

## Supplementary Online Content

Farmer SA, Darling ML, George M, Casale PN, Hagan E, McClellan MB. Existing and emerging payment and delivery reforms in cardiology. *JAMA Cardiol*. Published online November 16, 2016. doi:10.1001/jamacardio.2016.3965

**eFigure 1.** Estimated Cardiologist Participation and Performance in the Merit-Based Payment System.

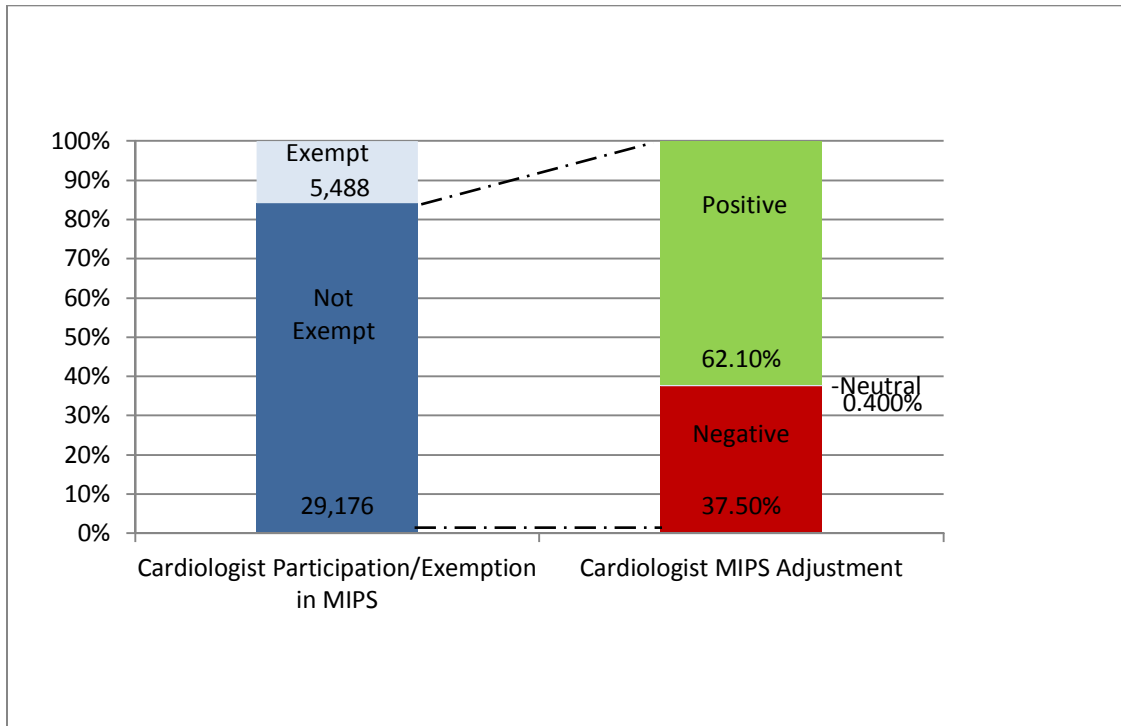
**eFigure 2.** Timeline of Positive and Negative Fee Schedule Adjustments in Medicare.

**eFigure 3.** Bundled Payments Allow Greater Clinical Autonomy and Are Intended to Reduce Waste.

**eAppendix.** Glossary of Terms.

This supplementary material has been provided by the authors to give readers additional information about their work.

**eFigure 1:** Estimated Cardiologist Participation and Performance in the Merit-Based Incentive Payment System



Source: Data taken from estimates included in the MACRA Proposed Rule released April 27, 2016. <https://s3.amazonaws.com/public-inspection.federalregister.gov/2016-10032.pdf> Legend:

Acronyms: MIPS, Merit-Based Incentive Payment System

- Light Blue – Cardiologist exempt from MIPS participation
- Dark Blue – Cardiologists not exempt from MIPS participation
- Green – Among participating cardiologists, those estimated to receive a positive MIPS adjustment
- Grey – Among participating cardiologists, those estimated to receive no MIPS adjustment
- Red – Among participating cardiologists, those estimated to receive a negative MIPS adjustment

**eFigure 2:** Timeline of Positive and Negative Fee Schedule Adjustments in Medicare

	2015	2016	2017	2018	2019	2020	2021	2022+
PQRS+VM+MU Adjustments (combined)	~+ 5% 3.5%	TBD - 6%	TBD -9%	TBD -10% or more	PQRS+Value Modifier+Meaningful Use Replaced by MIPS			
MIPS Bonus/Penalty (max)					+4%* -4%	+5%* -5%	+7%* -7%	+9%* -9%
APM Bonus^					+5%	+5%	+5%	+5%

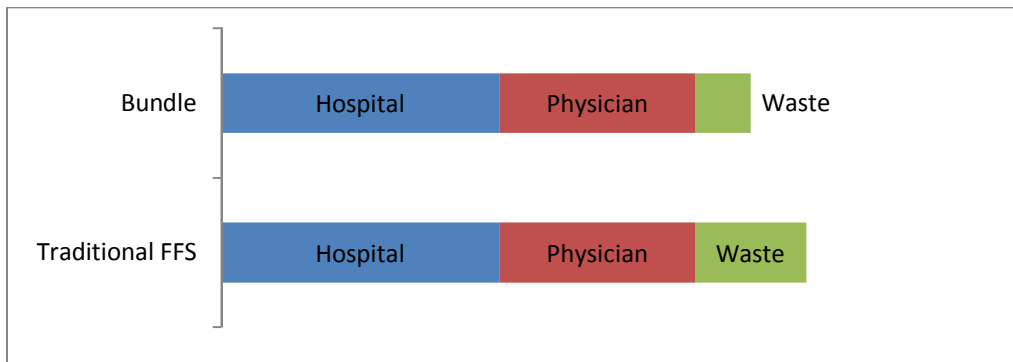
\* May be increased by up to 3 times to incentivize performance

\$500 mil funding for additional “exceptional performance” bonuses allocated through 2024

^ APM Bonus funded through 2024

Acronyms: PQRS, Physician Quality Reporting System; VM, Value-Based Payment Modifier; MU, Meaningful Use; TBD, To Be Determined; MIPS, Merit-Based Incentive Payment System; APM, Alternative Payment Model

**eFigure 3:** Bundled payments allow greater clinical autonomy and are intended to reduce waste.



Acronyms – FFS, fee for service

Blue – Hospital Payment  
Red – Physician Payment  
Green – Waste

## eAppendix: Glossary of Terms

**Accountable Care Organization (ACO)** – groups of doctors, hospitals, and other healthcare providers, who come together voluntarily to give coordinated high quality care

**Alternative Payment Model (APM)** – A payment model alternative to fee for service that incorporates accountability for costs and quality

**Bundled payment** – A payment model that aggregates payment for all services included in a defined procedure or episode of care

**Fee for Service** – A form of payment that provides set reimbursement amounts for defined services

**Health System-led ACO** – An ACO that is organized and led by a health system and may include additional physician practices

**Hospital Readmissions Reduction Program (HRRP)** – A Medicare incentive program that reduces payment to hospitals with higher than expected readmission rates

**Meaningful Use** – A Medicare incentive payment program for advanced use of electronic health records

**Merit-Based Incentive Payment System (MIPS)** – A new Medicare payment incentive program established by the MACRA legislation that adjusts physician payments based on a composite performance measure

**Non-risk bearing** – A payment model without penalties if performance fails to meet benchmarks

**Pay for Performance** – Incentive programs that adjust payments based on specified quality or efficiency metrics

**Physician-led ACO** – An ACO that is organized and led by a large physician practice or group of physician practices

**Population-based Payment** – A payment model that links payment to performance on population-based measures of cost or quality

**Physician Quality Reporting System (PQRS)** – A Medicare physician incentive program that adjusts physician reimbursement based upon quality measure performance

**Risk bearing/Downside risk** – A payment model where providers are at financial risk for costs that exceed an agreed benchmark

**Shared Savings** – A payment model where providers may receive a portion of savings if costs are lower than expected

**Sustainable Growth Rate (SGR)** – A now obsolete method of updating Medicare’s physician fee schedule based on changes to the U.S economic environment

**Value-based Payment Modifier** – A Medicare incentive payment program that adjusts payments based on value metrics