Multiple-Admission Patient Program

July 21, 2022

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

HQIC Hospital Quality Improvement Contractors
CENTERS FOR MEDICARE & MEDICAID SERVICES
iQUALITY IMPROVEMENT & INNOVATION GROUP

This material was prepared by the Healthcare Association of New York State, Inc., a Hospital Quality Improvement Contractor under contract with the Centers for Medicare & Medicaid Services, an agency of the U.S. Department of Health and Human Services. Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. 12SOW/EQIC/HQIC-0084-07/07/22

Today's faculty

Brenda Chapman BS, RNC,
Program Manager,
Eastern US Quality
Improvement Collaborative,
Health Association of New
York State

Maria Sacco, RRT, CPHQ
Director, Quality
Advocacy, Research and
Innovation, Healthcare
Association of New York
State

Melissa Bauer
Principle Healthcare,
Informatics Analyst,
DataGen

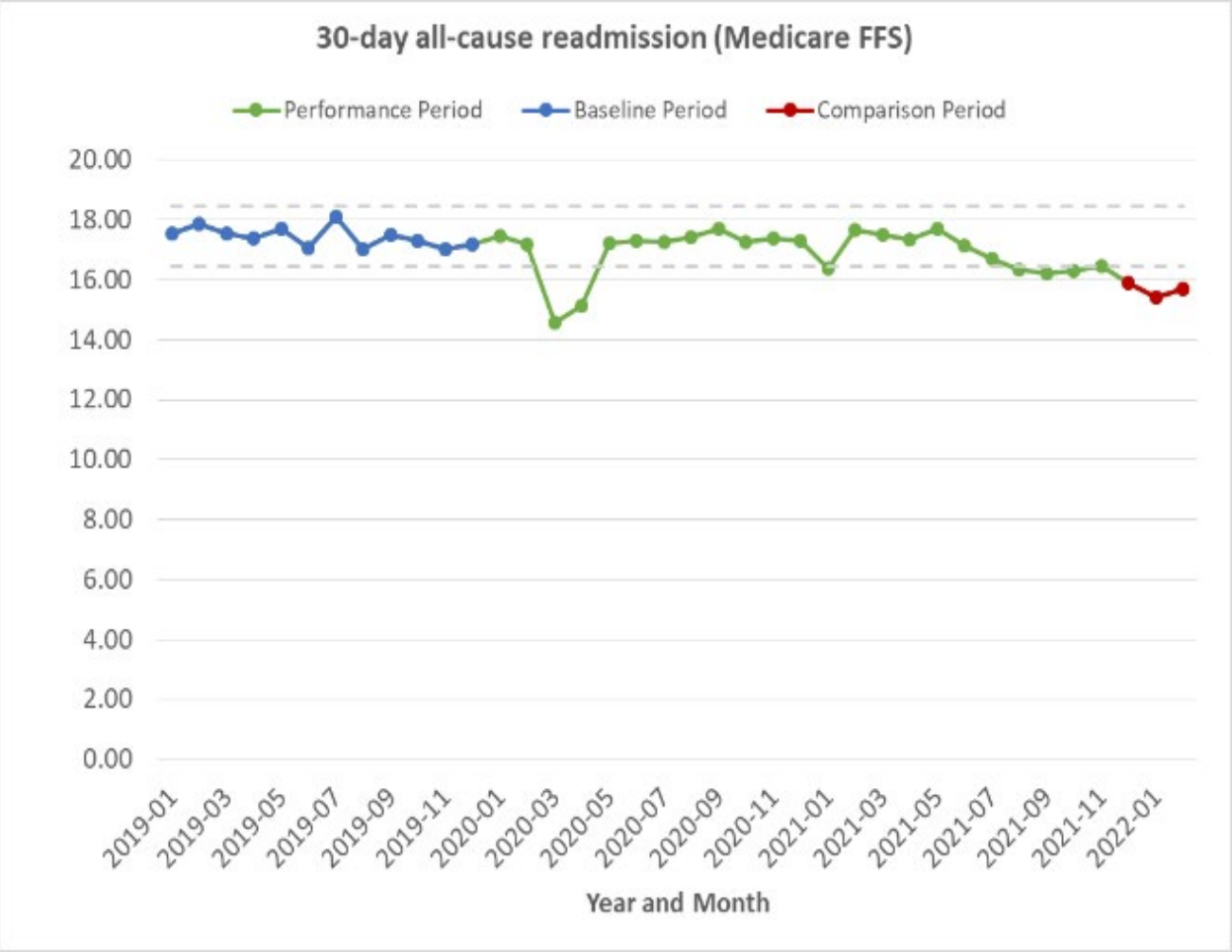
EQIC
EASTERN US QUALITY
IMPROVEMENT COLLABORATIVE

Objectives

- Identify what the EQIC multiple-admission patient program aims are and why implementing a strategy to address this problem will benefit your facility.
- Identify principles and methodology to develop a multiple-admission patient program.
- Identify tools and resources for evaluation.

EQIC goal

Reduce hospital readmission by 5%



EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

Evidence for a MAP program

Patients who are frequently admitted to **hospitals** are likely to have multiple complex chronic conditions.

They also may have behavioral comorbidities that mediate their health behaviors, all of which results in acute episodes requiring hospitalization.

Complex interactions between patients' physical and mental condition, attitude, values, social situation and issues with care provision for both primary and secondary care are all causes of multiple hospital admissions.

Frequently admitted patients may have some distinguishing characteristics that require novel solutions.

Patients who are frequently admitted to US **academic medical centers** are likely to have multiple complex chronic conditions and may have behavioral comorbidities that mediate their health behaviors, resulting in acute episodes requiring hospitalization.

This information can be used to identify solutions for preventing repeat hospitalization for this small group of patients who consume a highly disproportionate share of healthcare resources.

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

Huang, M., van der Borght, C., Leithaus, M. *et al.* Patients' perceptions of frequent hospital admissions: a qualitative interview study with older people above 65 years of age. *BMC Geriatr* 20, 332 (2020). https://doi.org/10.1186/s12877-020-01748-9

Szekendi, M. K., Williams, M. V., Carrier, D., Hensley, L., Thomas, S., & Cerese, J. (2015). The characteristics of patients frequently admitted to academic medical centers in the United States. *Journal of Hospital Medicine*, 10(9), 563-568. https://doi.org/10.1002/jhm.2375

EQIC MAP data

Hospitalwide All-Condition, All-Payer, Readmission Analysis Age 18+

EQIC-Wide Results

Table 6. High Utilizer Population	All
# of patients hospitalized 4 or more times in the past year	4,771
# of discharges by patients hospitalized 4 or more times in the past year	29,271
# of readmissions by patients hospitalized 4 or more times in the past year	14,981
% of readmissions by patients hospitalized 4 or more times in the past year	21%
Readmission rate of patients hospitalized 4 or more times in the past year	51%

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

The framework of this report was modeled after The Agency for Healthcare Research and Quality Medicaid Readmissions tool. It has been modified and pre-populated with hospital-specific data for informational purposes.

What is a multiple-admission patient?

EQIC defines a MAP as an individual who has four or more admissions in a 12-month period.

Designing and Delivering Whole-Person Transitional Care. Content last reviewed June 2017. Agency for Healthcare Research and Quality, Rockville, MD. https://www.ahrq.gov/patient-safety/settings/hospital/resource/guide/index.html

Braet, A., Weltens, C., Sermeus, W. and Vleugels, A. (2015), Risk factors for hospital re-admissions. J Eval Clin Pract, 21: 560-566. https://doi.org/10.1111/jep.12320

EQIC
EASTERN US QUALITY
IMPROVEMENT COLLABORATIVE

Multiple-admission Patient
Program Framework

STEP 1: Design your MAP program
- Create an internal multidisciplinary team
- Identify and invite community-based organizations to collaborate with your team
- Define program goals and measures
- Evaluate and adopt MAP program tools and resources
- Develop staff education for the MAP program

STEP 2: Identify patients that meet MAP program criteria
- Develop data sources for reports
- Review and determine eligible patients
- Develop EMR notifications
- Create a plan for healthcare team communication

STEP 3: Assess readmission risk
- Evaluate readmission risk using a standard assessment tool
- Gather information from patient and care partner
- Regularly review risk data to identify and mitigate risk trends
- Identify and address any health equity and social determinants of health concerns for the patient

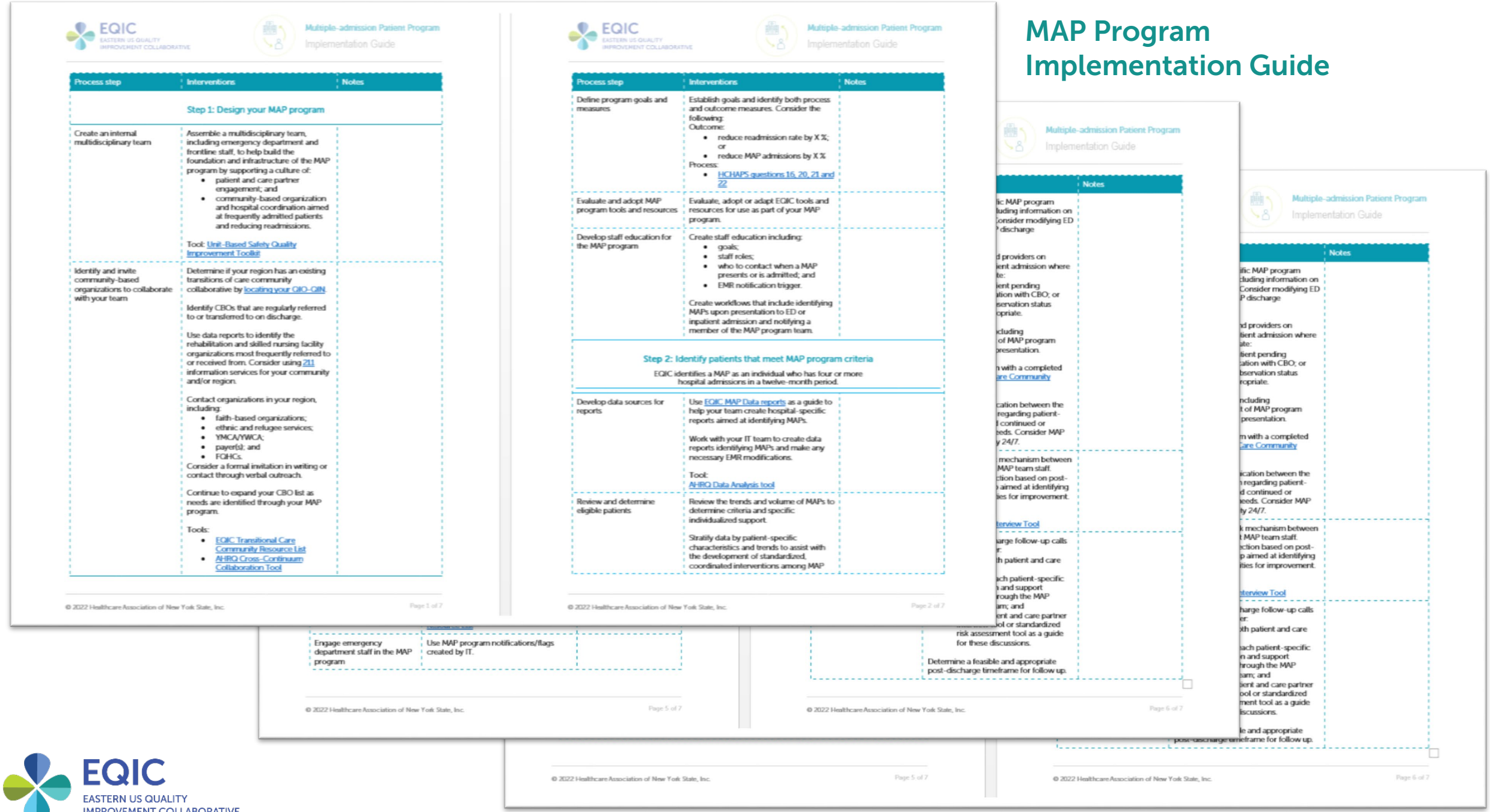
STEP 4: Customize interventions
- Create an individualized plan for each patient
- Coordinate a discharge plan with the MAP program team
- Engage emergency department staff in MAP program
- Ensure follow-up communication with post-discharge provider(s) occurs
- Provide post-discharge support and follow up

HQIC | Hospital Quality Improvement Contractors
CENTERS FOR MEDICARE & MEDICAID SERVICES
QUALITY IMPROVEMENT & INNOVATION GROUP

This material was prepared by the Healthcare Association of New York State, Inc., a Hospital Quality Improvement Contractor under contract with the Centers for Medicare & Medicaid Services, an agency of the U.S. Department of Health and Human Services. Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. 12SOW/EQIC/HQIC-0075-06/02/22

EQIC
EASTERN US QUALITY
IMPROVEMENT COLLABORATIVE

MAP Program Implementation Guide



EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

EQIC MAP Program tools and resources

- MAP Program Syllabus
- MAP Program Framework
- EQIC MAP Data reports
- Map Implementation Guide
- Patient and Care Partner Interview Tool
- Circle Back Interview Tool
- Transitional Care Community Resource List
- High-risk Factors For Readmission Patient Tracking Tool
- AHRQ Data Analysis Tool

https://qualityimprovementcollaborative.org/focus_areas/readmissions/tools_resources/

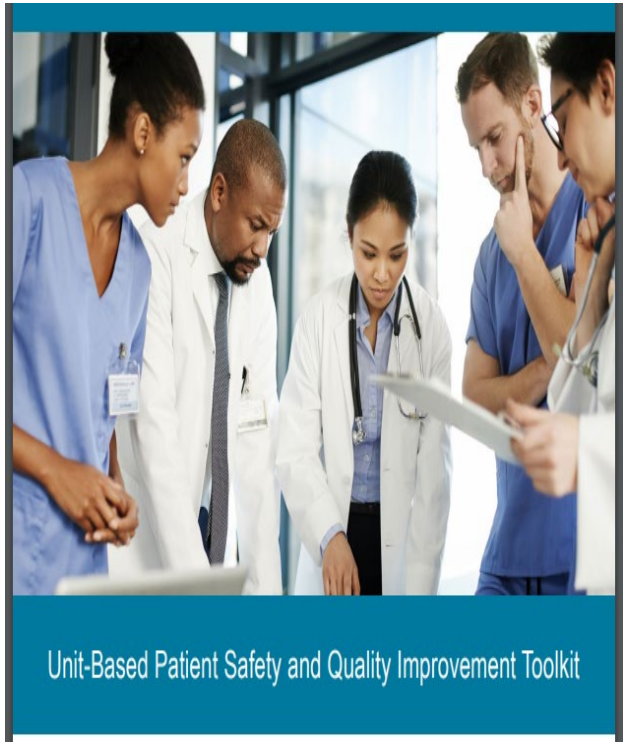
EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

Step 1: Design your program

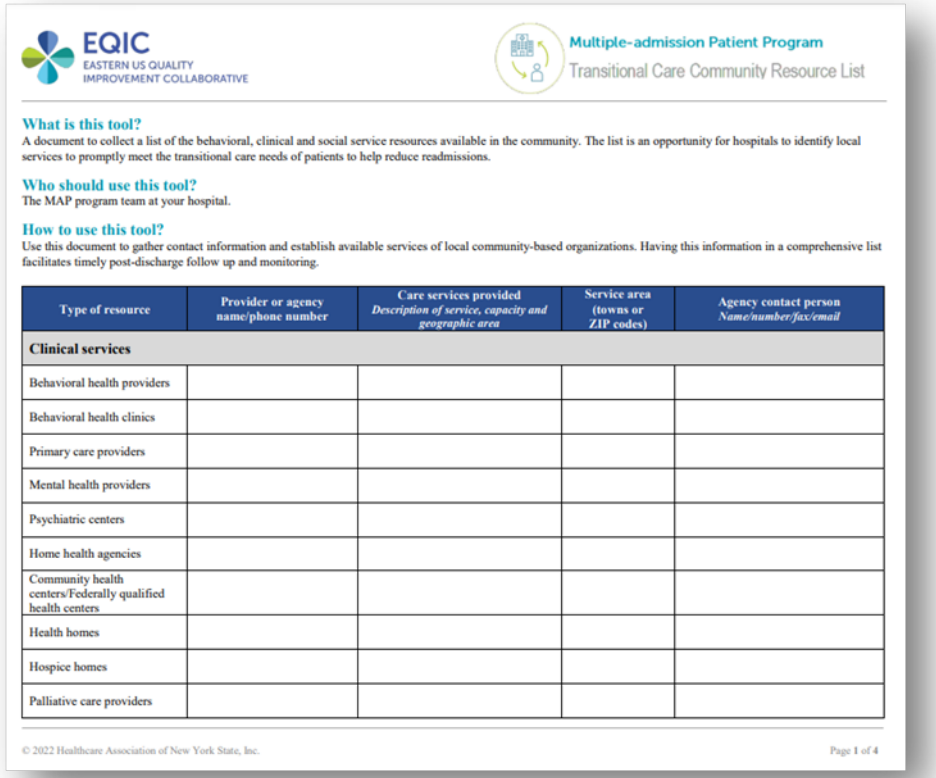
- Create an internal multidisciplinary team
- Identify and invite community-based organizations to collaborate with your team
- Define program goals and measures
- Evaluate and adopt MAP program tools and resources
- Develop staff education for the MAP program

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

EQIC MAP program design resources



https://qualityimprovementcollaborative.org/focus_areas/ubs/docs/NYSPFP_PatientSafety_Toolkit.pdf



EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

Multiple-admission Patient Program
Transitional Care Community Resource List

What is this tool?
A document to collect a list of the behavioral, clinical and social service resources available in the community. The list is an opportunity for hospitals to identify local services to promptly meet the transitional care needs of patients to help reduce readmissions.

Who should use this tool?
The MAP program team at your hospital.

How to use this tool?
Use this document to gather contact information and establish available services of local community-based organizations. Having this information in a comprehensive list facilitates timely post-discharge follow up and monitoring.

Type of resource	Provider or agency name/phone number	Care services provided *Description of service, capacity and geographic area*	Service area (towns or ZIP codes)	Agency contact person *Name/number/fax/email*
Clinical services				
Behavioral health providers				
Behavioral health clinics				
Primary care providers				
Mental health providers				
Psychiatric centers				
Home health agencies				
Community health centers/Federally qualified health centers				
Health homes				
Hospice homes				
Palliative care providers				

https://qualityimprovementcollaborative.org/focus_areas/readmissions/docs/2022-06-13_transitional_care_community_resource_list.docx

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

Define program goals and measures

Measures for consideration

Outcome

- reduce readmission rate by X %; or
- reduce MAP admissions by X %

Process

- HCAHPS questions 16, 20, 21 and 22

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

HCAHPS

- During this hospital stay, did doctors, nurses or other hospital staff talk with you about whether you would have the help you needed when you left the hospital?
- During this hospital stay, staff took my preferences and those of my family or caregiver into account in deciding what my health care needs would be when I left.
- When I left the hospital, I had a good understanding of the things I was responsible for in managing my health.
- When I left the hospital, I clearly understood the purpose for taking each of my medications.

https://hcahpsonline.org/globalassets/hcahps/quality-assurance/2022_survey-instruments_english_mail.pdf

Polling question:

What are your hospital or hospital system's top readmission dx?

1. Pneumonia
2. COPD
3. CHF
4. MI
5. Other
6. Unsure: need to run reports

Step 2: Identify patients who meet MAP criteria

- Develop data sources for reports
- Review and determine eligible patients
- Develop EMR notifications
- Create a plan for healthcare team communication

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

Do you know your data?

- EQIC hospital-specific reports
- AHRQ data analysis tool
  - Use this tool to pull your data and patient-specific information

Data report review

- Melissa Bauer, DataGen

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

Report information

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

EQIC-Wide Multiple-Admission Patients Hospitalwide All-Condition, All-Payer, Readmission Analysis

Report Release Date: June 2022

Report Information

This analysis utilizes All-Payer inpatient claims data for the 12-month period, 01/01/2021 to 12/31/2021. In order to account for the 30 day readmission time interval, discharges from 12/01/2020 to 12/31/2021 were included, in order to capture a full year's worth of readmissions.
Data was pulled on 05/17/2022
Inclusion was limited to adults aged 18+.

Claims without a discharge date and claims with a discharge disposition of 'Expired' or 'Left Against Medical Advice' were excluded from the data.

The framework of this report was modeled after The Agency for Healthcare Research and Quality Medicaid Readmissions tool. It has been modified it and pre-populated with hospital specific data for informational purposes.

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

Readmission rate table

Hospitalwide All-Condition, All-Payer, Readmission Analysis Age 18+

EQIC-Wide Results

Table 1. Readmission Rate	All
# discharges	654,464
# readmissions	71,556
Readmission rate	10.9%

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

Days between discharge and readmission

Hospitalwide All-Condition, All-Payer, Readmission Analysis Age 18+

EQIC-Wide Results

Table 2. Days Between Discharge and Readmission	All
# of readmissions within 0-4 days of discharge	27,344
# of readmissions within 0-10 days of discharge	42,506
# of readmissions between days 0-30 of discharge	71,556
% of readmissions in 0-4 days	38%
% of readmissions in 0-10 days	59%
% of readmissions in 0-30 days	100%

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

Top discharge DRG leading to the highest # of readmissions

Hospitalwide All-Condition, All-Payer, Readmission Analysis Age 18+
EQIC-Wide Results

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

Table 3. Top Discharge DRG's Leading to Highest Number of Readmissions	Top 10 Discharge DRG's Resulting in Readmission	# Readmissions	# Discharges	DRG Readmissions as % of All Readmissions
871	SEPTICEMIA OR SEVERE SEPSIS WITHOUT MV >96 HOURS V	3,908	30,847	5%
291	HEART FAILURE AND SHOCK WITH MCC	2,932	18,330	4%
177	RESPIRATORY INFECTIONS AND INFLAMMATIONS WITH MCC	2,886	34,348	4%
885	PSYCHOSES	2,284	20,643	3%
999	UNGROUPABLE	2,201	3,569	3%
897	ALCOHOL, DRUG ABUSE OR DEPENDENCE WITHOUT REHAE	1,624	11,866	2%
189	PULMONARY EDEMA AND RESPIRATORY FAILURE	1,144	7,043	2%
872	SEPTICEMIA OR SEVERE SEPSIS WITHOUT MV >96 HOURS V	943	9,812	1%
190	CHRONIC OBSTRUCTIVE PULMONARY DISEASE WITH MCC	894	5,542	1%
392	ESOPHAGITIS, GASTROENTERITIS AND MISCELLANEOUS DI	852	9,591	1%
	Total, Top 10	19,668		
	Total, All Readmissions	71,556		27%

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

Data by behavioral health conditions/comorbidities

Hospitalwide All-Condition, All-Payer, Readmission Analysis Age 18+

EQIC-Wide Results

Table 4. Behavioral Health Comorbidities	All
# total discharges	654,464
# readmissions	71,556
# of discharges with a comorbid behavioral health diagnosis	376,456
# of readmissions with a comorbid behavioral health diagnosis	45,097
% of discharges with a comorbid behavioral health diagnosis	58%
% of readmissions with a comorbid behavioral health diagnosis	63%

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

Data by discharge disposition

Hospitalwide All-Condition, All-Payer, Readmission Analysis Age 18+

EQIC-Wide Results

Table 5. Discharge Disposition Details	All
# of discharges to home (without home health)	394,905
# of discharges to home health	113,705
# of discharges to skilled nursing facility (SNF)	82,576
# of discharges to other	63,278
% of discharges discharged to home (without home health)	60%
% of discharges discharged with home health	17%
% of discharges discharged to SNF	13%
% of discharges discharged to other	10%
# of readmissions following discharge to home (without home health)	32,522
# of readmissions following discharge to home health	16,018
# of readmissions following discharge to skilled nursing facility (SNF)	10,931
# of readmissions following discharge to other	12,085
Readmission rate following discharge to home (without home health)	8%
Readmission rate following discharge to home health	14%
Readmission rate following discharge to skilled nursing facility (SNF)	13%
Readmission rate following discharge to other	19%

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

High-utilizer population: Who are they?

Hospitalwide All-Condition, All-Payer, Readmission Analysis Age 18+

EQIC-Wide Results

Table 6. High Utilizer Population	All
# of patients hospitalized 4 or more times in the past year	4,771
# of discharges by patients hospitalized 4 or more times in the past year	29,271
# of readmissions by patients hospitalized 4 or more times in the past year	14,981
% of readmissions by patients hospitalized 4 or more times in the past year	21%
Readmission rate of patients hospitalized 4 or more times in the past year	51%

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

Days between discharge and readmission

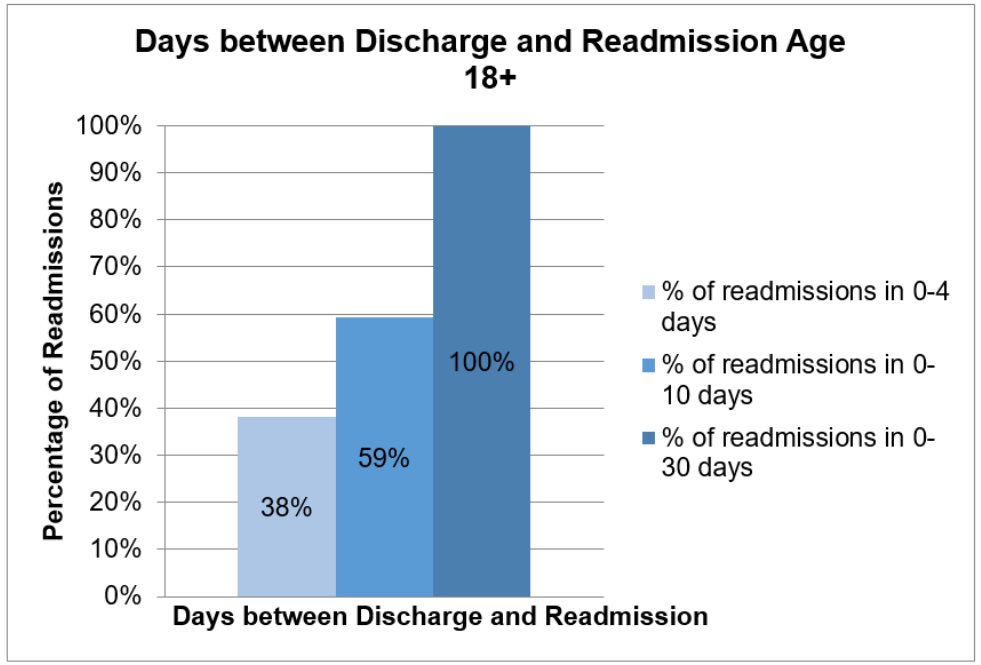
Hospitalwide All-Condition, All-Payer, Readmission Analysis Age 18+

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

EQIC-Wide Results

Table 7. Days Between Discharge and Readmission

What percentage of readmissions occurs within 4 days of discharge? Within 10 days?



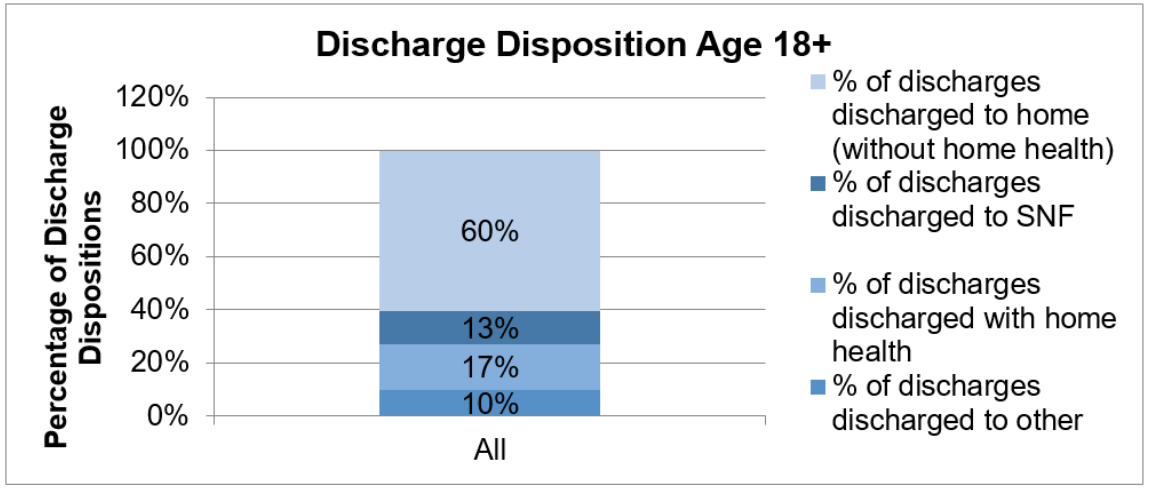
EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

Discharge disposition

Hospitalwide All-Condition, All-Payer, Readmission Analysis Age 18+

EQIC-Wide Results

Table 8. Discharge Disposition



Target populations to consider

Hospitalwide All-Condition, All-Payer, Readmission Analysis Age 18+	

EQIC-Wide Results

Table 9. Target Populations To Consider	
What is the hospital's overall readmission rate, and which groups of patients have higher than average readmission rates? Which group experiences the most readmissions? Are there any high-risk DRG's to consider?	
% of patients with behavioral health comorbidities	63%
Readmission rate among patients discharged to home (without home health)	8%
Readmission rate among patients discharged to SNFs	13%
% of readmissions from high-utilizing patients	21%

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE

MAP data report analysis

Consider additional measures using your own data and the AHRQ Data tool

- Readmission/admission rates by payer
  - Consider dual eligible patients
  - Payer may be good addition to your MAP team depending on supportive services available through payer
- Run by discharge to facility: SNF, rehab, home health, etc.

Develop EHR notification/flag

- Work with IT to develop EHR notification or flag for MAP program patients
- Design communication among healthcare team for identification and presentation of MAPs
  - ED team - who do they call/notify?
  - Admitting clinical team - how do they notify the MAP team a patient has been admitted?

Next steps: Design and identify

- Identify multidisciplinary team
  - Identify and invite community-based organizations
- Develop reports and analyze your hospital specific data
  - Identify MAPs
  - Evaluate to identify trends and additional CBO support
- Evaluate EQIC tools and resources - adapt or adopt
- Design patient-specific MAP team support and communication mechanism
- Educate the healthcare team

MAP program curriculum

Upcoming webinars

August 18: Assess patients at risk for multiple admissions and readmission

September 15: The impact of health disparities and social determinants of health on readmission

October 20: Interventions for the MAP program

November 17: Role of the emergency department - 15 years of ED case management: Lessons learned and benefits realized

December 15: Capstone

Thank you.

Brenda Chapman

bchapman@hanys.org

Maria Sacco

msacco@hanys.org

EQIC
EASTERN US QUALITY IMPROVEMENT COLLABORATIVE