2020 CMS Quality Conference

Aligning to Ensure Safety, Quality, and Value

Reviewing For Preventable Patient Safety Events

February 25, 2020

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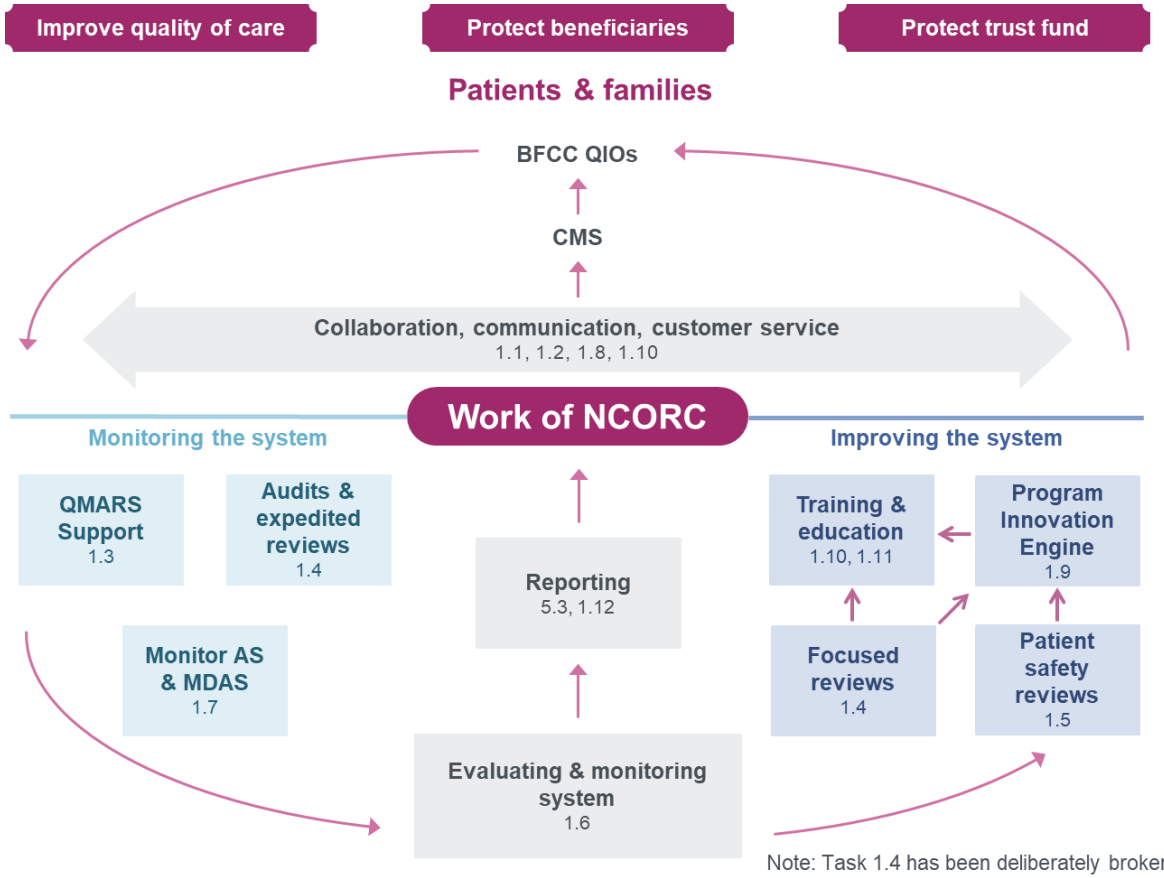
Session Objectives

- Provide an overview of the Patient Safety Reviews as performed by the Beneficiary and Family Centered Care - National Coordinating & Oversight Review Center (BFCC NCORC)
- Describe the inter-agency process and the methodology for reviews
- Discuss initial findings and the approach to addressing patient safety concerns

Work of the NCORC



Note: Task 1.4 has been deliberately broken out between audits and focused reviews

NCORC Task 1.5: Preventable Patient Safety Events

- **From NCORC SOW:**

"The NCORC will systematically screen medical records for adverse patient safety events that occurred in hospitals and other settings using a standardized process and review each medical record that is positive for an adverse patient safety event to determine "the completeness, adequacy and quality of the care provided."

Task Partnerships

- **Agency for Healthcare Research and Quality** (AHRQ): NCORC works with AHRQ to upgrade the Quality and Safety Review Systems (QSRS) based on findings of adverse events not currently detected by the QSRS
- **Central Data Abstraction Center** (CDAC): NCORC collaborates with CDAC to transfer data and medical records for review
- **Qualidigm** - AHRQ Medicare Patient Safety Monitoring System (MPSMS) Data Contractor: NORC collaborates with Qualidigm for QSRS data and sampling of records
- **QIOs** – NCORC collaborates with the BFCC QIOs and QIN QIOs to make appropriate referrals for Quality of Care (QoC) Reviews and/or Quality Improvement Initiatives (QIIs) for appropriate action.

1

Determine
- Incidence of Harm
- Severity of Harm
- Preventability of Harm

2

Refer specific cases of harm events to BFCC QIOs for possible Quality of Care (QoC) Review

Track patterns and trends of safety concerns and initiate a referral to the QIN-QIO Network for possible Quality Improvement Initiative (QII) work

3

Annual Preventability Report:

Data-driven findings and recommendations

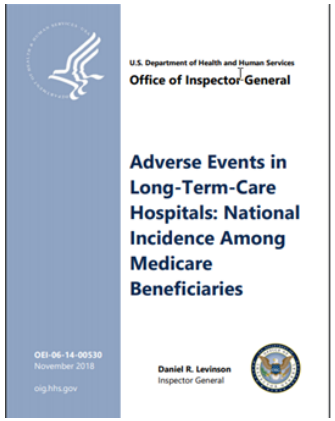
Comparative Report:

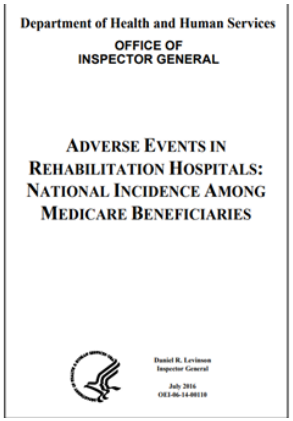
NCORC review results VS CDAC Abstraction results

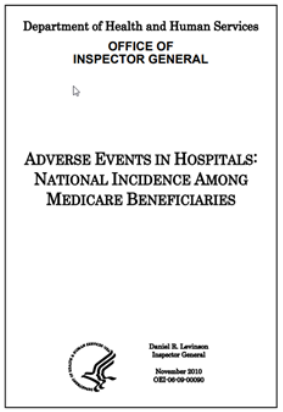
In Summary: 4,000 Records Annually

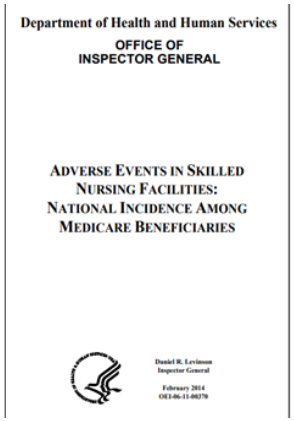
Methodology & Qualifying Charts for this Review

- Review of both AC and PAC records
- Methodologies, tools & definitions based on the Office of Inspector General (OIG) studies on adverse events
- Psychiatric, Pediatric & Obstetrical inpatient not included
- Geographically diverse selection represented
- NYC & Chicago to rural Oklahoma to Native Americans in New Mexico









Department of Health and Human Services, OIG: Adverse Events in Hospitals: National Incidence Among Medicare Beneficiaries (OEI-06-09-00090)

OIG Hospital Report

- Nationally representative random sample of 780 hospitalized Medicare beneficiaries from those discharged during October 2008 were evaluated for harm as a result of medical care, including MHAC events & NQF Serious Reportable Events.

Subsequent reports

- Long-term Care Hospitals
- Rehabilitation Hospitals
- Skilled Nursing Facilities

Task 1.5 Review Methodology

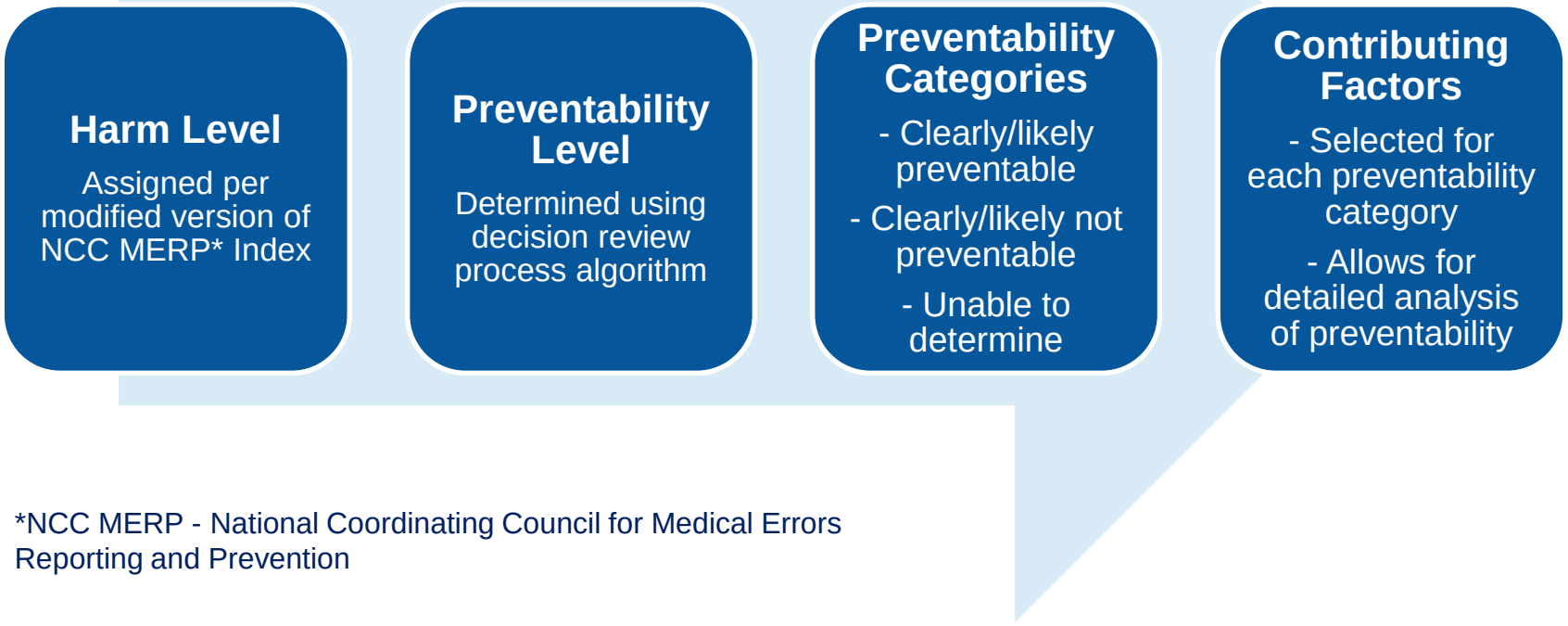
NCORC receives Medicare beneficiary charts (4,000/yr) that have been abstracted by CDAC for AHRQ QSRS system

STEP 1: Nurse Review: a trained review nurse utilizes the (modified) IHI Global Trigger Tool (GTT) to screen for adverse events, flag those charts with harm, summarize findings & propose harm levels & categories of the harms. If a harm is identified the chart moves to Physician Review

Note: 5% of all "no harm" records are randomly sampled and sent to physician review for IRR purposes

STEP 2: Physician Review: Trained Physicians review the flagged chart, confirm the adverse event, the clinical category & categorize the adverse event utilizing the scheme by the National Coordinating Council for Medication Errors Reporting and Prevention (NCC MERP) Index and determine preventability of the harm event utilizing an algorithm.

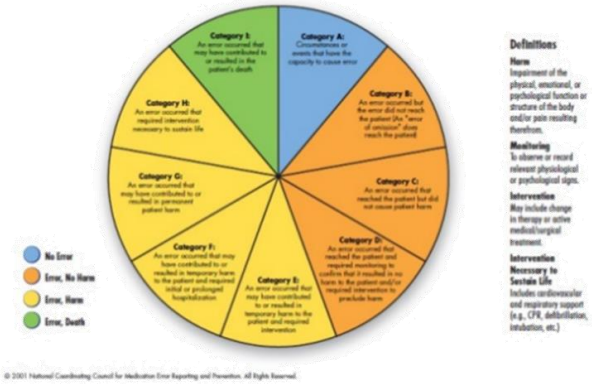
Harm Level & Preventability Determinations



*NCC MERP - National Coordinating Council for Medical Errors Reporting and Prevention

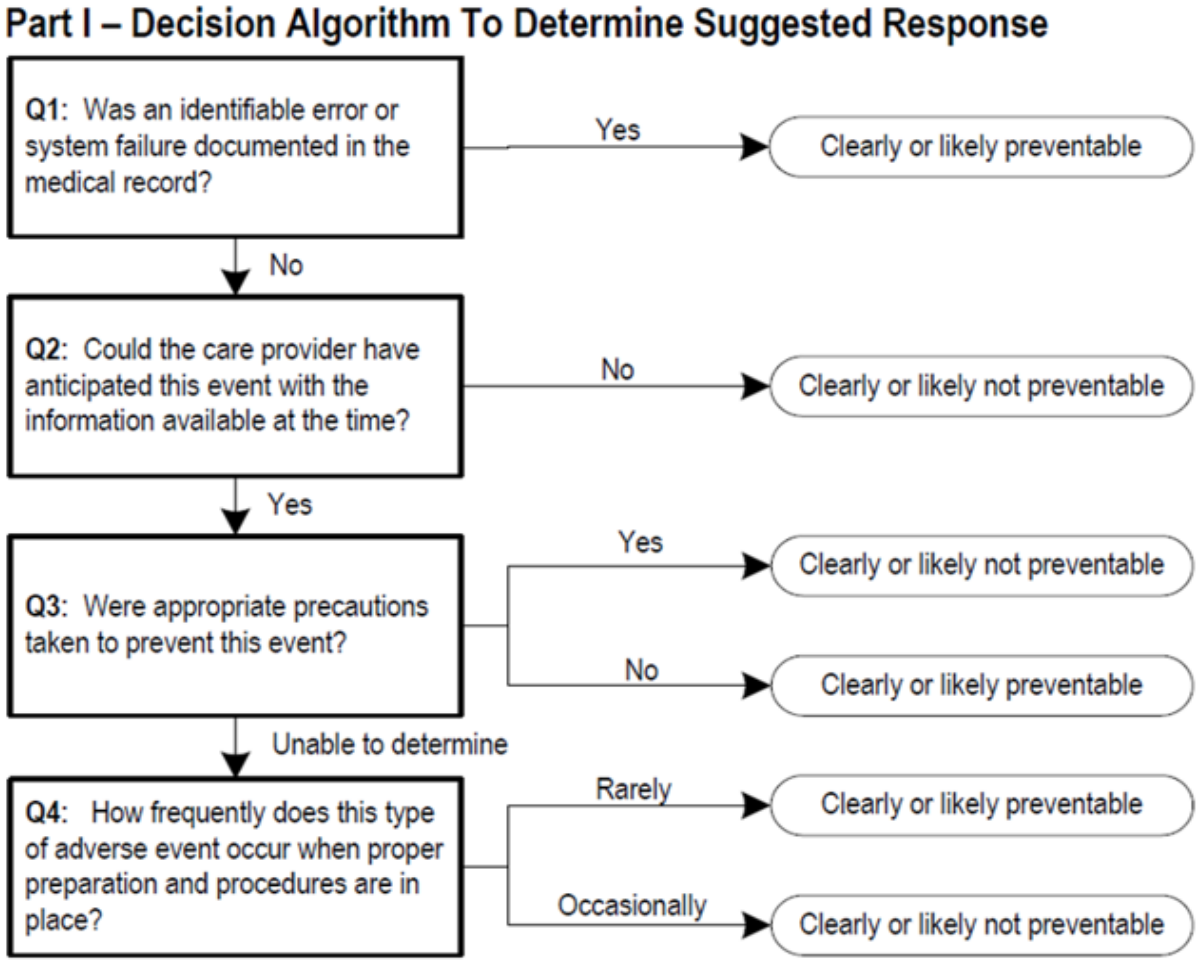
The National Coordinating Council for Medication Errors (NCC MERP) Index for Categorizing Errors

National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP)



Type	Level	Description
Adverse Event	I	Death: Harm occurred that may have contributed to or resulted in patient death *(blood stream infection, excessive bleeding from blood thinner)*
	H	Life-sustaining: Harm occurred that required intervention to sustain patient's life *(respiratory failure, hypoglycemic coma)*
	G	Permanent: Harm occurred that contributed to or resulted in permanent patient harm *(partial colon resection, permanent hemiparesis)*
	F	Prolonged or other stay: Harm occurred that prolonged the stay or led to a transfer to a different facility, acute-care hospital for observation, ED, or inpatient care *(surgical site infection, injury from fall)*
Temporary Harm	E	Temporary/ameliorated: Harm occurred that was temporary and required intervention *(delirium, allergic reaction, Stage 1 pressure ulcer)*

Preventability



IHI's Global Trigger Tool (GTT)

C1	Acute mental status change	M1	Abnormal electrolytes
C2	Aspiration	M2	Abrupt medication stop
C3	Call to physician or family members	M3	Anti-emetic use
C4	Code or Emergency Medical Services (EMS)	M4	Diphenhydramine (Benadryl) use
C5	Death	M5	Elevated INR
C6	Drop in hemoglobin/hematocrit	M6	Epinephrine use
C7	Studies for emboli: PE or DVT	M7	Glucose <50, Glucagon or Dextrose supplem
C8	Fall	M8	Abrupt onset hypotension
C9	Family complaint	M9	Naloxone (Narcan) use
C10	Any infection	M10	Sodium Polystyrene (Kayexalate administration)
C11	New or increased diuretics	M11	Abnormal drug levels
C12	High or low body temperature	M12	Thrombocytopenia
C13	In (SNF) stroke or TIA	M13	Total WBC < 3000
C14	New onset of incontinence	M14	Vitamin K administration (Aqua-Mephyton)
C15	Insertion or use of urinary catheter	M15	Antibiotics started in SNF
C16	Significant Change in Status Assessment in MDS (SCSA)	M16	Increasing pain medication needs
C17	Resident incident or accident	M17	Administration of parenteral fluid
C18	Pressure ulcer	M18	Rising ALT/AST liver function test
C19	ED visit	M19	Medication-Other
C20	Transfer to acute care hospital or observation (OBS) unit	Procedure Module Triggers	
C21	Restraint use		
C22	Rising serum creatinine	P1	Postoperative/post-procedure complication
C23	Urinary retention	P2	Procedure reintubation/BiPAP/new CPAP
C24	New onset diarrhea	P3	Procedure-Other
C25	Prolonged constipation	--	--
C26	Diagnostic radiology or imaging studies	--	--

- **IHI's Global Trigger Tool (GTT):** A trigger could be a description of the harm or a reference that indicates potential harm, such as a return to surgery. It uses a review of medical records to identify "triggers" that could signal patient harm and indicate potential adverse events. The review is designed to be completed by nurse reviewers with the results then confirmed or refuted by a physician.
- "Triggers" are a list of 43 signs, symptoms, orders and/or events which may indicate an unexpected change of condition, which may – or may not indicate an error occurred. They are "clues" a harm MAY have occurred.

Categories of Adverse Events Assignment

Types of Harm Events

Medication Events	• Delirium or other change in mental status • Excessive bleeding due to medication • Fall with injury secondary to effects of medication
Patient Care Events	• Fall with injury related to resident care • Acute kidney injury or insufficiency due to fluid • Exacerbations of preexisting conditions
Infection Events	• Aspiration pneumonia, other respiratory infections • SSI associated with wound care • CAUTI

Patterns of Adverse Events & Quality Trends

- Regularly review data for:
  - patterns of adverse events to CMS & the appropriate BFCC-QIOs
  - reporting of medical errors to the relevant entity under 42 CFR 476.160 (“Review Responsibilities of Quality Improvement Organizations(QIOs)) as required
- Some noted quality trends thus far
  - Administration of antibiotics to patients on warfarin without adjust of the warfarin dose: some with bleeding, some just elevated INR’s
  - Instances of giving normal saline to elders: one developed CHF; another didn’t

Special Evaluations: Cascades

- May tip off existence of a problematic or flawed system
- Criteria for a cascade
  - Three or more E-level or higher harms where each harm leads clearly & directly to the next one
  - All harms occurred while patient was in the hospital (not present on admission)
  - May be triggered by an error of omission or commission, & near misses do not count
- Entire sequence counts as ONE harm

Cascade Examples

- Ex: Pt admitted to hospital for total hip, but not put on prophylactic anticoagulation post-op. Develops **Deep Venous Thrombophlebitis** (C5) → Has a **Pulmonary Embolus** and is admitted to the ICU (trigger C13)→is anticoagulated, resulting in an INR of 8 (trigger M3) and develops a resultant **GI hemorrhage** → is transfused (trigger C1) and has a **transfusion reaction** → is given diphenhydramine (trigger M7) for the reaction and develops a resultant **delirium.**

- Ex.: **bowel nicked during surgery** (S10)→ **fecal contamination of the abdomen (**S11)→ **peritonitis** (S11)→ **wound infection** (S11)→[antibiotics given]→**Clostridium difficile infection** (M1)

Special Evaluations: MHAC's & NQF SRE's

- "The National Quality Forum (NQF) List of Serious Reportable Events" – "Never Events":
  - Surgery on the wrong site or wrong patient
  - Patient death or serious injury associated with the use of contaminated drugs, medication error or medical devices

- "Medicare Hospital-Acquired Conditions":
  - Foreign object retained after surgery
  - Advanced stage pressure ulcers (Stage III & IV)

Special Evaluations: Focus on Opioids & Falls

- Opioid Use upon admission & discharge from the facility
- Capture of non-injury falls incidence (no fx, dislocation, intracranial injury or other serious injury)

The "Quick and Dirty" Findings on First ~1,500 Reviews

1510 patient records, national random sample

14.2% with adverse events

19.1 with temporary harm

20.2 % Preventable

33.3% Harm rate

$4 Million excess cost annually

Summary: Incidence of Screened Events

Event	Number of Cases	Percent of Total Cases
Beneficiaries with HARM	503	33.3%
Beneficiaries with G-Level HARM or above	59	3.9%
Beneficiaries with F- Level of HARM or below	439	29.1%
Beneficiaries with HAC	63	4.2%
Beneficiaries with NQF Serious Reportable Event	7	0.5%
Number of Beneficiaries with Cascade Event	40	2.6%
Total Charts	1510	100.0%

Harm by Demographic

Age Group	Number of Charts	Number of Beneficiaries with Harm	Percent With Harms
<51	70	10	14%
51 – 64	162	53	33%
65 – 74	507	171	34%
75 – 84	455	169	37%
>84	316	100	32%
Total	1510	503	33%

Distribution of Harm (G or Higher) by Age

Age	Number with Harm	Percent with Harm
<51	0	0%
51 – 64	9	15%
65 – 74	25	42%
75 – 84	16	27%
>84	9	15%
Total	59	100%

Distribution of Harm (F or Lower) by Age

Age	Number with Harm	Percent with Harm
<51	9	2%
51 – 64	43	10%
65 – 74	145	33%
75 – 84	151	34%
>84	91	21%
Total	439	100%

Distribution by Type and Preventability of Harms

Preventability	Total Number of Cases	Percent of Total Cases
Harm G or Higher	83	9.3%
Harm F or Lower	773	86.2%
Preventable Harm	184	20.5%
Preventable Harm G or Higher	6	0.7%
Preventable Harm F or Lower	174	19.4%
Preventable Cascade Events	17	1.9%
Total Harm**	897	100%

Total Harm refer to total number of harm, including multiple harm from the same beneficiary.

Challenges: Two Main Ones

- Reviews for harm are related to, but different from QOC reviews
- The charts themselves

Reviewing for Harm vs. Quality of Care

- **Quality Care**
  - Safe, effective, patient-centered, timely, efficient, and equitable
- **Patient Safety**
  - Freedom from accidental or preventable injuries produced by medical care interactions; or, patients should not be harmed as a by-product of their medical care.
- **Supporting Prevention**
  - Annual Preventability Report: data-driven findings and recommendations
  - Comparative Report: NCORC results vs. CDAC Abstraction results

Charts as a Challenge

- The charts themselves
  - Range in length from ~200 up to > 5,000~ pages
  - No national norms for chart architecture
  - Difficult to follow the course of care
  - You don’t know what you don’t know

Task 1.5 Notable Accomplishments

- Completion of 1,510 chart reviews as of December 31, 2019 (began reviews 9/23/19)
- Submitted 2 proposals for CMS Focus Reviews been accepted (Falls & Opioids)
- Development of a process to refer potential QoC issues to the BFCC-QIOs and QIIs to QIN-QIO's

Questions?