Experiences of a Service Provider
Lessons Learned in Exploring Value-Based Contracts with a Managed Care Insurance Plan

June 2018
The Green & Healthy Homes Initiative (GHHI), founded in 1986, is a national 501(c)3 nonprofit, nonpartisan organization that provides evidence-based direct services and technical assistance to create healthy, safe and energy efficient homes to improve health, economic and social outcomes for low-income families while reducing public and private healthcare costs.

With support from the Robert Wood Johnson Foundation, AcademyHealth launched the Payment Reform for Population Health initiative in 2016 to explore improving community-wide health through the transformation of the health care payment system. As part of their efforts to identify the opportunities and challenges associated with linking payment reform to population health, AcademyHealth contracted with the Green and Health Homes Initiative (GHHI) to provide technical assistance to a large social service organization to explore structuring a risk-based contract with a major local Medicaid managed care plan to provide targeted services to a high cost-high needs population.

To learn more about the Payment Reform for Population Health initiative, visit www.academyhealth.org/p4ph.

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Executive summary

Setting up an advanced value-based purchasing arrangement is a complex undertaking that requires balancing many competing interests amongst partners and their individual development priorities.

Value-based purchasing (VBP) arrangements can make good health good business, but developing the alternate provider payment arrangement is far from simple. The ability to do so will likely be the next frontier of core-competencies for insurers and service providers alike. This brief outlines the lessons learned by one social service provider in exploring a value-based contract with a managed care insurance plan. While the project did not realize its full potential of securing a value-based care contract in the time allotted, it did allow an opportunity to learn and the project partners remain optimistic that there is a path forward. AcademyHealth, The Green & Healthy Homes Initiative (GHHI), and Talbert House remain optimistic that Talbert House will be able to secure sustainable, federally-matched Medicaid dollars to invest in the health of the local population, including support for traditional behavioral-health services and the social determinants of health more broadly.

Identifying and sharing lessons from our experiences is valuable in developing best practices, but also contributes to what could potentially become a roadmap for developing advanced value-based care relationships.¹ Such lessons could help establish baseline expectations, identify shared accountability for financial and health outcomes, as well as contribute to lowering the cost of developing such contractual arrangements in the future.

This brief includes a background and description of the project, process, and purpose followed by lessons learned and best practices. While these lessons are not exhaustive, they are a product of engaging in the actual process to develop an advanced value-based purchasing arrangement between a social service provider and a health plan with the objective to make good health good business.² We learned that a cohesive, broad engagement strategy and consistent communication of complex issues between providers and plans is

¹ Please see (Olson and Martinez-Vidal, Value-Based Purchasing: Making Good Health Good Business 2018).
² Please see (Olson and Martinez-Vidal, Value-Based Purchasing: How to Succeed in the Changing Business of Health 2018).
essential to a successful project. While there are best practices specific to each of these areas, perhaps the biggest lesson is that no matter how well-planned, the process for establishing new value-based purchasing arrangements requires patience and persistence by all stakeholders involved to support a long-term investment in health.
Overview

A brief on the project: who is involved, how it came to be, and what it aimed to accomplish.

AcademyHealth contracted with the Green & Healthy Homes Initiative (GHHI), as part of their RWJF-funded Payment Reform for Population Health (P4PH) initiative, to provide technical assistance to Talbert House, a large social-service organization in Cincinnati, OH, to explore structuring a risk-based contract with a large local Medicaid managed care plan to provide targeted services to a subset of plan members, based on an economic analysis.

**Talbert House**: Talbert House is a community-wide nonprofit network of services focusing on prevention, assessment, treatment, and reintegration. Services are provided at multiple sites throughout Southwest Ohio for children, adults, and families.

**AcademyHealth**: Health services research, put simply, is the science of study that determines what works, for whom, at what cost, and under what circumstances. It studies how our health system works, how to support patients and providers in choosing the right care, and how to improve health through care delivery. Since its inception, AcademyHealth has been advancing this field by acting as an objective broker of information, bringing together stakeholders to address the current and future needs of an evolving health system, inform health policy and practice, and translate evidence into action. As the professional home and leading national organization for health services researchers, policymakers, and health care practitioners and stakeholders, AcademyHealth’s partnership with members increases the understanding of methods and data used in the field, enhances the professional skills of researchers and research users, and expands awareness.

**Project Partners**: Project partners is used to refer broadly to the core project team and the Plan’s representatives.

**The Green & Healthy Homes Initiative (GHHI)**: The nation’s largest healthy and energy-efficient housing group, a 501(c)(3) nonprofit headquartered in Baltimore Maryland, aims to break the link between unhealthy homes and unhealthy families. With a network of nearly 30 sites nationally and a portfolio of 20 national innovation projects aiming to make good-health good business through funding and financing innovations, GHHI is both a health-service provider and national technical-assistance provider to federal, state, and local governments as well as insurers and other service providers.

**The Insurance Plan (the Plan)**: This document discusses the case of working with an unnamed insurance plan, which could be any insurance plan in the country engaged in a Medicaid managed-care relationship. The Plan continues to work with the project partners in good faith to set up a mutually beneficial financial arrangement that also improves the local community’s health.

**The “Core Project Team” or “Project Team”**: Consisted of members of AcademyHealth, GHHI, and Talbert House.
Background

In January 2017, AcademyHealth, in collaboration with the Network for Regional Health Improvement, hosted an interactive workshop in Austin, Texas that convened five multi-sector teams, comprised of health care sector and non-health care sector partners, and led by regional health improvement collaboratives (RHICs). The workshop focused on four key topic areas and the related barriers that potentially influence the conditions and collaborations necessary to support non-clinical community-wide population health services. During this meeting, the CEO of Talbert House, articulated the misalignment that exists across social service and health care sectors that prevent true quality and cost-efficient care to be provided that addresses both clinical and social factors and could result in the overall health improvement of a community:

‘We looked at the highest-cost people and even the handful of patients at the top [that] were costing one of our insurance plans tens-of-millions of dollars a year. I can hire full-time staff to manage them, provide beds, and wrap-around services to keep them out of trouble and take the full financial-risk because we can’t do worse than the current system, but I can’t get the insurance plan to look at setting up a contract for that few people. There’s got to be a way to figure this out.’

AcademyHealth contracted with GHHI based on their prior work establishing value-based purchasing arrangements. GHHI was addressing social determinants of health, such as healthy and energy-efficient housing to prevent the costs of asthma, household injury and the associated long-term care costs, as well as preventing lead poisoning’s detrimental impact through innovative approaches to funding and financing. As part of its Robert Wood Johnson Foundation-sponsored Payment Reform for Population Health initiative, AcademyHealth wanted to explore applying those same approaches to value-based purchasing mechanisms to other health conditions, for example behavioral health and substance abuse. AcademyHealth supported an early-stage investigation into what it would take to develop a behavioral health and substance abuse contract for value-based care between Talbert House and the Plan.

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Please see (AcademyHealth & Network for Regional Healthcare Improvement 2017).
Project Approach

The technical assistance project supporting Talbert House was structured in three phases to be undertaken in a three to five-month period, with additional project components as time permitted. The project team consisting of members of GHHI, AcademyHealth, and Talbert House completed the following tasks within their control.

1. **Project Planning**: Establishing key team members at GHHI and Talbert House to identify expectations, ideal milestones or outcomes for this phase, with a focus on internal staff, resources, and organizational capabilities.

2. **Stakeholder Analysis**: Based on a thorough assessment of stakeholders, developing a strategy for broad engagement and an internal work-plan to support those efforts aimed at successful implementation of the final risk-sharing contract. This analysis includes identifying internal and external requirements for productive engagement in the project and setting a plan in place to ensure it.

3. **Data Discovery**: Identifying valuable data resources for the project’s advancement, secure access to them, and, time permitting, start to perform the appropriate analysis. This phase revolves heavily around two parallel tracts: (1) securing legal and other procedural compliance to access individually-identifiable data from whomever it was available; and (2) ensuring meaningful technical access to those data that, legal permission secured, would allow for appropriate data use. GHHI has the existing technical capacity to transfer, handle, store, and meaningfully use the data, where appropriate.

- **Data Analysis**: Comparing possible project designs with varying target populations, baseline costs, and savings potential allows for designing an appropriate value-based purchasing agreement.

- **Economic Analysis**: Using the data analysis to establish an informed perspective regarding economic and financial risks. The same analysis is valuable in building a
provider’s business case when approaching, advocating, and negotiating with a plan. Without such a case, neither the plan nor the service provider would be appropriately positioned to structure a value-based contract.

- **Contract Development**: Leverage the economic analysis to develop the principles of a value-based purchasing agreement for parties to negotiate.

The project required substantial outreach with the relevant local interested health plans and was complicated by the state moving mental-health services under the purview of those Medicaid managed care health plans covering physical health. Below is a brief description of the project in phases.

**Critical Steps to Develop a Risk-based Financial Contract**

The first three components of the project plan (planning, stakeholder analysis, and data discovery) were within the control of the project team, without needing extensive help from or securing legal agreements with the Plan. Those three phases were accomplished in a timely and sequential manner within three months as outlined below. The project hit a major roadblock when Talbert House could not access a meaningful dataset from the Plan, which was needed to conduct required analyses to inform an advanced value-based purchasing arrangement. Without defining the population in business logic, knowing the potential size of that population, their baseline costs, the composition of their costs, as well as the trends and variability of those elements, the project was unable to move to the negotiation stage.

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4 Developing such a value-based purchasing arrangement is very data-specific. For example, individually-identifiable data is required to conduct the analysis necessary in developing value-based care contract. Basing such a value-based contract on population level data would substantially increase the economic and financial risk for the state, plan, and service provider.

5 The concept of writing well-defined procedural instructions for using the data available to help concretely determine whether a party is or is not part of the target population.

6 We are still actively advancing the project, having broadened our approach to include the state and other managed care plans.
1. The planning phase proceeded smoothly with all parties outlining a target timeline that would allow completion of the identified project tasks with time to complete substantive work on the ancillary deliverables.

2. The stakeholder analysis phase went smoothly. During an analysis of the stakeholders, the project team made the decision to pursue a value-based payment contract with a single Medicaid managed care plan with which they had an established relationship and had seen initial interest. The project team gauged the Plan’s interest, developing requisite materials to secure official interest and participation.

3. The data-discovery phase was relatively easy due to Talbert House’s experience working with the Plan directly as well as GHHI’s accumulated experience working on other projects across the country. GHHI has worked with a portfolio of similar projects nationally including state-wide projects with the states of Connecticut, New York, and Rhode Island as well as ongoing projects in over a dozen states with plans or service providers. In other projects, ensuring that an organization has their own data-management and analytical capacity would be a core component of this data-discovery work. Talbert House was very familiar with the local data-landscape in Cincinnati, having worked with the Plan as well as having relationships with local data brokers or exchanges.

The project team confirmed a planned state-wide carve-in of behavioral-health services for Medicaid, meaning that the Plan would soon be paid for and have the responsibility to pay for behavioral health services in addition to their historical scope. The absence of behavioral-health costs in historical data made calculating a prospective total-cost estimate for this targeted subpopulation impossible without securing state-level data to pair with the plan’s medical expenditures. The decision was made to proceed in securing data from the Plan to ensure accurate costs that were specific to the individual plan, rather than generally average costs for plan state-wide. The aim was to make a direct approach that would be less-complicated and that by collaborating in the analysis, we would secure the Plan’s buy-in for the project, establishing a relationship for future projects.
The data-analysis process was more difficult, leaving us unable to secure data access within the project’s limited time-frame of three months.\footnote{GHHI has been able to secure access to data for our own analysis or access for a third-party vendor for States, local-governments, national insurers, and hospitals including both health information as well as financial information. We will note that, while the process has standard elements, the process of securing data has many steps of a technical and human nature, making it variable by organization, geography, and other elements. The data acquisition process can take between a few weeks, especially when leveraging existing relationships, to a period of 18 months or more.} The initial outreach to the Plan was well-received, follow-up questions were exchanged and answered. The Plan responded with a checklist to secure data access. General issues were addressed including data-use planning, legal agreements, provisions for cyber-insurance,\footnote{Talbert House has existing cyber-insurance, but not in the amount required by the Plan. Talbert House researched how much temporary incremental coverage for the amount in excess would be, but stopped-short of securing a bond to cover the amount.} project roles or responsibilities, and type of analysis needed.

The process began to stall from there due to complex issues within the Plan and the influence of external factors, such as the state’s advancement of other types of value-based purchasing incentive programs. It became clear that the Plan had multiple internal priorities across behavioral health, their traditional business units, the legal team, the contracting team, and others. While the behavioral health team was clearly a proponent of the project, other teams had different organizational interests. The data team had many ongoing competing priorities. The legal team must operate to ensure efforts do not increase risk to the business units. The contracting team had many other ongoing initiatives to address, including the behavioral health carve-in and a state-structured value-based purchasing initiative for primary care with which they had to comply.

The state was pushing for the advancement of a particular type of value-based purchasing incentive program with which our technical assistance project scope did not align. The state’s projects were primary-care focused, while the project team was focused on high-risk populations. While the two need not be exclusive of each other, the non-alignment of the two likely complicated the approach. For example, the state’s primary-care program required including minimum panel sizes of thousands of persons that would not be applicable in a high-risk targeting arrangement.
Understanding the broad range of interests that the project impacted, we did push for but were unable to arrange a broad discussion with the leadership team of the Plan in one meeting time and place, with the project team. We still believe that if the Plan’s service-lines including traditional medical care and behavioral health as well as the contracting, data, and legal teams came together to discuss the project’s merits, there could be a renewed urgency to advance the initiative within the Plan.

After a series of incremental discussions, the Plan seemed to be reaching a stage of “transformation fatigue.” GHHI attempted to arrange a site-visit from the GHHI national offices to convene the necessary internal teams to solidify commitment to proceed with the project, but were unable to secure agreement from the Plan. As a result, subsequent phases of the project were unable to proceed without the fundamental analyses, which would enable Talbert House to determine if a full-risk value-based contract was feasible.

**Going Forward**

The project team is currently attempting to advance efforts by making plans to approach the state Medicaid programs directly as well as the other managed care plans in the area. There is optimism that hosting a convening of state and local partners could create the impetus to advance the project’s value-based care purchasing arrangement. If the value-based care contract was signed, it would be the first contract of its kind in the nation for behavioral health. That would create new opportunities for innovation in funding programs that address the social determinants of health. The project would set a precedent for private-sector-led investment in behavioral health services, including addressing opioid-related issues, through means that secure federally-matched funds up to the point of cost-effectiveness for a broader approach to addressing health.9

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9 As an organization, we were willing to undertake the project because the same mechanism would open the door for investments in healthy housing for all managed care plans in the state.
Lesson I: It Takes a Village

Advancing value-based purchasing arrangements relies on the collective work of many people within and across the partnering organizations.

Largely due to an established working relationship between Talbert House and a particular Medicaid managed care plan, the decision was made to invest substantial time and effort in pursing this one insurance plan – the “Plan.” This route seemed easiest and fastest, given the limited timeframe. While the initial approach was well-received, it became apparent that the internal processes at the Plan were more complex than initially thought. The project team agreed that, in retrospect, even given the short timeline for the initial phase of the project that this document covers, the project should have invested in a broader engagement strategy, to include engagement with Ohio state policy-makers – where opioid use issues are top-of-mind, as well as with multiple insurers, and community groups more broadly.

Securing support from the state would have given us more credibility and there were multiple options. The state could have pre-approved or more generally provided support for our approach. This would have removed the barriers to plan participation, especially those concerns of competing interests such as Ohio’s advancement of their primary-care focused value-based purchasing arrangements. The state could have taken a more active approach of requiring plans to have at least one such value-based care payment arrangement in place by a set date.

Broader plan engagement could have also benefited the project, either through internal or external engagement. Broader engagement within any one plan, with support from potential community-based organization partners could have increased the likelihood of advancing with that plan. Engaging with multiple plans would have increased the likelihood that our project would have advanced with at least one plan.

This lesson mirrors GHHI’s experiences with other contract arrangements more broadly. A broad scope for engagement but narrow accountability tends to work best. For example, having a core team be accountable for advancing key project deliverables is necessary,
but many parties outside that core team need to be involved to successfully and smoothly launch a project this complex. In our case, having a core group\(^{10}\) of decision-makers from each organization that were responsible for planning, managing, and advancing the project was hugely beneficial to initiate the project. However, broadly engaging the local plan(s), state agency representatives, and other community resources could be transformative for the project moving forward. For example, the Plan may have decided to move forward more quickly if they knew another plan as actively interested.

In many communities a few key components of a successful project may be in place, with others that need to be brought in. While the sociopolitical dynamics of a project may look neat and tidy in retrospect, in the moment you never know where the right connections will come from. Projects that address changes to health funding can be difficult and complex undertakings. While the initial instinct is to narrow the project’s involvement, outreach, and scope to increase the likelihood of advancement in a shorter time-frame, such an approach can be counter-effective. A balance is needed. Certainly, roles and responsibilities critical to advancing the project should be tightly held by a narrowly-defined core group; however, partners should assess who needs to be involved at what point and aim broadly for communication, education, and outreach.

While a team needs to know what is required to advance a project and who is responsible for various activities, support for the project can be garnered from any number of people, places, or networks. For example, in a GHHI Memphis, TN-based project, the local hospital has effectively convened multiple partnerships to form a learning network to ensure the community’s involvement in building, managing, and supporting their programs. In a GHHI Buffalo, NY-based project, the Community Foundation for Greater Buffalo has

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\(^{10}\) Representatives from the Talbert House leadership, GHHI’s national Innovation Team, and AcademyHealth’s Payment Reform for Population Health (P4PH) initiative team.
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played the role of trusted convener bringing together multiple parties to the project including medical service providers, nontraditional health service providers, and even local government entities to align, braid, and coordinate resources.

To accomplish broad engagement, we recommend early inclusion of a broad set of parties beyond the core team, involving a diverse group of community partners, if possible. Having the project partners help the core team identify the broader group can be an opportunity to build rapport and buy in for the project. A formal mechanism can be a community kickoff meeting that brings in all associated parties for any external partnerships needed.

For a project as complex and, potentially, novel as an advanced value-based purchasing arrangement, the initial broad engagement is very beneficial in developing a shared awareness and understanding. It may not be an immediate option for a project, but the opportunity to convene other relevant stakeholders should be seized and can elevate relevant priorities. Consider that, for states, the engagement could influence their priorities or how agency staff plan to address those priorities in ways advantageous to your project. At least one state has explicitly included language to encourage ‘off-menu’ value-based purchasing approaches in a very public manner as these questions came to their attention. Additionally, knowing how your project fits with ongoing community efforts can go a long way toward ensuring that the local community does not detract, if not fully support, the project. Much apprehension is rooted in not knowing how or where existing programs fit with shifting landscapes. While true of community-based programs, it is also true of government agencies including state and local health departments.

Second, while the broader group of partners may not be ready to sign-on to specifics, we strongly recommend formally designating roles, responsibilities, and timelines for core team members publicly. Constructive engagement is largely predicated on knowing what

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<td>Broadly engaging potential partners and allies builds political capital.</td>
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<td>- Hold Kickoff Meetings;</td>
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is expected of an organization. The broader set of stakeholders can only lend their support if they understand how they can help and that usually starts with being provided with substantive knowledge about the project and knowing who to contact to facilitate their engagement.
Lesson II: People are the Process

While substantial time is focused on the technical elements of the process for implementing value-based purchasing arrangements, leadership and facilitation may be the most important elements.

Health is complex, as are many projects in health. People play a critical role in the organizational processes that drive operations. The preliminary steps needed to set up a service-provider-led value-based purchasing arrangement requires working with many teams across multiple business units. A successful project not only includes understanding an organization’s behavior from a process standpoint but also a sociopolitical one—that is, understanding who people are, how they work together, and what their interests are can make or break a project.

A single contract may require multiple executives to sign off on many steps including:

- Approving the conceptual benefit of a specific data-sharing relationship against the associated costs of legal reviews, cost-analysis, associated actuarial reviews, economic or financial modeling, financial reviews, operations analysis, operating reviews, and final executive approvals; and

- Undertaking the formal process of actually sharing and analyzing data, setting up a project, and getting executive sign-offs as noted above.

During this time, people often are changing roles, government regulations may change substantively, and/or political priorities may shift – each bringing a possible reset to the entire process or materially changing the path forward. Without understanding and appreciating both the process and the various people involved, successful navigation becomes a matter of persistence and luck.

Decision-making process maps are useful. For many projects, GHHI recommends creating a decision-making process map at the start of a project for all key decisions. Even a well-documented assessment of a partner’s process may not guarantee that there is a way forward, but it does help create a structure for the work. All of the people in the process may not have the same opinion or even agree about the key legal elements and requirements of a project.
Beyond the formal process and each individual’s perspective, the internal politics of a partner organization matter immensely. Consider the hypothetical example where the business-unit leader for medical care and the business-unit leader for mental health are vying for a position within an organization that will soon be merging their two funding streams. That internal issue may not be visible from the outside, but is potentially a critical issue in advancing a project. The other side of the coin is an issue as well: two business units seeking mutual benefit may invest heavily in advancing your project if they see it as advantageous or have a great working relationship.

Other considerations may also impact the project, such as domain specificity where parties see projects entirely through their own lenses. Leaders and influential staff with existing mental models and established ways of thinking about issues may not be able to adapt to new thought patterns easily. This is readily apparent in new funding arrangements. The accounting mental-model of billing for services is largely incompatible with advanced value-based purchasing models. Trying to fit value-based purchasing models in a line-item comparison for accountants takes finesse and financial due-diligence – often facilitated by a neutral third-party who can broker multiple sets of concerns. The concepts of insurance plans or service providers strategically investing in health is a new mindset that takes time to adopt.

Maturity matters: Different organizations are in very different places when it comes to value-based purchasing, risk-tolerance, and other critical elements. Consider the impact

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**Build an Engagement Strategy**

An engagement strategy is critical for advancing a project effectively.

- Create decisions-making process-maps;
- Include elements of human interaction in strategy development;
- Include environmental context;
- Try to map mutually-beneficial areas for project partners; and
- Prepare to invest in educating numerous stakeholders and working through problems together.
that a state’s policy has on any plan: A state’s history of approaching value-based purchasing is critical. Some states require that their managed care plans undertake value-based purchasing programs, but are non-specific. Those states and the plans they oversee tend to be the easiest to approach. Other states have developed very specific programs that plans are required to participate in by forming relationships with providers that meet certain criteria. State-backed programs may eclipse other efforts and make approaches more difficult, even if only by crowding out other initiatives. Early adopters of value-based purchasing may be far enough along that much of the process is built into existing operations. Oddly, this can cause confusion if what a plan considers “business as mostly usual” is treated as exotic and new by an approaching service-provider. Others plans may need extensive capacity-building, education, and cultural adaptation to a new environment to undertake even basic models of value-based purchasing.

Information, lack of information, and mis-associated information are all factors that can complicate a service provider’s path to securing value-based payments. For example, everyone in a state may know that value-based purchasing is a funding model and have a concept of what it is – such as primary care shared saving models. However, that concept might exclude other value-based purchasing options – such as population-specific full-risk arrangements with performance-elements for specific outcomes. A plan’s knowledge about one type of payment model affect its perception of another model. For example, a minimum population size requirement for a general population’s primary care model would not (??) be applicable to an alternate population-specific full-risk arrangement.

Often programs will require minimum numbers of enrollees, providers, or dollars to be involved in specific activities. For example, a state may require any plan with 5,000 or more managed enrollees to participate in a patient-centered medical home value-based purchasing arrangement involving over 100 primary-care physicians, and 25 percent of revenue.
Lesson III: Data Sharing is a Key Project Barrier

The technical, legal, and procedural barriers to sharing data are limiting the rate of adoption for value-based purchasing arrangements.

Data-sharing is an area many parties have written extensively on, detailing the various facets of one of the most important topics for developing value-based purchasing arrangements. The opportunities are clear – data provides a treasure trove of insights into health, business, and well beyond – but the obstacles are also clear. Beyond the technological elements\(^\text{12}\) of data-systems and secure transfers, many other issues must be considered. Many industry practitioners, such as medical leaders, data teams, or even contracting departments, are not entirely sure what data they can share and with whom and under what conditions they can share it. Simultaneously, different parties may be intentionally representing conflicting viewpoints, even within an organization. The health leaders may be trying to maximize the meaningful use of data, while the legal teams are trying to minimize the legal risk.

More complicated, there are multiple options for extracting information from data. The difference between the options can be quite nuanced, while the people relying on the data-use may not be particularly sophisticated in their understanding. We regularly struggle with a critical question of approaching these issues. There are a range of options available that everyone should be aware of, each with the option of using de-identified data:

- **Data Transfers**: Fully transferring a data-set to an outside party. For example, creating a data-extract and giving it to a partner organization.

- **Facilitated Analysis**: Fully transferring data to a qualified third-party to facilitate the analysis on someone’s behalf. For example, having a third-party actuary perform an analysis on behalf of a service provider to determine the effectiveness of their preventive services, sharing only the analytical results as appropriate.

\(^{12}\) These technological elements refer broadly to whether or not a system can transfer information and how securely it can do so.
- **Data Access**: Providing access to data within a system. For example, allowing access through a specific system\(^\text{13}\) set up to prevent large-scale copying, exporting, or transferring of data but still allow for access the raw data and a structured environment to conduct the analysis.

- **Analytic Tool Access**: While not accessing the raw data, providing access to a specific and structured set of tools that allow the analysis of the raw data with safeguards in place. For example, creating a web-based user-interface to a data-set that allows basic self-service analysis with limits in place to prevent inappropriate transfers, filtering, or other use.

- **Analysis Sharing**: Internally developing and conducting analysis, then sharing the results to build projects.

In theory, any of these data analysis options can result in appropriate information to run a project; however, they require differing levels of investment in the tools, technology, time, and other resources from different parties. For example, many projects focus on enrolling persons with specific medical histories. While public-health data systems focus on disease spending (independent of persons), those data systems cannot facilitate stratification at the level of the individual. A well-built asthma project requires understanding of how many new persons are hospitalized in a given sequence of years, not how much a state or insurer spends on asthma in total – a critical distinction. Behavioral health is similar. Cost modeling predictive analytics and

[13] For example, using a combination of Virtual Private Networks (VPNs) Virtual Machines (VMs) or other such tools.
even machine learning techniques are very useful, but require building operationally-specific models to attain improvements over the existing standard of care.

Many publicly available data-sources show how large the aggregate issue of substance use and behavioral health are in a broad sense, but they are not capable of generating the insights needed to build a large-scale value-based purchasing arrangement for Talbert House or other parties seeking to do so. Those public data systems do not allow for the ability to create claims histories for individual persons, for good reason.\textsuperscript{14} As a result, GHHI was willing to advance any method of getting the needed information to build the contract, offering to facilitate the internal analysis of the Plan’s data to allow a high level of data security without even accessing it directly. We also offered to use outside funding to access or extract data to conduct the analysis directly, offsetting the need for internal time and human-capital expertise in data-analysis. Yet, we were unable to secure commitments from the Plan during our 3-month project phase.

GHHI has utilized additional workable options for conducting the analysis, including conducting Medicaid data-analysis, even merging multiple parties’ data-sets cross-referencing individuals and arranging for a third-party actuary to conduct the analytical claims work or academic partners to do broader analysis. GHHI was unable to ascertain if the Plan understood the range of options at their disposal but it is clear that there were substantial legal considerations regarding any level of data-sharing even when the information was de-identified or shared only at the analytic level.

Upon reflection, GHHI asserts that going forward, this information on the range of options should be made apparent through communications materials as well as verbally reinforced at the earliest stages of the project, when the data analysis is first discussed. Shaping that conversation early in the process is critical to making sure that due-consideration is given.

\textsuperscript{14} Such information being publicly available is illegal, beyond questions of ethics.
Conclusion

While technology is a well-documented challenge to setting up value-based purchasing, the ability to skillfully navigate and manage the sociopolitical environment and process of securing necessary data-access may be the more relevant challenge for most service-providers.

Experiences of service providers in setting up value-based purchasing arrangements will vary widely and will confront the challenges outlined here as well as many others. Certainly, there will be opportunities to improve and refine the processes by which organizations come to develop these arrangements. The purpose of this work has been to document some of the early challenges in the hopes that others may take the next step in contributing to the advancement of health through new funding arrangements such as value-based purchasing.

The lessons learned are that complex organizational structures and decision-making processes can impact the development of value-based purchasing arrangements that make investments in health. If layers of decision steps are not recognized and addressed, the process of building partnerships and developing complex value-based purchasing arrangements can be undermined. Within that framework:

- Value-based purchasing arrangements are complex, requiring a series of agreements among multiple and, sometimes, changing partners. Only when all parties are working together to support a shared goal can such an undertaking really advance.

- Setting up value-based purchasing arrangements requires substantial access to and use of data. While there are well-known best practices for other areas of accessing data, the elements of human interaction such as facilitation, coordination, and team-dynamics are underappreciated yet equally important.

- Data-sharing obstacles across parties are largely legal and procedural. While technology solutions are readily available, each organization involved will need to invest in managing non-technology elements of data-sharing for value-based purchasing arrangements.