



AHRQ's Initiative To Increase Use of Cardiac Rehabilitation



**Affinity Group:**

## ***Leveraging Data to Enhance your CR Program***

Hicham Skali, MD, MSc

November 12, 2020



# Welcome and TAKEheart Update

- ❖ TAKEheart training activities will resume as early as April 2021 and pick up with the third training module in the series
- ❖ Several re-start activities are planned between now and next April
  - Cohort 1 Partner Hospitals are asked to complete a data planning exercise to lay groundwork for automating referrals
  - Cohort 2 Partner Hospitals are asked to complete a Readiness Assessment to help us better prepare to support you
- ❖ Ongoing offerings of affinity group sessions on priority topics for the learning community. Events are open to anyone but participants are encouraged to join the TAKEheart Learning Community at: <https://takeheart.ahrq.gov/join-takeheart>
- ❖ TAKEheart website remains available with added information and links to COVID-19 resources (<https://takeheart.ahrq.gov/coronavirus>)

# Today's Event

- ❖ Background: TAKEheart affinity groups (AG) provide forums for participants to learn from and share with each other on priority topics. Everyone **LEARNS**, everyone **SHARES**, everyone **SUPPORTS**.
- ❖ Purpose of Today's Call:
  - ❖ Continue process of learning and sharing with each other
  - ❖ Focus of today's conversation: Explore how CR programs are effectively accessing, monitoring and using data to benefit their patients and operations
- ❖ Format: Moderated panel discussion using the chat and polling features to dialogue with participants and allow peer-to-peer sharing

# Today's Experts



## Moderator

### **Hicham Skali, MD, MSc**

TAKEheart Principal Investigator,  
Associate Director of the Cardiac  
Rehabilitation Program at Brigham and  
Women's Hospital, Division of  
Cardiovascular Medicine

## Panelists

**Matt Thomas, MS, MBA, ACSM-CEP,**  
Cardiopulmonary Rehab and Employee  
Fitness

CHI – Memorial Hospital, Chattanooga, TN

**Julianne DeAngelis, MS CCRP, CEP, Lifespan**  
Cardiovascular Institute, Miriam and  
Newport Hospitals, Providence, RI

# Audience Question 1

**Question 1: What best describes the current status of your hospital's CR program?**

Please select your answer here



Remember to click **SUBMIT** when complete

# Audience Question 2

**Question 2: How would you describe the level of uncertainty about the financial and operational challenges your CR program may experience in 2021?**

Please select your answer here



Remember to click **SUBMIT** when complete

# Audience Question 3

**Question 3: What electronic medical record (EMR) system is used in your hospital?**

Please select your answers here



Remember to click **SUBMIT** when complete

# Overviewing Today's Discussion

Growing value of data to CR programs

Assessing the data you have

Assessing the reports you can generate

Maximizing the value of your data and reports



# The Growing Value of Data to Your CR Program

- Timely responses to emerging needs and a changing environment require current and accurate data
- Financial constraints increase the need to demonstrate the value and efficiency of your operations
- Effective care coordination depends on knowing your patients and how their needs are changing
- Automatic referrals require accurate and up-to-date data



*So data matters for everyone, and is essential for participants in TAKEheart!*

# Audience Question 4

**Question 4: Which of the following types of patient-level data does your program have that is complete, accurate and current for potentially, eligible CR patients? (Pick as many as apply)**

Please check all of the data types you can access here:



Remember to click **SUBMIT** when complete

# Worthwhile Data for CR Programs to Access

## What data should CR programs have access to, and why?

### Patient-Level Data

CPT codes

ICD-10 diagnosis & procedure codes

Age & Gender

Race, Ethnicity & primary language

Referral source & timing



### Aggregated Data

Number of eligible patients

Percent of eligible patients enrolled

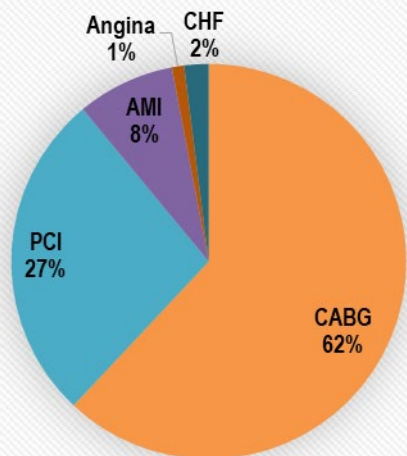
Number/percent of approved sessions completed

Patient profiles (condition, age, sex, race/ethnicity, location, etc.)

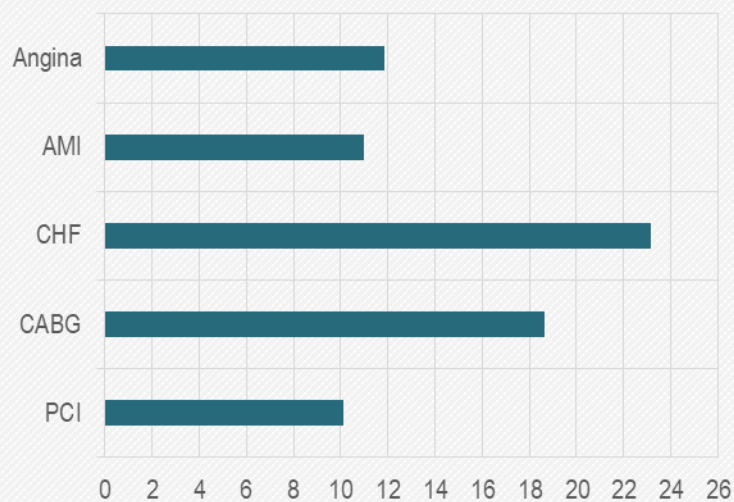
# Worthwhile Data for CR Programs to Access

## Leveraging Insights about Patient Diagnoses

Program composition by diagnosis



Avg program duration by diagnosis (days)



# Audience Question 5

**Question 5: What types of reports do you receive or can you generate on a regular basis? (Pick as many as apply)**

Please select all the data report you regularly receive here:



Remember to click **SUBMIT** when complete

# Getting Value from Data Reports and Queries

**Why do data reports matter, and what should they include?**



Date Range : 10/01/2019 - 03/30/2020  
Program Patient Count : 206

Comparing to : Similar Size [83 program(s)]  
Comparing Patient Count : 5863

# AACVPR Registry Report

Gender	Program			Comparison		
	Range	Mean	%	Range	Mean	%
Male	27 - 94	67	70.4	15 - 106	68	71.2
Female	39 - 85	66	29.6	24 - 96	69	27.5
Unspecified			0	46 - 89	68	1.3

Race (%)	Program	Compare
American Indian or Alaskan Native	0.5	0.4
Asian	0.5	1.6
Black or African-American	3.4	4.5
Ethnic category not listed	6.3	7.3
Ethnic category unknown or not given	0	0.9
Native Hawaiian or Pacific Islander	0	0.1
Non-white Hispanic or Latino ethnicity	0	2.4
White	89.3	66.5

Diagnostic categories (%)	Program	Compare
Angina	5.3	3.5
CABS	14.1	24.4
Cardiac arrest	1.5	0.9
Cardiac transplant	0	0.5
Heart failure	10.2	7.6
NSTEMI	24.8	16.3
PCI	49.5	41.9
Peripheral Arterial Disease	0	0.8
STEMI	19.4	11.8
Stress-induced cardiomyopathy	1	0.1
Transcatheter Aortic Valve Implantation	3.9	4
Valve repair/replacement surgery	16	13.5
Ventricular Assist Device/Artificial Heart	0	0.3
Other	3.9	2.1

Quality Metrics	Program	Compare
Mean completed sessions	31	30
Mean program duration (days)	94	99
Mean wait time (days)	25	26
Attendance rate (%)	88	87

Comorbidities (%)	Program	Compare
AIDS	0	0.1
Cerebrovascular Disease	4.9	5.5
Connective Tissue Disease	0	2.5
Dementia	0	0.4
Liver Disease	0.5	0.9
Malignancy	6.8	4.1
Metastatic Cancer	0.5	0.7
Pulmonary Disease		
Renal Disease		
Ulcer Disease		
Peripheral Arterial Disease		
Previous Myocardial Infarction		

Risk Levels (%)
Low
Intermediate
High
Unknown

Tobacco Status (Intake)
Current (<= 30 days)
Current status unknown
Former (>6 Months)
Never smoker
Recent (31 days - 6 months)

Risk Factors (%)
Hypertension
Hyperlipidemia
Diabetes Type 1
Diabetes Type 2
IGT/IFG
Metabolic Syndrome

Outcome Measure	Program			Comparison		
	Initial	DC	FU	Initial	DC	FU
<b>Clinical</b>						
SBP (mm Hg)	117	114		118	112	122
DBP	68	67		67	64	70
Waist Circumference (in)						
Male	41.8	41.1		41.9	41.2	51.8
Female	40.2	39.9		38.8	38.0	63.0
BMI						
Male	30.0	29.5		29.8	29.6	30.3
Female	32.0	37.7		30.0	29.8	28.8
Lipids (mg/dl)						
Total Cholesterol	159	131	104	166	153	147
Triglycerides	135	118	80	153	150	125
HDL-Cholesterol	42	42	31	46	50	46
LDL-Cholesterol	87	65	57	93	77	76
Non-HDL Cholesterol	117	88	73	119	103	100
FBG (mg/dl)	145	139		124	121	102
A1C (%)	6.8	6.8		6.6	6.6	6.7
Max METs	6.2	7.9		3.5	5.0	2.9
Exercise Mins/Day	7	44		16	43	21
Exercise Days/Week	1	4		2	4	3
6-minute walk distance (ft)	1051.0	1087.8		1206.5	1508.4	1313.7
Rate Your Plate-Heart	54	57		53	57	57
<b>Assessment Tools</b>						
Psychosocial						
PHQ-9	3.7	1.9	0.0	4.4	2.4	0.3
SF36						
PCS	39.5	45.4	52.0	40.4	46.2	52.0
MCS	51.3	55.0	57.0	50.6	54.9	57.0

# Getting Value from Data Reports and Queries

## Utilization of Ancillary Services Excel Spreadsheet

Kind of Nutrition Goal Established	Nutrition Goal Met	Referred to Dietitian	Attended y/n	# of weight loss track sessions attended	Attended weight loss track	Referred to Supermarket tour	attended y/n	referred to cooking demo	attended y/n	referred to beh psych for nutrition goal	Attended y/n	At START of program Current Smoker ( C ) or Recent Quit (RQ) = < 6mos	Referred to beh psych for smoking cessation or relapse prevention	attended y/n
WL	y	y	y	y	n	n	n	n	n	y	y	n/a	n/a	n/a
WL	n	y	y	n	n	y	n	y	n	y	n	Y	Y	N
Lipids	y	y	y	n	n	y	n	y	n	n	n	n/a	n/a	n/a
WL	n	y	y	y	y	y	n	y	n	y	y	n/a	n/a	n/a
Lipids	y	y	y	n	n	y	n	y	n	y	n	Y	Y	Y
Imp Diet	y	y	y	n	n	y	n	y	n	n	n	n/a	n/a	n/a
WL	y	y	y	y	y	y	n	y	y	y	y	n/a	n/a	n/a
WL	n	y	y	y	n	y	n	y	y	y	n	Y	y	Y
WL	n	y	y	n	n/a	y	n	y	n	n	y	n/a	n/a	n/a
n/a	n/a	n	y	n	n/a	y	n	y	n	n	n/a	n/a	n/a	n/a



# Getting Value from Data Reports and Queries

Timepoint: Intake      Enrollment: 1      Assessment Date: 08/07/20

**Summary of Assessment Data**

<u>RAND SF-36</u>	<u>Score</u>	<u>Percentile</u>	<u>Interpretation</u>
Physical Composite Score:	30	7th - 19th %	Sub-Clinical
Mental Composite Score:	42	16th - 30th %	Sub-Clinical

**A referral to the program behavioral therapist is recommended.**

RAND SF-36 Subscales:

Physical Functioning:	35	< 6th %	Clinical
Role-Physical:	0	< 6th %	Clinical
Bodily Pain:	50	16th - 30th %	Sub-Clinical
General Health:	40	7th - 19th %	Sub-Clinical
Vitality:	30	7th - 19th %	Sub-Clinical
Social Functioning:	63	16th - 30th %	Sub-Clinical
Role-Emotional:	0	< 6th %	Clinical
Mental Health:	72	31st - 69th %	Normal

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<u>Measure</u>	<u>Score</u>	<u>Interpretation</u>
GAD 7 Score:	0	Normal
PHQ Depression Score:	5	Subclinical - Mid - Referral to behavioral therapist is recommended.
Suicide Score (from PHQ):	0	Not At All
ENRICHD Score:	32	Normal Social Support
PANA 3 - Positive Score:	32	
PANA 3 - Negative Score:	18	
Rate Your Plate Score:	41	Med - There are some ways to make your eating habits healthier
Cook For Household:	1	Yes
Buy Food For Household:	1	Yes

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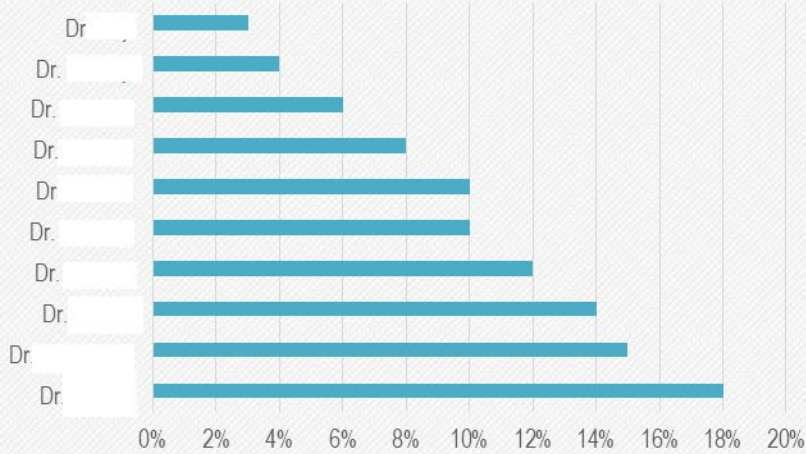
<u>Measure</u>	<u>Score</u>	<u>Interpretation</u>
Risky Medication Score	3	A referral to the pharmacist is recommended.
Forgot to Take:	<input type="checkbox"/> Yes	Feel Worse When Taking: <input type="checkbox"/> Yes
Careless at Time Taking:	<input type="checkbox"/> No	Feel Better Stop Taking: <input type="checkbox"/> Yes

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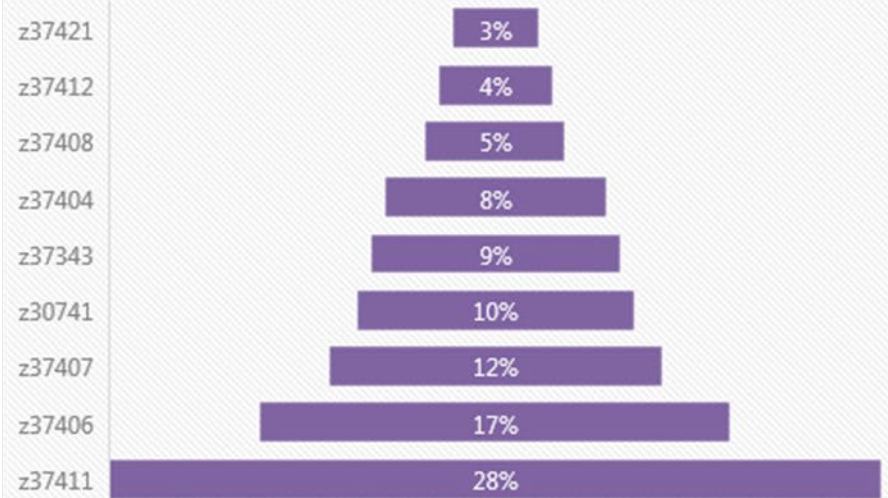
## Patient Assessment Summary Report- Access Database

# Getting Value from Data Reports and Queries

### Referral % by Provider



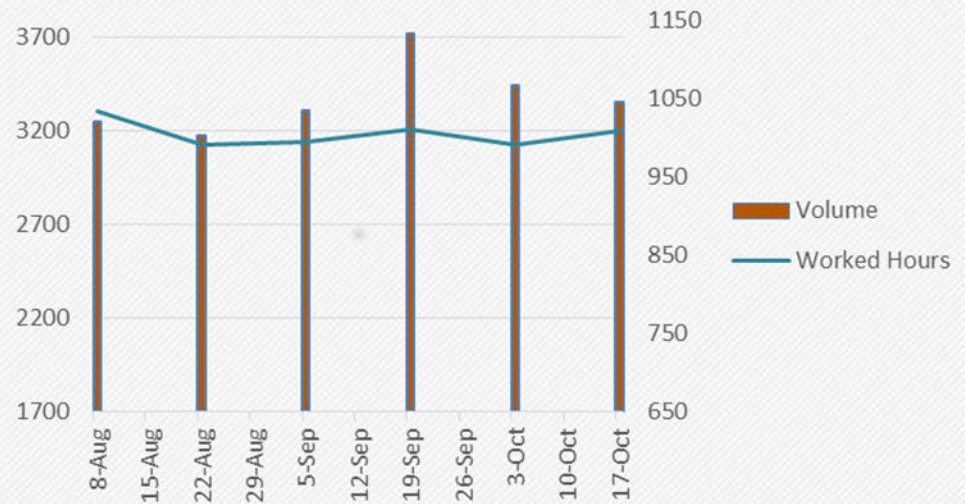
### Program participation by zip code



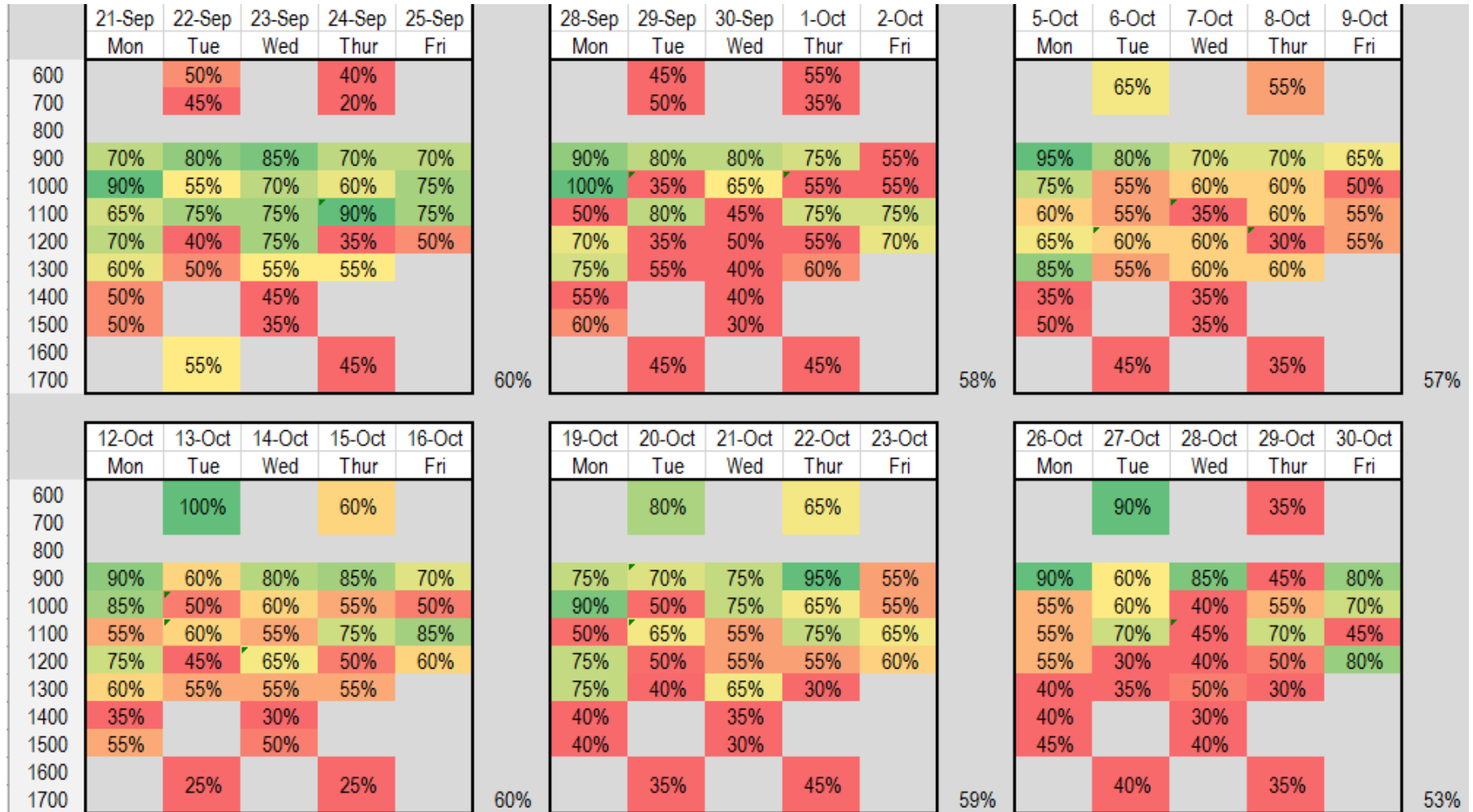
### AVERAGE DISCHARGE TO INTERVIEW



### Productivity: Volumes to hours worked



# Getting Value from Data Reports and Queries



**How can CR programs maximize the value of the data and reports they have access to?**



# Advice from Panelists and Responses to Comments

- **Advice for programs not as far along with data**
- **Responses to chat comments and questions**



# Introducing the TAKEheart Data Planning Resource

- ❖ What it is: *A guided process for assessing your data capabilities and needs*
- ❖ Why you should use it:
  - ❖ *To identify opportunities for enhancing your collection use of data*
  - ❖ *To prepare TAKEheart participants for resuming learning modules in the spring. You can't implement automatic referral without access to data*
- ❖ How you should use it:
  - ❖ *Resource will be emailed or can be obtained online*
  - ❖ *Review it yourself*
  - ❖ *Discuss it with key stakeholders*
  - ❖ *Identify next steps and start working on them*
  - ❖ *TAKEheart participants should submit a completed plan by **Dec. 18***

# Resources Mentioned in Today's Event

- ❖ Information on AACVPR Data Registry available at:

[https://www.aacvpr.org/Portals/0/CR-Registry\\_FAQs.pdf](https://www.aacvpr.org/Portals/0/CR-Registry_FAQs.pdf)

- ❖ The TAKEheart Data Planning Exercise will be circulated by email

# Affinity Group Wrap-Up

- ❖ **Next call:** CMS Final Rule and Strategic Planning for 2021. Thursday, Dec. 10 at noon ET.
- ❖ **Continue discussions** of key topics with peers at: <https://takeheart.ahrq.gov/collaboration>
- ❖ **Today's slides** and an event summary will be emailed to event participants and posted online at: <https://takeheart.ahrq.gov>
- ❖ Please **complete the popup feedback questions** so we can see what worked well and where we can improve.