



**Report and Recommendations
from the
SAFE MEDICATION USE ALLIANCE**

Kick-off Summit

**June 25, 2010
McKesson Headquarters
San Francisco, California**

Prepared by

Eleanor M. Vogt, RPh, PhD
Health Sciences Clinical Professor of Pharmacy
University of California, San Francisco

Michael J. Negrete, PharmD
Chief Executive Officer
Pharmacy Foundation of California

The Safe Medication Use Alliance
is a project of the nonprofit



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for hosting this important event, and the following organizations for helping to underwrite the costs of the summit:

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Executive Summary

On June 25, 2010, the non-profit Pharmacy Foundation of California hosted a kick-off summit for a first-of-its-kind *Safe Medication Use Alliance* to prevent medication errors specifically in the outpatient setting.

The overall purpose of this *Alliance* is to:

- 1) Establish the prevention of outpatient medication errors as a priority for key stakeholders, and
- 2) Stimulate coordinated activity around this important public health issue.

The Alliance will pursue these goals through an effort modeled after the Institute for Healthcare Improvement's successful *100,000 Lives Campaign*. During the campaign, the *Alliance* will invite patient, pharmacy, medical and payer organizations to sign-on by committing to promote and (if applicable) consistently practice one or more defined "safe medication use practices."

To begin the process of identifying the best-practices that will serve as the basis for this campaign, the Pharmacy Foundation of California solicited input from thought leaders representing patient groups, health professions, government and private payers, regulators, liability and health insurers, researchers and academics. A total of fifty-six thought leaders attended the *Safe Medication Use Alliance* kick-off summit and participated in an in-depth discussion to identify key system breakdowns and promising best practice solutions.

Among the most significant system breakdowns identified were:

- Prescriber information deficits regarding every medication a patient is taking (including non-prescription products) and how they affect each other.
- Inadequately trained support staff handling important medication-related

tasks in medical offices and pharmacies (processing of prescription refill requests, collection of current medication lists and allergy information, etc).

- Poor patient understanding regarding what they need to know about their medication and why.
- Patient demands for faster service and greater convenience at the pharmacy vs. expectations for ensuring the safety and accuracy of a prescription, and obtaining important information about the safe use of their medication.
- Inconsistent and incomplete adherence to state regulatory requirements pertaining to mandatory pharmacist consultations for new prescriptions (e.g. use of signature logs to have patients unknowingly waive their right to a pharmacist consultation).
- Insufficient standardization in pharmacies regarding best practices at the point-of-sale such as
 - Verifying patient identify
 - Opening the medication vial and verifying its contents
 - Asking open-ended questions to assess a patient's current knowledge of their medication (what it's for, how to take it, and what to expect)

The most promising interventions identified to address some of these breakdowns included:

For Pharmacies:

Adopt and consistently apply best practices for pharmacist consultations. These would include practices related to identifying patients needing a consult, enlisting their active participation in a dialogue with the pharmacist, and performing a final verification of the medication being dispensed.

For Medical Offices and Prescribers:

- Collect and review an updated medication list at every office visit. Place a copy in the patient chart and provide a copy to the patient with instructions to share it at the pharmacy and upon any transition of care.
- Promote the standardization of elements on prescription forms such as a designated field for the medication's purpose, and a box that can be checked to "prescribe" a pharmacist consultation.

For Patients and Family Caregivers:

- Initiate a public awareness campaign illustrating the importance of safe medication use practices and the related activities patients should support and request in their medical offices and pharmacies.

For Purchasers and Payers:

- Free up pharmacist's time by adopting currently used best practice solutions for automating certain insurance processes such as prior-authorization.

Next steps for the *Alliance* are to flesh out and refine these ideas, and select the specific practices to be promoted, supported and /or consistently practiced by various stakeholder groups.

To assist with these efforts, the *Alliance* will be forming four workgroups focused on the four key audiences: patients and family caregivers, prescribers and medical offices, pharmacies, and purchasers and payers. A fifth group will also be formed to serve as a Steering Committee to help review, coordinate, and prioritize the ideas of each workgroup.



"The names of the patients whose lives we save can never be known. Our contribution will be what did not happen to them. And, though they are unknown, we will know that mothers and fathers are at graduations and weddings they would have missed, and that grandchildren will know grand-parents they might never have known, and holidays will be taken, and work completed, and books read, and symphonies heard, and gardens tended that, without our work, would never have been."

Donald M. Berwick, MD, MPP
Former President and CEO
Institute for Healthcare Improvement



Introduction

The Pharmacy Foundation of California was established in 1977 by the California Pharmacists Association as a 501(c)(3) public benefit organization dedicated to improving the health of Californians through efforts related to pharmacy.

In 2006, the Pharmacy Foundation assumed the role of administrator for the California Medication Errors Panel – an experience which led the Foundation to establish the prevention of medication errors as a key strategic priority.

The Medication Errors Panel was created by California Senate Concurrent Resolution 49 (2005) which called for a panel of experts to study the causes of medication errors in the outpatient setting and develop recommendations for how they could be addressed. The resolution was motivated by two key factors:

1. The increasing recognition of the significant human and financial costs associated with preventable medication harm (i.e. medication errors), and
2. The continued lack of activity aimed at preventing medication errors in the *outpatient* setting, where the vast majority of medications are consumed with the least amount of medical oversight and support.

Grants provided by the California HealthCare Foundation and Kaiser Permanente allowed the Pharmacy Foundation of California to support the work of the Panel including the development and release of its report in 2007 (Appendix 1).

During the three years since the release of the SCR 49 report, little action has been taken by healthcare stakeholders to implement the Panel's recommendations. The one exception to this has been recent efforts to develop regulations for a patient centered prescription label, which a 2008 law (SB 472 – Corbett) requires the California Board of Pharmacy to promulgate by January 1, 2011. At the time of this summit, these

regulations were in the process of being finalized.

In an effort to stimulate additional efforts to prevent outpatient medication errors, the Pharmacy Foundation of California recently decided to create a *Safe Medication Use Alliance*.

To formally launch this *Alliance*, the Pharmacy Foundation organized a kick-off summit, and sent invitations (Appendix 2) to thought leaders representing patient groups, health professions, government and private payers, regulators, liability insurers, researchers and academia.

Fifty-six of these thought leaders (Appendix 3) attended the summit on June 25, 2010 which was generously hosted by McKesson at their corporate headquarters in San Francisco, California.

Goals of the Summit

After a brief welcome by Tim Canning, McKesson Senior VP and President of the Health Mart Pharmacy Division, Pharmacy Foundation of California CEO, Michael Negrete, described the overall goals of the *Safe Medication Use Alliance* which are to:

1. Establish the prevention of *outpatient* medication errors as a priority for key stakeholders, and
2. Stimulate coordinated activity around this important public health issue.

Michael explained that the *Alliance* would pursue these goals through a campaign modeled after the Institute for Healthcare Improvement's successful *100,000 Lives Campaign* to prevent medical errors in hospitals (see article provided to attendees in Appendix 4).

He discussed that many factors drove the success of the *100,000 Lives Campaign*, but specifically highlighted its focus on the adoption and consistent application of practices that were:

1. **Concrete** – Partners could easily see what they would be committing to by signing onto the campaign.
 2. **Limited** – The campaign involved just six interventions from which participating hospitals could choose. This provided participants with the focus they needed to avoid the “analysis paralysis” trap and take quick action.
 3. **“Unquestionable”** – Interventions were acknowledged best-practices and in some instances, established JCAHO goals or core measures. They were activities most hospitals were already pursuing, but due to a lack of focus and/or prioritization, were not performing with the necessary degree of quality or consistency.
- Selection of the wrong medication by a prescriber or patient which results in a drug/drug, drug/disease, or drug/allergy interaction.
 - Use of an excessive dose of medication by a prescriber or patient (including wrong instructions and/or duplication of same/similar ingredients contained in multiple products).
 - Pharmacy dispensing errors such as when a medication is given to the wrong patient, or when the right patient receives the wrong medication, wrong strength, or wrong instructions).
 - Monitoring errors such as overdue lab tests or physical assessments to screen for medication-related side effects.

Dr. Negrete stated that the goals of today’s kick-off summit were to:

1. Begin the identification and selection of best-practices that will serve as the basis for the *Safe Medication Use Alliance’s* campaign to prevent outpatient medication errors,
2. Explore how the *Alliance* might measure the performance of these practices and their outcomes, and
3. Identify organizations the *Alliance* will need to partner with to support the adoption and consistent application of these practices.

Before ending his opening remarks, Dr. Negrete stated that for the purposes of the *Alliance’s* efforts and the day’s discussion, a “medication error” would be defined as “Any preventable event that may cause or lead to patient harm while the medication is in the control of the health care professional, patient, or consumer.”

Additionally, our focus will be on preventing harm in the outpatient setting which results from errors associated with both prescription and non-prescription medications. Such errors commonly include:

Med Error Costs and Causes

Eleanor M. Vogt, RPh, PhD (professional biography in Appendix 5), presented several video case-studies to illustrate the devastating impact outpatient medication errors can have on patients, family caregivers, healthcare providers, and healthcare employers. These three short vignettes can be viewed online at www.PharmacyFoundation.org/Videos.wmv.

Using these case-studies, Dr. Vogt demonstrated that outpatient medication errors are a systemic problem which exact significant human and financial costs throughout every corner of the healthcare universe. This fact illustrates the critical need for stakeholders to work together to address this critical problem.

Dr. Vogt’s statements were followed by an interactive discussion of ten individuals representing a diverse array of stakeholders including a patient advocate, practicing physician, staff pharmacist, pharmacist owner, chain pharmacy, government employer, health plan, and risk managers from a medical group, liability insurer, and pharmaceutical company. Participant names, affiliations and biographies are included in Appendix 6.

The group was asked to respond to a number of questions including which system breakdowns they believe most significantly contribute to the outpatient medication errors problem.

Based on the group's discussion, the following challenges were identified:

- Lack of information technology systems to facilitate the identification and tracking of potential medication problems
- Prescriber information deficits regarding all the medications a patient is taking (including non-prescription medicines) and how they affect each other
- Insufficient or suboptimal use of medical office and pharmacy support staff
- Inadequately trained support staff handling important medication-related tasks in medical offices and pharmacies (e.g. processing of prescription refill requests and collection of current medication lists and allergy information)
- Insufficient communication between prescribers, patients and pharmacists
- Lack of prescriber encouragement to patients that they should take advantage of the pharmacist consultation
- Insufficient standardization in pharmacies regarding best practices at the point-of-sale including:
 - Verifying patient identity
 - Opening the medication vial and verifying its contents
 - Asking questions to assess a patient's current knowledge of their medication and need for a consultation, vs. just asking whether they have taken it before
- Inconsistent and incomplete adherence to state regulatory requirements pertaining to mandatory pharmacist consultations on new prescriptions (e.g. use of signature logs to have patients

unknowingly waive their right to a pharmacist consultation)

- Prescriber and pharmacy payment methodologies which create disincentives to provide the types of services known to prevent medication errors
- Patient demands for faster service and greater convenience vs. expectations for ensuring the safety and accuracy of a prescription, and obtaining important education about the safe use of their medication
- Inadequate patient engagement and shared decision making among patients and their providers
- Poor patient understanding regarding what they need to know about their medication and why

Call to Action

At the conclusion of the discussion, attendees were given an address by Herb Schultz, Region IX Director for the US Department of Health and Human Services (HHS).

Mr. Schultz briefly discussed HHS's current priorities, many of which revolved around the implementation of the recently signed Patient Protection and Affordable Care Act.

Given the Act's mandates to expand healthcare coverage to an additional 31 million Americans, Mr. Shultz highlighted the critical need to make quick improvements to our healthcare system that will improve safety and eliminate unnecessary costs.

In that vein, he applauded the attendees for their efforts to reduce preventable medication harm in the outpatient setting, and encouraged anyone to contact him directly regarding opportunities to collaborate with the Food and Drug Administration, Centers for Medicaid and Medicare Services, or any other relevant federal entity.

Promising Solutions

After a brief lunch break, attendees were divided among four breakout groups representing 1) medical offices and prescribers, 2) pharmacies, 3) patients and family caregivers, and 4) healthcare purchasers and payers.

Dr. Negrete tasked each group to:

1. Identify specific practices that could be promoted to entities within their stakeholder group to reduce harm associated with outpatient medication errors.
2. Consider how the *Alliance* might measure the performance and outcomes of the practices, and identify any organizations the *Alliance* can partner with to support their adoption.
3. Select the top two to three practices to present to the larger group.

Dr. Negrete reminded attendees that these practices would serve as the basis for a *100,000 Lives*-style campaign, and as such should possess the traits presented during his morning introduction (i.e. concrete, focused, and “unquestionable”). He also requested that they focus on activities which a) can be feasibly implemented in a short timeframe by a large number of entities within their stakeholder group, and b) are not currently being adequately promoted/supported through other patient safety or quality efforts.

After a robust discussion, each group presented their top idea(s) which are listed below. Each group’s remaining ideas were submitted on paper for later consideration and are listed in Appendix 7.

Following the presentation of ideas, attendees were given seven votes and asked to distribute them among the ideas they believed to show the greatest promise for becoming a component of the *Alliance*’s campaign. The number in parenthesis after each idea reflects the total number of votes received.

Medical Office and Prescriber Breakout:

- Collect and review an updated medication list at every office visit. Place a copy in the patient chart and provide a copy to the patient with instructions to share it at their pharmacy, and upon any transition of care. (36)

Pharmacy Breakout:

- Adopt and consistently apply best practices for pharmacist consultations. These would include practices related to identifying patients needing a consult, enlisting their active participation in a dialogue with the pharmacist, and verifying the accuracy of the medication being dispensed. (59)
- Promote the standardization of certain elements on prescription forms such as a designated field for the medication’s purpose, and a box that can be checked to “prescribe” a pharmacist consultation. (56)
- Free up pharmacist’s time through the expanded use of technologies such as e-prescribing, central fill, etc. (10)

Patient and Family Caregiver Breakout:

- Launch a public awareness campaign illustrating the importance of safe medication use practices and the related activities patients should support and request in their medical offices and pharmacies. (56)

Purchaser and Payer Breakout:

- Free up pharmacist’s time by disseminating currently used best practices for automating certain insurance processes such as prior-authorization. (30)
- Promote payer and purchaser participation in patient centered medical home models of care which include medication therapy management services (24)
- Encourage greater adoption/utilization of electronic prescribing. (4)

Next Steps

Dr. Negrete explained that the *Alliance's* next step would be to flesh out and refine the ideas provided by each group, and identify the specific actions to be promoted among various stakeholder groups (patients, prescribers, pharmacists, payers, liability insurers, regulators, pharmaceutical companies, and academics/researchers).

To assist in that regard, Dr. Negrete asked each attendee to indicate their interest in receiving

information about participation in one or more of the *Alliance's* working groups. These groups will be focused on four key audiences: patients and family caregivers, prescribers and medical offices, pharmacies, and purchasers and payers.

A fifth group will also be formed to serve as a Steering Committee to help review, coordinate, and prioritize the activities of each working group. The names of the individuals who requested information about participating in one or more of these groups are listed in Appendix 8.



Prescription for Improving Patient Safety: Addressing Medication Errors

An Executive Summary of the The Medication Errors Panel Report

Pursuant to California Senate Concurrent Resolution 49 (2005)

About the Medication Errors Panel:

Recognizing the significant and growing public health concern of medication errors, in 2005 Senator Jackie Speier authored Senate Concurrent Resolution (SCR) 49, sponsored by the California Pharmacists Association. This resolution, adopted September 14, 2005, called for the creation of an expert panel to study the causes of medication errors in the outpatient setting and to recommend changes to the healthcare system that would reduce errors associated with prescription and over-the-counter medication use.

The Medication Errors Panel, assembled in 2006, consisted of two Senators, two Assembly members and 13 persons representing academia, consumer advocacy groups, health professions (medicine, nursing, public health and pharmacy), health plans, the pharmaceutical industry, and community pharmacies. Throughout 2006, Panel members gave a tremendous effort to this study and met at the state capitol 12 times to hear and discuss testimony from 32 invited speakers who included many widely respected state and national leaders in the fields of pharmacy practice, medicine, medical technology, healthcare regulation, academia, and the pharmaceutical industry.

The following is the Executive Summary of the Panel's report complete with its consensus recommendations.

The Problem of Medication Errors

A medication error is any preventable event occurring in the medication-use process, including prescribing¹, transcribing, dispensing, using and monitoring, that results in inappropriate medication use or patient harm. These errors and their consequences present a significant public health threat to Californians.

While most consumers and healthcare providers do not often associate poor health outcomes with adverse drug events – frequently the result of medication errors – the human and financial costs of the problem are staggering.

The most recent estimate of costs associated with drug-related morbidity and mortality in the US exceeds \$177 billion per year.² Amazingly, this amount is significantly greater than the amount actually spent on prescription drugs during the same year. In terms of patient harm, the Institute of Medicine projects that at least 1.5 million Americans are sickened, injured or killed each year by medication errors.³ Extrapolating these figures to California suggests that on an annual basis, the problem costs our state \$17.7 billion and causes harm to 150,000 Californians.

Perhaps the most concerning aspect of these errors is that the tremendous human and financial costs are not the result of some serious disease, but rather, well-intentioned attempts to treat or prevent illness.

Reducing Errors through a “Systems Approach”

Testimony provided to the Panel indicated that efforts to address errors are best targeted not at a particular group of individual “wrong doers,” but rather at faulty systems, processes, and conditions that either lead people to make mistakes or fail to prevent them. Consequently the Panel took a “systems approach” for studying the problem and developing its recommendations.

After spending considerable time examining each part of the medication-use process – prescribing, dispensing, using (administering/self-administering) and monitoring – and the inter-relationships of each component, the Panel identified four key medication-use systems/ processes and three key stakeholder groups which served as the focus of its recommendations.

Key Processes and Stakeholders

The four key processes which the Panel believes could be better designed to reduce and prevent medication errors are those related to:

- 1) **The transcription and transmission of prescriptions** (i.e. the methods prescribers use to document a prescription order and communicate that order to the pharmacy where it will be filled).
- 2) **The education of the consumer** regarding the purpose of the treatment, the effective use of the medication, and the monitoring of signs and symptoms that may indicate efficacy or toxicity.
- 3) **Healthcare provider payments and incentives** which can directly or indirectly influence providers to pursue behaviors designed to reduce medication errors.
- 4) **Healthcare provider training and licensure** which could foster a better understanding among providers about the seriousness of medication errors and the behaviors to adopt that will reduce them.

The three key stakeholder groups which the Panel believes will be critical in affecting the necessary changes to these processes are:

- 1) **Consumers and consumer oriented organizations** such as the California Department of Consumer Affairs; advocacy organizations (e.g. AARP, American Heart Association); community-based organizations; and private and public foundations.
- 2) **Healthcare providers and related organizations** such as academic institutions, professional societies and advocacy groups, and provider licensing/oversight Boards.
- 3) **Healthcare purchasers, payers, regulators and related organizations** such as the State of California, its Department of Health Services and the Medi-Cal program; private purchasers of health care such as employers; commercial insurance companies which administer health benefits for both public and private sector purchasers; the California Departments of Insurance and Managed Health Care which regulate these insurance companies; pharmacy benefit managers which focus specifically on the administration of pharmacy benefits; and of course, the Legislature and Administration of the State of California which possess the potential to influence and/or establish accountability for these groups.

Based on the analysis of these four key processes and three key stakeholder groups, the Panel developed 11 consensus recommendations within five subject areas, and a twelfth recommendation to further consider and address issues that went beyond the scope of the Panel's purpose.

Recommendations

A. **Communication Improvements**, with an emphasis on improving the quality and accuracy of communications between prescribers, pharmacists and patients. Specific recommendations are:

- 1) *Improve legibility of handwritten prescriptions, and establish a deadline for prescribers and pharmacies to use electronic prescribing.*
- 2) *Require that the intended use of the medication be included on all prescriptions and require that the intended use of the medication be included on the medication label unless disapproved by the prescriber or patient.*
- 3) *Improve access to and awareness of language translation services by pharmacists at community pharmacies and encourage consumers to seek out pharmacists who speak their language and understand their cultural needs.*
- 4) *Promote development and use of medication packaging, dispensing systems, prescription container labels and written supplemental materials that effectively communicate to consumers accurate, easy-to-understand information about the risks and benefits of their medication, and how and where to obtain medication consultation from a pharmacist.*

B. **Consumer Education** to increase consumer awareness regarding the proper use – and dangers of misuse – of prescription and over-the-counter medications. Specific recommendations are:

- 5) *Identify and disseminate information about best practices and effective methods for educating consumers about their role in reducing medication errors.*
- 6) *Establish an on-going public education campaign to prevent medication errors,*

targeting outpatients and persons in community settings.

- 7) *Develop and implement strategies to increase the involvement of public and private sector entities in educating consumers about improving medication safety and effectiveness.*

C. Pharmacy Standards and Incentives, with a focus on information and medication consultations given by pharmacists to their patients as a means of educating consumers about drug safety. Specific recommendations are:

- 8) *Help ensure quality and consistency of medication consultation provided by pharmacists within and among pharmacies.*
- 9) *Establish standards for Medication Therapy Management (MTM) programs and create incentives for their implementation and ongoing use by pharmacists and other healthcare providers.*

D. Training and Education for Healthcare Providers on various medication safety practices. The specific recommendation is:

- 10) *Create training requirements for pharmacists and other healthcare professionals that address medication safety practices and related programs, including medication consultation and medication therapy management programs.*

E. Research, with a focus on obtaining information about the incidence, nature, and frequency of medication errors in the community setting. The specific recommendation is:

- 11) *Establish and support efforts to collect data regarding the nature and prevalence of medication errors and prevention methods for reducing errors, especially focused on persons at high risk for medication errors and on community, ambulatory and outpatient settings.*

In addition to these five subject areas, the Panel identified a sixth that needs to be addressed but which it determined was beyond its scope. This issue relates to the many obstacles that pharmacists face in providing drug consultation to their patients which encompasses a variety of factors such as manpower shortages and the lack of payment systems to cover the time and expense associated with these tasks. Before additional duties can be imposed on pharmacists practicing in outpatient settings, the Panel recognizes that these issues must be addressed. Therefore the Panel put forth a twelfth recommendation:

- 12) *Convene a panel of stakeholders to identify and propose specific actions and strategies to overcome barriers to qualified pharmacists being recognized and paid as healthcare providers.*

Acknowledgements

This project has benefited from the generous contributions of many individuals and organizations. In particular the Panel would like to thank former Senator Jackie Speier who authored the resolution; Lynn Rolston of the California Pharmacists Association which sponsored SCR 49 (2005); Judith Babcock of the Pharmacy Foundation of California which managed funding for the Panel and arranged for administrative support; the Kaiser Family Foundation and California HealthCare Foundation which funded the Panel; Sandra Bauer, Michael Negrete and Ronald Spingarn who provided staff support for the Panel; and of course all of the Panel members listed on the following page with special thanks to Carey Cotterell for helping to write this report.

End Notes and References

¹While the Panel identified drug and dose selection as a process (i.e. prescribing) where errors can occur, its analysis and recommendations were focused on the areas of the medication-use process that occur *after* the point where prescribers consciously make such decisions.

²Ernst FR, Grizzle AJ. Drug-related morbidity and mortality: updating the cost-of-illness model. *J Am Pharm Assoc* 2001;41:192-9.

³Institute of Medicine (IOM). (2007). *Preventing medication errors: Quality chasm series*. P. Aspden, J. Wolcott, J. L. Bootman, & L. R. Cronenwett (Eds.). Washington, DC: The National Academies Press.

MEDICATION ERRORS PANEL MEMBERS

Senate Appointees

Senator Jackie Speier, Chair

Senator Sam Aanestad

Dorothy (De) Calvert, RN
Kaiser Permanente Medical Group (representing
California Nurses Association*)

Robert Friis, PhD
Professor and Chair, Health Sciences
Department, California State University Long
Beach (representing a public health
organization*)

John Gallapaga
(representing AARP*)

Gil Preston, JD
Watson Pharmaceuticals (representing Generic
Pharmaceutical Association*)

Susan Ravnan, Pharm.D., FCSHP
Associate Professor, University of the Pacific,
Thomas J. Long School of Pharmacy and Health
Sciences (representing CA Society of Health
System Pharmacists*)

Lorie Rice, M.P.H.
Associate Dean, School of Pharmacy, University
of California San Francisco (representing
Consumer Healthcare Products Association*)

Debbie Veale, R.Ph
Director, Managed Care,
CVS/pharmacy (representing California
Retailers Association*)

Sandra K. Bauer
Arthur Bauer & Associates, Inc.

Michael J. Negrete, Pharm.D.
Pharmacy Foundation of California

Assembly Appointees

Assemblymember Wilma Chan

Assemblymember Greg Aghazarian

Brian Alldredge, Pharm.D.
Professor, Department of Clinical
Pharmacy, University of California, San
Francisco (representing pharmacy school
faculty*)

Ramon Castellblanch, PhD
Assistant Professor, Health Education
Department, San Francisco State
University (representing a consumer
organization*)

Carey Cotterell, R.Ph.
Pharmacy Quality & Patient Safety Leader,
Kaiser Permanente Medical Care Program
(representing California Association of
Health Plans*)

Merrill Jacobs
Deputy Vice President, State Government
Affairs, Pharmaceutical Research and
Manufacturers of America*

Carlo Michelotti, R.Ph.
CEO (retired), California Pharmacists
Association*

Gurbinder Sadana, MD, FCCP
Director of Critical Care Services,
Pomona Valley Hospital Medical Center
(representing California Medical
Association*)

Ronald Spingarn
Office of Senator Jackie Speier

Panel Staff

*Organizations required to be represented per Senate Concurrent Resolution 49 (2005)



Appendix 2: Safe Medication Use Alliance Summit Invitation

IDENTIFYING AND IMPLEMENTING INTERVENTIONS THAT PROMOTE SAFER MEDICATION USE

“They’re growing up without me.”

-Beth Hippely, on raising her three children after being disabled by a stroke caused by her mistakenly being given 10mg Coumadin tablets instead of 1mg tablets.



For more than two decades, quality improvement organizations throughout the world have worked to establish patient safety as a top healthcare priority. Much of this work has focused on the prevention of medical errors in hospitals, especially those related to avoidable medication injuries, or “preventable adverse drug events.”

Unfortunately, even though the vast majority of medications are used in the outpatient setting, where patients have the least amount of clinical oversight, very little has been done to prevent adverse drug events (ADEs) in the outpatient environment.¹ This occurs despite research reporting that adult outpatients experience more ADEs than adult inpatients, with a greater proportion of these ADEs being serious.²

The human and financial costs of preventable outpatient ADEs are staggering. One analysis of US death certificates found that during the year 2004, 12,426 Americans were documented to have been killed *in their home* by a preventable ADE.³ This represents more than 34 preventable deaths every day.

With regard to financial costs, among the Medicare population alone, it has been estimated that injuries caused by preventable outpatient ADEs cost the Medicare program \$887 million per year.⁴ Sixty-two percent of these avoidable costs are attributed to resulting hospitalizations, followed by outpatient visits (28%), emergency department visits (6%), and medications (4%).⁴

These disturbing statistics point to one basic problem: Our healthcare system too frequently sends patients home with medications without providing the necessary screening, education, tools and monitoring that is needed to ensure they can safely be used.

THE SAFE MEDICATION USE ALLIANCE

To address the serious public health problem of preventable outpatient ADEs, the non-profit Pharmacy Foundation of California is establishing the *Safe Medication Use Alliance*. The *Alliance* will bring together top leadership from California’s patient, provider, payer and purchaser communities to identify and implement safe medication use best-practices to improve medication safety for all patients.

The first convening of this group will be held on **June 25, 2010**. On this date, the *Alliance* will begin its work of identifying and selecting simple, measurable, low-tech, “safe medication use interventions” that can be *immediately* implemented by virtually any physician, pharmacist, or patient/family caregiver to help prevent medication harm from wrong-drug, wrong-dose, wrong-patient, incorrect-use, and/or medication monitoring errors.

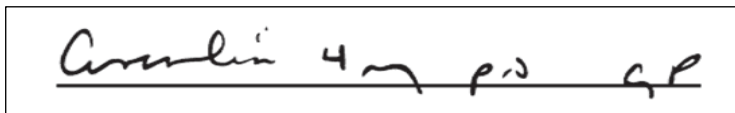
¹ Wachter RM. Editorial: is ambulatory patient safety just like hospital safety, only without the “stat”? *Ann Intern Med* 2006;145:547-549

² Gandhi TK, Weingart SN, Peterson J, et al. Adverse drug events in ambulatory care. *N Engl J Med*. 2003;348:1556-1564

³ Phillips DP, Barker GE, Eguchi MM. A steep increase in domestic fatal medication errors with use of alcohol and/or street drugs. *Arch Intern Med* 2008;168:1561-66

⁴ Field TS, Gilman BH, Subramanian S, Fuller JC, et al. The costs associated with adverse drug events among older adults in the ambulatory setting. *Med Care*. 2005;43:1171-1176

One example of a safe medication use intervention could be to simply have prescribers include a medication's purpose on all relevant prescription orders to help prevent pharmacists from selecting the wrong drug when they receive a potentially confusing prescription such as:



Coumadin to prevent stroke, or Avandia for diabetes?
The difference could be one of life and death

THE ALLIANCE'S CAMPAIGN

After the *Alliance* selects the strongest safe medication use practice interventions and devises an outcome measurement strategy, a Campaign will be launched to facilitate widespread implementation of the interventions. The Campaign will be modeled after the Institute for Healthcare Improvement's successful *100,000 Lives Campaign*⁵, whereby leaders of target facilities (medical offices, pharmacies, etc.) will be asked to publicly join the campaign and ensure implementation of these interventions at their site.

Once a site joins the Campaign, the *Safe Medication Use Alliance* will work with them to implement the recommended changes by providing detailed information about each intervention, useful tools, and helpful resources. Whether a site chooses to apply all, or some, of the recommended interventions, their results will be routinely monitored, and will serve as a regular barometer for the Campaign's progress.

Finally, the *Alliance* will also launch a parallel consumer initiative to inform patients and family caregivers about the campaign, its participants, and the relevant safe medication use practices they should expect and request.

There is no cost to join the *Safe Medication Use Alliance*. All we ask is that participants have time and influence to contribute towards improving the safety of our outpatient medication use system.

If you are able to attend the June 25 kick-off meeting in San Francisco (exact location TBD), simply send an email to itandingan@pharmacyfoundation.org. Or if you prefer, complete the following form and fax it to (916) 779-1411.

Please note that you should receive confirmation that your RSVP has been received within 5 business days. In the event you do not receive any confirmation, please call Ian Tandingan at (916) 779-1410 x312.

Thank you for helping to keep our cures from killing.

Sincerely,



Gregory Ewing, JD, MPH
President, Pharmacy Foundation of California



Michael J. Negrete, PharmD
CEO, Pharmacy Foundation of California

⁵ <http://www.ihi.org/IHI/Programs/Campaign/100kCampaignOverviewArchive.htm>

Appendix 3: Safe Medication Use Alliance Summit Attendees

MEDICAL PROVIDERS & GROUPS

Marshal Abdullah, PharmD
Community Pharmacist

Lura Hawkins, MBA
Director of Member Services
CA Association of Physician Groups

Peggy Kaminsky RN,C, MSN
Infection Preventionist - Patient Safety Manager
Palo Alto Medical Foundation

Nick Kostek, RPh, MS
Northern California Director of
Pharmacy Quality and Patient Safety
Kaiser Permanente

Richard A. Levy, MD, FACC
Private Practice Physician

John Qaundah, PharmD
Clinical Pharmacy Coordinator
Sutter Health

Mark Riggle, PharmD
Assistant Director of the Department of
Pharmacy, UC Davis Medical Center

Marilyn Stebbins, PharmD
Pharmacy Utilization Manager
CHW Medical Foundation/
MedClinic Medical Group

Betsy Stone, MPH, DrPH
Director of Quality Improvement and
Risk Management
Palo Alto Medical Foundation

PURCHASER/PAYER STAKEHOLDERS

Ambrose Carrejo, PharmD*
National Pharmaceutical Contracting Leader
Kaiser Permanente

Steven Gray, PharmD*
California Pharmacy Quality, Regulatory
Compliance and Professional Affairs Leader
Kaiser Permanente

Diem Huynh, PharmD
Senior Clinical Coordinator
Blue Shield of California

Patrick Robinson, R.Ph., MBA
Senior Pharmaceutical Consultant
California Public Employees' Retirement System

Nancy Stalker, PharmD
VP of Pharmacy Benefit Management
Blue Shield of California

Richard Sun, MD, MPH
Medical Consultant II
California Public Employees' Retirement System

Laura Gross Weiss, MPH
Pharmacy Program Specialist
LA Care Health Plan

ACADEMIA/RESEARCH

Jeremy Carnam, BA
San Francisco MTM Research Coordinator

Jim Kuperberg, PhD
Chair, Department of Social, Behavioral &
Administrative Sciences & Associate Professor
Touro University

Daniel Robinson PharmD, FASHP*
Dean, Western University College of Pharmacy

Beccah Rothschild, MPA*
Director of Health Literacy Projects, Health
Research for Action

R. William Soller, PhD
Executive Director, Center for Self Care;
Health Sciences Clinical Professor of Pharmacy

Eleanor M. Vogt, RPh, PhD*
Health Sciences Clinical Professor of Pharmacy,
University of California, San Francisco

PHARMACEUTICAL INDUSTRY

Kristi Dover, PharmD[^]
Senior Area Director
Medical Liaisons/Alliance Outreach
Purdue Pharma

John Fitzgerald, PhD, LPC, CAS
Field Researcher, Risk Management &
Epidemiology Department
Purdue Pharma

Frank Kurnik[^]
Corporate Account Manager, Amgen

Emily Burton Smith, PharmD[^]
Senior Regional Scientific Manager
AstraZeneca

Sax Wada, PharmD[^]
Corp. Accts. Manager, Daiichi Sankyo, Inc.

PATIENT ADVOCATES

Dennee Frey, PharmD
Lead Pharmacist
Partners in Care Foundation

Nan Brasmer
President, CA Alliance of Retired Americans

John Gallapaga
AARP Policy Advisor

Liz Helms
Chair, CA Chronic Care Coalition

Fred Mayer, RPh, MPH
President, Pharmacists Planning Service, Inc.

Aglaia Panos, PharmD
Pharmacists Planning Service, Inc.

Syed Sayeed
Policy Analyst, Consumers Union

Bill Remak, B.Sc. MT, B. Public Health, SGNA,
AHCJ
Steering & Communications
Committee Member
California Chronic Care Coalition

LIABILITY/INSURER STAKEHOLDERS

Dana Faber, BS, RN, CLNC
Regional Patient Safety/Risk Manager
The Doctors Company

Carrie Jacobus
Executive Loss Control Consultant
Fireman's Find Insurance Company

PHARMACY STAKEHOLDERS

Tony Bastian, PharmD
Owner, Joe's Pharmacy

Tim Canning
Senior VP, President of Health Mart at
McKesson Corporation

Rebecca Cupp, RPh*
Vice President of Pharmacy
Ralphs Grocery Company
(A Kroger Company)

Marie Cottman, PharmD*
Pacific Compounding Pharmacy and Consultations

Averill Gordon, PharmD
Manager, Pharmacy Quality Assurance
The Patient Safety Research Foundation, Inc,
(Patient Safety Organization of Walgreen Co.)

Eric Gupta, PharmD, BCPS
President, California Pharmacists Association
Asst. Professor of Pharmacy Practice
and Administration,
Western University College of Pharmacy

Marie McNutt
Regional Office Coordinator
AmerisourceBergen

Lynn Rolston*
Chief Executive Officer
California Pharmacy Association

Debbie Veale, RPh
Director of Payer Relations
CVS/Pharmacy

**GOVERNMENT, REGULATORY,
POLICY, QUALITY & SAFETY**

Louise Bailey, MEd, RN
Interim Executive Officer
California Board of Registered Nursing

Gregory Ewing, JD, MPH*
President, Pharmacy Foundation of CA

Virginia Herold, MS
Executive Officer
California Board of Pharmacy

Eric LaMotte
IHI Open School Initiative, UCSF Chapter

Janet McDonald, PhD
Sr. Public Affairs Specialist
Food & Drug Administration

Lucy Saldana, PharmD
Pharmacist Consultant
Centers for Medicaid & Medicare Services

Victoria Samper, MS
Program Manager of Ambulatory Care Review
Institute for Medical Quality

Herb Schultz, MPP
Director
Region IX Health and Human Services

Jennifer Simoes
Chief of Legislation
California Medical Board

Martha Torres-Montoya, MSPH
Health Program Specialist II
CA Office of the Patient Advocate

**PHARMACY FOUNDATION OF
CALIFORNIA STAFF**

Michael J. Negrete, PharmD*
Chief Executive Officer

Shannon Presidio
Associate Director, Education & Accreditation

Courtney Frost
Administrative & Development Assistant

Ian Tandingan
Events Assistant

*Member of the Pharmacy Foundation of California Board of Directors

^Member of the Pharmacy Foundation of California Corporate Advisory Board

Appendix 4: Article on the *100,000 Lives Campaign*

Arresting Death: Saving 100,000 Lives

By Susan Meyers

The goal: save 100,000 lives

Result: an estimated 122,300 lives saved

In January 2005, the Institute for Healthcare Improvement (IHI) invited American hospitals to join an ambitious campaign to avoid 100,000 unnecessary deaths within the next 18 months by improving their quality of care. By the end of the 18-month time frame that ended June 14, 2006, IHI had enlisted approximately 3,100 health care institutions, representing 75 percent of all U.S. hospitals.

“This far exceeded our most ambitious expectations,” says Joe McCannon, IHI vice president and manager of the 100,000 Lives Campaign. He says the campaign has begun to create a “new national standard of care ... This initiative has released energy and optimism in the health care community about our ability to improve the way we deliver care.” McCannon adds, “Governance structures have been a powerful force in driving change and quality throughout this entire process; the most successful hospitals are those whose trustees and leaders are committed to engaging front-line providers, tracking progress and removing barriers to change.”

In many hospital boardrooms, data on the campaign’s six best practices and their impact on mortality are topping the board’s quality and safety scorecards. Those best practices are:

- Deployment of rapid response teams for emergency care of patients whose vital signs begin to deteriorate suddenly
- Delivery of reliable, evidence-based care to patients with acute myocardial infarction
- Prevention of adverse drug events
- Prevention of central line infections
- Prevention of surgical site infections by the use of preoperative antibiotics
- Prevention of ventilator-associated pneumonia.

Lois Sinn Lindquist, a trustee of Fairview Health Services, based in Minneapolis, and chair of its quality and patient safety committee, says that health care boards are paying more attention to the need for quality improvement and assurance activities in their organizations.

“Quality and safety are now Fairview’s top agenda items, and mortality has become one of the medical center’s key quality long-term core measures,” Lindquist says. “There is more time on the agenda given to these issues, board members are asking questions, and there is constructive dialogue taking place around the table. Over the past few years, we have become more engaged in these initiatives, we follow our clinical measures very closely, and we are examining these best practices across all of our nine hospitals [as well as] how we measure up to hospitals across the country.”

“This campaign provided our board and medical staff [with] a point of focus,” says Charles Sunderland, a member of the University of Kansas Hospital’s (Kansas City, Kan.) board. “It provided an understandable framework in which we could follow these best practices, measure them and compare our data and mortality rates with hospitals nationwide. Our board realizes that quality is the foundation of everything we do in this organization—from providing clinical care to education and research—and it is our responsibility to see that quality is pursued in everything this institution does.”

By focusing on best practices and quality initiatives, participating hospitals are reporting drops in their mortality indexes. For example, from 2003 to 2006, Fairview Southdale Hospital, which had begun using the IHI practices early, reported a 30 percent reduction in hospital mortality—from 93.6 to 66.6, using the Hospitalized Standardized Mortality Ratio (HSMR), a risk-adjusted mortality rate that provides a measure of the quality and safety of the technical care in a hospital. The HSMRs are calculated as the ratio of observed deaths to expected deaths multiplied by 100. An HSMR of 100 indicates the expected mortality rate

in the average U.S. hospital. Anything below 100 indicates a lower than expected mortality. The University of Kansas Hospital reported a 28 percent reduction in mortality during the campaign period, and the mortality rate for McLeod Regional Medical Center in Florence, S.C., another early adopter, dropped from 1.07 in 2002 to .072 in 2006.

While these reductions can't be attributed solely to the campaign, what they do represent is a greater awareness and focus on mortality, says Bob Page, senior vice president and chief operating officer at University of Kansas Hospital. "The campaign has placed mortality information in the limelight and has [fostered] peer pressure for improvement," he explains. "We measure our progress and share these data with our board and the rest of the hospital staff on a regular basis. It has served to provide a focused communication on quality and safety."

Approximately 40 percent of participating hospitals have implemented all six best practices, and more than 50 percent have implemented three or more practices, McCannon says. In addition, nearly 100 hospitals that have made significant progress in specific areas targeted by the campaign have agreed to mentor other hospitals in implementing the six initiatives.

Rapid Response Teams

The initiative that has received the most attention, and has been called a fundamental change in the way hospitals deliver care, is the deployment of rapid response teams. The teams have been associated with reductions in "codes," or cardiac arrests, at many hospitals, as well as with falling mortality rates.

The rapid response team, also known as a "precode" team, brings critical care expertise to the patient bedside with the goal of averting catastrophic cardiac or respiratory events before they happen. Studies have shown as many as 66 percent of cardiac arrest patients show abnormal symptoms one to six hours before having an arrest. The team, which can vary in composition, usually includes a critical care nurse, a respiratory therapist and, sometimes, an intensivist. The team is called to the bedside when a clinician believes a

patient's condition is deteriorating. The team assesses a patient's condition to determine, along with the bedside caregiver, the best next steps. The key is for hospital staff to develop the skills necessary for recognizing early danger signs and to call the rapid response team sooner rather than later. Such actions can prevent a potential arrest, stabilize the patient and/or expedite a transfer to the ICU.

Little was known about rapid response teams before the campaign, but they are quickly becoming a new standard of care among hospitals nationwide. Fairview Ridges Hospital, a 150-bed community hospital in Burnsville, Minn., and a member of Fairview Health Services, has customized the rapid response team concept to fit a variety of patient needs, including care for adults in any area of the hospital, pediatrics, obstetrics and neonatology.

"Our staff has embraced the teams and tell us they feel more confident and safer at work knowing they have this critical backup," says Helen Strike, vice president of patient care, Fairview Ridges Hospital. "At Ridges, any staff member can call the rapid response team for any adult, child or newborn." Strike says that the hospital currently averages approximately 20 calls a month, which has reduced the number of cardiac arrests outside the ICU, decreased the number of patients transferred to the ICU because their early symptoms are being stabilized in their rooms, and reduced overall mortality. Additionally, families and visitors of pediatric patients and newborns are encouraged to request a rapid response team if they are concerned about their child's condition. Peter Sandgren, M.D., an internist and hospitalist at Fairview Ridges Hospital, says responding physicians initially had concerns that the rapid response team might eat up a lot of their time, but they have found that the team has actually done the opposite. "We're seeing a reduction in codes because we are intervening sooner, and it has bolstered the confidence of the staff nurses and clinicians who are learning from the teams and are able to handle more critical situations on their own," he says.

In addition to their value as a clinical tool, rapid response teams have also been credited for helping

to change hospital culture. Nurses are empowered to ask for help without fear of appearing incompetent or being chastised for calling; there's greater emphasis on shared learning; and they encourage a more supportive environment among clinicians, Sandgren adds.

Networking Opportunities

When McLeod Regional Medical Center joined the campaign, they had already gotten a start on implementing most of the six best practices. Enlisting in the campaign allowed them to concentrate on areas that needed additional attention and improvement. It also opened up a whole network of hospitals with whom the medical center could share success stories and learn.

“We were having high levels of success in some of the best practices, but not all of them,” says Donna Isgett, vice president of Clinical Effectiveness at McLeod. “We saw this as an opportunity to cross-share and learn from the successes of other health care organizations.” As an example, one of the successful outgrowths of the campaign has been the networking avenues it has opened through the establishment of state “nodes”—local field offices, often led by state hospital associations or quality improvement organizations (QIOs)—that create a structure for hospitals to communicate and share information in a constructive and noncompetitive manner.

This is precisely what the 100,000 Lives Campaign intended. “In this campaign, we focused not only on providing guidelines for change but also in developing a national infrastructure for change with thousands of hospitals collaborating,” McCannon says. “We’re now seeing a national infrastructure of hospitals that are comparing innovations and ideas and opening lines of communication with the common goal of improving care across the nation.” Isgett adds, “Before the campaign, we were all working in isolation. Now there is significant collaboration and a realization that we’re all in this together. It’s giving everyone—big or small—a forum to discuss solutions and make them happen.”

Building on the momentum from the campaign, McLeod shifted the medical center’s attention to

ventilator-associated pneumonias and the implementation of a rapid response team. “We started with the areas which we felt would have the greatest patient impact,” Isgett says, “and then built upon our successes.” When the hospital began seeing measurable successes in these areas, it shifted its focus to surgical site infections followed by central line infections.

After discussions with other hospitals as well as some fine-tuning of protocols and processes, the hospital saw their cases of ventilator-associated pneumonias drop to zero over the last two years; antibiotic administration to prevent surgical site infections is now near 100 percent; and central line infections are also improving, notes Isgett. Some of the biggest barriers to change, she says, have been overcoming cultural issues and hard-wiring the changes into the system. To make inroads into the current culture, Isgett says, “the clinical staff has to want to make changes because they believe in it, not because they’ve been told to. So much of your success is dependent on how you build the environment. Your staff has to own and design the solution. What doesn’t work is giving them the solution. You have to give them the evidence, let them figure out how it’s going to work, and then let them integrate it into the system.”

To engage staff and boost support, all clinical quality improvement projects at McLeod follow a systematic approach to change that includes the following three elements—they are all physician-led, evidence-based and data-driven. “We’ve found that engaging physicians in the process has been a critical part of our success,” Isgett says. “We use data to compare our performance with others to demonstrate there’s a problem, and the evidence-based practices help lead us to a solution. We let our physicians discuss the issue, debate it and decide whether to pursue it. That provides us with physician buy-in.”

Once it has been established that there is an issue that needs to be rectified, a physician leader is identified to direct the quality improvement process and to lead a committee that includes other doctors and clinicians. The committee also includes a master’s-prepared nurse who helps develop best practices. The committee is guided by

the following steps, adopted from John Kotter's model of change as outlined in his book, *A Force for Change: How Leadership Differs from Management*. The steps are: establish a sense of urgency or a reason for change; develop a vision and strategy of best practices; implement it through communication, education and by empowering others; monitor your progress; celebrate your first wins and subsequent successes; consolidate gains and build on them; and anchor new approaches by hard-wiring them into the system.

Steven Ross, M.D., internist and chairman of the Clinical Effectiveness Department at McLeod Medical Center, says the physician-led groups have been vital to the success of their quality improvement process. "Physician-led improvement groups are the foundation for providing quality improvement in all of patient care," he says. "Physicians are on the front line of treating patients and know the problems, what works and what does not work. For doctors to respect and respond to improvement suggestions, these suggestions need to be based upon a review of the problem by physicians in that institution, a review of the literature by physicians in that institution and then a solution promoted and led by physicians in that institution."

For those physicians who resist quality improvement activities, Ross recommends sharing data and evidence-based practices with them. "We present our findings in a scientific way and make the evidence and our recommendations available to all," he says. "We then publish the individual physician data on the particular clinical practice in question and give them to physicians to review. When we first started our pneumonia project, there were more than 70 different antibiotic regimens used to treat pneumonia. Though not everyone used the recommended pathway, in one to two years we [had] almost 100 percent utilization of our recommended antibiotics. Doctors can elect not to use our suggestions, but they better have good evidence to back up what they do."

The University of Kansas Hospital, which had also begun work on the six practices before the start of the campaign, used an approach similar to

McLeod Regional Medical Center's to engage staff. The hospital leadership created six work groups charged with overseeing implementation of each intervention. The work groups then identified nurse and physician champions for each initiative who were responsible for ensuring proper communication, monitoring, evaluation and reporting of results. The hospital rolled the initiatives out over the next year, focusing first on areas in which leaders believed the institution had the greatest opportunities for success, such as rapid response teams, reducing central line infection rates and ventilator-acquired pneumonia, explains Tammy Peterman, vice president and chief nurse executive at the University of Kansas Hospital. "Leadership and support needs to start from the top down in order for a hospital to be successful," notes Peterman. "The next step is to find champions who own and drive each intervention. We've found the most success in partnering doctors and nurses so they can approach the initiative as a team."

Timothy Williamson, M.D., pulmonary and critical care specialist at the University of Kansas Hospital, agrees. "The development of multidisciplinary groups as well as the support of administration are key to getting buy-in for these initiatives," he says. "Our administration has been very supportive in both words and actions. They are often present at our meetings, and they have been quick to provide additional resources when we have needed them."

Hard-wiring new protocols into the system poses another challenge to hospitals looking to sustain results. "Each problem has a totally different solution," Isgett says. "The key is to dig into the root cause: Is it an issue of physician or staff compliance? Is it an operational issue? Are there too many variables? Once you've found the source of the problem, you build in standardization to create a system that is very reliable. Any changes that you implement need to become an integral part of the process. They need to be locked into the system, not dependent on someone remembering to do it. This might mean making a checklist or completely changing how and when something is done."

Isgett stresses the importance of continuing to monitor progress and collecting data to compare performance with other hospitals. Keeping this information in front of staff helps create buy-in and sustain interest and momentum. “One of the frustrations among clinical people is that it is often difficult to substantiate how we are doing compared with others,” Page says. “By sharing data among hospitals, we can now show how we stack up nationally and it gives us reason to celebrate our successes.”

Hospitalwide efforts to increase awareness of safety and quality has helped trigger other quality initiatives, such as preventing sepsis, Peterman says. “We took the same concept and have established a collaborative within the state of Kansas to discuss this issue regularly and to develop some solutions.”

“This campaign has helped provide our staff [with] the discipline to stay focused on evidence-based care and to become more systematic in the way they provide care,” Peterman says. “Today, we are seeing greater use of critical care-thinking skills as well as increased collaboration and teamwork among medical staff and the rest of our clinical staff.”

“We’ve witnessed a great deal of dedication and care in this campaign,” McCannon adds. “We encourage hospitals to celebrate their accomplishments, not only reductions in mortality but also other improvements in quality and safety.”

In December 2006, IHI announced its plans for a new campaign, sponsored principally by Blue Cross and Blue Shield health plans. The new campaign’s goal—saving 5 million lives by Dec. 9, 2008—“represents a continuation of the largest improvement effort undertaken in recent history by the health care industry,” according to IHI’s Dec. 12, 2006 press release. McCannon says, “In the next phase, we will concentrate on deepening the commitment of governing bodies.”

Susan Meyers is a writer based in Omaha, Neb. This article 1st appeared in the December 2009 issue of Trustee Magazine.

Appendix 5: Professional Biography of Eleanor Vogt, RPh, PhD

Dr. Vogt' is a Health Sciences Clinical Professor of Pharmacy at the University of California, San Francisco. Her career spans positions within academia, clinical pharmacy practice, the pharmaceutical industry, health policy and planning, regulatory affairs and patient advocacy. Dr. Vogt held the 2004-2005 Presidential Chair at the University of California, San Francisco School of Pharmacy. Her responsibilities included faculty and curriculum development for enhancing pharmacy leadership, furthering collegial and community practice models, and developing professional relationships and community partnerships to advance the mission of pharmacy education.

Developing innovative partnerships and programs, Dr. Vogt served as Senior Fellow at The Institute for the Advancement of Community Pharmacy, established by the National Association of Chain Drug Stores and The National Community Pharmacists Association. She served as Senior Fellow of the National Patient Safety Foundation (NPSF) at the American Medical Association and was a member of the Foundation's pioneer founding team.

Prior to joining the NPSF, Dr. Vogt served as Vice President for Public Policy for the National Pharmaceutical Council (an association of the major research-based pharmaceutical companies) for 13 years. She also served as Director of Policy and Program Development for The Milwaukee Regional Medical Center and was a tenured full professor of Health Policy

and Community Affairs at the University of Wisconsin for 14 years. Dr. Vogt practiced pharmacy in a variety of hospitals, clinic and long-term care settings and served as a consultant to academia, health planners and policymakers, the Federal Food and Drug Administration (FDA), pharmaceutical companies and related industries.

Dr. Vogt received the Pinnacle Award for Career Achievement from the American Pharmacists Association Foundation in 2003. The National Association of Chain Drug Stores honored Dr. Vogt with their 2004 Schwarz Pharma Leadership Award for Community Pharmacy. She has been recognized nationally for her leadership in safe medication use in older adults by the National University Education Association and by the FDA in developing the precedent setting Pharmaceutical Safe Use Initiative. Dr. Vogt is a co-founder of the Women in Government (WIG) Legislative/Business Roundtable and is the recipient of WIG's first Wings Award for outstanding service.

Dr. Vogt received her BS in Pharmacy from Creighton University; an MEd in Adult Education from Boston University; and a PhD in Educational Administration from the University of Wisconsin. She currently is a Board Member Emeritus of Women in Government and holds memberships in the American Pharmaceutical Association, The Drug Information Association, the Institute of Noetic Sciences and the Ninety Nines – the International Association of Women Pilots.

Appendix 6: Discussion Participants and Biographies

Liz Helms is the Chair of the California Chronic Care Coalition, an alliance of consumer, non-profit, and provider organizations united to improve the health of Californians with chronic conditions or diseases regardless of age. Liz has over a decade of experience in the public relations field including building, grassroots advocacy, strategic planning and policy development. Her vision and breadth of issues has made her a leader in the health care arena and a recognized advocate in California, nationally as well as internationally.

Dana Faber, BS, RN, CLNC is the Regional Patient Safety/Risk Manager for The Doctors Company (TDC). TDC is the nation's leading physician-owned and –operated provider of medical malpractice insurance. As part of her core role in the Patient Safety Department, Dana routinely conducts site assessments of outpatient facilities. Dana earned her Associate Degree in Nursing followed by a Bachelor of Science in Business Management. She is a certified legal nurse consultant and is the 2009/2010 President of California Society For Healthcare Risk Management.

Betsy Stone, MPH DrPH is the Director of Quality Improvement/Risk Management for Palo Alto Medical Foundation (PAMF) Santa Cruz. PAMF is a Sutter Health affiliated non-profit medical foundation providing multispecialty medical care over a wide geographic area on the San Francisco Peninsula and Central Coast. PAMF Santa Cruz includes the medical foundation, a small 30 bed acute care hospital, and a visiting nurses association. Dr. Stone has responsibility for oversight and management of accreditation and quality improvement/patient safety for both the foundation and the hospital, and for risk management for all three entities in PAMF Santa Cruz.

Richard Sun, MD, MPH is a Medical Consultant II in the Health Benefits Branch of the Office of Health Plan Administration for the California Public Employees' Retirement System (CalPERS). CalPERS is the nation's largest public purchaser of health care after the federal government, spending more than \$6 billion a year to cover active and retired state and local government public employees and their family members. Dr. Sun received his MPH in Epidemiology at the University of California, Berkeley and went on to earn an MD at UC-San Francisco. After internship, he spent two years at the US Centers for Disease Control as an Epidemic Intelligence Service Officer. Between 1991 and 2004, Dr. Sun worked within the State of California in various positions, including five years as chief of the HIV/AIDS Epidemiology Branch, and three years in the area of bioterrorism within the CDPH Emergency Preparedness Office. In 2005, he took a medical consultant position with the Medi-Cal Managed Care Division of the Department of Health Care Services, and in October 2008 he transferred to the Health Benefits Branch of the California Public Employees' Retirement System (CalPERS).

Nancy Stalker, PharmD is the Vice President of Pharmacy Management for Blue Shield of California, a non-profit health plan administering benefits to 3 million members. She is responsible for pharmacy strategy, claims & benefits, network management, manufacturer contracting, financial analysis, drug formulary, P & T Committee, clinical programs promoting quality improvement & safety, and Medicare Part D. Nancy has been active in numerous state and national pharmacy association committees and currently serves as a member of the Blue Cross Blue Shield Association National Council of Physician & Pharmacist Executives.

Richard A. Levy, MD, FACC is a solo private practice physician with a practice in general cardiology-primary and secondary prevention, and internal medicine. Dr. Levy's practice is located in San Francisco and is affiliated with Brown & Toland Medical Group and California Pacific Medical Center. Dr. Levy received his MD from the UCLA School of Medicine, performed his internship and residency training at Cedars-Sinai Medical Center, and completed fellowships at Cedars-Sinai and San Francisco General Hospital. He has been an investigator in numerous clinical trials and has been widely published in a variety of peer-reviewed medical journals.

Averill Gordon, PharmD is the Manager of Quality Assurance for The Patient Safety Research Foundation, Inc., a component patient safety organization of Walgreen Co., which owns the nation's largest drugstore chain. After graduating from pharmacy school, Dr. Gordon was commissioned as a Lieutenant for the U.S. Navy and served as a pharmacist. He served a total of 5 years active duty and performed numerous quality and safety drills for the service, such as preparing hospitals for review by the Inspector General and the Joint Commission. Simultaneously, Dr. Gordon worked for Walgreens part-time in various positions, and upon completion of his tour, became an assistant store manager. In 2009, he was recognized by the Walgreens' corporate office and became the Manager of its Patient Safety Organization which manages the quality assurance operations of the retail stores.

Marshal Abdullah, PharmD graduated from the University of California School of pharmacy and has practiced in a variety of chain, independent, supermarket, and mass merchandiser pharmacy settings. Dr. Abdullah has recently decided to take a break from community practice, and will soon be commencing a pharmacy residency with Hill Physicians Medical Group in San Ramon, California.

Tony Bastian, PharmD is the pharmacist owner of Joe's Pharmacy in San Francisco, CA – an independent Health Mart pharmacy specializing in the provision of numerous medication therapy management services. Dr. Bastian received his Doctor of Pharmacy Degree from UCSF in 1982 and also received degrees from the American University of Beirut in 1973 and the London School of Economics in 1975. Tony has an incredibly strong commitment to improving the health of his community as evidenced by his receipt of numerous awards including the 2005 *Outstanding Services to Community Award* from Senator Barbara Boxer, and a 2005 *Certificate of Excellence* from Senator Dianne Feinstein.

John Fitzgerald, PhD, LPC, CAS is a Field Researcher in the Risk Management & Epidemiology Department at Purdue Pharma LP. He is on Clinical Faculty in the Department of Psychiatry at Oregon Health & Sciences University, is an Adjunct Assistant Professor in the Systems Science Graduate Program at Portland State University, and an Adjunct Instructor in the Graduate School of Education at Portland State University. His work involves understanding risks associated with abuse and diversion of prescription drugs, ways to mitigate such risks, and the broader context of addiction problems and their treatment.

Appendix 7: Additional Ideas & Considerations from Breakout Groups

Medical Office and Prescriber Breakout:

- Promote the adoption of a “global best practice” for writing a safe prescription. Standards could include, indicating the time of day medication is to be taken (vs. statements such as “three times a day), elimination of abbreviations, etc.
- Educate office personnel regarding important medication-related activities
- Encourage office personnel to perform a “medication safety assessment” of their practice site
- Promote and foster partnerships between prescribers/clinics/hospitals and pharmacies
- Facilitate better information exchange between prescribers, patients and pharmacists regarding documentation for prescription fills and refills
- Provide medication-related education to patients while they are in the office using video, written literature, etc
- Improve use of the reference materials patients can be given after prescription drop-off

Patients and Family Caregivers Breakout:

- Eliminate the “fast-food mentality” many patients have when picking up prescriptions
- Educate patients that pharmacies are dispensing “poisons” and the consequences of incorrectly using them (including sharing them)
- Promote changes to the pharmacy environment which facilitate consultation efficiency and privacy
- Provide medication cards to seniors and patients with chronic conditions, and require pharmacists to look at them when providing consultations on new prescriptions
- Educate consumers about their rights related to a pharmacist consultation and what to ask their pharmacist – “Stop, Look, Listen” campaign.
- Promote consumer education/comprehension on what exactly their prescription is for and why it was prescribed
- Train pharmacy technicians to perform those tasks pharmacist don’t need to be doing (e.g. resolving insurance problems)
- Install video kiosks at pharmacies where patients can obtain important information regarding safe medication use

Pharmacy Breakout:

- Have pharmacies prominently display the pharmacist’s name and picture so patients do not have to question which pharmacy staff person is the pharmacist.
- Do NOT staple bags containing prescriptions
- For new prescriptions, have the clerk or technician ask open ended questions to determine a patient’s need for a consult. For example, “What would you like the pharmacist to tell you about your medication?” vs. “Do you have any questions for the pharmacist?”
- Have the technician or clerk proactively ask the patient “Does this look like your medication?” at *every* refill.
- If a patient is receiving a consult for a new prescription, have the pharmacist examine the medication that was dispensed to verify its accuracy.
- Make it easier for prescription contents to be verified by placing a color picture of the medication on the label, dispensing the medication in a clear container, etc.
- Require that different strengths of medication be distinguished via different colors
- Standardize the use of “tall man lettering” on prescriptions and prescription labels for medications with look-alike names (e.g. CeleBREX to differentiate from CeleXA)
- Relieve pharmacists from burden of dealing with insurance issues by training other staff to handle third-party problems.
- Remove cash registers from pharmacies and e-tag prescriptions to prevent theft
- Implement a fee or tax on medications to create a pool of funds that will pay for consumer education (e.g. public service announcements), medication counseling, etc.

Purchaser and Payer Breakout:

- Leverage existing communications from the government (e.g. California Office of the Patient Advocate) and commercial purchasers and payers to educate consumers about safe medication use practices and services

Appendix 8: Attendees Indicating Interest in Alliance Workgroups

STEERING COMMITTEE

Lura Hawkins, MBA
Director of Member Services
CA Association of Physician Groups

Steven Gray, PharmD
California Pharmacy Quality, Regulatory Compliance
and Professional Affairs Leader
Kaiser Permanente

Nancy Stalker, PharmD
VP of Pharmacy Benefit Management
Blue Shield of California

R. William Soller, PhD
Executive Director, Center for Self Care;
Health Sciences Clinical Professor of Pharmacy,
University of California, San Francisco

Eleanor M. Vogt, RPh, PhD
Health Sciences Clinical Professor of Pharmacy,
University of California, San Francisco

Kristi Dover, PharmD
Senior Area Director
Medical Liaisons/Alliance Outreach
Purdue Pharma

Emily Burton Smith, PharmD
Senior Regional Scientific Manager
AstraZeneca

Sax Wada, PharmD
Corporate Accounts Manager
Daiichi Sankyo, Inc.

Debbie Veale, RPh
Director of Payer Relations
CVS/Pharmacy

Rebecca Cupp, RPh
Vice President of Pharmacy
Ralphs Grocery Company
(A Kroger Company)

Nan Brasmer
President
California Alliance of Retired Americans

Bill Remak, B.Sc. MT, B. Public Health, SGNA,
AHCJ
Steering & Communications Committee Member,
California Chronic Care Coalition

PHARMACY WORKGROUP

Debbie Veale, RPh
Director of Payer Relations
CVS/Pharmacy

Marie McNutt
Regional Office Coordinator
AmerisourceBergen

Marshal Abdullah, PharmD
Pharmacy Resident
Hill Physician's Medical Group

John Qaundah, PharmD
Clinical Pharmacy Coordinator
Sutter Health

Diem Huynh, PharmD
Senior Clinical Coordinator
Blue Shield of California

Daniel Robinson PharmD, FASHP
Dean, Western University College of Pharmacy

Aglaia Panos, PharmD
Pharmacists Planning Service, Inc.

R. William Soller, PhD
Executive Director, Center for Self Care;
Health Sciences Clinical Professor of Pharmacy,
University of California, San Francisco

Averill Gordon, PharmD
Manager, Pharmacy Quality Assurance
The Patient Safety Research Foundation, Inc.
(Patient Safety Organization of Walgreen Co.)

Marie Cottman, PharmD
Pacific Compounding Pharmacy and Consultations

Dennee Frey, PharmD
Lead Pharmacist
Partners in Care Foundation

Lucy Saldana, PharmD
Pharmacist Consultant
Centers for Medicaid & Medicare Services

Carrie Jacobus
Executive Loss Control Consultant
Fireman's Find Insurance Company

MEDICAL OFFICE/PRESCRIBER WORKING GROUP

Marie Cottman, PharmD
Pacific Compounding Pharmacy and Consultations

Dennee Frey, PharmD
Lead Pharmacist
Partners in Care Foundation

Peggy Kaminsky RN,C, MSN
Infection Preventionist - Patient Safety Manager
Palo Alto Medical Foundation

Mark Riggle, PharmD
Assistant Director of the Department of Pharmacy,
UC Davis Medical Center

Marilyn Stebbins, PharmD
Pharmacy Utilization Manager
CHW Medical Foundation/
MedClinic Medical Group

Jim Kuperberg, PhD
Chair, Department of Social, Behavioral &
Administrative Sciences & Associate Professor
Touro University

Dana Faber, BS, RN, CLNC
Regional Patient Safety/Risk Manager
The Doctors Company

Victoria Samper, MS
Program Manager of Ambulatory Care Review
Institute for Medical Quality

Lura Hawkins, MBA
Director of Member Services
CA Association of Physician Groups

Sax Wada, PharmD
Corporate Accounts Manager
Daiichi Sankyo, Inc.

PATIENT AND FAMILY CAREGIVER WORKING GROUP

Emily Burton Smith, PharmD
Senior Regional Scientific Manager
AstraZeneca

Nan Brasmer
President
California Alliance of Retired Americans

Martha Torres-Montoya, MSPH
Health Program Specialist II
CA Office of the Patient Advocate

Fred Mayer, RPh, MPH
President, Pharmacists Planning Service, Inc.

Dennee Frey, PharmD
Lead Pharmacist Partners in Care Foundation

Bill Remak, B.Sc. MT, B. Public Health, SGNA,
AHCJ
Steering & Communications Committee Member,
California Chronic Care Coalition

Marie Cottman, PharmD
Pacific Compounding Pharmacy and Consultations

Victoria Samper, MS
Program Manager of Ambulatory Care Review
Institute for Medical Quality

R. William Soller, PhD
Executive Director, Center for Self Care;
Health Sciences Clinical Professor of Pharmacy,
University of California, San Francisco

Lucy Saldana, PharmD
Pharmacist Consultant
Centers for Medicaid & Medicare Services

Aglaia Panos, PharmD
Pharmacists Planning Service, Inc.

Carrie Jacobus
Executive Loss Control Consultant
Fireman's Find Insurance Company

PAYER/PURCHASER WORKING GROUP

Nancy Stalker, PharmD
VP of Pharmacy Benefit Management
Blue Shield of California

Ambrose Carrejo, PharmD
National Pharmaceutical Contracting Leader
Kaiser Permanente

Patrick Robinson, R.Ph., MBA
Senior Pharmaceutical Consultant
California Public Employees' Retirement System

Diem Huynh, PharmD
Senior Clinical Coordinator
Blue Shield of California

Nan Brasmer
President
California Alliance of Retired Americans

Jim Kuperberg, PhD
Chair, Department of Social, Behavioral &
Administrative Sciences & Associate Professor
Touro University

Fred Mayer, RPh, MPH
President, Pharmacists Planning Service, Inc.

Sax Wada, PharmD
Corporate Accounts Manager
Daiichi Sankyo, Inc.

Marshal Abdullah, PharmD
Pharmacy Resident
Hill Physician's Medical Group

Frank Kurnik
Corporate Account Manager
Amgen

Emily Burton Smith, PharmD
Senior Regional Scientific Manager
AstraZeneca

Martha Torres-Montoya, MSPH
Health Program Specialist II
CA Office of the Patient Advocate

Marie Cottman, PharmD
Pacific Compounding Pharmacy and Consultations

Laura Gross Weiss, MPH
Pharmacy Program Specialist
LA Care Health Plan