



**Center for Health Services Research
and Patient Safety**

Research, Translation, Practice

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Who we are

The Creighton University School of Pharmacy and Health Professions created the Center for Health Services Research and Patient Safety (CHRP) in 2004 to coordinate and support research and training efforts among faculty within an interdisciplinary and collaborative research environment.

The program has grown to university-wide representation by faculty scholars who share a goal of improving patient safety and quality of care.

Program faculty and staff serve

the research interests of patients and consumers, government agencies, health care facilities, health care industry companies, employers, and educators.

Members of CHRP conduct health services research to improve the quality, safety, and efficiency of patient care through the discovery, translation, and dissemination of knowledge.

CHRP faculty members work closely with Dr. Kimberly Galt, Director of CHRP, and Mavis Hall, Program Administrator. Staff members provide additional support as needed. ■

health services research community.

- Facilitate new discovery innovation and improvement in patient safety science and practice.
- Facilitate new and innovative health services research initiatives.
- Provide advanced professional development opportunities for faculty engaged in health service research initiatives.
- Foster interprofessional and multi-disciplinary approaches to productive research.
- Support undergraduate, graduate, and professional students with structured research experiences and education.
- Serve community partners and professionals who serve patients by sharing new knowledge. ■

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Mission Statement:

The Center for Health Services Research and Patient Safety conducts health services research to improve the quality, safety, and efficiency of patient care through the discovery, translation, and dissemination of new knowledge.

Our goals:

- Provide structure and leadership for the development of the Creighton

Creighton UNIVERSITY

**School of Pharmacy
and Health Professions**

From the Director...

Welcome to the Creighton Center for Health Services Research and Patient Safety! (We affectionately refer to ourselves as CHRP, so feel free to do the same!)

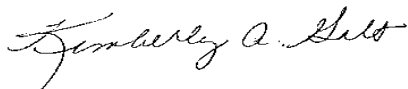
Our goal is to improve health care by reducing harm and injury to our patients, and inform providers and care delivery organizations through our research, education, and practice efforts.

We are a community of researchers, teachers, professionals, administrators, and students who are guided by our social responsibility to achieve these goals, and integrate this belief into our research, teaching, service, and practice.

In this first news brief we are excited to share with you the valuable work that is currently going on within the Creighton community. Learn how we are involved with different community partners who share our values and are working with us to attain our goals. Enjoy learning about the important work that is making a difference for our future.

Please look for future news briefs and join us for the upcoming educational opportunities that we are planning.

Welcome to the CHRP!



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Center for Health Services Research and Patient Safety (CHRP)

Our Services

The following services are offered to Creighton faculty and students:

Computer Lab

- ◆ Access to state-of-the-art technologies supporting faculty, student research and scholarship needs.

Faculty Scholarship Development Program

- ◆ Scholarship development to achieve funding
- ◆ Support for all phases of the grant process

Mini-Intensive Research Development Experience

- ◆ Faculty may apply to participate in research intensive experience with the core CHRP faculty

Student Development Program

- ◆ Students interested in learning the research process are encouraged to pursue elective research rotations and independent study opportunities with participating faculty
- ◆ CHRP provides additional support toward students at the masters and clinical doctorate level of study who need to complete a scholarly project

Statistics and Research Design Consultant Support

- ◆ A resource pool of individuals who have focused expertise in research methods, statistics, and design are available ■

CHRP Faculty Members:

Amy Abbott, Ph.D., RN

Chad Bauerly, M.D.

Shirley Blanchard, Ph.D., OTR/L

James Bothmer, M.A.L.S., A.H.I.P.

J.D. Bramble, Ph.D., M.P.H.

Bartholomew Clark, R.Ph., Ph.D.

Sue Crawford, Ph.D.

Andjela Drincic, M.D.

Kevin Fuji, Pharm.D.

Kimberly Galt, Pharm.D., Ph.D. (c)

Mark Latta, A.B., D.M.D., M.S.

Karen Paschal, PT, DPT, MS

Bill Raynovich, Ed.D., NREMT

Linda Scheirton, Ph.D.

Mark Siracuse, Pharm.D., Ph.D.

Senior Advisory Committee:

J. Chris Bradberry, Pharm.D.

James Bothmer, M.A.L.S., A.H.I.P.

Faculty Focus



Amy Abbott, Ph.D., RN, is an Assistant Professor in the School of Nursing and a Staff Nurse at Creighton University Medical Center in the Adult Intensive Care Unit. Dr. Abbott's research interests include patient safety in nursing education and practice, symptom clusters, symptom management, and health information technology. Although her background is in quantitative research methods including cluster and factor analysis, she has had some experience with mixed methods with the BRIC team. Her recent projects include Transitions in Care and Nursing

Students Perspectives of the Interprofessional Patient Safety Course (IPE 410) for which she received a Scholarship of Teaching and Learning Grant. Dr. Abbott is the faculty advisor for the Creighton University Student Nurses Association. Additionally, she is a member of the International Honor Society of Nursing as well as the American Nurses Association, the Nebraska Nurses Association, and the American Association of Critical Care Nurses.



Chad Bauerly, M.D., is an Assistant Professor of Anesthesiology. He earned a B.S. in chemistry from the University of Tulsa, his M.D. from Creighton University School of Medicine, and is Board Certified in Anesthesiology. He was a Flight Surgeon in the United States Air Force prior to specializing in Anesthesiology. Dr. Bauerly is the director of a Training Resource Center for the National Implementation of TeamSTEPPS. He is a member of the American Society of Anesthesiologists, the Nebraska Society of Anesthesiologists, and the Society of Cardiovascular

Anesthesiologists. Dr. Bauerly participated in the Institute for Latin American Concern in Santiago, Dominican Republic.



Shirley Blanchard, Ph.D., OTR/L, ABDA, is an Associate Professor of Occupational Therapy in the School of Pharmacy and Health Professions. Her research interests include rural health, obesity and depression among ethnic minority women, and adolescent obesity. She has disseminated research results to the National Institute of Health's National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), Athens Institute for Education and Research, Center for Disease Control National Health Summit, the American Public Health Association, and the National Medical Association. She is an invited member to the NIDDK's Network of Minority

Researchers and chairs the Oversight Committee. Dr. Blanchard teaches the following courses: Clinical Conditions, Occupation, Adaptation, and Technology, and Physical Rehabilitation in Occupational Therapy II.



James Bothmer, MALS, is the Director of the Creighton University Health Sciences Library. His research interests include archiving and organizing digital information, knowledge management, health information literacy, and informatics. Mr. Bothmer is the Assistant Vice President of Health Sciences and Director of the Health Sciences Library/Learning Resources Center and serves on the Board of Directors for the Association of Academic Health Sciences Libraries. He recently published in the *Nebraska Library Association Quarterly* and *Evidence Based Library and Information Practice*.



Chris Bradberry, Pharm.D., is the Dean of the School of Pharmacy and Health Professions. He has research interests in dyslipidemias, outcomes of pharmacist management of hypercholesterolemia, compensation for cognitive services, and the application of cardiovascular risk reduction efforts in the ambulatory patient. Dr. Bradberry is an active member of the Board of Directors of the Midwest Lipid Association, a Fellow in the American Society of Health-System Pharmacists, Fellow of the American Pharmacists Association, Fellow of the American Heart Association, and a Diplomate of the Accreditation Council for Clinical Lipidology. He has held offices in local and state pharmacy organizations and national offices in ASHP and the American Association of Colleges of Pharmacy. Dr. Bradberry is active in the APhA, ASHP, ACCP, AACP, the National Lipid Association and the Midwest Lipid Association, the Nebraska Pharmacists Association, the Southwest Iowa Pharmacist's Association, the American Heart Association, and the American Diabetes Association.



JD Bramble, Ph.D., M.P.H., is an Associate Professor in the School of Pharmacy and Health Professions and the Director of the Health Services Administration Certificate Program. Dr. Bramble teaches courses on research methodology and biostatistics, as well as health care management and patient safety. He has been involved in many funded grant projects, published in both books and health science research journals, had book reviews accepted for publication, been an adjunct journal reviewer, and has presented at many conferences and meetings. Dr. Bramble also has a secondary appointment in the School of Medicine's Department of Anesthesiology and holds a CHRP faculty membership since 2004. In addition to teaching courses in biostatistics and research methodology, Dr. Bramble participates in the interprofessional education course "Foundations in Patient Safety."



Bartholomew E. Clark, R.Ph., Ph.D., is an Associate Professor in the School of Pharmacy and Health Professions in the Department of Pharmacy Sciences. Dr. Clark practiced pharmacy in a variety of community and institutional settings. Prior to his Ph.D. work at the University of Wisconsin-Madison, Dr. Clark served as the Professional Affairs Manager for the National Association of Boards of Pharmacy. Dr. Clark's dissertation research examined professional and workplace attributes that contribute to a pharmacist's organizational commitment. His ongoing research interests include: pharmacists' workplaces, work organizations, and professionalism; health services and patient safety; and transparency in the pharmacy benefits management (PBM) industry. His faculty responsibilities at Creighton include teaching in Pharmacy Practice Management, Pharmacy Practice Law, and Foundations in Patient Safety. He serves as a peer reviewer for the journals *Research in Social and Administrative Pharmacy* and *Journal of Pharmacy Teaching*. Dr. Clark is a member of the American Association of Colleges of Pharmacy, the American Pharmacists Association, and the Nebraska Pharmacists Association. He has been published in peer-reviewed and non-peer-reviewed publications.



Sue Crawford, Ph.D., is a Professor in the Department of Political Science and International Relations. She is a Faculty Associate in the Rabbi Myer and Dorothy Kripke Center for the Study of Religion and Society. Her research interests include public policy, religion and politics, and health policy. Dr. Crawford's recent projects include Exploring the Interactions of Community Infrastructures, Health Professionals and Organization, and Consumers about their Health Data—A Mixed Methods Study, Measuring Liberal Religion Project, and consulting work with the City of Omaha. She is a member of the Religions and Politics and Health Policy sections of the American Political Science Association.



Andjela Drincic, M.D., is an Associate Professor in the School of Medicine, division of Endocrinology. She completed her fellowship in Endocrinology and Metabolism at Northwestern University in 1999. Her research interests include patient safety, diabetes, and the pituitary field. Dr. Drincic has worked with the BRIC project and is involved in various clinical research projects in endocrine division. She serves as a Program Director of Endocrinology and Metabolism fellowship. She is a member of the Endocrine Society, the American Association of Clinical Endocrinologists, the American Diabetes Association, the American Association of Clinical Endocrinologists-Midwest Chapter where she serves as the treasurer and is a member of the Board of Directors.



Kevin Fuji, Pharm.D., graduated from the Creighton University School of Pharmacy and Health Professions in 2007 and is in his second year of a Health Services Research Fellowship with an emphasis in Patient Safety. His research interests include patient safety, health information technology, and personal health records. Dr. Fuji's recent projects include Electronic and Personal Health Record Adoption in Pharmacy Practice in Nebraska (ACCP Ambulatory Care PRN Pilot), Pharmacists for Patient Safety (Dyke Anderson Patient Safety) and Exploring the Interaction of

Community Infrastructures, Health Professionals and Organizations, and Consumers about their Health Data (Records) – A Mixed Methods Study. He also is co-coordinator of the IPE 410 Foundations in Patient Safety course. Dr. Fuji utilizes quantitative, qualitative, and mixed methods techniques in his research.



Kimberly Galt, Pharm.D., Ph.D.(c), is Professor of Pharmacy Practice and Associate Dean for Research, School of Pharmacy and Health Professions, and Director of CHRP. She received her professional degrees from the University of Michigan and near completion of her Ph.D. in Qualitative, Quantitative, Psychometric and Mixed Methods from the University of Nebraska-Lincoln. She has extensive research and publishing experience in her career; with more than 60 publications and technical reports for use in translation of research to practice and policy and a funded

research record exceeding 3 million dollars. Her post-graduate training has emphasized outcomes research, patient safety, and continuous quality improvement and management, integration of computing technologies into research, teaching and clinical healthcare practice uses within the health professions, and research methods. As a methodologist she focuses on the use of qualitative, quantitative and mixed methods as research methodologies applied in health services delivery and research and program evaluation. She has developed and managed pharmacist's primary care consultative ambulatory practice sites in the private and Veterans Affairs systems, supervised specialized drug information and clinical pharmacy services, and practiced general hospital, community and long-term care pharmacy. She is actively conducting research in patient safety with an emphasis on the impact of health information technology. She has held appointments as a member of the Health Information Technology National Resource Center Steering Committee for the Agency for Healthcare Research and Quality (2005-2008); served as a study section member; and an expert panel member; and Special Emphasis Panel reviewer for AHRQ and NIH. Dr. Galt chaired the Inter-professional Taskforce to Develop a Patient Safety Curriculum for Creighton University involving 18 individuals from a variety of health and professional disciplines resulting in a campus-wide offering to Creighton student's now in its fifth year.



Mark Latta, DMD, is Associate Dean for Research, Professor of General Dentistry and Director of the Center for Oral Health Research in the School of Dentistry. His special interests include translational and clinical research of dental materials and devices, caries diagnostics, polymer chemistry of dental materials, and relationships between oral health and systemic disease. He primarily uses quantitative methods in research. His recent projects include Clinical Evaluation of Tooth Colored Restorative Dental Materials and Dental Adhesives and the Development of Novel Bio-mimetic Dental Materials.



Karen Paschal, PT, DPT, MS, is an Associate Professor at Creighton University in the School of Pharmacy and Health Professions, Department of Physical Therapy. She has participated as a member of interdisciplinary teams to design and implement interdisciplinary clinical care models, education and research. Her research interests include health services issues related to the adoption and use of health information technology, consumer access to health information, and patient safety utilizing qualitative and mixed methods. Dr. Paschal's recent projects include physician adoption of electronic health records in ambulatory care clinics in Nebraska and South Dakota and the access and use of health information by community leaders, health professionals and consumers in rural communities. She serves as co-chair of the education subcommittee of the Health Information Security and Privacy Work Group and a member of the Personal Health Record Work Group of the Nebraska e-Health Council.



Bill Raynovich, EdD, MPH, NREMT, is an Associate Professor and Director of Creighton's Emergency Medical Services Education Program. His research and scholarship interests include emergency medical services clinical care, leadership, management and education. He also has interests in public health and disaster management. Dr. Raynovich has conducted research using surveys, naturalistic inquiries, and action research methods, as well as participating in several experimental clinical research projects. He is currently working on research projects involving the expansion of the scope of practice of rural and critical care paramedics and he has recently completed a nationwide survey regarding the education and practices in critical care transport.



Linda Scheirton, Ph.D., is the Associate Dean for Academic Affairs in the School of Pharmacy and Health Professions at Creighton University. She holds academic appointments as an Associate Professor in the Doctor of Occupational Therapy Program, Physical Therapy Program, and Pharmacy Program; and a Clinical Associate Professor in the Department of Periodontics in the School of Dentistry. Dr. Scheirton is a Faculty Associate in the Center for Health Policy and Ethics. Her research interests include bioethics, hospital ethics committees, moral management of practitioner errors, patient safety, Alzheimer's disease and its ethical implications, and ethics of health care advertising. Dr. Scheirton has interdisciplinary experience in health care ethics, health care administration, clinical practice, academic teaching, and university administration. She has participated in the ethics consultation service for three hospital ethics committees. Her most recent research effort focuses on error reduction in occupational therapy and physical therapy practice as well as the moral management of practitioner errors. She has written textbook chapters, journal articles, and training manuals on patient safety. Dr. Scheirton is also the CHRP Patient Safety Organization Coordinator.



Mark Siracuse, Pharm.D., Ph.D., is an Associate Professor in the School of Pharmacy and Health Professions in the department of Pharmacy Sciences. His research interests include economic and public policy issues related to pharmaceuticals, patient safety, health information technology, pharmacy student issues, and medication therapy management. When researching he utilizes factor analysis, structural equation modeling, multiple linear regression, descriptive analysis, and mixed methods. Dr. Siracuse's recent projects include State of Patient Safety in Nebraska Pharmacy, Status of Health Information Technology in South Dakota: Focus on Electronic Health Records in Physician Offices, and Status of Health Information Technology in Nebraska: Focus on Electronic Health Records in Physician Offices. He is a member of the Editorial Advisory Board for the Journal of the American Pharmacists Association and the Chair for the e-prescribing work group of the Nebraska e-Health Council.

Projects

Electronic Medical Record Studies in Nebraska and South Dakota

Studies were conducted by CHRP in Nebraska and South Dakota to determine the statuses of electronic health record (EHR) adoption in office-based physician practices. The purposes of the projects were to improve patient safety, enhance quality and efficiency within the health care system, and report the status of EHR adoption and user characteristics for use by the medical professionals and their associations.

The adoption of EHRs is a key component of patient safety and health care quality improvement in medical practice. The Office of the National Coordinator for Health Information Technology encourages universal EHR adoption by 2014. National research has estimated that 17-25% of physician practices currently use EHRs and that EHR implementation differs in the context of practice size. Only 12% of smaller practices (five physicians or fewer) reported using an EHR, while 19% of practices with more than ten physicians reported using an EHR. A Massachusetts state survey found that practices with greater number of physicians were more likely to have an EHR implemented. EHR use was more common in hospital-based practices or in practices involved in medical resident teaching.

These projects will help physician practices evaluate their readiness to adopt an EHR, evaluate and improve their workflow and business processes to identify opportunities for a more successful transition to an electronically based system, and learn more about health information technologies (HITs) that enhance

medical care. The use of various forms of HITs, with a concentration on the adoption and use of EHRs from three stages of adoption (using an EHR, planning to use, and no plans to use) were explored.

Both reports can be accessed on the CHRP web site. ■

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Acknowledgement of sponsors:

Nebraska:

This project is sponsored by the grant “Enhancing Clinical Practices through the Adoption of Health Information Technology in Nebraska” from the Nebraska Medical Association/Foundation, and in part by grant no. 1P20 HS015816 Galt, K.A., (PI) Building Research Infrastructure Capacity from the Agency for Healthcare Research and Quality (AHRQ).

South Dakota:

This project is sponsored in part by the Creighton Health Futures Foundation and in part by grant no. 1P20 HS015816 Galt, K.A., (PI) Building Research Infrastructure Capacity from the Agency for Healthcare Research and Quality (AHRQ).

Paramedic Critical Care

Dr. Bill Raynovich and Jason Hums conducted a study focused on actively practicing paramedics who provide critical care transports. This survey explored the number of paramedics actively providing critical care transport services, additional training or certifications required for critical care transporters, and the comfort level of paramedics performing critical care transports concerning skills and equipment used in transport.

A total of 640 surveys were returned, a 30.6% completion rate, and 52% indicated they currently practice as a transporting paramedic who provides critical care transport services. Of these, 60% indicated that additional training and certifications were required.

The study's findings show that only 31.5% of critical care transport falls within standard ALS procedures. Paramedics are often the only members of critical care transport teams who provide care for critical care patients who lack additional, formal education or training.

Many paramedics had a median of five years of critical care experience and frequently reported being comfortable in their role as a primary care provider. Within one of two years of completing their primary training many paramedics reported engaging in critical care transports. A large number of paramedics also reported doing skills and administering medications not in the standard scope of paramedic practice for which they had not received any additional training. The data showed a strong correlation with comfort levels and the frequency with which skills were performed and medications were administered.

This project was presented at the Air Medical Transport Conference on October 20, 2008. ■

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Acknowledgement of sponsors:

This project was sponsored through CHRP.

The National Registry of Emergency Medical Technicians provided a randomly selected sample of 2000 nationally registered paramedics from which the study sample was drawn.

State of Patient Safety in Nebraska Pharmacy

Drs. Kimberly Galt and Kevin Fuji are serving as co-PIs on the “Pharmacists for Patient Safety” project selected by the Nebraska State Board of Pharmacy as part of a grant opportunity initiated in honor of Mr. Dyke Anderson, dedicated professional to pharmacists and their patients.

The 1999 Institute of Medicine reports “To Err is Human” and “Preventing Medication Errors” focused on improving patient safety and the safety problem involving medication errors.¹ Pharmacists play an instrumental role in patient safety as health professionals who have, arguably, the most interaction and easiest access to patients. Medication therapy management and new technologies introduced in practice (e.g., e-prescribing) are forcing pharmacists to reassess their use of time and confront potential errors created by the new procedures and technologies.

The purpose of this project was to understand the different safety issues Nebraska pharmacists faced. This report was intended to inform Nebraska pharmacists, patients, health professionals, policy makers, scientists, and other stakeholders about these findings. This report also sought to develop practice improvement recommendations and disseminate these findings to facilitate implementation of best patient safety practices for pharmacists, their patients, and Nebraska health professionals.

The survey was sent to 2,195 pharmacists who maintain a Nebraska pharmacist’s license; 535 respondents (24.4%) indicated they actively practice pharmacy in Nebraska. A total of 250 pharmacists shared patient safety stories communicated to them by patients. The majority of patient stories focused on generic

medication names and their appearance differing from those of brand name medications. This often caused the patient confusion and mistrust.

Pharmacists described their own safety stories (362) ranging from errors to near misses. The largest safety concern reported by pharmacists was the wrong drug and wrong drug dose almost being dispensed. Pharmacist workload and medication reconciliation/polypharmacy were cited as the top two safety issues facing pharmacists as reported by pharmacists.

The entire report is available on the CHRP web site. ■

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Acknowledgement of sponsors:

This project is being supported by the grant “Pharmacists for Patient Safety” through the Dyke Anderson Patient Safety Grant—State Board of Pharmacy, Nebraska Health and Human Services. Partial support is also being contributed through the Nebraska Office of Rural Health.



¹ Institute of Medicine. *To Err is Human: Building a Safer Health System*. Washington, DC: National Academy Press, 1999. Available at <http://www.nap.edu>. Accessed September 2007.

Exploring the Interactions of Nebraska Community Infrastructures and Organizations, and Consumers about Personal Health Data and Health Information

Providers, organizations, and patients are making the gradual change from paper-based record keeping and communication system to an electronic, paperless system. This transformation is widely regarded as improving the interprofessional use of patient health information to improve the quality of care and reduce harm and injury to health care consumers. This transition touches the entire societal community infrastructure framework. Volumes of research are focused on health care systems and organizations, but little is known about citizen knowledge and viewpoints within the local community.

This project studied the consumers point of view concerning the tracking and seeking of health information through the availability and use community infrastructure including religious affiliations, health information technologies, health professions, and organization. The consumer points of view about the privacy needs regarding their personal, sensitive health information were also studied. The contrasts between patient knowledge and experience, what health professionals and health organizations offer, and what community infrastructure provides were powerful. In health information management consumers have low knowledge and high needs. Community models that empower patients to know and use their rights to improve the quality of health care provided need to be understood and described.

A total of 2,119 individuals responded (51%).

A report of findings is being developed and will be available on the CHRP web site upon completion. ■

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Acknowledgement of sponsors:

This project is sponsored by the Nebraska Department of Health & Human Services, Division of Public Health Contract #34085-04 and in part by Creighton Health Services Research Program (CHRP).

Patient Safety

Faculty members within CHRP have a strong interest in patient safety. Patient safety is a common theme amongst the active projects.

Projects

Projects with a patient safety focus include:

- ◆ Building Research Infrastructure Capacity (BRIC)
- ◆ Pharmacists for Patient Safety
- ◆ Exploring the Interaction of Community Infrastructures, Health Professionals and Organizations, and Consumers about their Health Data (Records) - A Mixed Methods Study
- ◆ Care Transitions Project of CIMRO of Nebraska
- ◆ Creation and Use of a Patient Safety Center for Rural and Isolated Health Care Practitioners Engaged in Improving their Patient's Safety

Foundations for Patient Safety Interprofessionalism Course

Drs. Kimberly Galt and Kevin Fuji co-coordinated the course titled IPE410 Foundations in Patient Safety. Amy Abbott, Ph.D., R.N., J. Chris Bradberry, Pharm.D., J.D. Bramble, Ph.D., Andjela Drincic, M.D., Bartholomew Clark, Ph.D., John Gleason, DEA, Janet Graves, Ph.D., R.N., Barbara Harris, Ph.D., MSW, Catherine Mahern, J.D., Keli Mu, OT, Ph.D., Richard O'Brien, M.D., Karen Paschal, DPT, and Linda Scheirton, Ph.D. are involved in teaching roles in this course. Students across all health sciences professions enroll in this course.

Dissemination

The CHRP faculty are advancing the translation of the research findings into practice through a variety of dissemination routes. Faculty members disseminate their findings from projects and the patient safety course in peer-reviewed journals, posters, and presentations at national conferences. Research is also conducted with the explicit goal of advising consumers, practitioners, and policy makers about improvements in care delivery.

Student Research

Faculty members work with students on patient safety related projects. These projects were disseminated at the St. Albert's Day forum on March 31, 2009.

Electronic Health Records

Another focus of CHRP faculty is electronic health records. These projects explore the status of electronic health record adoption and how its use impacts patient safety. Studies have been conducted for both Nebraska and South Dakota under combined research grants and contracts from AHRQ and the respective state medical associations.

Committee Work

CHRP faculty members participate on committees and boards with specific interests in patient safety and electronic health record adoption. ■

Patient Safety Organization

Is patient safety on your mind? If not, it likely will be after reading the Institute of Medicine's report, *To Err is Human*. According to the report, errors are the fifth-leading cause of death in the United States, totaling up to 98,000 deaths annually. The magnitude of this problem is arresting. If patient safety is buzzing around your head there's good news: Patient Safety Organizations (PSOs) are being formed to address and offer solutions to these errors. The Center for Health Services Research and Patient Safety (CHRP) at Creighton University announced its formal PSO listing, one of the first 50 institutions certified as a national PSO by the Agency for Healthcare Research and Quality.

So, what is a PSO? A PSO is a public or private organization that collects, aggregates, and analyzes information related to quality and safety of the care provided in any health care setting. Voluntarily created under the Patient Safety and Quality Improvement Act of 2005, these organizations establish a framework for healthcare providers to report errors, "near misses," or other adverse patient safety events that cause harm to patients. A key component of a PSO is the privacy protections it offers for reporting errors. Reporting remains confidential and cannot be used in liability cases. Practitioners are more likely to report errors when the process results in practice change and improvement rather than being linked to punitive action. The CHRP PSO will apply uniform and consistent de-identification protocols to all patient safety event data it receives.



The CHRP PSO was awarded PSO status in February 2009. The mission of the CHRP PSO is to assist patients, health care practitioners, and provider organizations to

minimize risk and avoidable harm through improvement of health service utilization and practices. To fulfill our mission, the CHRP PSO will provide a variety of avenues in which to disseminate patient safety information and report safety errors.

The learning needs of rural and isolated practitioners in all fields of health care are of high priority and interest to us, as well as, the various health care entities and organizations they provide services from. There are shared needs amongst us to learn how to improve the ways we can deliver safe care.

We have chosen to highlight areas of work. One area of focused CHRP PSO interest is medication error reporting and practice improvement in safety. The Institute of Medicine's report, *Preventing Medication Errors*, identified pharmacists and pharmacy services as a key area where medication error reduction and prevention is needed. Errors that cause harm include physicians writing prescriptions that could interact dangerously with other drugs a patient is taking, nurses putting the wrong medication – or wrong dose – in an intravenous drip and pharmacists calculating the dose incorrectly resulting from the misplacement of a decimal. Quality improvement is the one incentive health care practitioners have to report to PSOs. It is the shared goal of all PSOs to improve the safety and quality of health care delivery.

CHRP has been addressing the topic of improving patient safety in pharmacy practice with its "Pharmacists for Patient Safety" project.¹ The project, which implemented an accelerated model for safety problem identification and solution

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sharing among pharmacists within their local communities, strives to create a communication community between rural and urban pharmacists in various Nebraskan pharmacies to simplify the process of reporting a problem and receiving a network wide disseminated solution.

The State of Patient Safety in Nebraska Pharmacy is a report recently produced by the CHRP. The report was created to disseminate information about patient safety issues Nebraska pharmacists and their patients face across various practice settings and locations. A survey was sent to all Nebraska pharmacists and 24% responded with information concerning personal and electronic health records, safety improvements, and problems with practice-specific technologies, culture, workload, training, and new pharmaceutical product safety problems. Nearly half the respondents reported a story conveyed by a patient addressing safety concerns.

The State of Patient Safety in Nebraska Pharmacy's findings suggest pharmacists want to engage in communication about safety concerns and participate in an information sharing and learning network that improves patient safety in their practices. The findings also suggest the need to develop a rapid dissemination system to relay potential solutions for local practice incorporation. These findings, and the establishment of the CHRP PSO, will offer possible solutions to the problems isolated rural practitioners encounter. Through the organization, solutions will be developed and disseminated to address and minimize the errors and near misses encountered.

The CHRP PSO can be found on the Agency for Healthcare Research and Quality's PSO website at www.pso.ahrq.gov. ■

¹The "Pharmacists for Patient Safety" research was funded through the Dyke Anderson Patient Safety Grant and the Nebraska Department of Health and Human Services. Partial funding was contributed through the Nebraska Office of Rural health.

If working with our PSO is a shared interest, we would like to hear from you.

Contact: Linda Scheirton, Ph.D., CHRP PSO Coordinator; or Mavis Hall, B.S. at 402-280-5172 or via email at mavishall@creighton.edu

Patient Safety Expert Panel Reviewers

Linda Scheirton, Ph.D., PSO, Coordinator

Areas of Expertise: She has focused expertise in the moral management of patient error: disclosure, apology and reparation. Current research efforts include the study of practitioner errors in occupational therapy and physical therapy practice.

Kimberly Galt, Pharm.D., Ph.D.(c), F.A.S.H.P.

Areas of Expertise: She has focused expertise in the areas of health information technologies and e-Health, information exchange, clinical decision and evidence-based support, medication therapy management and communication.

Amy Abbott, Ph.D., RN

Areas of Expertise: Her research interests and focused expertise are in the areas of patient safety, health information technology, and symptom management in cardiac populations.

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James D. Bramble, Ph.D.

Areas of Expertise: He has expertise and experience in the areas of health information technologies and patient safety. He is currently involved in the National Implementation of TeamSTEPPS, an evidence-based system to improve the communication and teamwork skills of health care professionals with the aim of optimizing patient outcomes and improving patient safety.

Bartholomew Clark, R.Ph., Ph.D.

Areas of Expertise: His research interests include personal and pharmacy workplace attributes that contribute to a pharmacists' sense of workplace control, to their organizational commitment and to patient safety; and revenue streams in the pharmacy benefit management (PBM) industry.

Teresa Cochran, P.T., D.P.T., G.C.S., M.A.

Areas of Expertise: Her research interest include exploring practice errors in rehabilitation, access to rehabilitation for vulnerable groups, and prevention of chronic conditions and disability.

Andjela Drincic, M.D.

Areas of Expertise: She has focused expertise in the areas of hospital medication safety (specifically insulin safety), clinical decision and evidence-based support (medication protocol development), medication therapy management, and health information technologies.

Kevin Fuji, Pharm.D.

Areas of Expertise: He has expertise in the areas of patient safety and health information technology, with a focus on personal health records.

Helene Lohman, O.T.D., O.T.R/L.

Areas of Expertise: She has focused expertise in the areas of occupational and physical therapy practitioner error and patient safety.

Keli Mu, Ph.D., O.T.R/L

Areas of Expertise: He has research expertise in practitioner errors in rehabilitation and evidence-based practice.

Karen Paschal, P.T., D.P.T., M.S.

Areas of Expertise: She has focused expertise in the areas of fall prevention, health information technology, information exchange, and consumer advocacy.

Mark Siracuse, Pharm.D., Ph.D.

Areas of Expertise: He has expertise in the areas of e-prescribing, electronic health records, health information technologies and medication therapy management. ■

Research Development

A core team of faculty members participated in the Building Research Infrastructure (BRIC) program funded through the federal Agency for Healthcare Research and Quality (AHRQ).

These members included:

- ◆ Amy Abbott, Ph.D., RN
- ◆ James D. Bramble, Ph.D., M.P.H.
- ◆ Andjela Drinic, M.D.
- ◆ Kevin Fuji, Pharm.D.
- ◆ Kimberly Galt, Pharm.D., Ph.D. (c)
- ◆ Karen Paschal, PT, DPT, MS
- ◆ Mark Siracuse, Pharm.D., Ph.D.

They have worked together on several research projects including developing survey instruments, conducting surveys, analyzing information, developing reports, posters, and presentations. Group members have also worked together writing articles and manuscripts.

Dissemination

Items disseminated by the BRIC team include:

- ◆ AHRQ Annual Meeting, Gaithersburg, MD, September 2008
 - *BRIC Program Case Study Creighton Health Services Research Program*
- ◆ AcademyHealth Annual Research Meeting, Washington D.C., June 2008

Poster presentations

- *Electronic Health Record Adoption and Patient Safety*
- *Organizational Factors Associated with Implementing Electronic Health Records*

- *Physician Acceptance of Health Information Technology in Nebraska: Testing Model Applicability*
- *Physician EHR Adoption and ePrescribing in Nebraska*
- *The State of Electronic Health Records in Nebraska: Adoption, Barriers, and Applications*

Presentation

- Invited Presentation to HIT interest group

- ◆ Nebraska Medical Association, June 2008
 - *Status of HIT in Nebraska: Focus on Electronic Health Records in Physician Offices*

Projects

Team members completed work for the Health Information Security and Privacy Committee in exploring the security and privacy issues and health information interoperability in the state of Nebraska. Reports generated as a result of this work include:

- ◆ *Survey of Health/Licensure/Certification and Facilities Oversight Board Managers*
- ◆ *Survey of Health Professions Organizations Leadership*
- ◆ *Study of Consumer View Points on Health Information, Security and Privacy*
- ◆ *Security and Privacy Barriers to Health Information Interoperability*
- ◆ *Recommendations Summary*

The reports can be viewed on the CHRP web site.

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Team members completed studies with the Nebraska Medical Association and the South Dakota State Medical Association to describe the state of electronic health record (EHR) adoption in physician office-based practices within the states of Nebraska and South Dakota.

Reports generated as a result of this work include:

- ◆ *Electronic Health Records and HIT in Nebraska—2007*
- ◆ *Electronic Health Records and HIT in South Dakota—2008*

The reports can be viewed on the CHRP web site.



Dissemination

National Presentations

- ◆ Dr. Kimberly Galt was invited to speak at the AHRQ 2008 Annual Conference on BRIC Program Case Study in September 2008.
- ◆ Dr. Kimberly Galt spoke at the National Conference on Medication Access, Use, and Safety in Rural America on June 5, 2008.
- ◆ CHRP core faculty (Drs. Amy Abbott, J.D. Bramble, Andjela Drincic, Kevin Fuji, Kimberly Galt, Karen Paschal, and Mark Siracuse) presented five posters related to Health Information Technology, Quality and Safety at the June 2008 AcademyHealth Annual Research Meeting.
- ◆ Dr. William Raynovich was invited to speak at the Air Medical Transport Conference on Critical Care Transport in October 2008.
- ◆ Dr. J.D. Bramble spoke on the TeamSTEPS/QIO project in October 2008.
- ◆ Dr. Kimberly Galt was invited to speak at the Enhancing the Rigor and Utility of Medication Use Research A Consensus Development Conference hosted by the AACP in January 2009.
- ◆ Drs. Mark Siracuse and Kimberly Galt spoke at the Nebraska Pharmacists Association Board Meeting in February 2009.
- ◆ Dr. Kimberly Galt was invited to present a Mixed Methods Research Workshop at the APhA Annual Meeting & Exposition in San Antonio Texas in April 2009.
- ◆ Dr. Kevin Fuji was invited to speak at the ACCP International Congress Ambulatory Care PRN Meeting in April 2009.
- ◆ CHRP core faculty (Drs. Mark Siracuse, Kimberly Galt, Bart Clark, Andjela Drincic, J.D. Bramble, Amy Abbott, Karen Paschal, and Kevin Fuji) presented a poster related to “The Role of Health Information Technology in Enhancing Patient Safety Through the Medication Use Process” at the American Pharmacists Association (APhA) Annual Meeting & Exposition, San Antonio, TX, April, 2009.
- ◆ Drs. Amy Abbott, Kevin Fuji, Joan Norris, Kim Galt will present a poster related to “Barriers and Consequences of Care Transitions: Who Dropped the Ball?” at Academy Health Annual Research Meeting, Chicago, IL, June, 2009.

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- ◆ Drs. Kevin Fuji, Amy Abbott, Joan Norris, and Kim Galt will present a poster related to “Processes in Care Transitions from Patient and Provider Perspectives: A Mixed Methods Study” at Academy Health Annual Research Meeting, Chicago, IL, June, 2009.
- ◆ Drs. J.D. Bramble, Mark Siracuse, Kim Galt, Karen Paschal, Andjela Drincic, Amy Abbott, Kevin Fuji, will present a poster related to “Electronic Health Records: The Gap Between Desirability and Availability of Functions” at Academy Health Annual Research Meeting, Chicago, IL, June, 2009.
- ◆ Drs. Mark Siracuse, Kim Galt, J.D. Bramble, Andjela Drincic, Karen Paschal, Amy Abbott, and Kevin Fuji will present a poster relating to “E-prescribing: Will Medicare Incentives be Enough to Encourage Adoption by Physicians?” at Academy Health Annual Research Meeting, Chicago, IL, June, 2009.
- ◆ Drs. Kevin Fuji, Kim Galt, Andjela Drincic, Mark Siracuse, Karen Paschal, Amy Abbott, J.D. Bramble, will present a poster related to “How Pharmacists and Physicians Perceive their

Patients’ Use of Personal Health Records” at Academy Health Annual Research Meeting, Chicago, IL, June, 2009. ■

Publications

- ◆ Abbott, A., Schwartz, M., Hercinger, M., Miller, C., & Foyt, M (2008, Jan-Feb). Predictors of success on National Council Licensure Examination for registered nurses for accelerated baccalaureate nursing graduates. *Nurse Educator*, 33 (1), 5-6.
- ◆ Blanchard, S. (2009). Variables associated with obesity among African American women in Omaha. *American Journal of Occupational Therapy*, 63(1), 58-68.
- ◆ Bramble, J.D., Siracuse, M.V., Galt, K.A., Rule, A.M., & Clark, B.E. (2008, August). Examining Barriers to Health Information Technology (HIT) Adoption. *Advances in Health Care Management*, 7, 191-209.
- ◆ Clark, B.E., & Mount, J.K. (2006). Pharmacy service orientation: A measure of organizational culture in pharmacy practice sites. *Res. Social Adm. Pharm.*, 2(1), 110-128.
- ◆ Fuji, K.T., Galt, K.A., & Serocca, A.B. (2008). Personal Health Record Use by Patients as Perceived by Ambulatory Care Physicians in Nebraska and South Dakota: A Cross-Sectional Study. *Perspectives in Health Information Management*, 5, 15.
- ◆ Fuji, K.T., & Galt, K.A. (2009). Research Training Skills Development for the Doctor of Pharmacy in U.S. Schools of Pharmacy: A Descriptive Study. *International Journal of Pharmacy Practice*, 17(2), 115-120.
- ◆ Fuji, K.T., & Galt, K.A. (2008). Pharmacists and Health Information Technology to Improve Patient Safety. *HealthCare Ethics Committee Forum: An Interprofessional Journal on Healthcare Institutions’ Ethical and Legal Issues*, 20(3), 259-275.
- ◆ Galt, K.A., Paschal, K.A., Abbott, A., Drincic, A., Siracuse, M.V., Bramble, J.D., & Rule, A. (2008, August). Privacy, security, and the national health information network: A mixed methods case study of state level stakeholders awareness. *Advances in Health Care Management*, 7, 165-189.

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- ◆ Siracuse, M.V., & Vuchetich, P.J. (2008). Impact of Medicaid Prior Authorization Requirement for COX-2 Inhibitor Drugs in Nebraska. *Journal of Health Services Research, 43 (1, Part 2)*, 435-450.
- ◆ Siracuse, M.V., Clark, B.E., & Garis, R.I. (2008). Undocumented source of pharmacy benefit manager revenue. *American Journal of Health System Pharmacy, 65 (6)*, 552-557.
- ◆ Siracuse, M.V., Schondelmeyer, S.W., Hadsall, R.S., & Schommer, J.C. (2008). Third-Year Pharmacy Students' Work Experience and Attitudes and Perceptions of the Pharmacy Profession. *Am J Pharm Educ, 72(3)*, Article 50.
- ◆ Siracuse, M.V., & Sowell, J.G. (2008). Doctor of Pharmacy Students' Use of Personal Digital Assistants. *Am J Pharm Educ, 72(1)*, Article 7. ■

Grants

- ◆ Abbott A.A., Fuji, K.T., Galt K.A., Paschal K.A. Exploring the Value of an Interprofessional Patient Safety Education Course to Nursing Students: A Mixed Methods Study. Creighton University, Office for Academic Excellence and Assessment. Awarded February 2009. Award amount: \$1,485.
- ◆ Clark, B.E. (PI), Garis, R.I. (I). Comparison of Mail-Order and Community-Based Prescription Costs: Is Mail-Order the Bargain that Some Pharmacy Benefit Managers Purport It to Be? School of Pharmacy and Health Professions Faculty Research Development Grant Program 2004 Faculty Research Development awarded November 2004. Award amount: \$13,250.
- ◆ Fuji, K.T., Galt, K.A. Electronic Health Record Adoption in Pharmacy Practice. American Colleges of Clinical Pharmacy. Awarded April 2008. Award amount: \$2,000
- ◆ Galt, K.A. Study analysis of citizens perceptions of the implications of personal health records (PHRs) and electronic health records (EHRs). State of Nebraska – Department of Health and Human Services awarded June 2008. Award amount: \$14,000.
- ◆ Galt, K.A. Care Transitions Project of CIMRO of Nebraska. Health and Human Services awarded January 2008. Award amount: \$70,000.
- ◆ Galt, K.A. Pharmacists for Patient Safety. State of Nebraska – Department of Health and Human Services awarded April 2008. Award amount: \$15,000.
- ◆ Galt, K.A., Fuji, K.T., Paschal, K.A., Crawford, S. Exploring the Interaction of Community Infrastructures, Health Professionals and Organizations, and Consumers about their Health Data (Records) - A Mixed Methods Study. State of Nebraska, Office of Rural Health awarded January 2008. Award amount \$15,000.
- ◆ Galt, K.A. Creation and Use of a Patient Safety Center for Rural and Isolated Health Care Practitioners Engaged in Improving their Patient's Safety. Health and Human Services State Office of Rural Health Program. Awarded February 2009. Award amount: \$8,100.00. ■

Recognition



Dr. Andjela Drincic has been awarded tenure and promoted to Associate Professor in the School of Medicine.



Dr. Kevin Fuji was awarded the second annual Ambulatory PRN New Investigator Award seed grant for his project, "Electronic Health Record Adoption in Pharmacy Practice." He most recently presented his work at the American College of Clinical Pharmacists International Congress Ambulatory Care PRN Meeting held on April 26, 2009 in Orlando, Florida.



Dr. Kimberly Galt received the "Distinguished Service Award for Section of Clinical Specialists and Scientists for 2008" from the American Society of Health System Pharmacists (ASHP). She is finishing her 5 year term as a study section reviewer for AHRQ in June of 2009.



Dr. Karen Paschal was elected to the Nominating Committee of the American Physical Therapy Association at the 2008 APTA House of Delegates meeting in San Antonio. She continues to serve on the Commission on Accreditation in Physical Therapy Education as elected Chair for 2009-2010. Her term expires in 2011.



Dr. Mark Siracuse published an article in a *Health Services Research* special issue on State-Level Health Service Delivery, Access, and Practice: Improving Research and Policy. His article is titled: *Impact of Medicaid Prior Authorization Requirement for COX-2 Inhibitor Drugs in Nebraska*. It was co-authored with Phillip J. Vuchetich. He was appointed to a 3-year term on the Editorial Advisory Board for the *Journal of the American Pharmacists Association*. He received the Scholarly Achievement Award from the Creighton University School of Pharmacy and Health Professions in 2008. He has been awarded tenure and promoted to Associate Professor in the School of Pharmacy and Health Professions.

Technical Reports

The following is a listing of the technical reports generated by the Center for Health Services Research and Patient Safety (CHRP) Faculty:

Electronic Health Records and HIT in Nebraska—2007

http://chrp.creighton.edu/Documents/EHR_Report/Status_of_Health_Information_Technology_in_Nebraska_March_2008.pdf

Electronic Health Records and HIT in South Dakota—2008

http://chrp.creighton.edu/Documents/EHR_Report/Status_of_Health_Information_Technology_in_South%20Dakota_May_2008.pdf

HISPC: Survey of Health/Licensure/Certification and Facilities Oversight Board Managers

http://chrp.creighton.edu/Documents/HISPC_Report_1.pdf

HISPC: Survey of Health Professions Organizations Leadership

http://chrp.creighton.edu/Documents/HISPC_Report_2.pdf

HISPC: Study of Consumer View Points on Health Information, Security, and Privacy

http://chrp.creighton.edu/Documents/HISPC_Report_3.pdf

HISPC: Security and Privacy Barriers to Health Information Interoperability

http://chrp.creighton.edu/Documents/Final_HISPC_Report.pdf

HISPC: Recommendations Summary

http://chrp.creighton.edu/Documents/Final_HISPC_Report_Recommendations_Summary.pdf

State of Patient Safety in Nebraska—2008

http://chrp.creighton.edu/Documents/Dyke_Anderson_Report/State_of_Patient_Safety_in_Nebraska_Pharmacy_December_2008.pdf ■

Courses

Foundations in Patient Safety, an interprofessional course which studies the science of safe health care, is offered to students from the various health science schools during the spring term.

Twenty-seven students participated in the spring 2009 course.

Kimberly Galt, Pharm.D. Ph.D. (c) , Professor of Pharmacy Practice and Kevin Fuji, Pharm.D., Instructor and Research Fellow, School of Pharmacy and Health Professions Office of Research, taught the spring 2009 course. ■

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