EVIDENCE FROM A DECADE OF INNOVATION

The Impact of the Payment and Delivery System Reforms of the Affordable Care Act

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The U.S. health care system has long been marked by high spending, comparatively poor health outcomes, and waste and inefficiency. To address these issues, the Affordable Care Act (ACA) includes several provisions to reform how the nation organizes, structures, and pays for its health care. The law instituted several mandatory national payment reforms through the Medicare program and created the Center for Medicare and Medicaid Innovation, which was funded with $10 billion over 10 years to develop, test, and promote innovative payment and delivery models. Below is a summary of evidence from some of the major innovations tested over the past decade.

Overall, these initiatives transformed health care delivery and payment across the United States, and many have reduced costs and improved quality of care. The results were often mixed, however, and the magnitude of impact was modest in many instances. To achieve meaningful, sustainable gains, future models of payment and delivery system reform will need to be redesigned based on the lessons learned from the past 10 years of innovation.

Mandatory National Payment Reform Initiatives

The Affordable Care Act introduced compulsory value-based payment initiatives through Medicare to reduce hospital readmissions and hospital-acquired conditions and to improve the overall quality of care that hospitals deliver. Studies evaluating these programs have produced mixed results and have not shown significant improvements in outcomes over time. Some evidence suggests one of the models may have increased mortality.

Description	Status	Impact to date
Hospital Readmission Reduction Program (HRRP) Financially penalizes hospitals with the highest relative rates of unplanned readmissions within 30 days of discharge for Medicare beneficiaries with six clinical conditions.	**2012–present** In 2019, 83% of eligible hospitals were penalized, with 2,583 hospitals charged a total of $563 million for readmissions	• Some studies indicate readmissions fell after implementation. • Other studies found the decline in readmissions was not significant and resulted from factors other than HRRP. • Mixed evidence on whether HRRP led to increased mortality.
Hospital-Acquired Conditions Reduction Program (HACRP) To reduce medical errors and prevent hospital-acquired conditions (HACs), the ACA imposed a 1% financial penalty for hospitals in the top quartile for preventable HACs.	**2014–present**	• Average annual reduction of 4.5% in HACs from 2010 to 2017. • Drop in HACs predated ACA, and program does not appear to incentivize improvement, with most penalized hospitals consistently being in top quartile each year.
Hospital Value-Based Purchasing Program (HVBPP) Adjusts Medicare payments to hospitals based on their performance on measures of clinical outcomes, patient and community engagement, safety, and efficiency.	**2013–present**	• Studies have found no significant difference in quality of care or mortality between participating hospitals and controls.

Accountable Care Organizations (ACOs)

ACOs are networks of physicians, hospitals, and other providers that voluntarily come together to be held accountable for the cost and quality of care for attributed patients. Participants in ACOs can accept either upside-only risk, whereby they can share in savings to Medicare, or two-sided (upside and downside) risk, whereby they can share in savings or pay a penalty depending on the specific model, on performance on quality metrics, and on spending relative to benchmarks. As of 2019, there were nearly 600 ACOs operating under Medicare.

Overall, they appear to produce net savings for Medicare while improving or maintaining quality of care, with ACOs in the Medicare Shared Savings Program showing the greatest promise. Physician-led ACOs tend to perform better than hospital-led ACOs, and ACO performance appears to improve over time.

Description	Status	Impact to date
Pioneer ACO Providers with experience in coordinating care across multiple care settings take on higher upside and downside financial risk than in MSSP model (see below). Pioneer ACOs that achieved sufficient savings in first two years were able to move to population-based payments in year 3.	**2012–2016** 32 participated in 2012; dropped to nine by December 2016 (many transitioned to MSSP)	• Net savings to Medicare of $134 million in 2012 and $99 million in 2013. • Quality scores improved over time. • Reductions in emergency department (ED) visits, particularly for conditions treatable in outpatient settings. • Program certified by U.S. Secretary of Health and Human Services as cost-effective and worth promoting.
Medicare Shared Savings Program (MSSP) Providers that meet specific quality standards and achieve savings by spending less than targets evenly split savings with Medicare. Multiple variants exist. In 2018, the Centers for Medicare and Medicaid Services (CMS) announced significant changes, requiring providers to take on some downside risk after two years.	**2012–present** 548 participating, covering 10.1 million Medicare beneficiaries as of 2018	• Net savings to Medicare of $739.4 million in 2018. • Perform better on savings over time. • MSSP ACOs led by physicians more likely to produce savings than those led by hospitals. • ACOs taking on downside risk have greater reductions in spending than those taking on upside risk only. • Scored well or better on measures of quality, including receipt of preventive services, declines in hospital readmissions, and patient/caregiver experience, compared to fee-for-service Medicare providers. • Less than 1% have failed to meet quality performance standards.

Next Generation ACO ("Next Gen") Allows experienced ACOs to take on greater levels of upside risk in exchange for greater downside risk. Both fee-for-service and population-based payments are made to practices. Model participants are also allowed to waive some Medicare requirements and enhance certain benefits like telehealth and postdischarge home visits.	**2016–present** 41 participating as of 2019	• Significantly reduced total Medicare spending for beneficiaries relative to comparison group by $123.2 million from 2016 to 2017; but when factoring in shared savings payments, nonsignificantly increased net Medicare spending by $93.9 million. • No significant impacts on hospitalizations or unplanned readmissions, but significant increases in receipt of annual wellness visits.
Advance Payment ACOs Provided advanced prepaid shared savings payments, serving as start-up capital, to encourage physician-led and rural organizations to participate in ACO program.	**2012–2015** 35 participated	• Performed similarly to fee-for-service Medicare beneficiaries not in an ACO on spending and claims-based quality measures. • Two-thirds continued to operate as ACO after model ended.
ACO Investment Model (AIM) Building on Advance Payment Model, AIM provides prepaid shared savings to small and/or rural MSSPs to encourage formation and participation and to prepare them to move toward high-risk models.	**2016–present** 45 participating as of 2019 $95.6 million in AIM payments made; CMS recouped approximately 40% of payments as of 2017	• Reduced total Medicare spending and utilization compared to similar Medicare fee-for-service beneficiaries in first two years of program. • Greater savings than similar non-AIM ACOs while maintaining quality of care. • 63% reported they would not have participated in ACO program without AIM funding. • Only two of 47 dropped out.

Episode-Based Payment Initiatives

Episode-based payment programs test whether providing a single payment for a defined episode of care can produce savings while maintaining quality of treatment. Under these models, providers keep savings if spending is below targets or lose money if spending exceeds targets. While on the whole these models have not yielded significant savings for Medicare, episode-based payments that are mandatory and those for surgical rather than medical conditions show the most promise for reducing costs without lowering quality.

Description	Status	Impact to date
Bundled Payments for Care Improvement (BPCI) Model 1: Acute Care Hospital Stay Only Hospitals paid predetermined, discounted, episode-based payment for inpatient stays in acute care hospital for all Medicare Severity Diagnosis Related Groups (MS-DRGs).	**2013–2016** 24 hospitals participated	• Model 1 only: No consistent statistically significant positive or negative impact on Medicare payments per episode or health outcomes. • Models 2–4: Significantly reduced Medicare per-episode payments and no reduction in quality compared to nonparticipating hospitals; reduced payments did not translate to net savings for Medicare when accounting for reconciliation payments. • BPCI appears to be less successful for medical than surgical conditions; hospital participation for common medical conditions was not associated with reductions in Medicare payments, emergency department use, readmissions, or mortality.
BPCI Model 2: Retrospective Acute & Postacute Care Episode Hospitals and physician group practices paid single payment for inpatient stay in acute care hospital and all postacute care and physician services during episode. Participants chose length of episode — either 30, 60, or 90 days after hospital discharge — and selected which of up to 48 clinical conditions they would receive episode-based payments for.	**2013–2018** 422 hospitals and 277 physician group practices participated	
BPCI Model 3: Retrospective Postacute Care Only Model 3 was similar to Model 2 except episode-based payment did not include inpatient stay itself but rather postacute services after hospital discharge only.	**2013–2018** 873 skilled nursing facilities, 116 home health agencies, nine inpatient rehab facilities, one long-term-care hospital, and 144 physician group practices participated	
BPCI Model 4: Prospective Acute Care Hospital Stay Only Hospitals paid single payment covering all services provided by hospital, physicians, and other providers during inpatient stay and related readmissions for 30 days postdischarge. Participants could select up to 48 MS-DRG conditions to be included.	**2013–2018** 23 hospitals participated	

BPCI Advanced Building on Models 1 through 4, BPCI Advanced provides single, retrospective bundled payment for 90-day clinical episodes. CMS narrowed options for clinical episodes from up to 48 MS-DRGs to up to 31 inpatient and four outpatient clinical episodes. In addition, not only can practices receive additional payment if they spend below target price set at beginning of each year, they can also receive adjustments to those payments based on performance on set of quality measures.	**2018–present** More than 1,200 participating as of 2019	• Results not yet available. • Dropout has been high; 16% left model in first six months.
Comprehensive Joint Replacement (CJR) Hospitals in designated areas receive single, retrospective payment for hip and knee replacements that includes inpatient hospitalization, postacute care, and other physician services. Like BPCI, participants receive payments if total spending is below predetermined target prices. CJR was mandatory for all providers in specific geographic areas in first two years but later made voluntary by CMS for some providers and areas. CMS recently issued proposed rule to extend slightly revised version of model for three years.	**2016–present** Implemented in 67 metropolitan statistical areas (MSAs) with 733 hospitals as of 2019	• Statistically significant reductions in gross Medicare payments of $997 per episode (3.7% reduction) from 2016 to 2017. • When accounting for reconciliation payments to practices, program resulted in nonsignificant 0.5% reduction in payments. • Savings accrue primarily from shifting postacute care from institutions to other settings like home. • Maintained quality of care as measured by unplanned readmissions, ED visits, mortality, self-reported functional status gains, and patient satisfaction as of 2017.
Oncology Care Model (OCM) Provides episode-based payment for care around chemotherapy administration over six-month periods to improve care coordination and access for cancer patients. Practices receive enhanced per member, per month payment and can receive performance-based payments as additional incentive. Commercial payers are participating in program.	**2016–present** 175 practices and 10 payers participating as of 2018	• No statistically significant difference between participants and comparison practices on Medicare expenditures or utilization in first year. • Case study of one practice found reduced readmissions and costs.

Primary Care Transformation

Several federal payment and delivery system innovations have aimed to increase access to and quality of primary care. These programs typically employ the evidence-based patient-centered medical home (PCMH) model, which emphasizes care coordination, teams, patient engagement, and population health management. Evaluations of these efforts show largely mixed results, with few programs demonstrating meaningful increases in the availability of primary care, reductions in costly forms of utilization, or improvements in quality. Perhaps the most successful model has been Independence at Home, indicating home-based care can be effective for high-need patients.

Description	Status	Impact to date
Medicare Primary Care Bonus Payment Authorized 10% bonus payment for primary care services under Medicare for qualifying physicians, nurse practitioners, and physician assistants from 2011 to 2015.	**2011–2015** Participating providers received average additional payment of $3,938 in 2012.	• No effect on patient visits, quality of primary care, or labor supply for primary care services. • Slight effect (1%–2%) on new Medicare patient visits at independent practices.
Medicaid Fee Bump Required states to raise Medicaid reimbursement for primary care services to Medicare levels from 2013 to 2014. Federal government funded the reimbursement increase.	**2013–2014** 19 states continued fee bump after it expired, self-funding the extension 73% increase in Medicaid payments for primary care during bump	• One study found significant increase in primary care appointment availability but no difference in appointment wait times. • Two other studies found no effect on appointment availability or primary care physicians accepting new Medicaid patients.
Comprehensive Primary Care (CPC) Multipayer advanced medical home model in which participating practices received a non-visit-based care management fee ($20 per member, per month) and had option to share in savings to Medicare. Practices received incentives and data about practice performance and technical assistance in exchange for meeting care delivery requirements.	**2012–2016** 442 practices across 14 regions served more than 2.7 million patients	• Enhanced access to care, improved care coordination for patients, and slightly slowed growth of ED visits compared to comparison practices. • No effect on quality, patient or physician satisfaction, or Medicare spending when considering care management fees paid to practices.

Comprehensive Primary Care Plus (CPC+) Built on lessons learned from CPC, CPC+ maintains care delivery requirements of CPC but changes payment structure so that practices receive performance-based incentive payments rather than share in savings. In Track 2, practices can opt out of fee-for-service payments in exchange for larger quarterly lump-sum payment.	**2017–present** 2,851 practices and 55 payers participating in 18 regions as of 2019	• Practices starting to change care delivery but no significant impact on service use, quality of care, or expenditures compared to comparison practices in first year.
Independence at Home (IAH) Practices provide home-based primary care for chronically ill Medicare beneficiaries using teams of providers. Practices that achieve cost reductions while maintaining or improving quality share in savings to Medicare.	**2012–present** 14 sites participating	• Lowered Medicare expenditures by $25 million, but not clear if net savings were produced when considering incentive payments paid to practices. • Significant decrease in ED visits and hospitalizations. • Improved beneficiary and caregiver satisfaction.
Multi-Payer Advanced Primary Care Practice (MAPCP) State-sponsored, multipayer program that offered monthly per member, per month care management fees to practices providing primary care aligned with medical home model. Fee was intended to cover services to support chronically ill beneficiaries including care coordination and patient education.	**2011–2016** Eight states and approximately 1,200 medical homes served 900,000 Medicare beneficiaries	• One study found Medicare expenditures were $227 million lower than for comparable beneficiaries receiving care in medical homes after accounting for payments made to practices, primarily due to reductions in acute care utilization. • Other studies found little to no effect on expenditures or utilization and no reduction in Medicaid expenditures among states. • Some states showed improvements in access, quality, and health outcomes while others did not. • Some significant unfavorable associations of participation and avoidable hospitalizations.
Federally Qualified Health Center (FQHC) Advanced Primary Care Practice Demonstration Requires FQHCs to achieve Level 3 PCMH recognition by National Committee for Quality Assurance (NCQA). To assist practices in making changes to care delivery, they were offered technical assistance and paid monthly care management fee for each eligible Medicare beneficiary served.	**2011–2014** 434 practices served 195,000 Medicare beneficiaries	• Improvements in utilization, spending, and satisfaction compared to those served by other practices. • NCQA medical home recognition, not demonstration, drove improvement.

Medicaid Health Home State Plan Option States create health homes in exchange for an enhanced, two-year federal match of 90% for eligible Medicaid beneficiaries with chronic conditions and/or behavioral health issues. States can designate variety of practices as health homes, including hospitals, community mental health centers, and primary care practices, provided they integrate physical and behavioral health care and adopt PCMH features.	**2011–present** 20 states participated as of 2019	• Few states had resources to conduct evaluations. • Early results from some states found, compared to baseline, reductions in emergency department and hospital visits, improved health outcomes on indicators such as cholesterol levels, and savings to Medicaid program of approximately $150 per member, per month.
Direct Contracting A recently announced Medicare initiative that will allow providers to take on more financial risk in exchange for lower administrative burden. Model offers two voluntary risk-sharing, capitated-payment options for primary care services.	**Expected to begin in 2021**	Program not started.
Primary Care First Set of Medicare payment models in which practices will be paid population-based payment using less burdensome mechanism and can choose to opt into Seriously Ill Population–specific model with modified payment structure.	**Expected to begin in 2021** Model will be offered in 26 regions	Program not started.

Innovation in Medicaid and the Children's Health Insurance Program (CHIP)

The Center for Medicare and Medicaid Innovation tested several innovative payment and delivery models through Medicaid and CHIP. These programs aimed to tackle growing issues in Medicaid and CHIP populations by preventing chronic disease, improving birth outcomes, and increasing access to behavioral health care. Two of these models — the Medicaid Incentives for the Prevention of Chronic Disease and Strong Start for Mothers and Newborns — improved outcomes for Medicaid and CHIP beneficiaries, although improvements were not always significant. These two programs are currently inactive.

Description	Status	Impact to date
Medicaid Innovation Accelerator Program (IAP) Provides technical assistance to states to support their payment and delivery system reform efforts in four content areas: high-need, high-cost Medicaid beneficiaries; substance use disorders; community integration to support long-term services and supports; and physical and behavioral health integration.	**2014–present** All states and D.C. have participated in at least one Medicaid IAP	• Participants report gaining new knowledge from program and are responding to technical assistance by developing reforms to state policy and practice, such as changing managed care payments and submitting Section 1115 waivers for demonstration projects. • One-on-one coaching resulted in increased state action more than virtual or group assistance.
Medicaid Incentives for Prevention of Chronic Diseases Provided grants to states to design evidence-based incentive programs that encouraged healthy behaviors, such as tobacco cessation, controlling or reducing weight, and lowering cholesterol.	**2011–2016** 10 states participated	• Few significant changes in Medicaid expenditures before incentive payments. • Significantly increased receipt of preventive services compared to controls. • Nonsignificant improvements in health outcomes, including weight loss, lower blood pressure, improved self-reported health status, and increased smoking cessation. • Monetary value of incentives significantly predicted program satisfaction and impact of incentives.
Strong Start for Mothers and Newborns Public–private partnership that raised awareness of early elective deliveries and tested effectiveness of three enhanced prenatal approaches to reducing premature births among Medicaid and CHIP beneficiaries: group prenatal care, birth centers, and maternity care homes.	**2013–2017** 182 sites participated	• Lower costs than for comparable Medicaid beneficiaries. • Better birth outcomes, including lower rates of preterm birth, C-sections, and low birthweight.

Medicaid Emergency Psychiatric Demonstration Tested whether waiving the institutions for mental disease (IMD) exclusion, thereby allowing Medicaid to reimburse certain services at psychiatric hospitals, could lead to better access, higher quality, and lower costs through reductions in other forms of mental health services. Over three years, the demonstration provided $75 million in federal matching funds for treatment of psychiatric emergencies.	**2012–2015** 11 states and D.C. participated	• No significant reductions in Medicaid or Medicare spending, inpatient stays, or emergency department visits.

Improving Care for Dually Eligible Beneficiaries

To improve care delivery and coordination across payers, the Center for Medicare and Medicaid Innovation tested models that aligned financial incentives for people enrolled in both Medicare and Medicaid. The evidence from these initiatives, though mixed, indicates targeting dually eligible beneficiaries can yield savings and decrease hospitalizations.

Description	Status	Impact to date
Financial Alignment Initiative for Medicare-Medicaid Enrollees (FAI) Tests two approaches for better aligning financial incentives across Medicare and Medicaid, with the goal of reducing fragmentation of care for dually enrolled individuals: 1) capitated model, in which health plans receive a prospective, blended payment to provide coordinated care; and 2) managed fee-for-service model, in which states could benefit from savings produced by the initiative. In both models, CMS, states, and health plans enter a three-way contract to integrate primary, acute, and behavioral health care along with long-term services and supports.	**2013–present** 13 states participating, reaching over 450,000 beneficiaries	• Some state FAI programs achieved significant Medicare savings and reductions in inpatient care compared to a matched comparison group, while others did not. Evaluations typically analyzed impact on Medicare expenditures only, so impact on Medicaid expenditures is unknown.

Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents: Phases 1 and 2
Supports organizations to adopt clinical and educational evidence-based interventions for dually eligible beneficiaries in long-term care (LTC) facilities to prevent hospitalizations. Building on Phase 1, Phase 2 added a payment reform component. Model reduces financial incentive for hospitalization by providing funding for LTC facilities and practitioners to directly provide higher-intensity services should a beneficiary require acute care while in facility.
	Phase 1: 2012–2016
	Phase 2: 2016–present
	143 LTC facilities participated in Phase 1
	247 LTC facilities participating as of 2019 in Phase 2
		• Phase 1:
		  ○ Reductions in probability of all-cause hospitalizations and potentially avoidable hospitalization rates relative to comparison groups.
		  ○ Reduced average Medicare expenditures per resident.
		  ○ Consistent clinical care provided by registered nurses or nurse practitioners associated with success.
		• Phase 2:
		  ○ No further reductions in hospital-related utilization or costs than those achieved in Phase 1.
		  ○ Some practices saw significant increases in utilization and costs.

Accelerating the Development, Testing, and Adoption of New Payment and Delivery Models

Several initiatives through the Center for Medicare and Medicaid Innovation provided funding to support health care systems, states, and communities in developing, testing, and spreading innovative, evidence-based ways of delivering and paying for care. Evaluations of these programs often found cost savings and lower rates of costly forms of utilization like hospitalizations, but variation exists.

Description	Status	Impact to date
State Innovation Models (SIM) Provides federal funding and technical assistance to states to help them plan, design, or implement multipayer partnerships aimed at transforming care delivery. Most popular alternative payment models adopted and tested were patient-centered medical home, ACO, and episode of care.	**2013–present** 34 states received SIM awards as of 2018	• Several states improved quality of care and reduced costly forms of utilization; some resulted in Medicaid savings. • SIM states successfully implemented evidence-based models of care and created multipayer partnerships to encourage the shift from fee-for-service to value-based payments.
Health Care Innovation Awards: Round 1 and Round 2 Provided approximately $2 billion in funding to providers, payers, local government, public–private partnerships, and multipayer collaboratives to test and implement innovative programs to improve care and reduce costs. Awards focused on one of several priority areas: identifying new models of workforce development and deployment, improving care for high-need populations, testing provider-specific approaches to transforming financial and clinical models of care, and improving health of geographically defined populations.	**Round 1: 2012–2015** **Round 2: 2014–2017** More than 100 organizations received awards in Round 1 and 38 awards were made in Round 2 across 27 states and D.C.	• Round 1: Mix of positive and negative effects from awards. Few produced significant cost savings, and most interventions did not impact hospitalizations or emergency department visits. Features associated with greater success include: implementing at single site, greater staff training, and robust implementation planning. • Round 2: About half of awardees met at least 90 percent of their enrollment targets and two-thirds effectively implemented delivery model. Evidence of awardees successfully sustaining programs was mixed. Of the few models rigorously evaluated, little evidence of cost reductions, quality improvement, or cuts in utilization. • Both Rounds 1 and 2 had study design issues, ranging from small sample sizes to selection bias.
Medicare Diabetes Prevention Program (MDPP) Expanded Model A national, structured intervention for behavior change aimed at preventing onset of type 2 diabetes among Medicare beneficiaries with indication of prediabetes. MDPP suppliers are given performance-based payments that depend on participants' weight loss and attendance.	**2018–present**	• Savings to Medicare of $278 per member per quarter and significant reductions in emergency department visits and inpatient stays versus comparison group. • Studies of DPP program generally have found similarly promising results on health outcomes and cost effectiveness. • One of two models certified by Secretary of Health and Human Services as meeting threshold for spread.

Community-Based Care Transitions Program (CCTP) To reduce readmissions among high-risk Medicare beneficiaries, provided federal funding to community-based organizations for improving transitions from hospital to home or other care setting.	**2012–2017** Over course of program, 18 sites participated	• Significantly lower 30-day readmission rates (1.82% lower) and Medicare Part A and B expenditures ($634 lower per participant during course of program) compared to similar nonparticipants.
Home Health Value-Based Purchasing Model (HHVBP) Home health providers in participating states take on increasing upside and/or downside risk to test whether value-based payment can improve home care quality and efficiency.	**2016–present** 2,000 home health agencies participating in nine states as of 2017	• Modest reductions in annual Medicare spending and improvements in function among those receiving home care in HHVBP states compared to non-HHVBP states. • Lower rates of unplanned hospitalizations and skilled nursing facility use. • Slightly higher increases in emergency department use; no difference in patient satisfaction.
Accountable Health Communities Model (AHC) Addresses health-related social needs, such as food insecurity or unstable housing, by linking clinical care and community services. Model funds "community bridge organizations" to engage clinical sites in social-needs screening and connect high-need beneficiaries to services.	**2017–present** 30 community bridge organizations participating as of 2019	Results not yet available.