

Weaving the Fabric of Patient Safety in Colorado

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Executive Summary

As Colorado and the nation wrestle with policy solutions to reform health care, quality is increasingly at the forefront of many discussions. Considered a means to lower costs and improve health outcomes, quality improvement involves a number of key areas including patient safety.

While health care providers have long dedicated themselves to caring for patients and preventing harm, the issue of patient safety has received increased focus over the past decade. During this time, numerous efforts have been designed and implemented nationwide and in Colorado to prevent medical harm and save lives.

Weaving the Fabric of Patient Safety in Colorado is a statewide agenda for Colorado. The information was developed by the Colorado Patient Safety Leadership Task Force with support from The Colorado Trust, a statewide grantmaking foundation dedicated to achieving access to health for all Coloradans. The Colorado Patient Safety Coalition (CPSC) convened the task force in 2008 to develop a unified agenda for patient safety activities, establishing goals and objectives to influence and inform patient safety policy and programs in Colorado. The task force identified three foundational elements of a patient safety agenda for Colorado:

I. Embed patient safety in Colorado's health care

In an effective culture of safety, the prevention of harm is incorporated into daily routines. People are not merely encouraged to work toward change; they take action when it is needed. Inaction in the face of safety problems is not acceptable, and eventually the persistent pressure to take action is inescapable and comes from all directions — from peers as well as leaders.¹ Organizations with a true culture of safety focus upon effective systems and teamwork to accomplish the mutual goal of safe, high-quality performance. When something goes wrong, the

¹ Institute for Healthcare Improvement, accessed at <http://www.ihl.org/IHI/Topics/PatientSafety/SafetyGeneral/Changes/Develop+a+Culture+of+Safety.htm>, 12/3/2008.

focus is on what, rather than who, is the problem. The intent is to bring process failures and system issues to light, and to solve them in a non-biased/non-threatening way.²

For a culture of safety to form and endure, the task force has determined that four critical ingredients are essential:

- a) *Leadership is needed within Colorado's organizations serving patients to drive the direction and tone of systemic efforts of patient safety;*
- b) *Effective mechanisms are required to activate communities and reach culturally diverse populations;*
- c) *Education is needed for both consumers and providers of healthcare regarding the importance of efforts to assure patient safety;*
- d) *The identification of and access to specific patient safety tools that are appropriately tailored to each participant in the healthcare system; and*
- e) *The removal of legal, regulatory and procedural impediments to the use of patient safety tools.*

The task force emphasized the importance of involving consumers/patients into safety activities as a way to embed safety into the health care culture. This involvement helps to assure that safety efforts remain patient-focused and do not devolve into institutional process management.

II. Coordinate health care community-wide when patients are transitioned among providers

Transitions in care occur when a patient moves through the healthcare system during the course of care. This includes situations where the care for a patient is being shared amongst multiple providers, and when handovers of care occur between: 1) healthcare professionals; 2) hospital departments; or 3) care settings, such as when patients move from the hospital to home,

² Duke University, Center for Instructional Technology accessed at http://patientsafetyed.duhs.duke.edu/module_c/what_do_we_mean.html 2005, 12/3/2008.

assisted living settings, or skilled nursing facilities. Successfully managing transitions of care is a major challenge to healthcare delivery that will only be mastered by breaking down the silos and barriers between different healthcare settings and working collaboratively for the good of the patient.³

The task force has determined that efforts to assure the safe transition of care for patients in Colorado are essential, and that any such efforts should:

- a) *Take into account all current activities and coordinate with them as much as possible, with care not to confound efforts currently underway,*
- b) *Embrace the concept of a community-based health support network (a coordinated system of care that includes physicians, hospitals, nursing homes, case managers, social workers, pharmacists, home health, family care givers, patients, and others across a full continuum of the care experience), and*
- c) *Focus on what patients need to remain healthy, with emphasis on primary and secondary prevention rather than waiting until patients become ill.*

III. Create a Patient Safety Organization

The Federal Patient Safety and Quality Improvement Act of 2005 (Patient Safety Act) authorized the creation of Patient Safety Organizations (PSOs) in response to growing concern about patient safety in the United States and the Institute of Medicine's 1999 report, *To Err is Human: Building a Safer Health System*. The goal of the Act is to improve patient safety by encouraging voluntary and confidential reporting of events that adversely affect patients.⁴ This information sharing is critical to identifying patient safety risks so that they may be openly addressed and reduced through well coordinated programs and policies guided by data. Stakeholders within Colorado's healthcare environment support the development of one or more PSOs to assure that the benefits of such organizations will be realized by patients, regardless of healthcare setting.

³ National Transitions of Care Coalition (NTOCC) website (www.NTOCC.org), accessed on 12/3/2008

⁴ AHRQ 2008, accessed from <http://psnet.AHRQ.gov>

It is critical that the Agenda for Patient Safety include a major emphasis upon the creation of one or more PSOs to achieve the goals and objectives stated above. To achieve this, the task force has determined that PSO development and implementation in Colorado should:

- a) *Involve the patient safety and greater healthcare community in an effort to educate stakeholders regarding the value and use of PSOs as a tool to enhance their patient safety efforts in the state and region,*
- b) *Accelerate the development of the ability to aggregate comparable patient safety information to identify new opportunities for safety improvement ,*
- c) *Increase the willingness of healthcare providers to participate in such efforts and to set the stage for breakthroughs in understanding how best to improve patient safety,*
- d) *Carefully consider the costs involved in planning for, implementing, and operating a PSO to assure a sound mechanism for support and ongoing service to stakeholders, and*
- e) *Assure that multiple provider groups are included in PSO development and expansion whenever possible to assure that patient safety is viewed across the continuum of care – and to achieve economies of scope and scale to efficiently use precious community resources.*

The recommendations in this report are the consensus views of the patient safety leadership of Colorado. The task force urges that these recommendations be carefully considered and embraced by organizations and leaders who are engaged in public policy advocacy throughout the scope of health care in Colorado.

An Agenda for Patient Safety in Colorado

Introduction

The Colorado Patient Safety Coalition (CPSC) convened in 2008 a group of organizations and individuals that are considered stakeholders in patient safety in Colorado. This group, the **Patient Safety Leadership Task Force**, was charged with advancing the culture of patient safety in Colorado by developing a unified agenda for patient safety activities in the state while not usurping or distracting from ongoing patient safety initiatives. The purpose was to establish specific goals and objectives to influence and inform patient safety policy in Colorado, specifically to:

Realize Colorado's Potential: A good deal is known about how to address patient harm due to medical error, and more is being learned with every effort and idea tried. This ongoing work is happening in diverse organizations and varied settings. There is additional gain to be realized by linking these efforts to a statewide vision for patient safety and thus to one another. This will occur as Colorado develops effective procedures for sharing and, when appropriate, coordinating efforts to advance patient safety and engages a broad and varied constituency of stakeholders within patient safety activities.

Create a Safe and Open Environment: To encourage a positive dialogue across personal, social, professional, and organizational boundaries, we must create a safe and open environment within which coordination, sharing, and collaboration can occur without being diverted by competing priorities. We must constantly seek to keep the patient's safety and well-being as the foremost goal among the many personal, institutional and professional missions and goals, and protect the patient from external threats and competing interests, be they real or perceived.

Articulate the Patient Safety Message: Patient safety activities must not occur in a vacuum, and must be deliberately integrated with other activities and into the other foundational dimensions of healthcare quality. The message of patient safety should permeate every consideration in healthcare. Advancing patient safety requires explicit strategies that protect patients and reduce medical errors and that are articulated clearly and loudly enough to be listened to and acted upon.

Appendix A further describes the goals and guiding principles that the task force adopted. Table 1 lists the members of the task force. This roster reflects the organizations that have been perennial leaders in patient safety, as well as groups with a historical record of providing support for and collaborating with the Colorado Patient Safety Coalition. This collaboration demonstrates the long-term commitment of a broad range of people and organizations dedicated to this common goal of fostering a culture of patient safety in Colorado.

To ensure the rural perspective of the statewide patient safety agenda was represented in the final report, the Colorado Rural Health Center (CRHC) was contracted to conduct a survey of providers in rural Colorado to gauge their unique patient safety needs, priorities and concerns (see Appendix B).

Table 1: Leadership Task Force Members

ORGANIZATION	NAME	ROLE
Center for Medicare and Medicaid Services (CMS)	Mark Levine	Representing CPSC as the Lead Organization
Center for Nursing Excellence	Mark Longshore	Representing issues of nurse workforce development
Colorado Business Group on Health	Donna Marshall	Representing the interests of the business community
Colorado Citizens for Accountability (CCA)	Patty Skolnik	Representing consumers/patients/families
Colorado Clinical Guidelines Collaborative (CCGC)	Marjie Harbrecht	Representing health quality improvement infrastructure to improve and standardize processes of care
Colorado Department of Healthcare Policy and Financing	Sandeep Wadhwa	Colorado State’s Medicaid Program Director.
Colorado Department of Public Health and Environment	Ned Calonge	Representing state government as both a purchaser and a regulator
	Allison Daniels	Representing state government as both a purchaser and a regulator
	Howard Roitman	Representing state government as both a purchaser and a regulator

ORGANIZATION	NAME	ROLE
Colorado Foundation for Medical Care (CFMC)	Arja Adair	Representing the quality improvement and patient safety infrastructure of Colorado (all settings)
	Michelle Mills	Representing the quality improvement and patient safety infrastructure of Colorado (all settings)
Colorado Healthcare Association	Arlene Miles	Representing the interests of Long term Care providers
Colorado Hospital Association (CHA)	Scott Anderson	Representing the interests of Colorado's hospitals and their patients
	Crystal Berumen	Representing the interests of Colorado's hospitals and their patients
Colorado Medical Society	Lynn Parry	Representing the interests of Colorado physicians
Colorado Nurses Association	Fran Ricker	Representing Registered Nurses
Colorado Patient Safety Coalition (CPSC)	Edward Dauer	Representing CPSC as the Lead Organization
	Richert Quinn	Representing CPSC as the Lead Organization
	David West	Representing CPSC as the Lead Organization
Colorado Pharmacists Society	Val Kalnins	Representing the interests of Colorado pharmacists
Colorado Regional Health Information Organization (CORHIO)	Phyllis Albritton	Representing Colorado's Health Information Exchange
Colorado Rural Health Center	Cari Fouts	Representing the interests of rural Colorado
	Lou Ann Wilroy	Representing the interests of rural Colorado
COPIIC Insurance	Carol Anne Tarrant	Representing Risk Prevention and Institutional Patient Safety
Home Care Association of Colorado	Ellen Caruso	Representing home health agencies
Persons United Limiting Substandards and Errors in Healthcare (PULSE)	Jennifer Dingman	Representing consumers/patients/families
The Colorado Trust	Laurel Petralia	Program Officer
Rocky Mountain PSO	Donna Kusuda	Representing future provider members of the PSO

Through deliberations, the task force identified three foundational elements of a patient safety agenda for Colorado as follows:

1. Embed patient safety in Colorado's health care culture
2. Coordinate health care community-wide when patients are transitioned among providers
3. Create a Patient Safety Organization

Each of these three foundational elements is further described on the following pages. The recommendations in this report are the consensus views of the patient safety leadership of Colorado. The task force urges that these recommendations be carefully considered and embraced by organizations and leaders who are engaged in public policy advocacy throughout the scope of health care in Colorado.

Agenda Element 1: Embed Patient Safety in Colorado's Health Care Culture

While many organizations and individuals in Colorado are committed to the establishment of a culture of patient safety, the state's patient safety stakeholders believe that more work remains. While there is evidence that healthcare organizations have specific goals for the development of a culture of safety, there is strong agreement that more needs to be accomplished to develop, communicate, and coordinate these goals.

There is agreement that:

- A clear and coordinated approach is required to develop a statewide culture of patient safety.
- Specific goals for developing a culture of safety are not yet shared within healthcare settings, nor are they widely shared across settings.
- Common goals to foster a culture of safety can link us together and assure that safety becomes integrated into other healthcare policies, such as movement toward comprehensive health reform.
- Impediments to developing a culture of patient safety need to be removed.

While much has been written about the characteristics of safety cultures, a common working definition for safety culture is necessary to the establishment of common goals for culture change. The following definition helps to clarify the meaning of a culture of safety:

The safety culture of an organization is the product of individual and group values, attitudes, perceptions, competencies, and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization's health and safety management. Organizations with a positive safety culture are characterized by communications founded on mutual trust, by shared

perceptions of the importance of safety, and by confidence in the efficacy of preventive measures.⁵

Using the above definition of *culture of safety* as a foundation, the task force has established the following elements needed for embedding safety into Colorado’s healthcare culture:

A. The Importance of Leadership and Values

Leadership and values must be universally recognized as critical in establishing a culture of safety in any healthcare organization.

Establishing a culture of patient safety within an organization is dependent on each organization’s leadership and the values and attitudes that leaders communicate. A culture of safety encourages and supports the reporting of any situation or circumstance that threatens, or potentially threatens, the safety of patients, caregivers, healthcare personnel or visitors, and views the occurrence of errors and adverse events as opportunities to improve the healthcare system.⁶ An organization’s culture of safety will be reflected in the attitudes and behaviors of the customers of that organization.

While education, information, and tools can be strategies for improving safety, no gains can be made unless the attitudes and behaviors of all participants are directed toward protecting each patient. Leadership is needed within Colorado’s organizations serving patients to drive the direction and tone of systemic efforts of patient safety by:

1. Providing incentives for improved care and avoidance of error:

Incentives can take many forms including public recognition and positive reinforcement (e.g., financial rewards) for discovering, reporting, or implementing processes that help avoid errors.

⁵ Organising for Safety: Third Report of the ACSNI (Advisory Committee on the Safety of Nuclear Installations) Study Group on Human Factors. Health and Safety Commission (of Great Britain). Sudbury, England: HSE Books, 1993.

⁶ Adapted from the National Quality Forum, *Safe Practices for Better Healthcare*, 2006 Update.

2. Creating support and education to reduce errors and increase prevention:

Providing tools and resources to teams is essential to demonstrating a commitment to patient safety, as is providing the training and support required to use them.

3. Developing methods and metrics for assessing improvement in the culture of safety:

It is imperative that leaders establish meaningful statewide measures and tracking methods over time. Such measures must lend themselves to the establishment of statewide goals and objectives, as well as be suitable for facilitating comparison across the healthcare community. Colorado must be able to assess our progress in establishing safe processes and achieving safety outcomes.

4. Utilizing feedback to continually re-evaluate and assure that agendas remain patient-centered:

Leaders need to put into place the reporting and updating mechanisms required to ascertain the success of efforts to improve safety, learn from both successes and failures, and incorporate this information into ongoing efforts to reduce the frequency and severity of medical errors.

5. Involving patients more actively as members of the healthcare team:

Patients must learn that they can ask questions and understand that they have permission to do so.

B. Extending the Culture of Safety to the Entire Community

It is essential for a culture of patient safety to extend beyond the boundaries of institutions and organizations, through Colorado's healthcare and consumer communities.

Colorado's patient safety culture must recognize that, in terms of behavior, all participants have an equal right and an equal responsibility to contribute, correct, and improve. In other words, patients, families, and communities need to be recognized as equal partners in identifying gaps in safety and defining outcomes.

Developing a culture of safety across Colorado and across diverse populations will require:

1. Active Community Engagement:

It is imperative to actively engage the community and its healthcare personnel. Since patient safety is a common goal, patients and the communities they represent must be an integral part of identifying gaps in safety as well as providing solutions.

2. Eliminating Cultural Barriers:

The culture of safety faces barriers that are also seen in other attempts to improve healthcare quality. These include the lack of willingness and capacity to change. Meaningful change will require patience, trust, and determined persistence. The task force is committed to fostering and encouraging positive engagement and support of participants in improving both the infrastructure (tools and techniques) and the environment of safety.

C. Patient Safety Education

Education in patient safety is critical to developing a culture of safety.

Colorado's healthcare organizations believe that they should collaborate to develop patient safety educational programs with curricula that include common areas of interest and concern. Consumer groups in Colorado believe that education of the public regarding the need for and methods to actively participate in their care will leverage consumers' ability to assure their own safety in seeking healthcare services.

To address these educational needs, the task force has established that patient safety education must consider, at a minimum, three specific audiences as follows.

1. Professional Providers of Care:

Professional education in patient safety has not been consistently developed or deployed in Colorado. A Colorado curriculum for patient safety is needed and should be developed through a dedicated activity that addresses the needs and gaps that apply to

each profession (nurses, pharmacists, physicians, etc.) and their trainees. A patient safety curriculum to address each profession should be integrated into a statewide effort that is both coordinated and integrated.

2. Institutional Providers of Care:

Many Colorado institutional healthcare providers have educational and training activities that address patient safety concepts. These activities usually address a single organization's need. Whatever improvements that result have only a local effect and are not always shared with other, similar institutions. Consolidation of these educational efforts to include common goals and curricular objectives and a dissemination strategy will be possible only through a statewide needs assessment process. Such a coordinated patient safety curriculum may obviate the need for each institution to learn from local experience and effect preventive, rather than primarily reactive, interventions to protect patients. The assessed needs should be integrated into a statewide effort that is both coordinated and integrated across hospital, home health, long term care, and ambulatory care settings.

3. Consumers:

Many consumers require information and assistance to become true partners in their care and the stewards of their own safety as they navigate the healthcare system. The needed consumer education may involve strategies as simple as distributing printed information or as detailed as the formal process of determining and prioritizing needs for targeted education and consumer activation that may be linked to curriculum development to close identified gaps. The ability of consumers to understand medical concepts, sometimes called health literacy, is an important determining factor in consumers' ability to understand their care plan and the steps needed to foster its safe completion. Instruction alone is insufficient unless understanding is achieved. Focus on understanding is particularly important in developing programs to help consumers understand their role in their own care; such as in the appropriate and safe use of medications. Thus, programs to improve health literacy are key building blocks in fostering patient safety. For a summary of consumer-driven priorities identified in Colorado at a recent conference, please refer to Appendix C.

In addressing the needs of these audiences, the task force has determined that:

- Consumer information needs to come from a respected source that is considered to be objective and credible.
- Consumer advocates need to be involved in developing and disseminating educational materials to assure their clarity, relevance, and appropriateness.
- Consumer education materials and messages must take into account the health literacy of different publics.
- Public service announcements may be part of a meaningful consumer education strategy.

Additionally, the opportunities for collaboration between healthcare organizations for education are immense, and such efforts should include:

- Developing educational programs that span the continuum of care – with consistent and coordinated messages.
- Developing strategies for providers to jointly finance the development of educational mechanisms and providing training that benefits the community as a whole – in addition to each organization involved.
- Directly addressing the fear and resistance to cultural change and transparency within the medical community and elsewhere.

D. Tools and Resources

There is both a need to evolve tools for improving patient safety and a need to know what tools already exist and how to use them.

There are numerous tools to improve patient safety that are available both commercially and in the public domain. In addition, many efforts here in Colorado have yielded work products and established expertise that can benefit both providers of care and consumers. It is a challenge to professionals, institutions, and patients to know what is available and how to access it. The Colorado Foundation for Medical Care has previously created an inventory of patient safety and quality activities and materials, an update of which was completed in April, 2009.

A Colorado patient safety clearinghouse would allow for provider and consumer groups to share tools expertise and resources. This would reduce the need for rework, increase transparency, and improve sustainability by providing proven standards and evidence-based activities.

In developing a clearinghouse for use by providers and consumers, the following issues must be addressed:

- External funding support will be needed to maintain a clearinghouse website.
- Criteria must be established to determine which tools/resources are appropriate to make available (e.g., its base of evidence, testing, validity).
- Tools themselves are not enough – there is need for funding and dedicated resources to assure that they are made available to professionals, institutions, and consumers in rural and underserved areas through a variety of educational and systems redesign initiatives.
- Incorporation of resources that originate from the business community should be included. Information such as the Colorado Health Matters Health Plan and Hospital Quality Report have proven themselves as viable mechanisms for broad dissemination of the common themes and common language of the efforts of the patient safety movement. Consistent messaging originating from outside of the healthcare community is essential to further educate and inform Colorado citizens.

E. Removing Impediments to the Evolution of a Culture of Patient Safety

There are legal, procedural and regulatory issues that must be addressed if we are to clear the path for a culture of patient safety.

Attention should be paid to the impact that the legal environment of medicine and healthcare has on patient safety – principally, but not exclusively, the medical malpractice litigation system. Following an adverse event, the legal process is expected to

address four objectives: restore the patient or family as nearly as may be, provide accountability as appropriate for providers and provider organizations, assist in using the learning potential of today's adverse event to prevent tomorrow's, and enhance (or at least not retard) healthcare's own efforts at continuous improvement. Each of these objectives has significant implications for patient safety. The growing literature on the performance of the legal system in this area raises serious questions about how well it achieves any of these goals. There is, for example, little or no evidence for a "deterrent signal" in malpractice liability; there is evidence for its inhibiting both data collection and some aspects of quality-focused innovation; and the "shame and blame" characteristics of post-event litigation are often cited as a barrier to the culture changes widely believed necessary for safety to advance. The legal system may not be as good a partner in the search for patient safety as it could be. Attention to this question and initiatives for reform where necessary should be a part of the ongoing statewide agenda.

There is evidence that our current legal processes may inhibit both data collection and data sharing that are so vital to understanding the threats to patient safety so that they may be addressed. Colorado must take advantage of mechanisms (both those now available and those yet to be developed) to remove the impediments to achieving a culture of safety, where necessary. This includes:

- Combining efforts to create a viable and federally-certified Patient Safety Organization that is accessible to multiple health care disciplines and to consumer involvement
- The further engagement of Colorado's health care legal community to explore additional options for fostering the information sharing and collaboration that may address Colorado's threats to safety within the current state and federal legal system
- Bringing together both consumers and organizations for the purpose of identifying changes to current laws and regulations that are necessary to support a culture of safety in Colorado

Agenda Element 2: Coordinate Health Care Community-wide When Patients are Transitioned Among Providers

Throughout Colorado there is strong support for a collaborative effort to improve quality and safety when patients move from one healthcare setting to another, when care is being shared among multiple providers, or when handovers occur between different settings. Support for improving the safety of care transitions derives from the recognition that many medical errors are associated with transitions of care – errors primarily related to lack of communication and lack of proper systems to ensure safe, effective coordination of care.

Colorado organizations of health care professionals, institutions, and consumers have expressed a desire to participate in yet undefined “transitions in care” projects to improve safety. Despite this strong and durable general interest, no consensus has formed regarding what a communitywide initiative should be, or how to launch such an effort. The only consensus has been that it will be crucial to align any efforts with existing programs.

To establish a meaningful agenda for how coordination of care should occur, particularly during transitions between one facility or setting and the next, it is critical to understand the following key elements that need to be addressed.

Medication Reconciliation

The first key element of coordination of care is related to medication reconciliation. Currently one of the most significant causes of patient injury involves issues around medications, such as interactions between multiple medications, incorrect medication given, or incorrect dosing. To address medication errors in the hospital setting, the Joint Commission, an important accrediting body for hospitals, has developed contemporary regulations that include a component named “Healthy Handoffs/Medication Reconciliation.” This effort requires hospitals to assure that for each patient, a number of functions occur, including but not limited to the following:

- Accurate list of medications at the time of admission
- Evidence of medication reconciliation exists for any transfer within the hospital

- Accurate medication at the time of discharge, including the admission medication list and any changes
- Assurances that the discharge list and discharge reports are given to the patient and that the patient understands them, and that this information is distributed to the “next” provider - with an opportunity for that provider to ask questions

Although this effort primarily stems from a hospital setting, it will be important to learn from and expand these efforts to settings outside the hospital, such as when patients are transferred between physician practices or other facilities such as long term care facilities. Many of the same recommendations should apply. In addition, physicians should routinely review medication lists, discontinue medications no longer needed, and ensure patients are on proper dosages.

Communication and Coordination of Care Between Multiple Providers

The second element of coordination of care is related to communication among multiple providers. There are many reasons why communication and coordination of care between providers does not occur. Our healthcare system has become increasingly complex with many “silos” of care leading to tremendous fragmentation rather than integration. Often patients see multiple physicians, with no one really “taking charge” of their care. In the current reimbursement system that rewards for volume rather than outcomes, providers become extremely busy and are not provided incentive to coordinate care for their patients. Finally, outside of a few communities that use a common secure electronic platform to efficiently communicate with one another, most electronic medical records do not allow for communication across different systems.

To address these issues, several initiatives are emerging both locally and nationally to determine how to better integrate providers geographically or virtually, to improve care coordination and lead to improved safety and quality, reduced cost, and improved satisfaction for patients and their care teams. These are briefly outlined below:

Patient-centered, Community-based Health Support Network

The patient-centered community-based health support network will be a critical component of communication among providers. The community-based health support network is an approach to providing continuous, comprehensive, coordinated care across the entire continuum. This network is a partnership between patients and their personal healthcare team and emphasizes:

- An ongoing relationship with a **personal physician and primary care team**,
- **A whole person orientation** with **coordinated or integrated care** across all elements of the complex health care system,
- **Enhanced access** to make it easier for patients to contact their personal healthcare team, and
- Improved **quality and safety** by promoting prevention, proactively managing chronic illness, engaging patients in their care to attain optimum health, and using electronic systems to support this work.

To enable practices to make this transformation and build important infrastructure, the patient-centered community-based health support network seeks to **realign payment** to shift the focus of care delivery away from episodic care toward more comprehensive, preventive, and holistic care, and incorporate the characteristics associated with lower costs, improved safety, and better outcomes.

In a patient-centered community-based health support network, coordinating care, particularly when patients transition from one entity to another, is of key importance. It may begin with the community identifying the necessary collaborators including specialists, mental health providers, hospitals, case managers, and any others. One example of this community-based health support network is the concept of the “medical home,” in which the medical practice develops methods to ensure that patients work with their providers using shared decision-making to develop their Care Plan. Further, patients and their team ensure that information regarding the Care Plan flows between all associated providers, and the practice outlines parameters for effective communication among all involved. Technology will be a crucial tool in enabling more efficient and effective coordination of care, but even more importantly, technology is changing the culture of

how we communicate with each other, using agreements or compacts, to ensure successful coordination of care, particularly during transitions.

There are several Medical Home initiatives in Colorado including:

- A multi-payer, multi-state pilot led by CCGC,
- A family medicine residency medical home program with joint efforts from CCGC, Colorado Association of Family Medicine Residencies, University of Colorado Department of Family Medicine, and Colorado Institute of Family Medicine,
- A safety-net pilot with joint efforts from Colorado Community Health Network, the Colorado Rural Health Center, Colorado Behavioral Healthcare Council, and ClinicNet, and
- Several activities through Healthcare Policy and Financing (HCPF) and Colorado Children's Healthcare Access Program (CCHAP).

These initiatives encompass the public and private sectors, urban and rural communities, pediatric and adult practices, and include very important safety components that aim to ensure smooth transitions of care for patients.

Engaging Patients in their Care – Care Transitions

One of the most important methods of improving patient safety is to engage patients in their care, to ensure they understand their Care Plan and any steps needed to remain healthy or effectively manage chronic conditions. A unique methodology for patient engagement was developed by Dr. Eric Coleman the University of Colorado School of Medicine and implemented by the Colorado Foundation for Medical Care (CFMC) in Colorado and 13 other states for chronic care patients in the Medicare Program. The approach involves coaches that empower patients to understand and take charge of their care. The coach works directly with patients and their families; focusing on the patients' needs and understanding, in order to help patients discharged from hospital maintain their health status and care status to prevent deterioration. Care transitions efforts help patients understand their illnesses, their medication needs, and the actions they personally need to take to maintain their health. These patient-based efforts combine with coordination among hospital, skilled nursing facilities, intermediate care facility, home health, and

physician care to make important improvements in patient care. Reductions of 40-60% have been documented in re-admissions within 60 days of hospital discharge, in both managed care and fee for service environments. This transitions effort also creates a community-based health support network approach (like the medical neighborhood) that is focused on the patient, not the historical silos of care.

In addition to be active in transitions of care, patients should be engaged in a “culture of safety.” For patients, being part of a culture of safety includes becoming part of the healthcare team and being engaged in their care, asking questions and talking with their healthcare teams when they don’t feel they’re getting what they need or don’t understand something, and reporting anything unusual (e.g., their normal medications look different or unexpected events occur). Given the complexity of healthcare, the patient can be a great ally and an integral part of the healthcare team in preventing errors and improving safety.

Community-based Health Support Network is a Community-wide Approach

Another step toward better integration and coordination within the healthcare system that can utilize both of the above concepts, is developing communitywide approaches that engage patients, their families and anyone who “touches” the patient during their course of care. Communication should be about actions completed (tests done, medications prescribed, etc.) and next steps needed, and should identify who is taking primary responsibility to ensure patients get the care and follow up they need. Since healthcare is essentially “local,” and many individual communities have unique cultures and resources, the goal is to help enable each region to discover the most effective and efficient way to become a “high performing community.” Through this work, the importance of communication and coordination of care, particularly during transitions, will be crucial. The intent of this area of focus is to use a community-by-community approach to develop a common vision among providers and patients that will define standards and expectations for communication and coordination of care within “medical neighborhoods.”

These components—the patient-centered medical home, engaging patients in transitions, and a communitywide approach—illustrate the critical importance of coordinating care

and assuring that efforts to do so are linked with a common thread. The task force has determined that efforts to assure the safe transition of care for patients in Colorado are essential, and that any such efforts should:

1. Take into account all current activities and coordinate with them as much as possible, with care not to confound efforts currently underway
2. Embrace the concept of a medical neighborhood and care transitions (a coordinated system of care that includes patients, physicians, hospitals, nursing homes, case managers, social workers, pharmacists, home health, consumers and others across a full continuum of the care experience)
3. Focus on what patients need to remain healthy, with emphasis on primary and secondary prevention rather than waiting until patients become ill. If patients do need to access healthcare, help ensure it is the safest, most effective system possible by:
 - i. Embracing transparency by adopting common definitions, systematic approaches, and a team-based approach to care, including patients and their families,
 - ii. Embracing the concept of a “community-based health network” including patients, physicians, hospitals, nursing homes, case managers, social workers, pharmacists, home health, and other provider types,
 - iii. Supporting healthcare teams using practice and system redesign methodologies to enhance leadership skills, implement a patient-centered approach, engage patients in their care, eliminate complex systems, and assure coordination of care,
 - iv. Building technologic infrastructure and developing/implementing strategies to enable statewide health information exchange to assure that handovers or transitions in care include timely and accurate communication and information sharing among patients and all of their care providers.

Finally, the cultural aspects of care transitions should be addressed by involving communities of consumers and providers in planning such efforts, and aligning the incentives of all providers within defined community-based health network, using appropriate mechanisms of payment to recognize the effort and expense required to assure safe and healthy transitions of care and embed a culture of safety throughout the healthcare system.

Agenda Element 3: Create a Patient Safety Organization

In November, 2008 the Federal Government finalized rules for the establishment of federally designated Patient Safety Organizations (PSOs). The PSO concept emerged as part of the 2005 Patient Safety and Quality Improvement Act. A summary describing Patient Safety Organizations may be found in Appendix D.

What can a PSO do for Colorado?

It is clear that PSO development in the nation is underway on a large scale, and that efforts are underway here in Colorado. Such organizations are strongly considered by the task force as important catalysts for collecting information, identifying priorities, and driving coordinated patient safety improvement efforts. There is a tremendous additional potential to be realized by linking these efforts to a statewide vision for patient safety, to involve a broad and deep range of institutions and professionals, and to assure that efforts are collaborative rather than competitive. The task force believes that any and all PSOs formed in the state must develop effective procedures for sharing and, when appropriate, for coordinating their efforts.

It is critical that the Agenda for Patient Safety include a major emphasis upon the creation of one or more PSOs to achieve the goals and objectives stated above. To achieve this, **PSO development and implementation in Colorado should:**

1. Involve the patient safety and greater healthcare community in an effort to educate stakeholders regarding the value and use of PSOs as a tool to enhance their patient safety efforts in the state and region. At a minimum, education should directly address the following historical concerns:
 - a. Fear of disclosure: Physicians and other clinicians traditionally have been reluctant to participate in peer review of patient safety events due to shame and fear of legal liability, professional sanctions, or injury to their reputations.

- b. Isolated data: Patient safety event reports traditionally have not been standardized to allow aggregation of data and sharing across different institutions. An insufficient number of reports have made it difficult to identify and mitigate underlying patterns of causal factors.
2. Disseminate information about the value of PSO in achieving the following:
 - a. Accelerated development of the ability to aggregate comparable patient safety information to identify new opportunities for safety improvement
 - b. Increase the willingness of healthcare providers to participate in such efforts and to set the stage for breakthroughs in understanding how best to improve patient safety
3. Carefully consider the costs involved in planning for, implementing, and operating a PSO to assure a sound mechanism for support and ongoing service to stakeholders.
4. Provide for stakeholders from the healthcare, consumer, business, quality improvement, and other communities to participate in planning efforts, and for these stakeholders to remain abreast of PSO development efforts.
5. Assure that multiple provider groups are included in PSO development and expansion whenever possible to assure that patient safety is viewed across the continuum of care – and to achieve economies of scope and scale to efficiently use precious community resources.

Throughout the nation, 23 states (including Colorado) have made plans to develop one or more PSOs. The Rocky Mountain PSO (a component entity of Colorado Hospital Association) is currently in the formative stages of developing a PSO. It has registered with the federal government as a federally qualified PSO.

Conclusion

By establishing the specific goals and objectives outlined in this document, the task force intends to influence and inform patient safety policy and action in Colorado. This is only possible through the sharing of a common agenda such as the one outlined here, thus allowing many to speak with a common voice. While every organization should have its own priorities to establish a patient safety culture and to improve safety, the concept of forging a common list of high priority activities under a common rubric of safety has never before occurred in Colorado.

The task force expects that this document will provide a roadmap for a variety of patient safety activities in Colorado. Further, the task force intends that decisions concerning the undertaking of specific patient safety initiatives and the funding of these initiatives by local foundations and other organizations will be based upon one or more elements of this Agenda. This Agenda also provides a benchmark for use by funding agencies in prioritizing funding requests for patient safety initiatives. Additionally, the task force expects that other collaborative groups that have been or will be convened in Colorado to reform or improve our healthcare system will refer to and incorporate this patient safety agenda into their efforts to assure that patient safety issues are articulated and addressed.

Today's confluence of demands for both patient safety and quality improvement initiatives in healthcare settings offers an unprecedented opportunity to improve patient outcomes through the redesign of systems of care and the strengthening of partnerships between healthcare facilities, providers, and patients. A critical component of improving the quality of patient care is supporting and encouraging Colorado's leaders in healthcare, business, and government to achieve dramatic system-level performance improvements by:

- Building a culture of safety amongst consumers and providers through awareness, education, accountability, and a systematic method of overcoming legal and regulatory barriers to patient safety

- Engaging the attention of organizational leaders in patient safety professional development and training opportunities
- Ensuring safe and efficient transitions of care for patients by coordinating processes of communication amongst providers in different care settings
- Fostering the creation of a broad-based patient safety organization with capacity to span the continuum of healthcare to ensure the appropriate use of data and data analysis to learn important lessons and disseminate them to Colorado's healthcare community.

Appendix A. More About the Role of the Leadership Task Force

The role of the Leadership Task Force was to fashion a patient safety agenda that, upon implementation, will effectively build bridges between the perspectives, disciplines, and structures within healthcare and focus upon patient-centered activities to protect patients and ensure their safety. This role required a commitment to a continuous effort, to not only establish the initial Agenda described in this document, but also to monitor progress, coordinate effort, and modify the agenda over time as needed.

The task force needed to consider and value the patient safety efforts that have been evolving over the last decade and build upon them to raise the awareness of providers and consumers in all settings where healthcare is provided.

The task force agreed upon the following guiding principles for its deliberations:

- **Engagement:** The task force needed to consider the universe of stakeholders, establish relationships, build trust, work with the formal and informal leadership, and seek commitment from community organizations and leaders to mobilize resources. Positive change is more likely to occur when a broad range of community members are involved in a program's development and implementation. Community collaboration requires long-term commitment by the engaging organization and its partners. It takes time, broad involvement, and consistent dedication to principles in order to build trust and help communities develop and share the capacity and infrastructure for successful community action to improve patient safety.
- **Collaboration:** Collaboration to establish an actionable patient safety agenda must move beyond the accidental and incidental. Instead it must be conscious and purposeful. This requires deliberate action to involve a broad range of stakeholders in patient safety activities. Because protection of the consumers of health care is the fundamental purpose of patient safety activities, the task force committed to embedding a consumer perspective into the Patient Safety Agenda in manner that fully and respectfully engaged their unique perspective.
- **Measures Development:** Currently there are only minimal data that reflect patient safety goals, and most of what does exist is considered private and is closely held. Efforts to improve safety must address the challenge of collecting meaningful information, not only on the processes that are necessary in different settings, but also on actual occurrences of patient harm. Process measures are important to establishing activities that are proven to reduce the frequency or severity of medical errors. Such processes include structured communication (informal huddles, checklists, and formal reconciliation activities). It is also critical to further develop patient-centered outcome measures to serve as community indicators of overall progress towards specific

objectives. The Agenda must outline strategies to develop such measures, but also to overcome the legal and administrative barriers that currently prevent sharing of much of this information once it is collected and analyzed.

- **Advocacy for Patient Safety in the Context of Quality:** The Institute of Medicine articulated six dimensions of healthcare quality: safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity.⁷ Healthcare quality cannot be completely assessed without considering all of these dimensions, and none of them is inherently more important than any other, nor isolated from others. In pursuing an agenda for patient safety, the task force had to simultaneously assess the effect of these efforts on the other dimensions of quality. Similarly, we must assure that the effect upon patient safety is always considered in efforts to improve the effectiveness, efficiency, patient-centeredness, timeliness, and equity of healthcare.
- **Sustainability:** To be meaningful, the Patient Safety Agenda must lead to the development of self-sustaining processes and ongoing activities assure the enduring culture change that will make a lasting difference in the lives and safety of people in Colorado.

⁷Institute of Medicine, *Crossing the Quality Chasm: A New Health System for the Twenty-first Century* (Washington: National Academy Press, 2001).

Appendix B. Colorado Rural Health Center Rural Provider Survey

Executive Summary

The Colorado Patient Safety Coalition created the Patient Safety Leadership Task Force to develop a uniform patient safety agenda for Colorado. Stakeholder organizations from across the continuum of care came together with the singular goal of improving patient safety in Colorado. While there was rural representation on the task force, the majority of the members were from the Denver metro area and serve urban constituents.

To ensure the rural perspective of the statewide patient safety agenda was represented in the final report, the Colorado Rural Health Center (CRHC) was contracted to conduct a survey of providers in rural Colorado to gauge their unique patient safety needs, priorities and concerns. CRHC surveyed the full spectrum of providers in rural Colorado to gauge their patient safety needs, priorities and concerns in order to better represent the interests of the rural provider community and facilitate buy-in to a statewide patient safety agenda. The general results of the survey indicate there is some consensus regarding the value of patient safety activities.

Two surveys were actually conducted. To ensure the greatest reach, access to an online survey tool, SurveyMonkey, was sent via email to representatives of the complete spectrum of providers, including clinics, public health departments, home health agencies, private practices, hospices, long-term care, assisted living and skilled nursing facilities, school-based health centers, nursing educators, and public health departments. CRHC also gathered input from the Critical Access Hospitals through a regularly scheduled teleconference call to ensure rich responses. While the hospitals were asked essentially the same set of questions on the survey, their input was recorded in narrative form and no count of responses was made.

Survey respondents were asked 12 Likert-scale and six open-ended questions. The survey received 68 hits from 65 different individuals. Of the 65 individuals, 58 (89 percent) completed the survey with 49 (75 percent) answering every question. Respondents held a variety of positions with their organization including Manager/Director (43%), Executive Leadership (26%), Nurses (12%), and professors (6%), with other clinicians, or unidentified making up the remaining 13%.

Because a large percentage of respondents represented nursing facilities (33%), their responses were separated so not to skew the data towards their perspective. Responses from the hospitals were represented in the narrative report.

A high percentage of respondents across all settings agreed on certain aspects of improvement efforts, specifically the:

- Need for improved communication regarding patient safety activities
- Desirability of a “safety culture”
- Lack of necessary resources
- Appropriateness of collaboration and shared learning
- Necessity of increased engagement of consumers in the safety process
- Importance of medication reconciliation during transitions

There was slightly less uniform agreement on the need for:

- A greater coordination of efforts
- A universal set of expectations
- The importance of peer-level activities
- A clearinghouse for educational materials
- The need for a transitions project

There was considerable uncertainty regarding:

- Attitudes towards a PSO
- Willingness to contribute data

Perhaps most enlightening were the extreme variation of responses regarding:

- Knowledge of safety activities
- For some it is their center focus, while others are unaware of activities
- Belief that what we are doing is sufficient/Recognition that there is an issue
- Some believe it is unnecessary to do more to improve patient safety
- Awareness of educational options
- Many are unaware of opportunities, while others are overwhelmed by choices
- Willingness to participate in a transitions project
- Long-term care facilities responded in a bell-shaped curve from strongly agree to strongly disagree

For more information and to view the full report, please visit www.coloradopatientsafety.org

Appendix C. CPSC-CAPS Conference on Consumer Engagement in Patient Safety

Executive Summary

In February of 2009, 40 people – healthcare consumers, healthcare providers and other members of the healthcare community – convened to engage themselves and each other in discussions of the role of patients and families in patient safety. The meetings, which began on a Thursday evening and concluded Saturday afternoon, were sponsored by a consortium of Colorado organizations led by the Colorado Patient Safety Coalition, with the assistance and support of the Chicago-based organization Consumers Advancing Patient Safety (“CAPS”). The theme of the event was “Add Consumers, Change Everything!”

A central objective of the group was the definition of action steps that could be taken, immediately and in the longer term, to improve the safety and quality of healthcare through the greater involvement of patients and patients’ families. The discussions focused on four topics:

1. Patient and family involvement in their own care
2. Consumer involvement in systems of care
3. Improving system responses in the aftermath of an adverse event
4. Creating a community culture of patient safety.

Through a series of moving work groups, each of the participants undertook primary responsibility for one of the topics, and each of the topics was addressed by all of the participants. A set of “Action Plans” was developed for each of the four topics. They are described in detail in the full report that is available at www.coloradopatientsafety.org/

Among the several action items a smaller number of common themes emerged:

- A. Patient safety can be significantly advanced by the active engagement of healthcare consumers in their own care and in the councils of institutional healthcare providers.
- B. To effect this involvement, consumers generally need resources of skill, information, and support.
- C. The provider community must be responsive and open to enhanced and innovative consumer engagement, which will in turn require deep changes in healthcare’s culture.

D. Providers, no less than consumers, need enhanced resources in education, information and skill in order to bring this about.

From the plenary discussions, including a “fishbowl” session on medical liability, there were two additional points of consensus: The legal environment of healthcare – particularly medical malpractice litigation – is in need of careful attention and reform.

And, the workshop concluded, that it is the Colorado Patient Safety Coalition and its statewide partners that could bring these changes about.

Appendix D. What is a Patient Safety Organization?

Patient Safety Organizations (PSOs) are intended to be organizations with which healthcare providers can contract for the purpose of collecting and analyzing patient safety data – specifically patient safety event information. The analyses are used to identify strategies to improve quality and safety at the local, regional, and (with the involvement of AHRQ), national levels.

Two important characteristics of PSOs are (1) participation is voluntary and (2) submitted information is protected from discovery.

By forming and participating in a PSO, providers could potentially have an organization to assist with the realization of the specific goals of learning from one another's experiences and driving patient-centered processes for improving care at all places along the continuum of care.

To realize these goals, PSOs will have specific objectives related to:

- Compiling the information that is gathered (called Patient Safety Work Product) and
- Analyzing the data using professional expertise in statistical methods, qualitative methods, and the fields of patient safety and quality improvement.

These experts will be able to work directly with subscribing providers to develop recommendations for preventing patient safety events or reducing their severity. All participating providers will thus have access to learnings derived from environments other than their own.

The federal government has developed strict requirements for an entity to be designed as a PSO. Any organization that does not meet these requirements and carry a federal designation is not afforded the protections and authority described above. Therefore, the task force has determined that any effort to develop or explore the development of a PSO in Colorado should take into account the applicable federal statutes and regulations, including the requirements to assure:

- a) Appropriate representation and structure in governance
- b) The establishment of confidentiality protections to assure voluntary reporting (note: breaches of these confidentiality provisions may result in the imposition of civil money penalties)
- c) Enforcement/privilege protections afforded by the judicial system; these provisions limit or forbid the use of protected information in criminal, civil, administrative, or other proceedings

- d) Reporting in the required common formats that provide for the technical requirements and specifications to assure that healthcare providers collect and submit standardized information regarding patient safety events

Bringing individual providers into the reporting process is a challenge, and the Colorado Patient Safety Coalition will encourage all providers to participate in a PSO.