Alternative Payment Models for California’s Workers’ Compensation System

A Review of Issues and Possible Next Steps

Denise D. Quigley, Petra W. Rasmussen, Nabeel Qureshi, Michael Dworsky, Melony E. Sorbero
About This Report

This report describes research funded by the California Department of Industrial Relations (DIR), Division of Workers’ Compensation, through the Workers’ Compensation Administration Revolving Fund and DIR that was carried out jointly within the Payment, Cost, and Coverage Program in RAND Health Care and the Justice Policy Program in RAND Social and Economic Well-Being. The goal of this research is to describe possible alternative payment models (APMs) for use in the California workers’ compensation (WC) system instead of the current fee-for-service payment model that has historically dominated the U.S. health care system. The report (1) describes the current state of WC in California, including a brief history of payment and delivery reform in California, (2) provides stakeholder perspectives and insights on issues with the current fee-for-service WC system in California, and (3) describes possible next steps for piloting an APM in California, including discussion of the unique constraints and factors embedded within the California WC environment. This research builds directly on a number of past RAND studies for DIR and the California Commission on Health and Safety and Workers’ Compensation, including several recent studies on WC issues, discussed as part of the background of WC in California. We have cited these RAND reports and include relevant text for reference. Our findings may be of interest to state policymakers throughout the country who are considering the adoption of APMs in WC.

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Summary

California’s workers’ compensation (WC) system requires employers to provide medical care and disability benefits to workers who experience injuries and illnesses that occur in the course of employment or arise out of their employment. In California WC, there have been long-standing concerns about the costs and quality of medical care provided to injured workers and the ability of workers to access care. The cost and quality challenges are not unique to WC and reflect the limitations of fee-for-service payment, which historically has been the predominant payment model in the U.S. health care system. Alternative payment models (APMs) have been implemented outside WC to rein in costs, discourage overtreatment, and incentivize quality improvement. The California State Legislature has expressed interest in developing pilot programs that could bring APMs into WC in California. As a result, the California Department of Industrial Relations (DIR), Division of Workers’ Compensation (DWC), contracted with the RAND Corporation to study alternatives to using the California Official Medical Fee Schedule (OMFS).

The goals of the study were to

- evaluate potential APMs for providers and compare them with the OMFS
- examine advantages and disadvantages of each APM compared with the OMFS, including an assessment of each APM’s applicability to the WC system
- make recommendations to the California Legislature on alternative payment pilot programs.

To achieve these goals, we conducted a mixed methods study that included a scoping review and an environmental scan of literature on APMs, followed by stakeholder input on APMs through interviews and focus groups with key WC stakeholders. We examined quality incentive programs (such as pay-for-performance and value-based payment programs), bundled payments, accountable care organizations (ACOs), and global budgets. To recruit for interviews and focus groups with key WC stakeholders, we conducted quantitative analysis of claims data reported to DIR’s Workers’ Compensation Information System to identify provider specialties that provide a high volume of WC care to injured workers. The main WC stakeholders included were providers, unions, applicant attorneys, employers, and insurers. (Hereafter, the term stakeholders refers to this group.)

Alternative Payment Models Put Forward for Examination

As noted, we examined quality incentive programs (including pay-for-performance programs and value-based payment systems), bundled payments, and global budgets; we also included ACOs, given their prevalence in health care.
In a pay-for-performance program, providers receive additional payments, either as a bonus or a larger annual payment update, or other financial or nonfinancial rewards when they reach certain benchmarks for quality and other types of measures included in the program, creating the incentive to improve performance on these measures. Value-based payment models assess providers’ performance on quality and other measures relative to set benchmarks. However, value-based payments also hold health care providers accountable for cost as well as quality of care.

Under bundled payment programs, a patient’s care is defined in terms of episodes of care. Providers are given a single, comprehensive payment that covers all the services performed during that episode of care, creating the incentive to control costs.

An accountable care organization (ACO) is a group of physicians, hospitals, and other providers that voluntarily partner to deliver coordinated care to a designated group of patients in an effort to reduce duplicative and low-value care. The ACO has established risk-adjusted spending targets and quality targets that are set by the payer (for example, the Medicare program or a commercial insurance company). If the ACO meets these targets as well as quality benchmarks, it receives a portion of the savings achieved.

Global budgets provide a set dollar amount for a facility to spend. Global budgets require that the hospital provide all necessary services to the patients served with the resources provided by the prespecified budget.

Each of these payment models provides an opportunity to shift the dynamics of the system from one that rewards the amount of care delivered to one that focuses on providing high-quality, efficient, necessary care. However, they all require that specific protocols and standards are set such that providers are appropriately incentivized and patients are not left with unnecessary barriers and burdens when seeking care.

Workers’ Compensation Stakeholders Primarily Pointed to Access Issues

The need for an APM assumes that there are problems with the current fee-for-service payment model that cannot be addressed with minor changes. We asked stakeholders to identify the top three issues with the current system that need to be addressed. Table S.1 summarizes these issues and the consistency with which the issue was mentioned.

In sum, stakeholders perceived that the WC system is cumbersome and provides relatively low reimbursements for the time spent by providers, which means fewer providers want to accept WC patients. With a restricted supply of providers, patients cannot get timely care. These main WC issues are commonly heard and have been substantiated in previous research on WC in California.
Table S.1. Issues Raised and Consistency Across Stakeholder Groups

<table>
<thead>
<tr>
<th>Issue Raised</th>
<th>Consistency</th>
</tr>
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<tbody>
<tr>
<td>Access to WC care:</td>
<td></td>
</tr>
<tr>
<td>Not enough providers in WC</td>
<td>Consistent, except insurers</td>
</tr>
<tr>
<td>Administrative burden of WC care</td>
<td>Consistent, except insurers</td>
</tr>
<tr>
<td>Low provider reimbursement for time spent</td>
<td>Consistent, except unions, and insurers</td>
</tr>
<tr>
<td>Timeliness of WC care: High rates of delays/denials</td>
<td>Consistent, except unions</td>
</tr>
<tr>
<td>Medical provider network inadequacies</td>
<td>Consistent, except employers</td>
</tr>
<tr>
<td>Overutilization</td>
<td>Raised by some providers, employers, and insurers</td>
</tr>
<tr>
<td>Lower-quality providers in WC</td>
<td>Raised by some providers and employers</td>
</tr>
<tr>
<td>WC is focused on cost, not outcomes</td>
<td>Singular issue, raised by some providers</td>
</tr>
<tr>
<td>WC is “adversarial”</td>
<td>Singular issue, raised by some providers</td>
</tr>
<tr>
<td>Management services organizations reduce reimbursement for providers</td>
<td>Singular issue, raised by some providers</td>
</tr>
<tr>
<td>Limited modified return-to-work options provided by employers</td>
<td>Singular issue, raised by employee reps</td>
</tr>
<tr>
<td>More training on WC administration process and rules is needed</td>
<td>Singular issue, raised by employer reps</td>
</tr>
<tr>
<td>Care coverage in WC is limited</td>
<td>Singular issue, raised by employer reps</td>
</tr>
</tbody>
</table>

NOTE: Consistency is evaluated to show which issues were raised and supported across main stakeholders. Some of the “singular issues” may also be an access issue but were specific singular aspects of access that were only raised as a top issue by one stakeholder group. The aim was to identify a goal or issue supported by all five main WC stakeholder groups.

Each Alternative Payment Model Has Advantages and Disadvantages

We identified advantages and disadvantages of each of the models. We found the following:

- **Pay-for-performance** and **value-based purchasing** have shown little effect on health care spending but have the potential to incentivize the delivery of high-quality care. In addition, pay-for-performance programs are being used in WC in other states, establishing its feasibility in WC.

- **Bundled payment** arrangements have the potential to reduce spending without compromising quality of care, so this remains a potential APM to consider, though the findings vary by the type of episode of care. Some bundled payments have quality expectations built into the program. While we identified a few examples of bundled payments being used in WC in other states, they were applied in narrow clinical scenarios, and discussions with WC representatives in other states indicated the need for significant planning to implement them in WC.

- **ACOs** are associated with reductions in spending that can take multiple years to emerge, though these findings may be related to the voluntary participation design of the models. They do not appear to compromise clinical quality of care but have mixed results for patient experience. Some ACO models require providers to take on risk, which providers may be reluctant to do. We identified no examples of ACOs being implemented in WC.

- **Global budget** programs have the potential to reduce costs and unnecessary utilization but need to be monitored for negative impacts on quality of care, as, among the APMs we
examined, global budgets create the strongest incentives to reduce services. We found no indication of global budget programs being used in WC in other states.

Our assessment pointed to either bundled payments or pay-for-performance as the most promising APM options for California.

Applicability of Alternative Payment Models in California’s Workers’ Compensation Must Also Be Considered

The WC system presents many unique challenges that could make adopting APMs more complicated or affect their usefulness for addressing rising costs while maintaining access to high-quality care for injured workers. Applicability issues that need to be considered include the following:

- **The WC patient population has a different case mix** from the Medicare population—the population on which most of our understanding of the impact of APMs is based. Musculoskeletal disorders, orthopedic care, pain management, and physical medicine account for much larger shares of patients and treatments in WC. In addition, inpatient care—the focus of many APMs—represents a lower proportion of care than outpatient utilization in WC.

- **WC is a small player in the world of health care payers**, making it more challenging to have adequate leverage to motivate provider behavior change and more difficult to measure provider performance.

- **Litigation** plays a large role in the cost of WC indemnity and permanent disability claims and likely will affect how APMs are implemented in California WC.

- **WC pays for the medical care specifically related to a work-related injury or illness** rather than all medical care patients receive. APMs with incentives tied to the total cost of all care received by patients may not be suited to the WC environment without substantial changes.

- Unlike most health insurers that provide annual coverage, **WC paysers bear responsibility for the lifetime costs of medical care needed to treat injuries that occur in a calendar year**. These longer timelines in WC make implementing APMs that focus on annual costs challenging. APMs that focus on episodes of care would require continuing use of the OMFS for services provided outside the defined care episode.

Stakeholders Provided Feedback on Key Features to Adopt in Alternative Payment Models in Workers’ Compensation

Based on the evidence we reviewed and our assessments of each APM, we discussed with California WC stakeholders the potential of either a *quality incentive program* with a focus on pay-for-performance or *bundled payments* as an alternative option in California WC.
Pay-for-Performance, a Type of Quality Incentive Program

WC stakeholders most consistently supported exploring the implementation of a pay-for-performance pilot program. Employees and employers suggested incentivizing provider behavior using performance measures that were broad rather than narrowly focused on specific treatments or injuries.

All five main stakeholder groups supported the idea of provider incentives taking the form of bypassing utilization review or independent medical review and/or expedited approvals for providers who perform well on identified measures and are designated as preferred providers. Other suggested provider incentives include a reduction in paperwork requirements, access to care managers or navigators, and earlier payments.

Bundled Payments

When asked for their impressions on bundled payments, all WC stakeholder groups voiced opposition to their use as an initial APM. Providers were concerned that bundled payments were only feasible for large medical groups or provider groups that focused nearly exclusively on serving a WC population and had an adequate volume of WC patients. All groups were concerned that bundled payments would increase provider reluctance to participate in WC and exacerbate access issues, that they would incentivize the underprovision of care, and that it would be difficult to determine appropriate reimbursement for the bundle even with adjustment based on patient characteristics. Stakeholders also noted that bundled payment demonstrations have seen declining provider participation, suggesting issues with the long-term feasibility of the model.

Conclusions and Recommendations

We evaluated, compared, and examined five potential APMs for their applicability in California’s WC system. We recommend that the DWC move forward with a pay-for-performance pilot program and other payment and policy changes that aim to improve access to care (rather than other outcomes such as cost or quality, which are the typical focus of APMs). Based on the following broad set of recommendations for such a program, the next steps thereafter are to engage with stakeholders and develop the details of such a pilot pay-for-performance program.

Develop a Pilot Pay-for-Performance Program That Incentivizes Providers

We recommend that DWC develop a pilot pay-for-performance program that aims to increase provider participation in WC and improve injured worker’s access to WC care. We recommend that the initial implementation of a pay-for-performance program by DWC use a two-stage process to develop a pilot program engaging providers, unions, attorneys, employers, and insurers that can be expanded over time as the program matures. In the first
stage, DWC should hold working groups with stakeholders to discuss commitment, main players, goals, data needs, overall program design, and definitions; in the second stage, DWC should develop a detailed process and plan to finalize the program’s components and processes, participants’ roles, and needed resources. This process could be managed by DWC or an independent organization.

Participation should be voluntary to allow providers, employers, and insurers time to acclimate to the program before participation becomes mandatory. The pilot program could initially focus on one provider specialty that delivers a large amount of WC care—for example, orthopedics. Discussions could also consider the desirability and feasibility of implementing incentives focused on other entities, including medical provider networks or insurers and claims administrators.

We recommend a pay-for-performance program that is centrally managed by DWC. This has several advantages, including (1) enabling data to be pooled across multiple insurers, which will increase the accuracy and reliability of performance estimates, (2) ensuring consistency in the measures and definitions used, (3) centralizing data cleaning, processing, and analysis activities, thus ensuring consistency across insurers and improving the efficiency of these activities, and (4) providing consistent incentives across all insurers and claims administrators, or allowing incentives to vary and be determined by each insurer and claims administrator.

We recommend that the pilot program be designed around the initial goal of improving provider participation in WC and focus on addressing the interrelated issues identified by stakeholders that ultimately deter providers from participation in WC (Figure S.1).

Figure S.1. Interrelationship of Issues Most Consistently Raised by Stakeholders

We recommend that the initial measures focus on the administrative aspects of successful participation in WC and patient experience. Examples of administrative measures are approval rates for utilization reviews or initial treatment plans, as well as timely submission and completeness of specific forms and reports by the primary treating physician. These measures have the advantage of applying to all injured workers, thus increasing the ability to measure
provider performance reliably. The levels of performance that trigger eligibility for a reward would need to be determined and should be based on assessments of current performance.

We suggest that the pilot’s incentives include easing utilization review and preauthorization requirements for high-performing providers. This could be paired with modifications to the OMFS to reimburse for reports that are not currently compensated, with the level of payment tied to timeliness and completeness of reports. Combined, these incentives could increase providers’ willingness to participate in WC.

Finally, additional work and stakeholder engagement are needed to fully plan and develop the design of such a pilot program using a two-stage process. The first stage is to hold working groups with stakeholders to discuss overall program design and other aspects of the program. The second stage is to develop a detailed design process to finalize the program’s components and processes.

In this report, we reviewed a range of APMs and describe the basic structure of a promising approach for a pilot pay-for-performance program designed using a two-stage process. Developing and designing the details of such a pay-for-performance pilot should be informed by the input from the stakeholder working groups and include discussions and data analysis to finalize the program’s components and processes, participants’ roles and responsibilities, and the resources needed for successful program implementation.
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Chapter 1. Introduction and Background

California’s workers’ compensation (WC) system requires employers to provide medical care and disability (i.e., indemnity) benefits to workers who experience injuries and illnesses at the workplace. In the case of fatal injuries or illnesses, death benefits must be paid. Employers are obligated to pay WC benefits if the worker’s injury or illness occurs in the course of employment and arises out of the employment (i.e., is work-related) (see California Department of Industrial Relations [DIR], undated).

In addition to challenges around cost containment, California, like other states, has faced long-standing issues relating to the quality of care provided in WC and the ability of workers to access care. Each of these topics has been and continues to be the focus of WC policy reforms.

Many of the challenges facing the delivery of WC medical benefits are shared with other health care payers and in part reflect the limitations of the fee-for-service payment model that has historically been predominant in the U.S. health care system. Other payers have used a range of alternative payment models (APMs) to rein in costs, discourage overtreatment, and incentivize quality improvement. While these models have not been tried in WC to the same extent, the California Legislature is interested in developing pilot programs that could bring APMs into WC in California. Senate Bill 537 required the Administrative Director of DIR’s Division of Workers’ Compensation (DWC) to provide the legislature with a research report that compares and contrasts possible payment alternatives for WC medical care providers. There are a wide range of possible APMs to explore, including quality incentives, value-based payments, bundled payments, and global budgets. However, APMs that have been successful in other settings may need to be tailored to meet the unique features of WC, where payers are responsible for lifetime medical care and the case and injury mix differs from the larger health care system.

To address issues related to developing pilot APM programs for WC in California, the DWC contracted with the RAND Corporation to conduct a study on Potential Payment Alternatives for Providers to the California Official Medical Fee Schedule. The goals of the study were to

- evaluate and compare potential APMs for providers to the California Official Medical Fee Schedule (OMFS)
- examine advantages and disadvantages of each APM to the OMFS, including an assessment of each APM’s applicability to the WC system
- make recommendations to the legislature on alternative payment pilot programs.

To achieve these goals, we conducted a mixed methods study, combining a number of qualitative research tasks supported by quantitative analyses. This included a scoping review and environmental scan of literature on APMs, quantitative analysis of claims data reported to DIR’s Workers’ Compensation Information System (WCIS) to identify the types of provider specialties that provide a high volume of WC care to injured workers in California, and interviews and
focus groups with key WC stakeholders: health care providers, employee representatives (unions, applicant attorneys, worker advocates), and employer representatives (employers, insurers). The scope of the work was to evaluate, compare, and examine potential APMs for the California WC system and make a recommendation on next steps for an alternative payment pilot program or programs.

Organization of This Report

In the remainder of this chapter, we describe the current state of WC in California, including a brief history of payment and delivery reform in California. In Chapter 2, we discuss our approach, methods, and the specific research steps taken to evaluate and compare potential APMs for use in California’s WC system. In Chapter 3, we synthesize the issues raised by relevant stakeholders about the current WC system. In Chapter 4, we evaluate and compare alternative approaches, including advantages and disadvantages of each APM and an assessment of each APM’s applicability to the WC system. In Chapter 5, we conclude with a recommendation for an APM pilot program within WC in California and discuss the necessary next steps and considerations in designing such a pilot program.

Background on Workers’ Compensation in California

Medical care makes up slightly more than half of paid WC benefits in California. Over the past two decades, the nominal (not inflation-adjusted) value of medical benefits paid on behalf of workers rose from $3.5 billion in 1999 to $6.5 billion in 2019 (see Figure 1.1). Over this time frame, the average rate of increase in WC medical benefit payments—85 percent over 20 years, or a compound annual growth rate of 3.1 percent—may appear unremarkable in comparison to growth in spending or prices elsewhere in the U.S. health care system; total U.S. health spending increased at a compound annual growth rate of 5.6 percent over this period (4.8 percent on a per capita basis) (Centers for Medicare & Medicaid Services [CMS], 2021). However, Figure 1.1 also shows that the relatively modest growth between 1999 and 2019 in California WC medical benefit payments belies two periods when medical spending increased rapidly, followed by a sharp break in the trend. The timing of these periods of medical spending growth and their abrupt endings aligns closely with the implementation of past reforms to provider payment. The enactment of Senate Bill (SB) 899 in 2004 helped to reverse the rapidly escalating spending growth observed between 1999 to 2003, while the implementation of SB 863 starting in 2013 helped to stabilize levels of medical spending after spending growth began to accelerate again in 2010.
The use of medical networks as a mechanism to control costs and improve care coordination has a long history in the United States and in WC systems, according to a 2018 RAND report on access to care in WC (Kapinos et al., 2018). The authors stated (p. 18) that

Although empirical evidence suggests that the use of networks (through, for example, managed care organizations) has resulted in lower medical and disability costs in WC systems, some have argued that medical networks could yield compromised care and treatment for injured workers (Cheadle et al., 1999).

The California WC system has seen a series of reforms related to provider networks and injured workers’ choice of providers dating back to the late 1970s (see Ireland, Hayes, and Swedlow [2015] for a review). MPNs [medical provider networks] were introduced as part of state legislation in 2004 (became effective in 2005) as a way for employers and insurers to designate certain providers as “preferred” to care for injured employees. Employees were still given choices within the MPN and could go outside of the network if the MPN did not have enough preferred providers within close proximity.

Additional reforms were rolled out as part of state SB 863 in 2012 to improve access and give the DWC more oversight.

However, over the years, stakeholders have been concerned that these policy changes would affect access to care for injured workers, including changes in the availability of appropriate providers and services, timeliness of care, and other inadvertent changes in cultural, social, or
other barriers that could prevent care. Specifically, a RAND report pointed out that stakeholders worried that changes to the fee schedule and medical treatment dispute processes might affect how some providers interact with WC patients and the WC system (Mulcahy et al., 2018).

A series of RAND reports evaluating access to care within the California WC system found that the timeliness of care in California’s system compared favorably with those in other states and that most injured workers followed an appropriate pathway of care through treatment (Kapinos et al., 2018; Kapinos and Montemayor, 2019; Mulcahy et al., 2018; Mulcahy et al., 2020; Wynn et al., 2018). On the other hand, RAND also found that fewer providers were treating injured workers over time concurrent with an increase in claims, bill lines, and spending per provider, suggesting the possibility of increased provider concentration within the system. This increased provider concentration could be a result of specialization in the treatment of work-related injuries or could be indicative of increasing barriers to access (Mulcahy et al., 2018).

Access to care is a key indicator of the quality of care available to injured workers. Within WC, concerns about the quality of care delivered to injured workers have long existed. Indeed, the quality of health care for injured workers may have contributed to an increase in the proportion of the U.S. population that is permanently out of the labor market (Franklin et al., 2015).

Under the current WC system in California, providers are generally paid for each individual service they provide. Often called a fee-for-service system, this incentivizes the provision of more services, given that providers and health care practices will make more money if they provide more services. APMs provide an alternative to the fee-for-service system and are meant to curb the overprovision of care while still maintaining access to high-quality care for patients.

History of Payment and Delivery Reform in California

DWC maintains an Official Medical Fee Schedule (OMFS) for medical services provided under California’s WC program. The OMFS establishes the maximum allowable amounts for services unless the payer and provider contract for a different payment amount. The OMFS for physician services applies to all services performed by physicians and other practitioners, regardless of type of facility in which the services are performed. Until 2014, the OMFS primarily used 1997 Common Procedural Terminology (CPT) codes to describe medical services. CPT codes from 1994 were used for anesthesia services and physical medicine, and there were a few WC-specific codes or definitions. The fee schedule prior to 2014 consisted of two components, defined and discussed in detail in a RAND report from 2014 (Wynn et al., 2014):

- **Relative value units (RVUs) for each procedure.** The relative value scale is based on the California Relative Value Scale, which was developed by the California Medical Association in 1956 and adopted by DWC in 1965.
• A dollar conversion factor (CF) that converts the RVUs into an allowance. Separate CFs apply to each service type defined by CPT codebook section: evaluation and management (E&M), anesthesiology, surgery, radiology, pathology (and laboratory), and medicine.

To address the rising medical costs in the state’s WC system and concerns around access and quality of care, various regulatory and legislative reforms have been implemented over the past 20 years. In 2004, SB 899 implemented several changes to WC, including restricting workers’ choice of provider when being treated for a work-related injury, overhauling the permanent disability evaluation process and requiring evaluating physicians to assess apportionment of disability to non-occupational cause, and limiting the duration of receipt of temporary total benefits, among other changes (Hansen, 2016). These reforms largely targeted the behavior of workers rather than shifting the incentives for health care providers.

SB 863 was passed in 2012 in response to a series of reports recommending changes in the WC medical treatment system (California Commission on Health, Safety and Workers’ Compensation, 2011; Wickizer et al., 2009; Wynn, 2009; Wynn, 2012; Wynn, Timbie, and Sorbero, 2011). Collectively, the intent of SB 863’s provisions was to constrain the rate of increase in medical expenses through a combination of measures designed to improve the quality, efficiency, and timeliness of medical care provided to injured workers through improvements in the fee schedules and dispute-resolution processes and through increased accountability and oversight.

Importantly, SB 863 replaced the existing OMFS for physician services with a resource-based relative value scale (RBRVS), which was phased in over four years beginning in 2014. It also required that the WC Physician Fee Schedule be based on the RVUs of the Medicare RBRVS, not the California Relative Value Scale, and would not exceed 120 percent of Medicare’s allowed fees. In addition, SB 863 eliminated the surgery, radiology, pathology, and medicine CFs over the period of 2014 to 2017; as of 2017, there were only two CFs (for anesthesia, and all other services), following the Medicare model. Prior to SB 863, the last major revision to the OMFS had been in 1999. These changes to the OMFS were designed to promote efficient delivery of medical care (DWC, Workers’ Compensation Information System, 2019).

Although prospective estimates suggested that the transition to RBRVS would increase costs to the WC system, several reports that have tracked cost and utilization trends show that physician costs per claim have declined since the implementation of the RBRVS. In 2016, physician services accounted for 41 percent of medical payments overall in the WC system, according to the Workers’ Compensation Insurance Rating Bureau (WCIRB) of California (WCIRB of California, 2017). A RAND evaluation of SB 863 found that implementation of the RBRVS went smoothly, according to stakeholders (Mulcahy et al., 2020). It stated:

Overall, we found no evidence that SB 863 resulted in greater expenditures; expenditures for injured workers may have declined more than those for statistically similar comparisons, but this difference was not statistically
significant. However, we found that expenditures declined more for injured workers than for the comparison group for the following settings and types of services: anesthesia, drugs, E&M, medicine, pathology, radiology, and surgery. Other inpatient hospital expenditures increased more for injured workers than for the comparison group. There was little variation in the overall null finding across diagnosis or CCS [clinical classifications software categories]. (Mulcahy et al., 2020, p. 141)

Other changes to the fee schedule included establishing fee schedules for interpreter services and the elimination of spinal hardware pass-through payments. Other provisions of SB 863 that affected medical care included

- the implementation of an independent medical review (IMR)\(^1\) process (DIR, 2022a) that replaced the agreed upon medical evaluator and qualified medical evaluator process for medical necessity disputes
- the establishment of bill submission and processing requirements and implementation of an independent bill review process to resolve payment disputes
- improvements to the operation and oversight of medical network providers, including the requirement that providers follow Medical Treatment Utilization Schedule guidelines (DIR, 2022b).

Physicians caring for injured workers are also required to file reports with the WC payer (insurer or self-insured employer) that address the employee’s treatment, medical progress, and work-related issues (Quigley, Doyle, and Wynn, 2018). A RAND review of the reporting process and the pricing structure of the WC-required reports (Quigley, Waymouth, and Wynn, 2017) provides an overview of California’s current reporting requirements and any fee schedule allowances that have been established for each report (see Table A.1 in Appendix A). Note that this RAND research was completed prior to the enactment of SB 1160 on September 30, 2016, which amended the Labor Code to require electronic filing of the Doctor’s First Report of Occupational Injury or Illness (DFR). The DFR serves primarily as a notice that the injured worker has been seen by a physician. It describes the diagnosis based on the initial physical examination, provides the framework for documenting the injury, and notifies the carrier of the nature of the injury or illness and medical status of the patient. In addition, the Labor Code was revised to require DWC to develop a system for employers to electronically report documents related to utilization review (UR).

UR, as stated by DWC on a webpage providing answers to frequently asked questions (FAQ), is

the process used by employers or claims administrators to determine if a proposed treatment requested for an injured worker is medically necessary. All employers or their workers’ compensation claims administrators are required by

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\(^1\) IMR requests for review can be made by the requesting doctor or the employee (or their representative). IMR decisions are in place for a period of one year unless there is a material change in the request.
law to have a UR program. This program is used to decide whether to approve medical treatment recommended by a treating physician. (DWC, 2023)

UR is required in every case. As explained by DWC,

The California Supreme Court held that utilization review must be used for every medical treatment request in the California workers’ compensation system [Supreme Court of California, 2008]. The court also held that approving requested treatment without physician review is part of utilization review (UR), and only reviewing physicians may decide to delay, deny or modify requested treatment. (DWC, 2023)

A claims adjuster can always approve a request for authorization (RFA) without sending it to formal UR; the California Supreme Court held that UR must be performed for every medical treatment request in the California WC system. However, the court clarified that approving requested treatment without physician review is part of UR. In fact, in 2018, the Labor Code was revised in an attempt to encourage the bypassing of prospective UR in certain cases. The California Labor Code, Section 4610, subdivision (b), expressly allows the bypassing of prospective UR for most treatments for an accepted body part or condition rendered by a predesignated physician, MPN physician, or health care organization physician consistent with the Medical Treatment Utilization Schedule within 30 days of the initial date of injury. Note that it does not preclude retrospective UR; therefore, if a physician renders services that are not reasonable and necessary, then retrospective UR may be applied, albeit “solely for the purpose of determining if the physician is prescribing treatment consistent with the schedule for medical treatment utilization.”

Furthermore, the UR regulations (DIR, undated) allow an employer to reduce the cost of physician review in UR by designing a “prior authorization” program within the employer’s UR plan—essentially a list of services that can be rendered without prospective authorization. Specifically, Title 8, California Code of Regulations §9792.7, subdivision (a)(5) states that the UR plan shall include “A description of the claims administrator’s practice, if applicable, of any prior authorization process, including but not limited to, where authorization is provided without the submission of the request for authorization.” The DWC FAQ webpage states that “DWC supports the establishment of UR best practices that allow claims administrators to approve appropriate levels of care for injured workers at the lowest possible levels within the claims organization, without having to send those requests for external physician review” (DWC, 2023).

Most recently, SB 537, which was signed on October 8, 2019, instructed the California DWC to produce a research report to be given to the legislature that compares and contrasts possible payment alternatives for WC medical care providers to the OMFS; this is the requested report.
What Role Could Alternative Payment Models Play in Workers' Compensation?

The challenges that the WC system has faced in terms of medical care costs, access, and quality make the possibility of using payment reform to incentivize higher-quality, lower-cost care very attractive. Outside the WC system, there has been significant experimentation with payment models, with Medicare on the leading edge of much of this experimentation (Chernew, Conway, and Frakt, 2020; Joynt Maddox et al., 2017; Liao, Navathe, and Werner, 2020). APMs of particular interest to DIR and DWC are global budgets, bundled payments, and quality incentive programs, such as pay-for performance programs and value-based payment systems; we also included accountable care organizations (ACOs), given their prevalence in health care. We excluded pay-for-reporting programs, which reward providers for reporting their performance rather than incentivizing their actual performance. Each of these payment models provides an opportunity to shift the dynamics of the system from one that rewards the amount of care that is delivered to one that focuses on providing high-quality, efficient, necessary care. However, they all require that specific protocols and standards are set such that providers are appropriately incentivized, and patients are not left with unnecessary barriers and burdens when seeking care. We provide an overview of each of these APMs in Chapter 4.

Summary

Many of the challenges facing the delivery of WC medical benefits are shared by other health care payers and in part reflect the limitations of the fee-for-service payment model that has historically dominated the U.S. health care system. Other payers have used a wide range of APMs, such as global budgets, bundled payments, quality incentive programs, and ACOs in efforts to rein in costs, discourage overtreatment, and incentivize quality improvement. Although these models have not been broadly implemented in WC, we provide a review of the existing evidence and demonstrations of these APMs (see Appendix C) that led to the identification of a subset of possible models that we reviewed and discussed with stakeholders (see Chapters 3 and 4) and resulted in a recommendation and set of detailed next steps concerning a possible APM to test or pilot in WC in California (see Chapter 5).
Chapter 2. Research Approach and Methods

To evaluate and compare potential payment alternatives, we conducted a mixed methods study combining qualitative and quantitative methods. This included a scoping review and an environmental scan, quantitative analysis of claims data reported to DIR’s WCIS, and interviews and focus groups with key WC stakeholders.

Our mixed methods approach included two main research tasks: (1) a scoping review and an environmental scan of literature on APMs and (2) gaining perspectives from relevant stakeholders (many of whom were identified through an analysis of recent California WC claims and medical bill data). These research tasks were conducted sequentially, building upon one another. First, we identified and reviewed APMs in use in other state WC systems, as well as APMs used by other health care payers (via conducting the scoping review and environmental scan of literature on APMs and interviews with WC stakeholders in other states using APMs in WC). We also identified any past APMs used in California (via the scoping review and environmental scan of the literature and through our research interactions with California WC stakeholders). We next synthesized the gathered information to identify a few potential APMs for use in WC in California and developed our qualitative topic guides. We then gained input from key stakeholders on these potential APMs and the main challenges and issues with the current WC fee-for-service payment system. The stakeholder input included interviews with leaders in California provider associations, followed by a focus group with California health care providers, a focus group with employer representatives, and individual semistructured interviews with employee representatives. We describe our approach and methods for the scoping review and environmental scan and gaining input from stakeholders in the following sections. Appendix B provides additional detail on participant recruitment and study populations.

Scoping Review and Environmental Scan of Literature on Alternative Payment Models

We conducted a scoping review and an environmental scan of literature on APMs. A scoping review is a type of evidence synthesis that aims to systematically identify and map the breadth of evidence available on a particular topic, field, concept, or issue, often irrespective of source (i.e., primary research, reviews, non-empirical evidence) within or across particular contexts (Munn et al., 2022). We combined this with an environmental scan approach. An environmental scan is a tool for retrieving and organizing data for decisionmaking (Aguilar, 1967; Reichel and Preble, 1984). It is designed to provide evidence about what direction to take, to raise awareness of issues, and/or to help initiate a project as well as to plan for the future (Albright, 2004; Graham, Evitts, and Thomas-MacLean, 2008). This task included a review of peer-reviewed articles based
on searches of databases (such as PubMed, EconLit, Cumulative Index to Nursing and Allied Health Literature [CINAHL], and Business Select) and of gray literature based on an advanced Google search of relevant organizational websites (such as the California Workers’ Compensation Institute website, Workers’ Compensation Research Institute [WCRI] website, the Commonwealth Fund website, California Health Care Foundation website, Health Care Payment Learning & Action Network website, and the Centers for Medicare & Medicaid Services [CMS] website) to identify relevant industry/research organization reports and publicly available program information. The purpose of the scoping review and the environmental scan were to identify other states’ WC systems that were considering or using APMs and to review the evidence on the use of APMs by other health care payers (e.g., Medicare or commercial insurers). We limited our search to documents that reported findings on the effect of APM programs that aimed to improve clinical quality, utilization, patient experience, safety, and/or cost of medical care provided. We excluded APM programs focused only on pediatric care, post-acute care (i.e., home health care and long-term care), and end stage renal disease because these health care settings are not often utilized in WC. We also excluded articles that focused on the effect of broader changes in medical payment, such as the shift to a prospective payment system and incentives to increase organ donation by hospitalized patients. Although this was not a formal systematic literature review (as we did not rate the quality of the studies), we adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Liberati et al., 2009; Moher et al., 2009) for literature retrieval and review. Appendix C provides a summary of evidence from the scoping review and environmental scan. Full details of the scoping review and environmental scan’s methods, approach, and identified evidence are available on request from the first author listed in this report via email at quigley@rand.org.

**Stakeholder Input on Alternative Payment Models**

We aimed to collect perspectives and information about the current fee-for-service WC system and potential APMs from several types of stakeholders, including

- stakeholders in WC from states other than California that are considering or using APMs in WC
- leaders of provider associations from specialties that typically provide a high volume of WC care to injured workers
- health care providers in California from specialties that typically provide a high volume of WC care to injured workers
- employer representatives (i.e., employers, insurers, and third-party administrators [TPAs])
- employee representatives (i.e., worker advocates, union representatives, and applicant attorneys).

Table 2.1 provides an overview of topics discussed with each stakeholder group.
Table 2.1. Overview of Topics Discussed by Stakeholder Groups

<table>
<thead>
<tr>
<th>Discussion Topic</th>
<th>WC Leaders from States Other Than California</th>
<th>Leaders of Provider Associations</th>
<th>Providers in California</th>
<th>Employer Representatives</th>
<th>Employee Representatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issues with fee-for-service in WC</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Challenges in receiving care and return to work in California WC</td>
<td>ND</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Decisionmaking process for APM use in WC</td>
<td>X</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Types of APMs considered</td>
<td>X</td>
<td>X^{a,b}</td>
<td>X^{a,b}</td>
<td>X^{a,b}</td>
<td>X^{a,b}</td>
</tr>
<tr>
<td>Benefits and drawbacks of APMs in WC</td>
<td>X</td>
<td>X^{a}</td>
<td>X^{a}</td>
<td>X^{a}</td>
<td>X^{a}</td>
</tr>
<tr>
<td>Implemented APMs</td>
<td>X</td>
<td>X^{a}</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Considerations for APM design</td>
<td>X</td>
<td>X</td>
<td>X^{a,b}</td>
<td>X^{a,b}</td>
<td>X^{a,b}</td>
</tr>
<tr>
<td>Disagreements between WC stakeholders around APM implementation</td>
<td>X</td>
<td>X</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
</tbody>
</table>

NOTE: ND indicates not discussed.

^{a} Includes specific discussions on pay-for-performance.

^{b} Includes specific discussions on bundled payments.

**Stakeholders from States Other Than California**

We conducted small group interviews with WC staff in two states where APMs have been implemented: Ohio and Washington. These were the only two states identified in our scoping review and environmental scan as having implemented APMs in their WC system. The interviews lasted 90 minutes and were conducted virtually using the ZoomGov platform. In each interview, two individuals from the state participated. The goal was to capture information from individuals with experience in the decisionmaking process about pursuing an APM and with experience designing and implementing the APM. Discussion topics included issues with the fee-for-service system in WC that prompted the state to explore APMs, the decisionmaking process to explore APMs, the types of APMs the state considered implementing, the benefits and drawbacks of the considered APMs in the context of their state’s WC system, an in-depth discussion of the implemented models, any disagreements between stakeholders about the APMs, and key considerations weighed in the APM design and implementation processes.
Health Care Providers in California

Several steps were taken to identify health care providers in California from specialties that typically provide a high volume of WC care to injured workers. First, we analyzed 2016–2019 administrative data from DWC’s WCIS, which is the most comprehensive available source of data on California WC claims and medical bills submitted to WC payers, to identify the high-volume provider specialties providing care in WC. Second, we contacted the provider associations for these identified provider types to gather information about their experiences with APMs and the potential of using APMs in WC in California, as well as to assist in identifying individual providers to participate in a focus group. Lastly, we conducted a focus group with individual providers across the main specialties in WC.

We analyzed 2016–2019 WCIS administrative data and rank-ordered provider specialties by the total patient percentage in WC (i.e., average total patient percentage from 2016 and 2019) to identify the top high-volume provider types in WC in California, where provider type was defined based on rendering and billing provider specialty codes reported in the WCIS (Mulcahy et al., 2018). Table 2.2 lists, in rank order, the top ten high-volume provider specialties; we also list the associated total WC bill/paid amount for 2016 and 2019. Table 2.2 includes 65,690 providers for 2016 service dates and 91,627 providers for 2019 service dates. Each provider was identified in the data by a unique National Provider Identifier (NPI). We excluded provider specialties encountered primarily by an injured worker within an inpatient or specialized medical facility, not through a physician’s ambulatory care office (such as radiology or emergency physicians) (bolded in the table), given that we are most interested in directly incentivizing providers (and are not focusing on incentivizing facilities).

This analysis identified the following six high-volume WC provider specialty groups to be recruited for the provider focus group: family medicine, physical therapy, occupational medicine, orthopedics, physical medicine and rehabilitation, and chiropractic and pain medicine. Appendix D provides additional detail on the data analysis performed using WCIS.

The provider focus group was held virtually (using the ZoomGov platform) in February 2023 and included ten participants: two chiropractors, two physical therapists, one family medicine doctor who was also a functional management and pain specialist, one physical medicine and rehabilitation specialist, two occupational medicine doctors, and two orthopedists (one knee/major joint specialist, one hand/shoulder/elbow specialist). There was a roughly even split across providers in terms of practicing in Northern versus Southern California, with six providers from Northern California and four providers from Southern California.
Table 2.2. Rank Order of the Top Ten High-Volume Provider Specialties by Percentage of Patients in Workers' Compensation in California

<table>
<thead>
<tr>
<th>Provider Specialty</th>
<th>2016 Service Dates Percentage of Total Paid</th>
<th>2019 Service Dates Percentage of Total Paid</th>
<th>2016 Service Dates Percentage of Patients in WC</th>
<th>2019 Service Dates Percentage of Patients in WC</th>
<th>Average of 2016 and 2019 Service Dates Percentage of Patients in WC</th>
<th>Rank Order (Based on Average of 2016 and 2019 Totals)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family medicine</td>
<td>9%</td>
<td>7%</td>
<td>36%</td>
<td>30%</td>
<td>33%</td>
<td>1</td>
</tr>
<tr>
<td>Physical therapy</td>
<td>10%</td>
<td>11%</td>
<td>25%</td>
<td>28%</td>
<td>26.5%</td>
<td>2-Tied</td>
</tr>
<tr>
<td>Hospitals/clinics/centers(^a)</td>
<td>21%</td>
<td>17%</td>
<td>29%</td>
<td>24%</td>
<td>26.5%</td>
<td>2-Tied</td>
</tr>
<tr>
<td>Radiology(^a)</td>
<td>3%</td>
<td>2%</td>
<td>25%</td>
<td>23%</td>
<td>24%</td>
<td>3</td>
</tr>
<tr>
<td>Occupational medicine</td>
<td>5%</td>
<td>4%</td>
<td>21%</td>
<td>23%</td>
<td>22%</td>
<td>4</td>
</tr>
<tr>
<td>Orthopedics</td>
<td>8%</td>
<td>13%</td>
<td>13%</td>
<td>21%</td>
<td>17%</td>
<td>5</td>
</tr>
<tr>
<td>Emergency medicine(^a)</td>
<td>3%</td>
<td>2%</td>
<td>17%</td>
<td>12%</td>
<td>14.5%</td>
<td>6</td>
</tr>
<tr>
<td>Physical medicine and rehabilitation</td>
<td>3%</td>
<td>5%</td>
<td>7%</td>
<td>10%</td>
<td>8.5%</td>
<td>7</td>
</tr>
<tr>
<td>Chiropractic</td>
<td>2%</td>
<td>4%</td>
<td>7%</td>
<td>8%</td>
<td>7.5%</td>
<td>8</td>
</tr>
<tr>
<td>Pain medicine and anesthesiology</td>
<td>2%</td>
<td>2%</td>
<td>5%</td>
<td>8%</td>
<td>6.5%</td>
<td>9</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>Less than 1%</td>
<td>1%</td>
<td>Less than 1%</td>
<td>1%</td>
<td>Less than 1%</td>
<td>Last</td>
</tr>
</tbody>
</table>

NOTE: There are other provider specialties not listed, as we list only the top ten high-volume provider specialties in WC and the last. Rank order was determined by rank ordering the average of 2016 and 2019 Percentages of Patient in WC. For example, family medicine is ranked 1 because (36% + 30%)/2 = 33% was the highest percentage of the provider specialties. The table describes professional and facility bills associated with injuries in 2016 or later with service dates in 2016 or 2019. 2016 data exclude bills with service dates prior to April 6, 2016, due to a change in claim formats on that date. Total number of unique injured workers (patients) contributing data to the table is 412,121 for 2016 and 777,528 for 2019. Total paid amount included in the table is $784,926,482 in 2016 and $2,145,135,153 in 2019. Percentage of patients is defined as number of unique patients receiving care in a specialty divided by total number of patients in a system; percentage of patients sums to more than 100 percent in a column because each patient may receive care from providers in multiple specialties. “Provider Specialty” was assigned based on rendering and billing provider specialty codes reported to the WCIS; billing provider specialty was used only if rendering provider specialty was missing. See Appendix D for additional details.

\(^a\) Provider specialties in **bold italics** are those that are encountered primarily by an injured worker within an inpatient or specialized medical facility, not through a physician’s ambulatory care office.
Discussion topics included the top issues with the current fee-for-service system in WC, difficulties and challenges experienced for injured workers receiving care and returning to work, a possible pay-for-performance model for WC (including what performance indicators could be included, the types of incentives of interest, how implementation of a pay-for-performance model could be structured, the benefits and drawbacks of the model, and its feasibility), and the use of bundled payments for episodes of care within WC.

**Employer Representatives**

We assembled a diverse set of names of employer representatives across California that included employers, insurers, and TPAs. The employer representative focus group was held virtually in March 2023 and included six participants: two employers, three insurers, and one TPA. Discussion topics included the top issues with the current fee-for-service system, the main challenges for an injured worker in receiving care and returning to work, a pay-for-performance model for WC, and bundled payments for an episode of care. The discussion around the pay-for-performance model included gathering responses about whose performance should be incentivized, potential performance indicators and incentives, how the participant’s organization could play a role in implementation of such a model, and the potential benefits, challenges, or feasibility issues.

**Employee Representatives**

We assembled names of employee representatives that included worker advocates, union advocates, and applicant attorneys. We conducted one-on-one semistructured interviews with three worker representatives, including two union representatives and one applicant attorney. Discussion topics included the top issues with the current fee-for-service system, main issues for an injured worker in receiving care and returning to work, a pay-for-performance model for WC, and bundled payments for an episode of care. The discussion around the pay-for-performance model included gathering responses about whose performance should be incentivized, potential performance indicators and incentives, how the participant’s organization could play a role in implementation of such a model, and the potential benefits, challenges, or feasibility issues.

**Analysis and Coding**

All discussions were recorded and transcribed. Notes were also taken by members of the research team during the discussions and after listening to the recordings. The team conducted debriefs after each focus group and following each group of interviews. Notes were compared against the transcriptions for accuracy and finalized. Transcripts were reviewed, aligned with the protocol questions, and finalized. The full discussion protocols for the focus group and interviews are available upon request from the first author via email at quigley@rand.org. All study protocols and processes were approved by RAND’s Human Subjects Protection Committee.
For the employee representative, employer representative, and provider transcripts, we uploaded participant responses for each protocol question (linked to their participant ID indicating their stakeholder type (i.e., applicant attorney, union, employer, insurer, and type of provider specialty)) into Excel with rows per response per person. The notes from the interviews with stakeholders from other states were reviewed and summarized separately.

For the employee representative, employer representative, and provider discussions, we conducted both inductive and deductive content analysis to develop a coding scheme for performing a qualitative description of the themes discussed by the WC stakeholders. We used directed (deductive) content analysis, looking for a priori constructs related to the specific interview questions. We also used inductive content coding and analysis, in which latent categories or themes emerge from the data, which is appropriate when little is known about the phenomenon of interest (Cavanagh, 1997; Downe-Wamboldt, 1992). With this combined approach, we established a coding scheme to yield a qualitative description of the themes discussed (at the person level) by both the three main stakeholder groups (providers, employer representatives, employee representatives) and the ten specific stakeholder types (applicant attorney, union, employer, insurer, and the six specific types of providers by specialty).

Discrepancies were resolved by the coders reaching consensus through discussion, which also resulted in additions or modifications to several codes, as expected. We used discussion at regular team meetings to involve the larger team and reach consensus on topics, identify discrepancies, refine concepts, define codes, and dialogue about concepts and themes.

Team members worked together in identifying themes and subthemes and in reviewing the responses by type of respondent to understand any differences or similarities. This thematic analysis yielded summaries of the main themes across the research topics and by relevant stakeholder group. We then analyzed the presence of support and mention for each theme across the stakeholder groups to understand whether topics/themes were supported consistently by all stakeholders, were supported by some stakeholders, or only mentioned by one specific stakeholder group. These thematic and comparative analyses highlight the differences and similarities found by different stakeholders in California.
Chapter 3. Issues Raised About the Current Workers’ Compensation System in California

The assumption behind needing an APM is that the current payment model is not working. To make sure that we understood stakeholder perspectives about the main issues with the current WC system, we began each conversation with stakeholders by asking: “The idea of needing alternative payment models suggests that the current model is not working. We would like to understand your perspectives on the current fee-for-service payment system. In your experience, what are the top three issues with the current system that need to be addressed?” We synthesized the responses to these discussions and identified main themes. In what follows, we summarize the issues raised and discussed by stakeholders, which reflect their experiences with WC. This may or may not reflect experiences for all stakeholders or actors in the WC system.

The main themes we heard from stakeholders were as follows:

- **Access to WC care:**
  - There are not enough overall providers or specialty providers in WC, and a reluctance by providers to take complicated cases.
  - Administrative burden of WC care: There are high levels of paperwork and documentation needed to comply with WC regulations to provide care, additional paperwork associated with overturning denials, and unique requirements for documentation across employers and carriers.
  - Low provider reimbursement for time spent: The fee schedule for the care provided is adequate but does not cover the additional time spent primarily on associated administrative tasks to gain approval for the care needed.
  - Timeliness of WC care: There are high rates of delays and denials caused by the requirement of prior authorization and administrative hurdles, such as UR and IMR.
  - MPN inadequacies: The inadequacies raised were difficulty finding a provider to take a WC patient within an MPN, provider difficulties navigating the large number of MPNs, and provider fear of being dropped from an MPN.

- **Overutilization:** There is unnecessary care and overutilization of care in the WC system.

- **Lower-quality providers in WC:** Lower-quality providers are those that remain in WC because higher-quality providers leave due to administrative burden in WC.

We also heard several themes from a single set of stakeholders:

- **WC is focused on cost, not outcomes:** WC is focused on the cost of care rather than patient outcomes (clinical care, safety, patient experience) and return to work.

- **WC is “adversarial”:** The WC system is built on a contentious relationship between employers and insurers on the one hand (who are reviewing care decisions made by providers) and providers on the other hand (who are providing care and potentially providing unnecessary care to patients).
- **Management services organizations (MSOs) reduce reimbursement for providers:** MSOs take a percentage of provider reimbursement for services without providing additional value in terms of timeliness of care.\(^2\)

- **Limited modified return-to-work options provided by employers:** In WC, it is difficult to procure modified duty or modified return-to-work options when returning after an injury, either due to employer reluctance or inability to make accommodations.

- **More training on WC administration process and rules is needed:** There is a lack of training available to support providers in successfully dealing with the administrative processes, timelines, reporting, and needed coordination of care (i.e., seen as burdens).

- **Care coverage in WC is limited:** There are limited treatment options available in the fee schedule for certain conditions, specifically pain.

We examined these themes to understand which were consistently held across stakeholders. We asked stakeholders (i.e., high-volume WC providers, unions, applicant attorneys, employers, and insurers) to identify the top three issues with the current WC system that need to be addressed through an APM. Table 3.1 lists the top issues raised about the current WC system (i.e., theme) and the consistency with which the issue was mentioned across the stakeholder groups. The table shows which issues were raised by most stakeholders, by some stakeholders, or as a single issue raised by one type of stakeholder. Next, we describe and present illustrative quotes concerning each of the themes/issues raised to elaborate on the details and specific aspects of the concern raised by stakeholders in our discussions.

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\(^2\) An MSO is an entity that provides practice management and administrative support services to individual physicians, private practices, or medical groups; their services encompass billing and collection, payer credentialing, supervision of nonclinical staff, human resource functions, group purchasing, malpractice discounts, etc. They are primarily utilized as a vehicle by which nonphysicians can legally own an entity that supplies administrative support to a medical practice’s operations.
<table>
<thead>
<tr>
<th>Issue Raised</th>
<th>Employee Rep.: Applicant Attorneys</th>
<th>Employee Rep.: Unions</th>
<th>Employer Rep.: Employers</th>
<th>Employer Rep.: Insurers</th>
<th>Main WC Providers (N = 6 types)</th>
<th>Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to WC care:</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Not enough providers in WC</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>–</td>
<td>X, all 6</td>
<td>Consistent, except insurers</td>
</tr>
<tr>
<td>Administrative burden of WC care</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>–</td>
<td>X, all 6</td>
<td>Consistent, except insurers</td>
</tr>
<tr>
<td>Low provider reimbursement for time spent</td>
<td>X</td>
<td>–</td>
<td>X</td>
<td>–</td>
<td>X, except PT and OccMed</td>
<td>Consistent, except unions and insurers</td>
</tr>
<tr>
<td>Timeliness of WC care: High rates of delays/denials</td>
<td>X</td>
<td>–</td>
<td>X</td>
<td>X</td>
<td>X, all 6</td>
<td>Consistent, except unions</td>
</tr>
<tr>
<td>MPN inadequacies</td>
<td>X</td>
<td>X</td>
<td>–</td>
<td>X</td>
<td>X, except OccMed</td>
<td>Consistent, except employers</td>
</tr>
<tr>
<td>Overutilization</td>
<td>–</td>
<td>–</td>
<td>X</td>
<td>X</td>
<td>OccMed and Pain</td>
<td>Raised by some providers, employers, and insurers</td>
</tr>
<tr>
<td>Lower-quality providers in WC</td>
<td>–</td>
<td>–</td>
<td>X</td>
<td>–</td>
<td>PT and Pain</td>
<td>Raised by some providers and employers</td>
</tr>
<tr>
<td>WC is focused on cost, not outcomes</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>OccMed and PMR</td>
<td>Singular issue, raised by some providers</td>
</tr>
<tr>
<td>WC is “adversarial”</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Ortho and pain</td>
<td>Singular issue, raised by some providers</td>
</tr>
<tr>
<td>Management services organizations reduce reimbursement for providers</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>PT, Ortho, PMR, and Chiro</td>
<td>Singular issue, raised by some providers</td>
</tr>
<tr>
<td>Limited modified return-to-work options provided by employers</td>
<td>X</td>
<td>X</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Singular issue, raised by employee reps</td>
</tr>
<tr>
<td>More training on WC administration process and rules is needed</td>
<td>–</td>
<td>–</td>
<td>X</td>
<td>X</td>
<td>–</td>
<td>Singular issue, raised by employer reps</td>
</tr>
<tr>
<td>Care coverage in WC is limited</td>
<td>–</td>
<td>–</td>
<td>X</td>
<td>X</td>
<td>–</td>
<td>Singular issue, raised by employer reps</td>
</tr>
</tbody>
</table>

NOTE: The “Consistency” column indicates which issues were raised and supported across main stakeholders. Some of the “singular issues” may also be an access issue but were raised as a top issue by only one stakeholder group. The aim was to identify a goal or issue supported by all five main WC stakeholder groups. – indicates not raised by any stakeholders. Chiro = chiropractic; Occ Med = Occupational medicine; Ortho = orthopedics; Pain = Pain medicine and anesthesiology; PT = physical therapy; PMR = physical medicine and rehabilitation; Rep. = representative.
Access to Care in Workers’ Compensation

The issues most consistently raised across the stakeholder groups—providers, employers, insurers, unions, and applicant attorneys—were related to an injured worker’s ability to access WC care. Chief among the access issues raised were the low number of overall providers and the low number of needed specialists who are willing to provide care within the WC system, as well as the reluctance of providers to take difficult or complicated cases. Furthermore, stakeholders also most consistently raised low provider reimbursement in WC for time spent, issues with the timeliness of WC care primarily due to high rates of delays and denials, and the inadequacies of the MPNs in WC.

Limited Providers Available in Workers’ Compensation

The main reasons given for the low number of providers in WC—overall and within specific specialties—were the high administrative burden associated with providing care in the WC system (such as reporting, authorizations, peer-to-peer calls, coordination, and repetitive follow up); WC care provision, including many administrative tasks that are unpaid for providers (or poorly compensated); and low payment/reimbursement rates for the time spent overall (not for care given). These aspects of providing care for an injured worker contribute to providers either leaving the WC system or not joining in the first place. An employer explained that many administrative tasks are unpaid for providers:

There is a major disincentive for treating doctors to stay in the system because there is a major discrepancy in the fee-for-service [reimbursement] and the amount of payment for certain required points in a case. For instance, doctors are to write and submit permanent and stationary or maximum improvement reports. Providers do not get paid for this; treating doctors feel that they do not get paid enough for those reports, per their current fee schedule.

An employee representative from a union focused on how the administrative processes reduce the chances a provider would enter the system:

I know the system can be bureaucratic and a headache, and I can see why the providers may not want to enter the system. . . . The WC bureaucracy does not sit well with workers and providers.

A chiropractor with whom we spoke also noted how the administrative burden leads to limited numbers of providers joining the system:

Most young guys don’t want to do WC. You can’t get young providers to decide to go into WC—there’s plenty of things more lucrative that have less work.

On top of existing shortages of providers in WC, we heard that providers are both leaving and not joining WC. Both issues were raised most consistently across the stakeholders, and the primary rationale provided by all stakeholders was the high administrative burden and the large amounts of required paperwork for relatively low reimbursement given the time spent on each
case. Providers noted that whole medical groups, networks, and organizations have historically not engaged in WC because of the low reimbursement for the total time spent on an injured worker case. An occupational medicine provider explained:

Many doctors have opted out of WC and do not want to do WC. . . . [A large employer]’s doctors don’t want to see injured workers on WC. [Another large state employer] doesn’t want to do it. None of the [health care providers] want to do it. A number of large medical groups will not do it. . . . It is all because the administrative burden is extremely high and difficult.

**Limited Specialty Providers Available in Workers’ Compensation**

According to stakeholders, provider availability varies by type of provider and region in California. Stakeholders discussed that providers are also part of several MPNs. Providers themselves did not report advantages to participating in an MPN, which is supported by previous research (Kapinos et al., 2018), even though they noted MPNs are beneficial to increasing WC patient volume, retaining WC patients, and improving access to care. The perception was that the availability of specialists providing care in WC is limited (i.e., a lack of specialists available in WC to injured workers) and exacerbated in specific geographic areas across California. We heard most consistently that finding a specialist in a specific area who is part of a participating MPN can be very difficult. An employer discussed the shortages of specialists in rural areas of California by stating:

Particularly for specialists . . . there’s a significant shortage of providers in several pockets around the state, particularly rural areas. But really, even in major metropolitan areas, we’re having access issues because of limited providers in WC.

**Reluctance of Providers to Take Difficult or Complicated Workers’ Compensation Cases**

There are also issues with gaining access to care among providers who do take WC if the patient’s medical care is complicated or complex. Employee representatives (i.e., applicant attorneys and union representatives) noted that WC providers were reluctant to take on complicated cases, such as cases with a long history, cases that have been taken on by multiple other doctors in their same specialty, or cases that have a large case history file. An applicant attorney pointed out the issue, stating:

Half the time or more, the doctor sees the case and then says, “I don’t want to see the patient.” A lot will say no if the claim is over a year old, if the records are over an inch thick, or if they have been seen by any other surgeon in town. In WC, we are starting with a small pool of doctors, and doctors in the network are not wanting to see the injured workers as patients.

Similarly, a physical therapist noted how difficult it is to get the insurer to provide authorizations for complicated cases, particularly surgical cases, where downstream care that is necessary gets delayed and the delays overly burden providers and can prolong patient recovery:
Authorization [in WC] is just terrible, and to [the orthopedist’s] point, the problem is getting authorization for care. It starts out by a good-quality surgeon doing surgery. We then have a physical therapist who is a hand specialist who has to wait to get authorization for a hand splint. During the wait, the patient is going to suffer if they don’t have it [the splint] immediately or don’t get their care and therapy immediately. We also have many patients who have back surgeries and WC gives them six authorized PT visits; that’s great except then it takes another six weeks to get authorized for six more visits and in that wait time you’ve lost everything, the progress that you’ve made in the first six visits.

Administrative Burden of Workers’ Compensation Care Provision

While administrative burdens were cited as a major issue that led to access barriers, they were also brought up as their own independent problem within the WC system. Employer, employee, and provider representatives consistently mentioned high levels of paperwork and documentation needed to comply with WC regulations to get care, additional paperwork associated with overturning denials, and time spent needing to coordinate, manage, and handle the administrative process. As noted by a provider, the administrative cost associated with a WC claim is one-and-a-half times the cost of the claim, compared with a few percent in Medicare. One insurer noted the relationship between the administrative burden of paperwork and payment within the system:

There is an abundant amount of statutory and regulatory requirements that are necessary, frankly, in order for us to administer benefits, that we impose on these physicians, but they are necessary. . . . I don’t think anybody is opposed to providing information that might be useful, but I certainly hate it when we’re required to submit reporting that is not being utilized, ’cause that’s just time-consuming and expensive.

Providers voiced similar concerns related to excessive administrative burdens and hurdles to providing care for injured workers, noting that these processes take time and do not add to patient care. A chiropractor related his frustrations with a current record review:

If you ever do record review and you get a box of records from the insurance companies, I got one today . . . it’s several hundred pages of records—and the way the billing system is set up for record review, you can only bill a maximum of two hours per day. So, the only way I have figured out to get paid on those is if I divide up the whole thing. You may spend an entire Saturday reviewing those records and typing it all up, but you have to divide it into 12 separate reports, each only two hours, to actually get paid for reviewing them all. I’ve tried other ways of getting around it, like putting in the report that I spent these separate days, two hours apiece, on one of those. That came back denied, of course.

Providers noted additional concerns regarding the administrative burden of WC based on their experiences providing care. In addition to specific requirements for WC, there are unique requirements for documentation by the employer and carrier that providers need to account for when providing care. Something that is approved for one carrier can be denied by another. As one occupational medicine provider who had experience from the insurer perspective noted:
There are different insurance carriers, different TPAs, different third-party services, and they all have their own way of doing things. It gets very complicated for a provider because there’s no consistency across the board in terms of how things are done and handled by insurers. So that, to me, is an administrative issue.

One occupational medicine provider noted that some of the issues associated with administrative burdens are because the current fee schedule is based on a nonindustrial population:

Billing in the CPT system is set up for nonoccupational care. Because it’s set up for group health and group practices, the incentives are to collect a lot of information that has no bearing on the WC case. Or things that do have bearing on the case, such as functional outcomes, are not considered actually in the current billing CPT scheme.

Time spent dealing with administrative issues for a WC patient takes away from a provider’s ability to care for their patients and is often seen by providers as not helping patients and ultimately costing the WC system money. As one pain medicine provider related based on his experience overturning a denial:

I spend 75 percent of my time, 50 to 75 percent, dealing with all of these things that we’re talking about—denials, going back and forth for peer-to-peers with the UR doctors, fighting about Gabapentin when the cost of denying Gabapentin far exceeds the cost of providing Gabapentin. WC is a time sink.

**Low Provider Reimbursement for Care of Injured Workers for Time Spent**

Applicant attorneys, employers, and providers consistently noted that reimbursement levels based on 120 percent of the Medicare fee schedule were sufficient for providing care but were too low when factoring in the WC process. More specifically, they explained that (1) the fee schedule was too low for the overall time spent given the high administrative burden of a claim, especially including the associated administrative tasks that are unpaid, and (2) MSOs take a percentage of the physician reimbursement for services without providing equivalent support for a claim.

As an employer representative noted, “The fee schedule in California is low compared to many other states” already. This, coupled with the fact that providers are typically not paid for tasks such as engaging in peer-to-peer calls as a part of UR, or other administrative tasks associated with delays or denials, increases the amount of work for the same amount of pay. As one applicant attorney noted about the issues with unpaid administrative work:

what I see and hear from providers is that providers do not get paid enough to be worth their while, or they are asked to do things without being paid. As I understand the process, if a doctor puts in a request, and WC denies it through UR, or the UR doctor wants to do a peer-to-peer call, I don’t think the provider is paid for their time, or it’s not enough to be worth it.
Similar concerns were mentioned by an orthopedist who discussed the basic issue of finding the right phone numbers and shepherding claims through the many steps of the WC process:

Billing does not reflect the amount of time that you have to spend dealing with the work issue, return to work, modified work, people not wanting to go back to work, and then with your nurse case manager conferences, they can’t come in at the same time, so you have another person you have to talk to. And just the overall supervision that you have to do to make sure that the claim and the patient gets through the system and gets the appropriate care for a good outcome. So, it’s not just seeing the patient, but you don’t get compensated for all that extra work that you and/or your staff need to do to make sure that the fax number that was the right one yesterday is now the wrong one and you don’t get a response in a week or two. You know, so it has to be continual follow-up, and there’s no compensation that really helps out with all that administrative burden or, you know, talking to the UR doctor who doesn’t answer his phone.

On top of low reimbursement relative to the work needed, providers noted a problem with providers and provider groups that contract with an MSO for practice management and administrative support services. When providers contract with an MSOs for a contracted price (typically a percentage of reimbursement), individual providers view this as the MSO “intercepting” a portion of their reimbursements for care without providing much value to the care of the injured worker. A physical therapist mentioned the reduction in payments when MSOs are involved:

- The administrative burden is there, but the third parties, the MSOs, are intercepting half of a fair reimbursement for our services. Really, I think that’s a bigger issue in the physical therapy world because we don’t really have control over very much, other than we’re reliant on a physician referral. . . . Someone else is allowed to intercept 50 percent of the reimbursement! The care for the patient is going to go down because there’s no way we can do our service for what we get for the patient to be treated.

**Timeliness of Care in Workers’ Compensation**

A separate consistent concern discussed by nearly all stakeholder groups is that care in the WC system is not timely. Delays due to administrative hurdles and denials, particularly inappropriate denials that lead to long adjudication processes, were mentioned as the major drivers of care delays. Excessive delays caused by the requirement of prior authorization, administrative hurdles such as UR and IMR, were the major issues discussed for denials. This was referred to by one chiropractor as “forehead pounding against the wall” to get care for their patients. A physical medicine and rehabilitation provider explained how time is lost and delays occur because of these WC administrative processes:

- It is said that IMR follows UR 90 percent of the time. However, that does not take into account the overall timeline and inappropriate denials. . . . For my office, we have 20 treatment recommendations, 20 RFAs. 50 percent of those get denied. So, we write an appeal, then it is approved. . . . The statistics do not
reflect the full picture of what the doctor has to do to gain the care for the injured worker.

Employers discussed similar issues, noting the administrative burden from UR and how delays from this process increase costs:

The UR process is a process that works, but it also creates challenges at the same time if overutilized. So, for instance, say if the provider is trying to find out what a problem is in a patient case and requests diagnostics and the adjuster authorizes six visits of physical therapy, by the time the provider’s request is denied by UR and then upheld by IMR, the cost of the patient’s case is higher for the employer than the actual treatment or care itself.

The other major issue was inappropriate denials. Denials that are overturned are seen as unnecessary from the provider perspective, leading to more paperwork and administrative hurdles like UR and IMR. Such denials delay care: An injured worker cannot receive care until a denial is overturned, or a provider sees the patient again and opts for a different treatment. One physical medicine and rehabilitation provider raised how these concerns and denial drive documentation and are unique to the WC system:

Reporting is challenging because you need enough reporting to substantiate the treatment to avoid UR, and then you still get inappropriate denial from UR. You have defense attorneys complaining there is too much in the progress notes, while UR says there is too little documentation. The amount of documentation is excessive. All of it is an attempt to meet UR requirements. This is very different from how other health insurance works.

**Medical Provider Network Adequacy in Workers’ Compensation**

The final concern most consistently endorsed across stakeholder groups pertained to issues with MPN adequacy. These concerns were shared by employee representatives, insurers, and all provider groups except occupational medicine providers. Key stakeholder groups endorsed a range of issues with MPN adequacy, including the primary difficulty of finding a provider to take a WC patient within an MPN. A union representative noted that certain insurer MPNs were difficult to work with because they took a long time to schedule appointments, especially during the pandemic, causing delays:

[The insurer has] a difficult time scheduling appointments and surgeries, which causes delays. The pandemic exacerbated those delays as well. It takes [the insurer] forever to do it, to respond to claims.

Similarly, a pain management provider discussed how a limited MPN made specialty care particularly difficult to procure:

And then trying to get people who don’t have an income to specialists—for example, when the only specialist in the MPN is an hour and a half away from them. They can barely afford housing, let alone gas to that, but because there are so few people who want to participate or can participate in the MPN, they can’t go anywhere.
In addition to difficulties injured workers have finding providers in the MPN, representatives from employee, employer, and provider groups noted the difficulties providers have navigating the large number of MPNs. An orthopedist noted that the “leasing of networks has created hundreds [of networks] that are confusing to providers.” In addition, an applicant attorney discussed the large number of MPNs that providers likely have to interact with among their injured worker population, leading to poorer access to care:

The biggest issue is access to care. That is a function of our system of MPNs. Every carrier or provider can have their own MPN, and most do. If I have 200 clients, with 200 carriers, that could be 200 MPNs.

Despite these issues with MPNs, providers reported concerns with being dropped from MPNs. As one physical medicine and rehabilitation provider noted:

There is always a black cloud over my head that I should not do anything to get booted out of the MPN.

Without membership in an MPN, most new WC providers cannot get enough cases to financially sustain themselves only through WC cases and need additional administrative support for managing WC cases. The MPN is then able to dictate care and drive reimbursements down, ultimately hurting patient access to care. As one chiropractor explained:

Employers are basically whittling down these MPNs ’til they’re so small that they’re holding each other by each side and they’re saying, “Listen, you know, Doctor A, if you don’t take good care of our injured worker and keep our costs down, we’re going to send everything to B.” And then they go to B and say, “If you don’t keep our costs down—the city, the county, the whatever—we’re going to send it to A,” and so they pitch these two people against each other and ultimately the person who gets hurt is the patient.

Additional Concerns Discussed by Stakeholders

Additional concerns with the WC system were discussed by subsets of providers (i.e., partial endorsement) and by a specific stakeholder group (i.e., singular endorsement).

There were concerns supported by some stakeholder groups around overutilization of care. Employer representatives, including employers and insurers, and two specific provider groups (i.e., occupational medicine and pain medicine providers) discussed issues with providers utilizing too much care in the WC system due to the way the fee-for-service model of care incentivizes treating individuals unnecessarily. One insurer discussed situations in which the WC system may incentivize the use of more services than necessary:

My perspective on it is that there is, for certain types of perhaps chronic conditions, types of folks who fall into the system. Having fee-for-service encourages both the injured worker and perhaps a doctor who’s interested in liens, bottom line, to continue to treat beyond a point that is probably healthy for the injured worker.
Another concern that was endorsed by some of the stakeholders is the perception that providers who accept WC claims are lower-quality providers, on average. Employers and a subgroup of providers including physical therapists and pain management providers discussed the reasons for this. They explained that low reimbursement rates due to the “hassle factor” from the high administrative burden of a WC claim (compared with care from other payment systems) is why only those low-quality providers remain in the WC system. One employer noted that the California WC fee schedule is among the least generous in the country, which “encourages bad behavior to make it worthwhile—either that or you just get low-quality providers.”

Lastly, some concerns were unique to a particular stakeholder group, with other stakeholders neither denying nor endorsing them as issues. Providers reported concerns around reduced reimbursement attributable to MSOs sharing reimbursements, issues with the WC system focusing on costs of care rather than outcomes for injured workers, and frictions between providers and insurers/employers caused by the contentious nature of the WC system. Employee representatives reported concerns around limited options for modified duty or modified return to work provided by employer groups, reducing the ability of injured workers who could return at a limited capacity to receive a salary and benefits. Finally, employer representatives reported concerns about the lack of training for providers to deal with the administrative processes and rules in the WC system and limited coverage of certain treatment modalities in the WC system fee schedule.

Summary

In sum, we heard from unions, applicant attorneys, employers, insurers, and providers from the high-volume specialties providing care within WC that the current system is not working in some very critical ways. Stakeholders pointed to issues with

- access to care due to not having enough providers in WC
- a high administrative burden to deliver WC care
- delays and issues with the timeliness of WC care
- low reimbursement relative to time spent on activities
- inadequacies of MPNs.

Stakeholders felt that provider reluctance to treat injured workers stemmed primarily from the administrative burden associated with delivering WC care combined with provider reimbursement that does not compensate providers for their time spent meeting WC’s administrative requirements. Stakeholders also offered that the limited number of providers treating injured workers combined with delays in care due to denials of treatment plans and/or delays in care due to UR and prior authorizations resulted in concerns about the timeliness of care delivered in WC.

These main WC issues are commonly heard and have been substantiated in previous research on WC in California (Yang and Fomenko, 2023). Studies have documented anecdotal accounts
of injured workers that reflect themes of perceived injustice associated with the claims handling process and non-timely care provision (Quigley et al., 2021; Quigley et al., 2022; Monnin-Browder, 2023) as well as the lack of choice of service providers and referrals for independent medical evaluations (Kapinos et al., 2018; Rudolph et al., 2002). Research also includes evidence of the inadequacies with MPNs in WC in California (i.e., a smaller percentage of providers [across most specialties] in California WC than in other states) (Savych and Famenko, 2023) and the administrative burden of delivering WC care (i.e., high costs related to UR [Monnin-Browder, 2023] and reporting requirements [Rothkin, 2022]). Other studies have assessed the impact of MPNs on costs of care (Ireland, Hayes, and Swedlow, 2015).

In sum, these main issues raised in discussions with stakeholders resonate with previous evidence and concerns within WC in California. We recommend that these issues be addressed when implementing an APM in WC in California through focusing on both financial and nonfinancial incentives. Specifically, the APM should seek to improve provider participation and injured worker’s access to care as they have been raised as the main issues with providing high-quality care in WC. These issues are more feasible to address using some APMs, whereas others may discourage provider participation. We discuss the advantages and disadvantages of APMs in the next chapter.
Chapter 4. Alternative Approaches

We assessed potential modifications to fee-for-service payment systems and use of APMs that have been widely used in the U.S. health care delivery system and evaluated their applicability to WC. Of particular interest to DIR and DWC are global budgets, bundled payments, quality incentives, and value-based payment systems. We also included ACOs, given their prevalence in health care. In this chapter, we first provide an overview of these APM approaches. We then describe the advantages and disadvantages of each approach and assess their applicability to California’s WC system. This review draws from our scoping review and environmental scan of the effects of these approaches on health care quality and costs (see Appendix C), discussions with states that have implemented one or more programs based on these approaches, and discussions with California WC stakeholders (including health care providers, employers, and employee representatives) about specific aspects of the APMs, their applicability to WC, and feasibility of implementing them in California specifically.

Descriptions of Alternative Payment Models

Two key quality incentive programs that are built on the foundation of fee-for-service payment systems are pay-for-performance models and value-based purchasing. As the name suggests, quality incentive programs explicitly focus on encouraging the provision of high-quality care. In a pay-for-performance program, providers receive additional payments, either in the form of a bonus or larger annual payment updates, or other financial or nonfinancial incentives when they reach certain quality benchmarks or other benchmarks consistent with improving the delivery of health care. Benchmarks used to assess performance can be the same for all providers, or they can be set based on the baseline levels of the individual provider, such that providers receive an incentive if they achieve a set percentage improvement in a certain specific metric or set of metrics. In many programs, performance benchmarks are set relative to the performance of all providers in the program rather than being established prior to the time care is being delivered; this uncertainty may weaken the incentives of the program. The measures included in these programs may include clinical processes of care, intermediate outcomes, health outcomes, patient experience, and administrative performance or infrastructure that support the delivery of high-quality care. Potential reductions in cost might follow due to a reduction in complications and an improvement in health outcomes for patients or the inclusion of cost of care metrics that consider the risk profile of patients so that providers are not disadvantaged by treating sicker or higher-risk individuals. However, because pay-for-performance programs do not change the fundamental incentives of fee-for-service payments, the incentives to save costs are limited at best.
As with pay-for-performance programs, value-based payment models assess providers’ performance on quality and other measures relative to set benchmarks. However, value-based payments also hold health care providers accountable for the cost of care in addition to its quality through the inclusion of measures such as total cost of care, costs of an episode of care, and utilization of low-value services. Cost measures add the complication of needing to be risk-adjusted, which is a process that accounts for differences in the health status and other patient characteristics in order to fairly evaluate and compare providers, unlike many of the measures included in pay-for-performance programs. Accurate risk adjustment requires complete information on all patient conditions that affect the cost of care being delivered, which is typically ascertained through diagnoses included in claims data over a period of time; this information may be incomplete for WC, which does not have access to patients’ non-WC medical claims. (Note that risk adjustment is also needed for health outcome and patient experience measures.) Like pay-for-performance, value-based payments do not completely alter the incentive structure of fee-for-service medicine, which limits its cost-savings potential.

Under bundled payment programs, a patient’s care is defined in terms of episodes of care during which providers are given a single, comprehensive payment that covers all the services performed during that episode of care. Episodes may be defined narrowly (e.g., hospital and provider services related to a surgical procedure delivered starting a week before the start of a hospital stay through 30 days after discharge) or broadly (e.g., all care related to an injury delivered during the first six months after the injury occurred). This payment model seeks to disincentivize the overprovision of care. Payment levels are generally based on the typical case, often with risk-adjustment parameters that help to account for more complicated cases and higher-risk patient populations. Frequently, the providers reap financial rewards by getting a percentage of the amount of money they have saved, compared with a prespecified benchmark. However, those that do not provide such efficient care may be financially liable for the extra costs of the care they have provided, depending on the model structure. In addition, bundled payments can encourage providers to better coordinate care across providers. Potential limitations of bundled payments include incentives to shift costs to provider types, care settings, or time periods outside of services included in the bundle and the selection of patients that are more likely to be profitable with bundled payments while avoiding less profitable patients, which could restrict access to needed care for these patients. Recent bundled payment models implemented by CMS include quality benchmarks to avoid excessive reductions in services provided as part of the bundle to increase provider profits.

An accountable care organization (ACO) is a group of physicians, hospitals, and other providers that voluntarily partner to deliver coordinated care to a designated group of patients to reduce duplicative and low-value care. The ACO has established risk-adjusted spending targets and quality targets that are set by the payer (for example, the Medicare program or a commercial insurance company). If the ACO meets these targets, it will receive a portion of the savings achieved. While all ACO programs have a potential financial upside for program participants,
depending on the program design, the ACO may have financial liabilities if spending targets are excessively exceeded. If savings are attained, the ACO determines whether and how the financial rewards are distributed to participating providers; the types of partnership established determine whether providers are eligible to share any savings. While ACOs have the potential to improve quality and coordination, their potential limitations include “upcoding” of diagnoses to increase spending targets; the need for a willingness on the part of providers to accept some financial risk, which may not be the case; and the need for infrastructure to coordinate effectively with other providers.

Global budgets provide a set dollar amount for a facility to spend. There are multiple ways that global budgets can be established, including (1) a historical approach where the budget is based on prior years’ budgets and updated for inflation, changes in the population served, or other factors, (2) capitation, where the budget is based on a risk-adjusted amount per person in the population served, (3) a normative approach that uses externally set rates for services multiplied by the anticipated utilization of these services, and (4) a combination of the first three approaches (Berenson et al., 2016). Similar to capitation, which sets a risk-adjusted dollar amount for each patient a provider sees, or global capitation, which requires networks of hospitals and health care providers to work together while receiving a fixed monthly payment for a patient or group of patients, global budgets require that the hospital provide all necessary services to the patients served with the resources provided by the prespecified budget. In theory, global budgets and capitation should incentivize providers to furnish only the services that a patient needs to resolve their injury or illness in order to avoid an exacerbation of the condition while disincentivizing the provision of unnecessary and low-value care. Potential limitations with global budgets and capitation include “upcoding” of diagnoses to make patients appear sicker and increase payment rates, restricting not only low-value medical care but also high-value care, and limiting access to certain providers.

Each of these payment models provides an opportunity to shift the dynamics of the system from one that rewards the amount of care that is delivered to one that focuses on providing high-quality, efficient, necessary care. However, they all require that specific protocols and standards are set such that providers are appropriately incentivized and patients are not left with unnecessary barriers and burdens when seeking care. It should be noted that improving access to care is not typically the focus of APMs, although pay-for-performance and value-based purchasing programs may include access measures, most often measures of patient experiences having timely access to needed care.

Use of Alternative Payment Models in Other States

Through our scoping review and environmental scan, we identified only two states—Washington and Ohio—that had implemented APMs in their WC systems. After reaching out to these states to confirm their use of APMs and gather information on the models they have
implemented, we scheduled separate group interviews with each state to better understand their process of exploring and implementing APMs and learn about the challenges, successes, and key takeaways from their experience. Table 4.1 details the APMs used in Ohio and Washington, including their purpose, entities incentivized, incentives, and key measures used to evaluate performance and determine incentives. Programs had multiple goals: three programs aimed at improving quality of care, two programs aimed at improving patient outcomes, two aimed at improving return to work, one program incentivized timely reporting, and one program focused on reducing costs.

The Washington State Department of Labor and Industries (Washington L&I) has implemented a range of APMs, many of which fall into the category of pay-for-performance programs. To incentivize timeliness of reporting and reward providers for quickly submitting key reports, Washington L&I pays providers for submitting reports and decreases these reimbursement rates the longer it takes providers to submit their reports. Two long-running programs in Washington (the Surgical Quality Care Program and Centers for Occupational Health and Education [COHE]) focus on increasing provider participation and improving quality of care and workers’ outcomes. Providers who join these programs are asked to adopt best practices, and they are evaluated on their adoption of those practices and categorized as low, medium, and high adopters. Based on their participation and best practices category, providers are given financial and nonfinancial incentives. Financial incentive payments increase with higher adoption of best practices. Nonfinancial incentives include access to health and social services coordinators, special designation on Washington L&I’s website, an abridged UR process, and performance data to analyze trends. Finally, Washington L&I has implemented daily payment caps on physical and occupational therapy services. Aimed at reducing costs, these caps set an amount that physical and occupational therapists and their supervised staff can bill in a single day.

The Ohio Bureau of Workers’ Compensation (Ohio BWC) has also implemented a pay-for-performance program for vocational rehabilitation using a hybrid payment methodology. The goal of this APM is to incentivize getting injured workers back to work. Under this program, vocational rehabilitation providers are initially paid 90 percent of the standard fee-for-service payment amount. They can then earn additional payment based on the injured worker’s return-to-work outcome. If the injured worker returns to work and stays at work for 30 days after the case is closed, the provider can earn an additional payment, the amount of which depends on the complexity of the case. When cases are complex and there is a successful return to work for the injured worker, the provider is eligible to earn more than the total standard fee for the service.

Additionally, Ohio has followed CMS’s lead and has adopted the incentives used in CMS’s performance and value-based outcome programs. For skilled nursing facilities and ambulatory surgical centers, this includes reductions in reimbursement for facilities that do not voluntarily send their performance measures into Medicare. For hospitals, Ohio applies the same reductions in reimbursements that CMS employs based on their assessments under the Hospital
Readmissions Reduction Program, Hospital-Acquired Condition Reduction Program, and the Hospital Value-Based Purchasing Program (HVBP). Ohio BWC also has plans to extend these programs to home health and hospice providers in 2024.

Table 4.1. Description of Alternative Payment Models Used in Other States’ Workers’ Compensation Systems

<table>
<thead>
<tr>
<th>APM</th>
<th>Purpose</th>
<th>Entities Incentivized</th>
<th>Incentive</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Washington</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Financial incentives for reports(^a)</td>
<td>Incentivize timeliness of reporting</td>
<td>Providers</td>
<td>Paid for submission of report; higher payment when reports submitted earlier (form of pay-for-performance)</td>
<td>Days between first treatment date and submission of report</td>
</tr>
<tr>
<td>Surgical Quality Care Program(^b)</td>
<td>Improve quality of care and workers’ outcomes</td>
<td>Musculoskeletal surgeons</td>
<td>Financial and nonfinancial incentives (including performance reports and access to a surgical health services coordinator) (form of pay-for-performance)</td>
<td>Adoption of best practices</td>
</tr>
<tr>
<td>Centers of Occupational Health and Education (COHE)(^c)</td>
<td>Improve quality of care</td>
<td>Providers who join COHE</td>
<td>Financial(^d) and nonfinancial incentives (including help from COHE best practice trainers, access to health services coordinators, and special designation through Washington L&amp;I’s Find-A-Doctor website) (form of pay-for-performance)</td>
<td>Adoption of best practices</td>
</tr>
<tr>
<td>Daily rate caps on PT and OT services(^e)</td>
<td>Reduce costs</td>
<td>Physical and occupational therapists and their supervised staff</td>
<td>All services billed in a day cannot exceed the capped daily rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Structured Intensive Multidisciplinary Pain Program (SIMP)(^f)</td>
<td>Improve functioning of injured workers with chronic pain and facilitate return to work</td>
<td>Multidisciplinary provider team</td>
<td>Structured program of multidisciplinary services paid as a bundle rather than individually (form of bundled payment)</td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Ohio</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocational Rehabilitation Provider Fee Schedule Hybrid Methodology(^g)</td>
<td>Incentivize return to work</td>
<td>Vocational rehabilitation providers who are either independent providers or affiliated with a vocational rehabilitation service entity</td>
<td>Outcome-based payment in addition to standard fee-for-service component with initial payment set at 90% of standard fee (form of pay-for-performance)</td>
<td>Return-to-work measure with the worker remaining on the job for 30 days</td>
</tr>
<tr>
<td>Medicare’s performance and value-based outcomes metrics(^h)</td>
<td>Improve quality of care</td>
<td>Inpatient, outpatient, ambulatory surgical centers, and professional providers</td>
<td>Adopted incentives applied by CMS (form of pay-for-performance)</td>
<td>Used measures reported for CMS programs</td>
</tr>
</tbody>
</table>

\(^a\) Washington L&I, 2022, Chapter 27: Reports and Forms.
\(^b\) Washington L&I, undated-b.
\(^c\) Washington L&I, undated-a.
\(^e\) Washington Administrative Code, Sections 296-23-230 and 296-23-220.
\(^f\) Washington L&I, 2022, Chapter 34: Chronic Pain Management.
\(^g\) Ohio BWC, undated; Ohio BWC, 2020.
\(^h\) Ohio BWC, undated.
In addition to learning about the existing APMs in Washington and Ohio, we also spoke with participants in these state’s WC programs about what fee schedule issues they wanted to address with their APMs, the involvement and responses of key stakeholders to the APMs, the successes and challenges associated with their implemented APMs, and other APMs they have considered implementing. The key fee schedule issues that participants highlighted as being the impetus for exploring and implementing APMs included runaway spending, needing better outcomes (particularly around return-to-work rates), and uncertainty around whether patients were getting the care for which the system was paying. Stakeholder participation in the development of APMs was mixed. Both states reported working with health care providers to identify issues within the system and design the APMs, but employer and injured worker populations were not often included in that process. Participants from both states highlighted improved communication and establishment of clear expectations as benefits of their separate APMs, and one state also reported improvements in the predictability of costs from its APMs. Obtaining provider support for the APMs and balancing the concerns of different stakeholders were key challenges in the design and implementation process of APMs for both states. In addition, both states highlighted the issue of WC being different from the larger health care market, which brought about challenges in applying existing performance measures to the WC system and making WC a “nuisance” when the states were out of step with other health care payers. Regarding other APMs that states have considered but not implemented, both mentioned bundled payments for joint replacement surgeries.

Ohio WC staff told us about an alteration to an existing program that was in development that would tier providers and potentially eliminate the need for treatment authorization requests for high-tier providers. The measures for tiering providers are currently being piloted with several providers who are voluntarily reporting on measures of interest to the Ohio BWC. Washington WC staff also reported an approach to reduce the administrative burden of UR. Providers can receive a designation based on a set of criteria that makes them eligible for an abridged UR process and relieves them of the requirement to wait for UR. Washington has also implemented resources to help providers navigate UR, including having a set of services that can be authorized over the phone by staff running hotlines for providers and a set that requires no authorization, rather than having everything reviewed by a claims manager.

From our conversations with WC staff in Washington and Ohio, we found that pay-for-performance models were the most often used and were a generally well-received first step toward introducing APMs into the WC system. Bundled payment models were also discussed by both states as potential future reforms, although Washington representatives did say that the idea had not been popular among health care providers. These conversations provided additional support for gathering input from California WC stakeholders on these two APM models.

Both states also provided key information about the implementation process for adopting an APM into the WC system. Washington has implemented and updated APMs since the early
2000s. Within its WC division, Washington L&I has a department that is focused on tracking the success and challenges of its APMs, identifying and defining rising problems within the system, and engaging with advisory groups from business and labor as well as health care providers to get feedback on issues as they arise and determine potential solutions for issues. Ohio WC staff also discussed using provider focus groups and engaging with volunteer providers to pilot ideas concerning gathering data to build measures that would be supported by providers. Ohio WC staff emphasized that they did not move forward with implementation until they had buy-in and agreement from providers on the metrics to measure performance. These are key steps for successful implementation.

It is important to note that both Washington and Ohio are exclusive state fund states. This means that instead of a competitive insurance market (as in California and most other states), the state WC agency (L&I in Washington or BWC in Ohio) both oversees the WC system and serves as the only provider of WC insurance coverage for employers who do not self-insure. It is plausible that some APMs are more readily implemented in an exclusive state fund state, because the share of the WC market (and thus the patient volume) belonging to either Washington L&I or Ohio BWC is several times greater than that of the largest payers in California’s WC system.

Assessment of Advantages and Disadvantages of Alternative Payment Models

The advantages and disadvantages of each of the key models we examined based on the environmental scan and scoping review of the literature on the effectiveness of APMs and our assessment of this literature are outlined in Table 4.2. The key drivers of our recommendation (delineated in Table 4.2) build from the scoping review and environmental scan of literature on APMs and the discussions we held with Ohio and Washington WC staff, as well as our assessment of the applicability of the models to WC in California (Table 4.3). Table C.1 in Appendix C further describes the evidence on effectiveness of APMs in the U.S. health care system from our scoping review and environmental scan.
<table>
<thead>
<tr>
<th>APM</th>
<th>Recommendation</th>
<th>Key Drivers of Recommendation</th>
</tr>
</thead>
</table>
| Quality incentive program: Pay-for-performance | Discuss with stakeholders | **Pros:**  
• Promotes focus on quality of care and other measures included in program  
• Incentives could increase provider participation in WC  
• Found in use in WC in other states  
**Cons:**  
• Incentive payments that are too high can lead to additional costs for system  
• Incentives that are too small will not motivate change  
• Lacks cost-savings incentives  
• Uncertainty around benchmarks can weaken incentives of program  
• Health outcome measures require risk adjustment, which may be underdeveloped in WC |
| Quality incentive program: Value-based payments | Discuss with stakeholders | **Pros:**  
• Promotes focus on quality of care and other measures included in program  
• Encourages providers to consider costs in addition to quality  
**Cons:**  
• Incentive payments that are too high can lead to additional costs for the system  
• Incentives that are too small will not motivate change  
• Cost-savings incentives are limited  
• Uncertainty around benchmarks can weaken incentives of program  
• Health outcome and cost measures require risk adjustment, which may be underdeveloped in WC |
| Bundled payments                       | Discuss with stakeholders | **Pros:**  
• Disincentivizes overprovision of care  
• Encourages better care coordination  
• Found as a strategy narrowly used by some payers in other states’ WC systems  
**Cons:**  
• Risk-adjustment methods must be sufficient  
• Incentivizes shifting of care to provider types, settings, and time periods outside the episode of care covered in the bundled payment  
• Can reduce access to care for more-complex patients |
| Accountable care organizations         | Not recommended     | **Pros:**  
• Promotes a focus on efficiency as well as quality, encouraging care coordination  
• Encourages providers to consider costs  
**Cons:**  
• Requires willingness of providers to have some “skin in the game”  
• Requires significant buy-in from providers who have to work together  
• Because savings are shared between payer and provider, cost-savings can be limited  
• Not found in use in WC in other states  
• Risk-adjustment methods must be sufficient |
### Global Budgets (including capitation)

- **Recommendation:** Not recommended

**Pros:**
- Sets distinct, knowable budget
- Incentivizes resolving patient problems using as few services as necessary
- Disincentivizes overprovision of care

**Cons:**
- Challenging to implement in a multipayer system
- Requires significant buy-in from providers who have to work together
- Potential for upcoding of diagnoses to increase payment rates
- Can reduce access to care
- Risk-adjustment methods must be sufficient
- Not found in use in WC in other states

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Overall, based on our assessment (as summarized in Table 4.2 and the literature summarized in Appendix C), we found that **global budget** programs have the potential to reduce costs and unnecessary utilization but need to be monitored for negative impacts on quality of care. We found no indication of global budget programs being used in WC in other states, suggesting that they may be difficult to implement, which may be exacerbated in California’s multipayer system. **Bundled payment** arrangements have the potential to reduce spending without compromising quality of care, so bundled payment remains a potential APM to consider, though the findings vary by the type of episode of care. While we identified a few examples of bundled payments being used in other states, they were applied in narrow clinical scenarios, and discussions with WC representatives in other states indicated significant planning is required. Implementation experiences in other settings suggest initial pilots can take multiple years to become operational. Current evidence suggests that **pay-for-performance** and **value-based purchasing** have little effect on health care spending but have potential to recognize and incentivize the delivery of high-quality care or other aspects of care that are the focus of included measures. RAND previously assessed the feasibility of a quality incentive program in WC based on a literature review and input from an expert panel (Wynn and Sorbero, 2008). Also, pay-for-performance programs are being used in WC in other states, indicating their feasibility in WC. The literature on **ACOs** showed reductions in spending that could take a couple of years to emerge and did not compromise clinical quality of care but had mixed results for patient experience and require a willingness for providers to take on risk. There is some suggestion that observed savings from ACOs are due to the voluntary nature of the program and attrition of low-performing providers. We identified no examples of ACOs being implemented in WC, which suggests that this model may not be well suited for WC and that the implementation challenges exceed the potential benefits. Across all models, design considerations need to ensure that bonus payments do not more than offset savings in spending if programs are to lower costs or be budget-neutral.

Based on this assessment of the advantages and disadvantages of each of the APMs, we only sought additional input specifically on bundled payments and quality incentive programs during interviews and focus groups with WC stakeholders in California; we did not raise the other APMs.
Applicability of Alternative Payment Models in California’s Workers’ Compensation

While APMs have been experimented with and studied in various aspects of the U.S. health care system, with some forms now being an integral part of the payment system, the WC system presents many unique challenges that could make adopting APMs more complicated or affect their usefulness for addressing rising costs while maintaining access to high-quality care for injured workers. For this reason, we also need to assess the applicability of each of the APMs for use in California’s WC system. We lay out some general applicability issues first and then discuss several specific issues with each of the APMs.

First, the patient population case mix within the WC system differs from the Medicare population (on which APMs have been most thoroughly evaluated), with musculoskeletal disorders, orthopedic care, pain management, and physical medicine accounting for much larger shares of patients and treatments in WC. Additionally, different from many of the APM programs that focus on inpatient care, inpatient services are a lower proportion of care than outpatient utilization in WC. Within WC, there is also a unique mix of more-common outpatient services.

Second, WC is a small player in the world of health care payers. APMs have previously been implemented by CMS or large commercial payers. Their decisions around payment reforms affect millions of Americans covered by Medicare, Medicaid, and private insurance. This means that the changes that they implement can have a systemwide impact and elicit significant change from providers. Without the volume and power of a large payer like CMS, the leverage that changes to WC might have on provider and health system behavior is unclear. Low volume will also create challenges for reliably measuring performance for many providers, establishing benchmarks against which to assess provider performance, and establishing other parameters that may vary depending on the APM model. For example, many measures of clinical quality require a denominator size of at least 30 patients for care delivered over a year to score the provider on the measure. Only 40 percent of orthopedic surgeons participating in WC, the specialty with the highest volume of WC patients, treated over 30 patients between 2016 and 2018 (a three-year period) (Savych and Famenko, 2023). Only 10 percent of primary care physicians treated more than 30 WC patients over the three-year period. Low volumes of WC patients also limit the ability of providers to accept a risk-sharing APM model, such as ACOs. Furthermore, workers’ access to providers in WC is a perennial concern, so the potential impacts of APMs on providers’ willingness to participate in WC will need to be assessed carefully in designing pilot studies.

Third, litigation plays a large role in the cost of WC indemnity and permanent disability claims. This is a direct result of the fact that eligibility for and payment of WC benefits are strictly controlled by statute and regulation. The WC statutory and regulatory requirements compel claims administrators to determine compensability and other factual issues before benefits can be paid. Thus, litigation is most often triggered by the determination of
compensability, the assessment of permanent disability, and the disputes over providing optimal medical care. Understanding and working out how litigation affects and will have a role within the implementation of an APM in WC is important to discuss further with stakeholders while planning and designing a pilot.

Fourth, WC pays for the medical care specifically related to the work-related injury or illness (and is not focused on the overall health care of the worker, nor on preventive medical care). That being the case, some APM models, such as ACOs, which tie incentives to the total cost of care received by patients across all medical conditions, may not be suited to or would require substantial modification to work within the WC environment. Other models, such as bundled payments, which focus on the care received related to a specific medical procedure (e.g., total knee replacement) or medical condition, may be more directly applicable to WC with fewer modifications from existing models.

Finally, the timing of WC medical care in comparison with the collection of premiums differs from some other health care payers, which raises additional complications. When health insurers and other payers provide health coverage to a patient for a year, they typically assume financial responsibility for services provided during the period of coverage. Even Medicare, which typically provides coverage for people for the remainder of their lives, structures its APMs around services delivered in a specific calendar year (though some quality measures cover a long period, such as colorectal cancer screening). WC payers bear responsibility for the lifetime costs of medical care needed to treat injuries that occur in a calendar year. Therefore, APMs that focus on annual costs for panels of patients may be challenging with the longer timelines associated with WC medical benefits, while those that focus on episodes of care would require continuing use of the OMFS for services provided outside the time covered by the episode.

Table 4.3 builds on the evidence presented in Table 4.2 and discussed previously to assess the applicability of each model to California’s WC system.

Given the relatively low volume of WC patients treated by individual providers, models that require large numbers of patients in order for providers to accept financial risk (for example, global budgets and ACOs) are likely not feasible in WC, and these challenges may be exacerbated by California’s multipayer WC system. Furthermore, ACOs and global budget models rely on care coordination to improve the efficient delivery of care. Effective care coordination requires established channels of communication and information-sharing that are more challenging to develop for WC when individual providers treat a small number of WC patients. Also, these models are dependent on robust risk-adjustment approaches; many of the types of conditions included in risk-adjustment models in Medicare and commercially insured populations are not prevalent in WC populations, further limiting their applicability to WC without substantial modifications. In addition, careful design consideration is necessary to ensure that the bonuses in ACOs do not more than offset program savings and that poor performers do not leave the program, which would lead to further financial imbalances.
### Table 4.3. Summary of Alternative Payment Models’ Applicability to California’s Workers’ Compensation System

<table>
<thead>
<tr>
<th>APM</th>
<th>Recommendation</th>
<th>Pros:</th>
<th>Key Drivers of Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality incentives program based on quality (i.e., pay-for-performance)</td>
<td>Discuss with stakeholders</td>
<td>• Found in use in WC in other states.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Pay-for-performance can be based on administrative and timeliness-of-care performance metrics and not just aimed at cost, utilization, and other non–clinical quality measures.</td>
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<tr>
<td></td>
<td></td>
<td><strong>Cons:</strong></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Low volume may create challenges for reliably measuring clinical performance for many providers, so should be piloted with high-volume WC provider specialties.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Establishing benchmarks against which to assess provider performance and establishing other parameters will require analyzing WCIS data specifically to ensure thresholds and benchmarks are based on utilization, billing, and claims volume within WC in California.</td>
<td></td>
</tr>
<tr>
<td>Quality incentives program based on quality and cost (i.e., value-based payment systems)</td>
<td>Discuss with stakeholders</td>
<td>• As with pay-for-performance, these programs can be based on administrative and timeliness-of-care performance metrics and measures of clinical quality in addition to measures aimed at targeting cost and utilization.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Cons:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• California hospitals found higher performance on clinical process of care measures in the Hospital Value-Based Purchasing Program (HVBP) was associated with higher hospital operating costs suggesting that there may be costs associated with successful participation in pay-for-performance programs that focus on clinical processes of care (Izón and Pardini, 2018).</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Cost measures require appropriate risk adjustment, which may be underdeveloped for WC populations.</td>
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<tr>
<td>Bundled payments</td>
<td>Discuss with stakeholders</td>
<td>• Has been used as part of strategies in WC in other states, but not systemwide.</td>
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<tr>
<td></td>
<td></td>
<td><strong>Cons:</strong></td>
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<tr>
<td></td>
<td></td>
<td>• Insufficient volume in WC for specific providers or specific medical procedures or medical condition.</td>
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<td></td>
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<td>• May exacerbate access concerns for complicated patients.</td>
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<td></td>
<td></td>
<td>• Initial implementation can be challenging and a multiyear process</td>
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<tr>
<td>Accountable care organizations</td>
<td>Not recommended</td>
<td>• May lead to cost savings.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td><strong>Cons:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Observed savings may be due to the voluntary nature of the program and attrition of low-performing providers.</td>
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<tr>
<td></td>
<td></td>
<td>• Design considerations need to ensure that bonus payments do not more than offset savings in spending.</td>
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<tr>
<td></td>
<td></td>
<td>• ACOs, which tie incentives to the total cost of care received by patients across all medical conditions, may not be suited to or would require substantial modification to work within the WC environment.</td>
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<tr>
<td></td>
<td></td>
<td>• WC likely has insufficient volume for providers to accept financial risk.</td>
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<tr>
<td>Global budgets (i.e., capitation)</td>
<td>Not recommended</td>
<td>• May lead to cost saving.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Cons:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Insufficient volume in WC for specific providers.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Global budgets requires both networks of hospitals and health care providers to work together while receiving a fixed monthly payment for a patient or group of patients and also requires that the hospital provide all necessary services to the patients served with the resources provided by the prespecified budget.</td>
<td></td>
</tr>
</tbody>
</table>
We identified examples of bundled payment and pay-for-performance models being used in WC in other states, suggesting that their application in WC is feasible. Bundled payment models apply to specific medical procedures or medical conditions, which may result in insufficient volume to reliably measure performance for some providers on the measures included in the program; this would need to be assessed in pilot programs prior to broader implementation. Prior authorization would be required for the episode of care covered by the bundled payment, but once that authorization is provided, it would need to include all services provided during the designated episode of care. Clinical measures included in pay-for-performance programs may also be challenging to apply reliably due to low volume for individual providers; however, these programs can also include administrative and timeliness-of-care performance metrics that apply to most or all WC patients. Value-based payment systems have the advantages of pay-for-performance, but their cost measures require robust risk adjustment, which may be underdeveloped in WC.

In sum, based on the findings from the scoping review and environmental scan, interviews with stakeholders, and our evaluation of the applicability of the APMs to California WC, we determined that the disadvantages outweigh any advantages for California to implement global budgets, capitation, or ACOs, because none of these APMs were readily applicable to WC in California. Despite the differences between WC and other health care payers, there may be innovative state-level reforms that could support the development and use of bundled payments or a quality incentive program in California. Therefore, we prioritized discussing with WC stakeholders the details of how bundled payments and a quality incentive program focused on pay-for-performance could be considered for California’s WC system.

Stakeholders’ Perspectives on Quality Incentive Programs

We held discussions with WC stakeholders that included a focus group with California WC health care providers, a focus group with employer representatives, and interviews with employee representatives. In each of these discussions, we gathered feedback from participants about their detailed perspectives on piloting quality incentive programs in the California WC system and their initial response to the concept of a bundled payment program for episodes of care. (See Chapter 2 for more details on methods.) The stakeholder perspectives on each of these topics are summarized in subsequent sections. First, we summarize stakeholder input on the entities whose behavior could be incentivized through a pilot program. Next, we present the measures that stakeholders thought could be used to assess performance and be used as the basis of the incentives. We then describe the forms the stakeholders thought the incentives could take, which vary by the entity being incentivized. Finally, we discuss the potential challenges and feasibility issues the stakeholders identified.
Which Stakeholders to Incentivize

Both employees and employers consistently discussed incentivizing the behavior of health care providers in WC and also discussed the potential of incentivizing employers and insurers and claims adjusters, although employer representatives did suggest that self-insured employers might need to be given different considerations than fully insured employers. Employer representatives also discussed the potential for incentivizing applicant attorneys. In addition, emergency medicine doctors were flagged as one group who would not likely respond to quality incentive programs like pay-for-performance models, because they rarely know that they are seeing a WC patient and do not have the option to accept or refuse a patient based on their insurance status.

Performance Measures

Across the discussions, participants brought up several potential metrics for assessing performance (see Table 4.4 for summary). To assess health care provider performance, all stakeholder groups mentioned measures of patient experience (including patient ratings of providers and key aspects of patient experience such as access to care, coordination, communication with provider, communication with insurance adjustor, and access to needed information), timeliness of reporting, and timeliness of receiving care (including time to first appointment, time to referral, and time to treatment). All stakeholder groups also endorsed the use of metrics that assess whether providers offer guideline-concordant care, with providers specifically mentioning whether patients are correctly diagnosed and employers and employees discussing evidence-based treatment guidelines. Providers also discussed measures for the quality of the reports they submit and return-to-work rates based on functional outcomes. For the return-to-work measure, providers emphasized that return to work should be based on the providers’ clinical perspective of the injured worker’s functional status as it relates to the activities needed for their job, including any need for short-term or long-term accommodations. They raised this because providers view an injured worker’s decision to return to work as driven not by functional capacity of the returning worker but by whether an employer can make accommodations (either short- or long-term) that provide a job for the returning worker. If an employer cannot offer a job with the needed accommodations, then the injured worker cannot return to their same employer.

For measuring employer performance, potential metrics included return-to-work rates and litigation rates, both of which were brought up by employer representatives. Metrics for assessing insurers included ease of communication with the claims adjuster, time to determination of whether the injury arose out of employment or occurred during the course of employment (AOE/COE determinations\(^3\)), timely payment to providers, timely UR response,

\(^3\) AOE/COE stands for “arose out of employment” or occurred during the “course of employment.”
litigation rates, and patient experience with claim support (including complaint rates). These metrics were all brought up during the employer representative focus group. In the interviews with employee representatives, the use of timeliness of claim decisions was also supported.

To evaluate applicant attorneys’ performance, employer representatives suggested using return-to-work measures. Employers voiced their perception that applicant attorneys currently are incentivized through higher settlements and higher reimbursements that are facilitated by the longer an injured worker is out on disability and the higher their disability rating. Having applicant attorneys held accountable for the ability and speed by which an injured worker returns to work, they suggested, could alter the existing incentive for applicant attorneys and have them working toward both returning the worker to work and gaining reimbursement/settlement for the care and treatment for the injured worker.

Table 4.4. Description of Discussed Performance Measures

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Entity Being Measured/Incentivized</th>
<th>Discussed by Health Care Providers</th>
<th>Discussed by Employer Reps.</th>
<th>Discussed by Employee Reps.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient experience (rating of providers and key aspects of patient experience+)</td>
<td>Health care providers</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Timeliness of reporting</td>
<td>Health care providers</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Quality of reports</td>
<td>Health care providers</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Timeliness of receiving care (e.g., time to first appointment, time to referral, time to treatment)</td>
<td>Health care providers</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Provision of guideline-concordant care</td>
<td>Health care providers</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Return-to-work rates</td>
<td>Health care providers; employers; applicant attorneys</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Litigation rates</td>
<td>Employers; insurers</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Ease of communication</td>
<td>Insurers</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Time to AOE/COE determination</td>
<td>Insurers</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Time to payment</td>
<td>Insurers</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Timely UR response</td>
<td>Insurers</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Patient experience with claim support</td>
<td>Insurers</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

NOTE: + indicates key aspects of patient experience, such as access to care, timeliness of care, care coordination, communication with provider, communication with insurance adjustor, and access to information.
Overall, the metrics that stakeholders brought up to assess performance across all stakeholder types were broad measures rather than measures narrowly focused on specific provider specialties or types of workers’ injuries.

**Types of Incentives**

Stakeholders were also asked to identify potential incentives, either financial or nonfinancial, that could be used under a quality incentive program in WC. Most of the incentives discussed were targeted at health care providers. All stakeholder groups supported the idea of designating providers who perform well on identified measures as preferred providers who are able to bypass the UR or IMR processes or receive expedited approvals. Employee representatives and health care providers suggested that a reduction in paperwork requirements could be a reasonable incentive for high-performing providers. They also brought up access to a care manager or navigator as a potential incentive for high performers. Employer representatives discussed using early payment as an incentive for providers.

While most of the incentives discussed by stakeholders focused on easing administrative burden, which may reduce providers’ administrative costs, both employer representatives and health care providers brought up the possibility of increasing payments to high-performing providers. Health care providers emphasized that this might be particularly useful in addressing issues around the supply of specialists who will care for injured workers and suggested that incentives could target specialties with staffing shortages that are difficult to access in order to encourage greater participation in the WC system.

Incentives for employers and payers included discounts on claim costs or assessment fees (discussed by employer representatives) and using penalties for payers who delayed payments (discussed by providers). The use of penalties for “bad actors” was also discussed in the employer representative focus group, although the details of who those actors might be, whose behavior might be (dis)incentivized, and the types of penalties that could be used were not explored. No specific suggestions for financial or nonfinancial incentives were provided for how to incentivize applicant attorneys.

**Challenges and Feasibility Raised About Implementation of Alternative Payment Models**

Stakeholders were asked whether potential payment reform could stand on its own or would need additional administrative changes in order to be successful. Some participants supported a quality incentive program standing on its own, but several thought it needed to be accompanied by other administrative or statutory changes to address the existing roadblocks in the system. Those that supported payment reform standing alone did highlight the possibility of using the incentives to address some of the administrative issues that currently exist in the system (e.g., relief from UR or certain administrative duties for providers).

While general support for the idea of piloting quality incentive programs in California’s WC system was expressed by the stakeholder groups, some concerns were raised. These included the
possibility of creative billing and gaming by providers (expressed by employers) and the need to get the incentives and performance measures correct. All stakeholder groups emphasized that the performance measures and incentives should be structured so that providers are not incentivized to rush patients through the system or take only easy cases.

Other Considerations

We also heard in our interviews about other approaches that have been used by stakeholders to reduce costs in the California WC system. In one of our interviews with employee representatives, we learned about an alternative dispute resolution model (i.e., a Labor Management “carve-out” program under the Labor Code sections 3201.5 and 3201.7; see DIR, 2020) that had been implemented with the goal of minimizing litigation and its associated costs, with the shared savings distributed between employers and employees. Under this model, injured workers with any work-related injury (in a collection of similar employers) who agreed to use the WC-based MPN and forgo litigation were provided an ombudsman and a registered nurse advocate by the employer with the aim of providing quicker care. The savings that the employers accrued from the reduction in litigation were shared with employees. In another discussion with a health care provider association, we heard about the challenges that designing and implementing an APM can introduce, including unexpected delays in implementing the program, which can reduce enthusiasm and lead to fewer stakeholders being willing to participate. These examples indicate that there is interest among stakeholders for APMs but also illustrate the time and effort it takes to craft an APM that is agreeable to all parties.

Stakeholders’ Perspectives on Bundled Payments

Stakeholders were asked about their initial impression of using bundled payments for episodes of care within the California WC system. There was uniform consensus across all stakeholder groups that this would not be the best option for exploring APMs within WC in California. Providers suggested that bundled payments were not feasible in WC without having a large medical group or being part of a provider group that focuses almost exclusively on WC patients and that implementing a bundled payment system has the potential to drive away providers. They also emphasized how challenging it can be to define a bundled payment program so as to not incentivize the under provision of care or signal to providers that they will be responsible for care provided that is outside their purview. As one occupational medicine provider stated:

You really have to be very concrete . . . what you expect from who you’re paying that bundle to because you don’t want them to undertreat, but you don’t want them to be responsible for stuff that is way beyond their control.
Employee representatives generally deferred to providers on the question of bundled payments while also expressing concern that it could cause issues with provider supply and potentially encourage providers to push injured workers through the system too quickly without getting the necessary amount of care. One employee representative from a union said,

Is that going to disincentivize a provider to go on WC? Will it incentivize insurers and providers to push people through the system quicker, so they get paid faster if the payment comes at the end? I would want to hear from the provider professionals on that. I would be concerned.

Employer representatives expressed concern over the potential for providers to be incentivized to provide the least amount of care under a bundled payment system. One employer highlighted this by saying:

We have to be careful, especially in the broad example, because then providers can be incentivized to deliver the least amount of care as they can for that flat fee and keep the money.

Several employers also suggested that, if implemented, a bundled payment program should be limited to only the highest performing providers and that the bundle be clearly defined and narrow in scope:

I have seen this used in obviously nonoccupational group health as well as in small niche areas of workers’ compensation, so it can work. But there has to be a well-defined criteria for quality first, and I wouldn’t offer this option for someone that doesn’t meet the quality criteria.

Stakeholders also mentioned the use of bundled payments within Medicare, highlighting that many of these have seen drops in the number of providers and facilities willing to participate in bundled payment programs. Among all stakeholders, there was also apprehension about the inconsistency with which the bundled payment would cover the costs of care provided, with an expectation that for some it would be too much money or the right amount and for others it would be too little. Although risk adjustment could help mitigate this issue, it was a consistent concern across stakeholders.

Summary

APMs seek to adjust the way health care is paid for in order to incentivize changes to the provision of care. As outlined in this chapter and summarized in Table 4.5, these models differ in their primary goals, their potential pros and cons, and additional important considerations that can make them challenging to implement, both within and outside the WC system.

From our review of the literature, discussions with WC staff in states that have implemented APMs, and feedback from California WC stakeholders, we identified pay-for-performance as the most promising alternative to the current OMFS used in California’s WC system. Global budgets
and ACOs were not selected as APMs to discuss with California stakeholders due to the issues around applicability to WC and the challenges associated with implementing such models in a multipayer system and without significant support and buy-in from providers. In our discussions about quality incentive programs (including both pay-for-performance and value-based purchasing) and bundled payment models with California WC stakeholders, there was clear support for the potential to implement a pay-for-performance model with minimal interest in and several concerns about bundled payments. While the discussion mostly focused on measuring and incentivizing health care provider behavior, discussions also covered the potential to evaluate and modify other stakeholders’ behavior as well.
Table 4.5. Synthesis of Findings, by Alternative Payment Model

<table>
<thead>
<tr>
<th>Findings</th>
<th>Pay-for-Performance</th>
<th>Value-Based Payments</th>
<th>Bundled Payments</th>
<th>Accountable Care Organizations</th>
<th>Global Budgets (including capitation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary goal of APM</td>
<td>Improve quality performance</td>
<td>Improve quality performance and encourage consideration of cost</td>
<td>Focus on efficient provision of care</td>
<td>Focus on efficient provision of care and care coordination</td>
<td>Focus on efficient provision of care with set budget</td>
</tr>
<tr>
<td>Potential pros of model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potential to increase provider</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>participation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promotes focus on quality of care</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Encourages considerations of cost</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Disincentivizes overprovision of care</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Encourages better care coordination</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Creates set, knowable budget</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Potential cons of model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potential to increase cost to system</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Can reduce access to care</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Challenging to implement in</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>multipayer system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requires significant buy-in from</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>providers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Important considerations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How model’s measures and metrics are</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>designed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How payment is designed</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Potential WC-specific challenges</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requires risk adjustment</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Low volume of cases could affect</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>impact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Found in use in WC in other states</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Recommendation</td>
<td>Discuss with stakeholders</td>
<td>Discuss with stakeholders</td>
<td>Discuss with stakeholders</td>
<td>Not recommended</td>
<td>Not recommended</td>
</tr>
</tbody>
</table>
Chapter 5. Next Steps and Important Considerations

This chapter describes potential approaches that could be used to mitigate issues with the OMFS in California. We evaluated, compared, and examined five potential APMs for their applicability in California’s WC system using identified issues with the OMFS and WC more broadly (Chapter 3), the results from the scoping review and environmental scan on the effectiveness of APMs (Chapter 4 and Appendix C), experiences of other states implementing APMs (Chapter 4), and California WC stakeholder perspectives (Chapter 4). Based on our assessment of these various APMs, their applicability to WC, and the likely feasibility of implementation, we recommend that California move forward with an alternative payment pay-for-performance pilot program that aims to improve access to care. This chapter focuses on a pilot of a potential model of a pay-for-performance program, as well as a small set of changes that could be made to the OMFS. We describe the key components that could serve as the basis of a pay-for-performance program; however, fully planning and developing the design of a pilot program, a first phase of which was described by Wynn and Sorbero (2008), is beyond the scope of this project. Developing and designing the pilot should be done in collaboration with stakeholder working groups and supported by analysis of WCIS data to tailor the pilot measures to California WC data.

During the planning and design phase, there are multiple components of the pay-for-performance program that need to be considered, including the program’s goals and objectives, the entities that will participate in the program, the measures included to assess performance, the structure of the incentives, and the process for data collection and evaluation. Wynn and Sorbero (2008) describe options and considerations for each of these components. In what follows, we describe what we view as a promising approach for the program design. Decisions around each of these components will be influenced by multiple factors including program funding, data constraints, and stakeholder preferences.

Overall Structure of a Pay-for-Performance Pilot in Workers’ Compensation in California

We recommend that the initial implementation of a pay-for-performance program by DWC be a pilot program focused on WC providers that can be expanded over time as the program matures. Participation should be voluntary to allow providers and other stakeholders time to acclimate to the program’s requirements prior to program participation becoming mandatory. A pilot program could initially focus on a provider specialty that delivers a large amount of WC care—for example, orthopedics. Additional pilots could focus on incentivizing insurers or
To ensure broad consensus and agreement, **affected stakeholders should be engaged in the planning process** for the pilot.

The multipayer structure of WC in California creates both challenges and opportunities for the implementation of pay-for-performance programs. While each insurer or claims administrator could independently operate a program that is tailored to their specific goals and population, we recommend a **program that is centrally managed by DWC**, which has several advantages. First, this would allow the pooling of data across multiple insurers, which will increase the number of injured workers on whom performance is assessed, increasing the accuracy and reliability of performance estimates. Second, a single centrally managed program ensures consistency in the measures and definitions used, giving providers a consistent signal of what is important and strengthening incentives to align behavior with the program’s priorities. Third, data cleaning, processing, and analysis activities can be centralized, ensuring consistency across insurers and improving the efficiency of these activities relative to having them performed by each insurer or claims administrator. Fourth, depending on stakeholder preferences, the incentives of the program could be consistent across all insurers and claims administrators, or the specifics of this component of the program could be determined by each insurer and claims administrator. A challenge of a centrally operated program is the necessity of building buy-in and consensus across a broader array and number of stakeholders.

**Goals and Objectives**

We recommend that the pilot program be designed around the **initial goal of improving provider participation in WC**. To accomplish this, the pilot would focus on addressing the issues that ultimately deter providers from participation in WC that were most consistently identified by stakeholders through interviews and focus groups, which are summarized in Chapter 3. These issues are interrelated (Figure 5.1) and include challenges accessing care due to there not being enough providers in WC, the administrative burden of delivering WC care, the timeliness of WC care, low reimbursement relative to time spent on activities, and inadequacies with MPNs. Other states that have implemented APMs in their WC systems reported having success with addressing some of these issues through their APMs aimed at improving provider participation.

Stakeholders stated that the administrative burden associated with delivering WC care, combined with reimbursement that does not compensate for the administrative requirements of WC, contribute to provider reluctance to treat injured workers and, for many providers, the

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4 A precedence for and feasibility of programs focused on entities other than providers has been set by the Medicare Advantage and Part D Star Ratings program, which incentivizes Medicare Advantage and Part D contracts (an insurance company can operate multiple contracts) based on their performance. These programs include a range of types of measures, including clinical process of care, intermediate patient outcomes, patient experience and complaints, and administrative measures, such as plans for making timely decisions about appeals and reviewing appeals decisions.
willingness to participate in WC; these limit the number of providers available to treat workers’ injuries and create access issues. The limited number of providers treating injured workers, combined with delays in care due to denials of treatment plans and delays in care due to UR and prior authorizations, results in concerns about the timeliness of care delivered in WC. Surveys show that most physicians have negative views of utilization reviews and authorizations, believing that they often are not evidence-based; lead to delays in necessary treatment, ineffective initial treatments, additional office visits, and other utilization; and can lead patients to abandon a recommended course of treatment (American Medical Association, 2023; Pereira et al., 2023; Shah et al., 2022). Providers also perceive that utilization or medical reviews have a negative impact on clinical outcomes for many patients and can lead to hospitalizations, serious adverse events, and even disability or permanent damage (American Medical Association, 2023). Therefore, we recommend a pay-for-performance program to help relieve administrative burden for providers and improve both access and timeliness of WC care for injured workers in California.

**Figure 5.1. Interrelationship of Issues Most Consistently Raised by Stakeholders**

![Diagram showing the interrelationship of issues]

**Measures Included in Proposed Alternative Payment Model Pilot Program in Workers’ Compensation**

We recommend that the measures initially included in the pay-for-performance pilot focus on the administrative aspects of successful participation in WC and patient experience. Examples of administrative measures that could be included are timely submission and completeness of specific forms and reports by the primary treating physician, such as the Doctor’s First Report of Occupational Injury or Illness (DFR) and the required report when a worker’s condition is permanent. WA uses a measure of timeliness of reports within its WC system, paying providers based on the number of days between an injured worker’s first

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5 These surveys are not limited to physicians who treat WC patients.
treatment date and the submission of a Report of Accident or a Provider’s Initial Report. Measures could also assess the approval rates for URs or initial treatment plans. For example, Washington state uses UR approval rates combined with other measures as part of its designation of high-performing providers; specifically, a UR approval rate of 80 percent is part of the qualification for one level of designation, and an approval rate of 100 percent is part of the qualification for a higher level of designation. Washington also includes the timeliness of treatment (specifically, 21 days for surgery) after prior authorization is provided as a best practice in its program.

There is a long history of using the Consumer Assessment of Healthcare Providers and Systems (CAHPS) family of surveys to assess patient experiences with health care across care settings (Dyer et al., 2012; Elliott et al., 2009; Giordano et al., 2010; Schmocker et al., 2015; Hays et al., 2016; Solomon et al., 2005). These surveys could be modified to reflect what is important to injured workers as they navigate the receipt of care—for example, a focus on the timeliness of care and treatment delays. If a pay-for-performance program is focused on assessing the performance of the insurer or MPN, the survey could also include questions related to ease of finding a WC provider or insurers, or MPNs could be assessed using measures of network adequacy.

An advantage of the described measures is that they are applicable to all injured workers rather than being narrowly focused on those with a specific injury or illness or who receive a particular type of treatment. This helps mitigate the issue of the relatively small number of WC patients in many providers’ practices, increasing the ability to reliably measure provider performance on the included measures. The levels of performance needed to be achieved to be eligible for a reward would need to be determined. These decisions should be based on assessments of current performance.

As the program matures and the goals of the program evolve and expand to also include quality of care, additional measures that focus on providing guideline consistent care, and measures of improvement of functional status or ability to return to work could be added. Quality measures could focus on clinical areas of particular concern, such as appropriate opioid prescribing, as is done in Washington, which focuses on the days covered by the initial opioid prescription, with different targets for surgical and nonsurgical patients, the percentage of injured workers with chronic opioid therapy, and its dose. In addition, Washington includes as a best practice in one of its programs the establishment of release-to-work plans and goals with the patient within six weeks of the date a claim begins. Measures of functional status have been developed and used more broadly throughout health care (Thumula et al., 2023). These outcome measures would be more complicated to specify and would need to include case-mix adjustment for differences in the injury types and severity level treated by different physicians.
Incentive Structure

The incentives included in pay-for-performance and other incentive-based programs include financial rewards, nonfinancial rewards, or both. Based on stakeholder input, we suggest that the pilot’s incentives include easing UR and preauthorization requirements for high-performing providers. We heard from WC staff in Washington and Ohio about their use of similar incentives in their APMs and the positive feedback they heard from providers about these types of nonfinancial rewards. This could be paired with modifying the OMFS to reimburse for reports that are not currently compensated, with the level of payment being tied to the timeliness and completeness of the report, as has been done in WC in Washington. Combined, these incentives could increase providers’ willingness to participate in WC.

Data Collection, Analysis, and Infrastructure

The implementation of a pay-for-performance program involves multiple data-related functions, including data collection, cleaning, and warehousing (if the necessary data are not already collected as part of WC operations); data analysis and performance feedback; and distribution of incentives. As stated in the description of the recommended overall structure of a pilot program, there are operational efficiencies to be gained by having at least the data cleaning, warehousing, data analysis, and performance feedback functions centrally performed. These functions could be undertaken by DWC staff but would require an expansion of DWC staff and resources from the California state government to ensure that DWC has adequate capacity to perform these activities. Alternatively, these functions could be performed by an independent third party, which may increase the likelihood that sufficient staffing and resources are dedicated to the activities. Such activities could be funded through appropriations, a payer assessment, or user fees, regardless of whether performed in-house or by an independent organization. This structure would allow flexibility in the determination of incentives by either payers or DWC. While many of the measures that could be included in a pay-for-performance program can be based on existing data collected as part of WC administration and care delivery, measures of patient experience would require additional data collected using surveys. These data collection activities could be undertaken by the individual payers, DWC, or an independent organization and then provided to the entity performing the other data-related activities.

Other Considerations

In addition to the development of a pilot pay-for-performance program, we recommend the following activities to address stakeholder concerns regarding the OMFS and the delivery of care to injured workers.

Reimbursement for currently uncompensated reports and processes that require effort and resources beyond those typically involved in the delivery of medical care should be added to
ameliorate provider views that the OMFS does not provide adequate reimbursement for the administrative requirement of participating in WC and treating injured workers. For example, the DFR is a WC-specific requirement for which providers are not currently paid. Paying for a timely and fully completed DFR would contribute to aligning the OMFS with reporting objectives (Quigley, Waymouth, and Wynn, 2017). This would require an assessment of the level of effort and resources required to complete these reports in order to set a reasonable reimbursement rate. There are other reports for which payments may not be reimbursed at a level that is commensurate with the effort required to produce them. An analysis suggested that the allowance for a fully completed Primary Treating Physician’s Progress Report (PR-2) should be approximately $30 to be consistent with RBRVS allowances for similar services rather than the $12.14 allowance at the time of the analysis (Quigley, Doyle, and Wynn, 2017). In 2022, the allowance for a PR-2 was still just $13.99—less than half the amount recommended in 2017. In addition, the reimbursement rates could depend on the timeliness of the report submission, as is done in Washington, such that reimbursement is higher when reports are submitted quickly.

Requirements exist for the time by which claims administrators must respond to requests for authorizations (RFAs), and there are penalties when these timelines are not met. However, providers participating in our focus group noted that these penalties are not consistently levied. We suggest an analysis to assess the frequency with which the time requirements for RFA responses are exceeded and whether penalties are levied. If results of these analyses demonstrate opportunities for improvements, incentives could be developed to further encourage adherence to current requirements. In addition, CMS recently announced and proposed modifications to prior authorization and UR regulations, changes that could be considered for WC as well. The final rule, “Medicare Program; Contract Year 2024 Policy and Technical Changes to the Medicare Advantage Program, Medicare Prescription Drug Benefit Program, Medicare Cost Plan Program, and Programs of All-Inclusive Care for the Elderly,” which appeared in the Federal Register on April 12, 2023, issued the requirement that when a Medicare Advantage plan denies a prior authorization request or appeal, “the physician or other appropriate health care professional who conducts the organization determination review must have expertise in the field of medicine that is appropriate for the item or service being requested” (CMS, 2023, p. 247). In addition, the proposed rule “Medicare and Medicaid Programs; Patient Protection and Affordable Care Act; Advancing Interoperability and Improving Prior Authorization Processes for Medicare Advantage Organizations, Medicaid Managed Care Plans, State Medicaid Agencies, Children’s Health Insurance Program (CHIP) Agencies and CHIP Managed Care Entities, Issuers of Qualified Health Plans on the Federally Facilitated Exchanges, Merit-Based Incentive Payment System (MIPS) Eligible Clinicians, and Eligible Hospitals and Critical Access Hospitals in the Medicare Promoting Interoperability Program” (“Interoperability proposed rule”), which appeared in the Federal Register on December 13, 2022, would shorten the timeline for
Medicare Advantage and Medicaid managed care plans to make standard prior authorization decisions from 14 days to seven days (Pestaina et al., 2023).

MPNs have an important role in ensuring that injured workers have access to providers that can deliver timely care. It is important to understand the extent to which MPN directories provide current information on participating providers and their contact information, as well as whether the MPN has adequate capacity to meet the needs of injured workers required to use them. This could be done by performing “secret shopper” studies to determine how many providers an injured worker needs to call before they can schedule an appointment in a timely fashion. In these studies, an individual, who may be a professional actor, uses a script describing the injury in their calls to providers. If analyses demonstrate that up-to-date directories are not maintained or that there is inadequate capacity, requirements on the frequency with which directories are updated and network adequacy could be developed or strengthened.

Next Steps

This section describes a broad outline for the design of the structure and components of a potential WC pay-for-performance pilot program. However, many of the details, processes, and responsibilities of a program remain undefined and should be determined using a two-stage process.

In the **first stage**, DWC should hold stakeholder working groups to discuss commitment, main players, goals, data needs, and overall program design and definitions (possibly including some data analysis on the feasibility of specific metrics), followed by a detailed development design process (stage two) to determine the details of the pay-for-performance pilot program aimed at increasing the participation of providers and improving access to care, including additional analysis and development of metrics and benchmarks.

In the **second stage**, DWC should develop a detailed process and plan to finalize the program’s components and processes, participants’ roles, and needed resources. This process and plan should be informed by input from the stakeholder working groups (from stage one) and include discussions and data analysis to finalize the program’s components and processes, participants’ roles and responsibilities, and the resources needed for successful program implementation, including in-depth analysis of data to tailor the pilot measures to California WC data.

Given the broad array of stakeholders that will be affected by a WC pay-for-performance program, their (at times) conflicting perspectives, and the current WC environment, establishing the set of necessary stakeholders for such a pilot needs to include confirming their willingness to participate in such a program and be part of the design process. While we sought input from an array of stakeholders, including physicians and provider organizations, employers, insurers,

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6 The final rule was not available as of April 17, 2023.
employee representatives, unions, and applicant attorneys, we engaged with a relatively small number of individuals in each group, and their views may not be representative of the broader groups from which they were drawn. Thus, an important next step is to expand the discussions to include more representatives of the various stakeholder groups to gauge their level of commitment to supporting a pay-for-performance initiative and their support for the goals and objectives of increasing provider participation and improving access, as well as the overall structure described here or deliberate alternative suggestions.

This engagement process could be organized and led by DWC or an independent organization. In the stage one stakeholder working groups, several topics should be addressed, debated, and determined. For example:

- Could a pilot program be configured? If so, would it be with a single large employer? Which high-volume WC provider specialty is willing to participate? How will injured workers be represented?
- What is the primary goal of the pilot program? Is it to enhance provider participation to improve access to care? Or is it to improve the quality of care or efficiency with which care is delivered?
- What specific key performance measures should be included?
- What is the definition of a high-performing provider within the specified context? What data can be used to analyze, support, and produce the calculation of such metrics?
- Are the proposed changes allowed legally? Who could conduct a legal analysis of its feasibility?

Once support for a pay-for-performance program to improve access and provider participation is determined, the next step is the development of a detailed design plan, as stage two. The design plan needs to describe the program’s components and processes, participants’ roles and responsibilities, and the resources needed for successful program implementation. For example:

- Based on the identified specific key performance measures to be included, do existing measure definitions exist that can be used, or will measures need to be developed to support the goals of the program? Can these measures be constructed using available data, or will existing data systems need to be modified or additional data be submitted by providers or collected from injured workers using surveys? Would this place an undue burden on providers or other participants? Can performance be measured with adequate reliability with these measures? Who could and should conduct the initial data analysis concerning provider volume and reliability of the proposed metrics?
- Who would evaluate the pilot program? What level of evidence is needed to determine whether the program is successful? Is it sufficient to see changes in time trends or should the pilot be designed to have a control group for evaluation?
- Could the pilot program be a carve-out program? Or would it need to be a program established via labor statute?
- Are the proposed changes legal? Who could conduct a legal analysis of their feasibility?
This plan will need to address the implementation complexities of California’s multipayer system, which are likely greater than those experienced in Washington and Ohio, which are both exclusive state fund states. This process could be managed by DWC or an independent organization.

While most of this discussion has focused on the development of a pay-for-performance program for providers, incentives could also focus on other entities including MPNs or insurers and claims administrators. Parallel activities to develop the design of additional incentive programs could be undertaken if there is adequate stakeholder support.
Appendix A. Additional Information on California Workers’ Compensation’s Reporting Requirements

Physicians who treat and provide care to injured workers are required to file reports with the WC payer that address the worker’s treatment, medical progress, and work-related issues. The WC program in California requires the following reports from treating physicians that address work-related issues. This description of reports is taken from a RAND evaluation of required WC reports (Quigley, Doyle, and Wynn, 2017):

- **Doctor’s First Report of Occupational Injury or Illness:** The DFR serves primarily as a notice that the injured worker has been seen by a physician, and it describes the first diagnosis based on the initial physical examination. The DFR provides the framework for documenting the injury and notifies the carrier of the nature of the injury or illness and medical status of the patient.

- **Primary Treating Physician’s Progress Report (PR-2):** The PR-2 serves primarily as a mechanism of notice that the injured worker has been seen by a physician and requires additional treatment. Additionally, it documents the functionality of the patient over the course of treatment.

- **Request for Authorization (RFA):** The RFA serves primarily as a notice that the injured worker needs additional treatment, which must be authorized; therefore, it has a high level of specificity and should contain the rationale for the requested treatment.

- **Primary Treating Physician’s Permanent and Stationary (P&S) Report (PR-3 or PR-4):** The P&S report (PR-3, PR-4) is designed for use by the primary treating physician to report the initial evaluation of permanent impairment to the claims administrator once the patient’s medical condition has stabilized and if the patient has residual effects from the injury or may require future medical care. The report requires the physician to address impairment rating, apportionment, causation, functional capacity, and future medical treatment. The physician is required to submit this report within 20 days of examination and attach the Return-to-Work (RTW) and Voucher report.

- **Physician’s Return-to-Work (RTW) and Voucher report:** The RTW and Voucher report is a separate report that is required from the first physician who reports that the patient is P&S. It is used to inform the employer of the work capacities and activity restrictions resulting from the injury that are relevant to potential regular work, modified work, or alternative work. (Quigley, Doyle, and Wynn, 2017)

Additionally, no changes were made in the OMFS payment policies for WC-required reports when the RBRVS fee schedule was implemented. The allowance for the DFR is included in the allowance for the physician’s initial examination, and separate payment amounts are allowed for the PR-2 and P&S report (PR-3 or PR-4). No separate allowance is made for RFAs or the RTW and Voucher report. The allowances for these reports are bundled into the payment for the associated E&M visit. The assumption was that the 20 percent add-on was sufficient to
compensate for any WC-specific requirements for reports relative to the documentation and reporting requirements for the typical non-WC patient. Note that the 20 percent add-on was the initial premium over Medicare, benchmarked to July 2012 (to avoid the Sustainable Growth Rate adjustment), and thereafter increased by the Medicare Economic Index on an annual basis (see California Labor Code, Section 5307.1). This has resulted in the current WC CFs for anesthesia and other services being larger than 20 percent over Medicare; these CFs are 2023 WC other services CF $47.21; 2023 Medicare CF $33.8872; 2023 WC anesthesia CF $28.75 before Geographic Practice Cost Index (GPCI); and 2023 Medicare anesthesia national CF $21.1249. The PR-2 and P&S report were viewed as atypical, WC-specific reporting requirements, and separate allowances were continued at pre-RBRVS levels but with regular updates. The separate allowances are not included in the 120 percent limitation on aggregate allowances. Table A.1 provides an overview of California’s reporting requirements as of 2022, and any fee schedule allowances established for each report (Quigley, Boyle, and Wynn, 2018).
Table A.1. Summary of California Reporting Requirements, Frequency, and Fee Schedule Amount

<table>
<thead>
<tr>
<th>Report Type</th>
<th>Timeline</th>
<th>Frequency</th>
<th>Allowance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor’s First Report of Occupational Injury or Illness (DFR)</td>
<td>Required within 5 days after initial examination of the injured worker</td>
<td>One-time requirement</td>
<td>No separate allowance</td>
</tr>
<tr>
<td>Primary Treating Physician’s Progress Report (PR-2)</td>
<td>Required every 45 days or more frequently</td>
<td>Multiple; every 45 days or more frequently when warranted</td>
<td>Separate allowance of $13.99 per report in 2022</td>
</tr>
<tr>
<td>Request for Authorization (RFA)</td>
<td>Required with each request for treatment</td>
<td>Multiple; required with each request for treatment</td>
<td>No separate allowance</td>
</tr>
<tr>
<td>Permanent and Stationary (P&amp;S) Report (PR-3 or PR-4)</td>
<td>Required once the injured worker’s condition has become permanent and stationary</td>
<td>One-time requirement</td>
<td>No separate allowance</td>
</tr>
<tr>
<td>Physician’s Return to Work (RTW) and Voucher Report</td>
<td>Required once the injured worker’s condition has become permanent and stationary, and due within 20 days of patient’s last examination</td>
<td>One-time requirement</td>
<td>No separate allowance</td>
</tr>
</tbody>
</table>

SOURCES: Details and data are from Quigley, Doyle, and Wynn, 2018; 2022 data were updated from Montgomery, 2022.

NOTE: The reporting forms and time frames are applicable unless the payer and provider mutually agree to an alternative format or time frame. Similarly, the fee schedule allowances apply unless the payer and provider contractually agree to a different amount.
Appendix B. Additional Information on Study Participants

As discussed in Chapter 2, we gained stakeholder input through interviews with leaders in California provider associations followed by a focus group with California providers, a focus group with employer representatives, and individual semistructured interviews with employee representatives. Providers were provided $250 for participation, whereas all other stakeholders were provided $100. Here we describe the recruitment strategies and study population characteristics for each stakeholder group.

Interviews with Leaders of Provider Associations

Based on analysis of WCIS data, we identified specialties that typically provide a high volume of WC care to injured workers (see Table 2.2): family medicine, physical therapy, occupational medicine, orthopedics, emergency medicine, physical medicine and rehabilitation, chiropractic care, and pain medicine/anesthesiology. We contacted the president and vice president for each of these eight provider associations and were able to set up informational interviews with all associations except family medicine and chiropractic care.

Focus Group with Providers in California Workers’ Compensation

With the assistance of leaders within the provider associations and with input from DWC and prior RAND contacts, we assembled a list of 64 providers across the high-volume specialties (representing locations across Northern and Southern California). Recruitment staff sent an initial email introducing the study and inviting them to participate, followed by up to three emails and phone calls. Staff used a recruitment script to screen and schedule participants. For the provider focus group, participants had to meet the several inclusion criteria: be an active provider in one of the main specialties of interest (i.e., orthopedics, pain management, physical medicine and rehabilitation, occupational medicine, chiropractic care, or physical therapy; see Table 2.2); be practicing in California; and have injured workers covered by WC represent at least 25 percent of their patient load. Recruiters also aimed to obtain a balance by provider type (specialty and care setting) and geographic location across California (Northern versus Southern California).

We had ten health care providers attend the virtual provider focus group. Providers included a variety of specialties including orthopedics (n = 2), family practice (with pain specialty) (n = 1), physical therapy (n = 2), physical medicine and rehabilitation (n = 1), and occupational medicine (n = 2). Providers had been in practice from eight months to 42 years (mean 28 years). All participants were male, all but one was Hispanic ethnicity (with the rest reporting being non-Hispanic), and, in terms of race, six were White, three were Black, and one was Southeast Asian.
Focus Group with Employer Representatives

With the input from DWC as well as prior RAND contacts, we assembled a list of 35 employer representatives (i.e., employers, insurers, and TPAs) representing locations across Northern and Southern California. Recruitment staff sent an initial email introducing the study and inviting them to participate, followed by up to three emails and phone calls. Staff used a recruitment script to screen and schedule participants to include either an employer, an insurer, or a third-party administrator of insurance (known as a TPA); all participants also had to have a current role in the WC arena for California injured workers as part of their job and to have been in that role for roughly a year, at least.

For the virtual employer representative focus group, we had a total of six participants. Participants included two large employer representatives who were self-insured, three insurers who provide workers compensation to a large variety of employees (e.g., construction, retail, health care), and one TPA. Participants had a range of ten to 30 years working in the workers compensation field, with an average of 23 years in a role in WC. Participants included two directors of self-insured employer WC programs, one Director of Risk Initiatives, one TPA compliance officer, and two medical reimbursement specialists. Employer representatives included a county agency, as well as a large statewide corporation with over 100 locations. Participants included two males and four females, none reported being of Hispanic ethnicity, and, in terms of race, three were White, one was Black, one was Southeast Asian, and one was Native American/Native Alaskan.

Interviews with Employee Representatives

With input from DWC, Commission on Health and Safety and Workers’ Compensation members, and prior RAND contacts, we assembled a list of 47 employee representatives (i.e., worker advocates, unions, applicant attorneys) representing locations across Northern and Southern California. Recruitment staff sent an initial email introducing the study and inviting them to participate, followed by up to three emails and phone calls. Staff used a recruitment script to screen and schedule participants for an interview with either a worker advocate, union representative, or an applicant attorney; all participants also had to have a current role in the WC arena in California as part of their job and have been in that role for roughly a year, at least.

For these one-on-one semistructured interviews, we had three participants. Participants included one applicant attorney (representing clients in Southern California) and two union representatives covering a variety of workers (e.g., construction, trades, retail health, health care, packing, pharmacists, grocery, cosmetology, and cannabis). Participants had worked in the workers compensation field from 14 to 19 years, with an average of 16 years. All participants were male, one was Hispanic ethnicity (versus non-Hispanic), and, in terms of race, all three were White.
Appendix C. Overview of Evidence on Alternative Payment Models

To examine the current evidence on possible payment alternatives for WC medical care providers, such as global budgets, bundled payments, pay-for-performance, value-based payments, and ACOs, we conducted a scoping review and an environmental scan with two main aims: (1) to identify the experiences of other states in exploring and implementing APMs for their WC systems and (2) to review current studies of large-scale APMs either currently used or tested in demonstrations by CMS. This appendix briefly describes the steps of the environmental scan and summarizes the evidence that is currently available on APMs in WC and in programs implemented at the state or national level by CMS. Detailed information on the methods and findings from the environmental scan are available upon request from the first author via email at quigley@rand.org.

Scoping Review and Environmental Scan

We conducted a scoping review and an environmental scan of literature on APMs. A scoping review is a type of evidence synthesis that aims to systematically identify and map the breadth of evidence available on a particular topic, field, concept, or issue, often irrespective of source (i.e., primary research, reviews, non-empirical evidence) within or across particular contexts (Munn et al., 2022). We combined this with an environmental scan approach, which originated in a business context as a tool for retrieving and organizing data for decisionmaking (Aguilar, 1967; Reichel and Preble, 1984), that is designed to provide evidence about the direction to take, to raise awareness of issues, and/or to initiate a project as well as to help plan for the future (Albright, 2004; Graham, Evitts, and Thomas-MacLean, 2008). This task included a review of both peer-reviewed and gray literature, including industry/research organization reports, publicly available program information, and reports found through an advanced Google search. We limited our search to documents that reported findings on the effect of the programs that aimed to improve clinical quality, utilization, patient experience, safety, and/or cost of medical care provided. We excluded programs focused on pediatric care, post-acute care (i.e., home health care and long-term care), and end stage renal disease because they are health care settings not often utilized in WC, as well as articles that focused on the effect of broader changes in medical care.

7 We included a focus on CMS programs because (1) CMS has been at the cutting edge of the development and implementation of APMs for numerous provider types and health care settings for several decades, (2) many programs implemented by private insurers use CMS as a model or even use the performance measures reported by CMS, and (3) California SB 863 requires that the OMFS be adjusted to conform to relevant changes in the Medicare payment system.
payment, such as the shift to a prospective payment system and incentives to increase organ donation by hospitalized patients.

Although this was not a formal systematic literature review (as we did not rate the quality of the studies), we adhered to the PRISMA guidelines (Liberati et al., 2009; Moher et al., 2009) for literature retrieval and review.

Search Strategy. We conducted structured searches in the databases of PubMed, EconLit, Business Source Complete, and CINAHL to identify peer-reviewed literature, limited to English-language articles published in the United States.

We built our searches from strategies that RAND has used successfully in the past, including an environmental scan on value-based payment and bundled payment programs (Damberg et al., 2009; Damberg et al., 2014; Damberg et al., 2007; Mehrotra et al., 2009; Sorbero et al., 2010) that included a literature review examining peer-reviewed articles, industry/research organization reports, and state legislation and regulations to identify a list of potential APMs that California WC should consider. To capture relevant articles for APMs in WC, the search strategy identified articles from 2004 to the present with at least one payment model term, one WC term, and a setting term in either the title or the abstract using a United States filter and a set of “not” terms that are excluded (Search 1). To capture relevant articles for the use of APMs outside of WC, the search strategy identified articles in the past eight years (2015 to present) with at least one payment model term, one Medicare/CMS term, and a setting term in either the title or the abstract using a United States filter and a set of “not” terms (Search 2). We included a Medicare/CMS term because SB 863, Labor Code Section 5307.1 states the OMFS provisions will be adjusted to conform to relevant changes in the Medicare payment system and also to capture national or state-level programs that will be generalizable for the large California system. Details of our search are available upon request from the first author via email at quigley@rand.org.

Payment model terms were, for example, alternative payment, episode of care, physician payment, reimbursement, fee-for-service, capitation, global budget, bundled payment, pay-for-performance, value-based payment, quality incentives, and payment system. Terms for WC were, for example, compensation, risk management, occupational medicine, benefit, WC claims, utilization review, and post-termination claim. Terms to identify Medicare and Medicaid programs included Medicare, MedPAC, CMS, and Center for Medicare and Medicaid Innovation (CMMI). Terms for setting were, for example, hospital, outpatient, emergency, physical/occupational therapy, ambulatory surgery, and physician. The “not” terms, which exclude articles that include these terms, were organ donation, end stage renal disease and ESRD, post-acute care, long-term care, home health, pediatric, and child.

We also conducted a gray literature search in two stages. In the first stage, we performed a search of the Policy File Index database using the same search terms as search 1 and 2 for the peer-reviewed literature. In the second stage, we performed manual searches of several key websites. The full list of the websites we searched as well as details of our search strategy, key
Screening. For both searches, we conducted a title and abstract screening followed by a full-text review and abstraction of relevant information. A total of three articles about APMs in WC were identified for full review and abstraction after article screening. However, during full-text review, all three of these articles were excluded. In the end, the search yielded no identified articles about APMs in WC to include in the review. A total of 222 articles about APMs in current use were identified for full-text review and abstraction. During full-text review, 106 articles were excluded, yielding 116 identified articles about APMs in current use.

Abstraction. Reviewers abstracted specific information into a form noting, among other characteristics, study author and year; objective; APM (type and description); care setting (ambulatory, inpatient, specific service type); time frame of data used; main comparison; study location (national, state specific); outcome measure(s) (main and secondary, type and description); relevant APM findings (changes in outcomes, findings, implementation issues identified, if any); study design (e.g., descriptive, comparative (pre-post, case-control), correlational, experimental); study type (e.g., longitudinal, cross-sectional); statistical approach; methods; control variables; sample size; sample description; population description; and study limitations.

Included Articles. We found no empirical articles about APMs in use in WC. In terms of large-scale APM use in health care, we included 116 articles published since 2015 on large-scale APMs in use in the U.S. health care system, including specifically those tested or used in Medicare given the requirement in California WC that the OMFS be adjusted to conform to relevant changes in the Medicare payment system.

The main APMs represented were as follows:

- **Pay-for-performance or value-based purchasing models** \( (n = 47 \text{ articles}) \), which included 11 studies about the Hospital Value-Based Purchasing Program, 28 studies on the Hospital Readmission Reduction Program (HRRP), two studies on both these programs, and six studies about the Hospital-Acquired Condition Reduction Program (HACRP).
- **Bundled payments** \( (n = 17 \text{ articles}) \), which included ten studies about the CMMI Bundled Payments for Care improvement Initiative (BPCI) and seven studies on bundled payments for CMMI Comprehensive Joint Replacement (CJR) program.
- **Accountable care organizations** (ACOs) \( (n = 45 \text{ articles}) \), which included 30 studies on the Medicare Shared Savings Program (SSP), nine on Pioneer and SSP ACOs, two on Pioneer ACOs, one on Next Generation ACOs, one on the ACO investment model (AIM) ACOs, and two that compared unnamed types of ACOs.
- **Global budgets** \( (n = 7 \text{ articles}) \), all of which focused on the Maryland All-Payer Model.

Summary of Evidence. Our scoping review and environmental scan did not identify any empirical articles about APMs in WC to summarize. However, during the review we identified...
two states that are considering or implementing APMs in WC (i.e., Ohio and Washington; see Chapter 4 for more detail).

The scan of the literature on the broader use of APMs in health care provides evidence on the spectrum of APMs considered, with the goal of providing insight into their success in the U.S. health care context and a broad perspective on each APM’s effectiveness. Table C.1 provides an overview of the summary of evidence on the effectiveness of each type of APM based on the identified literature in the scoping review and environmental scan, followed by a high-level summary of the evidence for each APM.

### Table C.1. Summary of Evidence on Effectiveness of Alternative Payment Models in the U.S. Health Care System

<table>
<thead>
<tr>
<th>APM</th>
<th>Recommendation</th>
<th>Applicability to Evidence Identified in Scoping Review and Environmental Scan</th>
</tr>
</thead>
</table>
| Quality incentives program based on quality (i.e., pay-for-performance) | Discuss with stakeholders | **Pros:**
  - Found in use in WC in other states.
  - Pay-for-performance programs have little effect on health care spending but have potential to recognize and incentivize the delivery of high-quality care.
  - Pay-for-performance can be based administrative and timeliness-of-care performance metrics and not just aimed at cost, utilization, and other non–clinical quality measures.
|                                                                      |                      | **Cons:**
  - Little effect on spending.                                      |
| Quality incentives program based on quality and cost (i.e., value-based payment systems) | Discuss with stakeholders | **Pros:**
  - Value-based purchasing has little effect on health care spending but has potential to recognize and incentivize the delivery of high-quality care.
  - HVBP hospitals did have significantly more improvement in risk-adjusted mortality for patients admitted for pneumonia (Ryan et al., 2017).
|                                                                      |                      | **Cons:**
  - Overall HVBP hospitals did not show significant improvements on clinical process of care measures, patient experience, or 30-day risk-adjusted mortality for acute myocardial infarction (AMI) or heart failure compared with critical access hospitals, which are not subject to the program (Figueroa et al., 2016; Ryan et al., 2017).
  - Also, performance on patient experience measures tended to be lower for HVBP hospitals that disproportionately served minority patients or were safety net hospitals (Gilman et al., 2015); and earning points for improvement on patient experience measures was an important contributor to their scores for these lower-performing hospitals (Elliott et al., 2016).
  - California hospitals found that HVBP participation was associated with higher hospital operating costs, as was higher performance on clinical process of care measures, while lower condition-specific readmission and mortality rates were associated with lower operating costs, suggesting that there may be costs associated with successful participation in pay-for-performance programs and performing well, particularly when the program’s focus is on clinical processes of care (Izón and Pardini, 2018).
Based on the 116 included articles on how APMs are used and their potential effects, several high-level findings emerged and are summarized here:

- **Pay-for-performance and value-based purchasing have little effect on health care spending but have potential to recognize and incentivize the delivery of high-quality care.** Pay-for-performance programs focused most often on clinical quality, which resulted in no downward pressure on costs. HVBP hospitals did not show significant improvements on clinical process of care measures, patient experience, or 30-day risk-adjusted mortality for AMI or heart failure compared with critical access hospitals, which are not subject to the program; however, they did have significantly more improvement in
risk-adjusted mortality for patients admitted for pneumonia. Also, performance on patient experience measures tended to be lower for HVBP hospitals that disproportionately served minority patients or were safety net hospitals, and earning points for improvement on patient experience measures was an important contributor to the scores for these lower-performing hospitals. In terms of HRRP and readmission rates, evidence was mixed. Readmission rates for both targeted and nontargeted conditions decreased after HRRP in nine studies, whereas in five studies readmissions rates did not improve, and in one study readmissions increased. Another study found that readmission rates decreased from 2010 to 2017 after HRRP but was associated with an increase in mortality rates. Limited evidence suggests that HRRP is associated with increased use and duration of observation stays; also, facilities that had larger HRRP penalties had higher post-discharge emergency department utilization.

- **Bundled payments have the potential to reduce spending without compromising quality of care; findings vary by the type of episode of care.** Overall, studies found that bundled payments (i.e., the BPCI initiative and CJR model) had little impact on lower joint replacement patients’ quality of care, patient experience, and functional status. However, in terms of spending, BPCI showed declines in episode spending relative to control episodes, and surgical episodes had larger declines than medical episodes. These reductions in spending were largely driven by reductions in post-acute care. Additionally, bundled payments on episode costs for hip and knee joint replacements showed reductions in Medicare spending, with reductions largely attributable to changes in patterns of post-acute care: fewer discharges to inpatient rehabilitative facilities and shorter lengths of stay in skilled nursing facilities. Hospitals did not appear to offset the reductions in Medicare spending by increasing episode volume. While the effectiveness literature did not address implementation challenges, other literature points to challenges related to defining and implementing the episodes and administering the bundled payments leading to a multiyear implementation process for pilot programs (Hussey, Ridgely, and Rosenthal, 2011; Ridgely et al., 2014).

- **ACOs showed reductions in spending that could take a couple of years to emerge and did not compromise clinical quality of care but had mixed results for patient experience.** Observed savings may be due to the voluntary nature of the program and attrition of low-performing providers; design considerations need to ensure that bonus payments do not more than offset savings in spending. Evidence is largely consistent that ACO participation is associated with reductions in Medicare spending—specifically, total patient annual spending or per member per month spending relative to providers not participating in ACOs. Some studies find these savings emerge in the first year of participation in the ACO, whereas others find savings emerge in the second year of participation, but this may vary by characteristics of the ACO and whether ACOs were early adopters of the program. These savings are generally consistent across ACO types and are driven by reductions in hospital admissions, inpatient days, and hospice and nursing home admissions days. Findings were less consistent for emergency department visits and Medicare prescription drug spending. ACOs largely maintained performance on clinical quality of care for both ambulatory care and inpatient care. However, patient experience differed by the types and characteristics of ACOs (i.e., large, hospital-owned, or had high patient experience scores when joining), as well as the year of ACO implementation. Finally, provider participation in ACOs is voluntary, which leads to
systematic differences between providers who opt to join these models and those that do not. Evidence pointed to lack of readiness for financial risk-sharing as the primary reason for discontinuing participation.

- **Global budgets implemented for hospitals in an all-payer model can reduce costs and unnecessary utilization but need to be monitored for negative impacts on quality of care.** After four years of implementation, capitation through hospital global budgets as implemented in Maryland can reduce hospital expenditures and unnecessary utilization without shifting costs to other parts of the health care system, specifically through reductions in hospital admissions per 1,000, ambulatory sensitive condition admissions and in unplanned readmissions, which may help align incentives between hospital and nonhospital providers.

**Summary**

The landscape review identified no peer-reviewed or empirical evidence on states implementing APMs for their WC systems; however, it pointed to states that have experience with APMs, as we found descriptions of APM WC programs (but no empirical evidence). This established a set of WC stakeholders in other states with experience and knowledge of APMs in use in WC with whom we engaged and conducted in-depth qualitative inquiries to understand the rationale for and experiences with implementation of APMs in their WC systems.

Current evidence from our scoping review and environmental scan suggests that pay-for-performance and value-based purchasing have little effect on health care spending but have potential to recognize and incentivize the delivery of high-quality care. Global budget programs have the potential to reduce costs and unnecessary utilization but need to be monitored for negative impacts on quality of care. Bundled payment arrangements have the potential to reduce spending without compromising quality of care, so they remain a potential APM to consider, though the findings vary by the type of episode of care. ACOs showed reductions in spending that could take a couple of years to emerge and did not compromise clinical quality of care but had mixed results for patient experience. There is some suggestion that observed savings from ACOs are due to the voluntary nature of the program and attrition of low-performing providers. A summary of the evidence found across outcomes and APMs is available upon request from the first author via email at quigley@rand.org. Across all models, design considerations need to ensure that bonus payments do not more than offset savings in spending if programs are to lower costs or be budget-neutral.
Appendix D. Additional Information on Analysis of WCIS Data

As discussed in Chapter 2, we analyzed medical billing data for 2016–2019 claims from WCIS to identify provider specialties that account for a high volume of care in California’s WC system. Claims included in this analysis were professional and institutional bills for service dates between April 6, 2016, and December 31, 2019, for workers with injury dates in the years 2016 to 2019. Claims from before April 6, 2016, were excluded because these were submitted to the WCIS in a different format (X12 4010 standard instead of the current X12 5010 standard).

We adapted code developed for previous analyses of the WCIS medical billing data to remove duplicate bill lines. See Quigley et al. (2022), a RAND study on COVID-19 in the California WC system, for further discussion of these data cleaning steps.

In the present study, the primary goal of our analysis was to identify provider specialty in order to guide recruitment of providers for interviews. We relied on the rendering provider specialty code and the billing provider specialty code, two fields reported in the WCIS medical billing data, to assign a specialty code to each provider encounter. When the rendering specialty code was available on a bill line, we used that data element to assign the specialty. The following steps were applied to assign specialties to bills with missing data on the rendering provider specialty code:

- If the rendering provider NPI was available but the rendering provider specialty code was not available, we assigned the specialty that was most commonly associated with the rendering provider NPI.
- If the rendering provider NPI and rendering provider specialty code were not available, we assigned the billing provider specialty code.
- If the billing provider NPI was available but the billing provider specialty code was not available, we assigned the specialty that was most commonly associated with the billing provider NPI.

Bill lines with no data on any of these NPI and specialty code variables were included in the analysis but were assigned to a “Missing” specialty category. These bill lines accounted for only 3.1 percent of paid amounts in 2016 and only 0.3 percent of paid amounts in 2019. Specialty codes used in the WCIS can be drawn from provider specialty code sets used in Medicare for either the CMS-1500 (for professional claims) or the UB-04 (for institutional claims). As discussed in Chapter 2, some specialty codes identified facilities rather than the specialty of the individual provider.
Abbreviations

ACO  accountable care organization
AOE/COE  arose out of employment/course of employment
APM  alternative payment model
BPCI  bundled payments for care improvement
CF  conversion factor
CINAHL  Cumulative Index to Nursing and Allied Health Literature
CJR  Comprehensive Care for Joint Replacement program
CMMI  CMS Innovation Center
CMS  Centers for Medicare & Medicaid Services
COHE  Centers of Occupational Health and Education
CPT  Common Procedural Terminology
DFR  Doctor’s First Report of Occupational Injury or Illness
DIR  California Department of Industrial Relations
DWC  California Department of Industrial Relations, Division of Workers’ Compensation
E&M  evaluation and management
FAQ  frequently asked questions
HRRP  Hospital Readmissions Reduction Program
HVBP  Hospital Value-Based Purchasing Program
IMR  independent medical review
MPN  medical provider network
MSO  management service organizations
NPI  National Provider Identifier
Ohio BWC  Ohio Bureau of Workers’ Compensation
OMFS  Official Medical Fee Schedule
PRISMA  Preferred Reporting Items for Systematic Reviews and Meta-Analyses
RBRVS  resource-based relative value scale
RFA  request for authorization
RVU  relative value unit
SB  Senate Bill
TPA  third-party administrator
UR  utilization review
Washington L&I  Washington State Department of Labor and Industries
WC  workers’ compensation
WCIRB  Workers’ Compensation Insurance Rating Bureau of California
WCIS  Workers’ Compensation Information System
WCRI  Workers’ Compensation Research Institute
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