## Item #5: Presentation on HCAI Providing Quality Assurance and Quality Control Around Data Deidentification Validation

Zachary Gersten, PhD, Research Scientist II, HCAI



## Technical Assistance (TA) Phases

#### Hospital Equity Measures (HEM) Reporting

### Data De-identification Guidelines (DDG) TA

	Data De laci	itilioation Salaciiii	C3 (DDC) IA
	Launch	Maintenance	Post-submission
•	Engage stakeholders, consulting hospitals Website resources TA webinar	<ul><li>Continue to consult hospitals</li><li>Review completed reports</li></ul>	<ul><li>Continue to review completed reports</li><li>Quality control/quality assurance</li></ul>



- Written resources published on the HCAI Hospital Equity Measure (HEM) <u>website</u>
- 1:1 consultations via email and phone



- Written resources published on the HCAI HEM <u>website</u>
- 1:1 consultations via email and phone
  - Approximately 24 hours of direct technical assistance with hospitals
  - Email and phone calls with 11 hospitals (General Acute Care, Acute Psychiatric Hospital, and Children's; size range)



- Written resources published on the HCAI HEM website
- 1:1 consultations via email and phone
  - Approximately 24 hours of direct technical assistance
  - Email and phone calls with 11 hospitals (GAC, APH, and children's; size range)

#### **Example 1: Applying DDG**

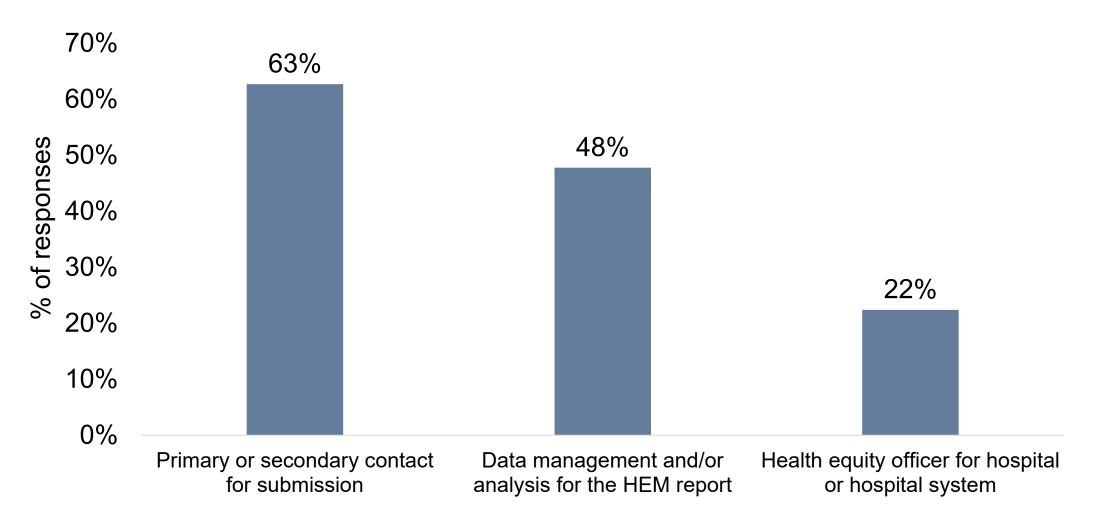
Hospital sought support in data identification risk assessments for stratification groups. We provided step-by-step instructions on how to apply the **HCAI-approved Publication** Criteria Score method in an example scenario by email. Hospital continues to reach out with other data de-identification guideline (DDG)-related questions.



- Written resources published on the HCAI HEM website
- 1:1 consultations via email and phone
- DDG training webinar
  - Pre-training survey to design webinar for hospital needs

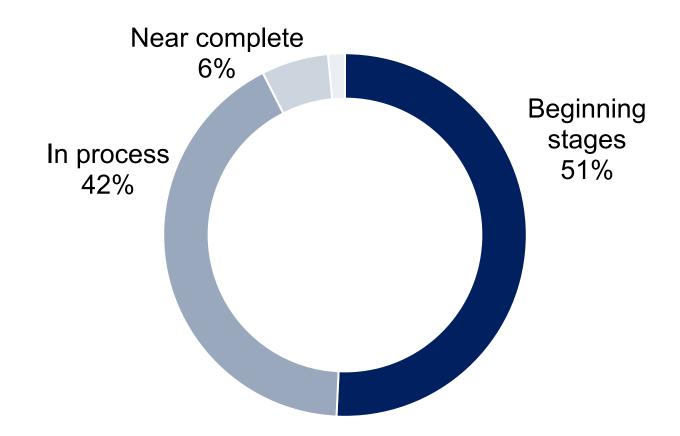


## Pre-Training Survey: HEM Reporting Role



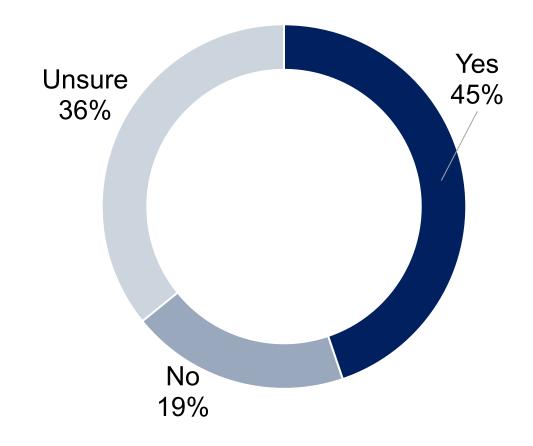


## Pre-Training Survey: Report Progress





# Pre-Training Survey: Use of External Services





- Written resources published on the HCAI HEM website
- 1:1 consultations via email and phone
- DDG training webinar
  - Pre-training survey to design webinar for hospital needs
  - Approximately 230 attendees with diverse hospital representation
  - Topics covered DDG and risk assessment
  - Workshop for HEM reporting using example data



## Training Webinar: Workshop Example

#### **HCAHPS** Question 19: Numerator

- Number of patients who responded "probably yes" or "definitely yes"
- Stratification group: sex assigned at birth
- Count: 8 patients who identify as female

Variable	Assessment	Score	
Events	<11 events	+7	
Sex assigned at birth		+1	
Time	1 year	+0	
Service geography	Address	+3	
Variable interactions	Events, Time, and geography +1 variable	+1	
TOTAL	12		
MASKING	NO		



## Training Webinar: DDG Questions

- How should hospitals report identified disparities and action plans if the related data needs to be masked?
- How should small hospitals report top 10 disparities when DDG masking leave little or no data?



### TA Phase: Maintenance

- Continue to engage hospitals through 1:1 consultations
- Review submitted HEM reports
  - Data completeness
  - Data masking



### TA Phase: Maintenance

- Continue to engage hospitals through 1:1 consultations
- Review submitted HEM reports
  - Data completeness: Ensures adherence to HEM reporting regulations
    - Joint Commission Structural Measures, Health Equity Plan
  - Data masking



### TA Phase: Maintenance

- Continue to engage hospitals through 1:1 consultations
- Review submitted HEM reports
  - Data completeness
  - Data masking: Assess under- and over-masking



## Review Data Masking: Under-Mask

#### Review for "under-masked" data

- Audit small cells that meet the conditions for data identification risk assessment (numerators <11; denominators <20,000)</li>
- Review complementary mask is consistent
- Work with hospitals to appropriately mask data



## Review Data Masking: Over-Mask

- Review for "over-masked" data
  - Project risk scores and identify measures with low likelihood of masking
  - Identify possible excessive data masking
  - Work with hospitals to appropriately un-mask data



# TA Phase: Post-Submission (Near-Term Validation)

- Compare HEM 2024 reports to 2023 patient discharge data
  - Review and compare the data distributions
  - Available measures for comparison:
    - AHRQ Pneumonia Mortality Rate
    - AHRQ Death Rate among Surgical Inpatients with Serious Treatable Complications
    - CMQCC Vaginal Birth after Cesarean Section Rate, Uncomplicated



# TA Phase: Post-Submission (Mid-Term Validation)

- Compare HEM 2025 reports to HEM 2024 reports
  - Level of masking by year, measures, and stratification groups
  - All measures available for comparison

