Health Policy NEWSLETTER

In This Issue

March 2007
Vol.20, No.1

From the Editors

Sunshine is the Best Disinfectant

Once again, Pennsylvania has made national headlines as a pioneer in the public reporting of information related to medical quality. Now with the release of the Pennsylvania Health Care Cost Containment's (PHC4) report on hospital-acquired infections (HAI) in Pennsylvania[1], the state has focused a very bright light on a critical health care issue with national policy implications. Indeed, Pennsylvania is the first state in the nation to release a publicly funded, statewide, hospital-specific report on the incidence of HAI. As the longtime chairperson of the Technical Advisory Group for PHC4, one of us (DN) has had the privilege of participating directly in this process.

On the heels of the PHC4 report, the *American Journal of Medical Quality (AJMQ)* published a series of three studies in a special supplement regarding HAI.[2] These studies were highlighted in a press conference held this past fall at the National Press Club in Washington, DC. The three studies, which garnered national press from *USA Today*[3] to a cover story in *Modern Healthcare*[4], all noted that HAI could be prevented by changing processes of care in the hospital setting. According to the studies, flawed hospital processes caused infection, not the severity of the patient's illness, contradicting long-held beliefs that the opposite was true.

In this editorial, we will review both the PHC4 report and aspects of the subsequent *AJMQ* studies. We will note how this body of work, coupled with other activities around the nation, has led to a serious re-evaluation of the causes of HAI. Finally, we will describe the reactions of three stakeholder groups (consumers, purchasers, and providers) to these reports.

In 2005, Pennsylvania hospitals reported a total of 19,154 cases of hospital-acquired-infections leading to a rate of 12.2 per 1,000 cases. The average length-of-stay (LOS) for this group was 20.6 days with an average charge of $185,260 per case. For patients without hospital-acquired infections, the average LOS was only 4.5 days with an average charge of $31,389 per case. The mortality rate for patients with a HAI was 12.9 percent compared to a mortality rate of 2.3 percent in patients without hospital-acquired-infections. PHC4 recommends that the HAI Report "should be used to measure individual hospital performance over time, rather than to compare hospitals to each other." The report is not intended to help patients choose the "safest hospital" rather, it is hoped that public reporting on infection rates will stimulate hospitals to assess infection control measures and implement changes to improve performance.[1]

Two of the three studies published in the *AJMQ Supplement* examined data previously submitted to PHC4. The first study by Hollenbeak and colleagues[5] found that despite a statistically significant association between patient-specific factors and the patient's risk of surgical wound infection, the risk was largely determined by the process and practice of care. The second study by Peng and his team[6] showed infection-related increases in mortality, LOS, and charges that could not be explained by patient-specific factors. The third study by Shannon[7] examined data on hospital revenues and expenses in 54 patients with central line-associated bloodstream infections (CLAB). The average hospital cost for a patient with CLAB was $91,733, while the average reimbursement was $65,894 resulting in a loss of $26,839 per case. Additionally, Shannon found that process defects, rather than age and severity of illness at the time of admission, were critical risk factors for HAI.

Of course, both publications have certain limitations. For example, the PHC4 report includes disparities in data-reporting by the hospitals, potential under-reporting, and the issue of risk adjustment of the data. The *AJMQ Supplement* studies were hampered by sample size and the fact that the economic analysis was only performed on one type of HAI. Yet, despite these limitations, the results of both the PHC4 study and *AJMQ Supplement* are a one-two, knock-out punch to previously held beliefs regarding HAI. Specifically, HAI is not an inevitable by-product of the care of severely ill patients being admitted to the hospital, but rather the result of flawed processes within the delivery system and such infections have a negative impact on the hospitals' bottom line, because payment increases are insufficient to cover the increased marginal costs associated with HAI.[2]

continued p.2

Thomas Jefferson University | Jefferson Medical College

As for the stakeholders, from the consumers' perspective, the report revealed that HAI is a relatively common occurrence and this may help the public understand the scope of the problem and their role in its prevention. Patient advocacy groups applauded the added transparency provided by the public reporting of HAI.[8] While research[9] has questioned the lay public's ability to fully understand and appreciate such data, many advocacy groups, professional organizations and governmental agencies have developed educational programs encouraging patients to ask the kinds of questions that might prevent adverse occurrences. For example, the Joint Commission has launched a "Speak Up"[10] safety initiative advising patients on how to prevent errors in care, and prevention of HAI is a major focus of their accreditation surveys. Accumulating evidence examining consumer attitudes about HAI and hand hygiene concluded that not only are consumers ready to be empowered with information to ensure a positive outcome, but that they will also utilize infection data in selecting a health care provider.[11] A study released by Blue Cross Blue Shield[12] demonstrated that out of 1,600 consumers surveyed, 77 percent ranked quality over cost when selecting a hospital or clinic. Other surveys confirm the public has become increasingly aware of health care quality measures and that the number of individuals saying they have used this information in making decisions is increasing.[13] Finally, public reporting of quality data itself has been shown to change provider behavior in ways that may benefit the consumers.[8,14,15]

From the purchasers' perspective, the report was viewed as a valuable tool in the efforts to improve health care quality. A reduction of HAI is a key plank in Governor Edward Rendell's proposed "Prescription for Pennsylvania".[16] Health care purchasers, increasingly sensitized to the problem, may be tempted to include HAI rates in their performance-related fee schedules. Many proposed pay-for-performance (P4P) systems acknowledge the dilemma of HAI and contain provisions to refuse payment for any medical misadventures, including HAI.

From the providers' perspective, the PHC4 report exposes a difficult challenge. Ideally it will become a catalyst for positive cultural change within the health care system, but research confirms that behavior change is complex and that successful measures often rely on more than a single intervention. Removal of barriers to change, implementation of incentives, and improved multidisciplinary communication should aid in the process.[17] In our view, the report provides compelling evidence for the need to standardize the approach to decreasing HAI. Therefore, we urge hospital executives to examine their institutions' baseline infection rate and prioritize opportunities needed for improvement. For example, promotion of hand hygiene, education of staff, standardization of procedures and selective use of antibiotics carry a great cost savings potential. As future Medicare reimbursement may be tied in part to infection rates, a commitment to a culture of safety could significantly impact the bottom-line of all hospitals.

We encourage all the stakeholders to review the data in the PHC4 report and the *AJMQ Supplement*, and we challenge other states to follow Pennsylvania's lead of tracking and reporting hospital-acquired infections. At the *AJMQ* press conference in Washington, DC PHC4's Executive Director, Marc P. Volovka noted, "There are still clouds on the horizon, but in Pennsylvania the sun is shining." Indeed, we know that "sunshine" is the best disinfectant.

As always, you can reach me at David.Nash@jefferson.edu.

Bettina Berman, RN, BS
Project Director
Department of Health Policy

David Nash, MD, MBA
Editor

REFERENCES

1. The Pennsylvania Healthcare Cost Containment Council. Hospital-acquired Infections in Pennsylvania. November 2006. Available at: http://www.phc4.org/reports/hai/ 05/docs/hai2005 report.pdf. Accessed December 5, 2006.
2. Nash DB. Hospital-acquired Infections: Raising the Anchoring Heuristic. *Am J Med Qual*. 2006;21(6):5S-6S.
3. Appleby J. Hospital-acquired Infections Take Toll on Bottom Lines. *USA Today*. November 21, 2006.
4. Conn J, DoBias M. Hospitals' Dirty Secret. New Reports on Hospital Patient Safety and Infections Reveal Pattern of Deadly and Expensive, Yet Preventable, Medical Errors. *Mod Healthc*. 2006;36(47):6-7, 1.
5. Hollenbeak CS, Lave JR. Factors Associated with Risk of Surgical Wound Infections. *Am J Med Qual*. 2006;21(6):29S-34S.
6. Peng MM, Kurtz S. Adverse Outcomes from Hospital-acquired Infection in Pennsylvania Cannot be Attributed to Increased Risk on Admission. *Am J Med Qual*. 2006;21(6):17S-28S.
7. Shannon RP, Patel B. Economics of Central Line-associated Bloodstream Infections. *Am J Med Qual*. 2006;21(6):7S-16S.
8. Guadagnino C. Appraising PHC4's Infection Report. *Physician's News Digest*. January 2007. Available at: http://www.physiciansnews.com/cover/107pa.html. Accessed December 5, 2006.
9. Werner R, Asch DA. The Unintended Consequences of Publicly Reporting Quality Information. *JAMA*. 2006;293(10): 1239-1244.
10. Joint Commission on Accreditation of Healthcare Organizations. Speak Up Initiative. Available at: www.jointcommission.org/ Patientsafety/Speak Up. Accessed December 5, 2006.
11. McGuckin M, Waterman R. Consumer Attitudes about Health Care-acquired Infections and Hand Hygiene. *Am J Med Qual*. 2006;21(5):342-346.
12. Teitelbaum M. Report: Consumers Craving Quality Information as They Make Health Decisions. The Commonwealth Fund. Available at: www.cmwf.org/healthpolicyweek. Accessed December 5, 2006.
13. Kaiser Family Foundation/ Agency for Healthcare Research and Quality. 2006 Update on Consumers' View of Patient Safety and Quality Information. September 2006. Available at: http://www.kff.org/kaiserpolls/upload/7559.pdf . Accessed December 5, 2006.
14. Steinbrook R. Public Report Cards – Cardiac Surgery and beyond, *New Engl J Med*. 2006;355(18):1847-1849.
15. Hibbard J, Stockard J. Hospital Performance Reports: Impact on Quality, Market Share, and Reputation. *Health Aff (Millwood)*. 2005;24(4):1150-1160.
16. Rendell EG. Prescription for Pennsylvania, Office of the Governor, Commonwealth of Pennsylvania. January 17, 2007.
17. Bain KT. Barriers and Strategies to Influencing Physician Behavior. *Am J Med Qual*. 2007;(22)5:5-7.

www.DMConferences.com • 800.684.4549

THE Seventh Annual Disease Management Colloquium

An Executive Education Course on the Role of Disease Management in Medicare, Medicaid, Healthcare Cost Efficiency, Quality and Medical Error Reduction

May 7–9, 2007

Philadelphia, PA
Hyatt Regency Philadelphia at Penn's Landing

We are very pleased to be able to welcome everyone to the Seventh Annual Disease Management Colloquium in Philadelphia. We believe this is an outstanding conference and we know you will all enjoy it immensely. We have assembled a top notch faculty and the interaction will be first rate. Disease Management is a dynamic field, and in order to stay on top of the details it is important to pay careful attention to new information from the experts.

David B. Nash, MD, MBA, FACP
The Dr. Raymond C. and Doris N. Grandon Professor of Health Policy and Chair of the Department, Jefferson Medical College, Thomas Jefferson University Philadelphia, PA

The Colloquium seeks to better educate government agencies, the health care industry (including health plans and providers), employers, and the general public about the important role disease management programs play in improving health care quality and outcomes for persons subject to chronic conditions.

Who Should Attend:

- Presidents/CEOs/CFOs/COOs
- Medical Directors
- Medicare Directors
- Medicaid Directors
- Pharmaceutical, Biotechnology and Medical Device Manufacturers
- Managed Care Pharmacy Directors, Pharmacy Managers and Retail Pharmacists
- Chain Pharmacists, Community and Independent Pharmacists
- Directors and Deputy Directors, State Departments of Public Health
- CIOs, CTOs, Vice Presidents and Directors of Information Systems
- Directors of Programs in Asthma, Cardiovascular, Oncology, Pain, Behavioral Health, Women's Health, and Alternative Medicine
- Vice Presidents, Quality
- Vice Presidents, Managed Care
- Directors, Disease Management
- Physicians
- Psychologists
- Social Workers
- Alternative Medicine Providers
- Pharmacy Managers
- Retail Pharmacists
- Chain Pharmacists
- Community/Independent Pharmacists

SPONSORED BY:

Department of Health Policy
Jefferson Medical College

BRONZE GRANTORS:

Health Dialog

McKESSON
Empowering Healthcare

ADDITIONAL GRANTOR:

MILLIMAN CareGuidelines®

CO-SPONSORED BY:

American College of Medical Quality
Business and Health Institute
Disease Management Association of America
Disease Management Journal
Disease Management and Health Outcomes
Disease Management News
Disease Management Purchasing Consortium
The Executive Report on Managed Care
Harvard Health Policy Review
Health Affairs
HealthLeaders
Health Technology Center
AIS's Inside Disease Management
Journal of Clinical Outcomes Management
Journal of Health Policy, Politics and Law
AIS's Managed Care Week
Medicare Advantage News
Research and Markets
Disease Management Advisor
Scrip World Pharmaceutical News
Medical Education Collaborative
A Nonprofit Education Organization

Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT): An Example for Observing Early Guideline Adoption Patterns

Vittorio Maio, PharmD, MS, MSPH*
Research Assistant Professor
Department of Health Policy
Jefferson Medical College

It has been estimated that it takes an average of 17 years for new knowledge to be integrated into clinical practice.[1] The trajectory of this adoption is still inconsistent. The rapidity of integration may depend on the ease of changing the current practice, the importance of integration and other factors, such as insurance coverage (which may lag in some cases). The Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT) offers a useful case study in examining knowledge adoption.[2,3]

An abundance of evidence demonstrates that medications are not only effective in treating hypertension, but also that they considerably reduce hypertension-associated morbidity and mortality.[4] Consequently, we have seen a proliferation of new antihypertensive agents (AAs) during the last 20 years. Standard antihypertensive therapies, such as diuretics (the so-called "water pills"), have been joined by more expensive medications, including α-blockers, calcium channel blockers (CCBs), angiotensin-converting enzyme (ACE) inhibitors, and angiotensin receptor blockers (ARBs). Before publication of (ALLHAT), little comparative data existed to help clinicians select the most appropriate therapeutic approach for hypertensive patients.

Researchers at Jefferson Medical College and University of Utah sought to examine the effect of the ALLHAT recommendations on physicians prescribing behavior changes.

Did Italian Physicians Change Their Antihypertensive Prescribing After Publication of the ALLHAT Results?

Vittorio Maio, PharmD, MS, MSPH*
Research Assistant Professor

Elaine Yuen, PhD, MBA*
Research Assistant Professor

Carol Rabinowitz**
Research Program Analyst

Daniel Z. Louis, MS**
Managing Director

Begun in February 1994 and completed in March 2002, ALLHAT is the largest prospective hypertension trial ever conducted, and was intended to compare effectiveness among available AAs to provide physicians with evidence-based recommendations. In March 2000, the α-blocker arm of ALLHAT was prematurely discontinued because of a greater risk of cardiovascular events as compared to diuretics.[5] In December 2002, the ALLHAT findings were published, recommending that thiazide-type diuretics (THZD) be used for first-step therapy in uncomplicated hypertensive patients.[2] The ALLHAT results have been widely disseminated in journal publications and even in news releases. However, it remains to be seen whether, and to what extent, physician prescribing behavior for AAs has changed as a result of the new clinical evidence. In general, evidence from clinical trials and practice guidelines has a limited impact on physician behavior.[6]

Recent trend analyses on consumption of AAs conducted in the United States and Canada show that physicians have, to some extent, responded to the new clinical evidence of ALLHAT, prescribing significantly more diuretics and fewer ACEs, CCBs, and α-blockers for their patients.[7,8] Thus far, no information on the impact of the ALLHAT results has been available in Europe, where physician prescribing attitudes may be influenced substantially by cultural factors, as well as specific pharmaceutical policies. Using a comprehensive automated outpatient pharmacy database in Emilia Romagna, a northern Italian Region with a population of 4 million, we investigated trends in AA prescribing following the publication of the ALLHAT results.[9] This research has been jointly conducted by the Center for Research in Medical Education and Health Care and the Department of Health Policy, both at Jefferson Medical College, supported through a collaborative agreement with the Agenzia Sanitaria Regionale, Regione Emilia Romagna, Italy.

We examined outpatient pharmacy claims of all Emilia Romagna residents from 2000 through 2003 and computed the monthly total number and relative percentages of prescriptions for THZDs, ACEs or ARBs, CCBs, β-blockers, α-blockers, and other-type antihypertensive diuretics. Combinations of these antihypertensive classes were not included in the analysis because they accounted for small percentages of the total number of AA prescriptions. We performed a time series analysis using a stepwise auto-regressive forecasting model, and then assessed the impact of the ALLHAT recommendations o5ve percentages and 95% confidence intervals for each of the 12 months of 2003.

During the study period, ACEs/ARBs and CCBs represented the largest relative percentages of AA prescriptions (approximately 40 percent and 30 percent, respectively), while the relative percentages for other-type antihypertensive diuretics and β-blockers were roughly 12 percent and 10 percent, respectively. Alpha-blockers and THZDs accounted for approximately 4 percent and 1 percent of all AA prescriptions, respectively. Use of THZDs and ACEs/ARBs showed an overall upward trend, which was not statistically significantly different than that predicted by the time-series model in the 12 months, following publication of the ALLHAT findings. The relative percentage of CCBs diminished over time, but was significantly higher than predicted in the last 4 months of 2003. The percentage of α-blockers was stable overall, as were the percentages of β-blockers and other-type antihypertensive diuretics.

This analysis provides evidence that the ALLHAT findings had limited impact on the prescribing patterns of antihypertensive drugs in Emilia Romagna. Further research is needed to investigate why Italian physicians appear unresponsive to the new clinical evidence. Educational programs and implementation of pay-for-performance strategies may be warranted to influence physician prescribing behavior to improve the quality of care for hypertensive patients.

*Department of Health Policy **Center for Research in Medical Education and Health Care, Jefferson Medical College

And How About U.S. Physician Antihypertensive Prescribing After Publication of the ALLHAT Results?

Diana I. Brixner, RPh, PhD***
Associate Professor and Chair
Department of Pharmacotherapy

Sameer R. Ghate, BPharm, MSHP***
Research Fellow

Carrie McAdam-Marx, MS, RPh***
Research Associate

Vittorio Maio, PharmD, MS, MSPH*
Research Assistant Professor
Department of Health Policy
Jefferson Medical College

In a similar study, the University of Utah Pharmacotherapy Outcomes Research Center sought to answer the same question among U.S. physicians using a national electronic medical record (EMR) primary care practice database, which contains ambulatory health record data for over 3.2 million individuals.[10] This retrospective study evaluated AA utilization among hypertensive patients in the year before and after publication of ALLHAT results. Subjects for this analysis were identified in calendar years 2002 and 2003 as patients 18 years and older with an ICD-9 code (401.xx) for hypertension and a generic product index (GPI) code for any of the following 5 classes of AAs (excluding combinations): β-blockers, ACEs, CCBs, THZDs, and ARBs. Patients were grouped into one of five AA classes according to the first prescription they received after diagnosis of hypertension.

Quartile analysis was used to compare the rates of patients on each of the five classes of AAs for the four quarters of both 2002 and 2003. We found a statistically significant 3.9 percent increase in the proportion of patients on THZDs for 2003 compared to 2002. We also found a statistically significant decrease in the rate of patients on ACEs (2.9 percent), β-blockers (1.3 percent), and CCBs (0.5 percent), and a statistically significant increase in the rate of patients on ARBs (0.9 percent). Although the increase in THZD use was modest, it supports the notion that the ALLHAT findings had some effect on prescribing behavior. It remains to be seen, however, whether such prescribing trends would be maintained long-term.

Conclusion

The results of these two studies show that the ALLHAT recommendations have had a modest influence, if any, on physician prescribing behaviors for AAs in two countries. However, we also recognize that these analyses examined data immediately following the release of the recommendations in late 2002; these modest changes reflect ordering behaviors of the early adopters or integrators of the information. While these analyses corroborate existing data in the literature that physicians are somewhat slow, or even reluctant, to embrace new clinical evidence, similar analyses examining prescribing behaviors 5 or 6 years after the recommendations may continue to show uptake and offer more insights into information adoption. We urge that professional medical associations and organizations worldwide begin designing, implementing, and evaluating strategies for more effective and rapid dissemination of relevant results from clinical trials among their constituents.

REFERENCES

1. Balas EA, Boren SA. Managing Clinical Knowledge for Health Care Improvement. *Yearbook of Medical Informatics*. National Library of Medicine; Bethesda, MD: 2000,65–70.
2. The ALLHAT Officers and Coordinators for the ALLHAT Collaborative Research Group. Major Outcomes in High-risk Hypertensive Patients Randomized to Angiotensin-converting Enzyme Inhibitor or Calcium Channel Blocker vs Diuretic: The Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT). *JAMA*. 2002; 288: 2981-2997.
3. Nash DB, Clarke JL. Putting ALLHAT into Perspective. *P&T*. 2003;28:585-590.
4. National Heart, Lung, and Blood Institute. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. Available at: http://www.nhlbi.nih.gov/guidelines/hypertension/index.htm. Accessed December 5, 2006.
5. The ALLHAT Officers and Coordinators for the ALLHAT Collaborative Research Group. Major cardiovascular events in hypertensive patients randomized to doxazosin vs chlorthalidone: the Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT). *JAMA*. 2000; 283:1967-1975.
6. Cabana MD, Rand C, Powe N et al. Why Don't Physicians Follow Clinical Practice Guidelines? A Framework for Improvement. *JAMA*. 1999; 282:1458-1465.
7. Xie F, Petitti DB, Chen W. Prescribing Patterns for Antihypertensive Drugs After the Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial: Report of Experience in a Health Maintenance Organization. *Am J Hypertens.* 2005;18(4 Pt 1):464-469.
8. Austin PC, Mamdani MM, Tu K, et al. Changes in Prescribing Patterns Following Publication of the ALLHAT Trial. *JAMA*. 2004;291:44-45.
9. Maio V, Yuen EJ, Smith KD, Louis DZ. Prescribing Patterns Following Publication of the Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT) in Regione Emilia Romagna, Italy. Presented at the AcademyHealth 2006 Annual Research Meeting, June 25, 2006, Seattle, WA.
10. Brixner DI, Ghate SR, McAdam-Marx C, Maio V. Analysis of Prescribing Patterns of Antihypertensive Agents (AA) Before and After Publication of the Antihypertensive And Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT). Presented at the European International Society of Pharmacoeconomics and Outcomes Research (ISPOR), October 2006, Copenhagen, Denmark.

*Department of Health Policy ***University of Utah Health Sciences Center

Practice-based, Guided Self-assessment for Improved Patient Care: Performance Improvement CME

Jeanne G. Cole, MS
Director, Office of CME
Jefferson Medical College

The ability to maintain and update knowledge and skills in a self-directed manner is one of the hallmarks of the profession of medicine.[1,2] However, over recent years, the ability of physicians to accurately self-assess and effectively self-direct their continuing professional development has been called into question as patient safety and quality concerns rise to the forefront.[3,4]

Performance Improvement CME (PI CME) is a new vehicle recently approved by the *American Medical Association through which CME providers can award the American Medical Association (AMA) Physician's Recognition Award (PRA) Category 1 Credits*™. PI CME represents a different approach to continuing professional development, and marks a departure from traditional CME activities. PI CME is based on a continuous cycle of improvement and calls for a formalized approach to change and practice behavior.[5] It draws on practice-based data to assist physicians in understanding actual performance patterns in practice, and provides the data to guide physician self-assessment of performance.

A PI CME activity consists of three distinct stages, each of which is valued at five (5) *AMA PRA Category 1 Credits*™. Stage A is designed to aid physicians in reviewing their performance in an area of practice that might benefit from closer assessment. In this stage, data about physician compliance with a specified performance measure is developed from actual practice data. Physicians are expected to review these data and make determinations about how well they perform on the measure. Reflection on how to address changes that may be indicated by the data is expected to lead to an action plan to foster change and improvement. Specific, measurable objectives for change and improvement are expected. The second stage, Stage B, consists of participating in the planning and/or implementation of evidence-based changes in practice using materials identified or developed in response to the data from Stage A. Key to this stage is the implementation of a planned change over time. Finally, in Stage C, the effectiveness of the changes implemented in Stage B is assessed, and data generated to compare against the practice-based data from Stage A. Participants who complete all three stages in sequence may claim an additional five (5) credits for a total up to 20 *AMA PRA Category 1 Credits*™ (http://www.ama-assn.org/ama/pub/category/15889.html).

The guided data review feature of PI CME is important given the reports in the literature that unguided individual self-assessments have been found to be inaccurate when compared to actual performance measures.[3] It appears that in the world of self-assessment, we all may be citizens of "Lake Wobegon"—considering ourselves above average.[6] In fact, as reported by Kruger and Dunning[7], not only do people tend to overestimate their abilities when asked to self-assess, those whose actual performances are in the bottom quartile overestimate their abilities to a greater degree than others. This finding has been reproduced in a number of other studies, and it is now accepted that individual self-assessment skills/abilities, when referenced against some outside measure, are seldom accurate predictors of performance. So, what does this mean for the practicing physician and the profession of medicine? The traditional assumption that the physician in practice can effectively self-assess and select appropriate continuing education activities to maintain and extend their knowledge and skills is being questioned.[2] This questions one of the core values of a self regulating profession. However, new approaches are emerging, as evidenced by the American Board of Medical Specialties' (ABMS) Maintenance of Certification requirements (http://www.abms.org/About_Board_Certification/MOC.aspx) with their emphasis on lifelong learning, self-assessment and practice based needs assessment. New types of CME are being developed that encourage performance improvement activities that are based on individual clinical practice data. These changes are not confined to the continuing medical education stage of the medical education continuum; the Accreditation Council for Graduate Medical Education's (ACGME) Outcomes Project (http://www.acgme.org/outcome/) establishes practice-based performance improvement and lifelong learning within its core competencies for training residents, and the Liaison Committee for Medical Education (www.lcme.org) places similar emphasis on learning from clinical practice and establishing the habits of lifelong learning in the medical student stage of medical education.

Jefferson is in the forefront of developing PI CME in both inpatient and outpatient practices. On the inpatient side, a pilot project gathered data from the electronic health record used by anesthesiologists in Jefferson's operating rooms to assess anesthesiologists' compliance with protocols for timely administration of antibiotics, an important practice in reducing surgical site infection rates. Analysis of practice data revealed room for improvement in compliance rates (Stage A), resulting in the development and delivery of an educational intervention for the participants in the pilot project (Stage B). In early spring 2007, we will review current compliance rates to assess the success of the PI CME project (Stage C). By completing the three stages in sequence, participants will each have earned 20 *AMA PRA Category 1 Credits* ™ (5 for each stage plus 5 for completing the project), and, hopefully, improved compliance rates ultimately will result in lower infection rates.

On the outpatient side, the Office of CME, Department of Health Policy and Jefferson University Physicians (JUP) Clinical Care Committee have been collaborating to pilot a PI CME activity to examine the adequacy of chart data in the outpatient psychiatry practice at the University. Just launched, this PI CME project is centered on a chart audit to assess the presence of significant clinical data in the psychiatrists' outpatient charts. The chart audit data (collected by the physician) are being incorporated into a database. Analysis will aid in the development of strategies to improve adequacy and consistency of patient chart data across the practice. Educational interventions will be designed and implemented, and charts will be re-audited after six months, thus completing the three stage model. Through the JUP Clinical Care Committee, each clinical group outpatient practice at the University is developing performance improvement cycles. We expect to be able to award PI CME credit for many of these as we refine our model and processes, and more projects become eligible for this type of credit. For more details on the Jefferson activities visit: http://jeffline.jefferson.edu/jeffcme/office/presentations/SACMEPMSPOSTERfinal.pdf.

Checking with ABMS specialty boards and their related professional associations may help you locate relevant resources to find out more about PI CME programs available in your area.

references at bottom of page 8

Medication Safety: Who's Accountable?

Hedy Cohen, RN, BSN, MS
Vice President
Institute for
Safe Medication Practices

Senior Scholar
Department of Health Policy
Jefferson Medical College

Despite our best efforts to safely manage all the new drugs on the market, and the complex therapies for the burgeoning elderly population and chronically ill, mistakes occur each day in every kind of health care setting. The extent of this problem was revealed in the Institute of Medicine's (IOM) report *To Err is Human*, which estimated that at least 7,000 patients were dying each year from *preventable* medication errors.[1]

For 30 years, the United States Pharmacopeia and the Institute for Safe Medication Practices (USP-ISMP) Medication Errors Reporting Program has provided compelling evidence of medication-use system failures through analysis of voluntary reports. The program has alerted the health care industry to hazardous conditions that have frequently linked ordering, dispensing, and administration errors to ambiguous and illegible handwritten prescriptions; look-and sound-alike drug names; and poorly designed labeling. Despite these and other well-known system-related issues, the majority of the public, media, regulatory boards, and even some health care leaders continue to believe that accountability for error prevention lies solely with front-line practitioners, where the caregiver/patient interactions occur.

James Reason, the "grandfather" of human errors and architect of the "Swiss cheese model" of error believed that errors are never the result of a single failure. Instead, they represented a series of system breakdowns, most of which are outside the control of the individual.[2] The Reason model also rejects naming, blaming, and training the practitioner closest to an error since these allows other key stakeholders to inappropriately delegate responsibility for the error back to that individual. A safe medication-use system requires early identification of problems, initiation of practical safety solutions, and universal acceptance of shared accountability among all stakeholders.[3] It is paramount that health care professionals, organizations, product vendors, academic professionals, regulatory authorities, the media, health policy leaders, and even patients do their part to ensure a safe medication-use system.

The IOM's recent report, *Preventing Medication Errors,* outlines the actions that stakeholders should take, including a comprehensive examination of problems within the system and important safety strategies and policies needed for prevention.[4] Listed below are a just a few of the essential actions for which stakeholders should be held accountable.

Practitioners

Individuals must speak out about patient safety issues, voluntarily report errors, near misses, and hazardous situations to internal and external programs, and share personal knowledge of what went wrong whenever an error occurs. Further, practitioners need to maintain competencies, stay abreast of current medication safety literature, and make the necessary changes in practice when safety recommendations are offered.

Health Care Leaders and Organizations

Organizations need to incorporate patient safety into their mission statement and uphold practice issues. The affirmation that patient safety is "Job #1" must be accompanied by genuine action and financial commitment to a safe medication-use system. Leaders must use clear communication techniques that allow discussions to flow freely at all levels of the organization. Front-line practitioners must be included in all discussions when formulating on strategies designed to improve safety.

Organizations need to completely eliminate professional silos in which each discipline works independently, providing episodic care without coordination across health care providers. "Silo" thinking has hindered the development of a team approach and has, thus, been at the root of many medication errors. The inability to reconcile medications across the continuum of health care continues to result in patient harm and death.

External Health Care Stakeholders

Regulatory, accrediting, and licensing bodies need to adopt safety standards as identified by scientific research and expert committees, and provide oversight to healthcare organizations to ensure that they are fully implementing those safety standards.

The pharmaceutical industry should be held accountable for conducting pre-market testing, using proactive risk management strategies such as failure mode and effects analysis to detect potential labeling, packaging, or nomenclature problems. Post-marketing surveillance is also needed to detect adverse drug reactions and medication error-related product problems. When errors are reported to the manufacturer, problems should be fully disclosed to practitioners and changes should voluntarily be made to ensure safety.

The manufacturers of medical devices and software should also be held accountable for performing safety evaluations and for seeking expert advice about new products. They must also freely disseminate information to healthcare providers (and consumers, when appropriate) when design flaws in previously launched products are newly discovered.

Academia

On the academic front, educators should be accountable for weaving current medication safety concepts throughout the entire curriculum so students can develop the critical thinking skills necessary to manage patient safety.

Consumers

Patients can no longer be passive about their health care. They must see themselves as active partners and not be intimidated by their practitioner's disposition to ask questions about their drug therapy. Patients should be informed that they are the last line of defense from harm and must be proactive by providing an accurate list of their medical history, allergies, chronic conditions, medications, and other important medical information to their healthcare providers.

Conclusion

Since no single stakeholder can sufficiently change a system, all health care stakeholders must unite to prevent patient harm by sharing accountability for providing a safe medication-use system. As Einstein stated, "Insanity is doing the same things the same way and expecting different results." Thus, significant improvements in medication safety will not be make unless we change the way accountability is viewed and begin to work together to finally design a medication-use system that is truly safe.

REFERENCES

1 Institute of Medicine. To Err is Human. Washington, DC: National Academies Press; 1999.
2 Reason J. *Human Error*. Cambridge, United Kingdom: Cambridge Press; 1990.
3. Institute for Safe Medication Practices. It's Time for a New Model of Accountability, ISMP Medication Safety Alert! Aug 8, 2001.
4. Aspden P, Wolcott JA, Bootman JL, Cronenett LR, eds. Institute of Medicine Committee on Identifying and Preventing Medication Errors. *Preventing Medication Errors*. Washington, DC: National Academies Press; 2006.

SHAPE – IT: The Stroke, Hypertension, and Prostate Education Intervention Team

Michael P. Rosenthal, MD
Clinical Professor and Vice Chair
Academic Programs
Department of Family
and Community Medicine
Jefferson Medical College

The health gap between men and women grows every year. Men tend to avoid doctors, and are much less likely than women to be screened regularly for hypertension and cancer.[1] Prevalence of hypertension is high among African-American men, and adherence to treatment is problematic. Related to uncontrolled hypertension is the incidence of stroke. In addition, Philadelphia's African-American men face disproportionately high death rates from stroke and prostate cancer.[2]

The Stroke, Hypertension, and Prostate Education Intervention Team (SHAPE-IT) program is a unique, collaborative effort among the Health Promotion Council of Southeastern Pennsylvania, the Philadelphia Department of Public Health, the Department of Family and Community Medicine at Thomas Jefferson University (TJU), the Division of Genetics and Preventive Medicine of the Department of Medicine (TJU), and the Office to Advance Population Health (TJU Hospital). The project is supported by a grant from the Commonwealth of Pennsylvania.

The project's primary goals are to educate African American men in targeted zip codes about the risks of hypertension, stroke, and prostate cancer, and to encourage them to visit providers for evaluation and care. During the course of the 3-year grant, we expect to reach at least 25 percent (6,750 men) of the targeted African-American male population, 35 years or older, and will provide a more extensive assessment of the perceptions, beliefs, and reactions from at least 900 men who have participated in the 4-hour, interactive, educational programs led by male African-American health educators from the Philadelphia community.

Our novel SHAPE-IT approach was developed using collaboration with a community-based project advisory committee, focus group sessions, and key informant interviews. The key theme identified was the need for men to hear and learn about their health care needs from trusted members of their community, and have the ability to discuss their concerns in an open, information-sharing discussion group format.

Potential project participants (African-American men) are identified and recruited from a variety of community venues (e.g., churches, barber shops, community centers, health fairs, health centers). In general, they are recruited into large group sessions which provides a general overview of the SHAPE-IT project is provided. From the larger sessions, men are asked to participate in small group educational sessions during which more extensive information on prostate cancer and the relationship between stroke and hypertension is provided. Pre- and post-comparison surveys are distributed to measure the participants' perceptions, beliefs, and reactions to the SHAPE-IT program. We are also evaluating a group decision-making process regarding prostate cancer screening. Blood pressure screening is offered during both the large and small group sessions and one-on-one decision-making counseling is offered to the small group participants. Participants' retention of the information and behavioral modifications are measured with follow-up comparison surveys administered via telephone 6 to 8 weeks following the completion of small group sessions.

To date, SHAPE-IT has provided information to more than 4,700 men within its target population, and has reached a subset of 578 men in small group sessions. The preliminary analysis regarding pre- and post-test comparison questions shows an increase in correct responses to knowledge-related questions. It also shows strong program acceptance and improved likelihood to visit providers at 2-month follow-up.

Future administration and analysis of the follow-up survey will provide in-depth assessments of the program's impact and the attitudinal and behavioral factors that may contribute to access, adherence, and related health care issues. This type of community-based intervention emphasizes community member participation to develop enhanced patient investment and broader systems of care.

REFERENCES

1. U.S. Department of Health and Social Services, Agency for Healthcare Research and Quality. Issues in Men's Health Care. AHRQ Publ. No. 02-M019, March 2002. Available at: http://www.ahrq.gov/news/focus/menshc.pdf. Accessed January 15, 2007.
2. Philadelphia Health Management Corporation Community Health Data Base, 2002 Household Health Survey.

REFERENCES *(From Cole, Page 6)*

1. Duffy FD, Holmboe ES. Self-assessment in lifelong learning and improving performance in practice: Physician know thyself. *JAMA*. 2006;296(9):1137-1139.
2. Eva KW, Regehr G. Self-assessment in the health professions: A reformulation and research agenda. *Acad Med*. 2005;80(10 Suppl):S46-54.
3. Davis DA, Mazmanian PE, Fordis M, Van Harrison R, Thorpe KE, Perrier L. Accuracy of physician self-assessment compared with observed measures of competence: A systematic review. *JAMA*. 2006;296(9):1094-1102.
4. Institute of Medicine (IOM). *To Err is Human: Building a Safer Health System*. Washington, DC: National Academies Press, 2000.
4. Institute of Medicine (IOM). *To Err is Human: Building a Safer Health System*. Washington, DC: National Academies Press, 2000.
5. Barnes BE. Linking CME with clinical performance improvement. *Almanac*. 2005:3-7.
6. Kruger J. Lake Wobegon be gone! The "below-average effect" and the egocentric nature of comparative ability judgments. *J Pers Soc Psychol*. 1999;77(2):221-232.
7. Kruger J, Dunning D. Unskilled and unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self-assessments. *J Pers Soc Psychol*. 1999;77(6):1121-1134.

The Growing Need for Managed Care – and Flexible Care Models – In Medicaid Long-Term Care Programs

Arthur Pelberg, MD, MPA
President and Chief Medical Officer
Schaller Anderson, Incorporated

Senior Scholar
Department of Health Policy
Jefferson Medical College

In 1991, spending on home and community-based long-term care accounted for 14 percent of total Medicaid long-term care expenditures. By 2005, that number had increased to 37 percent.[1] As the costs of providing long-term care services for the elderly and disabled continue to soar, more and more states, and their Medicaid budgets, are banking on a simple fact: people prefer to remain at home as they grow older and face the inevitable health challenges that come with aging. Keeping people in their homes or community-based facilities (adult day care, assisted living facilities), instead of institutional settings (hospitals, nursing homes) holds an added attraction for financially stretched states. With the plethora of services available today, it is a strategy that can result in better quality care, as well as being more cost-effective.

For many years, the state- and federally-funded Medicaid long-term care system discouraged state programs from investing dollars in programs designed to keep elderly and disabled beneficiaries at home rather than in long-term care facilities. In 1989, Arizona (AZ) elected to challenge these restrictions by planning a program that applies managed care principles to long-term care, i.e., giving preference to lower-cost home and community-based services. Though faced with roadblocks from the federal government, the Arizona Health Care Cost Containment System (AHCCCS), the state's Medicaid agency, pled its case with HCFA (now the Centers for Medicare and Medicaid Services (CMS)) and received a waiver to implement this new long-term care model. Today, due partially to the AZ experience, this federal barrier no longer exists. In the nearly 20 years since the introduction of AZ's groundbreaking managed care model, other state Medicaid agencies have recognized the value of supporting the elderly and disabled populations with home and community-based care and adopted this approach.

Studies continue to show the cost-effectiveness of keeping long-term care beneficiaries in a home or community environment instead of an institution. Nation-wide, the cost of providing health care services to members in their own homes is 50 percent less than if the member were placed in an institutional setting.[2] In AZ, the financial returns have been even greater. In 2005 (the most recent year for which figures are available), the cost for maintaining a long-term care member in an AZ institutional setting was $3,518 per month versus $1,245 for a member in a home or community setting, a cost savings of $2,273 per member per month, or approximately 65 percent.[3]

AZ's governor, Janet Napolitano, told a Congressional committee that she will use her role as chair of the National Governors Association to work for "meaningful reform that includes not just the public sector, but also the engagement of the private sector for solutions that improve the health of our health care system."[4] AZ's Medicaid long-term care program provides "a robust cost-effective model for other states as they and the federal government seek an alternative model," Governor Napolitano told the Senate Special Committee on Aging in July 2006. "Expanding the AZ model to new populations could cut Medicaid spending without eliminating services, limiting enrollment or increasing cost sharing for the poor."[4]

One thing is certain: as states face constant pressure to balance budgets, they will be confronted with increasing numbers of elderly citizens. The nation's elderly population is expected to exceed 70 million by the year 2030—twice the number in 2000, according to the American Geriatric Society.[5] Many governors and legislatures already have announced plans to re-evaluate their Medicaid programs in light of budget constraints and changing demographics.

At the same time, plenty of opportunities exist to improve health outcomes and control costs for Medicaid long-term care beneficiaries. Currently, 11 states report that less than half of their long-term care populations are enrolled in managed care programs, while three states—Alaska, New Hampshire and Wyoming—have none enrolled in managed care.[6] Why are these rates still low? Because some of the same skepticism voiced by critics of the AZ plan nearly 20 years ago persists:

1. Managed care requires a new funding model. Long-term care is funded by a handful of federal and state revenue sources. For the managed care program to work, these different funding sources have to be coordinated.

2. While consumers, their families, and their advocates are critical of the existing systems, these systems are still familiar. Change is always threatening. Even if they like the idea of a program that allows their loved ones more flexibility in care models, they also fear a new model might somehow fail them.

In coming years, it will be increasingly difficult for any state to look at its health care costs and statistics and decline to use a managed care approach for its long-term care Medicaid programs. As AZ's Medicaid program for long-term care beneficiaries shows, managed care matched with flexible care models allows states to creatively meet the health care needs of the growing aging population in an efficient, cost-effective manner.

REFERENCES

1. Kaiser Family Foundation. Medicaid and Long-term Care Services. July 2006. Available at: http://www.kff.org/medicaid/upload/Medicaid-and-Long-Term-Care-Services-PDF.pdf. Accessed January 30, 2007.
2. Shirk C. Rebalancing Long Term Care. The Role of the Medicaid HCBS Waiver Program. National Health Policy Forum. March 3, 2006. Available at: http://www.nhpf.org/pdfs_bp/BP_HCBS.Waivers_03-03-06.pdf. Accessed on February 1, 2007.
3. Schaller Anderson. Schaller Anderson Reduces Long-term Care Costs Significantly Through Case Management. 2005.
4. A Review of the Arizona Medicaid Program: Utilizing a Managed Care Approach to Address the Needs of a Growing Senior Population. Written Testimony of Janet Napolitano, Governor of Arizona. Senate Special Committee on Aging. United States Senate. July 13, 2006.
5. Alliance for Aging Research. Ageism. How Healthcare Fails the Elderly. 2003. Available at: http://www.agingresearch.org/brochures/ageism/ageism_booklet_final.pdf. Accessed January 30, 2007.
6. Centers for Medicare and Medicaid Services. Medicaid Managed Care Enrollment Report as of June 30, 2005. Available at: http://www.cms.hhs.gov/MedicaidDataSourcesGenInfo/Downloads/mmcer05.pdf. Accessed January 30, 2007.

Delaware Valley Schweitzer Fellowship Application Deadline Has Closed

Nicole M. Cobb, MAOM
Project Manager
Department of Health Policy

Recruitment efforts for the Delaware Valley Schweitzer Fellows Program ended February 1, 2007. As anticipated, an overwhelming application response was received in the final week and a half before the deadline. The program received 23 Fellowship applications, with a variety of community service proposal, submitted by medical, law, podiatry, nursing, public health, divinity, art therapy, and public health students. All of these students have expressed their explicit interest in community service, "*Reverence for Life*," and the exceptional life works of Albert Schweitzer. Through a rigorous screening process, and in-person interviews, Fellows will be selected to pursue their proposed activities aimed at enhancing the overall health of local communities with in the Delaware Valley. The inaugural group of fellows will set the precedent for those to follow.

The Department of Health Policy at Jefferson Medical College disseminated material about the fellowship program throughout Delaware Valley graduate programs to inform eligible students about this wonderful opportunity. This approach has paid off, based on the amount of inquiry from students, administrators, and program directors alike. We have a diverse group of students to select from for this inaugural class.

We will welcome the fellows in early April 2007, and will share more details about their projects and progress in upcoming Health Policy newsletters.

For further information on the program, including opportunities to sponsor a Fellow or becoming a mentor, please contact the Program Coordinator, Nicole M. Cobb, MAOM, at 215-955-9995, or Nicole.cobb@jefferson.edu. Also, feel free to visit our website at www.schweitzerfellowship.org/ features/us/del.

HEALTH POLICY FORUM

The Forum meets on the second Wednesday of each month (September-June) from 8:30 a.m. to 9:30 a.m. in Conference Room 218, Curtis Building, 1015 Walnut Street, Philadelphia, PA. A light breakfast will be served.

March 14, 2007
Pennsylvania 2020 Vision Report
Nora Dowd Eisenhower
Secretary
PA Dept. of Aging

April 11, 2007
Update of the SMART Organization
Thomas Kingston, MBA
Managing Director
SMART Board

Mary 9, 2007
The Health System of the Future
Richard P. Miller, MBA
President & CEO
Virtua Health

June 13, 2007
Revolution Health Group Clinical Strategies
Jeffery Gruen, MD, MBA
President
Revolution Health Group

Department of Health Policy Presentations

Hayes E, Almario C, **Pizzi LT**, Kraft W, Baxter J. Low Molecular Weight Heparin, the Most Cost-effective Treatment of Venous Thromboembolism. Poster presentation at the Society for Maternal Fetal Medicine (SMFM) 27th Annual Conference, San Francisco, February 2007.

Hayes E, L, Freehill N, **Pizzi LT**, Baxter J. Nifedipine is the most cost-effective tocolytic. Poster presentation at the Society for Maternal Fetal Medicine (SMFM) 27th Annual Conference, San Francisco, February 2007.

Pizzi LT, McIlwain M, Dahl NV. Safety of Transdermal Oxybutynin in the Treatment of Overactive Bladder among Patients Using Other Transdermal Medications: Results of the MATRIX Study. Poster presentation at the 108th Annual Meeting of the American Society for Clinical Pharmacology and Therapeutics (ASCPT). Anaheim, California, March 2007.

Safarty M, Myers R. Testimony to PA Legislative Budget and Finance Committee on "A Study on Various Aspects of Screening for Colorectal Cancer." Harrisburg, PA, January 31, 2007.

Sand PK, Kelleher C, **Pizzi LT**, Dahl NV. Effect of Treatment For Overactive Bladder on Work Productivity: Results from the MATRIX Study. Poster presentation at the International Urogynecological Association (IUGA) 31st Annual Meeting. Athens, Greece, September 2006.

Short J, **Maio V**, **Pizzi LT**. Evaluation of the Impact of the Philadelphia Community Pharmacy Network Program. Presentation at the American Pharmaceutical Association (APhA) Annual Conference and Exposition. Atlanta, GA, March 2007.

New Publications from the Department of Health Policy

Alvarez K, Goldfarb NI. Literature Review. *Am J Med Qual*. 2007;22(1):63-65.

Clarke JL, Meiris DC. Preventive Medicine: A "Cure" for the Healthcare Crisis. *Dis Manag*. 2006; V9, Suppl 1:s1 1-s1 16.

Clough J. Book Review: Health Politics: Power, Populism, and Health. *Am J Med Qual*. 2007;22(1):66-67.

Gagne JJ, Singh M, Talati AR. Manifestation of Adult Attention-Deficit/Hyperactivity Disorder and Available Treatment Options. *P&T*. 2006;31(12):736-741.

Gagne JJ, Breitbart RE, Maio V, Horn DL, Hartmann CW, Swanson R, Goldfarb NI. Costs Associated with Candidemia in a Hospital Setting. *P&T*. 2006;31(10):586-591,619.

Hartmann CW, Sciamanna CN, Blanch DC, et al. A Website to Improve Asthma Care by Suggesting Patient Questions for Physicians: Qualitative Analysis of User Experiences. *J Med Internet Res*. 2007;9 (1):e3.

Moskowitz E, Veloski JJ, Fields SK, Nash DB. Development and Evaluation of a 1-Day Interclerkship Program for Medical Students on Medical Errors and Patient Safety. *Am J Med Qual*. 2007 22(1):13-17.

Nash DB. ARO. *Biotechnology Healthcare*. 2006;3(5):6.

Nash DB. Threshold Lowering. *Biotechnology Healthcare*. 2006;3(6):6.

Nash DB. Ready for Registries? *P&T*. 2006;31(11):632,636.

Pizzi LT, Gagne JJ, Smith KD. Pills and Productivity: What Economic Theory Tells Us About the Impact of Pharmaceuticals on Work Function. *ISPOR Connections*. 2006;12(6): 7-8.

Pizzi LT, Patel NM, Maio VM, Goldfarb D, Michael B, Fuhr JP, Goldfarb NI. Economic Implications of Non-adherence to Ttreatment Recommendation for Hemodialysis Patients with Anemia. *Dial Transplant*. 2006; 35(11):660-671.

Health Policy NEWSLETTER

Department of Health Policy
Jefferson Medical College
1015 Walnut Street, Suite 115
Philadelphia, PA 19107

Non-profit
Organization
U.S. Postage
PAID
Bensalem, PA
Permit No. 224

Health Policy Newsletter is a quarterly publication of TJU, JMC and the Department of Health Policy, 1015 Walnut Street, Suite 115 Philadelphia, PA 19107
Tel: (215) 955-7417
Fax: (215) 923-7583
Web: www.jefferson.edu/dhp/

Questions? Comments?
David.Nash@jefferson.edu