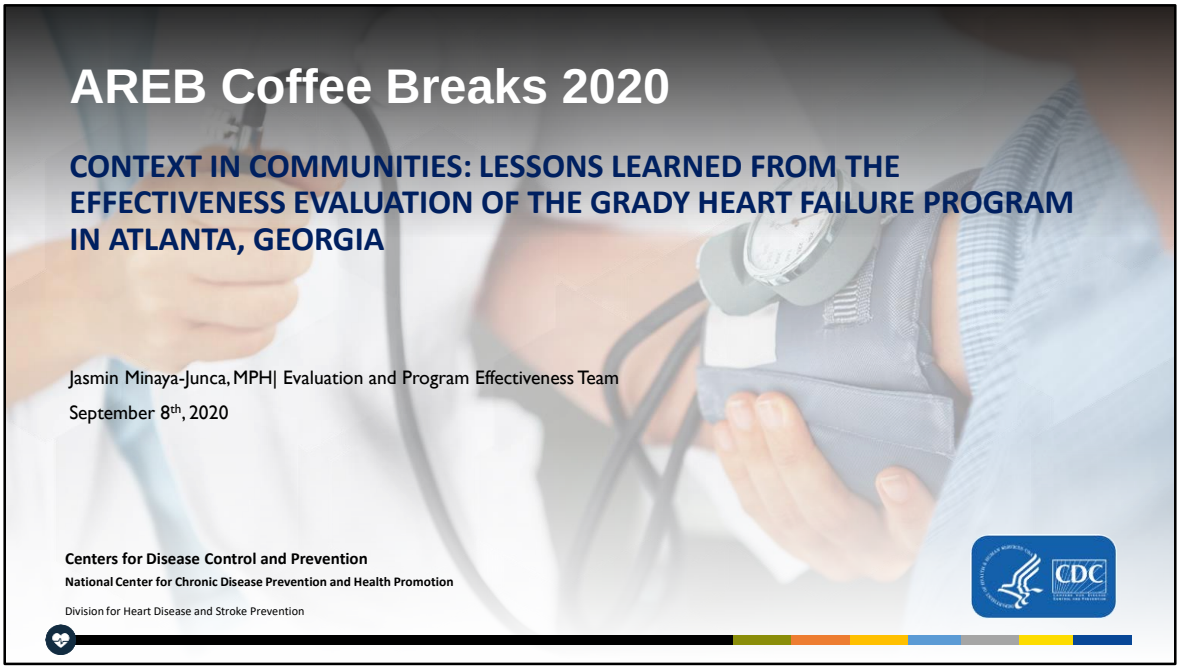


MODERATOR:

Welcome to today's Coffee Break presented by the Applied Research and Evaluation (ARE) Branch in the Division for Heart Disease and Stroke Prevention at the Centers for Disease Control and Prevention (CDC).

We are fortunate to have **Jasmin Minaya-Junca** as today's presenter. **Jasmin is a Health Scientist** with the **Evaluation and Program Effectiveness Team (EPET)** within CDC's Division for Heart Disease and Stroke Prevention.

My name is **Allison White** and I am today's moderator. I am **on the Applied Research and Evaluation Team (ART)** within the Applied Research and Evaluation Branch.

Before we begin…

- All phones have been placed in SILENT mode.
- Any issues or questions?
  - Use Q & A box on your screen
  - Email AREBheartinfo@cdc.gov

MODERATOR:

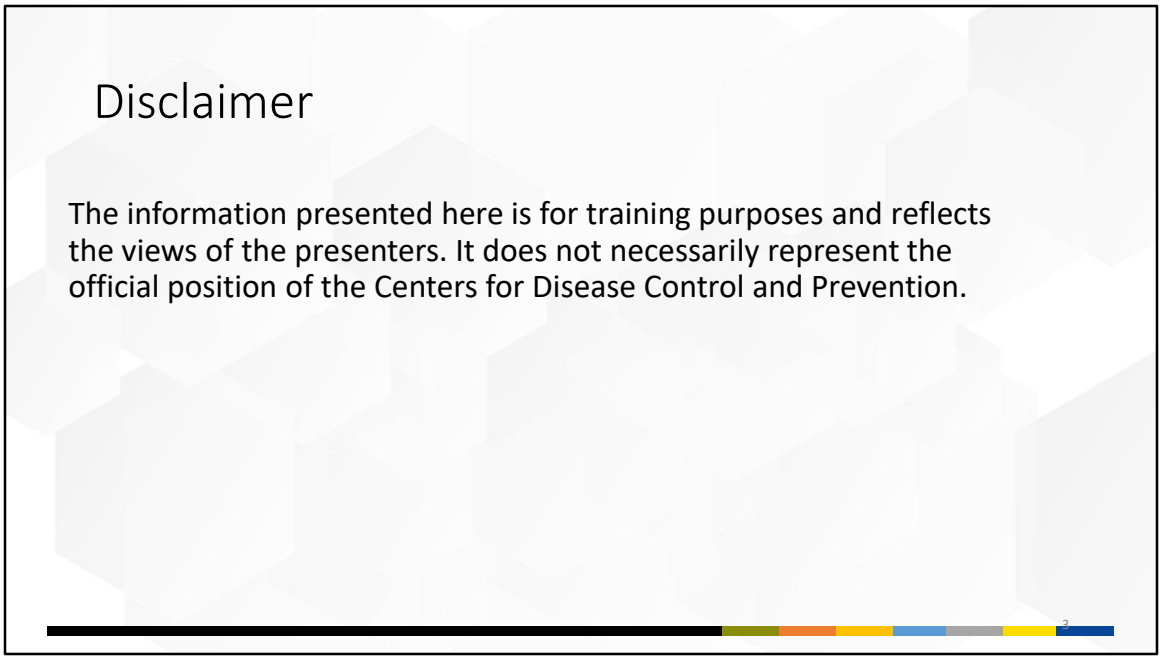
Before we begin we have a few housekeeping items.

All participants have been muted. However, to improve audio quality please mute your phones and microphones.

If you are having issues with audio or seeing the presentation, please message us using the chat box or send us an email at AREBheartinfo@cdc.gov

If you have questions during the presentation, please enter it on the chat box on your screen. We will address your questions at the end of the session.

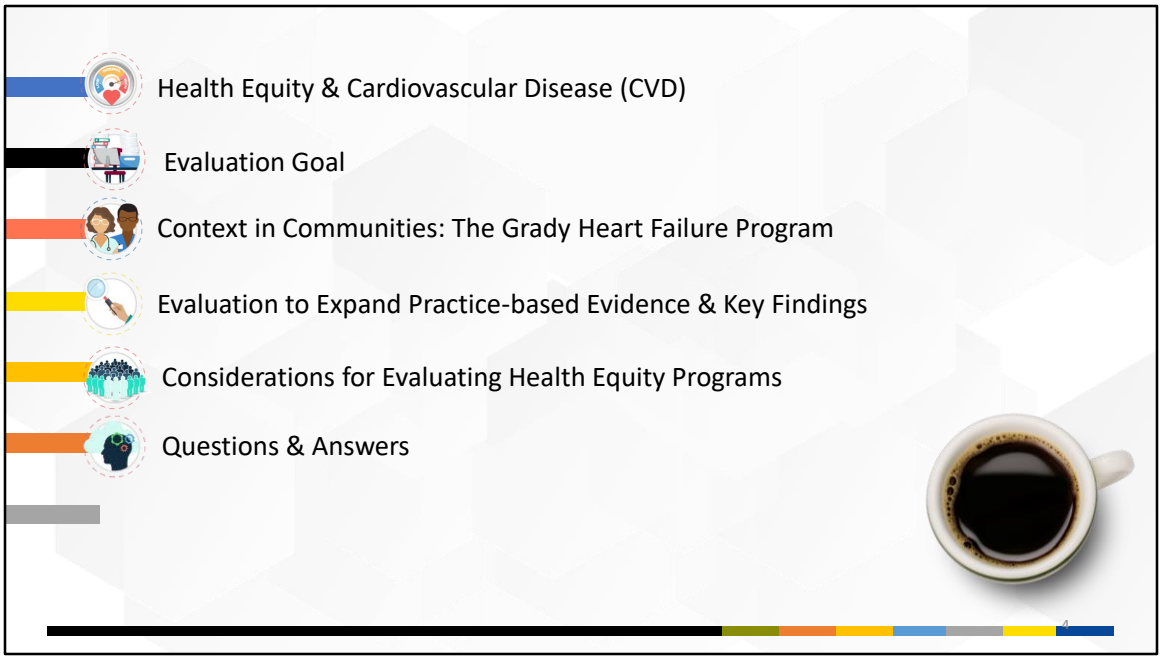
Since this is a training series on applied research and evaluation, we hope you will complete the poll at the end of the presentation and provide us with your feedback.



MODERATOR:

The information presented here is for training purposes and reflects the views of the presenters. It does not necessarily represent the official position of the Centers for Disease Control and Prevention.

So, without further delay. Let's get started. **Jasmin,** the floor is yours.



Thank you, Allison, and thank you to our attendees for joining us for today's presentation. I am happy to provide a brief overview of one of our recent evaluation projects.

In this presentation, I will begin by discussing how health equity impacts cardiovascular disease (CVD) and our project goal for addressing health equity and CVD. Then I will share about our real-world evaluation of the Grady Heart Failure Program including the methodology we used and some of our key findings. I will conclude with considerations for evaluating health equity programs in the field. Please hold all questions to the end of the presentation.

HEALTH EQUITY & CARDIOVASCULAR DISEASE

Health Equity & Cardiovascular Disease

- "The most significant opportunities for reducing death and disability from CVD in the United States lie with addressing the social determinants of cardiovascular outcomes."
  - Socioeconomic status (e.g. income, education, employment)
  - Race, ethnicity, and racism
  - Social support
  - Access to medical care
  - Residential environments

Source: American Heart Association. Social Determinants of Risk and Outcomes from Cardiovascular Disease: A scientific statement from the American Heart Association. Circulation. 2015; 132: 00-00.

6

- We know that disparities exist in CVD morbidity and mortality.
- The American Heart Association released a statement that "…the most significant opportunities for reducing death and disability from cardiovascular disease in the United States lie with addressing the social determinants of cardiovascular outcomes".
- The statement lists the evidence on social determinants of health that affect cardiovascular disease including socioeconomic status; race, ethnicity, and racism; social support; access to medical care; and residential environments.
- This statement underscores that public health research and evaluation must work to understand and address the inequitable distribution of structural drivers that impact health.

EVALUATION GOAL

Evaluation Goal

To identify promising programs that showed evidence of addressing barriers to health equity in the communities they serve and that were ready for an effectiveness evaluation.

- CDC's Division for Heart Disease and Stroke Prevention works to improve cardiovascular health for all.
- Consequently, we have a responsibility to identify proven, replicable strategies to reduce health disparities and promote health equity in relation to CVD and stroke.
- With these considerations in mind, our team sought to identify promising programs that showed evidence of addressing barriers to health equity in the communities they serve and that were ready for an effectiveness evaluation.

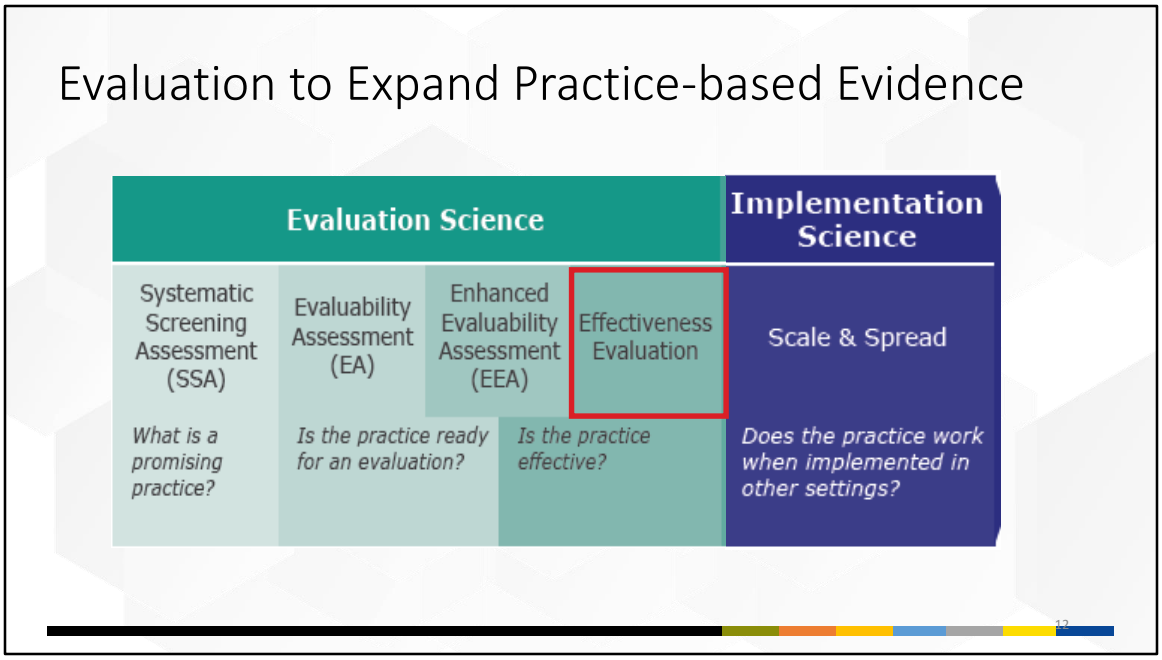
CONTEXT IN COMMUNITIES: GRADY HEART FAILURE PROGRAM

Context in Communities: Grady Heart Failure Program (GHFP)

- The Grady Heart Failure Program (GHFP) was selected for an effectiveness evaluation in fall 2017
- The GHFP is based in the Grady Health System, a public, safety-net hospital located in downtown Atlanta
  - Serves over 90% African Americans and low-income
  - Launched in March 2011
  - Uses a multidisciplinary approach to reduce high rates of hospital readmissions
- In 2015, the program expanded its health equity components by adding transportation partners and a community health worker

- The Grady Heart Failure Program (GHFP) was selected in the fall of 2017 for an effectiveness evaluation.
- The heart failure program is based in the Grady Health System, a public, safety-net hospital located in downtown Atlanta.
- The Program primarily serves (over 90%) African American, low-income patients with heart failure.
- It was launched in March 2011 and uses a multidisciplinary approach to reduce high rates of hospital readmissions by giving patients education to help them manage their health and offering services to reduce socioeconomic barriers to care.
- The program expanded its health equity components in late 2015 by adding transportation partners and a community health worker (CHW).

EVALUATION TO EXPAND PRACTICE-BASED EVIDENCE & KEY FINDINGS



- To identify the Grady Heart Failure Program, we use the Systematic Screening Assessment (SSA) and Evaluability Assessment (EA). We then conducted an effectiveness evaluation to assess the extent to which the Program was achieving its intended objectives.
- Once we know a strategy is effective, we use the scale and spread approach with the aim of:

1) disseminating that strategy through products and resources,

2) using that information to inform the strategies implemented through our funded programs, and

3) evaluating the implementation of those practices or strategies in new settings or contexts.

- Over the years, our Division has sequenced these methods to build evidence around strategies that contribute to improvements in cardiovascular disease prevention, treatment, and management.
- This evaluation research approach allows us to translate our lessons learned from evaluation into public health action.

GHFP Effectiveness Evaluation Purpose

- The purpose was to rigorously evaluate the GHFP's effectiveness in advancing health equity for control and outcomes of CVD
- The evaluation was designed to:
  - Evaluate GHFP processes and outcomes
  - Determine extent to which GHFP is advancing health equity
  - Identify components that affect health outcomes & health equity
  - Identify cost & medical resource implications of implementing and maintaining the program

- The GHFP evaluation was a two-year evaluation. The purpose was to evaluate the Program's effectiveness in advancing health equity in CVD through a comprehensive process and outcome evaluation.
- To achieve this, we set out to evaluate the processes and outcomes, including the extent to which the Program is advancing health equity; identify program components that impact health equity; and document the resources and costs needed to implement the program.

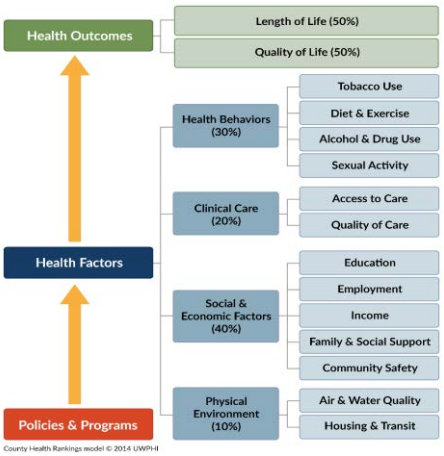
Approach to Evaluating Health Equity

Robert Wood Johnson Foundation

Health Rankings Model

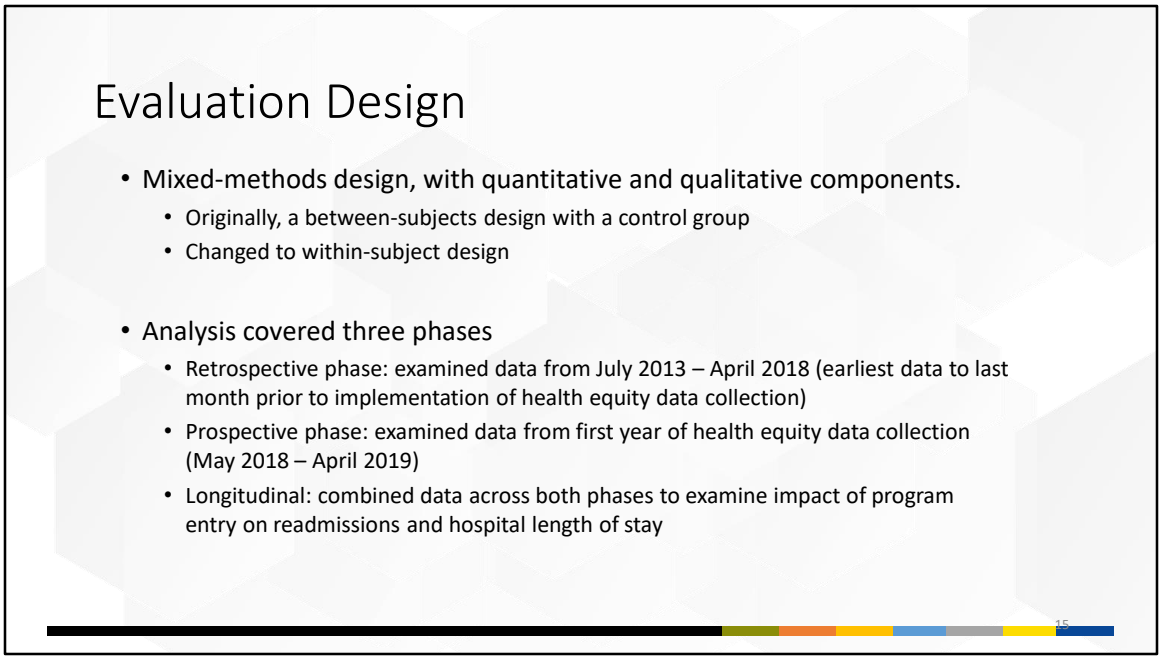
Specifies 4 components contributing to health equity:

1. social and economic factors,
2. health behaviors,
3. clinical care, and
4. physical environment



Source: Health Rankings Model: Hood, Carlyn M., et al. "County Health Rankings: relationships between determinant factors and health outcomes." American journal of preventive medicine 50.2 (2016): 129-135.

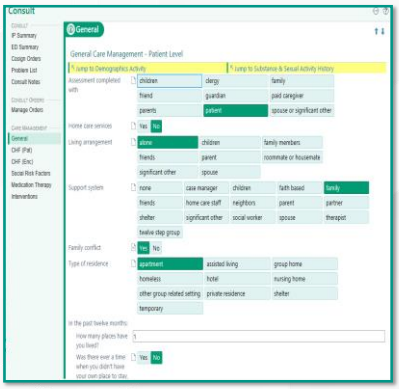
- The evaluation was based on the Robert Wood Johnson Foundation Health Rankings model that specifies four components contributing to equity:
  - social and economic factors,
  - health behaviors,
  - clinical care, and
  - the physical environment.
- Different components of the Grady program and data relate to each of these factors.
- The model provided a useful conceptual framework to see how the Program advances health equity through its specific activities and in its associated outcomes.



- The evaluation was designed as a mixed-methods design, with quantitative and qualitative components.
- Originally, it was intended to be a between-subjects design which was dependent on appropriate comparison groups. However, after getting a better understanding of the program it was deemed that a within-subject design in which participants served as their own controls was the most appropriate methodology. This approach ensured that for each patient there was an equal opportunity to have readmissions before and after the Program.
- We considered data from three different time periods:
    - a retrospective phase, looking at the time from the earliest available data up to the implementation of the health equity data collection;
    - a prospective phase, looking at the data from the first year that included health equity data collection, through the Healthy Planet module of Grady's electronic medical records; and
    - A longitudinal phase that combined data across both phases to examine impact of program entry on readmissions and hospital length of stay.

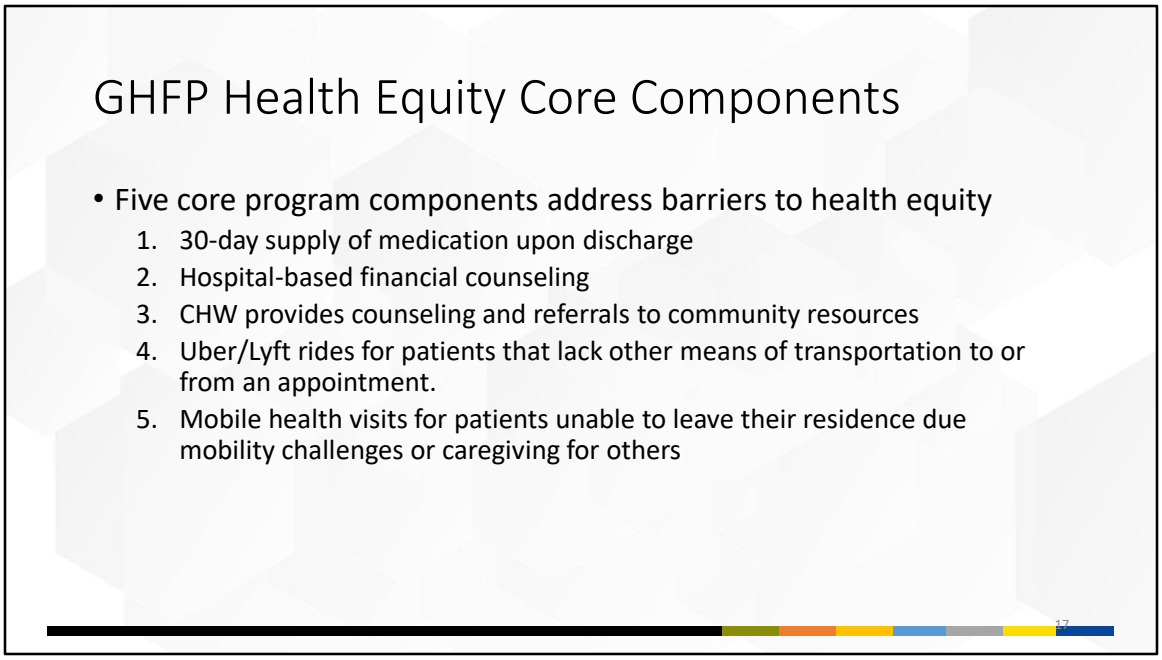
Health Equity Data

- Healthy Planet
  - Fully implemented in May 2018
  - May 2018 - April 2019, the first year of health equity data collection
- Patient focus groups and interviews
  - Nine patients
- Staff interviews
  - Nine staff of the Grady Heart Failure Program
- Follow-up calls
  - Post data collection method



- While we were looking at a broader set of data and outcomes as part of our effectiveness evaluation, I will focus on the data that specifically spoke to addressing health equity.
- Given the complexity of the program data, we used several methods to evaluate the health equity aspects of the Program. We used Healthy Planet, patient focus groups and interviews, staff interviews, and follow-up calls.
- Healthy Planet is a module of Grady's electronic medical records system, EPIC. The Program uses Healthy Planet to gather data on the social determinants of health. The Program fully implemented it in May 2018. We examined data from May 2018 through April 2019.
- We worked with nine patients and nine staff members to conduct focus groups and interviews. We conducted patient focus groups prior to deciding to conduct patient interviews.
    - In order to dive deeper into health equity elements we found that individual interviews were a better qualitative data collection method.
- Moreover, in the future, we should train evaluators on culturally responsive evaluation.
    - In reviewing some of the interview transcripts, we noticed themes that likely weren't captured around health equity.

- In our consultation with Grady, we discovered that they didn’t have a standard post data collection process.
    - As a result, we added a post data collection approach using follow-up calls to patients after their initial hospital admission.



- In our evaluation of the Program, we wanted to understand what they were doing to address health equity. We learned that Grady Heart Failure Program aims to increase health equity by improving the quality of care and outcomes of low-income, vulnerable patients with heart failure. It utilizes a multidisciplinary approach to reduce high rates of hospital readmissions by educating patients on how to manage their health and offering services to reduce socioeconomic barriers to care.
- There are five core components of the program that address barriers to health equity.
    - The program addresses financial barriers by providing financial counseling to patients while they are in the hospital and a 30-day supply of medication upon discharge.
    - Access to care and continuity of care are addressed by providing a community health worker to help patients with counseling and referrals to community resources, Uber/Lyft rides if they lack other means of transportation to or from an appointment, and, if needed, mobile health visits for patients who are unable to leave their residence due to mobility challenges.
- The key outcomes for the program are reduced readmission rates and length of

stay amongst its participants.

Program Components & Health Equity Questions

Core Components	Health Equity Questions for Follow-up Calls
 30-day medication supply; Hospital-based financial counseling	• How hard is it for you to pay for the very basics, like food, housing, medical care, and heating? • In the past 12 months, was there a time when you could not get a prescription medication because you could not afford it?
 Transportation Assistance; Mobile Health Visits	• Have you missed appointments in the past 6 months due to lack of transportation?

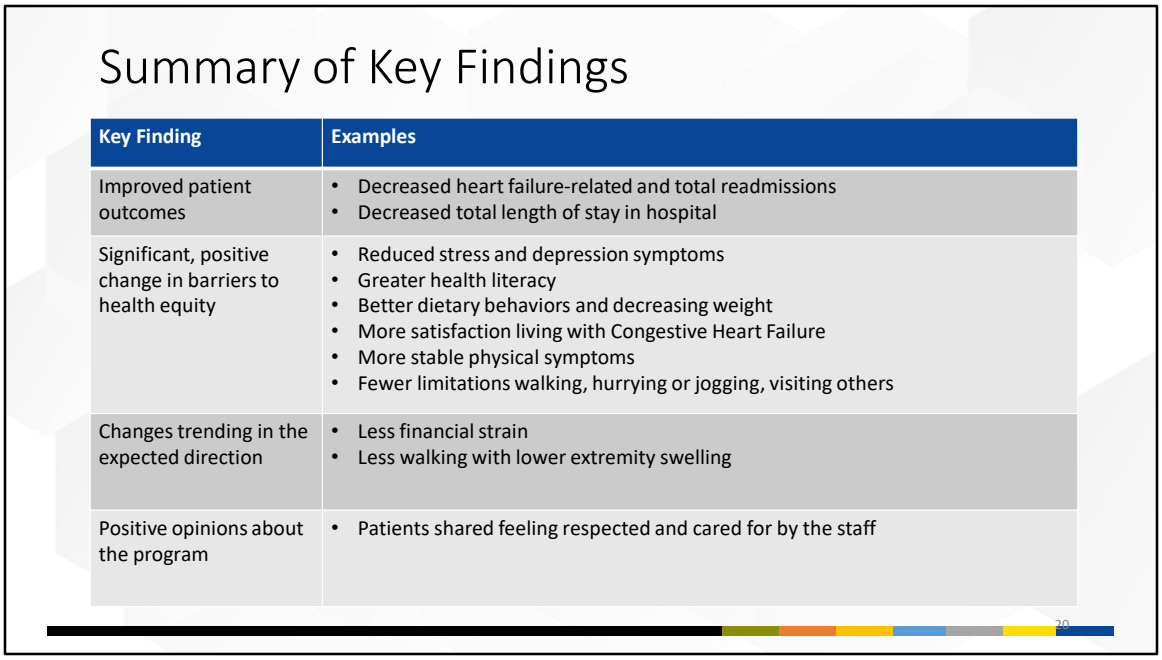
- Discussion with the Program revealed that there was no set time frame for follow-up collection of Healthy Planet indicators after the initial admission to the Program.
    - To ensure that at least some measures would provide adequate statistical power for pre-post analyses of change for patients, we consulted with the Program to identify a subset of items that would be asked of patients as part of follow-up patient outreach encounters, following their initial hospital admission, for program improvement purposes. These questions were selected to represent a broad cross-section of health equity concerns.
- The follow-up calls occurred about 6 months post patient intake.
- 119 calls were conducted by the community health worker from December 2018 through March 2019. These data were entered into Healthy Planet.
- This table highlights examples of follow-up questions that were asked related to the core component areas of 30-day supply of medication upon discharge, hospital-based financial counseling, transportation assistance, and mobile health visits.
    - The follow-up questions asked about the level of difficulty in paying for basics such as food, housing, and medication and if transportation was a barrier to attending medical appointments.

Core Component & Health Equity Indicators

Core Component	Specific Indicators

 Community Health Worker Referrals to Community Resources	• Homelessness: Homeless in the past year
	• Food insecurity: worried food will run out, unable to buy more
	• Stress: Frequency of being tense/nervous, restless
	• Depression: PHQ-2
	  • Little interest or pleasure in doing things
	  • Feeling down/depressed/hopeless
	• Social support:
	  • Talk on the phone with family/friends/neighbors
	  • Get together with friends/relatives
	  • Attend church/religious services
	  • Attend meetings for clubs/organizations

- Although Healthy Planet includes other indicators, this table lists the specific indicators reported as most relevant to the core component of the CHW linking to community resources.
- For this core component, we inquired about homelessness, food insecurity, stress, depression, and social support.
- The Program screens all patients at intake for depression using the Patient Health Questionnaire (PHQ-2 and PHQ-9). The CHW provides mental health counseling and behavioral health referrals. The Program's CHW has mental health training.



Our findings indicate several key points about the GHFP.

The Program implements several useful strategies that aim to address social determinants of health. The program helped improve patient outcomes such as decreased heart failure-related and total readmissions and decreased total length of stay in the hospital.

We also observed several positive changes in patients such as:

- Reduced stress and depression symptoms
- Greater health literacy
- Better dietary behaviors and decreasing weight
- More satisfaction living with Congestive Heart Failure
- More stable physical symptoms
- Fewer limitations walking, hurrying or jogging, visiting others

We also noted positive trends in less financial strain for patients and less walking with lower extremity swelling.

And, perhaps most importantly, the patients have very positive opinions of the

Program, feeling respected and cared for by the staff.

CONSIDERATIONS FOR EVALUATING HEALTH EQUITY PROGRAMS

Considerations for Evaluating Health Equity Programs

- Ensure that the conceptual framework is appropriate for the evaluation and the program
- Ensure that the evaluation design is appropriate given data availability, program structure, and ethical considerations
- Consider when to conduct post data collection in a healthcare system

22

- There are numerous considerations for conducting an effectiveness evaluation of health equity programs in the field.
- First, ensure that the conceptual framework is appropriate for the evaluation and the program being evaluated.
    - While the health rankings model gave a starting point to identify health equity areas, some components of the health factors in the Health Rankings Model were outside the ability of the program and its activities to directly influence (for example, educational level or air and water quality).
    - Also, the Program components and activities are not weighted in any way that aligns with the various weights assigned by the Health rankings model to each factor.
- Second, ensure that the evaluation design is appropriate given data availability and program structure.
    - It was difficult to conduct a true between-subjects because we didn't have a matched comparison control group.
    - It would have been unethical to withhold services that may help patients so they can serve as a control group. As a result, the most practical means of identifying a comparison group was to use the patients as their own controls. We did this by identifying patients with data before and after they

were enrolled in the GHFP.

- Third, consider when to conduct post data collection in a healthcare system
    - To measure changes in social determinants of health, evaluators need to determine when to conduct post data collection and how that can be collected in a safety-net, healthcare system like Grady. We added the post data collection process as we were conducting the evaluation.

Considerations for Evaluating Health Equity Programs (Cont.)

- Determine how to measure structural & community factors in data collection
- Consider different qualitative approaches for information gathering
- Ensure that evaluators are trained in culturally-responsive evaluation

23

- Fourth, it may be difficult for us to recommend specific social determinant of health components as exposure to the component was not tracked in Healthy Planet. It is important to note that a lot of the indicators we evaluated were focused on social determinants of health that might lead to reducing health inequity, but additional measures would be useful to capture other structural factors such as racism, bias within health care systems or community factors like violence.
    - As an important aside, while conducting the evaluation, we had a lot of discussion about whether the Program was intervening on social determinants of health or just addressing social needs. In upcoming evaluations, we will make sure that we clarify exactly how the program is affecting health equity.
- Fifth, consider different qualitative approaches to information gathering
    - As I mentioned earlier in the presentation, we conducted patient focus groups prior to deciding to conduct patient interviews. We found that the interviews were more insightful and provided richer data.
- Lastly, in future evaluations, we should train evaluators on culturally responsive evaluation.
    - In reviewing some of the interview transcripts, we noticed themes that

likely weren't captured around health equity because of lack of training.

- Despite these lessons learned, our effectiveness evaluation of the Grady Heart Failure Program provides an useful example of a health equity-focused intervention with evidence of positive impacts on CVD-related health outcomes.

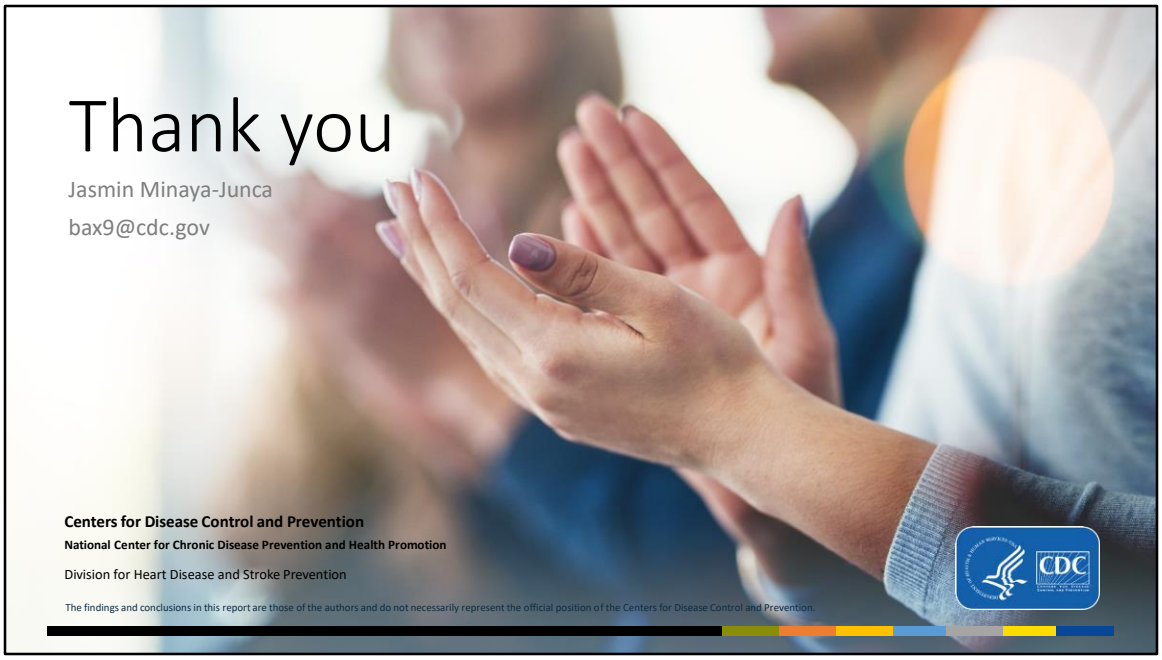
MODERATOR:

At this time, we'll take questions, but first we'll check to see if any questions have come in through the Q&A box.

If we have questions ask the questions posed by the attendees to the presenter

**** Questions in case we do not get questions from the attendees.*****

1. **What are the future steps for this evaluation?**
2. **In your presentation you mentioned that there was a lot of discussion about social needs vs social determinants of health. Can you share a little more about this?**



MODERATOR:

At this time, we'll take questions, but first we'll check to see if any questions have come in through the Q&A box.

If we have questions ask the questions posed by the attendees to the presenter

Moderator present poll question. Make sure to read the following after presenting each.

The **[first, second]** question should be showing, it read **[read question and potential answers]**

Please respond with the appropriate answer at this time.

This coffee break was worthwhile for me.
Yes
very worthwhile
Somewhat
A little
No not at all

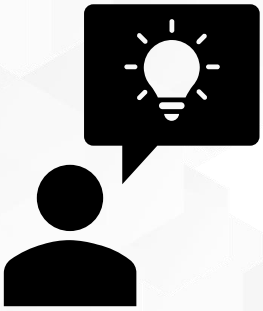
Considering that this was a brief presentation, overall it was
Excellent
Good
Fair

Poor

I plan to attend future Coffee Break sessions
Yes
Maybe
No

Reminders

- All sessions are archived and the slides and script can be accessed at https://www.cdc.gov/dhdsp/pubs/webcasts.htm
- If you have any questions, comments, or topic ideas send an email to AREBheartinfo@cdc.gov



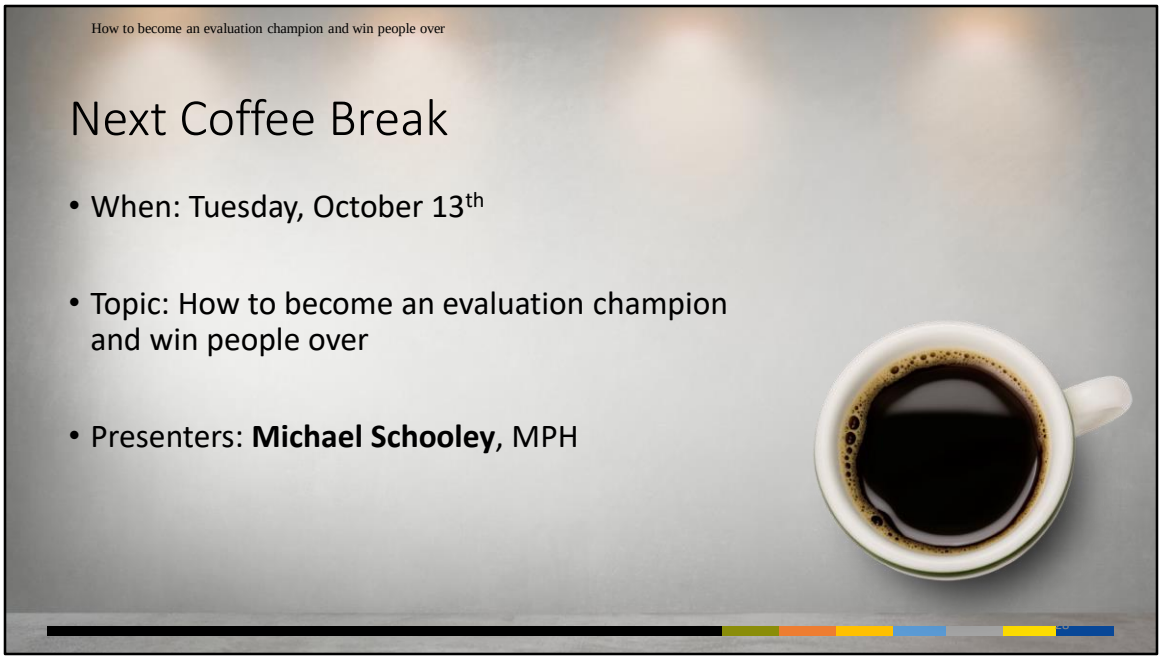
27

MODERATOR:

Thank you for your participation!

As a reminder, all sessions are archived and the slides and script can be accessed at our Division website at the link shown. Today's slides will be available in about 3 weeks.

If you have any ideas for future topics or questions, please feel free to contact us at the listed email address on this slide.



MODERATOR:

Our next Coffee Break is scheduled for Tuesday, **June 11th** and will be focused on **Data Visualization**.

Thank you for joining us. Have a terrific day, everyone. This concludes today's call.