

# **White Paper**

## **Paying for nursing care in fee-for-service and value-based systems**

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May 20, 2020

### **I. Introduction**

Payment systems provide resources for care, constrained by what services and providers are eligible for payment. [1 2] The form of the payment and the constraints on what and who is paid influence the efficiency, quality and impact of payment on health care and health. Current payment is dominated by fee-for-service payments. Payment levels vary by payer, with public programs like Medicaid often making smaller payments for comparable services. These form of payment and lower payment by programs serving low income populations provide few incentives for activities to improve population health, address health disparities, or improve health equity. They also encourage greater use of services, often with low or limited value, increasing the costs of the health system.

Within fee-for-service, some services may be bundled together or paid for through a single payment. Diagnosis-related groups for hospitals, a single payment for an admission defined by the patient diagnosis, surgical or medical treatment, patient comorbidities and complications and demographics, for example, offers some incentives for efficiency in care relative to paying the charge for each service, but also encourages additional use of the hospital.

The major alternative to fee-for-service payment in use is capitation, per person payment for a bundle of services. Capitated systems need to assure that the contracted services are available, and develop internal models for payment of participating providers, but have flexibility to make available and pay for other services that can contribute to improved health or increased efficiency if the payments can be supported within the total payment per person. While many capitated systems have focused narrowly on standard healthcare services, as population health goals are increasingly articulated by the system, they are increasing their engagement with payment for services and providers outside of the usual insured services. These efforts can have impacts on population health and health equity, but any incentive to provide services outside of traditional medical services or focus on health equity will emerge only if the costs of these services are less than avoided costs of care in the absence of these services.

Given the problems associated with current fee-for-service systems and limited use of capitation, there has been a growth of interest in and experimentation with alternative payment systems that have aspects of capitation, bundling of services, and incentives based on outcomes that may encourage greater efficiency, higher quality, and greater engagement in population health or addressing health disparities.

This paper reviews the design of different payment systems, the incentives they embody for efficiency, quality and engagement with population health and health equity, the evidence to date for their effectiveness, and discuss how they have changed the organization and internal delivery of care by health systems and their partners and the roles that have been or might be played by nurses under the incentives and structures of alternative payment. While many of

these payment systems have applicability for rural populations, rural areas often have lower levels of health professionals and health facilities with impacts on health disparities and equity that require special attention. The paper therefore examines separately issues of payment for rural areas and its impact on the availability and delivery of services.

## **II. Forms of Payment and the Incentives They Embody for Efficiency, Quality, Population Health and Improving Health Equity**

The literature suggests that there are three dimensions to the ability of a payment system to create incentives for provider action. They are:

- The basic mechanism by which providers generate revenue
- The basis for earning incentives or generating revenue beyond the basic mechanism
- The magnitude of the incentives provided relative to the basic mechanism

Before discussing individual models and their incentives for efficiency, quality, population health and improving health equity, it will be helpful to illustrate this with several examples.

Fee for service, in which a specific set of providers are paid based on the billable services they provide is the most restrictive system. Revenue is only generated through billing for specific services by providers approved to provide those services. Overall, the incentive under fee-for-service is to increase services. If quality, equity or population health initiatives are consistent with actions that increase revenues, they will be pursued, otherwise not. There are revenue generating activities that are consistent with improving quality and equity, but they are limited.

In light of the incentive under fee-for-service to increase services, efforts have been made to modify fee-for-service by creating incentives to keep total costs per patient down. It is recognized that these incentives may in turn encourage providers to stint on care, so they are often coupled with additional incentives to deliver appropriate care. The relative size of the incentives compared to the revenue that can be realized from increasing fee-for-service volume will determine whether the net incentive is to reduce cost and improve care or continue to increase volume. The measures that are used define the expectations of care and will determine the focus of the provider. If the measures focus narrowly on quality measures, such as diabetes control or the patient experience of care, other considerations associated with improved population health or reduction of disparities in care may not receive attention. The measures in these systems shape provider behavior. There are repeated concerns in the literature that the measures used in alternative payment systems are too narrow in focus to provide adequate incentives for improving equity or population health. [3-7]

There may be several specific challenges to introducing measures focused on reducing socio-demographic disparities in care or health into payment. First, patients of different socio-demographic status are not uniformly distributed across providers. Direct measures of gaps in care or outcomes at the provider level may not therefore be informative. Second, efforts to control or adjust for socio-demographic differences in patient need have been difficult to implement. [6 8 9] Common risk adjustment measures in Medicare quality metrics have included race and dual-eligible status, with some extension of these to zip code average measures of income. These are not precise enough measures of individual, unobserved health needs beyond diagnosis, or challenges to self-care or availability of supportive services within the neighborhoods in which individuals live. (More recently, there have been efforts to link address

to census tract levels of income and other social indicators, but the problem of assigning a broad geographic measure to individuals remain.)

A common problem in systems using these metrics is that the comparisons are cross-sectional, comparisons across providers in a given period. This assumes that the metrics of risk adjustment are adequate and that relative differences across providers are the measure of performance. Measures that take starting levels of health and health care as baseline, and measure improvement for the same population over time, are rare in the alternative payment systems, but might provide a basis for rewarding providers reducing disparities in health and health care, increasing access to needed care, and reducing demand through prevention. As Anderson and colleagues noted in a 2018 Health Affairs article, major payment programs “do not include equity as a domain of performance measurement” and “[q]uality improvement initiatives without a focus on disparities reduction have had mixed results in influencing disparities and, in some instances, have the potential to widen disparities.” [5]

Finally, even when the metrics and measures are right, the magnitude of the incentives will be associated with the proportion of payment subject to the incentives. Many of the most visible alternative payment systems have been implemented by Medicare. But it is often the case that Medicare patients are a small proportion of the patient population of safety net providers. Thus, the impact of Medicare incentives will be weakened. There are many examples of safety net provider initiatives to improve care coordination, referral and linkage to social services and other supportive services, and other activities to address equity and disparities of care, but these are often not incentivized by alternative payment initiatives. [10-13]

With this introduction, I briefly discuss different forms of payment and the incentives of providers under each. I organize the discussion from the systems with least incentives to address quality, equity and population health to those with the most. The forms of payment discussed are: (1) fee-for-service as a baseline, (2) fee-for-service with incentives for constrained spending and maintaining/improving quality, (3) fee-for-service with incentives at the population level level, (4) capitation, (5) capitation with quality or population health incentives.

**Fee-for-service.** Fee-for-service was described above. Payment for individual services considered billable, by providers eligible to be paid for the service. In primary and specialty care, these individuals will be physicians, nurse practitioners and physician assistants, with the latter two categories often billing under a physician’s number. There are opportunities for non-physician providers to provide billable services, if the billing clinician is physically present in the facility, and the service is provided incident to care being managed by the physician or billing clinician. [14-17] Examples of such services can include initial workups of history and physical examination, review and refinement of follow-up care following examination and prescription of care by the billing clinician, and provision of follow-up care such as titration of Coumadin levels under a standard operating procedure. Other visits in this category can include care coordination or wellness visits with their own billing codes. The first set of activities can be integrated into a visit and justify billing for a longer, more intensive visit. The second set allow for billing by services provided by nurses and other staff for visits at which the physician is not seen.

Still another set of activities that practices can engage in under fee-for-service that expand billings are review of patient records to identify patients who need additional services such as vaccinations or other followup. All these activities can increase revenue by increasing billed services. They may allow greater attention to the needs of underserved patients or those that require more time and effort to achieve good health or control of chronic conditions.

**Fee-for-service with incentives at the individual service level.** A substantial number of Medicare fee-for-service payment systems for hospitals and physicians have introduced incentives, bonuses and penalties for providers. [18 19] Among these are:

- Hospital readmissions reduction program, which penalizes hospitals for excessive readmissions (i.e., readmissions above the risk adjusted expected rate) for acute myocardial infarction, heart failure, pneumonia, chronic obstructive pulmonary disease (COPD), coronary artery bypass surgery, or elective knee or hip arthroplasty.
- Hospital acquired conditions payment reduction, for higher than expected rates of selected complications.
- Hospital value-based purchasing, with both rewards and penalties based on selected quality measures and patient reported outcomes.
- Physician value-based modifier program, which rewards or penalizes physician groups based on per capita beneficiary costs attributed to the group and a composite measure of quality, including clinical care, patient-reported outcomes, and measures of community/population health, specifically ambulatory care-sensitive admissions. The value-based modifier program has been superseded by the Merit-Based Incentive Payment System (MIPS). This later system has four components to the assessment of penalties or bonuses, including cost and quality performance relative to other practices, participation in quality improvement activities, and standards for use of health information technologies. [20]

Each of these approaches share a focus on reducing cost-increasing behavior, either by penalizing activities such as readmissions or infections that directly add to costs or by measuring the relative cost of care for a physician group or hospital. They also seek to encourage higher quality through selection of specific quality measures that are either themselves cost reducing or that complement the cost-reduction incentives to discourage skimping on care. The quality metrics could be associated with population-based activities to improve access, increase equity, and reduce disparities, but aren't directly tied to these activities. Readmissions, for example, might be addressed through coordination with providers who will provide post-acute care, or direct engagement with patient education and patient individual circumstances that increase the risk of readmission.

There is limited evidence on the effectiveness of these measures.[12 21] The hospital readmission reduction program has been studied. [22-24] The conclusions from these analyses is that there has been some reduction in admissions, but it is not large. There is at least one study that suggests that the reduction in readmissions has been associated with increases in mortality. [25]

**Fee-for-service with incentives at the population level.** Some alternative payment models provide incentives at the population level within a fee-for-service context. The Accountable Care Organization program is the most significant of these. [26 27] The participating organizations assume shared responsibility for total risk adjusted costs of a population attributed to the system or group of providers. Attribution is based on the individuals receiving a preponderance of their care from ACO providers. This is not strict capitation, as patients are not formally enrolled in the ACO nor constrained to use ACO providers. In addition to cost targets and goals, ACO providers within the Medicare ACO initiative have been assessed on a composite of 33 quality measures (with the number of measures used for measuring performance phased in) spanning four domains: Patient Experience of Care (based on the Consumer Assessment of Healthcare Providers and Systems survey), Care Coordination/Patient Safety (including measures of readmission, ambulatory care sensitive admissions, adoption of

EHRs, and post-acute medicine reconciliation), Preventive Health (including measures of immunization and screening), and At-Risk Population Health (including measures of diabetes and hypertension control, and treatment of coronary artery disease and heart failure). ACOs promoted by Medicaid or private payers may have different quality metrics applied, but a common theme is controlled cost and enhanced quality. [26]

The underlying model assumes ACOs will align incentives to reduce high cost care, notably hospital and emergency care, across providers and create incentives and systems to coordinate care and manage care in outpatient settings.

The challenges to the ACO framework are substantial. Entry into the program has not been random. [27] ACOs serving a higher proportion of racial and ethnic minorities have had lower scores on quality measures. [28] Systems that assume roles as ACOs do not have a population tied to the system, and “leakage” of patients to providers outside the system is an ongoing challenge to ACOs. [29 30] For this reason, we might expect systems in rural, less competitive or more concentrated markets to have greater impacts on both costs and quality. Creating systems to coordinate care and manage patients with chronic illnesses can be challenging. Because the ACO accountability structure is grafted onto the fee-for-service payment system, issues of changing internal incentives through bonus sharing and coordination can also limit the ability of the ACO providers to fully respond to the incentives. The size of the bonuses themselves are a constraint on the resources available outside of the fee-for-service system for programmatic initiatives.

The experience with ACOs is mixed, with some early evidence of success in controlling costs, but also withdrawal from the program of many providers when penalties and potential losses were being implemented. [31-33] Entry into the program has not been random and ACOs serving a high proportion of racial and ethnic minorities have had lower scores on quality measures. Control of some high cost services have been achieved through additional spending to create information systems and coordination services, and net savings have been limited. Key sources of cost savings have been in reduced hospitalization and emergency department use. There is no evidence from the studies of ACO performance that quality has gotten worse. There is some evidence from the studies of Medicare and non-Medicare ACOs of improved measures of preventive care and chronic disease management and improved quality metrics. The evaluations have not looked specifically at whether these gains have reduced health disparities or increased equity.

**Capitation and capitation with targeted incentives.** Capitation offers the greatest flexibility for health systems to design care processes that reduce high cost care, since actions that fall outside of traditional billable services can be implemented if they will lower costs. The principal incentive to maintain or improve quality under pure capitation is to retain healthy enrollees by meeting their needs for care and maintaining a reputation that will lead to new enrollment and retention. The incentives also exist to discourage enrollment or retention of patients with high cost chronic illness.

The incentive to discourage enrollment of potentially high cost patients can be reduced through several mechanisms. These include risk adjustment to capitation rates that reduce the penalty of enrolling high cost patients, quality measurement and reporting systems that rank plans based on care for the most acutely and chronically ill patients.

The Medicare Advantage program is an example of capitation with quality reporting incentives. Plans are rewarded for scoring higher on the 5 point star system for ranking quality. Forty six measures are used in these assessments, including measures of clinical quality, patient

experience, and administrative performance. The plans are measured against one another, rather than on the basis of improvement, and the risk adjustment for socio-demographic differences across plans is done through a peer grouping mechanism based on the percentage of enrollees who are dual eligible for Medicaid or disabled. MedPAC has noted that despite the adjustment via grouping, plans that have a higher proportion of lower income beneficiaries tend to have lower overall star ratings. [34]

Near universal features of the bonuses or payment for high quality care across the fee-for-service or alternative payment systems are the comparison of quality across providers and limited social-demographic adjustment for risk factors, particularly community and neighborhood effects. Missing in these systems are adequate assessments of the social determinants of poor health or access to health care, payment adjustments to allow more intensive care to these populations, or assessments of performance or rewards based on improvement over time.

Given the quality metrics they use to direct and incentivize behavior, current alternative payment methods are not well constructed to encourage work on population health, equity and disparities. While there are actions that can address these, some proven, some still being trialed, a payment system that will support the implementation of programs to address disparities and equity should be developed from the inside out, starting with the programs and actions that will improve equity and reduce disparities, and then think about how to encourage these through payment incentives.

There have been some experimentation with models that directly target social determinants and provide financial resources and incentives that make health disparities, equity and social determinants of health the focus of cation. A MassHealth initiative started in 2016 made additional payments to Medicaid managed care organizations on the basis of individual health risk and neighborhood measures of higher social risk, including housing stability, mental health indicators, disability status, and neighborhood stress scores based on measures that included federal poverty status, unemployment, and households without a car. [6 35] The intent is to measure reduction of disparities. The additional payments allow direct intervention on social determinants and the fielding of teams including community health workers, nurses and others. The program has not yet been evaluated.

Programs with similar intent have been fielded by others, not necessarily with direct payment incentives. These include a Medicaid demonstration program in Hennepin County, which provides payment not only for physical, mental and dental health but housing, addiction treatment and other services, and recent initiatives by Cincinnati Children's Hospital Medical Center to field community health teams. [8 12 36]

### **III. Mechanisms for Achieving Performance and the Role of Nurses in these systems**

There are many potential mechanisms that health systems can implement to respond to the incentives within each payment model, and many of these mechanisms will be applicable to multiple models. [2 10 12 37-41] Examples include case management, post-acute care coordination, health navigators, audits of records for appropriate and needed care, mechanisms to increase patient engagement in care, patient mobilization, and adherence to care, mechanisms to shape treatment plans to patient individual circumstances and preferences, telehealth, referral and payment of social service organizations outside of the traditional health system. The same mechanisms might be applicable to multiple payment models.

The literature speaks about services that are downstream and upstream from the underlying social conditions that contribute to disease and health disparities. Most of the mechanisms that have been implemented as part of provider response to alternative payment have been downstream, close to clinical care and targeted at managing clinical conditions. In the next few paragraphs, I describe and summarize these mechanisms.

**Office-based services to enhance traditional care models.** While some of these mechanisms have used social workers, community health workers, or medical assistants to provide these services, there has been a recognition that professional nurses have particular skills to support primary care physicians in better assessing patients and helping them shape their response to implementing prescribed treatments. Increased use of nurses in taking histories and physicals before meeting with physicians and providing counseling and advising on how to effectively initiate and sustain prescribed treatments. This allows physicians to focus on assessment, diagnosis and prescribing care, while the expertise of nurses in physical assessment, interviewing and patient education is more fully utilized. Outpatient settings find the additional cost of nurses is often offset by the increased volume of patient that can be accommodated and greater productivity of more expensive physicians. [15] These activities have been extended to nurse-led well care and office-based care coordination visits.

**Enhanced disease management services with a medical focus.** Effects to increase the patient centeredness of care and work more directly with patients to help them learn to manage chronic illnesses have become an important response to incentives to improve quality measures related to specific diseases. [14 42-44] Among the models are the creation of patient centered medical homes and implementation of care coordination systems such as the Wagner chronic care management model. These models are built around primary care delivery and team based care, with professional nurses key members of the teams. These models acknowledge RNs provide a unique set of clinical and management skills, that when used to their fullest potential, can enhance the primary care team and improve patient care. [16 45 46] They also use RNs as specialized providers of care management for patients who have complex or chronic health problems.

**Facilitating transitions in care.** Readmissions to hospitals have been identified as a major target of action under alternative payment systems. While not all readmissions are preventable, hospitals and physician groups that are at risk for penalties from readmissions have increasingly focused on more active actions at the time of discharge to reduce the likelihood of a readmission. Among the actions that have been taken are improved patient and family education for self-care, more aggressive medicine reconciliation either in the hospital or once the patient has been discharged to assure appropriate medications have been prescribed and the patient can follow the prescribed regime, active discussions with the institutions and caregivers who will assume responsibility for the patient after discharge (skilled nursing and rehabilitation facilities, intermediate care facilities, home health agencies, primary care and specialty physicians), and follow-up home visits or visits with receiving facilities and providers. Professional nurses have often been recruited into these positions.

In one innovative program developed at Johns Hopkins University, a nurse, physical therapist, and handyman may visit the home of a discharged patients to identify modifications of the home that will reduce the risk of injury and make maintenance of the patient at home more feasible. [47 48]

**Documentation of social determinants.** If care is to move upstream or take into account or act to modify social determinants of health, it is necessary for clinicians and the care

team to be aware of their patient's social circumstances. There is ongoing work to develop standardized instruments to collect this information, but they will need to be routine implemented in practice. This will raise issues of time for clinicians, privacy by patients, and establishing mechanisms for asking for sensitive information. Just as some practices have increasingly relied on nurses to do the initial history and physical before patients see the physician, some practices may find that they want to delegate this work to nurses within the practice. [10 49-53]

**Community-based practices to directly address social determinants.** As noted at the end of section II, a number of managed care organizations and health systems have begun neighborhood or community based interventions directly addressing social determinants of health and health disparities. [10 13 35 41 48 54 55] A common element of these approaches is the creation of a team to work on implementation design and community activities. One leader of a community based program described the team structure as follows:

The team is structured in such a way that we have a core steering team and then a variety of underlying action teams. On our core steering team, we have a physician champion, a social work champion, a nursing champion, and other project personnel (project manager, quality improvement consultant, data analysts). There are others who often join this core team within each of those roles and related to community engagement, but those would be at the core. Then, there are those involved in front line work which vary depending upon the particular activity. As an example, we [have] daily huddle calls. These generally include, as schedules allow, representation from medicine, social work, and nursing. Of late, the nursing presence is generally one of the RN care managers from our primary care center. Our RNCM cohort support medical complex patients, but they also have taken a leadership role in supporting patients during inpatient to outpatient transitions. Nurses are also critical in some of the home-based care pathways we have (e.g., asthma), cross-divisional equity work (e.g., those in our diabetes center), and in schools (i.e., engagement with/communication with school nurses). [56]

In sum, across the range of activities health systems have implemented to improve quality, care coordination, transitions of care, and community-based programs to directly address social determinants of health and health equity, nurses have taken substantial roles.

#### **IV. Payment to Reduce Disparities and Improve Care in Rural Areas**

Approximately 15 percent of the US population lives in rural areas. These areas vary substantially from areas in states like Connecticut, which defines rural towns at those having less than 10,000 population and population densities less than 500 per square mile, to those considered frontier, isolated regions with population densities of 7 or less per square mile. Across this diversity of rural experience, the population tends to be older and sicker than in urban areas. Smaller populations and lower density increase travel distances to specialty and emergency care. Rural life also entails more exposure to specific environmental hazards. There are higher mortality rates for heart disease, cancer, chronic lower respiratory disease and unintentional injury. The death rate from unintentional injury, which includes deaths from opioid overdose, is 50% higher in rural areas. Children in rural areas are more likely to suffer from mental, behavioral, and developmental disparities and have fewer options for care or treatment. [57-61]

In addition to the poorer health of the population in rural areas, there are multiple challenges to delivery systems. One of the critical challenges is shortages of health professionals, physicians and other primary care providers, nurses, and other staff. A second

challenge is payer mix, with somewhat higher levels of uninsurance, and policies that are less extensive in their coverage than those for individuals living in urban areas. This makes rural providers more dependent on Medicare and Medicaid than is typical in urban areas. [61 62]

Population size, population density and distance also affect health care providers. There is less aggregate volume to support specialist care, which can increase the need for referral out of the region or for generalists to take more responsibility for management of acutely or chronically ill patients. Physicians and nurses in inpatient care often have to assume responsibility for a broader range of conditions than is observed in more specialized units in large, urban hospitals. Lower population density and longer travel times increase the costs of ambulance and home based services and increase the time cost to patients of seeking care. Telemedicine initiatives have been proposed to address three problems: making specialist care from providers outside the region more directly available to patients, allowing local providers to provide services to patients without requiring the patient to travel long distances to the office, and to allow for peer-to-peer consultation between physicians, advanced practice clinicians, nurses and pharmacists at local and distant sites.

In rural areas, low average volumes will also be associated with higher variation in daily census, and potentially high variation in year-to-year volume. As a result, institutional providers like small hospitals are put at risk in two ways. First they may need to assure minimal staffing at levels not justified by daily census when volume is low. Second, high fixed costs may not be recovered if they are paid daily or per admission rates or charges set based on assumptions of typical volume.

Low volumes also generate lower aggregate revenue for primary care providers and institutions. As a result, there may be fewer resources for quality improvement initiatives or upgrading technology and physical plant. A recent Government Accountability Office found “small physician practices with 15 or fewer providers in rural or non-rural areas were more likely to receive a negative payment adjustment in legacy Medicare payment incentive programs” that were consolidated into the Merit-based Incentive Payment System (MIPS) in 2017. [63] GAO identified three challenges these practices had in responding to the incentives of the alternative payment systems: technological, with practices unable to invest in electronic health record systems that would support improvement; financial and staff, with practices unable to hire staff to facilitate program participation and success; and inability to monitor and stay current on changing program requirements. Quality measures may also not be tailored to rural populations and rural practices.

Integration of providers and coordination among providers has been a central component of programs to address population health issues, disparities and health equity. The models used in urban areas have been tried in rural areas. They are constrained by the availability of clinicians and other trained staff, by restraints from funders on integration (such as the requirement that federally qualified health centers and rural health centers, currently serving approximately one in five rural residents, have independent boards from other providers such as hospitals), and risks of non-compliance or violation of regulatory requirements such as the Stark Law and Anti-Kickback Statute related to colocation of services and self-referral. [64]

There have been a wide range of Medicare payment initiatives directed at providers in rural areas. [65 66] These include:

- The Critical Access Hospital (CAH) program, which reimburses small, isolated hospitals with fewer than 25 beds, lengths of stay less than 96 hours, and 24 hour emergency services their reasonable costs of both inpatient and outpatient care.

- The Sole Community Hospital (SCH) program for other isolated hospitals not Critical Access Hospitals, that pays hospitals for inpatient care at the higher of the inpatient PPS or hospital specific cost per discharge, and for outpatient care the PPS rate plus a fixed percentage.
- The Medicare Dependent Hospital program that pays hospitals not CAH or SCH that are less than 100 beds and have over 60 percent Medicare caseloads for inpatient care the inpatient PPS rate plus 75 percent of the difference between the PPS rate and the hospital specific cost per discharge.
- Low Volume Adjustment Program, which provides an add on payment for hospitals with less than 500 Medicare discharges, with the amount declining to zero at 3800 discharges.

Several things should be noted about these programs. Most important, they are structured to provide more resources to hospitals to keep them open. They are not designed to create incentives for care that directly addresses reducing disparities or improving health equity. Second, they are Medicare only, and whatever incentive they create is diluted by the proportion of payments from other than Medicare, and the incentives of these other payment systems. In large, urban or regional systems, the incentives from a significant payer may be sufficient to generate action, but this may not be the case for a low volume provider.

There have been some efforts to bring payments to rural hospitals to scale, integrating payment incentives across payers, and creating some incentives for improved care. Notable among these are the Maryland Hospital Global Budget program initially focused on eight rural hospitals and a similar recently initiated program in Pennsylvania. Both programs provide hospitals with annual global budgets that will be unaffected by changes in inpatient or outpatient volume. The Maryland program has been subject to several evaluations. The results vary across studies but suggest small to moderate decreases in outpatient and emergency care and perhaps decreases in inpatient care. The limited quality measures that have been studied, notably readmissions, did not show decreases in quality. [67-72] The Pennsylvania program has not yet been evaluated.

One of the weaknesses of the Maryland program was that the payments were hospital only, limiting the incentive and capacity to shift funds across providers to improve care. And, while there was concern about reducing readmissions and preventable admissions, no explicit focus on health equity or disparities.

As is the case when the overall impact of alternative payment systems on reducing disparities and improving health equity are examined, it is clear that both broadly and in rural areas, the measures for assessing improvement in these domains are limited or non-existent, a framework for improvement over time not created, and the incentives for improvement beyond general cross-sectional measures of quality weak or limited. The capacity of rural systems in particular to respond to these incentives given financial resources and the challenges of serving rural populations are constrained. While there are mechanisms that appear to have potential for addressing disparities, mechanisms in which nurses have been active participants, those most upstream from immediate care or care transitions are the least incentivized by current approaches to payment reform.

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