is thinking about how mental health might be incorporated into ACOs and payment reform.
Reflecting intensified pressures on reimbursements and bottom lines, financial concerns predominated. Would “bending the curve” on healthcare costs morph into more payment complexity, higher administrative costs and lower reimbursements for providers?

Hospital executives were already worried about the focus on preventable admissions and the possibility that CMS – and commercial payers – will reduce or zero out reimbursements for “preventable hospitalizations.” Of particular concern is holding hospitals financially accountable for gaps and deficiencies in care that occur outside the hospital setting.

Physicians’ issues included generally declining reimbursements (particularly by public payors), pressures to treat more patients in less time, and a virtual dictate from Washington that they invest significant sums in health information technology that will be of financial benefit to all stakeholders -- except providers.

Several hospital leaders and doctors recalled the problems with managed care capitation, when new integrated care delivery organizations that were formed to align with HMOs proved financially unsuccessful, due to HMO focus on limiting access to care, and providers’ inability to manage and forecast claims prospectively.

Concerns about federal Stark/anti-kickback/anti-trust laws were also voiced. Although safe harbor provisions have been affirmed to allow some hospital-physician financial cooperation, concerns about potential legal liabilities remain. This is an area in which Brookings and Dartmouth are committed to help, having engaged a prominent Washington law firm to develop a template for ACO compliance with these federal laws.
Break-out participants were asked to rate the quality of different aspects of care in their referral areas. Primary care/care in the community and hospital treatment received consistently high scores.

But virtually all participants in each break-out cluster also acknowledged significant deficiencies in admissions and discharge procedures, hospital emergency departments, and post-hospitalization follow-up.

- Lack of information sharing among hospitals and practices
- Absence of standardized, coordinated processes for admission and discharge “hand-offs”
- Break-down in scheduling patients’ timely, post-discharge office appointments with their physicians (not only do physicians frequently not know of patient discharge, but current reimbursement policies penalize doctors for holding time slots open for those newly discharged)
- Incomplete medication reconciliation at hospital discharge, including failure to update medication lists maintained by physician
- Unreimbursed physician-patient telephone consultations
- Financial disincentives for hospitals to refer patients to home care
- Legal liability concerns that translate into physicians frequently responding to patient telephone calls with referrals to the ER

Potential Barriers to ACNs

Similar issues were raised at all of the break-out sessions:

- Proliferation of pilots, demonstrations and special projects is straining resources among the most progressive hospitals and practices.
- Although aimed at rationalizing delivery and payment incentives, successful ACN pilots would occasion new expenses and likely reduce revenue for participants. Offsetting at least part of these costs is critical, through direct contributions or special reimbursement mechanisms.
- Resolving potential legal impediments (anti-trust, etc.) is crucial.
- Initial assistance with data analysis would be needed.
**Payor Break-Outs**

Julie Lewis from Dartmouth led a discussion with representatives from virtually all local payors that focused on ACO projects that were being undertaken in other regions and constructive participation in local ACN pilots.

Lewis described a handful of potential ACO-related initiatives, including southwestern Pennsylvania, for which Brookings-Dartmouth had committed to provide consultative services. The Pittsburgh-area possibility is of particular interest because it isn’t being developed within a single local hospital/healthcare system. Brookings-Dartmouth is very interested in the ACN transition step for the independent hospitals and small physician practices that are the backbone of healthcare delivery for most of the U.S.

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**Discussion with Local Payors**

Discussion with local payors focused on three important practical issues:

**Quality Measurement and Financial Incentives.**

All insurers are administering separate pay-for-performance programs within their networks of providers. However, it probably wouldn’t be practical for insurers to participate in an ACN demonstration if each insurer insisted on a different set of performance measures. Although individual insurers could customize financial incentives, agreement on a common set of quality measures would be needed.

**Chronic Disease Focus.**

There was general agreement that the PRHI model – ACNs organized around one or two chronic diseases – offered excellent opportunities for improving care and reducing costs.

**Critical Mass of Affected Members.**

The broader implications of ACN pilots were of most interest to insurers. Participation in ACN pilots would depend on the individual hospitals and practices that would participate, and how many of an insurers’ members would be affected. Would participating providers and the selected chronic disease(s) comprise a statistically significant group and provide reliable information for making broad changes?
Congress is poised to direct CMS to carry out a series of regional ACO and payment reform demonstrations aimed at boosting quality and lowering costs. Pending health reform legislation would also impart greater urgency to plan CMS already has to reduce payments for “preventable” hospital admissions and other inefficiencies.

Several southwestern Pennsylvania hospitals and thousands of local physicians are already involved in significant local, state and national quality improvement and cost saving projects that bear directly on short- and long-range health reforms. Conference participants agreed about the validity of the ACN concept, and each stakeholder group committed to a short list of key tasks.

**Individual hospital and physician clusters.** Make initial commitment to proceeding with an ACN pilot, and identify key issues and needs.

(As of this writing, two ACN candidates have made an initial commitment.)

**Payors.** Evaluate provider responses, evaluate if critical mass is in prospect, and consider possibility of establishing common ACN performance measures.

(Two payors have communicated concrete interest in offering payment incentives for ACN pilots; discussions continue with others.)

**PRHI.** Search for sources of outside funding to offset unreimbursed ACN costs, conduct co-morbidity and readmissions research to help ACN candidates target chronic diseases.

(ACN grant application will be filed in November. Preliminary research results have been provided to the first two CAN pilot groups.)

**Brookings-Dartmouth.** Standing by for return visit to Pittsburgh for individual consultation and needs evaluation with initial ACN pilots.

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**Major Demonstrations Currently in Progress**

**CMS EHR Demonstration**
(278 participating practices, up to $40 million in extra practice payments, PRHI as CMS Community Partner and with support from several hospitals)

**GOHCR Chronic Care Pilot**
(at least 24 participating practices and community health centers, supported by commercial insurers’ payment incentives)

**Commonwealth Fund Safety Net Medical Home Initiative**
(PRHI serves as Regional Coordinating Center for up to 14 FQHC or look-alike participants)

**Commercial insurers’ enhanced P4P and hospital readmissions initiatives**
(including Highmark’s health information technology grants to physicians)

**Integrating Treatment in Primary Care**
(PRHI initiative to test primary care screening and initial treatment of at-risk patients for substance use and behavioral issues)

**Care Transitions**
(Quality Insights of Pennsylvania Care, the CMS-designated Quality Improvement Organization for Pennsylvania, and selected hospitals and practices)
CHRONIC DISEASE READMISSIONS REDUCTION PROJECT

- Chronic conditions are the leading cause of illness, disability, and death in the United States today.
- Almost 100 million people in the U.S. have one or more chronic conditions.
- Over 40 million people are limited in their daily activities by chronic conditions -- and the numbers of people so affected are expected to increase dramatically in the coming decades.
- People are living longer with chronic conditions than ever before.
- Chronic conditions cost the economy $470 billion (in 1990 dollars) in direct medical costs, and more than $230 billion in lost productivity in 1995, and the cost has only risen.

Dr. Costlow noted that one-third of COPD hospital admissions occur in people under age 65. Clinical practice guidelines do exist, and dramatic impacts can be made with relatively simple interventions.

For example, 79% of patients did not know how to use their inhalers properly. The team discovered that patients were not receiving adequate training on using their inhalers – and that figuring it out was not as easy as it sounds. Some inhalers need to be inhaled quickly, some slowly. And instruction on how to use them properly – critical information – is lacking.
“We had to coordinate efforts among our primary care physicians, hospitals and home health agencies, and others as well,” said Dr. Costlow. “Working together across our two demonstration sites, and with the extraordinary commitment of these healthcare workers, things began to change.”

In one year, UPMC St. Margaret posted a 48% reduction in readmissions for COPD. According to Dr. Costlow, results among Premier’s COPD patients have been even better – preliminary calculations indicate a 75% drop in 30-day readmissions among COPD patients.

### Impact of COPD Readmission Reduction Project at UPMC St. Margaret

<table>
<thead>
<tr>
<th>30-Day Readmission Rates</th>
<th>Jan-May 2008</th>
<th>Jan-May 2009</th>
<th>Change</th>
<th>Readmissions Prevented (5 mo.)</th>
<th>Savings @ $5,400/Admit</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Discharges with Primary COPD Diagnosis, Readmitted Within 30 Days for COPD or Pneumonia</td>
<td>12.4%</td>
<td>6.4%</td>
<td>-48.2%</td>
<td>16</td>
<td>$85,579</td>
</tr>
</tbody>
</table>

**Designing Better Care**

Because treatment guidelines involve both inpatient and outpatient treatment, the readmission reduction program was designed as a continuum across both venues. The phases included:

**In-hospital patient education.** Focusing on hospital treatment first made sense because those patients had demonstrated their risk of hospitalization, were “captive” for several days, and were surrounded by staff and treatment resources, including inhaler training with a respiratory therapist, and smoking cessation intervention.

**Community care management.** Ultimately, the goal would be to prevent patients from exacerbated conditions that require hospital admission, including home visits and phone calls, education in self-management and response to exacerbation, and a direct working relationship with the primary physician.

The challenges include lack of payment for care management, and the sheer number of small physician practices to reach.
PRHI called Healthcare Performance Partners (HPP) of Nashville to conduct a Lean workshop at UPMC St. Margaret, with the objective of helping to standardize tasks, such as inhaler training, and coordinate activities for each COPD patient. HPP’s Dwayne Keller led the workshop, and presented his findings at the ACN conference.

The figure shows the progression of efficiencies. By eliminating waste using Lean techniques, the team found more time for respiratory therapists to help instruct patients on inhaler use. Those activities supported the overall goal of reducing COPD readmissions by 40%.

The first order of business was to create a Value Stream Map, which follows a specific request, and how that request is fulfilled. The team then zeroed in on exactly the steps to take to ensure that each patient knows how to use the Advair inhaler. Knowledge that had been implicit, and largely unspoken, now became explicit, in step by step instructions.

Known clinical treatments for long term treatment for stable COPD. The challenge is implementation.

1. Avoidance of risk factors; influenza vaccination
2. Add Rapid acting bronchodilator when indicated
3. Add short or long-acting bronchodilators and pulmonary rehabilitation
4. Add medium to high-dose inhaled or oral glucocorticosteroids or antibiotics when indicated
5. Add long-term oxygen; consider surgical referral.

*Adapted from Global Initiative for COPD, www.goldcopd.org
Keller emphasized that using these Lean tools in a concentrated effort requires the participation of all key players in the process, backed with 100% management support and empowerment. The process involves no magic, only continuous experimentation and learning by doing.

During the event, it became apparent that the education would best be given by respiratory therapists rather than nurses, a change that required a shift in thinking and planning, but which paid off in the end. The business case was clear: reducing readmissions by the targeted 40% would save money, and that money could be used to fund the estimated two additional FTEs that would be necessary to implement the COPD program.

However, Lean efficiencies implemented during the event halved the expected number: the hospital added only one FTE. The efficiencies involved doing more work in real time, and standardizing equipment, supplies and processes among respiratory therapists. The time and money saved were real, and the improvements have been sustained for more than a year. They included:

- Real-time charting, rather than batching and relying on memory
- Work assigned on the preceding shift
- Standardized carts to eliminate searching for supplies: laptop, supplies, medications, labels
- Resupply carts before each shift

### Task: Instruction of Patients in Use of Adair Inhaler

<table>
<thead>
<tr>
<th>No.</th>
<th>Steps</th>
<th>Keypoints</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Verify Order</td>
<td>Review emar/paper chart</td>
<td>Assure 5 rights when administer med</td>
</tr>
<tr>
<td>2</td>
<td>Assemble Equipment</td>
<td>Obtain medication from pharmacy and glass of water</td>
<td>Rinse/spit to prevent yeast infection in mouth and throat</td>
</tr>
<tr>
<td>3</td>
<td>Identify Patient</td>
<td>Check name/arm band, MRN</td>
<td>Correct patient</td>
</tr>
<tr>
<td>4</td>
<td>Discuss disease process</td>
<td>Clinic/apps.smh.info.phar or right click on emarmedical</td>
<td>Provide/print medication info for patient</td>
</tr>
<tr>
<td>5</td>
<td>Education on Medication related to disease process</td>
<td>Use soap and water/hand foam</td>
<td>Prevent infection</td>
</tr>
<tr>
<td>6</td>
<td>Wash Hands</td>
<td>Locate area(pre-slit) and tear open</td>
<td>Easy opening</td>
</tr>
<tr>
<td>7</td>
<td>Open Package</td>
<td>Dosage, counter, lever piece</td>
<td>Proper/effective medication delivery</td>
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<tr>
<td>8</td>
<td>Discuss disks and parts</td>
<td>Slide sleeve until you hear &quot;click&quot;</td>
<td>Assure disk is open to prevent medication loss</td>
</tr>
<tr>
<td>9</td>
<td>Open disk and hold it level</td>
<td>Push down lever until you hear &quot;click&quot;</td>
<td>Activate medication for delivery</td>
</tr>
<tr>
<td>10</td>
<td>Push down lever</td>
<td>Empty lungs &quot;breathe out&quot; take dose immediately after</td>
<td>So next breath is deep</td>
</tr>
<tr>
<td>11</td>
<td>Exhale completely</td>
<td>Slide sleeve immediately after</td>
<td>Prevent cough and medicine administration</td>
</tr>
<tr>
<td>12</td>
<td>Insert mouth piece</td>
<td>Place mouth piece between lips</td>
<td>Assure medication is equally distributed in lungs</td>
</tr>
<tr>
<td>13</td>
<td>Breathe &quot;in&quot; and deep and quick</td>
<td>Demonstrate quick/deep breath</td>
<td>Prevent cough and medicine administration</td>
</tr>
<tr>
<td>14</td>
<td>Hold breath for 10 seconds</td>
<td>Do not breath</td>
<td>Prevent cough and medicine administration</td>
</tr>
<tr>
<td>15</td>
<td>Exhale slowly</td>
<td>Demonstrate slow exhale</td>
<td>Prevent cough and medicine administration</td>
</tr>
<tr>
<td>16</td>
<td>Rinse mouth</td>
<td>Swish and gargle water then dispose</td>
<td>Prevention of yeast infection in mouth/throat</td>
</tr>
</tbody>
</table>
One year later, after standardizing the carts, (below) the improvements have been sustained.

COMMUNITY OUTREACH REDUCES COPD READMISSIONS

Dr. Costlow noted the key elements of successful outpatient care, which included:

- Increasing general knowledge of the treatment and medication guidelines.
- Hiring a nurse care manager to make home visits and phone calls to follow up on patient education after discharge.
- Involving patients in their own care through a patient action plan.
- Redesigning the way staff handled patient calls.
- Monitoring their performance.

Of these elements, hiring the nurse care manager proved crucial. This person would need to make home visits and phone calls, adapting care as circumstances change: in other words, this experienced practitioner needed good management skills, too. Premier contracted for services with a home health agency, which allowed other small practices to share this key clinician.
The results exceeded our expectations,” said Dr. Costlow. “Our nurse care manager, working out in the community, was absolutely key to our success.”

One key problem is that no funding existed to pay for this key person: neither health insurance nor Medicare pays for such a position. Instead, PRHI funds it, as a way of demonstrating its value.”

James Costlow, MD
Premier Medical Associates

PCP or 911?

Often, a COPD patient having trouble breathing will call 911, all but ensuring an expensive trip to the emergency room and probable hospital admission. Perhaps if, as part of the patient’s action plan, they called the physician’s office and received timely advice, an admission could be averted.

But if the patient calls the physician’s office, is the office prepared to respond appropriately? This question leads to others: whom should the patient speak to? How soon should someone speak to the patient? If the patient needs to come to the office, is there time in the schedule? To address these questions, Premier is taking training in PRHI’s Perfecting Patient Care.

As a result of the coordinated efforts at Premier, they logged only 3 COPD-related readmissions for the first six months of 2009—just 2.5%—far lower than the 10.8% logged by the Pittsburgh region as a whole.