Imagine if our health care system could seamlessly coordinate care to meet all of a patient’s physical, behavioral, and social needs. The impact would be enormous. Downstream health outcomes would improve, and costs to the health care system, as well as to individual patients, would decrease. Value-based payment systems would truly be feasible. With this vision in mind, many large payers and providers have recently announced significant investments in care integration.¹

Integrating care across sectors is no easy task. The breadth and depth of new partnerships and systemic changes required to truly integrate services across the continuum of care can be dauntingly complex. This report offers an unvarnished look at one California initiative undertaking this challenge. California’s Whole Person Care (WPC) pilot is a five-year, $3 billion waiver program that includes 25 counties and one city pursuing pilot projects² to integrate care for a subset of Medi-Cal patients. Specifically, the WPC pilot targets individuals who have multiple chronic conditions, as well as those who are experiencing homelessness or other social and behavioral health crises.

This report discusses the technological challenges and successes encountered by pilot participants as they have begun to implement new systems and solutions to accomplish the goals of WPC. (See Appendix A for a glossary of abbreviations used in this report.) While integrated care requires an array of capabilities, one of the most fundamental is an organization’s ability to share data. If entities cannot effectively exchange information about the patients they share, then they cannot effectively coordinate care for those patients.

### Technology Opportunities and Challenges in WPC

The WPC pilot involves a diverse array of stakeholders, services, and data found within the participating entities, and the needs of the program’s target populations are great. All but one WPC pilot, which is led by a city, are led by a county entity, and all involve numerous county partners — including non–health care agencies, such as criminal justice and housing — as well as a host of local health care and social service providers.

The WPC opportunity has galvanized pilot counties to develop meaningful solutions for care coordination across sectors, providing both funding and guidelines for change. In attempting to establish common
means of sharing data and coordinating care among myriad entities, WPC pilots must navigate a range of issues, both technological and organizational. While they are equally important, the technological issues offer tangible, actionable opportunities for innovation and are the focus of this paper. The findings reported are based on 25 survey responses and 20 in-depth interviews conducted with pilot participants. Case studies of two counties illuminate the innovative thinking and sustained effort that has led to technology-facilitated breakthroughs with care coordination.

Opportunities for Technology Vendors
Several specific technological capabilities have emerged as especially critical to fulfilling the core competencies required of WPC pilots. None of these capabilities are unique to WPC, however; and all have value to offer to other care integration initiatives. Some of these capabilities are already offered by health information exchange organizations (HIEs or HIOs) and electronic health records (EHRs) as part of broader solutions, so vendors developing these capabilities as stand-alone solutions must be able to demonstrate their unique value.

These capabilities include the following:

- **Care coordination and case management.** WPC and other integrated care initiatives are creating a new demand for shared platforms for team-based, proactive care planning and coordination. These tools must be accessible and functional for a wide range of users, in both clinical and social service settings, and often must operate alongside existing systems for care and service documentation, such as EHRs and Homeless Management Information Systems (HMISs).

- **Data quality monitoring and improvement.** Being able to assess and enhance the quality of data from diverse sources is critical to the success of any complex interdisciplinary, interagency care coordination effort.

- **Flexible data analytics and reporting.** At a minimum, WPC pilots and other care integration efforts need to meet government or payer reporting requirements. User-friendly, customizable reporting tools that automate data integration can save huge amounts of time. WPC pilots are also required to implement multiple data-driven Plan-Do-Study-Act (PDSA) improvement cycles over the course of the program, which benefit from analytic systems that enable insights. Many entities are also seeking more advanced analytics tools to help them continually assess and refine the deployment of finite resources, such as street team outreach workers.

- **Identity management.** Patient record matching can prove especially difficult for multi-organizational networks, like WPC pilots, serving transient populations that have frequent gaps or changes in key identity attributes, such as phone number or address. WPC pilots with small enrollee populations have primarily relied on manual identity management methods, but only more automated solutions are truly sustainable and scalable.

- **Data sharing across sectors.** Even pilots that have a robust EHR or regional HIO meeting their basic clinical data exchange needs may still find additional features, such as real-time emergency department (ED) alerts, useful. They may also need custom integrations with systems from different service sectors. For example, some pilots have struggled to efficiently share data with HMIS, the homelessness reporting system used to interface with the US Department of Housing and Urban Development.

- **Social service referrals.** A growing number of vendors are attempting to provide social service directories that allow for easy referrals from clinical care settings into social service settings. However, providers continue to find them lacking when it comes to providing real-time capacity updates, closing referral loops, and enabling bidirectional data sharing and communications with the service providers. Providers are also seeking tools that can proactively suggest tailored referrals based on patient data and algorithms.

- **Real-time communication for team-based care.** In the past, providers have relied largely on secure email, faxing, and phone calls to collaborate securely. But these methods do not lend themselves well to high-touch coordination of care among dispersed team members for many patients at once. These modes of communication can also be impractical for frontline workers, who may only have mobile devices or may need more immediate responses. Providers are seeking secure solutions that enable real-time and continuously available engagement, such as texting or instant messaging, or care coordination tools that include secure mobile apps for communication.
Common Technology Implementation Challenges
As the WPC pilots have sought to implement new technology-enabled solutions, and add features to existing ones, they have encountered a range of challenges. Here are some of the most common ones:

- **Building consensus around a technology approach.** With so many different data systems used by so many partnering organizations, pilots must agree on a shared technology approach to facilitate the coordination of services. Generally, pilots have chosen one of two paths. They have either added features and users to an existing EHR system — generally the county’s EHR — or implemented a new care coordination platform for all entities to learn and use. Some pilots have also procured additional niche technology tools to fill in feature gaps, such as real-time care alerts.

- **Aggregating data from many systems.** There is an overwhelming volume and diversity of data potentially available from participating entities. Pilots are struggling to access, aggregate, and analyze these data efficiently. When data are integrated poorly, the consequences compound downstream, for example, inhibiting patient matching or slowing down results reporting. Rather than risk these issues, many pilots are still relying heavily on duplicative and manual data entry.

- **Ensuring technology complies with nuanced policies and agreements.** In order to streamline the sharing of patient data, many pilots have taken steps to develop new, more comprehensive data-sharing agreements and patient authorization forms. The work does not end there; however — pilots must find technology solutions that can honor and implement these nuanced agreements. Similarly, pilots must ensure that data-sharing solutions meet 42 CFR Part 2, or “Part 2,” regulations, which govern the disclosure of most substance use disorder (SUD) treatment data — when required. Some pilots have sought out care coordination tools with robust consent management features to help with disclosure compliance and transparency.

- **Navigating partners’ skepticism of new technology tools.** While many pilots have successfully deployed technology to facilitate collaboration within county entities, such progress has been slower when it comes to external community partners. Some health care entities have balked at sharing clinical data with non-health care partners who have no experience handling protected health information. Other entities, such as some small, community-based organizations, are reluctant to change from paper-based data collection and referrals to the digital methods embraced by the pilots.

These are certainly not the only challenges that the WPC pilots have encountered as they have sought to implement data-sharing and care coordination solutions. Other challenges include developing and executing a clear and inclusive vision, piloting new staffing models, navigating complex legal issues, establishing new relationships, and identifying pathways to long-term sustainability. While technology can certainly play a role in overcoming some of these challenges, it is not sufficient to solve any of them alone. Those looking to dive deeper into these more organizationally and legally oriented challenges, as well as additional data-sharing challenges, should refer to the California Department of Health Care Services (DHCS)’s midpoint assessment paper.⁶

An in-depth look at two counties — Marin and Contra Costa — and how technology opportunities and challenges have manifested in these different settings is provided in the case study section of this report. The two counties profiled differ in fundamental ways that have in turn affected the role technology has played in their WPC approaches. Contra Costa County has an extensive, integrated, county-run health system and a population about five times the size of Marin’s. In contrast, Marin County’s WPC services are provided through a broader network of community partners, and their budget is approximately one-tenth the size of Contra Costa’s.

**Conclusions**

The progress of the WPC pilots thus far reflects and supports a broader shift toward more coordinated care, with an innovative focus on shared care planning across sectors. These pilots have done much of the hard and underappreciated work of building the critical infrastructure without which a more integrated health care system cannot exist. That infrastructure is legal and organizational — consensus around patient consent forms, data-sharing agreements, and interpretations of complex regulations — as well as technological — shared systems for exchanging data and coordinating care.

There is great variation in the amount of progress achieved by the 25 pilot programs thus far. Many of these differences are due to the strong local dynamics that exist both within health care ecosystems and
in the broader communities they serve. The systems and capabilities already in place in each community before their WPC pilots began have profoundly shaped how pilots have unfolded since, from the technology infrastructure they have built to the priorities and partnerships they have pursued.

Another important driver of WPC progress has been the counties themselves, whose leadership, infrastructure, and resources have had an impact on attempts at integrating care. Counties offer centralized access to the many nonclinical partners — including housing, behavioral health, and criminal justice agencies — that are vital to coordinating comprehensive services for vulnerable patients. Counties are also strongly motivated to improve outcomes for the people most likely to use their most strained and resource-intensive services, such as jails and EDs.

The remaining duration of the WPC pilot will allow counties to solidify technology implementations and document the impact of better, more proactive care coordination. The program’s emphasis on continual quality improvement has equipped counties well to continue refining their approaches to service delivery and collaboration. Though funding for the WPC pilot will sunset at the end of 2020, this innovative investment made by the state’s Medi-Cal program, with federal funding support, has generated significant momentum that promises meaningful returns. If communities continue to strengthen the infrastructure and relationships they built during this pilot, their pathways to achieving truly integrated care should remain bright beyond 2020.

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About Intrepid Ascent
Intrepid Ascent guides health care organizations through the adoption and use of information technology to reach their clinical and business goals. Intrepid Ascent’s services identify strategic pathways to integrated care, promoting the exchange and use of information to enhance value in a learning health system.

For more information, visit www.intrepidascent.com.

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The California Health Care Foundation is dedicated to advancing meaningful, measurable improvements in the way the health care delivery system provides care to the people of California, particularly those with low incomes and those whose needs are not well served by the status quo. We work to ensure that people have access to the care they need, when they need it, at a price they can afford.

CHCF informs policymakers and industry leaders, invests in ideas and innovations, and connects with changemakers to create a more responsive, patient-centered health care system.

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Endnotes
2. Two small counties, San Benito and Mariposa, are organized into one pilot program called the Small County Collaborative. Sacramento WPC is led by the City of Sacramento and not a Sacramento County entity.
3. Please see DHCS’s midpoint assessment of progress and challenges on all aspects of the WPC pilots: Lucy Pagel, Carol Backstrom, and Hilary Haycock, Whole Person Care: A Mid-Point Check-In, California Department of Health Care Services, March 2019, www.dhcs.ca.gov (PDF).
4. Pagel, Backstrom, and Haycock, Whole Person Care: A Mid-Point Check-In.