The Future of Sustainable Value-Based Payment:

Voluntary Best Practices to Advance Data Sharing

2023

This playbook was prepared by Aurrera Health Group on behalf of the following organizations:

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Acknowledgements

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Introduction

After more than a decade of experience implementing value-based care (VBC) and payment arrangements in a rapidly changing health care ecosystem, it is important to consider lessons learned to inform continued improvement. The COVID-19 pandemic has underscored many of the persistent challenges facing the U.S. care delivery system, such as disparities in care and access, data exchange and availability, and unintended payment incentives, signaling the need to stop and contemplate the past to grow and adapt for the future. Thus, AHIP, the American Medical Association (AMA), and the National Association of ACOs (NAACOS) established a collaboration to identify renewed principles and voluntary best practices to advance broad-based participation and foster sustainable success.

There are numerous aspects of **VBC arrangements** that could benefit from further alignment around principles and best practices—payment models, embedded specialty models, quality, patient engagement, and care delivery. However, the first phase of this work focuses on data sharing, which is fundamental to the success of VBC operations. The collection and bi-directional sharing of data between and among health plans, VBC entities, and participating practices can help to inform patient care decisions, quality performance, operations, and financial accountability. For this and all phases of the collaboration, we have also incorporated considerations of cross-cutting issues, including sustainability, equity and social determinants of health, whole person care, practice size and rural strategies, as well as technology. Integrating these considerations into our effort helps to ensure best practices can be applicable in a variety of settings.

As noted in the [Health Care Payment Learning and Action Network 2021 Measurement Effort](#), health plans and health delivery organizations have made great strides toward adopting various forms of VBC arrangements, demonstrating a commitment to further advancing VBC. However, the plan-by-plan, contract-by-contract approach taken early on to customize arrangements to individual health plan and provider needs has led to variable and cumbersome implementation. For example, significant variability exists in VBC data and methodologies—how patients are attributed; how data are exchanged; when data are exchanged; and what metrics are reported across health plans, lines of business, and specific VBC models. Plus, these variations increase the time and resources needed for providers to monitor, analyze, and act on the data, which slows adoption and in turn frustrates consumers and purchasers who continue to see rising health care costs.

Both health plans and providers also have varying levels of experience and internal capabilities, which compounds the challenges. Effective participation in VBC arrangements requires not

only a mission and commitment to improve care, outcomes, and cost, but also certain technical capabilities to adequately manage and monitor performance. Thus, some flexibility in program design is still necessary depending on where participants are in their journeys. However, voluntary adoption of best practices where practicable could create greater alignment, thereby streamlining processes and expectations, reducing implementation costs, and increasing the chances of success.

Over the past several years, government and VBC participants have appropriately recognized that more and different types of data are needed to inform care beyond claims and clinical information. While this is an important shift, it also adds complexity. Collecting relevant demographic and contextual data at the individual, community, and population levels is needed to meaningfully promote health equity and to better account for varying individual and community social risks. Individual data can be used to coordinate with support services to help overcome barriers, while deidentified data can be used to surface trends and improve total population health, including identifying and addressing health inequities among historically marginalized or minoritized populations.

In an optimal environment, VBC participants can focus more on improving clinical outcomes and reducing low-value care, and less on resolving logistical challenges such as ensuring timely access to and usability of data. Alignment of data content and exchange standards will make it easier for technologists to build solutions that automate manually intensive processes and streamline solutions necessary to promote effective data sharing and reusability with the ultimate goal of improving care delivery and health outcomes that benefit health care recipients throughout the nation.

Purpose and Use

This playbook is intended for those participants currently active in VBC arrangements as well as those seeking to participate in the future. It includes best and promising practices for overcoming key challenges associated with data sharing for VBC arrangements that persist today, taken directly from the expertise of those participating. It provides a bellwether to consider for voluntary adoption by VBC participants, which would reduce burden, positively impact care, and increase efficiencies.

This playbook represents findings from an advisory workgroup comprised of members from each partner association, a managing committee of association leaders, a literature review, an environmental scan, and interviews with subject matter experts. Workgroup members and subject matter experts were selected through an intentional process to ensure diverse representation including national and regional health plans; large, small, rural, integrated, and independent physician practices; and VBC entities, such as accountable care organizations (ACOs), both with substantial experience and those newer to VBC arrangements.

AHIP, AMA, and NAACOS seek to advance the adoption of VBC in a manner that eases participation by creating an appropriate foundation to allow for alignment. By sharing what works, health plans, clinicians, and VBC entities will have access to best practices that are informed by real-world experiences of participating practices to voluntarily consider during the future design, implementation, and evaluation of their own VBC participation. It is our hope that in so doing, this playbook can help to accelerate adoption and sustainably scale VBC more broadly.

Scope

Best practices in data sharing across health plans, participating practices, and VBC entities are the primary focus for this playbook.

VBC participating practices include physicians and other members of the clinical team, such as physician assistants or social workers, responsible for providing care to patients in addition to the individuals supporting the administrative operations of a medical practice, which in some instances include VBC performance improvement and financial benchmarking functions. A **VBC entity** is an organization that may be comprised of clinician groups, hospitals, service organizations, or health systems that collectively take accountability for a population's quality of care and spending such as, but not limited to, an ACO.

VBC entities contract with participating practices and health plans to form VBC arrangements. There are a variety of terms and organizational compositions to VBC arrangements. VBC entities can leverage in-house resources or partner with third-party vendor organizations to provide clinical care teams with additional support, including the tools and technology, to participate in VBC arrangements. For consistency, the playbook refers to health plans, participating practices, and VBC entities working together under a contractual arrangement to tie payment to patient outcomes as **VBC participants**. This playbook is limited to discussion of VBC participants.

While patient access to data, data for research, and data for purchasers are all critical to advance VBC, they are not in scope for this playbook. It does not include best practices related to applicable federal, state, and local data privacy laws. Further, specific technology solutions, defining standards (including ongoing federal or public-private initiatives), and aligning measures are not in scope. While integral to VBC design and implementation, the topics will either be addressed in another phase of the project or are not sufficiently relevant to this playbook. This playbook is not intended as a "how to" Guide for data sharing; rather it demonstrates what three major national associations representing VBC participants identified as high value best practices to consider for voluntary adoption that can continue advancing the work and chart the path for a sustainable future.

Common Themes & Acknowledgements

Throughout this effort, several recurring themes were identified that impact data sharing across the landscape today. These themes influence the readiness and willingness to share data as well as the capacity to meaningfully interact with data to improve care. In some cases, (e.g., lack of standardization), we have incorporated the themes into the recommended best practices, but in others (e.g., data privacy), the theme extends across categories of best practices and is larger than the scope and context for this effort. Nonetheless, we acknowledge the impact and importance of each on the work to create a sustainable future for VBC.

Data Privacy Concerns: Maintaining rigorous privacy and security protocols may mitigate the risk of inappropriate disclosure and specifying the purpose of data use may increase trust for data sharing for clinical care staff and patients. VBC participants may cite inability to exchange data when legally permitted, or struggle to agree on what data constitutes the minimum necessary to share (for Health Insurance Portability and Accountability Act, or HIPAA, compliance). Streamlined systems, aligned around requirements across lines of business, may improve adherence and reduce compliance burden for participating practices.

Lack of Data Standardization: The lack of widespread adoption of exchange and content standards and variable participant capabilities make it challenging to seamlessly share the data necessary and sufficient to ensure VBC success. See [Appendix B](#) for more information on existing standards.

In the absence of well-established standards to which VBC participants and their vendors could adhere, contracts and supports may be conceptually similar, yet use different data formats, content, and methodologies for data sharing. In addition, data lags and inconsistencies in how data are defined and shared can make it challenging to meaningfully use data to promote value, particularly across payers or health systems. This complicates the shift from FFS to VBC. It will take more time and investment to build the necessary data sharing infrastructure to support the unique elements across arrangements and participants.

Varying Data Infrastructure: There is wide variability in how VBC participants currently leverage data and technology. Each uses different technology solutions to collect data, process data, and share data-driven insights to improve the value of care. VBC arrangements require collection and exchange of multiple data types in a variety of data systems and networks. This variability can affect the ability to successfully implement VBC. The methods and channels for sharing data may differ depending on the region, organizational capacity, and requirements of a specific VBC model.

Some VBC participants operate in closed networks where there is high trust and shared systems that facilitate data exchange. In other cases, disparate electronic health records (EHRs), limited data-sharing functionality, and the need for unique data use agreements can pose barriers. Recognizing this variability, participants can ideally increase interoperability such that health plans, participating practices, and VBC entities are all able to access the information they need, regardless of their operating model or financial resources.

Potential VBC Participant Readiness: The upfront effort to establish the methods and standards for sharing timely and actionable data can be considerable and it may take time to reassess and make progress. However, it is worth the effort to understand where an organization and arrangement may not yet be able to achieve the best practice and take incremental steps. It is important for organizations to assess their options and select the most suitable data-sharing methods that align with their operational capabilities and compliance obligations. Once practices for sharing data are in place, it can be challenging to prioritize revisiting them, leaving organizations with risk of data that are often late, inaccurate, and insufficient.

The maturity model for major functions of data collection, exchange, and use demonstrates how VBC participants can incrementally increase technical capabilities over time.

Data Functions	Current Common Practices	Desired State
Capture	Digitized Records (e.g., EHR, common assessment tools) without standardized data elements	Discreet data elements using industry content standards, which facilitates data extraction and reusability
Exchange	• Manual reporting with spreadsheets • Secure File Transfer Protocol (SFTP) • Point to point connections	• Universal acceptance and use of data networks • Use of industry exchange standards (e.g., FHIR using open APIs) • Automated data processes
Analytics	Siloed aggregated data	• Disaggregated spending and service data • Population health level data sets leveraging external data sets to add value and context
Presentation	Multiple digital formats not integrated with clinical or financial data systems	• Standardized digital formats • Integrate data into EHR platform or dashboard with actionable insights • Contextual information and stratification

Federal Health Information Technology (HIT) Requirements: The Centers for Medicare & Medicaid Services (CMS), the Office of the National Coordinator for Health IT (ONC), and other federal agencies address data exchange standards for public payers such as Medicare and Medicaid in guidance and rulemaking, which influences industry-wide adoption of data exchange standards. However, moving from requirements to successful adoption is complex and time-consuming. ONC periodically updates certified electronic health record technology (CEHRT) requirements to require health IT developers to address industry needs. Currently, CEHRT is required to have open application programming interfaces (APIs) facilitating data exchange. However, certification requirements do not include specific requirements for ingesting claims data from health plans in a specific format. Similar challenges exist with lack of specification and harmonization in sending data to health plans. Although health plans can promote the use of CEHRT through conditions in VBC contracts, such requirements are not federally mandated. This limits the extent to which health plan data are available to participating practices and integrated within the EHR. Accordingly, in addition to improving the ability to share data, standardizing metrics and data exchange standards could help reduce the burden and therefore the cost of participating in various VBC arrangements.

Financial Investment: Effective participation in VBC requires a substantial technical and staffing infrastructure to adequately coordinate care, along with managing and monitoring performance, which can come at a significant upfront expense for VBC participating practices. Health plans may consider whether to provide initial technology and financial support based on anticipated improved performance and financial savings. Federal, state, and commercial payers require adherence to different reporting requirements for various VBC arrangements, which can add to the costs and administrative burden for participating practices.

Best Practice Categories

The playbook includes five overarching categories of best practices where VBC participants can take specific, voluntary actions to improve data sharing in support of future, sustainable VBC. Each category includes a discussion of specific challenges and considerations regarding the broader landscape along with an indication of which VBC participant types—health plans, VBC entity, or VBC participating practices—are best positioned to act. Because the three categories of participants can overlap in a Venn diagram (e.g., some participating practices are also the VBC entities, some VBC entities also take on responsibilities of a health plan) the voluntarily best practices should be read with one's own experience in mind. Appendix B outlines in greater detail the data needed, content standards, and exchange standards to support VBC. Data needed is defined by findings from the environmental scan, workgroup, and subject matter expert interviews.

The five categories of best practices include:

1. **Create an Interoperable Data Ecosystem**
   Adopt consistent content and exchange standards to simplify and expand data sharing.

2. **Share More Complete, Comprehensive Data**
   Empower value-based care participants with complete, accurate, and consistent data that paints a more comprehensive picture of a patient or population.

3. **Improve Data Collection and Use to Advance Health Equity**
   Collect and share data to identify and address health disparities as well as barriers to care beyond the clinical setting, while ensuring transparency, appropriate use, and confidentiality.

4. **Share Timely, Relevant, and Actionable Data**
   Prioritize sharing focused insights and data early, often, and in accessible ways, to improve care.

5. **Share Data Methodologies, Calculations, and Context**
   Share detailed information on how and what data were derived from to foster trust among VBC participants in the data they receive, use, and by which performance is measured.

Category 1: Create an Interoperable Data Ecosystem

Adopt consistent content and exchange standards to simplify and expand data sharing.

Challenges

A lack of mature content and exchange standards, as well as implementation guides and data maps, currently impede interoperability across different IT products, such as sharing data across EHRs and aggregating data from different EHR systems to submit to payers.

Multiple data systems are used across and within VBC entities from EHRs and practice management platforms to claims systems and analytics engines. EHRs are required to be interoperable, but EHRs may not be sufficient for normalizing all relevant clinical data. Normalizing refers to matching data schemas across systems using data mapping and transformation to ensure the information is consistent and can be shared and understood by different systems. It is important to understand the current technical capabilities of data systems and evaluate whether current EHR capabilities meet the data sharing and integration needs for a particular VBC model. It is also important to determine if there is a need or an opportunity to leverage a third-party data sharing platform.

> While promising, the FHIR standard has not been universally adopted. There are many legacy systems that would be incompatible, and it may not serve all data needs required for VBC participation. FHIR use cases are in varying stages of development and adoption. For instance, prior authorization and patient generated data are underdeveloped FHIR use cases. Further, harmonizing industry standards is necessary to reduce conflicting exchange standards in regulations. Industry contributes to the identification and development of FHIR use cases through a multistakeholder creation process. Health IT developers could also develop data systems capability to support the FHIR use cases. VBC participants must consider the cost and implementation complexities of retrofitting technical configurations and workflow changes to operationally support new FHIR standards.

Voluntary Best Practices (Create an Interoperable Data Ecosystem)

Key: **HP** - Health Plans, **VBC** - VBC Entities, **PP** - Participating Practices

Voluntary Best Practice	HP	VBC	PP
Leverage data exchange networks to support data sharing across the care continuum.	✓	✓	✓
Use a minimum standardized data set and data elements, when possible, to facilitate more meaningful and useful data sharing across payers and lines of business for clinical and financial data.	✓	✓	✓
Leverage attachments for administrative transactions to improve clinical data requests and response process efficiency.	✓	✓	✓
Clearly define data governance and management practices for data exchange and integration with external data sources and networks.	✓	✓	✓
Leverage APIs to improve access to EHR data and data sharing and to reduce manual processes across domains and organizations.	✓	✓	✓
Regularly coordinate with health IT vendors and other third-party intermediaries (e.g., Health Information Exchanges (HIEs)) to ensure systems are consistently updated, implemented, and configured to support regulatory requirements and best practices for data sharing.	✓	✓	✓
Use contract terms (including with vendors) governing adherence to content and exchange standards and use of a core data set. Such standards should be sufficiently mature, thoroughly tested in real-world settings, and of clinical and/or financial relevance to the specific contracting parties.	✓	✓	✓
Clearly document mutually agreed upon technical processes, data dictionaries, and implementation guides to improve data transparency, consistency, and efficiency.	✓	✓	
Limit the number of platforms and systems participating practices must interact with to access patient and performance data to minimize administrative burden, ideally by maintaining quality and financial performance data in the same platform or application.	✓		

There are multiple efforts underway to establish industry-wide data exchange standards. The industry and federal health agencies identified Health Level 7® (HL7) Fast Healthcare Interoperability Resources® (FHIR) as the foundational exchange standard for sharing clinical and administrative data among patients, providers, and health plans. Multiple federal policies and regulations require health IT developers to develop data systems to meet FHIR and open API requirements and VBC participants to adopt and use these features for information exchange (see Appendix B).

Considerations

It can be difficult for VBC entities and participating practices to manage a large number of performance metrics, which may require additional EHR configuration or even manual edits to meet the discreet required data elements for each arrangement or payer. Additionally, EHRs may not contain all data elements for calculating the measures. It can be administratively challenging to ensure adherence to wide-ranging requirements including reporting on several large measure sets using an array of submission methodologies.

There are many use cases for more interoperable data exchange and technology companies continue developing solutions for VBC participants, but the technology vendors face challenges of their own. These include designing products to support VBC participants in meeting regulatory requirements (including keeping up with changes), navigating differences across VBC participants and arrangements, and adapting to variations in interoperability requirements across states. Often, these technology vendors are adapting solutions made for health plans and health care delivery markets to address needs in the VBC market. To achieve more innovative possibilities for enabling data and data exchange to support a sustainable future for VBC, the data and technology industry, health plans, VBC entities, and participating practices would benefit from increased dialogue, and as appropriate, collaborative efforts.

Data exchange frameworks are also emerging at the national and state level, such as ONC's Trusted Exchange Framework and Common Agreement (TEFCA) or the California Data Exchange Framework (DxF) which may place additional data sharing requirements onto the delivery system and data shared for VBC. However, TEFCA has yet to go live and the ability for users to query and access data has not yet been tested at a national level.

Payment Transaction Standards

Specific coding and billing standards are used for submitting claims and receiving reimbursement. Using standards ensures that claims data are structured, consistent, and compatible across different systems, facilitating communication and efficient processing of health care claims. These standards apply to all HIPAA covered entities, such as health plans, health care clearinghouses, and providers who conduct electronic transactions, not just those who accept Medicare or Medicaid. Business associates with written agreements with providers must also adhere to certain transaction standards, including but not limited to the following:

ASC X12N 837: This is an electronic format for submitting health care claims using the X12 transaction set. It includes various versions, including the 837I (institutional), 837P (professional), and 837D (dental).

ASC X12N 835: This standard electronic format is used for the exchange of payment and remittance information between health plans and participating practices. It provides detailed information about the payment, adjustments, and denials related to submitted claims enabling participating practices' ability to reconcile payments, track denials, and manage their revenue cycle effectively.

ASC X12N 278: This standard is used to request prior authorization for payment prior to services being rendered. Currently, there is no way for a participating practice to submit support documentation for prior authorization using HIPAA standards. Proposed rulemaking identified the use of attachments in 278 messages for prior authorization, solicited responses, and unsolicited responses between health plans and participating practices. Heath care claim transaction attachment (275) supports necessary and additional documentation shared electronically for claims processing.

Category 2: Share More Complete, Comprehensive Data

Empower value-based care participants with complete, accurate, and consistent data.

Challenges

VBC participants in our interviews and workgroup agreed the more complete the picture we have of health for a given population and patient, the more effectively and efficiently we can coordinate across care and community-based settings and services to improve quality, experience, outcomes, and cost. However, there are a number of challenges today with having incomplete data around patient health, health care utilization, health outcomes, and cost. Primary among the challenges are gaps in collecting complete data (such as demographic), integrating data from various sources (public health or community organizations) and sharing data (in sufficient detail) to ensure each VBC participant has a complete view of the patient and the population served under the VBC arrangement.

Voluntary Best Practices

Key: **HP** - Health Plans, **VBC** - VBC Entities, **PP** - Participating Practices

Voluntary Best Practice	HP	VBC	PP
Integrate clinical and demographic information at both the individual and population levels.	✓	✓	✓
Provide aggregate population-level spending and treatment data, such as substance use disorder data, so participating practices have complete utilization and total cost of care data for their patient population.	✓		
Use consistent taxonomy and standard credentialing information to streamline attribution.	✓		
Keep specialty and National Provider Identifier (NPI)/billing information up to date with health plans.		✓	✓

Voluntary Best Practice	HP	VBC	PP
Include individual and practice level provider numbers (Taxpayer Identification Numbers (TIN)/NPIs) on claims, reports, dashboard, and in EHR systems to maximize ease of data exchange, use, and accuracy.	✓	✓	✓
Share and integrate pharmacy data including claims, real-time pharmacy benefit data, and dispensing information.	✓	✓	✓
Regularly submit complete claims, ideally on a monthly basis, to improve the timeliness of aggregated performance feedback. If feasible, use practice management products that support real-time, automated electronic submission of encounter data to accelerate data collection and analysis.			✓
Regularly share, ideally on a monthly basis, participating practices' and VBC entities' raw claims data to allow them to generate their own reports and insights.	✓		
Implement a master patient index technical solution to help facilitate patient matching	✓	✓	✓

Considerations

Complete data requires attention to improving accuracy and there are a variety of unique circumstances and external forces that can impact the completeness and accuracy of data. For instance, if a patient receives services or pays for services or medication without insurance (e.g., cash payment), health plans may not have access to this information to share with VBC participants. It is also possible for a single clinician to have billing privileges at multiple practices or hospitals, which can further complicate where to attribute a particular patient. VBC participants often collect patient demographic information in non-standardized ways and use different patient identifiers. When data are exchanged across organizations or networks, it may be difficult to match patient records. Finally, the variability in credentialing processes and timelines among states poses a significant administrative burden for providers due to delays and discrepancies in attribution. A national centralized credentialing process could help to standardize and accelerate credentialing, reducing the errors often identified today.

Category 3: Improve Data Collection and Use to Advance Health Equity

Collect and share data to identify and address health disparities as well as barriers to care beyond the clinical setting, while ensuring transparency, appropriate use, and confidentiality.

Challenges

As data sharing extends beyond direct clinical care teams to other entities, such as community-based organizations (CBOs) that address health-related social needs (HRSN) or national registries that compile disease-specific data to be used for research, new challenges emerge for referrals and data sharing with organizations that do not use similar technologies. HRSNs include the social and economic needs that individuals experience that affect their ability to maintain their health and well-being. Examples include housing instability, housing quality, food insecurity, employment, personal safety, and lack of transportation and affordable utilities. Often associated with HRSN, social determinants of health (SDOH) refer to the conditions in which people are born, grow, work, live, and age that are shaped by wealth distribution, power, and resources, and are impacted by factors such as institutional bias, discrimination, and racism.

Similarly, identifying and accessing data, including data from CBOs, for clinical decision-making often requires logging into multiple applications and websites with different logins within and across health plans and contracts, taking the care team out of the clinical workflow and increasing burden.

> Use of standardized data and screening tools (e.g., PRAPARE) facilitates standardized data collection and enables screening assessment answers to be mapped to standard SDOH-related ICD-10 z-codes, the encounter reason codes used to document SDOH data. Not all screening tools and questions are mapped to code standards. Standardized terminology codes are used to support quality improvement initiatives, refer individuals to social service resources, and improve care coordination. Developing exchange standards, such as the FHIR SDOH Clinical Care Implementation Guide, supports a framework for documenting and exchanging multiple SDOH domains and clinical activities, such as assessments, health concerns/goals, referrals, consent, and aggregation for exchange/reporting. These clinical activities can be organized into health data classes and data elements defined in the United States Core Data for Interoperability (USCDI). USCDI is a standardized set of health data classes and data elements for data exchange. SDOH data classes and elements were added to USCDI v2 and v3.

To fully understand community risks related to social drivers, it is necessary to access additional data sets beyond currently available clinical and claims data.

> "[I]ncreased density in housing code violations was associated with population-level morbidity independent of poverty, and...the density explained 22 percent of the variation in rates of asthma-related emergency department visits and hospitalizations."

There is currently a lack of social and health equity measures and no comprehensive data standard for collecting and reporting sociodemographic information (e.g., race, ethnicity, gender identity), making it difficult to identify and address disparities at the individual or population levels. Further, participating practice teams can struggle to prioritize and adopt workflows and data collection methods for documenting social data without sufficient positive incentives, guidance, and consistent metrics that are fair, feasible, and within their locus of

control. Accurately measuring health equity is further challenged due to a historically grounded patient mistrust in potential use of data and lack of clarity on actionable benefit to patients for providing their data.

Health-equity focused data collection efforts need to be supplemented by adequate referral networks for social services and other support to help address any identified gaps in access and clinical outcomes, which is early in development. Challenges associated with establishing "closed loop" referrals with CBOs to ensure social needs that need to be addressed include limited bandwidth for already overburdened clinical and administrative staff, along with limited funding for these services.

Voluntary Best Practices (Improve Data Collection and Use to Advance Health Equity)

Key: **HP** - Health Plans, **VBC** - VBC Entities, **PP** - Participating Practices

Voluntary Best Practice	HP	VBC	PP
Engage community networks and support health and non-health data-sharing networks across EHRs and other social service platforms to improve care and service coordination for individual interventions.	✓	✓	✓
Ensure appropriate privacy and security protections are in place for health information shared with CBOs, technology companies, and other third parties.	✓	✓	✓
Include, as appropriate, HRSN focused standards, such as z-codes, in contracts to improve adoption and consistent use within clinical encounters and claims submissions.	✓	✓	✓
Consider financial reimbursement, as appropriate, for practice staff for time spent screening for and collecting social driver related data, alongside ample time to educate practices on new social driver metrics and collection before they are used to impact payment under the VBC arrangement.	✓		
Contract with CBOs to assist with addressing patient social needs and, as appropriate, incentivize CBOs to participate in electronic data exchange.	✓	✓	

Voluntary Best Practice	HP	VBC	PP
Provide appropriate training and end-user support related to collection, measurement, and analysis of sociodemographic and HRSN data to ensure appropriate use and adhere to high standards of cultural humility and confidentiality.	✓	✓	✓
Improve patient communications about data collection and data use to improve transparency, trust, and patients' autonomy over their data, in addition to publishing data use principles that include non-discrimination protections.	✓	✓	✓
Collect sociodemographic and social needs data using standardized and validated social need assessment tools.			✓
Expand integration of data from public health and community sources to develop whole person profiles that integrate community and population level data with individual profiles.	✓	✓	✓

Considerations

Multiple government agencies and industry initiatives are attempting to develop common data standards for more inclusive options for socioeconomic information, education level, race, ethnicity, language, sexual orientation, gender identity, disability, and veteran status. Broad education on existing standards, implementation of the standards, and workflow assistance from the federal government and other trusted sources could support widespread adoption. Further, although it is still early in the evolution of this work, growth in the use of standards across VBC participants, including data systems vendors, has the important potential to improve adherence to and use of industry data standards with consistent data reporting and sharing. Increasing patient comfort and participating practice ability to convey data use requires enhanced education and outreach efforts. As the standardization and collection of data for use in improving health equity evolves, it is important to exercise caution with proxy measures (for instance the Area Deprivation Index) which may not be tested sufficiently to support the intended use. Data can be a powerful tool, but users need appropriate training and education about how to appropriately interpret information to achieve progress rather than risk advancing incorrect assumptions or false conclusions.

Significant discussion in technology today surrounds the potential of Artificial Intelligence (AI), including Natural Language Processing. While these technologies may facilitate the identification of insights to inform clinical interventions, it is important to ensure training, diverse and representative data, and appropriate evaluations of methods and program outcomes to avoid potential bias. The federal government has taken multiple actions to support trustworthy use and implementation of AI, such as the Blueprint for an AI Bill of Rights, the White House Executive Order on Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government, the Office of Management and Budget Guidance for Regulation of Artificial Intelligence Applications, and the National Institute of Standards and Technology (NIST) AI Risk Management Framework. HHS established an AI Office and multiple HHS agencies are working through algorithm transparency.

> **Privia relies on three core principles to make sure that data sent to practices is not overwhelming:**
>
> **1) Know your audience** - ensure that you are curating the information for the appropriate people. A provider most likely isn't calling patients to close quality gaps, but should know their quality performance, while the staff is more focused on outreach, so structure the information in a way that is most useful to the end user.
>
> **2) Present and explain** - if this is the first or second time the data is being shown, you need to make sure that someone is actually presenting and explaining the data. This helps gain traction and answers questions in a timely manner vs. sending out in an email and hoping it will get reviewed.
>
> **3) Have a plan** - the first question whenever data is shown is "now what?" when data points are being produced, there needs to be a corresponding action plan, either developed in conjunction with the practice or pulled from a standard playbook to ensure that not only is the data actionable, but the actions are taking place.

As discussed in the challenges above, historical misuse of data and lack of trust about the benefits of sharing information can compromise the willingness of individuals to share information about themselves. SDOH data, while helpful to inform care, treatment, and wellness decisions, often is some of the most personal information about an individual. Appropriate data use and disclosure protections must be considered, particularly when information is sent outside the VBC ecosystem or to entities typically not required to comply with HIPAA Privacy and Security Rules. As data standards are more widely adopted and individuals can see themselves and their experiences in the options available to them, there is significant opportunity to close gaps in care and improve outcomes.

Category 4: Share Timely, Relevant, and Actionable Data

Prioritize sharing focused insights and data early, often, and in accessible ways, to improve care.

Challenges

Participating practices and their clinical staff need actionable, consistent, and reliable data on a timely basis to help inform proactive care interventions and workflow process improvements, which are critical to improving performance and succeeding in VBC arrangements. Making data actionable means presenting relevant insights in a way that can be easily leveraged to help make decisions, displayed in their proper context, accurately, and in a place where the people who need it can view it and use it. Equally important, they require clinical outcomes and cost data on the backend to meaningfully identify and implement workflow changes or care interventions that can improve quality and lower the cost of care.

> **Sharing Data in Multiple Formats to Meet Varying Practice Needs**
> The capacity of participating practices and technical capabilities play a significant role in how they like to receive data. Larger entities, such as Ochsner Health System, prioritize raw data because of their extensive capacity and the number of practice locations they occupy throughout the state of Louisiana. In turn, smaller entities, such as Burlington Pediatrics in North Carolina , which participates in multiple VBC contracts with varying requirements, prioritize dashboards, benefiting from the multiple model dashboards with drilldown capabilities.

Participating practices have variable capacity and technical abilities; there is not a one-size-fits-all solution to the level of information participating practices find helpful when participating in VBC. Many small, rural, and safety net practices face disproportionate resource barriers and may have more limited staff and financial capacities to integrate new technologies into workflows, train staff on how to use them, and maintain and update these technologies over time. These practices may want access to more dashboards with pre-calculated analytics. On the other hand, more resourced practices may have significant capacity and interest in ingesting large quantities of raw data and performing analytics to improve efficiency and VBC performance. Practices also have varying levels of experience in VBC. A data sharing strategy or plan that does not provide consideration for varying capabilities does not result in meaningful use of information or support equitable access.

Voluntary Best Practices (Share Timely, Relevant, and Actionable Data)

Key: **HP** - Health Plans, **VBC** - VBC Entities, **PP** - Participating Practices

Voluntary Best Practice	HP	VBC	PP
Limit data at the point of care to relevant, actionable information to improve clinical decision-making.	✓	✓	✓
Build dynamic dashboards displaying quality, cost, and utilization data with helpful contextual or comparative information and actionable data-driven insights for participating practices to easily and quickly monitor performance and identify areas for improvement (e.g., provide drill-down capabilities within to view attributed patients and populations).	✓	✓	
Shift away from proprietary portals to standardized data measures and processes for data sharing.	✓		
Leverage existing data sharing networks (i.e., automated admission, discharge, and transfer feeds) to share real-time information or alerts regarding patient admission and discharge. Make participation free of charge to participating practices.	✓	✓	✓
Automate data sharing wherever possible to accelerate performance feedback.	✓		
Share attribution updates on a regular basis, ideally monthly, to support active rosters and performance monitoring.	✓		
Regularly, ideally monthly, share utilization and cost data for attributed members throughout the performance period to help participating practices understand point in time progress regarding financial performance. This may require technical assistance, or modeling templates for some participating practices.	✓		

In the long-term, VBC participants will benefit from efforts to move toward real time data exchange.

For VBC participants who cannot adhere to recommended timeliness and automation standards, take incremental steps such as sharing data quarterly and working towards increased automation.

Considerations

Technology and data systems are often not designed to serve every VBC participants' needs— what is timely and actionable for one, may be difficult for another to integrate into existing clinical workflows or analytics. Some VBC participants may therefore benefit from investing in supplemental technology solutions that help quickly digest and interpret relevant data to support real-time actionable insights, such as rapidly understanding a patient's underlying health needs and risk profile, identifying utilization patterns, and estimating the anticipated costs of various treatment options. In some instances, a VBC entity may provide these solutions, but it is important to consider the agility of existing technology systems to seamlessly exchange and integrate new data and minimize administrative burden associated with using different solutions.

Sharing Performance Data Monthly Can Help Accelerate Identification of Improvement Opportunities
Horizon Blue Cross Blue Shield sends participating practices raw claims data, eligibility information, and monthly performance data with medical cost and improvement opportunities. The monthly performance data allows for drill down services, offering a platform for providers to view a dashboard breaking down individual patient information based on various criteria.

Investments in third-party vendors and networks, such as admission, discharge, and transfer (ADT) networks, may help to facilitate timely data-sharing among VBC participants. Participants in data-sharing networks incur added costs for access to additional data that can improve administration and decision-making in VBC. Reusing existing data networks, such as publicly funded data exchange networks and public-private partnership HIE networks, may help reduce the cost of duplicative investments and interfaces with parallel functions.

Ochsner Health is utilizing new EMR functionality to create new data connections to many of its local payors. Clinical document exchange has eliminated the "chart chase" for HEDIS reporting, resulting in higher quality scores. Electronic prior authorization has increased process efficiency and increased the number of authorization requests that are approved in real time. Additional areas of development include exchange of care management notes and social determinant benefit information.

Participating practices are at different levels of readiness and may benefit from health plans and/or technology vendor support for training staff on how to use, maintain, update, and expand these technologies over time with end-to-end electronic workflows. Small, rural, and safety net practices often have more staff limitations and limited financial capacity to integrate new technologies into practice workflows. By equipping health plan and VBC entity representatives with information to educate and triage questions and issues surrounding the use of data, tools, and systems during regularly scheduled meetings, representatives can streamline engagement with participating practices across lines of business. Technical support to participating practices may be needed to facilitate the collection, bi-directional exchange, and use of data to manage clinical decision-making, patient care, and VBC contract administration. All VBC participants will incur upfront costs to achieve success, but support from health plans can help offset that investment.

Reconciling Patient Attribution

Accurate member-provider attribution is foundational for alternative payment models. In Illinois' Medicaid program, beneficiaries who do not select a primary care provider (PCP) at the time of enrollment are assigned a PCP, and this assignment defines member-PCP attribution. Members frequently establish a relationship with a different PCP. While Aetna offers electronic and telephone-based options for changing their attributed PCP these options are rarely used. This results in inaccurate attribution for VBC contracts and attribution-based pay for performance incentives. To mitigate this problem, Aetna received permission from Illinois to change attribution based on claims demonstrating a member-PCP relationship to the PCP the member was actually seeing (the member may object in which case no reassignment occurs). Deployment of this process twice a year significantly decreases the proportion of PCP-member mismatches by 40%.

Category 5: Make Data Methodologies, Calculations, and Context Readily and Easily Available

Share detailed information on how and what data were derived from to foster trust among VBC participants in the data they receive, use, and by which performance is measured.

Challenges

Being accountable for cost, quality, and patient experience under VBC arrangements often places VBC entities and participating practices at greater risk for the total cost of care. In this context, in addition to having access to complete data that is both timely and actionable, trusting the data is critical. For instance, participating practices and VBC entities need to know where data come from, how patients are attributed, how risk is adjusted, and how financial benchmarks are calculated. Giving VBC participants details regarding how patients are attributed, and ideally sharing in advance which patients are attributed to their practice, will empower them to design more effective and tailored interventions as well as give them confidence and assurance in the VBC model itself. The same is true of data used for financial methodologies and in reporting quality performance. These methodologies can be complex and participating practices would benefit from receiving more timely and regular detailed information from health plans during the performance period to monitor their progress more effectively towards shared goals and outcomes.

It is difficult for participating practices to manage a large number of performance metrics, which may require additional EHR configuration to organize the required data elements. Additionally, EHRs may not contain all data elements for calculating the measures. It is administratively challenging to adhere to wide-ranging requirements, including reporting on several large measure sets using an array of submission methodologies.

Voluntary Best Practices (Make Data Methodologies, Calculations, and Context Readily and Easily Available)

Key: **HP** - Health Plans, **VBC** - VBC Entities, **PP** - Participating Practices

Voluntary Best Practice	HP	VBC	PP
Share established or estimated benchmarks ahead of the performance period whenever possible.	✓		
Share performance data regularly during the performance period, rather than only historical data, and provide a feedback loop for any data updates or corrections.	✓	✓	
Regularly share information on the reliability of estimates used in calculations (i.e., if using completion factors or prospective trends) to improve confidence in data quality and accuracy.	✓		
Share data inputs and calculations of any retrospective adjustments to the benchmark prior to final reconciliation to increase transparency and provide opportunities for participating practices to suggest corrections.	✓		

Considerations

Given the high stakes associated with VBC arrangements in which participating practices agree to accept downside financial risk in exchange for being held accountable on quality, outcomes, and utilization metrics, building trust and maintaining transparency are paramount. It is important to acknowledge the importance of such information sharing to the success of VBC arrangements.

There may be times when information that would help build trust, such as complete cost data and payment rates for services outside the VBC entity and participating practices, cannot be shared for proprietary reasons or due to legal or regulatory constraints. In those cases, VBC participants may consider using contextual comparisons and deidentified, aggregated data, to the extent legally permissible, to achieve the purpose of continuing to grow trust in data that is being used to improve and measure performance. Even when aggregated and deidentified, understanding where one VBC entity or participating providers' costs or utilization patterns compare for patients with similar illness burden across a market can be a powerful insight that supports continued progress and participation in VBC arrangements.

Conclusion

There is no question that consistency, automation, and improved frequency of data sharing will help to accelerate sustainable VBC arrangements. Adoption of voluntary industry standards for content and data exchange has the potential to facilitate better data use, reuse, analysis, and evaluation. However, variable pace and readiness of VBC participants to invest in new technologies, lack of industry-wide standardization, and constantly evolving technologies make it difficult to operate with consistency across VBC arrangements and in alignment with the latest public policy. While efforts are underway to improve the automation and efficiency of data sharing across VBC participants and technology systems, these changes will not occur overnight.

As technology continues to evolve, the burden of keeping pace can be a barrier for smaller practices, safety net providers, and health plans that may not have the necessary financial resources readily available to invest in new systems or regular updates. Even for larger practices, health systems, and health plans, moving from well-established legacy systems to more advanced and agile technology requires significant time and monetary investment. Health plans and VBC entities can help make data system transformation and interoperability more accessible for participating providers through investment in the technology infrastructure, training, and technical assistance for participating practices, alongside support for initiatives focused on data sharing standardization.

Technology investments, while necessary, are just one component that will help improve data sharing in VBC arrangements. There is a limit to how much can be achieved via improved data sharing and integration alone because other aspects of VBC remain highly variable, such as the quality measures, attribution, and payment methodologies. Aligning measures and methodologies—as possible and appropriate—can help to limit the administrative burden on VBC participants. Of course, not every practice or VBC entity is ready for full accountability for the total cost of care, and measuring quality is not the same for all patients (e.g., pediatric and geriatric populations). There is therefore a delicate balance between the level of data standardization that reduces participating practice burden while allowing for necessary variability to capture meaningful data across populations, VBC arrangements, and specialties.

Appendix A: Definitions

VBC arrangement refers to the details and terms of the contract or partnership agreement between VBC participants (health plans, participating practices, and VBC entities), the arrangements commonly include attribution, financial accountability and payment, quality reporting, and performance requirements.

VBC participating practices include physicians and other members of the clinical team, such as physician assistants or social workers, responsible for providing care to patients in addition to the individuals supporting the administrative operations of a medical practice, which in some instances include VBC performance improvement and financial benchmarking functions.

VBC entity is an organization that may be comprised of clinician groups, hospitals, service organizations, or health systems that collectively take accountability for a population's quality of care and spending such as, but not limited to, an Accountable Care Organization (ACO). Such entities can leverage in house resources or partner with third party organizations that provide clinical care teams with the tools and technology to participate in VBC arrangements.

VBC participants include health plans, participating practices, and VBC entities working together under a contractual arrangement to tie payment to patient outcomes.

Certified electronic health record technology (CEHRT) is technology that meets ONC's Certification Program criteria in that it stores electronic health data in a structured format to support data exchange and access.

Fast Healthcare Interoperability Resources (FHIR) is a standard that defines how data can be exchanged across systems irrespective of how data are stored developed and updated by the HL7 standards development organization.

Health-Related Social Needs (HRSN) include the social and economic needs that individuals experience that affect their ability to maintain their health and well-being. Examples include housing instability, housing quality, food insecurity, employment, personal safety, and lack of transportation and affordable utilities.

Social Determinants of Health (SDOH) are often associated with HRSN and refer to the conditions in which people are born, grow, work, live, and age that are shaped by wealth distribution, power, and resources, and are impacted by factors such as institutional bias, discrimination, and racism.

Appendix B: Data needed, Content Standards, and Exchange Standards to Support VBC

The following table outlines the data needed to align with VBC goals noted above and available content standards and exchange standards for use. The ONC Interoperability Standards Advisory (ISA) is the primary source for the information provided below. The ISA does not require the adoption and implementation of standards. Applicable federal, state, and/or local laws, program requirements, and regulations regarding standards requirements supersede the ISA. The table below outlines the content, exchange, and administrative standards for VBC data sharing.

- Content – content standards and structure for electronically documented data

- Exchange - infrastructure components deployed and used to address specific interoperability needs

- Administrative - standards and implementation specifications (i.e., payment, operations, and non-clinical interoperability needs)

Things to note:

- Terminology and code set standards are not included. This is not an all-inclusive list of all content, exchange, and administrative standards.

- Standards may require both the data sender and receiver to configure systems for the transaction to facilitate successful exchange.

- Additional technical configuration and workflow implementation support may be needed.

- Multiple standards may exist for specific data types. The ISA identifies whether the standard is in production or in pilot and testing phase, federally required, and the industry adoption rate for using the standard.

- The USCDI is a standardized set of health data classes and elements. Health IT developers of CEHRT must update systems to the current approved version of USCDI and provide updates to customers. USCDI includes vocabulary standards where available but does not identify exchange standards to use. Technical vendors beyond CEHRT health IT developers

do not have to adhere to USCDI but adhering to USCDI increases the amount of data available for use and exchange.

- Currently USCDI v1 is required.
- USCDI v3 adoption into the ONC's Certification Program and establishing an expiration date for USCDI Version 1 is proposed within ONC's proposed Health Data, Technology, and Interoperability: Certification Program Updates, Algorithm Transparency, and Information Sharing (HTI-1) rule.
- Draft USCDI v4 release is expected in July 2023.

- The table below includes standards in the following process maturity phases – "final," "in development," or "Ballot Draft," which means the standard is considered a "draft standard for trial use."

- The noted standards are typically for individual-level records. It will be noted if the standard supports bulk or population-level data exchange.

Table 1: VBC Data Types, Content, and Exchange Standards

Data Types	Summary	Content Standard	Exchange Standard
Clinical Data			
Clinical care documentation in EHR	Information collected about a patient's health-related information associated with treatment and care coordination. Data may include a patient's demographics, medical history, progress notes, symptoms, diagnoses, medications, treatment plans, immunization dates, allergies, test results, and radiology images.	• Multiple vocabulary, code set, and terminology standards for clinical care documentation • Multiple content standards for the structure of clinical care documentation, such as clinical notes, care plan, and pharmacy interoperability • USCDI, at 45 CFR 170.213 (currently V1)	Push data standards: • HL7® Clinical Document Architecture (CDA®), Release 2.0, Final Edition • Direct™ (Applicability Statement for Secure Health Transport v1.2) • HL7® FHIR® RESTful API • IG for Direct Edge Protocols • IHE-XDR (Cross-Enterprise Document Reliable Interchange) *Emerging Standard (not approved yet)* • Specialty Medication Enrollment HL7 FHIR *Balloted Draft* • HL7® FHIR® DaVinci Clinical Data Exchange (CDex) Implementation Guide • HL7 FHIR DaVinci Provider Data Exchange (PDex) Implementation Guide
Admit, Discharge, and/ or Transfer Status to other providers	ADT information and alerts are electronic notifications of admission, discharge, or transfers sent to providers, care managers, and other entities to coordinate care and inform payers on what is happening with members. ADT notifications are needed within one day of the event to remain useful.	• HL7® 2.5.1 (or later) ADT message • IHE Patient Administration Management (PAM) Integration Profile *Balloted Draft:* • HL7 FHIR® DaVinci Unsolicited Notifications Implementation Guide	HL7® 2.5.1 (or later) ADT message

Data Types	Summary	Content Standard	Exchange Standard
Pharmacy Data			
ePrescribing Data	Information on prescribed and dispensed medication details, prescription fill history, and individual patient demographic details within electronic prescriptions to voluntarily include medical indication can support more accurate insights regarding treatment plan.	• Current exchange standard: NCPDP® SCRIPT Standard, Implementation Guide, Version 2017071 • Proposed standard for adoption at 45 CFR 170.205(b): (NDPDP) SCRIPT standard version 2022011 • NCPDP® Telecommunication Standard Implementation Guide, Version D, Release 0 (Version D.0), August 2010 and equivalent Batch Standard Implementation Guide Version 1.2	NCPDP Pharmacist eCare Plan Version 1.0: Guidance on the Use of the HL7 CDA Consolidated Templates for Clinical Notes R2.1 Care Plan Multiple standards HL7® FHIR® Medication Request
Pharmacy Coverage Eligibility Benefit Inquiry and Response	Pharmacy-related eligibility and benefit inquiries and response transactions.	• NCPDP® Formulary and Benefit Standard Version 3.0 • ASC X12N/005010X279A1 Type 1 Errata to Health Care Eligibility Inquiry and Response (270/271), June 2010 as Type 1 Errata to an ASC X12 Standards for Electronic Data Interchange Technical Report Type 3	NCPDP Real-Time Prescription Benefit Standard Version 12
Pharmacy claims data	Health care claims or equivalent encounter information for retail pharmacy claims	• NCPDP® Telecommunication Standard Implementation Guide, Version D, Release 0 (Version D.0), August 2010 • NCPDP Batch Standard Medicaid Subrogation Implementation Guide, Version 3, Release 0 (Version 3.0), July 2007	*Balloted Draft* • HL7® FHIR® DaVinci Provider Data Exchange (PDex: Formulary) Implementation Guide NCPDP Operating Rules • NCPDP Operating Rules to Support Electronic Prescribing Transactions
Patient Data			
View, Download, and Transmit Data from EHR Patient-reported data Patient Access API	Information reported directly by patients to care teams or payers about their own demographic information, health conditions, symptoms, adherence to prescribed medications, or other treatment, quality of life, functional status, social needs, and experience	USCDI, at 45 CFR 170.213 (currently V1)	HL7® FHIR® RESTful API Applicability Statement for Secure Health Transport Version 1.3 (Direct™) Direct (Applicability Statement for Secure Health Transport v1.2) Current Procedural Terminology (CPT®) Consumer Friendly Descriptors (CFDs)

Data Types	Summary	Content Standard	Exchange Standard
Administrative Data			
Claims	Information submitted in claims for payment includes procedure codes describing specific services rendered and diagnosis codes describing the problem that was treated. A claim does not provide comprehensive information, such as lab values or problem history.	ASC X12®N/005010X221 Health Care Claim Payment/ Advice (835), April 2006 as an ASC X12 Standards for Electronic Data Interchange Technical Report Type 3 and ASC X12N/005010X221A1 Type 1 Errata to Health Care Claim Payment/Advice (835), June 2010 as Type 1 Errata to an ASC X12 Standards for Electronic Data Interchange Technical Report Type 3	
Provider data	Information on the clinician, organization, and/or entity including name, address, phone, email, location, type, specialty, NPI, TIN, whether they are accepting new patients, licensure, and credentialing information	National Plan and Provider Enumeration System National Provider Identifier (NPI)	Proposed Standards by API: FHIR Release 4.0.1 HL7 FHIR U.S. Core IG STU 3.1.1 HL7 SMART APP Launch Framework IG 1.0.0 OpenID Connect Core 1.0
Performance Measurement Data			
Clinical Quality Measurement and Reporting	Measurement data collected and reported from multiple sources, analyzed to measure performance in the model and improvement goals. This includes financial, utilization, outcome, and process measures.	Measure specific value set requirements	Reporting Aggregate Quality Data for Quality Reporting Initiatives Reporting Patient-level Quality Data for Quality Reporting Initiatives