

COMMUNITY INFORMATION EXCHANGE DEVELOPMENT STRATEGIC OPTIONS REPORT

Washington State Health Care Authority

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Washington State
Health Care Authority

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1. Executive summary

HCA’s CIE planning effort is based on a three-phased approach: CIE landscape review, strategic options development, and ongoing planning. This report is focused on the second phase, strategic options development. The purpose of this document is to identify strategic questions impacting CIE implementation in Washington, provide a framework for evaluating potential answers to those questions, and consider factors that support and enable CIE strategy.

1.1 Overview

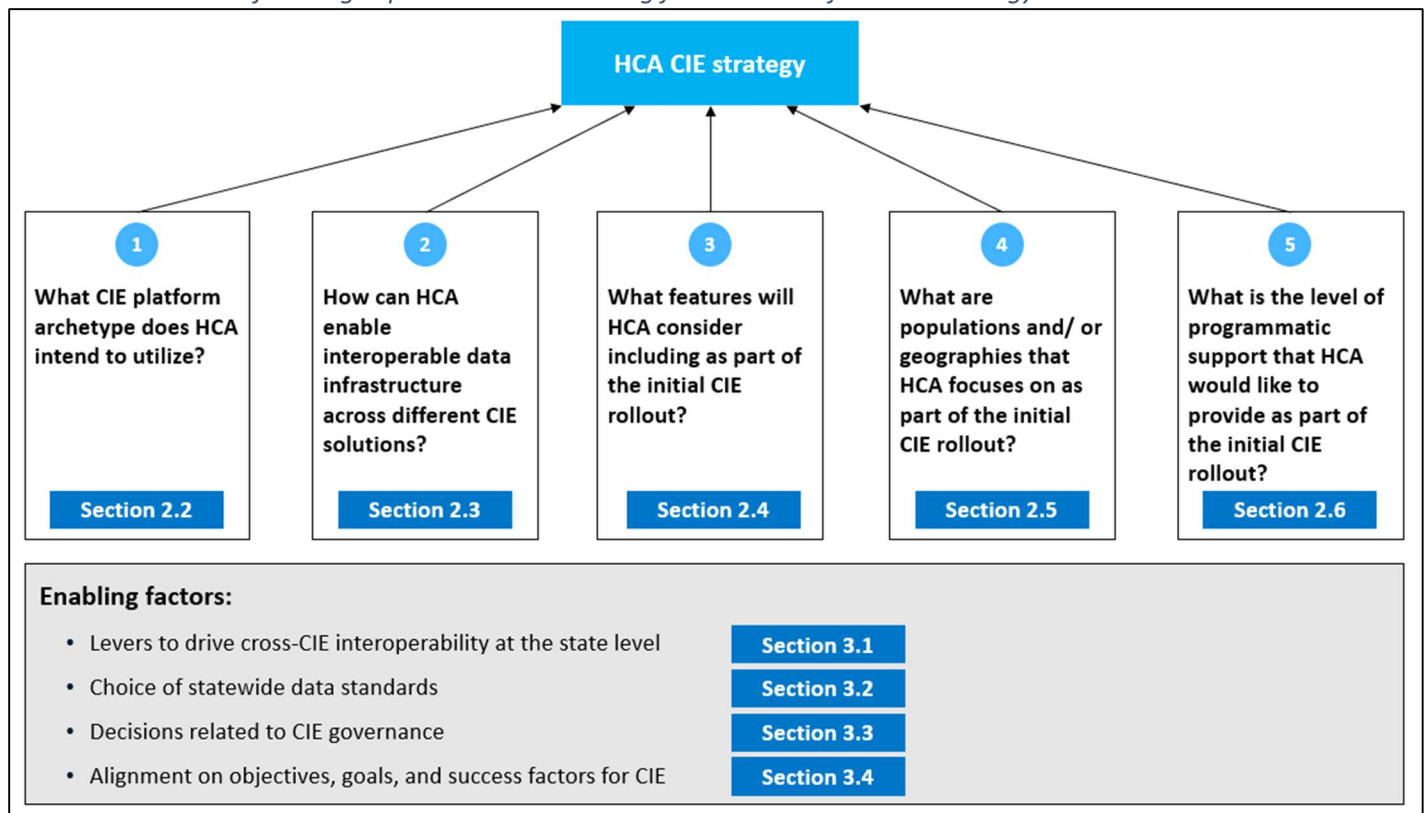
This report includes discussion of two elements related to CIE strategy.

First is an analysis of five strategic questions regarding CIE strategy and implementation. For each of these questions, two to five options have been developed and rated against three comparison factors, namely (A) Ability to meet the goals and objectives of CIE, (B) Adoption from key statewide partners and stakeholders, and (C) Implementation feasibility in terms of cost, technical feasibility, and governance feasibility. Additionally, the report provides a mapping of the five strategic questions to the eleven pain points facing community-based care coordination as identified during the landscape review. Details on the strategic questions, options, comparison factors and rating process can be found in Section 2 of this report.

Next is a set of enabling factors which may need to be established for any CIE rollout to be effective. Section 3 outlines the description of each enabling factor, the reasons why it may be important for the establishment of a statewide CIE, and considerations of potential directions for HCA to develop that groundwork.

A CIE strategy may involve answers to the five strategic questions as well as pathways for establishing the four enabling factors. The following graphic outlines the five strategic questions and four enabling factors that inform a CIE strategy:

Exhibit 1. Overview of strategic questions and enabling factors that inform CIE strategy



The discussion in this report does not constitute policy advice or specific recommendations on CIE strategy. Rather, the insights in the report can be used to identify factors that may influence the success and effectiveness of a CIE solution in Washington and promote discussion of and alignment on desired CIE implementation strategy.

1.2 Analysis inputs and sources

Inputs for the strategic options report are drawn primarily from two sources: results from the CIE landscape review¹ and feedback from the HCA CIE planning team.

First, input obtained from stakeholders and partners during the landscape review process was used to develop hypotheses for the strategic pathways outlined in this report, including the identification of enabling factors for CIE strategy and the ratings of different strategic options against comparison factors. In particular, insights from the landscape review on pain points facing community-based care coordination, top priority features in a statewide CIE solution, and expected roles for HCA in implementing a statewide CIE were incorporated in the development of enabling factors and strategic questions and options. Section 2.7 of this report discusses the impact of each strategic question on the pain points identified in the landscape review.

Preliminary insights were then refined in consultation with HCA CIE planning team. Initial hypotheses regarding enabling factors, selection of strategic questions, and ratings for options were discussed and debated in a series of internal discussions with the CIE planning team. After the release of this report, one or more workshops will be held with members of the CIE planning team to further discuss key findings and align on paths forward in developing a CIE strategy.

2. Strategic questions

2.1 Overview of strategic questions and comparison factors

There are at least five questions whose answers may have a significant impact on the design of the CIE strategic plan. For each strategic question, there are two to five options for HCA to choose from. The five strategic questions for CIE implementation, with the options for each strategy, are as follows:

- 1. What CIE platform archetype does HCA intend to utilize? Some options include:**
 - I. Single statewide solution used by all stakeholders and partners
 - II. Opt-in state-governed solution with cross-CIE data interoperability
 - III. Opt-in state-governed solution with opt-in inter-CIE data interoperability (e.g., some regions not using the state-governed solution may still elect to share and receive data)
 - IV. Opt-in state-governed solution with no data interoperability
 - V. State-funded but regionally governed solutions with no data interoperability
- 2. How can HCA enable interoperable data infrastructure across different CIE solutions? Some options include:**
 - I. Centralized data repository integrates data across all CIE solutions in a standardized format
 - II. Query-based system allows individual CIE hubs to request patient data as needed from other CIE ecosystems
 - III. Manual process for reporting patient data allows periodic data sharing between CIE Hubs
- 3. What features will HCA consider including as part of the initial CIE rollout? Some options include:**

¹ The landscape review outreach included – interviews with 9 ACHs, 5 MCOs and 3 HHS Coalition Agencies (DOH, DSHS, DCYF); 2 Tribal listening sessions; 2 follow-up interviews with CBOs associated with two of the ACHs; 2 CIE information sharing webinars, and a survey for professional organizations, CBOs, safety net providers and other stakeholders and partners (69 completed responses as of survey close date 08/15/2022). Please refer to landscape review report – section 3.1 for a more detailed view on methodology and sourcing

- I. A complete list of 14 features as initially identified by HCA²
 - II. A prioritized list of 4-5 features based on input gathered during the landscape review
 - III. A single, prioritized feature based on input gathered during the landscape review
- 4. What are populations and/or geographies that HCA focuses on as part of the initial CIE rollout? Some options include:**
- I. The statewide CIE solution is rolled out for all populations and geographies at the same time
 - II. Statewide CIE solution is rolled out using a pilot approach starting with select populations (e.g., jail transitioning population, housing insecure) and/or geographies
- 5. What is the level of programmatic support that HCA would like to provide as part of the initial CIE rollout? Some options include:**
- I. Direct funding earmarked for specific use-cases
 - II. Funding for programmatic support allocated for regions to use as needed, with HCA oversight and guardrails on use of funds
 - III. No programmatic support for regional or local CIE solutions

Defining a strategic pathway for CIE involves a choice of option for each of the five strategic questions. The options for each strategic question may vary significantly in terms of the strategies' ability to meet the objectives of a CIE, the potential for adoption, and implementation feasibility based on cost, technological factors, and governance factors. The three comparison factors are described in more detail below:

- A. **Ability to meet the goals and objectives of CIE:** The goals and objectives for CIE include connecting patients to care resources; empowering a network of partner organizations to screen for HRSNs, share data, and close referrals; and enable population-level analysis of HRSNs and health-related services.³
- B. **Adoption from key statewide partners and stakeholders:** This includes adoption on three levels: adoption from individuals (e.g., willingness to agree to have their data shared), adoption from organizations, and adoption from ACHs or regional Hubs.
- C. **Implementation feasibility:** This factor includes three subcategories: cost to implement and maintain, technological feasibility (e.g., what technological infrastructure is needed to implement the solution), and governance feasibility (e.g., how much oversight will be needed to ensure participation; are there challenges around data stewardship, etc.).

To highlight the relative strengths and weaknesses of potential strategies, the options for each strategic question are scored against each comparison factor and assigned a rating of 'High', 'Medium', or 'Low'. Ratings were established relative to other options for a given question; a 'High' rating indicates that an option is attractive compared to the other alternatives for a given criterion but does not indicate judgment on the absolute appeal of the option. All ratings were developed in consultation with the HCA CIE planning team.

² Full list of features includes resource directory, event notification for Admission-Discharge-Transfer (ADT) data, closed-loop referral, user-based access, HRSN analytics, personal health record, shared care plan, assignment/attribution of patients to providers and health plans, HRSN data exchange and related tools/services, HRSN screening tools, risk stratification, call center for patients to identify community resources, care coordination workflow and/or case management services, and mobile services

³ Please refer to Landscape review report, section 2.1 for details on the CIE definition and overarching goals being used by HCA to guide this work. This list of goals may not be exhaustive, and alignment among statewide partners and stakeholders on the goals and objectives of CIE may be necessary to ensure a shared understanding of those priorities

2.2 Strategic question: What CIE platform archetype does HCA intend to utilize?

The five options for the CIE platform archetype are shown in the graphic below:

Exhibit 2. Strategic question – What CIE platform archetype does HCA intend to utilize: option descriptions

CIE platform – commonly used options						
	■ Hub with HCA governed CIE solution		■ Hub with independently administered CIE solution		↔ Data being shared between hubs	
CIE platform option characteristics	I. Single state-wide solution used by all stakeholders and partners 	II. Opt-in state-governed solution with mandated cross-CIE data interoperability 	III. Opt-in state-governed solution with opt-in inter-CIE data interoperability – some non-HCA hubs may choose to connect with the HCA CIE solution 	IV. Opt-in state-governed solution with no data interoperability 	V. State-funded but regionally governed solutions with no data interoperability 	
Will HCA invest in and govern a CIE solution?	Yes	Yes	Yes	Yes	No	
Will all stakeholders and partners be mandated to use a single CIE solution?	Yes	No	No	No	No	
Will there be any cross-CIE data interoperability?	Yes	Yes	Partially Yes	No	No	

There are several options that HCA can consider as they embark on implementing a CIE solution. We have described five such archetypes in the above exhibit 2. These options differ in their degree of centralization or regional autonomy. Options (I-IV) assumes that, HCA invests in a CIE platform which is available for regions to implement and administer. In option (I), that platform becomes a single statewide solution used by all organizations in the state. In options (I) and (II), data is shared between all CIE solutions and regional Hubs, and in option (III), data is shared between the regions that have opted into the state-governed solution, while options (IV-V) have no data sharing across CIE solutions or regional Hubs. Option (V) assumes, HCA does not invest in a state-governed CIE platform, but instead provides funding to regions to implement their own community-based care coordination systems, which may or may not have CIE functionality.

The CIE platform options were weighed against the comparison factors to determine their relative attractiveness in terms of (A) ability to meet the goals of statewide CIE, (B) potential for adoption among key stakeholders and partners, and (C) feasibility to implement, including cost, technological complexity, and governance complexity.

The five options have been compared to each other with the mapping and rationale as described below.

Exhibit 3. Strategic question – What CIE platform archetype does HCA intend to utilize: options rated against the comparison factors

		CIE platform – commonly used options					
		Score on potential comparison factors					
		High	Medium	Low	High	Medium	Low
		I. Single state-wide solution used by all stakeholders and partners 	II. Opt-in state-governed solution with cross-CIE data interoperability 	III. Opt-in state-governed solution with opt-in inter-CIE data interoperability – some non-HCA hubs may choose to connect with the HCA CIE solution 	IV. Opt-in state-governed solution with no data interoperability 	V. State-funded but regionally governed solutions with no data interoperability 	
A	Ability to meet the objectives and vision for a statewide CIE	High	High	Medium	Medium	Low	
B	Potential for adoption and buy-in from statewide stakeholders and partners	Low	Medium	High	Medium	Low	
C	Feasibility to implement (e.g., cost, technical feasibility, governance feasibility)	Low	Medium	Medium	High	Medium	

2.2.1 Comparison factor: Ability to meet the objectives and vision for a statewide CIE

Options (I) and (II) are rated as ‘High’ because both pathways can enable interoperability of patient data across all partners and stakeholders in the state, which can lead to multiple benefits for community-based care coordination. First, organizations may be able to access information about patient treatment from groups in other CIE ecosystems, potentially improving quality of care and patient experience. Second, data sharing throughout the state allows population-level analysis of HRSN trends and potential gaps in availability of care for specific needs, allowing the state and individual regions to potentially optimize care funding to address needs.

Options (III) and (IV) are rated ‘Medium’ because unlike (I-II), they may not allow for population-level data aggregation or analysis across the state, reducing their ability to meet the goals and objectives of statewide CIE. However, these options still provide a state-governed alternative for regions that may lack the capacity or resources to develop an independent CIE solution. Option (III) may have the additional benefit of enabling data sharing between at least some regions, creating care benefits for some (but potentially not all) patients that receive care from multiple CIE solutions. This may also help in laying the groundwork for a future interoperability solution that can enhance data-sharing statewide.

Option (V) is rated as ‘Low’ because this option does not provide any state-governed solution to regions that may prefer to receive HCA support as opposed to developing and maintaining an independent community-care coordination solution. During the landscape review, multiple ACH representatives expressed that they would value more direct guidance and support from the state to enable CIE implementation. Without any state support, quality of care in some regions may be reduced.

2.2.2 Comparison factor: Potential for adoption and buy-in from statewide partners

Option (I) is rated as ‘Low’ because many groups which have already invested in CIE solutions or other community-based care coordination platforms may be resistant to migrating onto a new platform, especially if it involves training on new systems and losing any progress on building interoperability across systems. During the

landscape review⁴, the majority of ACH interviewees expressed that their communities would not want to be mandated to switch to a single platform for CIE.

Option (II) is ‘Medium’ because it potentially allows organizations some autonomy to continue using their current platforms, although the requirement to have interoperability across all regional CIE solutions may generate some resistance in communities.

Option (III) is rated ‘High’ due to the flexibility that it can potentially offer groups to either retain their current systems for community-based care coordination or opt into a state-governed solution if they feel it offers value to their communities. Regions that prefer not to share patient data statewide can still participate in the ecosystem, and regions that want more support from the state can implement a tool that helps them improve coordination of care in their communities.

Flexibility of CIE implementation is also a potential benefit of option (IV) from an adoption perspective. However, since interoperability of solution was identified as a priority for many stakeholders and partners during the landscape review, this option may have lower buy-in than (II) or (III) because it offers less value to regions.

Similarly, option (V) is rated ‘Low’ as it does not offer a state-governed solution or the ability to view population-level HRSN data. As a result, stakeholders and partners may see this as an option with a lower value proposition compared to options (I), (II), (III) and (IV). HCA-governed CIE solution being offered, some regions may elect not to implement or responsibly govern a CIE ecosystem at all.

2.2.3 Comparison factor: Feasibility to implement

Option (I) is rated ‘Low’ because among the platform archetypes, the strategy may involve the most complex governance challenges to implement. Since the strategy involves mandating a single platform’s use across all regions and data sharing between each regional hub, the governance mechanism required to enforce that use, and to ensure that groups have adopted the platform, may represent a greater challenge than for other options. Next, there may be a technological challenge to support interoperability or integration between the platform and the various data systems currently in use at partner organizations (e.g., EHRs, grant management systems, etc.). Implementation cost to deploy a CIE technology platform is also expected to be greater than that for (V), and similar to the implementation cost for some other options.

Next, option (II) is rated as ‘Medium’ as it may involve a higher implementation cost and technological complexity than some other options. Of all the options, (II) will potentially require the most support for interoperability, because data sharing is required between all the CIE platforms currently in use. Despite this technological challenge, implementation cost can be lower than that of option (I), due to the smaller scale of the state-governed solution. Establishing a governance structure over statewide shared data may present a challenge similar to that in option (I), but the governance complexity may be less than it is in option (V).

Option (III) is also rated ‘Medium’ because it potentially involves a similar level of technological challenge to support interoperability for the regions that opt into data sharing with the state-governed solution, and a similar level of investment to deploy for the opt-in state-governed platform. Option (III) may have a slight advantage over (II) in terms of governance feasibility. Although cross-regional data governance may still be challenging, because data sharing between regions is optional, enforcement of data-sharing norms may not be necessary for option (III).

⁴ Landscape review was conducted between July 25, 2022 – August 22, 2022

(IV) is rated as 'High' among the options due to potentially having relative ease of governance and technological challenge, and moderate cost. Technological complexity may be relatively low because, unlike other archetypes, (IV) does not require interoperability between different CIE solutions, or between different regional instances of the state-governed solution. This also reduces implementation cost compared to (I-III). This siloed data system may also remove a governance barrier, because there is not a need to establish a governance or stewardship structure for data shared across regional CIEs.

Last, option (V) is rated 'Medium' because, while it is potentially the lowest on cost and technological barriers, establishing governance may pose a significant challenge relative to other options. Cost is expected to be low because HCA does not make a platform available to regions or invest in interoperability, instead giving direct funding for regional solutions. For this reason, there may also be little to no technological challenge since HCA does not govern any technical CIE platform. However, in a solution where regions are accountable for establishing individual community-based care coordination systems, a complex governance structure may be required to ensure proper use of funds and to ensure that regions are improving care for their communities and tracking outcomes.

2.3 Strategic question: How can HCA enable interoperable data infrastructure across different CIE solutions?

Since multiple CIE platforms are currently in use in Washington, interoperability of data across those platforms may enable improved quality of care and population-level analysis of HRSNs. Three of the potential options for implementing cross-CIE data operability include:

- I. **A centralized data repository** integrates data across all CIE solutions in a standardized format
- II. **A query-based system** allows individual CIE hubs to request patient data as needed from other CIE ecosystems
- III. **A manual process for reporting** patient data allows periodic data sharing between CIE Hubs

The three options have been compared to each other with the mapping and rationale as described below.

*Exhibit 4. Strategic question – How can HCA enable interoperable data infrastructure across different CIE solutions: option descriptions and options rated against the comparison factors*⁵

⁵ Source: Landscape review

		Score on potential comparison factors			
		High	Medium	Low	
		Interoperable data infrastructure – commonly used options			
Options are compared with each other based on three factors:		I. A centralized data repository integrates data across all regional CIE solutions in a standardized format	II. A query-based system allows regional CIE hubs to request patient data as needed from other CIE ecosystems	III. A manual process for reporting patient data allows periodic data sharing between regional CIE Hubs	
		A Ability to meet the objectives and vision for a statewide CIE	High	Medium	Low
		B Potential for adoption and buy-in from statewide partners	Medium-High	Medium-High	Low
		C Feasibility to implement (e.g., cost, technical feasibility, governance feasibility)	Medium	Low	High

2.3.1 Comparison factor: Ability to meet the objectives and vision for a statewide CIE

Cross-CIE data interoperability may be valuable for a statewide CIE strategy for two reasons. First, interoperability between CIE ecosystems can potentially help improve the patient experience at the point of care by giving care organizations more information about treatment that patients may have received from organizations operating within other CIE systems. Second, interoperability can potentially enable data to be stored in a standard format and analyzed in aggregate to understand population-level HRSN trends and needs.

Option (I) is rated as ‘High’ because the strategy can potentially enable both point-of-care data access and population-level analysis. In this option, partner organizations can access real-time patient information from the central repository to learn about care received from any organization that is part of an interoperable CIE ecosystem in the state. This information may improve organizations’ ability to provide quality care that meets patients’ specific needs. Also, since data is stored in a standard format, analysis can be conducted at a population level to understand demographics, HRSNs, and availability of care resources by geographic area.

Option (II) is rated as ‘Medium’ since data access at the point of care is supported, but population-level analysis may be more challenging. Care organizations can, under this alternative, query other CIE ecosystems in the state to determine whether an incoming patient has received care from other providers. However, without a platform for storing data in a standard format across CIE ecosystems, HCA may not be able to aggregate that data to get visibility into HRSN levels across regions.

Option (III) is rated as ‘Low’ because it does not enable real-time data access at the point of care. While providers may be able to access a central patient information database, the contents of that database would be older than in the other two options, due to the need for a governing body to manually standardize multiple data reports at regular intervals. However, option (III) would allow the creation of periodic population-level HRSN reports and analyses.

2.3.2 Comparison factor: Potential for adoption and buy-in from statewide partners

Options (I) and (II) are both rated ‘Medium-High’ because both strategies create minimal capacity strain on regional hubs and partner organizations, and offer a similar value proposition to partners and stakeholders in terms of point-of-care support, as described in the section above. However, each option has its own unique trade-offs in terms of community buy-in.

Option (I) may face higher barriers to buy-in due to hesitation from community members about sharing data with a central platform and distrust of the stewardship of that centralized data. However, the strategy may

create a better value proposition compared to (II) because it may offer more timely access to population-level HRSN data.

On the other hand, option (II) potentially reduces the need for partners and stakeholders to share patient data centrally, because data is only shared across regional CIE ecosystems as needed; this decentralization may encourage higher buy-in. That said, (II) may offer a reduced value proposition in terms of aggregated data access, reducing the incentive to join the platform. Further, the added pressure on organizations to independently develop interoperability with multiple other CIE systems in the state may discourage platform adoption.

Since the two options each have an advantage and a drawback in terms of adoption potential, both are given the same rating of 'Medium-High'.

Due to the potential added capacity burden for partner organizations, option (III) is considered 'Low'; employees who are asked to take on the extra task of manually collecting and sending data reports may choose not to send them, limiting the quality of data that can be aggregated and analyzed across regions. Further, because this option may delay regional access to aggregated data, the resulting information may not be useful enough for regions to justify investing resources and capacity to participate in the system.

2.3.3. Comparison factor: Feasibility to implement

Option (I) is rated 'Medium' because despite the high implementation cost relative to (III), it represents a less significant technological and governance challenge than option (II). Cost is may be high due to the need to develop a technology platform that supports interoperability across multiple existing data systems. Next, in contrast to (II), option (I) only requires interoperability between a single central system and each separate CIE. There may be a legislative challenge in implementing governance over the data repository, and the alternative involves a technological challenge to develop interoperability support, but these challenges are expected to be less than those for (II).

Next, option (II) is 'Low' because the technological and cooperative challenges to implement are potentially greater than for the other options. On technology, this option requires that each CIE ecosystem active in the state develops data interoperability with every other CIE in order to be able to query and pull data from those CIE databases. The need for inter-CIE interoperability in (II) may also create a contractual challenge, since CIE vendors historically have sometimes been unwilling to integrate with each other's data systems due to competition. The cost of (II) to HCA may be less than that of (I) because the central governing body does not need to develop statewide technology infrastructure, but additional cost may be carried over to partner organizations that need to develop additional functionality.

Alternative (III) is rated 'High' because it is the most feasible alternative along all three factors. The cost is potentially lower than other options, requiring a relatively small infrastructure of staff members at hubs to make and send regular data reports, and a central data team to manually standardize and consolidate the individual reports. Further, (III) is the only option that does not require the implementation of a technology platform, or technological support to build data interoperability (e.g., through support for APIs) between systems. Logistically, a mechanism may be required to enforce or incentivize data reporting from each CIE solution.

2.4 Strategic question: What features will HCA consider including as part of the initial CIE rollout?

A statewide CIE solution can provide a range of features that support community-based care coordination for HRSN. HCA's options for the features to include as part of the initial CIE rollout may include the following:

- I. **A complete list of 14 features** as initially identified by HCA⁶
- II. **A prioritized list of 4-5 features** based on input gathered during the landscape review – the top 5 identified features include a resource directory, referral platform, case management functionality, HRSN patient record, and population level analytics
- III. **A single, prioritized feature** from the list of the top features identified during the landscape review e.g., HCA partners with HHS Coalition Agency to create a statewide resource directory

Note that for this strategic question, HCA may decide to pursue a phased approach where they start with one of the options listed below and build to a more expansive set of features over time.

The three options have been compared to each other with the mapping and rationale as shared below:

Exhibit 5. Strategic question – What features will HCA consider including as part of the initial CIE rollout: option descriptions and options rated against the comparison factors⁷

		Score on potential comparison factors		
		High	Medium	Low
		Feature mix for statewide CIE solution– commonly used options		
Options are compared with each other based on three factors:		I. The statewide CIE solutions offers the complete list of 14 features as initially identified by HCA	II. The statewide CIE solutions offers a prioritized list of 4-5 features based on input gathered during landscape review ¹	III. The statewide CIE solution prioritizes a single feature e.g., HCA partners with HHS Coalition Agency to create a statewide resource directory ¹
A	Ability to meet the objectives and vision for a statewide CIE	High	Medium	Low
B	Potential for adoption and buy-in from statewide partners	Low	High	Medium
C	Feasibility to implement (e.g., cost, technical feasibility, governance feasibility)	Low	Medium	High

2.4.1 Comparison factor: Ability to meet goals and objectives of CIE

Option (I) is rated as ‘High’ – a CIE solution with all 14 features as initially identified by HCA is likely to provide the highest level of care coordination support to stakeholders and partners (e.g., ADT notifications, patient risk stratification etc.). It has the potential to act as the single-stop solution for the care team to support a patient through multiple parts of their journey e.g., need and risk identification, quality closed loop referral, continuous whole person care, and ongoing case management.

Option (II), is rated as ‘Medium’ because while it is not an end-to-end community-care coordination solution, it still incorporates the highest value features as stated by stakeholders and partners during the landscape review –resource directory, referral platform, case management functionality, SDOH patient record, and population level analytics.

⁶ Full list of features includes resource directory, event notification for Admission-Discharge-Transfer (ADT) data, closed-loop referral, user-based access, HRSN analytics, personal health record, shared care plan, assignment/attribution of patients to providers and health plans, HRSN data exchange and related tools/services, HRSN screening tools, risk stratification, call center for patients to identify community resources, care coordination workflow and/or case management services, and mobile services

⁷ Source: Landscape review

Option (III) is rated ‘Low’ because it provides the least amount of support to stakeholders and partners. Furthermore, prioritizing one feature may lead to continued dependence on multiple community-care coordination systems for coordinating different parts of the patient journey. This multi-system approach may lead to fragmented care and a sub-optimal experience for the patient.

2.4.2 Comparison factor: Adoption from key statewide partners

Option (I) is rated as ‘Low’ because incorporating 14 different features may add administrative burden on partner organizations (e.g., training, reporting). Also, this approach may have lower buy-in from stakeholders and partners that view the HCA support as a system redundancy for areas with existing capabilities.

Next, Option (II) is rated as ‘High’. Rolling out a prioritized list of select features is responsive to priority needs stated by stakeholders and partners and is likely to create lower administrative burden than Option (I). In this option, HCA may be able to establish a clear value proposition for their focused support on the top 4-5 features as being complementary to the existing infrastructure and capabilities in the Washington state ecosystem.

Option (III) is rated as ‘Medium’. Prioritizing a single feature in a statewide solution may not be sufficient to address priority needs stated by stakeholders and partners. Additionally, building statewide alignment on a single feature may pose challenges due to the inter-dependency between some of these functionalities e.g., a closed loop referral will be hard to establish without a well-functioning resource directory.

2.4.3 Comparison factor: Implementation feasibility

Option (I) is rated ‘Low’. Because this option involves implementing the greatest number of features, it is potentially going to have higher costs and technological barriers compared to Options (II) and (III). In addition to the development of each feature, a successful implementation may require a higher number of connection points to existing processes and systems across the set of statewide stakeholders and partners. From a governance standpoint, it may be challenging to gather funding support and alignment for the tail-end of features that were not highlighted as priority use cases by stakeholders and partners during the landscape review.

Option (II) is rated ‘Medium’ because it involves implementing a subset of features in Option (I) – therefore, it is potentially less expensive and technologically complex than building out the complete list of 14 features. Also, it may be easier to establish the value proposition for this option when engaging stakeholders and partners, as it directly addresses the most pressing needs in the community. Note – the exact feasibility will depend on the set of features prioritized by HCA.

Option (III) is rated ‘High’ as it has the smallest scope of features, making it the least costly and technologically complex. However, a single feature solution may face funding challenges as it would be hard for HCA to justify how it can meet all the goals and objectives stated as part of MTP waiver application.

2.5 Strategic question: What are populations and/or geographies that HCA focuses on as part of the initial CIE rollout?

The options for population and/or geography rollout during initial implementation of a CIE solution include:

- I. The statewide CIE solution is rolled out for **all populations and geographies** at the same time
- II. Statewide CIE solution is rolled out using a pilot approach **starting with select populations e.g., jail transitioning population, housing insecure and/or geographies**

Note that for option (II), additional consultation with statewide stakeholders and partners may be necessary to inform the decision on populations/geographies to be prioritized as part of the initial CIE rollout.

The two options have been compared to each other with the mapping and rationale as described below:

Exhibit 6. Strategic question – What are populations and/or geographies that HCA focuses on as part of the initial CIE rollout: option descriptions and options rated against the comparison factors

	Population mix for statewide CIE solution– commonly used options		Score on potential comparison factors		
	I. The statewide CIE solution is rolled out for all regions and population groups at the same	II. Statewide CIE solution is rolled out using a test-and-learn approach starting with select regions and/or vulnerable populations e.g., jail transitioning population, housing insecure	High	Medium	Low
Options are compared with each other based on three factors:					
A Ability to meet the objectives and vision for a statewide CIE	High	Medium			
B Potential for adoption and buy-in from statewide partners	Low	High			
C Feasibility to implement (e.g., cost, technical feasibility, regulatory feasibility)	Low	High			

2.5.1 Comparison factor: Ability to meet goals and objectives of CIE

Option (I) is rated ‘High’ because it supports community-based care coordination for a larger group than Option (II). The wider network of partner organizations in this option may also result in better data exchange and availability both at the point of care and at the overall HRSN population health level. This could help drive continuity in care for patients, while also enabling partner organizations in proactively addressing care gaps in their communities.

Option (II) is rated ‘Medium’. While a focused approach will address the needs of a smaller set of patients, the quality and scope of services provided may be better than in Option (I). Additionally, this approach could help progress the goal on equitable care as funds can be directed towards areas with the biggest care gaps in Washington (priority gaps to be identified by HCA in consultation with statewide stakeholders and partners).

2.5.2 Comparison factor: Adoption from key statewide partners

Option (I) is rated as ‘Low’ because it requires adoption from a higher number of stakeholders and partners than Option (II). Obtaining buy-in from a broader range of organizations can be challenging and time consuming– for instance, inconsistencies in shared understanding of a statewide CIE solution can lead to confusion on the benefits of using such a tool. Initially rolling out a solution to all populations can result in lack of trust across organizations that may also deter adoption; some organizations may need time to develop relationships before feeling comfortable with using a CIE solution to connect patients to care resources.

Option (II) is rated as ‘High’ because as a starting point, HCA would have to build alignment with a fewer number of organizations. It may also be easier to establish the value proposition of a statewide HCA governed solution if it was addressing care gaps in areas that are widely recognized by stakeholders and partners as being under-served and under-funded. Furthermore, the pilot approach in this option can allow HCA to test-and-learn early in the process, so that the CIE solution is continuously being improved to meet the needs of communities in Washington. Finally, Option (II) can help HCA create a proof-of-concept which can be used to build buy-in from a broader set of stakeholders and partners in the future.

2.5.3 Comparison factor: Implementation feasibility

Option (I) is rated ‘Low’ since it is potentially more expensive, time consuming and technologically challenging to implement a solution that addresses care needs for a higher number of patients. With this option, HCA may need to build data interoperability with a larger set of systems in the ecosystem. It may also need a wider set of data agreements between different partner organizations. From a governance standpoint, it may require more effort from HCA to ensure consistent standards and partner accountability in a larger-scale solution.

Option (II) is rated ‘High’ because it is potentially less expensive and technologically complex compared to Option (I). Implementing a solution addressing the needs of fewer patients may mean a lower investment in building and maintaining the CIE infrastructure. It may also be easier to establish governance in this option given fewer stakeholders would need to be involved.

2.6 Strategic question: What is the level of programmatic support that HCA would like to provide as part of the initial CIE rollout?

Programmatic support for CIE is defined as any support for non-technological infrastructure that enables CIE capabilities. This support may take the form of direct funding for new staff members, trainings made available to partner organizations, etc. Three options for degrees of programmatic support that HCA may provide to regions are as follows:

- I. **Direct funding earmarked for specific use-cases** (e.g., funding to hire staff members to manually maintain internal resource directories)
- II. **Funding for programmatic support allocated for regions to use as needed**, with HCA oversight and guardrails on use of funds
- III. **No programmatic support** for regional or local CIE solutions

The three options have been compared to each other with the mapping and rationale as described below:

Exhibit 7. Strategic question – What is the level of programmatic support that HCA would like to provide as part of the initial CIE rollout: option descriptions and options rated against the comparison factors

		Level of programmatic support – commonly used options		
		I. Direct funding earmarked for specific use-cases ² (e.g., funding staff members at Hubs to manually update resource directories)	II. Funding for programmatic support allocated for regions to use as-needed, with HCA guardrails and oversight on use	III. No programmatic support for regional / local CIE solutions
Options are compared with each other based on three factors:	A Ability to meet the objectives and vision for a statewide CIE	Medium	High	Low
	B Potential for adoption and buy-in from statewide partners	Medium	High	Low
	C Feasibility to implement (e.g., cost, technical feasibility, governance feasibility) ³	Medium / Low	Low	High

1. Programmatic support involves support for non-technological aspects of a CIE ecosystem (e.g., workforce-related support, regional data analysis, etc.)
 2. Use-cases selected as informed by dialogue with statewide stakeholders and partners
 3. Technological barriers may not present a significant difference across options

2.6.1 Comparison factor: Ability to meet goals and objectives of CIE

Option (I) is rated as ‘Medium’ because it provides some level of support for regions to improve the quality of programmatic infrastructure and addresses common gaps in that infrastructure, but the solution may enable less flexibility than (II) to address all regions’ specific programmatic needs. For instance, funding for staff

members to manually update regional resource directories may help fill an important gap for many regions and improve quality of care, but some regions with more widespread challenges around CHW capacity for community-based care coordination may still have challenges that create barriers to care access or care quality for some of their communities.

Option (II) is rated as 'High' because of the three alternatives, it offers the most flexibility for regions to address individual gaps in their non-technical CIE infrastructure. Since programmatic needs may vary by region, regions may also be best positioned to identify and meet those needs if supported.

Option (III) is rated 'Low' because it involves no support to enable or encourage programmatic CIE infrastructure regionally. The landscape assessment revealed that many regions, including both those that have implemented CIE and those that have not, face gaps in workforce, capacity, analysis capability, etc. which create barriers in their ability to implement community-based care coordination. A lack of funding to address those gaps may make CIE less effective.

2.6.2 Comparison factor: Adoption from key statewide partners

Option (I) is rated 'Medium' because it gives support that may unlock some operational or capacity-related adoption barriers for regions. However, this strategy may be less attractive than (II) from an adoption perspective because the restrictions on funding use may not address all regional barriers.

Option (II) is rated 'High' because compared to the other options, it potentially gives regions the most autonomy to address the barriers which might otherwise prevent them from adopting a CIE system. Further, the broader allocation of funding may give regions a greater sense of ownership and self-governance over their regional CIE solutions, reducing resistance about buying into a statewide CIE platform.

Option (III) is rated 'Low' because some regions facing significant programmatic barriers to CIE implementation, if not supported by the state, may elect not to adopt a CIE technical platform at all. For instance, if a region does not have the capacity of on-the-ground community health workers to onboard local organizations and community members to a new platform, or does not have the resources to train its staff members on a new system, then the region may not see the value in CIE at all.

2.6.3 Comparison factor: Implementation feasibility

Option (I) has a rating of 'Low-Medium' because the strategy may involve a significant barrier to securing a funding pathway, but governance over the solution may be less complex than that for (II). Funding for regional programmatic support may be challenging for both options (I) and (II) because funding may have to be secured separately from the one-time funding for technology deployment. While the difficulty in securing funding is expected to be comparable between the two options, option (I) may be more attractive in terms of feasibility because the use-cases for regional funding are more clearly defined; as a result, establishing governance and oversight to ensure that regions are using the funding responsibly will be less complex for (I).

Option (II) is considered 'Low' because the strategy involves overcoming the most significant barriers around securing and distributing funds to regions, as well as establishing oversight and tracking for the use of funds. Funding may represent a major challenge comparable to that in option (I), described above. However, since (II) involves funding with less clear use-cases than (I), it may require more work on the part of HCA to serve as arbiter over appropriate or inappropriate uses.

Option (III) is rated 'High' on feasibility because it requires no action from HCA. There is no cost associated with the option, nor is a governance structure required as it is with the other two options.

2.7 Mapping pain points to strategic questions

During the landscape assessment, stakeholders and partners identified 11 shared themes of pain points which both form barriers to community-based care coordination systems that exist today, and create challenges for implementing new community-based care coordination systems, including CIE. The pain points, described in more detail in the landscape review report, are listed below for reference:

<p>Barriers expressed by statewide stakeholders and partners around connecting patients to appropriate care today</p>	<ul style="list-style-type: none"> I. Availability of care resources in local community: limited care resources to meet communities’ care needs II. Access to information on currently available local resources: challenges in identifying care resources, and their specific available services, in an area at a given time III. Prioritizing care for the highest need groups: referral matching systems either lacking consistent processes to prioritize care based on need or having gaps in services for certain vulnerable populations IV. Access to information about care received from other organizations: challenges in determining if referrals were accepted or care was provided (i.e., “closing the loop”), and coordinating ongoing care with health workers from other organizations V. Compliance with data-sharing regulations and standards: difficulties in attempting to access and share patient data in a complex regulation and compliance landscape VI. Availability of up-to-date data on population health and needs: limited visibility into local population-level Health-Related Social Needs (HRSNs)
<p>Barriers expressed by statewide stakeholders and partners around implementing CIE or other community-based care coordination systems</p>	<ul style="list-style-type: none"> VII. Technological and logistical barriers to creating a CIE system: challenges around platform development and integration that may hinder the creation of systems that improve community-based care coordination VIII. Buy-in from key stakeholders and partners: low adoption rates from both community members and organizations that may limit the effectiveness of community-based care coordination systems IX. Community-based care coordination processes creating resource and capacity burden for partner organizations: potential administrative strain to organizations from opting into community-based care coordination efforts, taking time and resources away from providing care X. Securing sustainable, long-term funding for community-based care coordination: uncertainty around long-term funding pathways for CIE can create barriers to implementation XI. Prioritizing patient experience and relationships: difficulty creating a streamlined, whole-person-focused patient experience may limit the effectiveness of care

Each of the five strategic questions considered in this report impacts a subset of the pain points.

Four pain points – access to information on currently available local resources, availability of up-to-date data on population health and needs, buy-in from key stakeholders and IX. care coordination processes creating

resource and capacity burden for partner organizations, are affected by the choices made across five strategic questions.

Several other pain points are impacted by at least three strategic questions: access to information about care received from other organizations, technological and logistical barriers to creating CIE system, prioritizing patient experience and relationships, and access to information on care received across organizations.

Other pain points are affected more selectively by one or two strategic questions, and every pain point is affected by at least one question. The below graphic shows a mapping of the strategic questions to the pain points that they impact. As a note, in many cases a strategic option may have an indirect or second-order effect on a pain point, but these indirect impacts may not be reflected in the graphic.

Exhibit 8: Mapping of strategic questions to pain points

11 common “pain point” themes around community-based care coordination (identified as part of landscape review)	1 What CIE platform archetype does HCA intend to utilize?	2 How can HCA enable interoperable data infrastructure across different CIE solutions?	3 What features will HCA consider including as part of the initial CIE rollout?	4 What are populations and/or geographies that HCA focuses on as part of the initial CIE rollout? Some options include?	5 What is the level of programmatic support that HCA would like to provide as part of the initial CIE rollout?
I. Availability of care resources in local community				✓	✓
II. Access to information on currently available local resources	✓	✓	✓	✓	✓
III. Prioritizing care for the highest need groups				✓	✓
IV. Access to information about care received from other organizations	✓	✓	✓		
V. Compliance with data-sharing regulations and standards	✓	✓			
VI. Availability of up-to-date data on population health and needs	✓	✓	✓	✓	✓
VII. Technological and logistical barriers to creating CIE system	✓	✓	✓		✓
VIII. Buy-in from key stakeholders	✓	✓	✓	✓	✓
IX. Care coordination processes creating resource and capacity burden for partner organizations	✓	✓	✓	✓	✓
X. Securing sustainable, long-term funding for community-based care coordination	✓				✓
XI. Prioritizing patient experience and relationships	✓	✓	✓	✓	

3. Enabling factors that HCA could consider as part of CIE strategy

The enabling factors for developing CIE are the factors that HCA may need to establish for effective implementation. These factors include developing levers to drive interoperability of data across CIE solutions within the state, making choices around use of statewide data standards, establishing sustainable governance structures for CIE, and aligning statewide partners and stakeholders on goals and success metrics for CIE. The following sub-sections lay out the factors in greater detail, including rationale for why they may be important to address, as well as considerations on what may be required to establish them.

3.1 Establishing levers to drive cross-CIE interoperability at the state level

Obtaining stakeholder and partner buy-in for cross-CIE interoperability or CIE platform adoption may require an authority mechanism to enforce or encourage participation. HCA can gain that lever through multiple pathways, four of which are described here. First, HCA could secure legislative authority, possibly attached to a budget request, to enforce a legal mandate on adoption of data standards and norms. Second, the state could establish contractual agreements which predicate funding for regional and local organizations on adoption of data standards and interoperability. Third, HCA could convene a coalition of partners and stakeholders who all

believe in the value of shared data interoperability, and who have an interest in the success of a data sharing ecosystem, with community-led governance. Fourth, HCA can set a standard on data exchange and interoperability to create a market participation lever which encourages existing CIE solutions to build compliance with the set standards.

3.2 Choosing statewide data standards

As part of the CIE strategy, HCA may need to set a standard for patient data to be adopted by local and regional partners. This role could be important for any CIE solution that involves sharing of data across regions or different CIE ecosystems in order to simplify data interoperability and reduce the technological complexity of converting data between formats. Data standardization may also be important for aggregating data across regions to use for population-level analysis of care needs. Even strategic pathways without cross-CIE data sharing in the initial CIE rollout may benefit from HCA standard-setting, because that enables a strategy to build toward increased interoperability in future versions. Given that many organizations operating in Washington also have a national presence, and that national standards for data sharing are currently emerging and evolving, HCA may elect to adopt one of the current standards for data use (e.g., the Gravity Project’s implementation guide to use Fast Healthcare Interoperability Resources (FHIR) for HRSN data.⁸ HCA may also need to consult with regional and local partners and stakeholders before adopting a data standard, in order to understand the impact of a standard on those organizations, and to learn if any systems in the state are recording data which is not included in a current standard.

The national landscape for data standards in CIE ecosystems may be more fractured than in health information exchange environments between providers.⁹ In the absence of a widely adopted national data standard for CBOs sharing SDOH data, some current CIE ecosystems and vendors may be developing their own internal data standards among their partner organizations.¹⁰ However, existing data standards in SDOH health IT, namely Fast Healthcare Interoperability Resources (FHIR), which is widely adopted for health information exchange between providers, may be useful to consider in the development of statewide norms around patient data storage.¹¹ Many of the organizations that may participate in the statewide CIE ecosystem in Washington may have already adopted FHIR standards, including many provider EMR systems and the systems that interface with those EMRs.¹² Additionally, FHIR can provide a case study for the ways in which adoption of a data standard can be supported at scale through funding for implementation, regulatory enforcement of certification criteria, and support from partner organizations to develop use-cases. The appendix (section 7.7) of the landscape review report contains more details on the use of national standards for SDOH data in health IT.

3.3 Making decisions related to CIE solution governance

HCA may need to establish governance structure and operating model for the ongoing monitoring and support for a CIE solution. Governance can be a critical tool to ensure accountability through the development and tracking of performance metrics that are shared across CIE ecosystems in the state and observed over time to determine the effectiveness of various care interventions. Governance over a statewide CIE can also present an opportunity to foster adoption and ownership, by giving partners and stakeholders a voice in the ongoing upkeep of a platform. In any strategic pathway, governance systems may need to exist around areas including: criteria for membership and participation in a statewide CIE; accountability norms for partner organizations and

⁸ Details on current trends of national data standards can be found in the appendix.

⁹ Interview with an expert on SDOH data in health IT, conducted August 24, 2022.

¹⁰ Ibid.

¹¹ <https://www.hcinnovationgroup.com/population-health-management/social-determinants-of-health/news/21273196/community-information-exchange-called-a-gamechanger-for-st-louis>

¹² <https://www.hcinnovationgroup.com/population-health-management/social-determinants-of-health/news/21273196/community-information-exchange-called-a-gamechanger-for-st-louis>

for the governing body; roadmaps for reviewing and updating the CIE platform and strategy; and standardized metrics for tracking the impact of the CIE solution and the performance of partners within the CIE ecosystem.

3.4 Aligning on objectives, goals, and success factors for CIE

Prior to implementation of a CIE solution, HCA may need to align statewide partners and stakeholders around a common purpose of the CIE planning work and establish agreed-upon success metrics to measure performance against the stated purpose. First, it is important to obtain statewide agreement on objectives prior to setting the direction for the CIE effort. Having a common understanding of the CIE strategy's goals helps focus efforts, minimizes confusion, and potentially increases support for the strategy. Alignment with all appropriate parties provides a clearer vision for future implementation of a statewide solution that can also guide consensus on decision-making throughout the process. HCA may need to choose a process to convene a statewide gathering for potential discussion on the purpose of work for CIE. Second, defining and aligning on success metrics is valuable for determining if the objectives of the CIE strategy are being met. It is important to track whether a statewide solution has delivered on its intended outcomes and benefits have been realized – if the success metrics have not been met, HCA can then respond accordingly to try and improve the effectiveness of a statewide CIE solution. Further, it is critical to agree on success metrics so that there is a shared, statewide approach on how to assess effectiveness of a CIE and desired impact on patients.

4. Next steps

These strategic questions and related analyses on underlying options is not meant to be exhaustive, and instead is to be used as a tool to facilitate discussion and decision making regarding the potential path forward on the statewide CIE solution. The following are next steps that the HCA CIE planning team can take to engage and align stakeholders and partners on insights identified as part of this report:

- **One or more workshops** to discuss the report findings and align on the right set of strategic options for the statewide CIE solution
- **Further analysis of the strategic pathway(s) aligned on during the workshops**, including more detailed models for cost and considerations for a potential RFP to implement the CIE strategy
- **Additional outreach conversations with statewide stakeholders and partners** (e.g., ACHs, MCO, Tribes, CBOs, safety net providers, professional organizations, etc.) to discuss the choice of CIE strategic pathway and gather feedback that may be used to inform the implementation process