INTRODUCTION

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.

As Colorado looks to the future with the announcement of a statewide agenda for patient safety, we begin by looking back at the past decade of development in the patient safety movement.

CHRONOLOGY OF PATIENT SAFETY IN COLORADO

1999  A harbinger of an increased focus on patient safety was the 1999 landmark report by the Institute of Medicine (IOM), “To Err is Human: Building a Safer Health System.” The report detailed fundamental flaws in the nation’s health care delivery system affecting quality and patient safety and offered a startling statistic: As many as 98,000 Americans die each year as a result of medical errors.¹

The release of the IOM report inspired a system-wide movement to reduce medical errors, prevent patient harm and save lives. To design patient safety improvements, health care providers looked at efforts to increase safety and minimize human error in other complex workplace settings. Procedures to increase airline safety, such as cockpit checklists for pilots, provided early examples and inspired now-common surgical safety checklists.

2000  The IOM report led to growing efforts by advocates to draw attention to the issue. In 2000, the Colorado Patient Safety Coalition began its annual conference, “Do No Harm,” to address challenges in patient safety improvement. These and other efforts began to put a face on an otherwise statistic- and system-heavy issue, and contributed to stakeholder discussions about possible solutions, both nationwide and in Colorado.

While finding effective solutions to patient safety continued to be challenging, there was growing consensus around where problems begin. These included health care systems that lack adequate transparency and accountability; a culture that does not always reward providers for raising concerns about patient care; medical liability laws and the practice of “defensive medicine” that discourages information-sharing; and education that lacks focus on relationships and interactions among providers and patients to improve communication and health outcomes.

2002  In 2002, the National Quality Forum (NQF) published “Serious Reportable Events in Health Care,” a report that identified 27 adverse events occurring in hospitals that are serious, largely preventable and of concern to health care providers. The objective of the report was to establish consensus among consumers, providers, purchasers, researchers and other health care stakeholders about preventable adverse events – known as “never events” – such as surgery on the wrong body part, surgery on the wrong patient and the wrong surgical procedure being performed on a patient. The NQF updated the list in 2006, adding an additional adverse event and bringing the total number of serious reportable events to 28.²

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¹ Institute of Medicine, “To Err is Human: Building a Safer Health System,” November 1999. www.iom.edu
2003 Developing and strengthening a culture of patient safety across health care providers and settings increasingly took center stage as an objective and a challenge in Colorado. A culture that promotes patient safety refers to the interactions of health care providers amongst themselves, across disciplines, between institutions, and with patients and families. Interactions that had taken generations to develop—for instance, between physicians and nurses—were identified as needing to change if a true culture of safety was to be realized.

An additional shift was identified, away from casting personal blame for medical errors to conducting an analysis of systems and procedures to determine where mistakes were made and how they could be prevented in the future. Increasingly, providers’ fear of legal retribution for medical errors was resulting in “defensive medicine”—as previously mentioned, the practice of discouraging information-sharing, and providing unnecessary or excessive care to protect against the threat of lawsuits—which contributes to increased costs in the systems of care. To help address this challenge, Colorado lawmakers passed legislation in 2003 allowing health care providers to express regret to patients and their families over unanticipated outcomes without fear that such expressions could be used against them in legal proceedings. The bill put Colorado among the first states nationwide to create a statute protecting a caregiver’s apology.

2004 By 2004, the Cambridge, Massachusetts-based Institute for Health Care Improvement (IHI) declared that a specific, quantifiable goal for improving patient safety was needed to achieve meaningful and sustainable results. Reflecting the statistic from the 1999 IOM report that as many as 98,000 lives are lost annually from medical errors, IHI set a goal to save 100,000 lives over an 18-month period by implementing six standards of care in hospital settings to increase patient safety and reduce hospital-acquired infections, medication errors and unnecessary deaths.

IHI’s 100k Lives national campaign was supported statewide in Colorado by The Colorado Trust. By the end of the campaign, more than 3,000 hospitals had participated across the country—including 62 hospitals in Colorado representing 96% of all hospital beds statewide. IHI reported that the effort saved 122,000 lives nationwide.

2005 Continuing a focus on systems improvement to increase patient safety, Congress passed the Patient Safety and Quality Improvement Act of 2005 to encourage voluntary and confidential reporting of events that adversely affect patients. Because many providers fear that patient safety event reports can be used against them in medical malpractice cases or disciplinary proceedings—resulting in either under-reporting of events or a lack of existing data from which to draw conclusions about how to improve care—the Act authorized the creation of Patient Safety Organizations (PSOs) to collect, aggregate and analyze data on patient events. Data reported to PSOs are provided with legal protections and confidentiality, creating a secure environment where clinicians and health care organizations can identify and reduce risks and hazards associated with patient care.

2006 As interest in public policy solutions aimed at improving quality and safety grew, Colorado lawmakers took steps to increase transparency and accountability by authorizing the creation of the Colorado Hospital Report Card in 2006. This web-based tool allows consumers to compare outcomes for a variety of health care services across hospitals. The report card provides meaningful steps toward greater transparency and encourages patients to be more involved in decisions about their own health care.

2007 The Michael Skolnik Medical Transparency Act—to provide information to the public about the past practices and competencies of Colorado medical practitioners—was enacted into law in 2007 and amended in 2009. By ensuring transparency, the act is intended to help the public make informed decisions about medical care providers and recommended health care regimens. As a requirement of the act, the Colorado Board of Medical Examiners created the Physician Profile Web Lookup system that provides the public with access to information on all physicians actively licensed in the state of Colorado.

2008 In February 2008, Colorado Governor Bill Ritter issued an Executive Order establishing the Center for Improving Value in Health Care (CIVHC). The multi-disciplinary group is charged with implementing strategies to improve the health of Coloradans, enhance patient experiences and reduce, or at least control the cost of care. Looking at solutions with implications for patient safety, such as reducing hospital readmissions, is part of that work.
“Many stakeholders have been working to make meaningful and systemic improvements, but no organization has been coordinating all of that work,” says CIVHC Chairman Jay Want, MD. “This is the role that CIVHC can fill, and Colorado will benefit greatly from that needed coordination and leadership.”

Also in 2008, the Rocky Mountain Patient Safety Organization (RMPSO) was formed. The RMPSO will analyze data provided by hospitals, ambulatory surgery centers and nursing homes to reduce adverse events and improve the quality of care across Colorado and the region. While these health care settings already report medical errors to the Colorado Department of Public Health and the Environment, the RMPSO will develop conclusions and recommendations to help health care systems effectively change how care is provided and prevent future harm to patients.

In October 2008, the Centers for Medicare and Medicaid Services (CMS) began refusing payment for treatment needed to correct adverse events caused by hospitals. Specifically, CMS stipulated non-reimbursement for eight conditions that could have been prevented, including falls, infections, air embolisms and pressure ulcers. Several of the events were known as “never events” – as previously mentioned, these include operating on the wrong patient, operating on the wrong body part or leaving a surgical object, such as a sponge, inside the patient. This move by CMS supports recommendations from the 2002 and 2006 National Quality Forum “Serious Reportable Events in Health Care” report.

2009 There is a continuing focus on developing systems that provide incentives for care coordination and improved outcomes. In March 2009, Governor Ritter followed federal regulations limiting Medicare payment for “never events” by issuing an Executive Order that stopped Medicaid payment for Serious Reportable Events. Hospitals also are considering the ramifications of payers refusing or reducing payments for patients who are readmitted within 30 days following discharge for the same or related causes.

As well, ongoing training for health care providers is critical to ensure sustainable improvements throughout the health care delivery system.

According to Mark Earnest, MD, Associate Professor at the University of Colorado Denver School of Medicine, “There is a growing awareness of the need to be more deliberate in inter-professional relationships – from outpatient to inpatient settings, from nurses to physicians to extended care providers, such as physical and occupational therapists. Providers need to understand one another’s various competencies as they are trained to function as members of a team.”

Likewise, educators at the University of Colorado Denver College of Nursing are training students to see their role not only as caring for patients, but as part of a larger system of care providers. As one of 15 pilot schools involved in the Quality and Safety Education of Nurses (QSEN) program, funded by the Robert Wood Johnson Foundation, the college is using a learning collaborative to look at specific competencies, patient-centered care and improvements in teamwork and collaboration. In 2009, The Colorado Trust awarded a grant to the College of Nursing to provide faculty development workshops to schools of nursing across Colorado and to measure the impact of QSEN in their respective curricula.

Finally, advocates continue their work to increase awareness about the importance of patient safety and to identify solutions that protect patients. In late 2009, the Colorado Patient Safety Coalition, having convened a broad group of stakeholders to develop a unified statewide agenda for patient safety, released this report, *Weaving the Fabric of Patient Safety in Colorado*.

The report frames the most pressing issues around patient safety in Colorado and focuses on three primary objectives including developing a culture of safety, supporting a Patient Safety Organization and improving transitions in care.

The coalition is currently working to assess existing resources to realize the statewide agenda.

**AMONG THE MOST PRESSING ISSUES TO ENSURE PATIENT SAFETY IS IMPROVING TRANSITIONS IN CARE.**
Executive Summary

In 2008, the Colorado Patient Safety Coalition (CPSC) convened a task force of stakeholders to work on patient safety issues in Colorado. Supported by The Colorado Trust, a grantmaking foundation dedicated to achieving access to health for all Coloradans, the charge to the Patient Safety Leadership Task Force was to consider existing patient safety activities and develop a unified agenda for patient safety in the state.

The task force included representatives of organizations that have been leaders in patient safety and groups that have previously collaborated with CPSC. Representatives of rural health providers also were included to ensure that the statewide agenda reflects their unique perspective.

The task force’s objectives were twofold:

- **To realize Colorado’s full potential for patient safety improvement.** By effectively linking ongoing work that is occurring in diverse settings and organizations, Colorado can share and coordinate efforts in a way that improves patient safety more than any effort alone can accomplish.

- **To articulate the patient safety message through a unified agenda for Colorado.** Patient safety should permeate every consideration in health care through explicit strategies that protect patients and reduce medical errors.

After considering the range of ongoing patient safety activities in Colorado, the task force identified the following three key elements of a patient safety agenda for Colorado.

1 — Embed patient safety in Colorado’s health care culture

Organizations that have a strong culture of patient safety make safety a priority in everything they do. The safety of patients is paramount and integrated into every level of the health care environment, from top to bottom. Additionally, these organizations focus not on where to lay blame when an error occurs, but on identifying system failures so that similar errors can be prevented in the future.

To build a culture of patient safety across health care settings, Colorado health care organizations must:

- **Promote patient safety through strong leadership.** To drive systemic improvement, organizations serving patients need strong leaders who will promote the development of patient safety improvements.

  Improvements should include incentives and mechanisms for discovering and reporting errors as well as for implementing processes to avoid them; tools, resources, training and support; and use of meaningful statewide measures that are tracked over time.

- **Educate providers and consumers about patient safety.** Education of health care providers and consumers needs to be consistent, dedicated to addressing gaps and coordinated statewide to avoid inconsistencies that can occur in institutions of different types, sizes and locations. Importantly, consumers need information and assistance to act as partners and stewards of their own care.
- **Remove impediments to patient safety improvements.** The legal environment – principally, but not exclusively, the medical malpractice litigation system – affects patient safety. For example, providers’ fear of legal retribution for medical errors results in under-reporting of events and a lack of data from which to draw conclusions about how to improve care. Therefore, Colorado should work to remove legal impediments to patient safety, taking such steps as creating a Patient Safety Organization and identifying changes to current laws and regulations that would support a culture of patient safety.

- **Extend the culture of safety into communities.** This culture of safety needs to go beyond health care settings, extending into the communities they serve. Organizations should engage community members, identify gaps and potential solutions, and focus on eliminating cultural barriers that can impede change.

**2 — Coordinate health care community-wide when patients are transitioned among providers**

Many medical errors are associated with transitions in care because of a lack of communication between providers (both within and between care settings) and a lack of systems that ensure safe, effective care and the sharing of health data. According to the Colorado Foundation for Medical Care, the following issues arise in care transitions and threaten patient safety:

- **Medication errors – such as adverse drug interactions, and incorrect medications and dosing – often occur during care transitions.** System changes around medication safety need further improvement and should expand beyond the hospital setting into primary and long-term care.

- **Communications and coordination of care between multiple providers is fragmented rather than integrated.** Frequently, patients do not have one person overseeing all of their care, which can result in breakdowns in communication and coordination. Also, most medical record systems do not allow sharing of health data across systems. Because patients’ care continues across settings, this leaves room for error which could be reduced through better processes that integrate care and improve communication.

Several recent initiatives have emerged to improve transitions in care by better integrating providers and improving coordination, thereby increasing patient and provider satisfaction:

- **Patient-centered health network.** A patient-centered health network is designed to provide continuous, comprehensive and coordinated care. Patients and their health care team work in a partnership, and patients have an ongoing relationship with a personal physician, access to a coordinated care system and enhanced contact with other care providers. This approach can contribute to improved safety, and result in lower costs and better health outcomes.

- **Patient engagement in their health care and provider transitions.** This approach involves coaches who empower patients to understand and take charge of their care, improving patients' understanding of illness, medication and personal health maintenance. This is combined with coordination across care providers and during care transitions. Using this approach, reductions in hospital readmissions have been documented in managed care and fee-for-service environments.5

- **Community-based health support network.** Community-based approaches provide another system of care integration and coordination that relies on local community culture and resources. This approach allows regions to develop their own approaches to defining standards and expectations for communication and coordination of care across all providers and patients serving that particular community.

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3 — Create a Patient Safety Organization

The concept of Patient Safety Organizations (PSOs) emerged from the Patient Safety and Quality Improvement Act of 2005, which encourages clinicians and health care organizations to voluntarily report and share quality and patient safety information without fear of legal action. Data on events that adversely affect patients are reported by providers to PSOs, which aggregate and analyze the data to identify root causes and ways to improve care.

Colorado is in the process of developing a PSO with the hope that this will lead to improved collection of information, more clearly identified safety priorities and more focused, coordinated patient safety improvements. A PSO also has the potential to link the work of various institutions and professionals involved in patient safety initiatives, resulting in collaborative rather than competitive improvements.

In Colorado, the process of developing a PSO should include:

- **Involving the patient safety community.** Patient safety professionals and the greater health care community should be included in planning for a PSO and educating stakeholders about its value as a tool to enhance their efforts in the state and region.

- **Aggregating patient safety data.** By accelerating Colorado's ability to aggregate comparable patient safety data, new opportunities for improvement can be more effectively identified.

- **Evaluating cost to ensure sustainability.** Planning should include careful consideration of the costs to implement and operate a PSO to ensure sustainability of this important resource for stakeholders.

- **Bringing together multiple providers.** PSO planning and execution should include a variety of provider types to ensure that patient safety is viewed across the full continuum of care and to make certain the efficient use of community resources.

**CONCLUSION**

The Colorado Patient Safety Leadership Task Force expects that this summary document will provide a roadmap for patient safety activities in Colorado, and that future decisions around patient safety initiatives will be aligned with the key elements of this agenda. It is critical to support Colorado’s leaders in health care, business and government to build a culture of safety, ensure safe and efficient transitions of care, and foster the creation of a Patient Safety Organization.


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**Colorado Patient Safety Leadership Task Force Members**

- Center for Medicare and Medicaid Services
- Center for Nursing Excellence
- Colorado Business Group on Health
- Colorado Citizens for Accountability
- Colorado Clinical Guidelines Collaborative
- Colorado Department of Health Care Policy and Financing
- Colorado Department of Public Health and Environment
- Colorado Foundation for Medical Care
- Colorado Health Care Association
- Colorado Hospital Association
- Colorado Medical Society
- Colorado Nurses Association
- Colorado Patient Safety Coalition
- Colorado Pharmacists Society
- Colorado Regional Health Information Organization
- Colorado Rural Health Center
- COPIC Insurance
- Home Care Association of Colorado
- Persons United Limiting Substandards and Errors in Health Care
- Rocky Mountain PSO
- The Colorado Trust