How to Use CDC's Interactive Atlas of Heart Disease and Stroke to Get Cardiac Rehabilitation Data

July 2023

Cardiac Rehabilitation Can Improve Health, But Is Underused

Cardiac rehabilitation (CR) can help people who are recovering from a heart attack, heart failure, or other heart problem that required surgery or medical care. CR programs include physical activity, education about healthy living, and counseling.

Despite the many benefits, CR programs are underused. The <u>Million Hearts®/AACVPR Cardiac</u> <u>Rehabilitation Change Package</u> provides information to help improve referral, enrollment, participation, and completion rates for these programs. It can help CR programs, hospitals, and public health staff put systems and strategies into place to improve the health of eligible patients.

How the Atlas Can Help Get More People Into CR Programs

One resource that can be used to increase the use of CR programs is CDC's <u>Interactive Atlas of Heart</u> <u>Disease and Stroke</u>. This free online tool allows users to create and customize county-level maps of heart disease and stroke data across the United States.

In 2022, the Atlas began including data on the use of CR programs among Medicare Part B fee-forservice beneficiaries. Maps created with these data can be used to identify possible gaps in comprehensive cardiovascular care. This information can then be used to identify ways to get more people into CR programs.

Specifically, users can create maps that show the following:

- Eligibility rate for Medicare beneficiaries who have a primary qualifying event or diagnosis defined by the <u>Million Hearts Outpatient Cardiac Rehabilitation Use Surveillance Methodology</u>. Qualifying events or diagnoses include acute myocardial infarction, coronary artery bypass graft surgery, heart valve repair or replacement procedure, percutaneous coronary intervention or coronary stenting, and heart or heart-lung transplant.
- Participation rate for beneficiaries who attended one or more CR sessions within 365 days of a qualifying event.
- Completion rate for beneficiaries who initiated participation and attended 36 or more CR sessions.
- Mean number of CR sessions attended by beneficiaries who initiated CR participation within 365 days of a qualifying event.

The Atlas also includes a filter that allows users to layer maps with additional data, such as the location of hospitals with CR services (from the American Hospital Association's Annual Survey Database[™]). Other tools allow users to compare different sets of data.

The following sections explain how to use the Atlas to create maps with relevant data to help improve referral, enrollment, participation, and completion rates for CR programs.

How to Find the Eligibility Rate for CR Programs

You can use the Atlas to map the CR eligibility rate of Medicare beneficiaries by county. This information can help you assess the potential demand for CR services across the United States.

You can use the **Overlay Features** filter to add information about the locations of hospitals with CR services. See the **How to Add Hospitals With CR Services to a Map** section for more information.

You can also use the **Compare Layers** tool to compare two sets of data. For example, you can compare the eligibility rate to the participation rate among eligible beneficiaries. This information can identify areas where the demand for CR is not being met. See the **How to Compare Data** section for more information.

Areas with higher rates of eligibility and lower rates of participation may benefit from strategies designed to improve program referral and enrollment.

Step 1

Go to the <u>Interactive Atlas of Heart Disease and Stroke</u> website. You can launch the Atlas in one of three ways. You can click on the **US Map - County Level** link above the map, click on a state on the map, or select a state from the drop-down list below the map.

Step 2

If you select the **US Map - County Level** link, you can choose a state by clicking on the **Select Map Area** box in the top left corner.



Click on the **Health Care Delivery and Insurance** tab on the left navigation bar, then select **Cardiac Rehabilitation Use**.

Select Map Area:	
Georgia 🗸 🗸	
Show Counties O Show Census Tracts	
Select data and filter options:	
Mortality, Hospitalization (state, county)) +
Prevalence (county, census tract)	+
Risk Factors (county, census tract)	+
Social, Economic, Environmental Data	+
Demographics (county, census tract)	+
Health Care Delivery and Insurance 0	-
Blood Pressure Medication	+
Cholesterol-Lowering Medication	+
Cholesterol Screening	+
Cardiac Rehabilitation Use	+
Hospitals and Pharmacies	+
Physicians and Specialists	+
Insurance	+
Health Care Costs (county) 🚯	+
Overlay Features 🚯	+

The Cardiac Rehabilitation Use bar will open to show four subtopic options.

Select Map Area: 🧿 🗖
Georgia 🗸
Show Counties O Show Census Tracts
Select data and filter options:
Mortality, Hospitalization (state, county) 🚯 🕇
Prevalence (county, census tract)
Risk Factors (county, census tract)
Social, Economic, Environmental Data 🚯 🕇
Demographics (county, census tract)
Health Care Delivery and Insurance 🚯 –
Blood Pressure Medication +
Cholesterol-Lowering Medication
Cholesterol Screening +
Cardiac Rehabilitation Use –
Eligibility Rate
Participation Rate Among Eligible (%)
Completion Rate Among Initiators (%)
Mean Number of Sessions Used Among Initiators

Click on **Eligibility Rate**. The Atlas will create a map with rates of eligible CR program beneficiaries per 1,000 beneficiaries for each county in the selected state.

Select Map Area:	i) 🖬
Georgia 🗸 🗸	
Show Counties O Show Census Tracts	
Select data and filter options:	
Mortality, Hospitalization (state, county)	9 +
Prevalence (county, census tract)	+
Risk Factors (county, census tract)	+
Social, Economic, Environmental Data	+
Demographics (county, census tract)	+
Health Care Delivery and Insurance	-
Blood Pressure Medication	+
Cholesterol-Lowering Medication	+
Cholesterol Screening	+
Cardiac Rehabilitation Use	-
Eligibility Rate	
Participation Rate Among Eligible (%)	
Completion Rate Among Initiators (%)	
Mean Number of Sessions Used Among Initiators	

Click on the county of interest to see the eligibility rate in that county.



Step 7

Use the tools at the top of the page to create a PDF or shareable link of your map. You can also export or download the data.



How to Find the Participation Rate for Eligible Beneficiaries for CR Programs

You can use the Atlas to map the CR participation rate of eligible Medicare beneficiaries by county. This information can help you identify counties, states, and regions with higher or lower rates of participation.

You can use the **Overlay Features** filter to add information about the locations of hospitals with CR services. See the **How to Add Hospitals With CR Services to a Map** section for more information.

You can also use the **Compare Layers** tool to compare two sets of data. For example, you can compare the participation rate to the completion rate among beneficiaries who initiated participation. This information can identify areas where the barriers to continue to attend CR to completion are high. See the **How to Compare Data** section for more information.

Areas with higher rates of participation and lower rates of completion may benefit from strategies designed to improve program completion.

Step 1

Go to the <u>Interactive Atlas of Heart Disease and Stroke</u> website. You can launch the Atlas in one of three ways. You can click on the **US Map - County** Level link above the map, click on a state on the map, or select a state from the drop-down list below the map.

Step 2

If you select the **US Map - County** Level link, you can choose a state by clicking on the **Select Map Area** box in the top left corner.



Click on the **Health Care Delivery and Insurance** tab on the left navigation bar, then select **Cardiac Rehabilitation Use**.

Select Map Area:) H
Georgia 🗸 🗸	
Show Counties Show Census Tracts	
Select data and filter options:	
Mortality, Hospitalization (state, county)) +
Prevalence (county, census tract)	+
Risk Factors (county, census tract)	+
Social, Economic, Environmental Data	+
Demographics (county, census tract)	+
Health Care Delivery and Insurance 3	-
Blood Pressure Medication	+
Cholesterol-Lowering Medication	+
Cholesterol Screening	+
Cardiac Rehabilitation Use 🛛 🤁	+
Hospitals and Pharmacies	+
Physicians and Specialists	+
Insurance	+
Health Care Costs (county) 🚯	+
Overlay Features 🚯	+

The Cardiac Rehabilitation Use bar will open to show four subtopic options.

Select Map Area: 🧿 🖿
Georgia 🖌
Show Counties 🛛 Show Census Tracts
Select data and filter options:
Mortality, Hospitalization (state, county) 0 +
Prevalence (county, census tract) 1 +
Risk Factors (county, census tract) 1 +
Social, Economic, Environmental Data 🚯 🕂
Demographics (county, census tract) 0 +
Health Care Delivery and Insurance () -
Blood Pressure Medication +
Cholesterol-Lowering Medication
Cholesterol Screening +
Cardiac Rehabilitation Use -
Eligibility Rate
Participation Rate Among Eligible (%)
Completion Rate Among Initiators (%)
Mean Number of Sessions Used Among
Initiators

Click on **Participation Rate Among Eligible (%)**. The Atlas will create a map with rates of CR program participants among eligible beneficiaries for each county in the selected state.

Select Map Area:	
Georgia 🗸	
Show Counties O Show Census Tracts	
Select data and filter options:	
Mortality, Hospitalization (state, county)	+
Prevalence (county, census tract)	+
Risk Factors (county, census tract)	+
Social, Economic, Environmental Data 🚯	+
Demographics (county, census tract)	+
Health Care Delivery and Insurance	-
Blood Pressure Medication	+
Cholesterol-Lowering Medication	+
Cholesterol Screening	+
Cardiac Rehabilitation Use	-
Eligibility Rate	
Participation Rate Among Eligible (%)	
Completion Rate Among Initiators (%)	
Mean Number of Sessions Used Among Initiators	

Click on the county of interest to see the participation rate among eligible beneficiaries in that county.



Step 7

Use the tools at the top of the page to create a PDF or shareable link of your map. You can also export or download the data.



How to Find the Completion Rate for Beneficiaries Who Initiated CR Participation

You can use the Atlas to map the CR completion rate of Medicare beneficiaries by county. This information can help you identify counties, states, and regions with higher or lower rates of completion.

You can use the **Overlay Features** filter to add information about the locations of hospitals with CR services. See the **How to Add Hospitals With CR Services to a Map** section for more information.

You can also use the **Compare Layers** tool to compare two sets of data. For example, you can compare the completion rate to the eligibility rate. See the **How to Compare Data** section for more information.

Areas with a higher rates of eligibility and lower rates of completion may benefit from strategies designed to improve program referral, enrollment, and attendance.

Step 1

Go to the <u>Interactive Atlas of Heart Disease and Stroke</u> website. You can launch the Atlas in one of three ways. You can click on the **US Map - County** Level link above the map, click on a state on the map, or select a state from the drop-down list below the map.

Step 2

If you select the **US Map - County** Level link, you can choose a state by clicking on the **Select Map Area** box in the top left corner.



Click on the **Health Care Delivery and Insurance** tab on the left navigation bar, then select **Cardiac Rehabilitation Use**.

Select Map Area: 3	
Georgia 🗸	
Show Counties O Show Census Tracts	
Select data and filter options:	
Mortality, Hospitalization (state, county)	+
Prevalence (county, census tract)	+
Risk Factors (county, census tract)	+
Social, Economic, Environmental Data 🚯	+
Demographics (county, census tract)	+
Health Care Delivery and Insurance	-
Blood Pressure Medication	+
Cholesterol-Lowering Medication	+
Cholesterol Screening	+
Cardiac Rehabilitation Use 🛛 🧲	+
Hospitals and Pharmacies	+
Physicians and Specialists	+
Insurance	+
Health Care Costs (county) 🚯	+
Overlay Features 🚯	+

The Cardiac Rehabilitation Use bar will open to show four subtopic options.

Select Map Area: Georgia
Show Counties Show Census Tracts Select data and filter options:
Mortality, Hospitalization (state, county)
Prevalence (county, census tract) 🚯 🕂
Risk Factors (county, census tract) 🚯 🕂
Social, Economic, Environmental Data 🚯 🕂
Demographics (county, census tract) 🚯 🕂
Health Care Delivery and Insurance 🚯 –
Blood Pressure Medication +
Cholesterol-Lowering Medication +
Cholesterol Screening +
Cardiac Rehabilitation Use –
Eligibility Rate
Participation Rate Among Eligible (%)
Completion Rate Among Initiators (%)
Mean Number of Sessions Used Among Initiators

Click on **Completion Rate Among Initiators (%)**. The Atlas will create a map with rates of participants who initiated and completed a CR program.

Select Map Area:	
Show Counties Show Census Tracts	
Select data and filter options:	
Mortality, Hospitalization (state, county)	• +
Prevalence (county, census tract)	+
Risk Factors (county, census tract)	+
Social, Economic, Environmental Data	+
Demographics (county, census tract)	+
Health Care Delivery and Insurance	-
Blood Pressure Medication	+
Cholesterol-Lowering Medication	+
Cholesterol Screening	+
Cardiac Rehabilitation Use	-
Eligibility Rate	
Participation Rate Among Eligible (%)	
Completion Rate Among Initiators (%)	5
Mean Number of Sessions Used Among Initiators	

Click on the county of interest to see the completion rate in that county.



Step 7

Use the tools at the top of the page to create a PDF or shareable link of your map. You can also export or download the data.



How to Find the Mean Number of Sessions Attended by Beneficiaries Who Initiated CR Participation

You can use the Atlas to map the mean number of sessions attended by Medicare beneficiaries who initiated CR participation by county. This information can help you identify counties, states, and regions with higher or lower numbers of mean sessions.

You can use the **Overlay Features** filter to add information about the locations of hospitals with CR services. See the **How to Add Hospitals With CR Services to a Map** section for more information.

You can also use the **Compare Layers** tool to compare two sets of data. For example, you can compare the mean number of sessions attended to the participation rate. See the **How to Compare Data** section for more information.

Areas with a low mean number of sessions attended and higher rates of participation may benefit from strategies designed to improve program attendance beyond the first session.

Step 1

Go to the <u>Interactive Atlas of Heart Disease and Stroke</u> website. You can launch the Atlas in one of three ways. You can click on the **US Map - County** Level link above the map, click on a state on the map, or select a state from the drop-down list below the map.

Step 2

If you select the **US Map - County** Level link, you can choose a state by clicking on the **Select Map Area** box in the top left corner.



Click on the **Health Care Delivery and Insurance** tab on the left navigation bar, then select **Cardiac Rehabilitation Use**.

Select Map Area:	
Georgia 🗸	
Show Counties O Show Census Tracts	
Select data and filter options:	
Mortality, Hospitalization (state, county)) +
Prevalence (county, census tract)	+
Risk Factors (county, census tract)	+
Social, Economic, Environmental Data	+
Demographics (county, census tract)	+
Health Care Delivery and Insurance	-
Blood Pressure Medication	+
Cholesterol-Lowering Medication	+
Cholesterol Screening	+
Cardiac Rehabilitation Use	+
Hospitals and Pharmacies	+
Physicians and Specialists	+
Insurance	+
Health Care Costs (county)	+
Overlay Features 🚯	+

The Cardiac Rehabilitation Use bar will open to show four subtopic options.

Select Map Area: 🧿 🗖
Georgia 🗸
Show Counties O Show Census Tracts
Select data and filter options:
Mortality, Hospitalization (state, county) 🚯 🕇
Prevalence (county, census tract)
Risk Factors (county, census tract)
Social, Economic, Environmental Data 🚯 🕇
Demographics (county, census tract)
Health Care Delivery and Insurance 🚯 –
Blood Pressure Medication +
Cholesterol-Lowering Medication
Cholesterol Screening +
Cardiac Rehabilitation Use –
Eligibility Rate
Participation Rate Among Eligible (%)
Completion Rate Among Initiators (%)
Mean Number of Sessions Used Among Initiators

Click on **Mean Number of Sessions Used Among Initiators**. The Atlas will create a map with the mean number of sessions attended by beneficiaries who initiated CR participation for each county in the selected state.

Select Map Area: 🚯 🗖	1
Georgia 🗸	
Show Counties 🛛 Show Census Tracts	
Select data and filter options:	
Mortality, Hospitalization (state, county)	,
Prevalence (county, census tract) 🚯 🕂	,
Risk Factors (county, census tract) 🚯 🕂	,
Social, Economic, Environmental Data 🛭 🚯 🕂	,
Demographics (county, census tract) 🚯 🕂	,
Health Care Delivery and Insurance 🚯 –	,
Blood Pressure Medication	
Cholesterol-Lowering Medication	
Cholesterol Screening	
Cardiac Rehabilitation Use	
Eligibility Rate	
Participation Rate Among Eligible (%)	
Completion Rate Among Initiators (%)	
Mean Number of Sessions Used Among Initiators	ב

Click on the county of interest to see the mean number of sessions attended in that county.



Step 7

Use the tools at the top of the page to create a PDF or shareable link of your map. You can also export or download the data.



How to Add Hospitals With CR Services to a Map

Once you've created a map with the CR program data you're interested in, you can use the Overlay Features filter to add related information, such as the location of hospitals with CR services.

Step 1

Go to the <u>Interactive Atlas of Heart Disease and Stroke</u> website. You can launch the Atlas in one of three ways. You can click on the **US Map - County** Level link above the map, click on a state on the map, or select a state from the drop-down list below the map.

Step 2

If you select the **US Map - County** Level link, you can choose a state by clicking on the **Select Map Area** box in the top left corner.



Step 3

Follow the instructions in one of the sections above to create a state map with the CR program data you're interested in.



Click on the **Overlay Features** tab on the left navigation bar, then select **Hospitals with Listed Services**.

Select Map Area: 0					
Georgia 🗸					
Show Counties O Show Census Tracts					
Select data and filter options:					
Mortality, Hospitalization (state, county)	÷				
Prevalence (county, census tract)	÷				
Risk Factors (county, census tract)	÷				
Social, Economic, Environmental Data 🚯	+				
Demographics (county, census tract)	+				
Health Care Delivery and Insurance ()	+				
Health Care Costs (county)	+				
Overlay Features 🚯	-				
Health Centers	+				
Hospitals with Listed Services	+				
Stroke Centers by Certification	+				
Roads and Cities	+				
Other Boundaries	+				
Highlight by County Characteristics	+				
View Tables					

Once the drop-down menu appears, click the **Hospitals with Listed Services** tab and select **Cardiac Rehabilitation**.

Select Map Area: 🧿 🖿					
Georgia 🗸					
Show Counties D Show Census Tracts					
Select data and filter options:					
Mortality, Hospitalization (state, county) 6 +					
Prevalence (county, census tract) () +					
Risk Factors (county, census tract) () +					
Social, Economic, Environmental Data 🚯 🕂					
Demographics (county, census tract) 🚯 🕂					
Health Care Delivery and Insurance 🚯 🕂					
Health Care Costs (county) 🚯 🕂					
Overlay Features 🚯 –					
Health Centers +					
Hospitals with Listed Services					
Hospitals (Short Term General), 2019					
Emergency Departments, 2019					
Cardiac Catheterization, 2019					
Cardiac Intensive Care, 2019					
Cardiac Rehabilitation, 2019					
Cardiac Surgery, 2019					
Neurological Services, 2019					
Telehealth Stroke Care, 2019					

Click on the yellow triangles to see the hospital name.



How to Compare Data

Once you've created a map with the CR program data you're interested in, you can use the **Compare Layers** tool to compare different sets of data. This information can help you identify areas that may benefit from strategies designed to improve referral, enrollment, participation, and completion rates for CR programs.

Step 1

Go to the <u>Interactive Atlas of Heart Disease and Stroke</u> website. You can launch the Atlas in one of three ways. You can click on the **US Map - County** Level link above the map, click on a state on the map, or select a state from the drop-down list below the map.

Step 2

If you select the **US Map - County** Level link, you can choose a state by clicking on the **Select Map Area** box in the top left corner.



Step 3

Follow the instructions in one of the sections above to create a state map with the CR program data you're interested in.



Click on the white **Compare Layers** tool at the top of the page.





Step 5

Click on the **Select Class** box to display a drop down menu. Select the secondary data you want to compare to the data displayed on your map. For Medicare beneficiaries data, select the following class: **Health Care Delivery and Insurance**.



Select the following sub class: Cardiac Rehabilitation Use.



Step 7

Select one of the following themes: Eligibility Rate, Participation Rate Among Eligible (%), Completion Rate Among Initiators (%), or Mean Number of Sessions Used by Initiators.

Cardiac Rehabilitation Eligibility Rate Beneficiaries, 2018-2019	per 1,000 Medicare Fee-for-Service	Compare Layers View 2nd Map Maps over Time PD///MG Cru	LILI 🖽 Ca < "D 😧 🗩
Select Map Area: 🕒 🗖	+ Se for another	and the second	the second second
Show Counties O Show Census Tracts			
Select data and filter options:	E E ser por		CAROLINA
Mortality, Hospitalization (state, county)			Sound
Prevalence (county, census tract)			The share
Risk Factors (county, census tract)			
Social, Economic, Environmental Data 🚯 🚽	Compare Layers () 🗰 🛛 — 🗙 🚽		
Demographics (county, census tract)	This tool allows you to display a layer on top of another layer for		
Health Care Delivery and Insurance	comparison.		
Blood Pressure Medication +	Select Class: Health Care Delivery and Insurance 🗸		
Cholesterol-Lowering Medication +	Select Sub Class- Cardiac Rehabilitation Use		S.C.
Cholesterol Screening +			
Cardiac Rehabilitation Use -	Select Theme:		
Eligibility Rate	Eligibility Rate 🗸		
Participation Rate Among Eligible (%)	Participation Rate Among Eligible (%)		Rate per 1,000 Beneficiaries 🗙
Completion Rate Among Initiators (%)	Mean Number of Sessions Used Among Initiators		Insufficient Data (4)
Mean Number of Sessions Used Among			8 - 14 (31)
Initiators			14 • 17 (32)
Hospitals and Pharmacies	a local states of		20 - 23 (31)
Physicians and Specialists +	hand the second		23 · 37 (31)
Insurance +			
Health Care Costs (county)	and the second se		
Overlay Features 0			
View Tables			Esri, HERE, Garmin, USGS, EPA, NPS

Click on the **Apply to Swipe** button. A vertical line will appear on the page. This line can be moved back and forth across the map to show the two sets of data.

