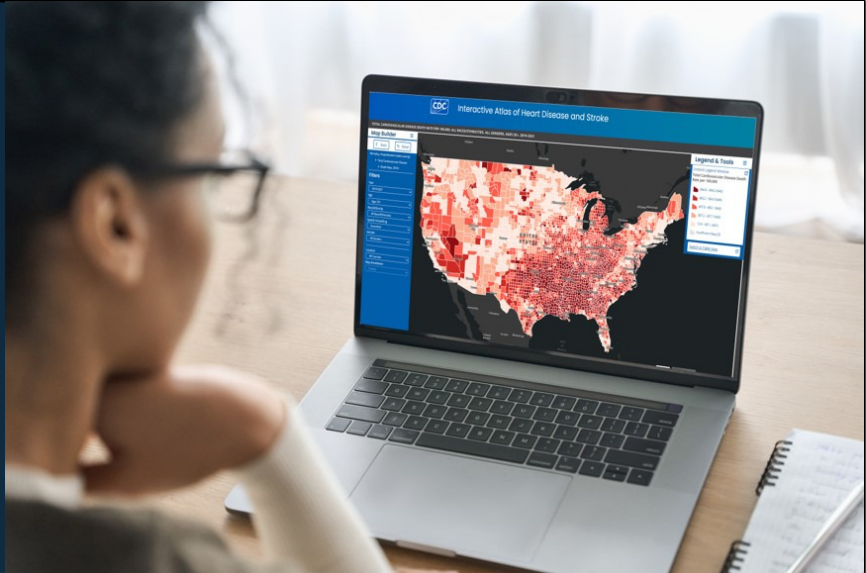


Using the Atlas
of Heart Disease
and Stroke
to Address
**Cardiac
Rehabilitation
in Your
Communities**



U.S. Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention and Health Promotion
Division for Heart Disease and Stroke Prevention



The Atlas of Heart Disease and Stroke is a data-rich tool anyone can use at no cost to examine the cardiovascular disease burden in communities across the United States.

For those who receive funding from CDC's Division for Heart Disease and Stroke Prevention, the maps in the Atlas can be used to support your work.

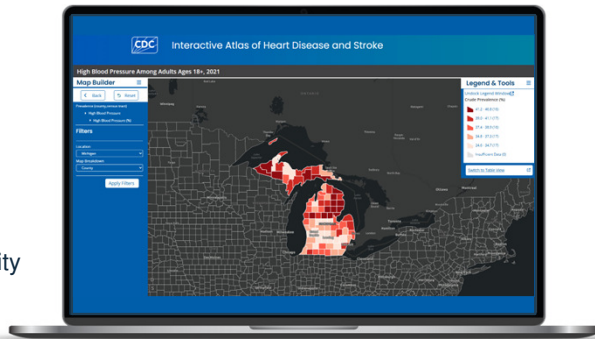
In this presentation, we will walk through examples of how you can use the Atlas to locate hospitals with cardiac rehabilitation services, assess performance on cardiac rehabilitation participation, and identify gaps and opportunities for interventions in your communities.

For an overview of the Atlas or step-by-step instructions, go to www.CDC.gov and search "Atlas of Heart Disease and Stroke."

Using the Atlas to Address Cardiac Rehabilitation (CR) in Your Communities

Easy access to high-quality local-level data on:

- CR availability
- Heart attack hospitalizations
- CR eligibility, participation, and completion
- Number of CR sessions attended
- Surrounding resources for improving CR availability

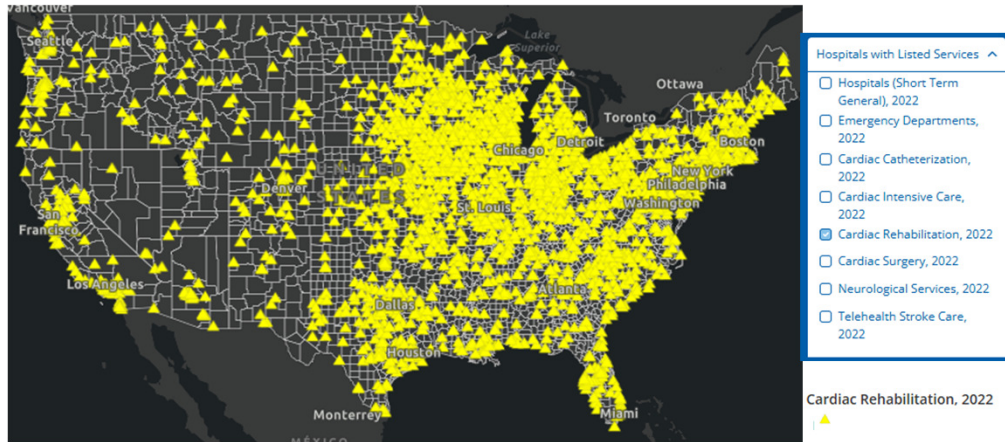


2

The Atlas provides easy access to a wide range of high-quality, local-level data.

For this example, we'll be using data on cardiac rehabilitation availability; heart attack hospitalizations; cardiac rehabilitation eligibility, participation, and completion; number of cardiac rehabilitation sessions attended; and surrounding resources for improving cardiac rehabilitation availability.

Hospitals Offering Cardiac Rehabilitation Services



Data Source: American Hospital Association. 2022.

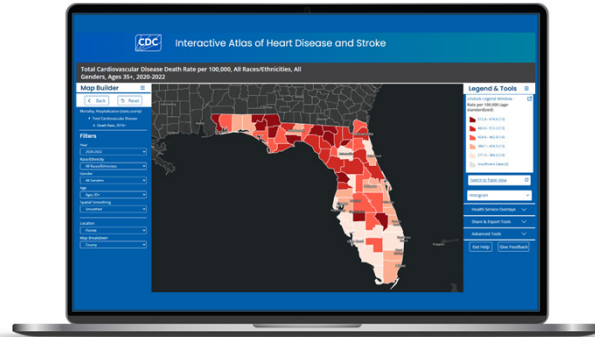
3

We can start by mapping hospitals with cardiac rehabilitation services. This is available as an overlay in the Atlas, which means it can be displayed over any map at any level. Here we are viewing hospitals that offer cardiac rehabilitation services throughout the contiguous US.

A Note on Using the Atlas

Maps from the Atlas of Heart Disease and Stroke provide critical contextual information but do *not* indicate causation.

Now let's start to understand the context surrounding cardiac rehabilitation using additional maps.



4

Before we begin comparing maps, it's important to note that maps from the Atlas of Heart Disease and Stroke provide important contextual information but do not indicate causation.

Rather than drawing conclusions about relationships, we can use these maps to understand the characteristics of communities with varying needs and geographic proximity to hospitals offering cardiac rehabilitation services. This context informs program decisions that are tailored to the needs of each community.

Now let's start to understand the context surrounding cardiac rehabilitation using additional maps.

View in Table Form or Download Data

Table Form

Table Builder [Back to Map View](#)

Summary Statistics County Statistics

Heart Attack Hospitalization Rate per 1,000 Medicare Beneficiaries, All Races/Ethnicities, All Genders, Ages 65+, 2019-2021

County	Rate	Value	Category Range 1
Warren	8.1	8.4	8.1 - 8.4 (16)
Albion	8.1	8.4	8.1 - 8.4 (16)
Albany	8.1	8.2	8.1 - 8.4 (16)
Chenango	8.1	8.2	8.1 - 8.4 (16)
Westchester	8.1	8.1	8.1 - 8.4 (16)
Richmond	8.1	8	8.1 - 8.4 (16)
Cattaraugus	8.1	4.9	8.1 - 8.4 (16)
Madison	8.1	4.9	8.1 - 8.4 (16)
Yates	8.1	4.8	8.1 - 8.4 (16)
Franklin	8.1	4.7	8.1 - 8.4 (16)
Queens	8.1	4.6	8.1 - 8.4 (16)

Download Data

Export Data Table

Download GIS Data

This tool will export the displayed dataset as a zip file. The value field in the downloaded dataset will contain the selected health indicator or social determinant values for each feature.

Note: A value of -1 or -9999 indicates that there was insufficient data for a given geographic feature.

Export Layer Name

Output

Output Format

Shapefile - SHP - shp

Download ZIP File

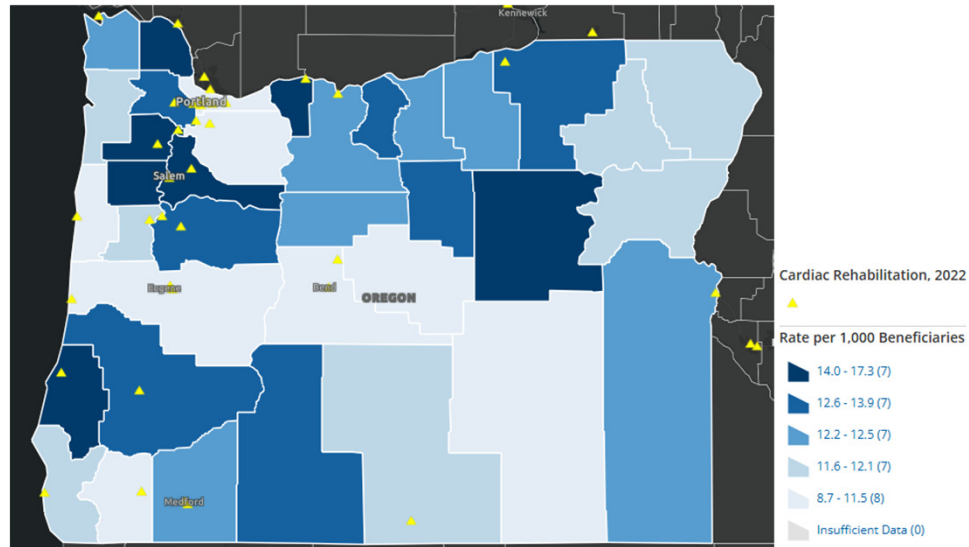
Data Sources:

Heart Attack Hospitalization Rate: Medicare Provider Analysis and Review (MEDPAR). Centers for Medicare & Medicaid Services, Part A. (2019-2021).
 Hospitals Offering CR Services: American Hospital Association. 2022.

Notes: Data displayed are for Medicare beneficiaries ages 65+. Age standardized to Census 2000 population.

In addition to creating maps in the Atlas, you can also view information in table form or download the data.

CR Eligibility and Hospitals with CR Services



Data Sources:
CR Eligibility: Chronic Conditions Warehouse, Part A and Part B claims for FFS beneficiaries. Centers for Medicare & Medicaid Services. (2018-2019).
Hospitals Offering CR Services: American Hospital Association. 2022.

7

Once you establish a baseline for heart attack hospitalizations and hospitals offering cardiac rehabilitation services in your communities, you may want to consider additional factors.

The Atlas includes data on cardiac rehabilitation eligibility among Medicare fee-for-service beneficiaries, which we see here. Counties with the highest eligibility rate are in dark blue, and those with the lowest eligibility rate are in light blue.

We can see that some counties with the highest eligibility rates have limited geographic proximity to cardiac rehabilitation at a hospital.

Cardiac Rehabilitation Data in the Atlas

Eligibility rate

Participation rate
among those
eligible

Completion rate
among initiators

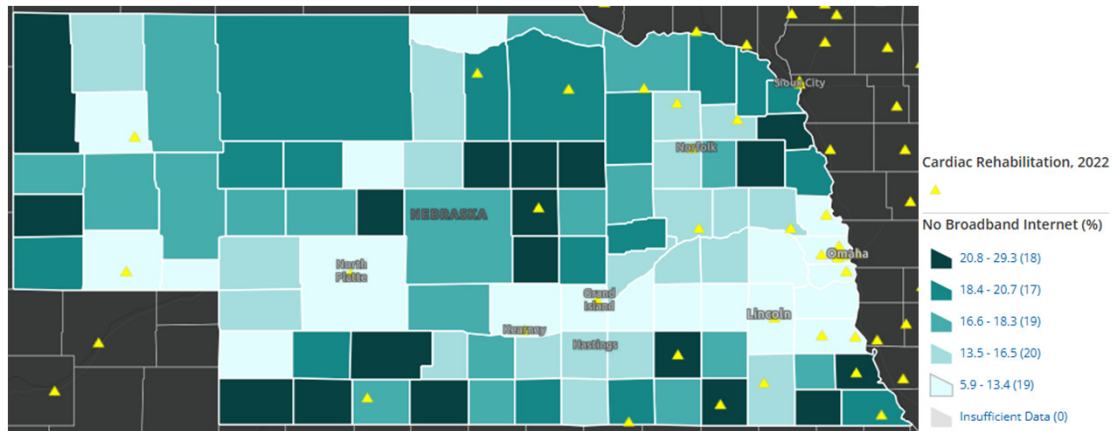
Mean number of
sessions used
among initiators

Data Source: Chronic Conditions Warehouse, Part A and Part B claims for FFS beneficiaries. Centers for Medicare & Medicaid Services. (2018-2019).

8

In addition to eligibility, you can also map participation rate among those eligible, completion rate among initiators, and the mean number of sessions attended among Medicare fee-for-service beneficiaries who initiated cardiac rehabilitation.

Percent without Broadband and Hospitals with CR Services



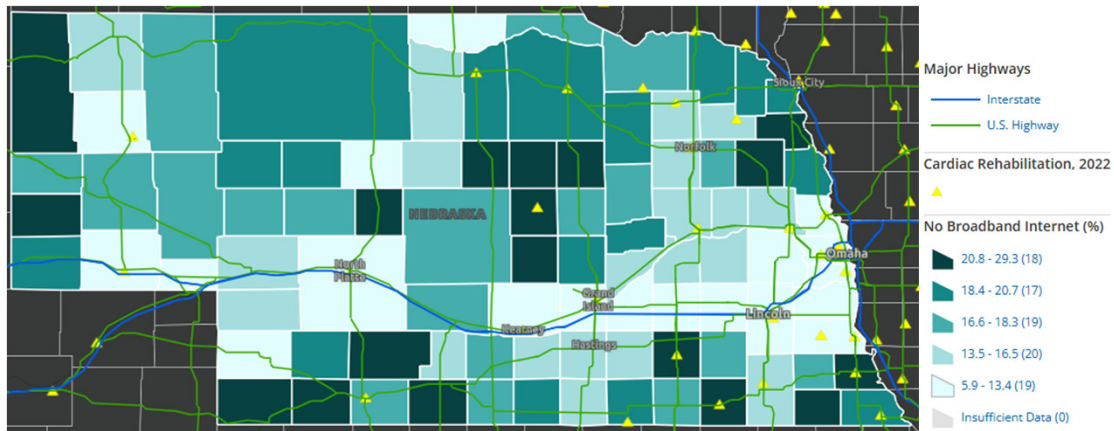
Data Sources:
Broadband: American Community Survey, U.S. Census Bureau. (2018-2022).
Hospitals Offering CR Services: American Hospital Association. 2022.

9

The Atlas also includes maps showing access to broadband internet. This is important because cardiac rehabilitation delivered remotely via the internet may extend the availability of cardiac rehabilitation for some communities with high eligibility but little geographic proximity to hospitals offering those services.

However, not every community has the same access to broadband. Here we see a county map of the percent of households without a broadband internet subscription. Some of these counties with high percentages of no broadband internet subscriptions, indicated in dark teal, also lack a hospital offering cardiac rehabilitation services.

Broadband, Hospitals with CR Services, and Highways

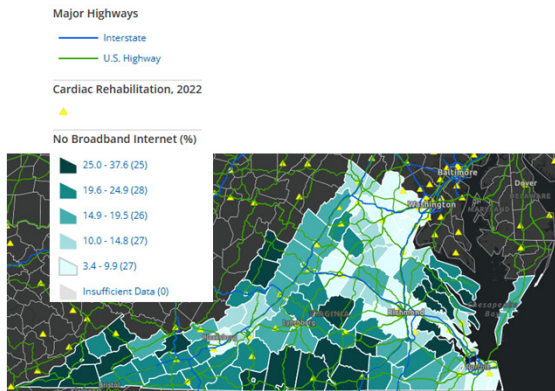


Data Sources:
Broadband: American Community Survey. U.S. Census Bureau. (2018-2022).
Hospitals Offering CR Services: American Hospital Association. 2022.

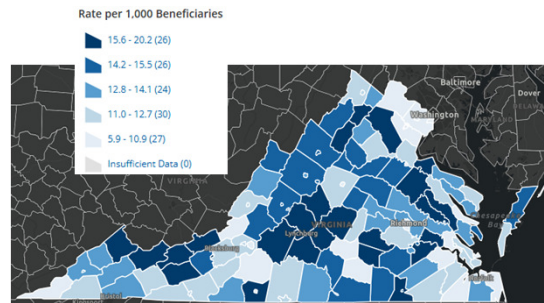
10

The Atlas offers an overlay of major highways, too. This data, on top of broadband data, can help to better understand areas that have less access to internet-based cardiac rehabilitation services because of limited broadband and lack access to in-person cardiac rehabilitation services because they are far from hospitals offering these services or the major highways needed to reach them.

Comparing Maps



Households Without a Broadband Subscription 2016-2020
 Hospitals with CR, 2019
 Major Highways



CR Eligibility Rate (Per 1,000) for Medicare Part B
 Fee-for-service Beneficiaries with Primary
 Qualifying Event or Diagnosis, 2019-2020

Data Sources:

Broadband: American Community Survey, U.S. Census Bureau. (2018-2022).

CR Eligibility: Chronic Conditions Warehouse, Part A and Part B claims for FFS beneficiaries. Centers for Medicare & Medicaid Services. (2018-2019).

Hospitals Offering CR Services: American Hospital Association. 2022.

Now we can take this map of households without a broadband subscription, hospitals offering cardiac rehabilitation services, and major highways and bring in a map of CR eligibility. These maps can allow us to build a more complete image of what communities have the greatest number of people in need of interventions to help them access cardiac rehabilitation or identify regions where people eligible for cardiac rehabilitation may have the greatest challenges to participating in cardiac rehabilitation.

Sharing Your Maps

Ways to Share

- Create a link to share your map
- Download maps as PDFs for slides or reports
- Download the data to make your own maps and graphs
- Download county profiles for counties of interest
- View the data in table form

12

The Atlas has numerous features you can use to make and share data and maps. Once you have created the maps you want, you can...

Sharing Your Maps


Ways to Share

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Create Link ⓘ ^

Link

<https://tinyurl.com/23k735rb>

 Copy Link  Refresh

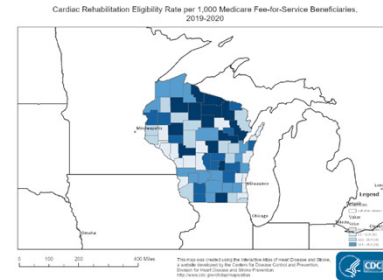
13

Create a link to share each map,

Sharing Your Maps

Ways to Share

- Create a link to share your map
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- Download the data to make your own maps & graphs
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Download your maps as PDFs,

Sharing Your Maps

Ways to Share

- Create a link to share your map
- Download maps as PDFs for slides or reports
- **Download data to make your own maps and graphs**
- Download county profiles for counties of interest
- View the data in table form

	A	B	C	D	E
1	FIPS	Name	Value	Range	Eligibility Rate
2	55001	Adams	16.1	15.1 - 16.1 (13)	16.1
3	55009	Brown	14.8	13.5 - 15.0 (16)	14.8
4	55011	Buffalo	12	9.2 - 12.0 (16)	12
5	55015	Calumet	13.8	13.5 - 15.0 (16)	13.8
6	55021	Columbia	15	13.5 - 15.0 (16)	15
7	55023	Crawford	11.3	9.2 - 12.0 (16)	11.3
8	55025	Dane	13.9	13.5 - 15.0 (16)	13.9
9	55027	Dodge	15.6	15.1 - 16.1 (13)	15.6
10	55039	Fond du Lac	15.2	15.1 - 16.1 (13)	15.2
11	55043	Grant	12.6	12.1 - 13.4 (13)	12.6
12	55045	Green	14.4	13.5 - 15.0 (16)	14.4
13	55047	Green Lake	16.2	16.2 - 20.2 (14)	16.2
14	55049	Iowa	15.6	15.1 - 16.1 (13)	15.6
15	55053	Jackson	18.9	16.2 - 20.2 (14)	18.9

< > CR Eligibility Data ⊕

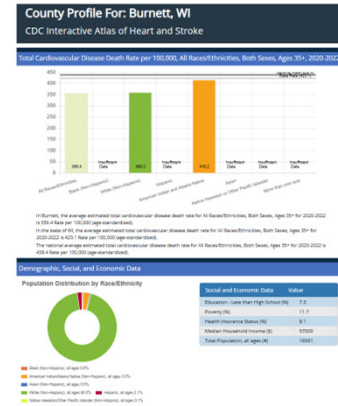
15

Download the data used to make the maps,

Sharing Your Maps

Ways to Share

- Create a link to share your map
- Download maps as PDFs for slides or reports
- Download data to make your own maps & graphs
- **Download county profiles**
- View the data in table form

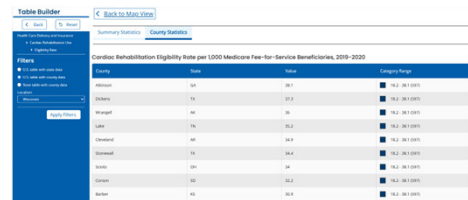


Create downloadable county profiles,

Sharing Your Maps

Ways to Share

- Create a link to share your map
- Download maps as PDFs for slides or reports
- Download the data to make your own maps & graphs
- Download county profiles for counties of interest
- **View the data in table form**



The screenshot shows a 'Table Builder' interface with a 'Back to Map View' button. The table displays the following data:

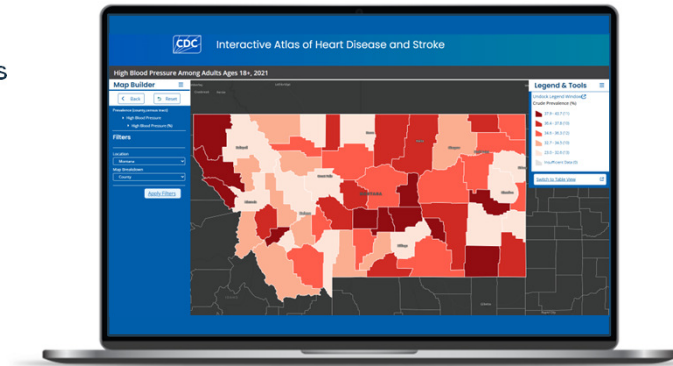
County	Total	Rate	Category Range
Adair	10	19.1	16.2 - 24.0 (20%)
Cherokee	15	17.9	16.2 - 24.0 (20%)
Franklin	10	16	16.2 - 24.0 (20%)
Lane	10	16.2	16.2 - 24.0 (20%)
Clatsop	40	16.3	16.2 - 24.0 (20%)
Clatsop	15	16.4	16.2 - 24.0 (20%)
Lincoln	10	14	16.2 - 24.0 (20%)
Clatsop	10	12.2	16.2 - 24.0 (20%)
Wheeler	10	10.9	16.2 - 24.0 (20%)

And view the data in table form.

Recap

Using the Atlas, we made maps showing:

- Locations of hospitals with CR services
- Heart attack hospitalizations
- CR eligibility
- Broadband
- Highways



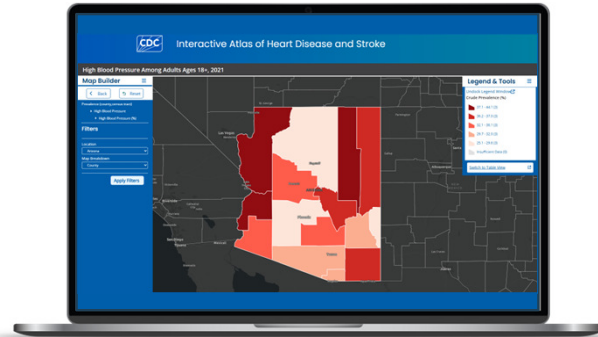
18

To recap, using the Atlas, we made maps showing the locations of hospitals offering cardiac rehabilitation services, heart attack hospitalizations, cardiac rehabilitation eligibility, broadband, and highways.

Recap

These maps offer unique opportunities to:

- Document geographic differences
- Enhance partnerships
- Tailor program planning to the needs of communities



19

With these maps, you can document geographic differences, enhance partnerships, and tailor program planning to the needs of communities.

Additional Cardiac Rehabilitation Resource

Refer to the **Cardiac Rehabilitation Change Package** for a menu of strategies to increase access to and uptake of cardiac rehabilitation.



https://millionhearts.hhs.gov/files/Cardiac_Rehab_Change_Pkg.pdf



20

For insights on strategies to increase participation in cardiac rehabilitation, please refer to the Million Hearts and American Association of Cardiovascular and Pulmonary Rehabilitation Cardiac Rehabilitation Change Package.

This resource includes strategies to address transportation barriers, offer hybrid delivery models, and leverage the Atlas to inform QI work.

You can find this Change Package by using this QR code or typing out the link shown on the slide.

To find:

- The Atlas of Heart Disease and Stroke
- Atlas Instructions

Visit www.CDC.gov and search “Atlas of Heart Disease and Stroke”

Questions? Contact:
GISXmoderator@cdc.gov



U.S. Centers for Disease Control and Prevention

National Center for Chronic Disease Prevention and Health Promotion

Division for Heart Disease and Stroke Prevention

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Thank you for your interest. You can find the Atlas of Heart Disease and Stroke and instructions on how to use the Atlas by visiting www.CDC.gov and searching “Atlas of Heart Disease and Stroke.”