



Graduate Medical Education

SCHOOL OF MEDICINE

UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS

CU GME Quality & Safety Programs

2022-2023 Annual Report

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GME Quality & Safety Incentive Program

Purpose

The GME Quality & Safety Incentive Program works to align quality and safety initiatives between clinical training sites and residency and fellowship programs. The Incentive Program is a collaborative effort between GME, the affiliated hospitals, and the Housestaff Association.

Guiding principles

All CU GME residents and fellows are eligible to participate.

The Quality & Safety Steering committee is comprised of Chief Quality Officers from Children's Hospital of Colorado, University of Colorado Hospital, and Denver Health Medical Center, as well as representatives of the Housestaff Association, CU' Associate Dean of GME, GME Director of Quality and Safety Programs, and GME Quality and Safety Program Coordinator.

The Quality & Safety Steering committee supports the administration of the program and guides residents to select metrics that are data-driven, align with our hospitals' and departments' quality/safety priorities, meaningfully impact patient care, and pertain to residents' clinical work.

The guiding principles of the incentive program are:

Goals can be tiered for achievement
Meaningfully patient care improvement
Clinical institutions value the goal/metrics



GME Quality & Safety Incentive Program

Residency and fellowship programs were assigned to hospital metrics as designated by their specialty and sites of rotation. Programs could be assigned in the following way:

- CHCO Only (Pediatric Residencies and Fellowships)
- UCH Only
- UCH and Denver Health

The maximum possible incentive payout was \$1,000 per resident. The metrics for the 2022-2023 reporting period (July-April) were as follows.

University of Colorado Hospital

The University of Colorado Hospital (UCH) metric was based on resident/fellow attendance at certified Collaborative Case Review conferences (CCR) and completion of a quality & safety training module. Metric achievement was determined at the individual resident level. Residents were required to attend at least three Collaborative Case Reviews and complete the training module during the reporting to earn the full incentive for the UCH metric. Depending on a program's rotation schedule, some residents were eligible to earn 50% (up to \$500) payout for the UCH metric and 50% payout for the Denver Health Metric (more below).

Denver Health Hospital

The Denver Health (DH) metric was based on trainee submission of patient safety occurrence reports through the STARS system. To achieve the incentive payout, training programs needed to meet a pre-specified number of report submissions determined by the monthly average of trainees in the program rotating at Denver Health. Additionally, each program group must document a "Loop Closure Meeting" meant to directly address one or more specific STARS reports. This metric achievement was determined at the program level with each resident earning the same amount based on the collective performance of the group.

Children's Hospital Colorado

The Children's Hospital Colorado (CHCO) metrics varied between the Pediatric Residency program and Pediatric fellowships. The Pediatric Residency program measured achievement based on three target areas: adverse event reporting, ICU transfer summary completion, and inpatient influenza vaccination rates. Pediatric fellowships will submit work on either a new or existing quality improvement and/or patient safety project within their program.

GME Quality & Safety Incentive Program

Summary of Incentive Program Results

Payout Percentage	Payout Amount	Number of Residents Achieving Payout	Percentage of Residents Achieving Payout
0%	\$0.00	45	3%
≤50% (1-50%)	\$1-500	170	13%
≥50% (51-99%)	\$501-999	746	58%
100%	\$1,000.00	336	26%
TOTALS		1297	
Average Payout		\$733.67	

Fig. 1 - Cumulative final payout statistics for all eligible residents across all three participating sites.

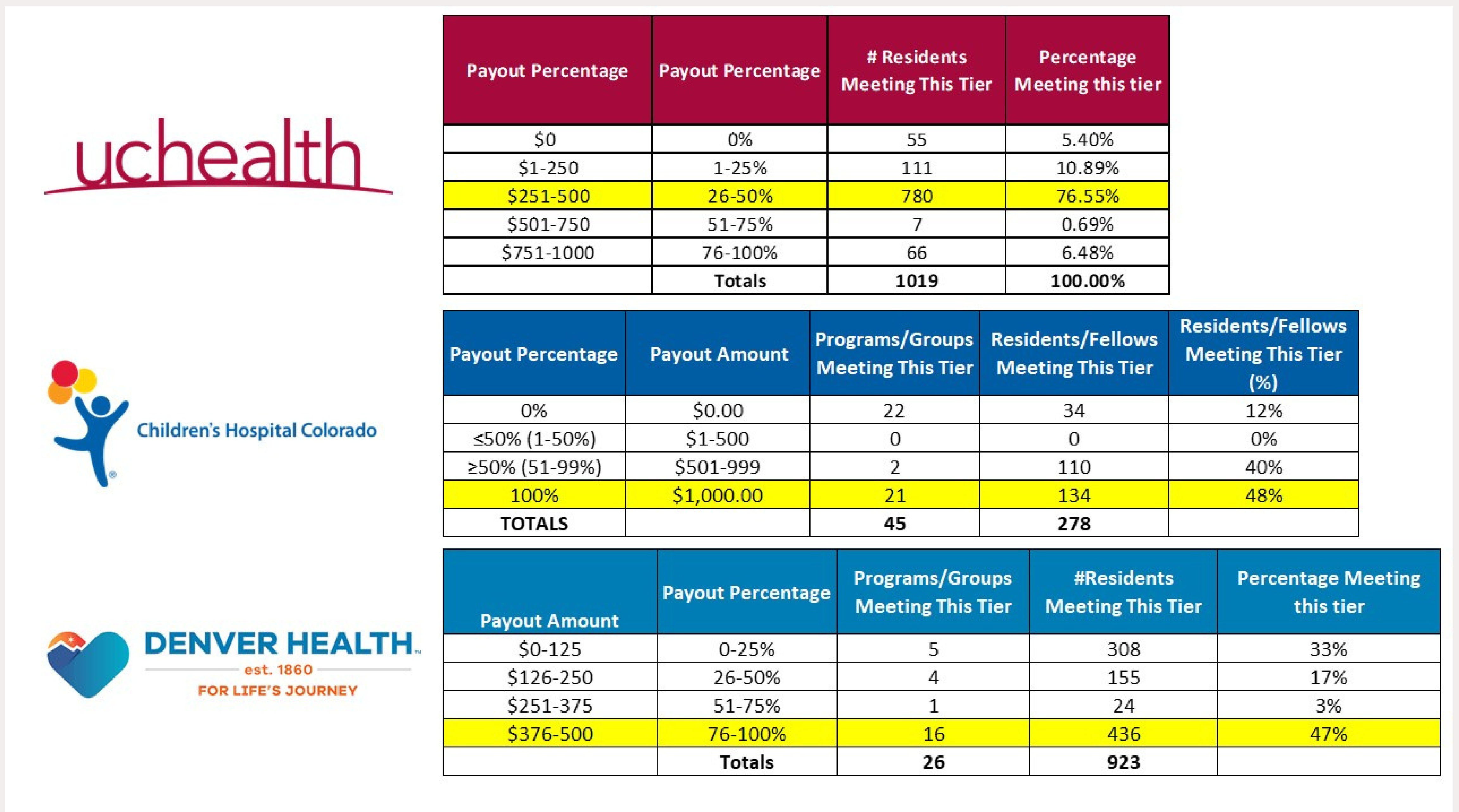


Fig. 2 - Final payout statistics from each site/metric.

GME Quality & Safety Incentive Program

Summary of Incentive Program Results

University of Colorado Hospital

CCRs attended	Year	Number of Residents	Percentage Meeting Tier
0	AY 2021-2022	88	8.57%
	AY 2022-2023	55	5.40%
1	AY 2021-2022	34	3.31%
	AY 2022-2023	82	8.00%
2	AY 2021-2022	744	72.44%
	AY 2022-2023	108	10.50%
3+	AY 2021-2022	161	15.68%
	AY 2022-2023	774	75.60%

Fig. 3 - Final metric performance statistics for University of Colorado Hospital metric (CCR attendance) vs. prior year.

Denver Health Hospital

Program	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Loop closure requirement Complete
Anesthesiology	100%	114%	114%	114%	129%	57%	114%	171%	157%	114%	Yes
Dermatology	100%	100%	100%	100%	150%	100%	100%	150%	100%	200%	Yes
Emergency Medicine	58%	88%	58%	35%	19%	19%	31%	23%	27%	27%	Yes
Family Medicine, Addiction Med, Hospice, Occupational, Public Health, Rural, Sports	125%	113%	100%	113%	113%	138%	100%	125%	119%	113%	Yes
Cardiovascular Disease, Electrophysiology	25%	50%	50%	50%	150%	125%	100%	75%	75%	100%	Yes
Endocrinology	100%	100%	100%	100%	200%	200%	200%	100%	100%	0%	Yes
Gastroenterology	50%	200%	50%	150%	100%	150%	100%	200%	250%	150%	Yes
Hematology/Oncology	50%	150%	100%	50%	0%	100%	0%	0%	0%	0%	Yes
Infectious Disease	0%	0%	0%	0%	0%	0%	150%	0%	0%	0%	No
Internal Medicine, Med-Peds	31%	50%	28%	28%	3%	22%	25%	33%	8%	25%	Yes
Nephrology	0%	0%	150%	0%	0%	0%	0%	0%	0%	0%	No
Pulmonary Critical Care	200%	50%	150%	150%	50%	0%	0%	0%	0%	50%	Yes
Rheumatology	0%	250%	100%	100%	100%	100%	100%	100%	100%	0%	Yes
Neurosurgery	100%	100%	0%	0%	0%	100%	100%	0%	100%	0%	No
Neurology	120%	120%	100%	80%	140%	100%	80%	140%	120%	100%	Yes
Obstetrics/Gynecology, Gyn Oncology	93%	129%	193%	171%	79%	71%	179%	171%	129%	136%	Yes
Ophthalmology	100%	100%	125%	125%	50%	125%	0%	100%	100%	100%	Yes
Orthopedic Surgery, Hand	0%	0%	40%	80%	0%	0%	70%	10%	10%	30%	Yes
Otolaryngology	50%	100%	175%	100%	100%	150%	100%	100%	150%	100%	Yes
Pathology	150%	100%	150%	100%	100%	100%	150%	150%	100%	100%	Yes
Physical Medicine and Rehabilitation	200%	200%	200%	100%	100%	100%	100%	150%	100%	100%	Yes
Psychiatry, Addiction Psych, Consult/Liaison	118%	118%	106%	124%	112%	100%	112%	100%	106%	106%	Yes
Radiology, Interventional, Diagnostic	100%	110%	180%	230%	120%	60%	180%	160%	200%	150%	Yes
Surgical Critical Care, Trauma/Acute	100%	133%	133%	100%	133%	233%	100%	100%	167%	167%	Yes
Surgery, Plastic, Vascular	50%	50%	64%	123%	36%	23%	9%	50%	59%	18%	Yes
Urology	100%	150%	150%	150%	100%	150%	100%	0%	150%	200%	Yes

Achieved Tier 2 (Max) = 100% of required submissions

Achieved Tier 1 = 50% of required submissions

Fig. 4 - Final metric performance statistics for Denver Health Hospital Metric (STARS Report Submissions).

GME Quality & Safety Incentive Program

Summary of Incentive Program Results

Children's Hospital Colorado

Metric	Target Goals		Final Achievement	Payout Earned
Adverse Event Reporting (QSRs and PSI)	Threshold	25 files/mo	38	\$333.33
	Stretch	32 files/mo		
Flu Vaccination	Threshold	50%	51%	\$250.00
	Stretch	55%		
ICU Transfer Summary Completion	Threshold	20%	55%	\$333.33
	Stretch	30%		
				\$916.66/Resident

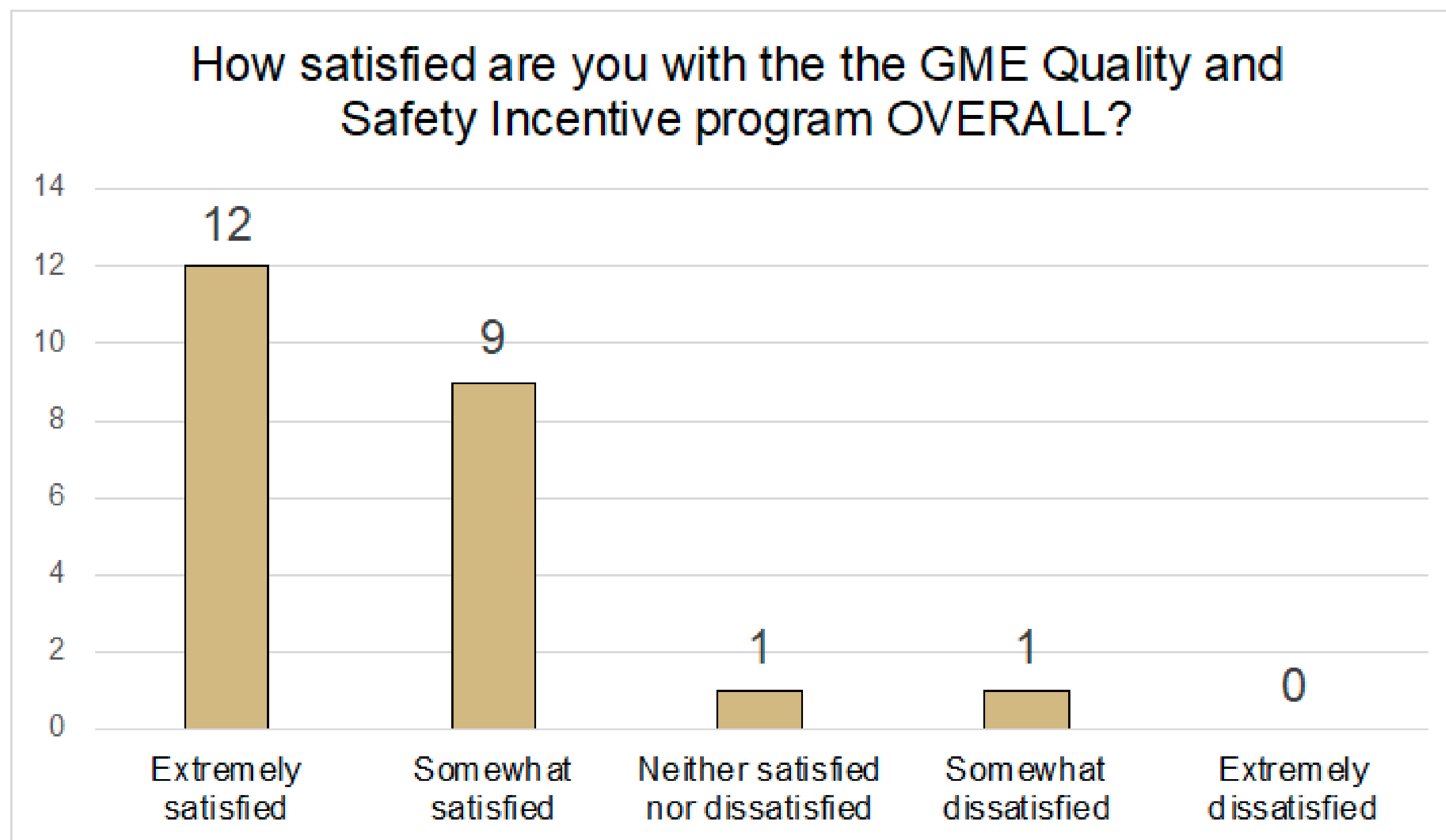
Fig. 5 - Final metric performance statistics for Children's Hospital Colorado - Pediatric residency metrics.

Tier	Payout Amount	Payout Percentage	Projects Meeting This Tier	Programs Represented
0	\$0.00	0%	24	24
1	\$1-500	≤50% (1-50%)	0	0
2	\$501-999	≥50% (51-99%)	3	3
3	\$1,000.00	100%	22	19
		Projects submitted	25	
		Eligible Fellowships	44	

Fig. 6 - Final metric performance statistics for Children's Hospital Colorado - Pediatric Fellows metric.

GME Quality & Safety Incentive Program

2022 – 2023: GME QPS Incentive – Survey of Program Directors



81%

of respondents (n= 27) incorporated the quality and safety incentive into educational programming for their residents/fellows.

Looking Ahead to AY 2023-2024

For AY 2023-2024, trainees will again work to achieve predetermined metrics depending on the hospital(s) to which they primarily rotate. The metrics for each hospital are:

University of Colorado Hospital

Attendance of 3 or more at a certified Collaborative Case Review conferences (CCR) and completion of the University of Colorado Hospital Quality & Safety Module. Residents were required to submit the module completion by 10/1/2023, otherwise they forfeit 50% of their UCH payout. They were also required to log attendance at one CCR by 10/1/2023, otherwise they forfeit 33% of their UCH payout.

Denver Health Hospital

The Denver Health (DH) metric will become a hybrid metric. Part will be based on trainee submission of patient safety occurrence reports through the STARS system with a payout based on group performance. Residents must also document attendance at at least two Loop Closure Meetings (Case Reviews) pertaining to a Denver Health case/patient during the reporting period; the payout for this will be based on individual attendance.

Children's Hospital Colorado

There are three quality improvement metrics set by the Pediatric Residency for 2023-2024: ICU Summary Completion, QSRS/PSI Safety Event Reporting, and In Person Spanish Interpreter Usage. Pediatric fellowships will submit work on either a new or existing quality improvement and/or patient safety project within their program.

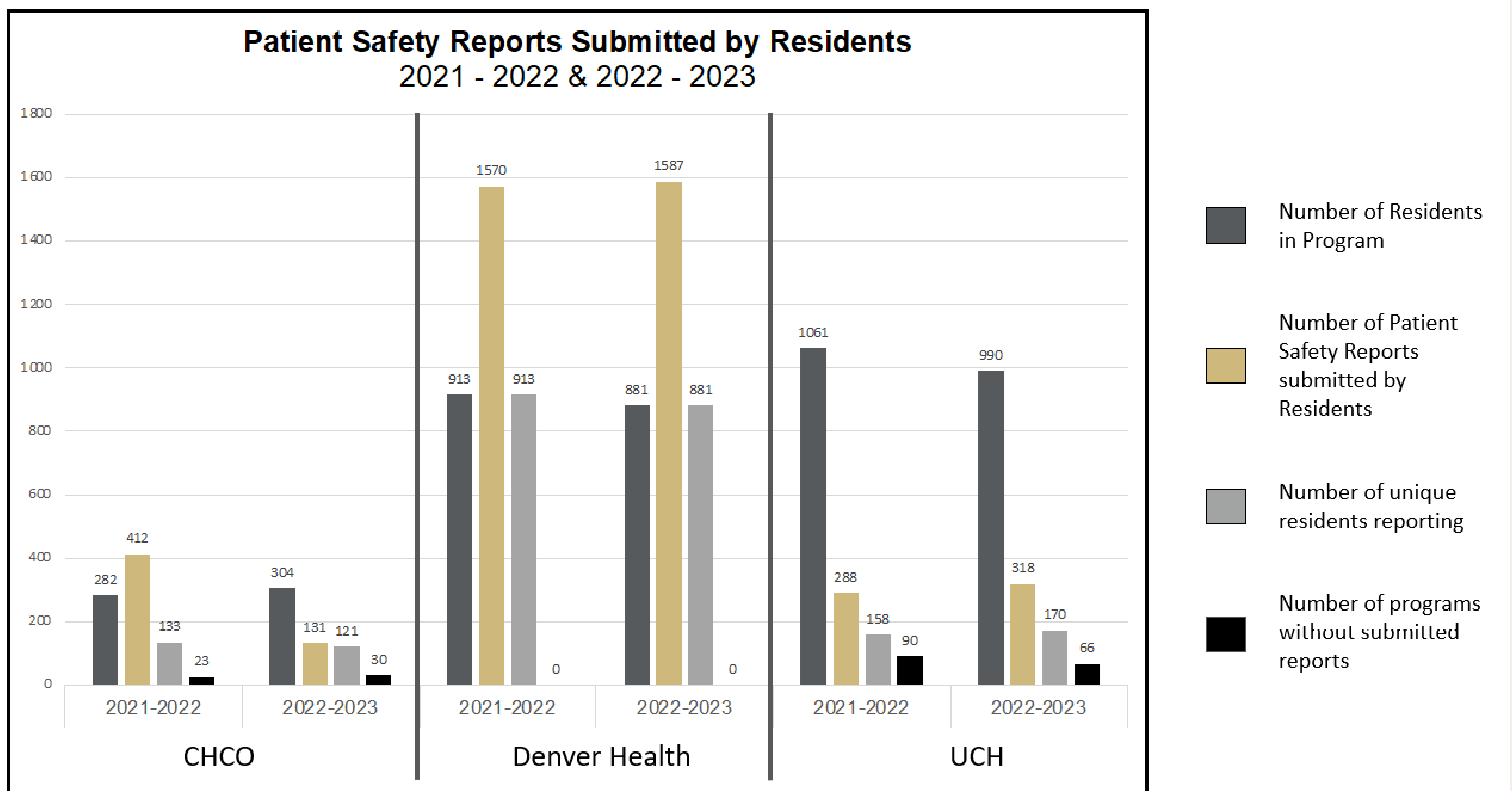
Culture of Safety

The concept of safety culture originated outside of healthcare in studies of “high reliability organizations”, which consistently minimize adverse events in a setting of complex work. A culture of safety includes key elements of a commitment to achieving consistently safe operations, a blame free environment where individuals report errors or near misses without fear of punishment or retribution, a flattening of hierarchical structures to solve patient safety problems and commitment of organizational resources to address safety concerns. Improving the culture of safety at the University of Colorado is critical to preventing or reducing errors and improving overall healthcare quality.

Patient Safety Reporting

As part of promoting a culture of safety at University of Colorado, we have emphasized the importance of patient safety event reporting to residents and fellows. Each year, new interns and residents undergo training on adverse event reporting. Housestaff adverse event reporting activity has been monitored since 2014.

2021 – 2023 Patient Safety Reporting Data:



University of Colorado C-Suite Patient Safety Rounds

Since June of 2020, leaders from the University of Colorado School of Medicine GME office and the University of Colorado Hospital have held a monthly meeting of residents and fellows from across the institution to meet with hospital leaders with the purpose of providing a safe, comfortable environment for housestaff to relay concerns, great saves, and success stories with a specific focus on patient safety.

Since the beginning of these rounds, over 70 residents/fellows have attended from 23 different specialties. This has produced 80 recognitions of faculty, residents, and staff and over 30 projects or systems changes at UCH have emerged from these rounds.

Quality & Safety Academy

Co-Sponsored by the [Institute for Healthcare Quality, Safety, and Efficiency](#) and Graduate Medical Education

The Quality & Safety Academy, offers residents, fellows, and faculty in any program affiliated with University of Colorado a series of workshops designed to build foundational knowledge in quality improvement and patient safety, which will enable them to effectively participate in quality and safety work in the clinical setting. Program content builds on itself to support progressive acquisition of competency, and program elements.

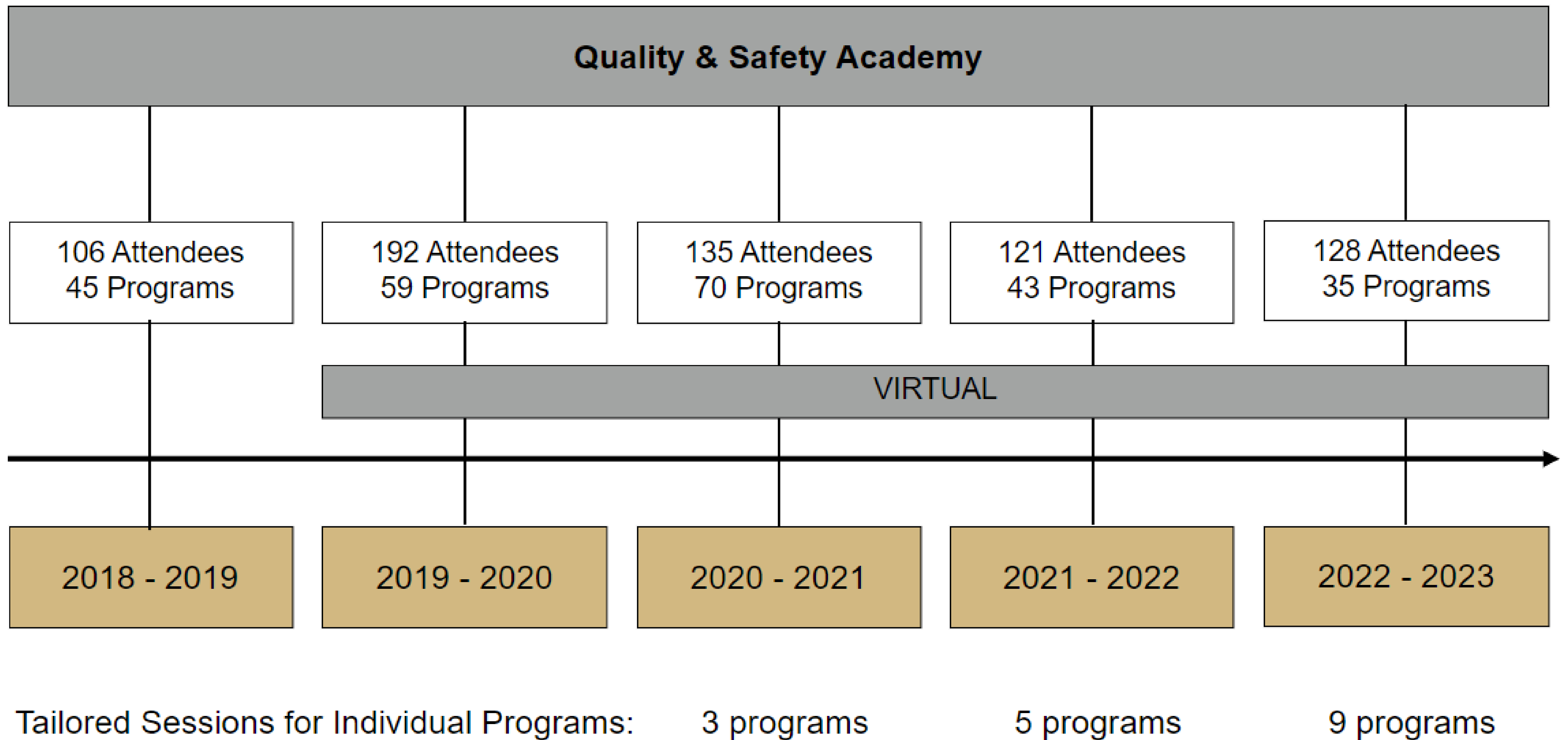
ENGAGEMENT

AY 2023 GME Attendees	AY 2023 # of GME Programs Represented	AY 2023 Series Completions
59	35	25

Session	Session Overview
Quality Improvement & Change Management	This session will focus on the basics of Quality Improvement, following a step-wise guide for implementing a successful QI project. The classic QI teaching is coupled with a practical Change Management framework which facilitates success and makes change more likely to stick.
Applied Patient Safety	This session will further enhance the concepts of Just Culture and discuss and guide the development and participation in a systems-based case review conference. Attendees will emerge being able to build, facilitate or better participate in these important patient safety tools at their institution. Finally, we will explore the second victim phenomenon and discuss how to support caregivers when errors occur.
Designing for Change	Fundamentally, system change requires behavior change. Thus, effective solution design is rooted in fully understanding both the problem and the people involved. This session will cover topics including design thinking, choice architecture, and pre-mortem analysis to help attendees identify and produce the right solutions, for the right problem, implemented at the right time, for the right people.
Acquiring Data to Drive Change	Critical to any change effort is finding, sharing and tracking data. Attendees to this session will emerge with skills for obtaining the necessary data for tracking improvement as well as a basic understanding of how to interpret data to identify when a change has occurred.
Spreading Change Locally and Nationally	Success can and should beget more change. This session will show how to spread QI project success within your institution as well as nationally. This session will discuss critical differences between QI and traditional research as well as how and where to share your work through presentations and publications.
Coaching and Teaching Quality Improvement	Quality Improvement is a team sport. Thus, leaders of any project need to be able to teach and coach others through the QI process. This session will teach attendees how to coach and teach the principles of Quality Improvement to inexperienced team members in a way that stokes their passion and ensures project success.

Quality & Safety Academy

Quality & Safety Academy Growth





Goals for AY 2023-2024

Patient Safety reporting accuracy and improvement

Accurately capture all the patient safety reports submitted by residents at each institution. Increase the number of reports submitted. Improve the perception of loop closure from submitted reports.

Engage with the VA around quality and safety

Receive patient safety reports submitted
Identify quality initiatives and how residents are engaged
Capture systems-based case review conferences

Improve communication between health-system and GME/Housestaff about patient safety and quality initiatives

Implementing regular communications strategies such as monthly GME newsletter to maintain consistent, regular awareness.

Increase Engagement in Quality & Safety Incentive Program

90% of residents achieve \$500 or more payout (up from 84%)
30% of residents achieve full payout (up from 26%)
0 residents not getting any payout (excluding programs choosing not to participate).

Expand Quality and Safety Academy

Increase number of programs sending residents and number of residents who attend
Increase number of tailored sessions
Offer mentored implementation for programs/residents
Quality Improvement (via IHQSE Improvement Academy)
Patient Safety Case Review Process