The following table includes information about payments made by Medicare for the procedures included in this *Cardiac Procedures Report* – coronary artery bypass graft (CABG), percutaneous coronary intervention (PCI) for a heart attack, PCI without a heart attack, surgical aortic valve replacement (SAVR) and transcatheter aortic valve replacement (TAVR). This analysis is based on data from calendar years (CY) 2020 – 2021. Displayed are the average amounts paid by Medicare fee-for-service for inpatient hospitalizations of Pennsylvania residents only. Payments from Medicare Advantage plans (e.g., Medicare HMOs) are not included, nor are patient liabilities (e.g., coinsurance and deductible dollar amounts).

The average Medicare fee-for-service payment is calculated using the claim payment amount based on data provided by the Centers for Medicare and Medicaid Services (CMS). The average payment is calculated by summing the payment amounts for the cases in a particular procedure

The payments analysis is based on data from CY 2020 – 2021. This information, provided by CMS, reflects the average amounts paid by Medicare fee-for-service for inpatient hospitalizations of Pennsylvania residents only. group and dividing the sum by the number of cases in that procedure group.

The procedure groups included in this report are defined using ICD-10-CM/PCS (International Classification of Diseases, Tenth Revision, Clinical Modification/Procedure Coding System) diagnosis and procedure codes, with a secondary requirement that they be limited to particular MS-DRGs (Medicare Severity Diagnosis-Related Groups) and Major Diagnostic Category (MDC) where appropriate – information available from the discharge data that PHC4 receives from Pennsylvania hospitals. Technical Notes relevant to this report provide additional detail. They are posted to PHC4's website at www.phc4.org.

In this section, average payments by MS-DRGs are displayed for the procedures included in this report. While these procedures have been defined using ICD-10-CM/PCS codes that represent a clinically cohesive population, the payment data is displayed by the individual MS-DRGs included within each procedure to account for variations in case mix.

MS-DRG	MS-DRG Title	Number of Cases	Average Payment
	Artery Bypass Graft	3,297	\$40,000
001	Heart Transplant or Implant of Heart Assist System with MCC	NR	NR
002	Heart Transplant or Implant of Heart Assist System without MCC	NR	NR
003	ECMO or Tracheostomy with Mechanical Ventilation >96 Hours or Principal Diagnosis Except Face, Mouth and Neck with Major O.R. Procedures	28	\$187,354
215	Other Heart Assist System Implant	19	\$125,242
216	Cardiac Valve and Other Major Cardiothoracic Procedures with Cardiac Catheterization with MCC	NR	NR
217	Cardiac Valve and Other Major Cardiothoracic Procedures with Cardiac Catheterization with CC	NR	NR
218	Cardiac Valve and Other Major Cardiothoracic Procedures with Cardiac Catheterization without CC/MCC	NR	NR
219	Cardiac Valve and Other Major Cardiothoracic Procedures without Cardiac Catheterization with MCC	NR	NR
220	Cardiac Valve and Other Major Cardiothoracic Procedures without Cardiac Catheterization with CC	NR	NR
221	Cardiac Valve and Other Major Cardiothoracic Procedures without Cardiac Catheterization without CC/MCC	NR	NR
222	Cardiac Defibrillator Implant with Cardiac Catheterization with Acute Myocardial Infarction, Heart Failure or Shock with MCC	NR	NR
223	Cardiac Defibrillator Implant with Cardiac Catheterization with Acute Myocardial Infarction, Heart Failure or Shock without MCC	NR	NR
224	Cardiac Defibrillator Implant with Cardiac Catheterization without Acute Myocardial Infarction, Heart Failure or Shock with MCC	NR	NR
225	Cardiac Defibrillator Implant with Cardiac Catheterization without Acute Myocardial Infarction, Heart Failure or Shock without MCC	NR	NR
226	Cardiac Defibrillator Implant without Cardiac Catheterization with MCC	NR	NR
227	Cardiac Defibrillator Implant without Cardiac Catheterization without MCC	NR	NR
228	Other Cardiothoracic Procedures with MCC	45	\$48,222
229	Other Cardiothoracic Procedures without MCC	52	\$31,185
231	Coronary Bypass with PTCA with MCC	55	\$62,884
232	Coronary Bypass with PTCA without MCC	58	\$42,341
233	Coronary Bypass with Cardiac Catheterization or Open Ablation with MCC	580	\$53,821
234	Coronary Bypass with Cardiac Catheterization or Open Ablation without MCC	675	\$34,597

NR - Not reported due to low volume.

CC - Complication or Comorbidity

MCC - Major Complication or Comorbidity

Medicare Fee-for-Service Payments – CY 2020 - 2021 Statewide Data For the procedures included in this Cardiac Procedures Report				
MS-DRG	MS-DRG Title	Number of Cases	Average Payment	
Coronary	Artery Bypass Graft Continued			
235	Coronary Bypass without Cardiac Catheterization with MCC	669	\$40,648	
236	Coronary Bypass without Cardiac Catheterization without MCC	1,099	\$27,714	
Percutane	eous Coronary Intervention for a Heart Attack	5,375	\$15,956	
246	Percutaneous Cardiovascular Procedures with Drug-Eluting Stent with MCC or 4+ Arteries or Stents	1,515	\$22,557	
247	Percutaneous Cardiovascular Procedures with Drug-Eluting Stent without MCC	3,561	\$13,266	
248	Percutaneous Cardiovascular Procedures with Non Drug-Eluting Stent with MCC or 4+ Arteries or Stents	41	\$23,280	
249	Percutaneous Cardiovascular Procedures with Non Drug-Eluting Stent without MCC	47	\$12,912	
250	Percutaneous Cardiovascular Procedures without Coronary Artery Stent with MCC	82	\$17,185	
251	Percutaneous Cardiovascular Procedures without Coronary Artery Stent without MCC	129	\$10,676	
Percutane	eous Coronary Intervention without a Heart Attack	2,600	\$17,482	
246	Percutaneous Cardiovascular Procedures with Drug-Eluting Stent with MCC or 4+ Arteries or Stents	1,102	\$22,776	
247	Percutaneous Cardiovascular Procedures with Drug-Eluting Stent without MCC	1,283	\$13,298	
248	Percutaneous Cardiovascular Procedures with Non Drug-Eluting Stent with MCC or 4+ Arteries or Stents	12	\$20,895	
249	Percutaneous Cardiovascular Procedures with Non Drug-Eluting Stent without MCC	19	\$11,828	
250	Percutaneous Cardiovascular Procedures without Coronary Artery Stent with MCC	111	\$18,222	
251	Percutaneous Cardiovascular Procedures without Coronary Artery Stent without MCC	73	\$10,891	
Surgical A	ortic Valve Replacement	623	\$49,523	
001	Heart Transplant or Implant of Heart Assist System with MCC	NR	NR	
002	Heart Transplant or Implant of Heart Assist System without MCC	NR	NR	
003	ECMO or Tracheostomy with Mechanical Ventilation >96 Hours or Principal Diagnosis Except Face, Mouth and Neck with Major O.R. Procedures	NR	NR	
215	Other Heart Assist System Implant	NR	NR	
216	Cardiac Valve and Other Major Cardiothoracic Procedures with Cardiac Catheterization with MCC	40	\$76,840	
217	Cardiac Valve and Other Major Cardiothoracic Procedures with Cardiac Catheterization with CC	NR	NR	

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CC - Complication or Comorbidity

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MS-DRG	MS-DRG Title	Number of Cases	Average Payment
	ortic Valve Replacement <i>Continued</i>		
218	Cardiac Valve and Other Major Cardiothoracic Procedures with Cardiac Catheterization without CC/MCC	NR	NR
219	Cardiac Valve and Other Major Cardiothoracic Procedures without Cardiac Catheterization with MCC	185	\$60,099
220	Cardiac Valve and Other Major Cardiothoracic Procedures without Cardiac Catheterization with CC	335	\$39,255
221	Cardiac Valve and Other Major Cardiothoracic Procedures without Cardiac Catheterization without CC/MCC	48	\$33,412
222	Cardiac Defibrillator Implant with Cardiac Catheterization with Acute Myocardial Infarction, Heart Failure or Shock with MCC	NR	NR
223	Cardiac Defibrillator Implant with Cardiac Catheterization with Acute Myocardial Infarction, Heart Failure or Shock without MCC	NR	NR
224	Cardiac Defibrillator Implant with Cardiac Catheterization without Acute Myocardial Infarction, Heart Failure or Shock with MCC	NR	NR
225	Cardiac Defibrillator Implant with Cardiac Catheterization without Acute Myocardial Infarction, Heart Failure or Shock without MCC	NR	NR
226	Cardiac Defibrillator Implant without Cardiac Catheterization with MCC	NR	NR
227	Cardiac Defibrillator Implant without Cardiac Catheterization without MCC	NR	NR
228	Other Cardiothoracic Procedures with MCC	NR	NR
229	Other Cardiothoracic Procedures without MCC	NR	NR
Transcath	eter Aortic Valve Replacement	3,677	\$45,690
001	Heart Transplant or Implant of Heart Assist System with MCC	NR	NR
002	Heart Transplant or Implant of Heart Assist System without MCC	NR	NR
003	ECMO or Tracheostomy with Mechanical Ventilation >96 Hours or Principal Diagnosis Except Face, Mouth and Neck with Major O.R. Procedures	NR	NR
266	Endovascular Cardiac Valve Replacement and Supplement Procedures with MCC	NR	NR
267	Endovascular Cardiac Valve Replacement and Supplement Procedures without MCC	2,350	\$41,596

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