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Center for Health Policy CENTER FOR PRIMARY CARE & OUTCOMES RESEARCH

CHP/PCOR

Quarterly Update

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INSIDE THIS ISSUE:

Health economist Grant Miller joins CHP/PCOR faculty

Grant Miller, a Harvard-trained health economist with an interest in improving health in developing countries, joined CHP/PCOR in September as the centers' newest core faculty member.

Grant Miller

Miller's research has spanned a wide variety of topics, including the impact of water quality on population health; changes in Iran's healthcare system since the 1979 Islamic Revolution; and the impact of family planning programs in Colombia. He has researched these and other subjects at the National Bureau of Economic Research, the Urban Institute, and UC-San Francisco's Institute for Health Policy Studies, as well as at Harvard.

At CHP/PCOR, Miller plans to pursue research on three broad themes: the economic and social benefits of good health; the determinants of fertility among women in developing countries; and identifying the best strategies for improving health in poor countries.

Miller — who has been appointed an assistant professor of medicine at Stanford — said he is excited to join an academic community that gives researchers flexibility to cross departmental boundaries and break new ground. "I've been impressed by how much the faculty here are encouraged to cross disciplines in the pursuit of difficult research questions," he said.

CHP/PCOR director **Alan Garber** said Miller "brings a fresh perspective and new dimensions to the research of CHP and PCOR. Working

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Director Alan Garber discusses Medicare issues in Q&A

Medicare has been in the health policy spotlight in recent months, with the launch of a campaign to promote the new prescription-drug benefit; lobbying by health-care providers to influence implementation of the Medicare Modernization Act; the launch of pay-for-performance initiatives; and other announcements made by **Mark McClellan**, administrator of the Centers for Medicare and Medicaid Services and a faculty member on leave from CHP/PCOR.

Alan Garber

CHP/PCOR director **Alan Garber** discussed key Medicare issues and challenges in a recent interview. Garber chairs the CMS' Medicare Coverage Advisory Committee and is lead investigator for a project to develop a proposal to reform the Medicare program.

Q. How will the new prescription drug benefit affect Medicare's financial problems?

Garber: This year's report by the Medicare Trustees states that the Medicare

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U.S. hospitals gather to share experiences at patient safety meeting

Representatives of nearly 60 U.S. hospitals involved in past and present CHP/PCOR research to assess and improve patient safety culture, gathered at Stanford on Aug. 29 for a day-long meeting at which they heard presentations from patient safety experts and shared their experiences, successes and challenges.

Top: Sara Singer (grey jacket) discusses error-reporting systems at a breakout session. *Bottom left:* Kathryn McDonald presents the Patient Safety Indicators at a lunchtime session. *Bottom right:* Paul Uhlig gives his keynote address.

The event was the fourth meeting of the Patient Safety Consortium, a group of hospitals recruited by CHP/PCOR to measure their safety climate through a survey of their personnel. Since 2000, the consortium has grown from 21 California hospitals to the current group of 114 U.S. hospitals taking part in the latest phase of the project.

In that phase, led by CHP/PCOR researchers **Laurence Baker**, **Sara Singer** and **David Gaba** and funded by the Agency for Healthcare Research and Quality, 24 of the hospitals have been randomly selected to implement an intervention aimed at improving safety culture and reducing the discrepancy in how managers and staff perceive the hospital's safety culture. In the intervention, managers shadow front-line personnel and meet with departments to air staff's concerns about patient safety.

Reflecting the national expansion of the Consortium, this year's meeting drew participants from around the country, including Dayton, Ohio; Phoenix, Arizona; Three Rivers, Oregon; and New Brunswick, New Jersey. The attendees included physicians, nurses, patient safety officers, and representatives from organizations including the Naval Postgraduate School and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). The meeting featured sessions on engaging physicians in patient safety efforts; promoting respect across hospital departments; creating effective error reporting systems; an update on JCAHO's National Patient Safety Goals; and a keynote talk by **Paul Uhlig**, a cardiothoracic surgeon and 2002 winner of the John Eisenberg Patient Safety Award for System Innovation.

Amidst the range of topics discussed at the meeting, some common themes emerged:

• Teamwork works

Many participants said they had seen firsthand the value of teamwork, particularly among different disciplines and departments. **Eugene Spiritus**, chief medical officer at UC-Irvine Medical Center, described an initiative at his hospital in which teams of nurses, case managers and medical directors were formed for each floor, and were tasked with devising ways to improve patient care and safety. Through improved communication and collaboration, Spiritus said, the initiative has increased staff's adherence to clinical best practices and has reduced the number of catheter-induced infections on two units. In another presentation, **Sue Dyrenforth**, director of the Veterans Health Administration's National Center for Organization Development, emphasized that mutual respect across disciplines is a key aspect of successful teamwork.

• Engaging physicians is crucial

An afternoon panel discussion was devoted to this theme, featuring panelists **Paul Sharek**, chief patient safety officer at Lucile Packard Children's Hospital; **Bruce Spurlock**, a Roseville, Calif., healthcare consultant; and Spiritus of UC-Irvine. Sharek said physician involvement in patient safety efforts is important because it helps to establish the credibility of the patient safety movement. Spurlock, though, acknowledged that physicians are often reluctant to participate in such efforts, due partly to medicine's traditional emphasis on autonomy.

To overcome this reluctance, Sharek said physicians must be given data that quantifies patient safety problems and shows how specific changes can improve patient outcomes. Spurlock recommended that when launching patient safety initiatives, hospital leaders should focus on involving physicians who are known to be early adopters, rather than trying to convert the skeptics.

• Engage front-line staff

Meeting participants affirmed that involving and listening to front-line personnel is crucial to improving patient safety. **Robert Westrom**, director of quality management

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Harkness Fellow comes to CHP/PCOR to study coverage decisions

Stirling Bryan, a professor of health economics at the University of Birmingham (U.K.) and a 2005-2006 recipient of the Commonwealth Fund's prestigious Harkness Fellowship in Health Care Policy, will spend the next academic year based at CHP/PCOR, carrying out a research project that will examine fundamental questions of how medical technology coverage decisions are made in the United States, how cost-effectiveness analysis is used (or not used) in those decisions, and how the decision-making process could be improved in the U.S. and the U.K.


Stirling Bryan

Bryan said he looks forward not only to learning from his experiences in the United States, but to sharing his knowledge and perspective from the United Kingdom, where he last year completed a research project examining how the National Institute for Health and Clinical Excellence (NICE) makes coverage decisions for the U.K.'s national health system, and how cost-effectiveness analysis is incorporated into that process.

"I don't envision my role here as just taking away information," said Bryan, the second Harkness Fellow to be hosted at Stanford. "I also want to share information that people may find helpful. There seems to be a lot of interest in how things are done in the U.K."

That statement proved true at the Research in Progress Seminar on Aug. 24, when Bryan presented his U.K. findings and discussed plans for his research in the U.S. The session attracted a roomful of faculty members, research staff and guests, who asked several questions about the U.K.'s healthcare system, including how cost-effectiveness thresholds are arrived at (the threshold typically used by NICE is 30,000 UK £ per quality-adjusted life year); how drugs are priced (through a system of price regulations); and how NICE appraises therapies that are not the most clinically effective in their class but are less expensive than other commonly used therapies (such therapies are rarely reviewed by NICE, but Bryan said he felt they should be).

In introducing Bryan, CHP/PCOR director **Alan Garber** said, "It's a privilege to have him working with us. He's a great fit for CHP/PCOR, and I'm sure we'll learn a great deal from him."

Bryan began his presentation by saying that based on what he's learned, "the important issues for making coverage decisions are very different here than in the U.K." In fact, he said, "it seems the two countries are on completely different tracks."

He explained that in the U.K., advisory committees within NICE decide whether selected emerging therapies should be covered, and for which patients, based on a thorough evaluation that considers the therapy's clinical effectiveness, the availability of other remedies for the targeted condition, and the therapy's cost-effectiveness as measured in quality-adjusted life years (QALYs). Each committee has 28 members including doctors, nurses, managers, patient advocates, drug/medical industry representatives, and economists or statisticians.

For his two-year U.K. project, Bryan and his collaborators observed 14 NICE committee meetings and interviewed 30 committee members, seeking to understand how they made coverage decisions and how they viewed cost-effectiveness information. The researchers found that, on the whole, committee members valued the cost-effectiveness information and used it in making their coverage recommendations. In fact, Bryan said, "many of them were surprised at how valuable they found the information. They came in thinking, 'OK, I'm going to have to listen to these health economists,' but then they found it was truly helpful."

The researchers concluded that "cost-effectiveness information is an essential driver of coverage decisions at NICE." They also found that among British policymakers NICE was generally considered a positive development, promoting rational decisions about patients' access to new medical interventions.

Bryan's research also uncovered some common concerns among the NICE committee members: Some didn't fully understand cost-effectiveness analysis and felt that training in this area was needed. Others felt the committee had become too permissive, sometimes approving therapies that society could not afford in the long run. "In the U.K., we recognize that our resources are limited," Bryan said. "If we say that statins should be put in the water because they're so great, we're going to bankrupt our national health system."

In contrast, Bryan noted, "It seems that this notion of limits and constraints is not something Americans want to talk about." He said he was "struck" by U.S. policymakers'

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Decision support projects build on Goldstein's work with ATHENA

CHP/PCOR core faculty member **Mary Goldstein** is collaborating with researchers at the VA Palo Alto Health Care System's Center for Health Care Evaluation (CHCE) to expand the use of computer-based decision support systems designed to increase clinicians' adherence to evidenced-based clinical practice guidelines in the treatment of chronic illness.

Decision support systems provide concise information on recommended practices that can be used quickly and easily at the point of patient care. The systems analyze information on patients' medical history, current conditions, medications, lab test results and vital signs — all in the context of specific clinical practice guidelines — and then generate guideline-based treatment recommendations tailored to each individual patient.

In recent months, researchers at CHCE have been awarded three grants to foster the development of and evaluate the effectiveness of computerized decision support systems. All three grants build upon Goldstein's pioneering work with the ATHENA decision support system (ATHENA DSS), which is aimed at improving the care of hypertension patients and which is currently being used by clinicians at three VA medical centers. Led by Goldstein (a professor of medicine at the VA Palo Alto Health Care System) and developed in collaboration with CHP/PCOR associate **Mark Musen**'s group at Stanford Medical Informatics, ATHENA DSS was built using the EON technology for guideline-based decision support.

The three recently funded projects rely on collaboration that uses the Stanford Medical Informatics tools and applications while building on the VA's technology investment in ATHENA. The first project, with Goldstein as the principal investigator and **Brian Hoffman** as co-principal investigator, provides funds to implement and evaluate the ATHENA system for hypertension in five VA medical centers in New England. The second project, led by **Denise Daniels**, provides funds to build and evaluate a version of ATHENA DSS focused on chronic pain, to be implemented in a pilot study at the VA Palo Alto. The third project, led by **John Finney**, provides support for Stanford Medical Informatics' Knowledge Modeling group to train and mentor VA medical informatics investigators, project managers, and software engineers in the use of Protégé and EON for developing computerized decision support systems.

The new projects are exciting, Goldstein said, because they could ultimately lead to greater use of decision support systems by physicians in clinical practice, which, in turn, holds promise for improving patient care and outcomes. "Most physicians went into medicine because they want to help patients," she said. "Automating tasks using decision support systems could free up physicians from having to look up routine information, and allow them to spend more time with their patients." ❖

News media cover viatical settlements research, health vouchers

News media coverage of CHP/PCOR in the summer quarter highlighted **Jay Bhattacharya's** research on viatical settlements, **Victor Fuchs'** universal healthcare vouchers proposal, and comments from center faculty and affiliates on current health policy issues.

An Aug. 8 *New York Times* article on how people estimate their own lifespan, and the practical implications of these determinations, discussed Bhattacharya's research examining the viatical settlements market. Since the market's emergence in 1989, many HIV patients have used proceeds from viatical settlement transactions to help them pay the out-of-pocket costs for expensive HIV/AIDS treatments.

In a typical viatical settlement transaction, an HIV patient sells his life insurance policy at a discount to a third-party investor, whom he designates as the policy's beneficiary. The patient receives an immediate up-front payment, and the investor collects the death benefits from the policy when the patient dies. Patients with longer life expectancies receive less money in the transactions than those with shorter life expectancies, because investors wait longer on average to collect the death benefits.

Bhattacharya and his collaborators at the RAND Corp. were interested in how people diagnosed with HIV perceive their own life expectancy, and how these perceptions affect their welfare. A common story told about HIV patients is that when first diagnosed, they are overly pessimistic about their chances of survival. As the disease progresses and HIV patients learn about the efficacy of new treatments, however, patients tend to become overly optimistic about their survival chances.

Bhattacharya and his collaborators tested this story using the behavior of HIV patients in the viatical settlements market as a window into how such patients view their own mortality risks. They reasoned that patients who are overly pessimistic about their life expectancy will expect higher prices for their life insurance policies

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Researchers present work, meet with global collaborators at IHEA

CHP/PCOR faculty and affiliates presented a variety of research at the 5th World Congress of Health Economics, held July 10-13 in Barcelona, Spain and sponsored by the International Health Economics Association (IHEA). The conference, one of the most prominent gatherings in health economics, attracted more than 1,800 attendees this year. At the close of the event, CHP/PCOR hosted a dinner meeting of the centers' international collaborators

The CHP/PCOR researchers who presented at the IHEA conference are **Laurence Baker, Kate Bundorf, Alan Garber, Kathryn McDonald, Ciaran Phibbs, Ming Wu** and **Wei Yu**. They presented on topics including Beijing's health insurance reforms; hospital financial performance and patient safety; the impact of insurance coverage on infertility treatments; and cost-effectiveness analysis and health coverage decisions.

Taking advantage of the presence of many CHP/PCOR international collaborators who were attending the IHEA conference, CHP/PCOR hosted a dinner meeting of these collaborators on July 13. The meeting, held at a Barcelona restaurant, was attended by nearly 30 participants in the Global Healthcare Productivity Project (GHP), the Global Analysis of Technological Change in Healthcare Project (TECH), and the China-U.S. Health and Aging Research Fellowship Program. The attendees represented 13 countries including Argentina, China, Finland, Israel, Italy, New Zealand, South Korea and Spain.

Led by CHP/PCOR executive director **Kathryn McDonald** and director **Alan Garber**, the meeting gave the centers' international collaborators a chance to meet face-to-face to exchange ideas and to network across fields and geographic regions. The attendees discussed new and ongoing research projects dealing with three key areas of interest to CHP/PCOR: global healthcare productivity; determinants and consequences of technology change in healthcare; and demography and economics questions relevant to health and aging.

"Interacting in person is particularly important for international and interdisciplinary collaborations," McDonald said. "At this meeting we generated new research ideas that capitalize on the expertise and data sources available to this unique group of investigators." The potential research topics discussed dealt with pharmaceutical pricing, ways to manage rising healthcare costs, and studies involving hospital data, she added.

The following presentations were given by CHP/PCOR faculty, affiliates and global collaborators at IHEA:

"Private and public cross-subsidization: Financing Beijing's health insurance reform." Presented by **Wei Yu;** co-authors **Ming Wu**, Ying Xin and Huihui Wang.

"The effects of insurance mandates on infertility treatments and outcomes." Presented by **Kate Bundorf;** co-authors **Laurence Baker** and **Melinda Henne**.

"The uninsured: Risk, income, and the affordability of coverage." Presented by **Kate Bundorf;** co-author Mark Pauly.

"The relationship between physician practice size treatment patterns and outcomes." Presented by **Laurence Baker;** co-authors Jonathan Ketcham, Donna MacIsaac.

"Hospital financial performance and patient safety." Presented by **Laurence Baker;** co-authors **Jeffrey Geppert, Sara Singer** and **Kelly Dunham.**

"Diffusion of neonatal intensive care and black-white newborn outcomes differences." Presented by **Laurence Baker;** co-authors **Christopher Afendulis**, Amitabh Chandra, Elena Fuentes-Afflick and **Ciaran Phibbs**.

"Cost-effectiveness and evidence evaluation as criteria for coverage policy." Presented by **Alan Garber**.

"Healthcare financing for the elderly: Strategies for nations with regional heterogeneity in financing capacity." Panel session with **Ming Wu,** Shanlian Hu.

"Inequality in inpatient care delivery: The case of access to high-technology AMI treatments." Presented by **Marie-Christine Closon** on behalf of the TECH group, **Julian Perelman**, **Amir Shmueli**, **Louise Pilote**, **Kathryn McDonald** and **Olga Saynina**.

"The diffusion of medical technology and the role of regulation." Presented by **Mickael Bech**; co-author **Terkel Christiansen**.

"Regional differences in the outcome from the treatment of AMI patients." Presented by **Unto Häkkinen**; co-author Gunnar Rosenqvist.

"Cost indices and productivity measurement in AMI." Presented by **Vincenzo Atella**; co-authors Franco Peracchi, Domenico De Palo, Claudio Rossetti. ❖

GRANT MILLER, FROM PAGE 1

at the interfaces of health and development, he has an impressive record of research in the developing world and is a creative and thoughtful investigator."

Born and raised in Atlanta, Miller has long been interested in the intersection of health and economic development. As an undergraduate at Yale, he began pursuing a pre-med curriculum but ultimately majored in psychology. Later, during a postgraduate fellowship at the National Institute of Child Health and Human Development — where he applied statistics to a study of mother-child attachment — he attended a number of NIH lectures on public health and health policy, and was immediately drawn to the field.

After his stint at NIH, Miller settled in San Francisco and landed a research post at UC-San Francisco's Institute for Health Policy Studies, where he worked on a project examining how the Medi-Cal program's transition to managed care was affecting community clinics, the traditional safety-net providers for the poor.

"The ability of poor people to get the care they need became a compelling research question for me," Miller said. This, in turn, led to a natural interest in developing countries. "I'd always felt that you should put your effort where it would have the greatest returns," he said, "and I believed that for me, this meant working in poor countries." Pursuing a master's degree in public policy at Harvard's Kennedy School of Government, he delved into the research literature on international health, and found what he considered a lack of rigor in the field.

"I'd always felt that you should put your effort where it would have the greatest returns ... For me, this meant working in poor countries."
-Grant Miller

"It seemed that everyone had their favorite approach to improving health in poor countries," he said, "but there were few studies on what actually works, and many of those studies often weren't conducted in a scientifically rigorous way." To gain the skills to improve upon this, he pursued a PhD in health policy on the economics track at Harvard. His dissertation focused on identifying the most potent forces at work in improving health in poor areas. For example, he studied the development of water filtration and chlorination systems in the urban United States, and found that the resulting improvement in water quality explained about half of the decline in overall mortality in the U.S. in the first half of the 20th century.

Another related focus of Miller's work has been studying the factors that determine how many children women want and how many they ultimately have, including the impact of family planning programs. While many studies have attempted to gauge the impact of such programs, Miller found that these studies were often undermined by selection bias: family planning programs, after all, disproportionately attract women who want to have fewer (or no) children.

To study this question more carefully, Miller worked with an internationally renowned family planning organization in Colombia. He gathered and analyzed data on women across the country as family planning programs spread rapidly during the 1960s and 1970s. He examined factors including the total number of children the women had; their age when they had their first child; and the health status and education levels of the mothers and children.

Miller presumed that women who had access to family planning services would have significantly fewer children, and healthier children, than those who did not. He found this wasn't exactly the case, however. According to his research, women with access to family planning services had an average of 0.5 fewer children over their lifetime (from an initial level of 6), explaining a modest 10 percent of Colombia's fertility decline during these decades. Miller did not find any significant differences in the health status of the children born to women with and without access to family planning.

What *was* striking, Miller found, was that the women with access to family planning services waited considerably longer to have their first child. These delays allowed one in eight women to complete an additional year of school — a result that is on par with the educational advancements achieved by the best-accepted education interventions in developing countries. In addition, postponed first births enabled women to work more and live independently later in life.

"Family planning, at least in Colombia, seems to confer important benefits to women in terms of education, workforce participation and independence," Miller concluded. Given the benefits for women's education alone, he said, family planning "seems to be an effective way to reduce poverty and make people's lives better, even if it is not a proven health intervention."

At Stanford, Miller plans to expand his research on global health and population topics, focusing initially on Latin America, where he has done much of his previous work. He is also interested in expanding his research to the Far East and Southern/Southeast Asia. "Part of what I'm trying to do here at Stanford," he explained, "is to proselytize about the importance of international health." ❖

GARBER Q&A, FROM PAGE 1

Modernization Act, which includes the drug benefit, will exacerbate Medicare's financial problems. They're referring to the fact that we have a shrinking number of tax-paying Americans to support the growing number of Medicare beneficiaries, who will soon receive additional benefits — that kind of system can't be sustained. The numbers tell a simple story: there will either have to be new sources of revenue or reductions in expenditures.

Despite these concerns, the MMA addresses a very real problem — the absence of a drug benefit for Medicare, which had become a glaring and seemingly illogical omission, particularly as drugs have become a more important part of health care. That said, there has been plenty of controversy about the way the benefit has been implemented, and concern that Congress has failed to put in place a sustainable mechanism to pay for it.

Q. Medicare's system for paying healthcare providers has been criticized on many fronts. What is the biggest problem with Medicare's reimbursement system?

Garber: The real issue is not how complicated Medicare's reimbursement system is — though it is remarkably complex — but the fact that it offers inappropriate incentives for care. There is nothing in Medicare's typical reimbursement approach that discourages inappropriate care, and in fact it may encourage inappropriate care.

As one example, Medicare reimburses oncologists for administering chemotherapy in their offices. In the past, this was a lucrative business for many oncologists, who could charge Medicare much more than it cost them to purchase and administer some of the drugs. According to CMS and many observers, this led many oncologists to administer chemotherapy inappropriately. But many oncologists claim that Medicare underpaid for the other services they provided to cancer patients.

CMS has decided to fix the problem by cutting reimbursement for chemotherapy, but not by addressing complaints of under-reimbursement for other services. When you have a fee-for-service reimbursement system — which applies to the more than 85 percent of beneficiaries who are enrolled in traditional Medicare — it's very hard to get the incentives right. If you set the fees too high for services, you promote overuse. If you set the fees too low, you promote underuse.

Q. Are you suggesting we should do away with traditional Medicare and change to a fully managed care version that pays providers a prepaid, flat-rate reimbursement?

Garber: I don't think that's the answer. It's not likely to be politically acceptable; most of us believe that any Medicare reform needs to preserve choice for beneficiaries, offering them traditional Medicare along with managed care options. The question is, how can we make their choices more meaningful and how can we make options available that will ensure higher quality care?

Q. What are some encouraging recent developments in the Medicare program?

Garber: Mark McClellan is pursuing several promising initiatives. One of them, "pay for performance," offers financial rewards to clinicians and hospitals who provide care that leads to better outcomes. For example, hospitals would receive higher reimbursements if they have unusually favorable outcomes for heart attack patients or lower-than-expected rates of preventable infections.

Mark is also trying to catalyze the rapid adoption of electronic health records. CMS is now making available to physicians a version of the VA's electronic system at greatly reduced cost. While computers have become ubiquitous in our lives, they've been slow to make inroads into doctors' offices, where paper charts remain the norm. The CMS has made a bold move in trying to make it easy and inexpensive for physicians to implement electronic health records. They recognize that this is an important tool for improving quality of care.

Q. Are there signs that Medicare is rethinking its long-standing reluctance to consider cost-effectiveness in deciding what therapies to cover?

Garber: It does seem odd that cost-effectiveness is not explicitly considered when CMS decides what Medicare should cover. We're in a real quandary because Medicare's expenditures will soon overtake its revenues, yet Medicare is being asked to pay for new technologies that are extraordinarily expensive, while beneficiaries still fail to receive some forms of care that are both inexpensive and highly effective.

Virtually every other country considers cost in deciding what it will pay for. Yet whenever the administrators of the Medicare program have sought to introduce notions of cost in deciding what to cover, they have met with powerful political resistance. Any politician who gets out in front on this issue risks attracting the ire of active, politically powerful constituents.

The leadership, then, has to come from members of the public. They can participate most effectively by gaining a better understanding of Medicare's challenges and letting their elected representatives know their views on the future of Medicare. Politicians won't be ready to lead on this issue unless they know the public is behind them.❖

PATIENT SAFETY, FROM PAGE 2

at Enloe Medical Center in Chico, Calif., said his hospital has seen positive results from an initiative in which managers meet with staff in specific departments to discuss their patient safety concerns and brainstorm solutions. As a result, he said, "our employees are really opening up on these issues and sharing good ideas."

• Technology isn't a panacea

Several participants told stories of technology systems that were implemented with much fanfare, but ultimately fell short of expectations. Among the most common problems: Systems were too complex and time-consuming; the resulting data weren't useful; or not enough time and personnel were invested to follow up on problems identified by the system. A key strategy to prevent such problems, participants said, is to make sure clinicians are involved in developing new IT systems and have a chance to test them and provide input.

• Improving patient safety requires culture change

Patient safety can't be improved simply by hiring new leaders, installing new technology or changing reimbursement structures, meeting participants agreed. Instead, improving patient safety requires changing the culture of medicine, from one that emphasizes individual performance and perfection, to one that focuses on systems and teams. "We come from a history of the independent healer, but we've moved to a complex system that's more like an industry," said David Gaba, co-principal investigator for the patient safety project.

In a panel discussion on high-reliability organizations and medicine, Gaba and **Tony Ciavarelli,** professor of applied psychology at the Naval Postgraduate School, described how naval aviation maintains its excellent safety record through rigorous training and testing of its personnel, and the use of standard procedures, checklists, and de-briefings after each mission. Other speakers said another kind of culture change is needed in medicine — one that emphasizes greater openness, respect and trust among healthcare providers and between providers and patients.

• Keynote address pulls themes together

All these themes were highlighted in the keynote address by Paul Uhlig, a pioneer in care process improvement who recently joined Partners HealthCare in the Department of Biomedical Engineering. Uhlig described the award-winning Collaborative Care Model he developed in 1998 at Concord Hospital in New Hampshire, and the profound impact it had on clinicians, patients and their families.

The program grew out of Uhlig's desire to organize inpatient care in a very different, more patient-centered way. He began by convening all of the personnel who cared for cardiac surgery patients at the hospital, and asking them to brainstorm ideas on how they could improve patient care by working as a team.

One novel idea that surfaced was initially dismissed by the group as logistically impossible: conduct rounds with the entire team of personnel involved in the patient's care, from surgery, nursing, social work, physical therapy, respiratory therapy, and even the hospital chaplain. At Uhlig's urging, the team agreed to try out the concept, which ultimately became a cornerstone of the Collaborative Care Model.

The team incorporated into the model several other principles that were a departure from typical inpatient care. During rounds, team members were to communicate directly with patients and their families, using layperson's language instead of medical jargon. This change alone took months to master, Uhlig recalled. Team members treated patients as active participants in their care, rather than passive recipients. They routinely asked patients how their care might be improved, then documented their complaints in a notebook and followed up on them to make sure they were resolved. When errors occurred, the team reviewed the incident, determined the root cause and revised their processes appropriately. They also discussed the error with the patient and apologized for the mistake.

"What we did required nothing less than a transformation of the practice culture," Uhlig said. The impact on clinicians and patients was also transformational, he said. Clinicians focused on the whole patient, not just his or her disease, which made the experience of patient care more fulfilling. "It was a joyous experience. It became like a consciousness that permeated the room," he said. "Patients would hug us or burst into tears — they felt so relieved at having all these people focused on their needs."

Under the new model, patient satisfaction surged to 98 and 99 percent, and job satisfaction increased among the team members. There were also measurable improvements in patient care and outcomes: Fewer IV lines and medications were needed; patients were extubated and discharged earlier; and post-surgical mortality rates declined significantly.

These changes were far from easy, Uhlig explained. Some clinicians chafed at the new model and found it difficult to adapt to new practice patterns. Ultimately, due to political pressures and opposition from a hospital leader, the program was cancelled.

Despite the difficulties he faced at Concord Hospital, Uhlig said the experience gave him hope and showed that through teamwork, respect and open communication, great gains in patient safety are possible. "If some other unit can do this, you can do it too," he said. ❖

CHP/PCOR Profile: Pam Mahlow

Research interests: mental and physical health across the lifespan; the impact of physical fitness on cognitive function; improving healthcare access and delivery for children

Where she's from: born in San Francisco; grew up in northern Virginia

Education: received a BS in physiological sciences from UCLA, and an MA in kinesiology and sports psychology from the University of Maryland

Her work at CHP/PCOR: Mahlow joined CHP/PCOR in 2001 as a project manager for the "Functional Life and Independence Research" project (FLAIR), a position that entailed supervising research staff and monitoring data collection. Last November, she transitioned to the research team working with faculty member Paul Wise on child health projects, such as those examining trends in infant mortality and healthcare access for chronically ill children. Her current role entails gathering and analyzing information from large data sets. "I wouldn't describe myself as a very policy-oriented person, but I really like what I'm doing now because I feel like the work we're doing will have a positive impact on kids' health."

Career path: Mahlow has long been interested in fitness, sports psychology and human movement, which led her to pursue degrees in the field. She coached rowing teams at UCLA and in Baltimore, Maryland, and managed fitness centers in Los Angeles. Her interest in the benefits of exercise led to her master's degree research project, in which she evaluated older adults to determine whether those who were more physically active performed better on cognitive tests. This project, and her experience working with older adults undergoing rehabilitation following an injury or surgery, led to her position with the FLAIR project. "I never expected that I would be in the research field — I always imagined that I would be in sports management — but my career path has worked out very well for me."

Goals and ambitions: mastering the STATA statistical software program, which she is now learning; completing a triathlon or an Iron Man fitness challenge; opening a dog day-care business someday.

Hobbies: running; soccer; playing with her 2-year-old son, Matt, her 5-year-old dog, Scout, and her new puppy, Gordie.

Publications from the summer quarter

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Presentations from the summer quarter

Laurence Baker
"Hospital financial performance and patient safety." AcademyHealth 2005 Annual Research Meeting, June 26-28, 2005 in Boston, Mass.

"Adverse event reporting laws and medical errors." AcademyHealth 2005 Annual Research Meeting.

"Important challenges in health care policy and ethics." Presented with David Magnus at Stanford Medicine in Washington seminar/media briefing on "Individualized Medicine," Sept. 12, 2005 in Washington, D.C.

Jay Bhattacharya
"Trends in disability in late life." Presented on behalf of co-authors Lakdawalla D, Choudhry K at an Institute of Medicine workshop, "Disability in America: An Update," Aug. 1-2, 2005 in Washington, D.C.

Kate Bundorf
The incidence of the healthcare costs of obesity." National Bureau of Economic Research Summer Institute, July 28, 2005 in Cambridge, Mass.

"Employer offers and worker enrollment decisions." AcademyHealth 2005 Annual Research Meeting, June 26-28, 2005 in Boston, Mass.

"Health risk and the purchase of private health insurance." AcademyHealth 2005 Annual Research Meeting.

Mary Goldstein
"Clinical guideline implementation." Presented at workshop, "Using EON Technology to Develop Clinical Decision-support Systems for Guideline-based Care," June 7, 2005 at Stanford.

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PRESENTATIONS, FROM PAGE 10

"Informatics systems supporting collaborative care of chronic illness." AcademyHealth 2005 Annual Research Meeting, June 26-28, 2005 in Boston, Mass.

"Clinician interactions with an automated clinical decision support system for managing hypertension in primary care clinics." AcademyHealth 2005 Annual Research Meeting.

"Preference-based selection effects in elders with long-term care insurance" Poster presentation at AcademyHealth 2005 Annual Research Meeting.

"Introduction to medical ethics in the geriatric population." Seminar series "The Clinical, Social and Scientific Foundations of Geriatric Medicine," sponsored by the Geriatric Research, Education, and Clinical Center (GRECC), July 28, 2005 at the VA Palo Alto Health Care System.

"Hypertension Updates." Primary Care Quarterly Training Conference for VA Palo Alto Health Care System primary-care clinicians, July 19-20, 2005 at the VA Palo Alto.

"Cost-effectiveness analysis: What the busy clinician might want to know." Presented at seminar series "The Clinical, Social and Scientific Foundations of Geriatric Medicine," sponsored by the Geriatric Research, Education, and Clinical Center (GRECC), Aug. 16, 2005 at the VA Palo Alto Health Care System.

Keith Humphreys
"Drug abuse and treatment in Iraq." International Conference on Drug Treatment Delivery Systems, Sept. 5-7, 2005 in Istanbul, Turkey.

Hau Liu
"The cost-effectiveness of parathyroid hormone and alendronate in high-risk osteoporotic women." Poster presentation on behalf of co-authors Michaud K, Nayak S, Karpf D, Owens DK, Garber AM, at 27th annual meeting of the American Society for Bone and Mineral Research, Sept. 23-27, 2005 in Nashville, Tenn.

Doug Owens
"Evaluating the benefits and costs of HIV screening: Why voluntary HIV screening should be routinely offered in health care settings." UC-San Francisco Department of Medicine Grand Rounds, Sept. 8, 2005.

Sara Singer
"The impact of problem-solving efficacy on incident reporting in hospitals." Presented with Anita Tucker at the Symposium on Building a Safer Health System: Managing and Learning from Errors in Hospitals, at the annual conference of the Academy of Management, Aug. 10, 2005 in Honolulu, Hawaii.

"Creating a culture of safety." Presented with Anita Tucker at the Academy of Management Annual Conference, Aug. 9, 2005 in Honolulu, Hawaii.

"Promoting collective learning in healthcare." Presented to Harvard University's Robert Wood Johnson Scholars Program, Sept. 26, 2005 in Cambridge, Mass. ❖

Announcements from the summer quarter

CHP/PCOR core faculty member **Mary Goldstein** chaired a two-day conference on "Automated Clinical Decision Support: Integrating ATHENA, EON and Protégé with VA Information Systems," held July 12-14 at Stanford. The conference brought together Protégé and EON experts from the VA Office of Information and Stanford Medical Informatics, to understand each other's decision support needs and capabilities.

The Department of Veterans Affairs undersecretary for health appointed CHP/PCOR associate **Keith Humphreys** to serve on the Committee on Care of Veterans with Serious Mental Illness. The committee, established by Congress, works with the VA secretary and undersecretary, and the U.S. House and Senate Veterans' Committees, to monitor and improve the quality of mental health care in the VA system. Humphreys is an associate professor (research) of psychiatry and behavioral sciences.

Welcome to new staff, trainees and affiliates
This past summer we welcomed several new members of the CHP/PCOR community.

Meghan Fay, an RA working on child health projects, recently graduated from Tufts University with a BA in child development. Her research interests include neonatal and international health, and racial disparities in healthcare access. Her research experience includes work in the vision sciences lab at Harvard University.

Matthew Franzen, our new IT systems administrator, has more than 15 years of experience in systems administration at companies including Webcor Builders, Valley Communications and Sutter Health, where he served as a senior systems engineer.

Mark Ghaly, a Child Health Inequities and General Pediatrics Fellow, recently completed a residency in

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ANNOUNCEMENTS, FROM PAGE 11

pediatrics at UCSF. His experience in health advocacy includes co-organizing the Healing Arts Center, a community teen health clinic in San Francisco. He received a BA in biological sciences from Brown University, and an MD and MPH from Harvard.

The **Health Economics Resource Center** at the Menlo Park VA this summer welcomed health economist **Patsi Sinnott** and RA **Andrea Shane**. Patsi was previously a senior manager at the Pacific Business Group on Health, where she managed an initiative to measure physician performance. Andrea has degrees in psychology and Spanish from Kansas State University, and recently taught at a San Francisco business and language institute.

Katherine Herz, a trainee with the AHRQ Health Care Research and Policy Fellowship, recently completed a pediatrics residency at UCSF. She is interested in child health and economic development. Her experience includes work at the Department of Health and Human Services Public Health Policy Division. She received a BA in economics from Princeton and an MD from UCSF.

Ningxiu Li, a trainee with the China-U.S. Health and Aging Research Fellowship, comes from the University of Sichuan, where she directs the Department of Social Medicine. She has led research projects in China on topics including AIDS prevention; the use of Norplant; and assessing the health insurance needs of China's urban elderly. She received an MD and an MPH from the West China University of Medical Sciences.

Raina Mahajan, an RA working on child health projects, is a Stanford graduate with a BA in human biology. She previously worked at the Mayo Clinic in Jacksonville, Fla., where she created a database of patient histories for the clinic's Breast Clinic. She recently served as an assistant on a medical mission to Cuzco, Peru.

Sharon Moayeri, a trainee with the AHRQ Health Care Research and Policy Fellowship, is an OB/GYN who completed a fellowship in reproductive endocrinology/infertility at Stanford. She is interested in new technologies in obstetrics and the policy implications of multiple-gestation pregnancies. She received a BS in biological and cognitive science from UC-Irvine; an MPH from UCLA; and an MD from UC-Irvine.

Lars Osterberg, a new CHP/PCOR associate, is a clinical assistant professor of medicine at Stanford, and chief of General Internal Medicine at the VA Palo Alto. His research focuses on vulnerable populations, patient access to care, and innovations in medical practice. He received a BS in bioengineering from UC-Berkeley, an MD from UC-Davis, and an MPH from UC-Berkeley.

Tobias Rathgeb, a data analyst with CHP/PCOR's patient safety projects, comes from California State University-East Bay, where he recently received his BS degree. His research interests include organizational behavior and applicable statistical analysis methods.

Kanaka Shetty, a trainee with the VA Ambulatory Care Practice and Research Fellowship, most recently served as a hospitalist at Kaiser Permanente Medical Center in Richmond. He is interested in evaluating and improving hospital systems and quality. He received a BS in biochemistry from Yale, an MD from New York University, and completed a residency in internal medicine at New York-Presbyterian Hospital. ❖

Grants from the summer quarter

Grants submitted:

"Economics of Aging: Medical Expenditures of the Elderly"
National Bureau of Economic Research subcontract
Principal investigator: Alan Garber
Project period: 4/1/05 - 3/31/06

"Dummy Endogenous Variables in Threshold Crossing Models, with Applications to Health Economics"
National Science Foundation (Columbia subcontract)
Principal investigator: Jay Bhattacharya
Project period: 1/1/06 - 12/31/07

"The Time-Value of Health Improvements"
RAND Corp.
Principal investigator: Jay Bhattacharya
Project period: 7/1/06 - 6/30/08

"The Causes and Consequences of Mortality Decline in Developing Countries"
NIH/National Institute of Child Health and Human Development
Principal investigator: Grant Miller
Project period: 7/1/06 - 6/30/10

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MEDIA COVERAGE, FROM PAGE 4

than will be available in the viatical settlement market. Similarly, overly optimistic individuals will often settle for lower prices than would be justified by their actual life expectancy. Using a nationally representative dataset of HIV patients, Bhattacharya and his collaborators found evidence that HIV patients' behavior in the viatical settlements market is consistent with this story.

"When people are making large economic decisions at a time when they're most vulnerable, they're prone to big mistakes," Bhattacharya commented in the *New York Times*.

In a second paper, published in March as a National Bureau of Economic Research working paper, the authors documented a significant decline during the late 1990s in the number of firms offering viatical settlements, and a sharp decline in the prices offered for them, even taking into account the improvement in HIV patients' health during the period. The authors concluded that these developments — which made it more difficult for some HIV patients to pay for their care using viatical settlements — could be attributed to the 1996 introduction and dissemination of Highly Active Anti-retroviral Therapy (HAART), a class of powerful HIV drugs that dramatically increased survival rates for HIV patients. To reach these conclusions, the researchers assembled a unique dataset of more than 12,000 viatical transactions that occurred between 1995 and 2001.

"When people are making large economic decisions at a time when they're most vulnerable, they're prone to big mistakes."
-Jay Bhattacharya

"It is ironic that the dissemination of HAART, a technological advance that greatly enhanced the welfare of HIV patients, mitigated the welfare-enhancing effects [of viatical settlements]," the authors wrote in their paper.

CHP/PCOR faculty and affiliates were also featured in the following articles this summer:

• An op-ed piece in the *Oregon Herald* discussed the merits of a universal healthcare vouchers plan co-authored by CHP/PCOR core faculty member **Victor Fuchs**. A physician-authored op-ed piece in the *Grand Rapids Press* discussed Fuchs' editorial in the July 5 *Annals of Internal Medicine*, which presented Fuchs' assessment of the major reasons for, and the limited value gained by, the United States' escalating healthcare costs.

• CHP/PCOR director **Alan Garber** commented in a *New York Times* article on a plan announced by Medicare to give doctors, at a deep discount, the VA's Vista software to computerize their medical practices. Garber expressed optimism that the plan could help doctors, particularly in small practices.

• CHP/PCOR fellow **Mark Hlatky** provided comment for a *New York Times* article on mounting concerns about the high cost and possible overuse of implantable cardiac defibrillators. Hlatky said it is difficult to know where to draw the line as to which patients should and should not receive defibrillators.

• CHP/PCOR fellow **Laurence Baker** commented in a *San Francisco Chronicle* article on a report by the Bureau of Labor Statistics which found that workers in the West have higher-than-average access to employer-sponsored health coverage, but are offered retiree benefits at the lowest rate in the nation.

• CHP/PCOR fellow **David Gaba** provided comment for a *Sacramento Bee* article on the increasing use of patient simulators to train doctors and medical students.❖

HARKNESS FELLOW, FROM PAGE 3

lack of interest in cost-effectiveness and their failure to acknowledge the role of costs in making coverage decisions.

That said, Bryan emphasized that he believes one system isn't necessarily better than the other. "I'm not here to tell everyone how wonderful our system (in the U.K.) is. It has its faults," he said, including pressures being felt and sacrifices being made at the local level as healthcare providers try to implement policy decisions made at the national level.

For his Harkness project, Bryan is interviewing decision-makers at major U.S. health systems including Kaiser Permanente, the VA Health Sytem, and Medicare. He will also observe the meetings of key coverage decision-making bodies, including Medicare's Coverage Advisory Committee and Kaiser Permanente's Inter-regional New Technologies Committee.

Bryan said he will keep an open mind throughout his investigations, and admits that he has much to learn about the U.S. healthcare system. "The great thing about this project is, I get to ask the naïve questions because I'm not from here, so people expect me to ask them." ❖

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CHP/PCOR Quarterly Update is written and designed by Sara Selis, outreach coordinator. Comments are welcome at Selis@Stanford.edu.

Research in Progress seminars

CHP/PCOR faculty, staff and affiliates presented the following Research in Progress seminars in the summer quarter:

June 29: Jun Ma, "National Trends in the Prescribing of Anti-hypertensive Medications, 1993-2002"

July 6: Kelly Dunham and members of the Patient Safety Team, "Patient Safety Culture in U.S. Hospitals: An Update on Recent Activities in the Patient Safety Consortium"

July 13: No RIP (International Health Economics Association conference)

July 25: Mike Ong, "Searching for a Health Services Research/Health Policy Faculty Position"

July 27: Halsted Holman, "Solving the Healthcare Crisis with a Different Practice of Medicine: Directions and Specifics of the Necessary Change"

Aug. 3: Michael Gould, "The Effect of Delays in Diagnosis and Treatment on Survival in Patients with Non-small-cell Lung Cancer"

Aug. 10: Raj Gupta, "Global Health Policy: A Case Study of Multi-drug-resistant Tuberculosis"

Aug. 17: Sara Singer, "Creating a Culture of Safety"

Aug. 24: Stirling Bryan, "A Comparison of Technology Coverage Decisions in the U.S. and the U.K. — Seeing the NICE Side of Cost-effectiveness Analysis"

GRANTS, FROM PAGE 12

Grants awarded:

"Comparative Effective Reviews for the Medicare Modernization Act"
Agency for Healthcare Research and Quality
Principal investigator: Doug Owens
Project period: 6/15/05 - 9/30/07

"Computerized Decision Support for Managing Lung Nodules"
Agency for Healthcare Research and Quality
Principal investigator: Michael Gould
Project period: 6/27/05 - 5/31/07

"Diagnosis and Management of Pediatric Anthrax"
Agency for Healthcare Research and Quality
Principal investigator: Doug Owens
Project period: 5/16/05 - 31/15/06

About CHP/PCOR

The **Center for Health Policy** (CHP) and the **Center for Primary Care and Outcomes Research** (PCOR) are sister centers at Stanford University that conduct innovative, multi-disciplinary research on critical issues of health policy and healthcare delivery. Operating under the Freeman Spogli Institute for International Studies and the Stanford School of Medicine, respectively, the centers are dedicated to providing public- and private-sector decision-makers with reliable information to guide health policy and clinical practice.

CHP and PCOR sponsor seminars, lectures and conferences to provide a forum for scholars, government officials, industry leaders and clinicians to explore solutions to complex healthcare problems. CHP and PCOR build on a legacy of achievements in health services research, health economics and health policy at Stanford University. For more information, visit our Web site at **http://healthpolicy.Stanford.edu**