RECOMMENDATIONS FOR THE FUTURE OF THE VERMONT HEALTH BENEFIT EXCHANGE

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1 Executive Summary

In the 2016 Budget Bill Act 172[1], the Vermont General Assembly called for an analysis of the Vermont Health Connect (VHC), sometimes also referred to as the Vermont Health Benefit Exchange, regarding the current functionality and long-term sustainability of the technology for Vermont Health Connect. (As a note, for the remainder of this document the "Vermont Health Benefit Exchange" will be referred to as the "Vermont Health Connect"). Over the course of four months ending on December 15, 2016, over 75 interviews were conducted and many historical and current project documents were analyzed. The resulting analysis is broken down into three primary tasks:

- Task 1 assesses whether the current VHC IT system meets the service level expectations of constituents, the Centers for Medicare and Medicaid Services (CMS), or Carriers (e.g. Blue Cross Blue Shield of Vermont or MVP Health Care.
- Task 2 assesses the feasibility and the cost effectiveness of the VHC system over the long-term.
- Task 3 examines alternative solutions to meet the requirements of the VHC.

This Executive Summary provides a summary of the final conclusions for each of these three tasks, the reasoning behind each conclusion, and other critical organizational requirements needed to successfully achieve sustainability.

Summary of Final Conclusions for Each Task

The following identifies the final conclusions related to each of the three tasks: Task 1 operational readiness, Task 2 feasibility and cost effectiveness of the VHC system, and Task 3 an examination of alternatives.

Regarding Task 1 operational readiness, the current VHC system actively supports eligibility determination and benefits provisioning for participants of both Qualified Health Plans (QHP) and Medicaid. Having said that, significant deficiencies exist in the system – deficiencies which have created and will continue to create issues that do not meet the service level expectations of constituents, the Centers for Medicare and Medicaid Services (CMS), or carriers (e.g. Blue Cross Blue Shield of Vermont or MVP Health Care). These deficiencies cause the VHC system to not adequately support all constituents. The Agency of Human Services (AHS), as of September 2016, has received funding to address these deficiencies and is actively working on a plan to resolve them. It is worth noting that based on conversations with other states and independent research, many other states have faced similar challenges with the system implementation and operational support.

Regarding Task 2, it is not feasible or cost-effective to maintain the VHC system, in its current form, over the next several years due to the numerous deficiencies identified in Task 1. However, while the VHC system is not sustainable in its current form, building on it is the most feasible and cost-effective option to achieve long-term sustainability. Multiple factors support this conclusion, including the strong technology foundation of the VHC system and CMS's financial support of plans to enhance the existing VHC system. If executed successfully, the current implementation plans related to Vermont's Integrated Eligibility program will address the current deficiencies of the VHC system. This work, necessary to achieve sustainability, is significant and must be completed within aggressive timelines, thus presenting a risk of failure. However, these risks can be mitigated with strong program governance and project

[1]http://legislature.vermont.gov/assets/Documents/2016/Docs/ACTS/ACT172/ACT172%20As%20Enacted.pdf

management. While the project work is not without risk, building on the current VHC system is the most feasible and cost-effective technology option to achieve long-term sustainability.

Regarding Task 3 the examination of alternatives to the technology of the current VHC system, six primary solutions were examined: 1) commercially offered solutions, 2) the Federally Facilitated Marketplace (FFM) also known as Healthcare.gov, 3) directing participants to engage with Carriers, 4) modified adjusted gross income (MAGI) in the cloud, 5) reuse of the legacy ACCESS system, and 6) transfer solutions and partnering with other States. These alternative solutions are either only partial solutions, do not support the unique Vermont health benefits policy, or introduce excessive costs or risks. Therefore, none of them should be exclusively pursued in lieu of building on the current VHC system.

In summary, the current VHC system, while operationally ready, still has significant deficiencies that must be quickly addressed to properly serve constituents. However, the current VHC system is built on a strong technology foundation. After examining six possible alternative solutions, the most feasible and cost-effective path for long-term sustainability is to continue to enhance the current VHC system.

Reasoning Behind the Conclusions

The following summarizes the reasoning behind each of the conclusions related to the three tasks of operational readiness, feasibility and cost effectiveness of the VHC system, and an examination of alternative solutions.

Task 1: Operational Readiness.
As mentioned above, the current VHC system serves some constituents well. However, significant deficiencies exist that will continue to create issues for other constituents, CMS, and Carriers. While the VHC project team has made significant progress since last year's Open Enrollment period and successfully supports many constituents, overall it does not meet the expectations or needs of all constituents. The following are some of the high-level deficiencies that must be addressed in the short-term:

- Incorrect data exists within the VHC system, which creates reconciliation issues.
- There are poor data exchange interfaces with carriers and the billing partner, which creates data discrepancies between the different information technology systems of these organizations
- The business processes lack appropriate automation (for example data validation and reporting)
- There are continuing episodes of poor customer support services.

While the current VHC system is operating, the deficiencies identified above are significant and must be addressed to properly serve constituents.

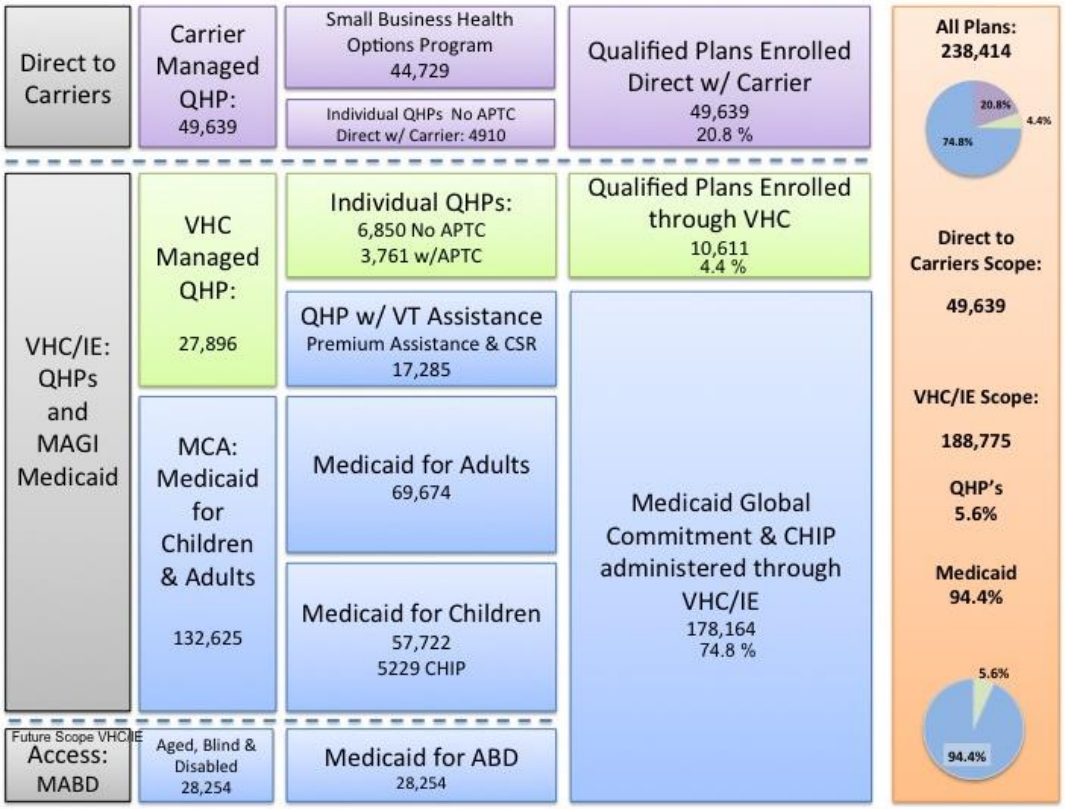
Task 2: Feasibility of the VHC.
The current VHC system, without improvements, is not a sustainable means to properly meet expectations and requirements for servicing health benefits. However, building on the existing VHC system is the most feasible and cost-effective option for achieving long-term sustainability. In support of this conclusion are four key drivers:

1. Vermont's distinct health benefits policy direction
2. The Agency of Human Services (AHS) vision of a shared enterprise eligibility system
3. The strength of the current VHC technology foundation
4. The significant financial support of CMS for the current vision

Each of these is described below.

- **Vermont's Distinct Health Benefits Policy Direction.** Vermont has played a significant and positive role in the history of Health Care Reform and innovation in the United States. For example, the Blueprint for Health, Dr. Dynasaur, Vermont's Global Commitment 1115 Medicaid Waiver, and the All-Payer Model are examples of innovative approaches that have been modeled and/or are being watched closely by other states. Furthermore, currently, Vermont is one of only two states that offer additional exchange subsidies in addition to the federal subsidies or qualified beneficiaries. The analysis of the VHC system assumes that Vermont wishes to continue to be on the forefront of health care reform in this country and is committed to continuing to offer these additional exchange subsidies beyond those of federal policy. This complicates the technology solution and requires some level of custom functionality within the VHC system so building on the existing customized system is desirable.

- **Agency of Human Services Vision of a Shared Enterprise Eligibility System.** AHS has a vision to establish a single technology portal for 'one-stop-shopping' to service all health-care plans and benefits provided to Vermont constituents. This technology vision has many benefits for constituents including, reduced burden of not having to interact with multiple systems, clarity and accuracy regarding benefits eligibility (eligibility related data are captured in a single system), and streamlined service such as customer support. Furthermore, of the approximately 189,000 Vermonters who receive their health care from either Medicaid or QHP plan through the VHC, Vermont received some form of federal matching dollars for over 94% of these beneficiaries under its Medicaid Global Commitment 1115 waiver. The following illustration depicts the high-level breakdown of constituents served by the VHC.



Combined, these two factors (the vision of a single eligibility technology platform and the large proportion of Medicaid supported beneficiaries in Vermont) effectively define the VHC as not only the system to support QHP beneficiaries, but also the system to support Medicaid beneficiaries. This scope of the VHC to support both QHP and Medicaid beneficiaries is a prudent and strategic approach for Vermont from the perspective of system reuse and long-term cost efficiency. However, it does eliminate the ability to utilize some of the examined alternative solutions that target special purposes, such as just supporting QHP participants.

- **Strength of the Current VHC Technology Foundation.** The VHC system is built on robust, proven platform systems, namely the technology product suite built by Oracle. This suite is purchased software that has been integrated and configured to meet the specific needs of the VHC. While there have been past issues with this integration and configuration, the investment in these platform tools presents a strong foundation of performance, scalability, and functionality on which to build.

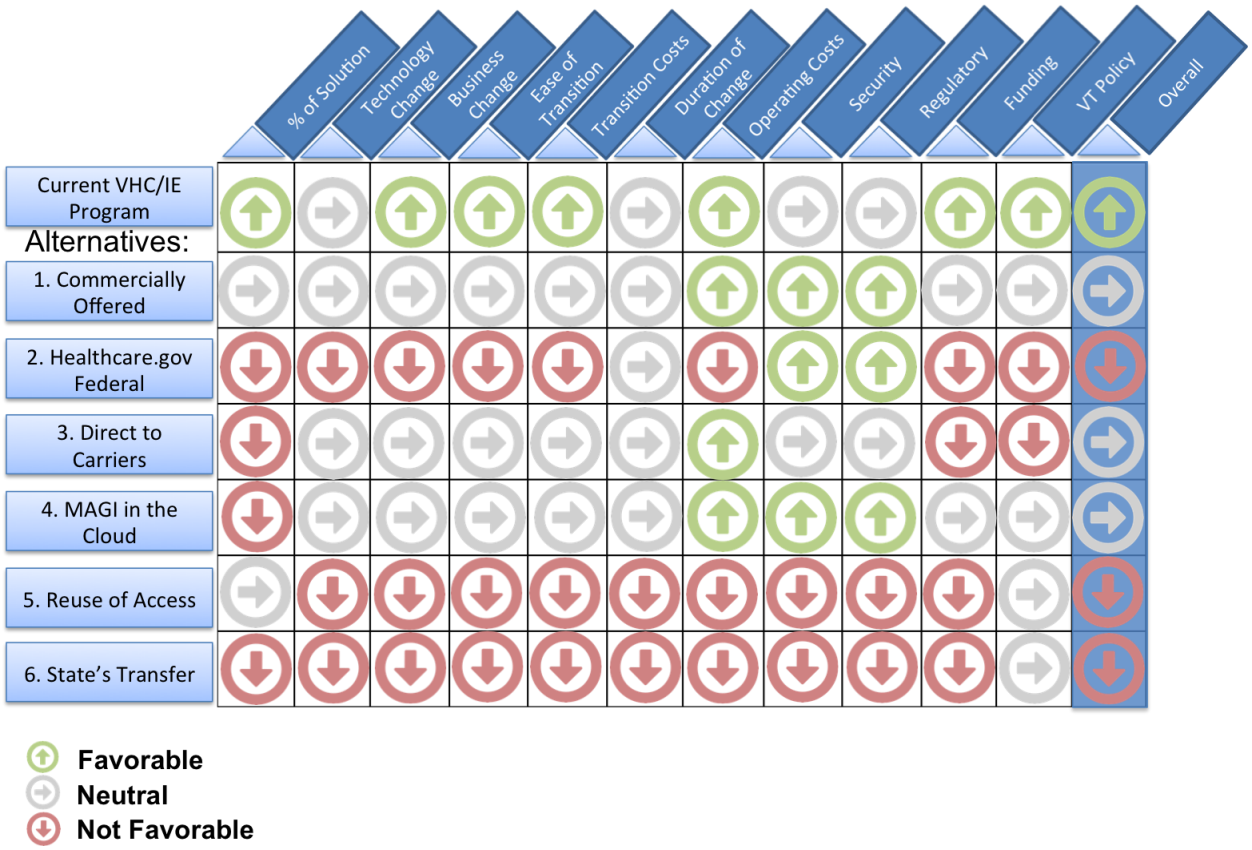
- **Significant Support from CMS of Current Vision.** In September 2016, the Agency of Human Services (AHS) successfully secured over $62 million of federal funding for the VHC and Integrated Eligibility and Enrollment modularization program for Phase I (**VHC/IE**)[2]. This funding requires a 10% State match of $6.8 million, making the total gross program funding around $69 million. The federal funding expires on September 30, 2018 and was approved based on proposed enhancements to the current VHC system. This recent funding award presents valuable support for Vermont to achieve sustainability. However, it has two important impacts on the identification of the most feasible technology option. First, any deviation from the proposed approach to build on the current VHC system will require re-examination by CMS related to the funding award. Second, the expiration of the funding award on September 30, 2018 creates an urgency to realize value-added improvements to the VHC system within 21 months. Some of the examined alternative solutions, such as wholesale replacement of the VHC technology through commercial solutions or transfers from other States, present risks related to the existing CMS funding award.

The recommendation to achieve long-term sustainability is to build on the existing VHC system and is justified by Vermont's established policy direction, the Agency of Human Services current vision of a shared enterprise eligibility system, the strength of the current VHC technology foundation, and the significant financial support of CMS.

Task 3: Examination of Alternative Solutions.

Six primary alternative solutions were examined as possible alternatives to the current VHC system. None of these alternatives should be exclusively pursued in lieu of building on the current VHC system. However, some of the alternative solutions should receive continued consideration as possible solutions to very particular needs of the VHC. The following chart shows the recommended approach with the current VHC/IE Program in comparison with several alternative approaches across the categories researched.

[2] IE Phase I will remove OneGate, prepare the system technically for broader use, and will migrate non-MAGI Medicaid programs from the Legacy system. Phase II will include the integration of 41 additional human services programs including SNAP and LIHEAP. Vermont will need to work with the appropriate federal partners and the Vermont legislature to secure the necessary funding for Phase II.



The following describes the analysis of each of the six alternative solutions examined:

1. **Commercial Solution.** A compelling argument to switch wholesale to a commercial solution cannot be made at this time, but Vermont should continue to review products that become available as the market matures. Commercial solutions could present an opportunity to quickly establish proven technology and acquire subject matter expertise in support of specific VHC needs. In examining such solutions, long-term software licensing costs must be considered. However, utilizing proven commercial solutions supported by teams of subject matter experts shortens implementation times and reduces the risks of failure associated with building software solutions from scratch.
2. **Federally Facilitated Marketplace (FFM).** Switching to the Federally Facilitated Marketplace (FFM) has three primary disadvantages: it requires investment to implement, it only addresses the needs of QHP's, and it presents risks should federal support of the FFM wane in the current climate in Washington DC. In short, the FFM as an alternative solution presents little benefit and significant risk.
3. **Direct Access to Carrier.** Directing QHP beneficiaries who do not qualify for state or federal tax credits to engage with Carriers could streamline the current billing processes. This alternative solution presents possible opportunities to streamline only a very particular area of the VHC, namely billing. While this option presents possible incremental improvements to specific needs of the VHC, it also has disadvantages and costs, and is not an alternative solution that could replace the current VHC technology in total.
4. **MAGI in the Cloud.** MAGI in the cloud is a technology service made available at the federal level that could be utilized to determine eligibility for federal health benefits. This alternative solution presents a possible opportunity to leverage an existing service to address a very specific

need of the VHC, namely the algorithm to determine eligibility for federal health benefits. As such, it represents a solution to a very small percentage of the VHC functionality and is not an alternative solution to replace the VHC system in total.

5. **ACCESS.** The legacy ACCESS system, which is built using antiquated technology, will not meet the needs of the VHC or existing federal regulations. CMS has been clear that they will not fund activity that builds on antiquated technology that is not compliant with their standards. As an example, CMS mentioned that older legacy technology often cannot cost-effectively meet the security requirements of CMS. Building on the legacy ACCESS system presents risks related to the technology and the ability to secure future CMS funding in support of both implementation and operations.
6. **Other State's Transfer and Partnering Opportunities.** Switching to a transfer solution from another state could be costly, restrict future independence, and have a similar level of risk as continuing to build on the current VHC system.

Therefore, none of these six alternatives should be pursued as a total replacement of the VHC in lieu of building on the current VHC system. However, commercial solutions, direct access to carrier, and MAGI in the cloud should be considered in the future to address very particular needs of the VHC.

Other Organizational Requirements to Achieve Sustainability

Aside from the technology aspects, throughout the course of the analysis other organizational challenges and related requirements emerged. To some extent, regardless of the technology option pursued, these organizational requirements are critical to the long-term success of the VHC. The following describes at a high-level some of these critical organizational requirements to reduce risk:

- **Program Governance.** The magnitude of required work (~$69M budget), the many organizational entities involved with the VHC program (AHS, Carriers, billing partners, implementation vendors, etc.), and the aggressive timeline (21 months) necessitates quick decision making, consistent accountability, and strong executive level support across all interested parties so that work can proceed expeditiously.

- **Project Planning and Execution.** An intense planning effort must be completed to establish a realistic plan to achieve the current goals of the VHC/IE program. Multiple parallel work streams should be established, priorities should be well understood, work should be broken down into iterations that produce value as soon as possible, and all project dependencies (e.g. procurement processes, etc.) must be understood. A coherent high-level plan must be established so that the many resources needed to successfully execute the project work can be engaged, coordinated, and efficiently utilized.

- **Staff Planning.** The number of expert staff resources currently supporting the VHC is not commensurate with the needs of a program as complex and large as the VHC. Given the importance of the IE program to VHC's long term viability, and considering the September 30, 2018 deadline for funding, Vermont must pursue all channels to engage the appropriate staff resources to execute the program work. Possible avenues to engage staff resources include new procurements for third-party resources, leveraging existing staff augmentation or other contracts, and purchasing commercial solutions to meet particular needs. All necessary procurements should be identified immediately and fast tracked as soon as possible to engage the necessary resources.

- **Contingency Planning to Reduce Risk.** Significant risks exist within the current work plans in support of the VHC system. These risks are driven by the magnitude of the work to be completed, aggressive timelines and the lack of adequate qualified staff resources. Therefore, Vermont must closely monitor progress and have contingency plans available should the current vision not seem possible to achieve. These contingency plans will identify actions that will mitigate and address risks. Such actions may include reducing the scope of the current effort or deploying more turnkey commercial solutions to address particular needs of the VHC.

Conclusion

This analysis resulted in conclusions for the three tasks related to the VHC technology system and also included critical organizational requirements. Regarding Task 1 operational readiness, the current VHC system is not sustainable without continuous improvements. It has significant deficiencies that create issues that lead to a failure to meet expectations for some constituents. Regarding Task 2 and Task 3, after analyzing six alternative solutions, the most feasible and cost-effective technology approach is to continue to build on the strong technology foundation of the current VHC system. Furthermore, from a funding perspective, Vermont has the means to make the required improvements as a result of the $62M CMS award that expires on September 30, 2018. Having said that, the magnitude of work to be done, the aggressive deadlines, and the limited existing staff resources make successfully achieving sustainability highly contingent on urgent action to address critical organizational requirements to improve program governance and engage the staff resources necessary to execute the project.

Regardless of the technology solution, if Vermont does not pursue these organizational requirements, the $62M CMS award may be underutilized and long-term sustainability will not be achieved. There is no easy, "silver bullet", technical solution to achieve sustainability. Vermont has tremendous opportunity to improve the VHC system. Above all, taking full advantage of this opportunity will require an increased sense of urgency[3]. The commencement of passionate, well-planned, diligent, persistent, and quality work to drive valuable results must be initiated as soon as possible. The new Administration should prioritize this work in order to achieve stated objectives in a timely manner.

[3] Appendix H: "Proposed Strategic Actions" lists some thoughts related to actions that should be urgently undertaken.

2 Project Background and Overview

In the 2016 Budget Bill Act 172[4], the Vermont General Assembly called for a study regarding the future of the Vermont Health Benefit Exchange. The Vermont Health Benefit Exchange is more commonly known as The Vermont Health Connect or VHC. SSG will reference the exchange as VHC for the remainder of this document. The following is an excerpt from section E. 127.1:

RECOMMENDATIONS FOR THE FUTURE OF THE VERMONT HEALTH BENEFIT EXCHANGE

(a)(1) The Joint Fiscal Office (JFO), in collaboration with one or more independent third parties pursuant to contracts negotiated for that purpose, shall conduct an analysis for the General Assembly on or before December 15, 2016 regarding the current functionality and long-term sustainability of the technology for Vermont Health Connect.

(2) The analysis shall include a review of the outstanding deficiencies in Vermont Health Connect functionality and customer support, an analysis of the Agency of Human Services' plans and actions to address these deficiencies, and a determination as to whether those plans and actions are likely to be effective.

(3) The analysis shall include an evaluation of the feasibility and cost-effectiveness of maintaining Vermont Health Connect either as a standalone system or as part of the technology for a larger, integrated eligibility system, including a comparison of these costs to those of other State-based exchanges. This analysis shall include a review of licensing costs and issues as they apply to both the commercial components and the software that make up Vermont Health Connect.

(4) The analysis shall provide a comparison of the costs of alternative approaches required to ensure a sustainable, effective State-based exchange and, to the extent possible, shall provide specific recommendations and action steps for legislative consideration. Alternative approaches shall include any opportunity to build on other States' exchange technology, as well as a fully or partially federally facilitated exchange. Factors to be analyzed include required technological change, ease of transition, short-term and long-term costs for both the transition and the operation of the alternative, and implications for future developments of the Vermont health care system.

(5) Any options presented in this analysis shall be scored based on the factors in subdivision (4) of this subsection.

(b) In conducting the analysis pursuant to this section, and in preparing any requests for proposals from independent third parties, the JFO shall consult with health insurers offering qualified health plans on Vermont Health Connect.

(c) The Secretary of Administration, the Secretary of Human Services, and the Chief Information Officer shall provide the JFO access to reviews conducted to evaluate Vermont Health Connect and any other information required to complete this analysis. The Executive Branch shall provide other assistance as needed. If necessary, the JFO shall enter into a memorandum of understanding with the Executive Branch relating to any reviews or other information that shall protect security and confidentiality.

[4] http://legislature.vermont.gov/assets/Documents/2016/Docs/ACTS/ACT172/ACT172%20As%20Enacted.pdf

The scope of the analysis as contracted by the Joint Fiscal Office includes the following high-level tasks:

- Task 1— perform an operational readiness assessment of Vermont Health Connect (VHC) in order to determine to what extent the system is meeting expectations. Assess whether it can be functional in the short term with the current plans, and whether AHS' plans and actions are sufficient to address known deficiencies.

- Task 2 — a long-term assessment of VHC to determine whether it can be functional and sustainable in the long term. The analysis includes an evaluation of the feasibility and cost-effectiveness of maintaining Vermont Health Connect either as a stand-alone system or as part of the technology for a larger, integrated eligibility system, including a comparison of these costs to those of other State-based exchanges.

- Task 3 — examine alternatives to VHC and provide a scoring of VHC and the alternatives. The analysis provides a comparison of the alternative approaches required to ensure a sustainable, effective State-based exchange and, to the extent possible, provides specific recommendations and action steps for legislative consideration. Alternative approaches shall include any opportunity to build on other States' exchange technology, as well as a fully or partially federally facilitated exchange. Factors analyzed include required technological change, ease of transition, short-term and long-term costs for both the transition and the operation of the alternative, and implications for future developments of the Vermont health care system.

3 Task 1: Operational Readiness for the Vermont Health Connect

3.1 Summary of Task 1

Vermont has maintained an aggressive vision for the Vermont Health Connect (VHC) in providing access to health benefits to constituents. However, meeting this aggressive vision has been a challenge as the VHC has not met federal standards or constituent expectations. Vermont is not alone in this experience as many other States have encountered similar challenges in implementing the IT systems necessary to support the healthcare reforms driven by the Affordable Care Act (ACA). The following summarizes an overall assessment of the current VHC, provides information related to existing deficiencies, and then finally provides remediations to address the most urgent of these deficiencies.

Overall Assessment of the Current VHC

The current VHC system continues to enable Vermont citizens to apply for and obtain appropriate health benefits. The system actively supports eligibility determination and benefits provisioning for beneficiaries of both Qualified Health Plans (QHP) and Medicaid, a combined total of around 189,000 participants. Vermont has made progress since last year's Open Enrollment for the calendar year 2016, specifically completing a "surge" of implementation work in July 2016 to address some of the known deficiencies. Many dedicated staff resources are working hard through numerous partnerships to continue improving the VHC.

Although the VHC is technically operating, it is doing so with significant deficiencies that continue to create service issues. When these issues occur, they create a level of service that does not meet the expectations of constituents, the Centers for Medicare and Medicaid Services (CMS), or the Carriers (e.g. Blue Cross Blue Shield of Vermont or MVP Health Care). Furthermore, the deficiencies in the VHC system require manual processes and extra customer care and support which are financially unsustainable. Therefore, urgent implementation work must continue to address the deficiencies of the VHC system.

Structure of Operational Readiness Assessment

The following sections provide a review of the deficiencies identified in the VHC system. The findings presented are based on the review of VHC documents, evaluation of routine operations and procedures, and interviews with over 75 VHC staff and program partners. The review is divided into 4 main operational areas:

- Customer Service
- VHC Technology
- Data Management and Data Exchange with Partners
- Project Planning, Design, and Execution

Legend for Assessment. Each operational area includes an assignment of risk that generally correlates to the impact of the risk and the likelihood of its occurrence. The following are the risk levels utilized:

- **Very High Risk:** High Impact and High likelihood
- **High Risk:** High Impact and Some likelihood
- **Medium Risk:** Moderate Impact and High likelihood
- **Low Risk:** Moderate Impact and Some likelihood
- **Very Low Risk:** Low Impact

Summary of Deficiencies

The following provides a list of some of the primary deficiencies within each of four areas: Customer Service, VHC Technology, Data Management and Data Exchange with Partners, and Project Planning and Execution. Each operational area includes an assignment of risk on a scale of Very High, High, Medium, Low, and Very Low. It is worth noting that based on conversations with other states and independent research, many other states have faced similar challenges with the system implementation and operational support.

Deficiencies with **Customer Service** present **medium** risk. There continues to be episodes of poor customer support services and there is a lack of defined accountability for some aspects of the customer experience.

Deficiencies with **VHC Technology** present **medium** risk. The VHC system utilizes robust platform tools, namely the Oracle stack. However, it has design challenges, including both a high degree of poorly designed customized software code such as OneGate and numerous data interface and data integrity issues.

Deficiencies with the **Data Management and Data Exchange with Partners** present **very high** risk. There are observed problems in the management, coordination, and communication of data across all providers related to implementation and ongoing operations of the VHC.

Deficiencies with the **Project Planning, Design, and Execution** present **high risk**. Ineffective end-to-end practices related to project planning and management have led to poor execution. Lack of architectural and design oversight, requirements rigor, and adequate testing have contributed to poor product design and performance.

Short-term Remediations to Address Deficiencies

Urgent work must be done to address these significant deficiencies. The following highlights some of the key remediations across all the areas:

1. Institute metrics that more closely depict the customer journey to understand a customer-centric view of call center performance and the entire customer service experience.
2. Prioritize focused work to address existing deficiencies with data exchange. Empower one individual to lead the partnership with the Carriers and the billing provider. This individual will provide oversight of communication, engagement, and business processes. They will be held unambiguously accountable for all project work related to the data exchange between the VHC and the Carriers and billing providers.
3. Establish strong **Vendor Management** and **Systems Integration** competencies to adequately oversee future development efforts.
4. Create a team of experienced data professionals responsible for the quality of data within all parts of the VHC system. This team should be able to work directly with the Carriers' data issues as well.
5. Document the design of the data exchange interface as it exists today (“root cause findings”) and then propose changes needed to improve it. Convert these detailed root cause findings into a project specifically targeting the improvement of the data exchange interface.

6. Ensure design accountability by empowering one individual within AHS technology as the VHC system architect. This staff resource must ensure that all deliverables related to software development follow a set of established software design industry best practices and standards.

Conclusion

While the current VHC actively services participating constituents, it still has significant deficiencies – deficiencies that have created and will continue to create issues that do not meet the service level expectations of all stakeholders: Vermonters, Carriers, and CMS. Each of the deficiencies identified above must be urgently addressed as they continue to manifest into issues for constituents and the failure of the VHC system to meet the CMS requirements. The need for action and successful results is urgent. The VHC system has a tremendous impact on the lives of a significant number of Vermonters. In support of these constituents, we all share a desire to successfully address the most urgent deficiencies of the system in a timely manner.

The following summarizes the overall assessment across the four main operational areas:

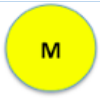
Area	Summary of Key Findings
Customer Service: The totality of systems, human interactions, and other support that is dedicated to responding to customer needs. This includes questions and problems regarding health plans, eligibility, billing, payment, data changes, etc.	M Medium Risk In the past, the Call Center has experienced unsatisfactory call wait-times. Through expanding the number of Tier 1 staff resources answering the phones, recent improvements have been made. The understanding and agreement of service boundaries across VHC and its partners is lacking. Vermont and its partners need to agree on delivery and execution responsibilities.
VHC Technology: The architecture, design, core software, and infrastructure of the current VHC system.	M Medium Risk The VHC system utilizes robust platform tools, namely the Oracle stack. However, it has design and architectural challenges, including both a high degree of poorly designed and customized software code, and numerous data interface and data integrity issues.
Data Management and Data Exchange with Partners: The coordination of activities between AHS and key external partners to service constituents and maintain good, accurate, and reliable data.	VH Very High Risk There are observed problems in the management, coordination and communication across all providers related to implementation, ongoing operations, and the data integrity of the VHC.
Project Planning, Design and Execution: The process for planning, developing, testing, and deploying an information system.	H High Risk Ineffective end-to-end practices related to project management and oversight have led to poor execution. Lack of architectural oversight, requirements rigor, and adequate testing have contributed to poor product design and performance.

3.2 Area: Customer Service

Description

Customer Service addresses the overall quality and consistency of the VHC system, staff resources and business processes to fulfill the customers' needs. Customer service aims to provide a superior customer experience before, during, and after customers' direct interactions with the VHC. The assessment seeks to determine whether customer service is being provided through a well-managed predictable set of practices that meet customer expectations.

Assessment Summary



Medium Risk – Moderate Impact and High likelihood

Call Center Performance

The VHC system utilizes a three-tiered system of customer service related to the Call Center. Tier 1 is the first level that answers both submitted written requests and inbound calls to the Call Center Help Line. If the request is of a complex nature, then the Tier 1 support staff can forward the call to Tier 2. Finally, for those exceptional cases that need unique attention and follow-up, Tier 2 staff resources can escalate to Tier 3, the final level of the hierarchy, for resolution. A third-party vendor, Maximus, executes Tier 1 support while Tier 2 and Tier 3 support is executed by the Vermont Agency of Human Services (AHS). This tiered structure was established over the summer of 2016 to better triage issues. It is designed to maximize the knowledge of staff resources and improve customer service. Even though the VHC Call Center is an acknowledged priority, it has experienced uneven performance over the last 18 months, evidenced by monitoring internal performance metrics and constituent feedback.

Particular performance metrics related to the VHC Call Center are tracked routinely to help try to determine the level of customer service provided. As an example, the average time to answer calls over the summer and late fall during Medicaid re-enrollment degraded far beyond a reasonable degree. Wait time for a phone call into the VHC Call Center has averaged over 10 minutes for stretches of time, with many customers experiencing wait times in excess of 30 minutes to talk to a Tier 1 staff member. This performance did not meet the Tier 1 vendor's contracted Service Level Agreement (SLA) and as a result the vendor was obligated to pay financial penalty.[5] As a point of comparison, other Medicaid and State exchange service centers maintain, on average, two-minute wait times.[6]

In addition to the ongoing internal performance monitoring, feedback from customers has also reflected poor customer service. Several stories of poor customer service were received including the following issues:

- Calls not being picked up for long periods of time.
- Once a call is answered, being put on hold or being transferred multiple times.

[5] As of October 2016, Maximus failed to live up to their Service Level Agreement (SLA) commitments in 6 of the past 8 periods. They have had to pay fines each time for failure to provide a minimum level of acceptable service.
[6] The Commonwealth of Massachusetts' State exchange call center experiences average 2-minute wait-times during peak call periods.

- Having to engage on the phone with the VHC Call Center multiple times and for hours in order to have issues addressed.
- Being promised follow-up calls to address issues and then not hearing back from the VHC Call Center.

This level of poor customer service, reflected in both tracked quantitative metrics and customer feedback, produces a customer experience that negatively impacts constituents' lives, takes a significant portion of personal time to sufficiently address, and damages the reputation of the VHC system.

Managing Customer Service

DVHA and AHS need to advocate for constituents during every point of the journey to obtain health benefits: from initiating research, to obtaining health benefit coverage, to receiving and paying bills. There lacks defined accountability for all aspects of the customer experience as evidenced by the many documented service problem tickets that exist. In addition to clear accountability for the overall customer experience, there is also a lack of dedicated professionals from the VHC Team for maintaining key vendor relationships at a senior level. For instance, there is no single point of contact within the State for maintaining the complete relationship with BCBSVT at a sufficiently senior level. Additionally, the lack of service definition and responsiveness across providers creates an environment where issues resolution at times is not efficient and can be contentious.

While these organizations are partners with Vermont in serving constituents, they are also customers of Vermont. Vermont must provide data and other key information to these partners in accordance with federal regulation so as to be a reliable and quality partner. As an example, the partnership work with BCBSVT accounts for at least 85% of all QHPs in the VHC system. The work to support these program partners is critical to the mutual goal of high quality customer service for constituents.

Detailed Strengths and Weaknesses

Strengths:

- **Recognized Need for Re-structuring Operations Management.** Changes were made to organizational structure to allow for better support of line staff by newly created management layer.

- **Some Proactive Notifications to Customers.** Notifications are sent to customers to provide advanced notice about the enrollment schedule.

- **Working Relationships with Vendors and Customer Support Personnel.** The VHC Team has improved the working relationship with Maximus to address urgent needs related to the Call Center.

Weaknesses:

- **Unclear Definition of Success.** Key Performance Indicators (KPI) do exist but are not always indicative of customer satisfaction. True success should include many other criteria in addition to what is currently tracked by the State. As a result, customers and legislators have no mutually agreed on published standards that would effectively manage service expectations; there is no definition of what success is and how it should be measured and perceived.

- **Individual Poor Customer Experiences.** The episodes of poor customer support services at the Call Center have not met expectations of the VHC, including average call wait times of 10 minutes. While these issues have been partially addressed, the resulting customer experience damages the team's reputation.

- **Inadequate Means to Measure Customer Service.** The metrics published by the Call Center operations are not robust enough to measure the complete customer experience of the VHC. Recently, VHC operations staff and Maximus have been working daily calls to review service metrics. They have accelerated a hiring plan to bring additional call-center expertise online. Early anecdotal indications and some metrics appear to support that these intensive actions have improved performance. However, there are some constraints in the current technology used to track performance metrics that make true customer-centric performance difficult to measure. For example, there are metrics related to average wait times before calls are answered, but not metrics about the end-to-end duration of a customer's experience with the Call Center (i.e. including all transfers and hold times, etc. until issue resolution). There is currently no means to depict the end-to-end experience of each caller into the VHC Call Center, including aggregate wait times when transferred from one Call Center staff resource to another.

- **Communication and Escalation of Customer Service Issues.** In some cases, inadequate customer service was not escalated to DVHA and Administration executives in time for an adequate management response.

- **Inadequate Means to Partner with Other Vendors in the Delivery of VHC services.** VHC has challenges in their ability to coordinate multiple partners. This leads to untimely problem mitigation or resolution. There is a lack of defined accountability for all aspects of the customer experience, which spans multiple organizations. AHS must assume accountability for the entire customer experience.

Remediations

- Institute metrics that more closely depict the customer journey so as to understand a more customer-centric view of Call Center performance.

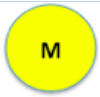
- Deploy dedicated relationship management professionals within the State to manage all key activities, issues, and risks associated with key service partners.

3.3 Area: VHC Technology

Description

The VHC Technology area covers a wide range of topics related to the overall VHC Technology system. This includes the **Architecture and Design**, **Functionality**, and **Security, Stability and Performance,** and **Operational Sustainability.**

Assessment Summary



Medium Risk – Moderate Impact and High Likelihood

The VHC technology system has been through numerous challenges, including multiple platforms and multiple third-party development vendors. In its current form, the VHC system is built on robust, proven, commercial platform systems, namely the technology product suite offered by Oracle: Oracle WebCenter Portal, Oracle WebCenter Content, Oracle Enterprise Service Bus, Oracle Business Process Management, Oracle Master Data Management, Oracle Data Integrator, Oracle Database and Oracle Siebel.[7] These system tools create a strong foundation of performance, scalability, and functionality for the VHC system. In effect, Vermont purchased pre-packaged Oracle software components and then, completed development work to integrate and configure them to meet the specific needs of the VHC system.

While the VHC system is built on a strong foundation from Oracle, a significant amount of custom software development was done to integrate and customize core components to meet specific needs. The VHC system has architectural weaknesses and challenges including the following:

- The custom development and configuration has significant design and architectural flaws that go against industry best practices (e.g. lack of data integrity, duplicate records, lack of transactional integrity, etc.).
- The custom development and configuration was designed by Exeter, a company that has since filed for bankruptcy. The code (referred to as OneGate) is no longer supported by the originating organization or development teams.[8]
- From a system functionality perspective, numerous manual workarounds are required to support the system. This is an indication that the VHC system functionality is not robust or well automated.

The VHC system is built on a robust software platform that can expand and mitigate some risk within the system. However, the customizations done on that platform present significant design challenges that will need to be addressed. AHS has made plans to do so, and this "fixing" of the custom code is sometimes referred to as "extracting OneGate".

[7] An independent Platform Technical Readiness Assessment was funded by AHS to review the existing set of platform software utilized by the VHC. This report is confidential, but corroborates the belief that the current platform software suite is robust.
[8] Exeter sold OneGate as a "product" but it is in effect very specific customizations and extensions of the Oracle platform systems. Therefore, OneGate should not be considered a supported software package or product but instead a collection of customized code that belongs to the State of Vermont.

Detailed Strengths and Weaknesses

Strengths:

- **Built on Robust Platform Tools.** The VHC leverages robust platform tools from Oracle, including the following: Oracle Siebel CRM (Customer Relationship Management), Oracle BPM (Business Process Management These platform tools provide a baseline of functionality and configurability that serves VHC well.

- **Support from Primary Sponsor CMS**, a primary funding source for the VHC. CMS supports the platform tools selected.

- **Similar Platform Solution as Other States.** Other States have chosen a similar set of platform tools. Knowledge sharing is therefore possible across States to support system development.

Weaknesses:

- **Poorly Designed Customizations and Extensions to Platform Tools.** There is a high degree of custom configuration and code built on the platform of Oracle systems. This custom development and configuration have significant design and architectural flaws (e.g. lack of data integrity, duplicate records, lack of transactional integrity, etc.).[9] The custom development and configuration was designed by Exeter, a company that has since filed for bankruptcy. The code is no longer supported by the originating organization or development teams. Numerous manual workarounds are required to support the system, which indicates that functionality is not well automated.

- **Continued Need for Customizations.** The continued need for new custom code from the Development, Design, and Implementation (DDI) vendor and maintenance vendor presents risk. The VHC requires architectural and design oversight and thorough testing by all stakeholders (BCBS, WEX Health, MVP, etc.). This often does not occur.

- **Not Compliant.** The system lacks desired and required functionalities. Without mitigation, it is not compliant with CMS regulations. There is an approved mitigation plan that calls for additional software development.

Remediations

- Aggressively complete the work currently in progress as part of the Operational Readiness Sustainability Development (ORSD) project.

- Establish strong vendor management and systems integration competencies to adequately oversee future development efforts.

- Gain consensus on cost structures and identify cost reduction strategies. Thoroughly review costs to determine opportunities for real cost reductions.

[9] Many design and architecture best practices are well defined within the industry. See Appendix A for references of such standards and guidelines.

3.4 Area: Data Management and Data Exchange with Carriers and Billing Provider

Description

A system and program with as much complexity as the VHC and the dependencies on external organizations and systems, requires extremely effective coordination, data management, and data exchange interfaces. Successful and timely service delivery to constituents is heavily reliant on maintaining data synchronization across multiple IT systems. This section describes the ability of the VHC system to maintain the data integrity across multiple systems accurately, reliably, and timely.

Assessment Summary

Very High Risk – High Impact and High likelihood

The VHC is comprised of old and new technology components that expand across internal (State) and external service providers. These components include different State agency systems, federal agency systems, as well as different organizations including Carriers, support vendors, and a billing provider. It is an IT ecosystem that includes multiple data exchange interfaces, multiple data storage systems, and multiple data sets. This inherent complexity requires strong data management and strong data exchange interfaces. However, the VHC system has the following deficiencies, which have significant adverse impacts on constituents:

- Poor design that has led to data integrity issues. Various data discrepancies are in the system(s) due to deficiencies in the system design. The design does not consistently adhere to best practices related to maintaining data integrity (e.g. data validation, record de-duplication, enforcing referential integrity, etc.)
- Deficiencies in the VHC system data exchange interface that do not ensure transactional integrity (e.g. robust transaction audit trails, transaction acknowledgement processing, automated reconciliation functionality, etc.)
- Organizational related issues within AHS specific to the data exchange interfaces and work with external partners

In short, the VHC system lacks automated functionality commonly used to ensure data integrity within systems and transactional integrity between systems. There is no substitute for automated processes that confirm data integrity across all system(s) on a routine daily basis. Such automation does not exist to the degree necessary within the VHC system and represents a very real and urgent threat to accurately servicing the constituents of Vermont. There is some evidence that new functionality in VHC to record accurate change of circumstance (COC) user data more quickly has led to better results. However, the data in the system(s) is still too vulnerable to being out of sync. Inconsistent data can lead to service disruptions, incorrect billing to customers, inhibit the effective and timely termination of plans, and damage the ability to accurately reflect the State's liability regarding its premium subsidy for eligible Vermonters. In short, different organizations are processing customer requests based on inaccurate data and finding the "source of truth" across the disparate systems can be a challenge. The issues with the data management and data exchange with Carriers and the billing provider must be

urgently addressed to reduce the onerous work of VHC system partners and also properly serve constituents.

Strengths and Weaknesses

Strengths:

- **AHS's Continued Focus on Improving Data Exchange.** AHS has recognized the need to improve the VHC system Data Exchange. Past efforts to automate processing, including parts of the reconciliation process are complete. There is some evidence that new functionality in VHC to record accurate change of circumstance (COC) user data more quickly has led to better results. Additionally, there are current plans to engage support to analyze the current data within the VHC system from a perspective of data integrity.

- **Coordination with External Partners Improving**. End-to-end working group meetings to coordinate efforts have recently been initiated. Project teams from AHS and external partners are communicating routinely and working hard to manually compare (or reconcile) data across the systems. This reconciliation process has proven highly cumbersome and reveal multiple issues related to data integrity across the systems. While it is the expectation that this current manual and labor intensive process will be replaced through automation, the project teams within all organizations seem committed to working together to service customers.

Weaknesses:

- **Lack of Adequate Data Validation.** There was universal agreement in interviews from BCBSVT, WEX Health, and VHC Operations team on the lack of automated data validation and integrity checks across all points in the system. This lack of audit control points impacts data integrity and causes numerous downstream manual workaround efforts. This is a burden shared by the Carriers. Currently, data validations are very manual and tend to occur on a monthly and ad hoc basis.

- **Data Integrity Issues Exist.** Poor design (such as inadequate data validation, inadequate record de-duplication, not enforcing referential integrity, etc.) has led to data integrity issues. As a result of existing corrupt data**,** there will probably be a number of billing errors, missed deadlines, faults with redeterminations, and some customer dissatisfaction. There is limited automated data validation and data integrity checks across all points in the system. Some critical platform tool configurations that automate some data integrity checks are disabled.

- **Inadequate Data Exchange Interface Design and Performance.** There has been historically poor performance with the data exchange interface between the VHC system and the systems of the carriers and the billing partner. This poor performance may originate from the VHC system deficiencies. Industry standard best practices for data exchange design exist, for example, utilizing standard data exchange messages, robust transaction audit trails, transaction acknowledgement processing, and automated reconciliation functionality. However, the VHC System does not adequately utilize such built-in safeguards that better automate data exchange. As an example, Vermont intentionally asks partners to suppress industry standard acknowledgement messages in some transactions since the VHC Data Exchange cannot process

the message. Additionally, there does not appear to be any end-to-end diagrams illustrating the data exchange architecture, processing sequence or infrastructure. These deficiencies create data discrepancies across the data sets of the VHC and the systems of other external partners. These data discrepancies negatively impact all of Vermont's partners (vendors, Carriers, billing provider and federal agencies) and also constituents.

- **Lack of Documented Business Processes.** There does not seem to be an Operations Manual that describes the business processes and expectations of all the parties that support customers and the data exchange interfaces. Without this clearly defined, the project team staff do the best they can, but are not well coordinated. Without documented business processes and expectations, customer service is impacted.

- **Lack of Design Documents.** There are not adequate requirements and design documents to support the coordination of the parties involved with the Data Exchange interface. For example, if the VHC team could share a requirements document that included the business rules and required data validations, they would enable external partners to better support the interface work.

- **Management and Coordination.** There are deficiencies in the management, coordination, and communication with partners related to implementation and on-going operations. For example, not all external partners felt they understood the implementation tasks necessary to complete the customer interface development and testing. An understanding of these project plans is necessary so that external partners can adequately plan their staff to support the project efforts. It was unclear who from the VHC Team acts as a point-person for the external partners to contact and who from within the VHC Team is managing the interface implementation and testing.

Remediations

1. Prioritize focused work to address existing deficiencies with data exchange. Empower one individual from AHS to lead the partnership with the carriers. This individual will provide oversight of communication, engagement, and business processes. They will be held unambiguously accountable for all project work related to the data exchange.

2. Create a team of experienced data professionals responsible for the quality of data within all parts of the Vermont system. They should have a thorough understanding of the data model and the data architecture of the system. Additionally, they should be responsible for the timely, accurate, and complete transmission of Vermont data to the Carriers and the billing vendor.

3. Document the design of the data exchange interface as it exists today and then the proposed changes needed to improve it based on identified root cause. Share this design with the insurance Carriers for feedback. Convert these detailed root cause findings into a project specifically targeting the improvement of the data exchange interface.

4. Document business processes to support the data exchange between AHS and the Carriers.

5. Document a project plan specifically for the newly identified data exchange interface work and share it with the Carriers routinely -- at least once every two weeks.

6. Use automation and auditing capabilities as much as possible to alleviate the need for manual reconciliation work.

7. Assess the current test plan, test cases and test data being utilized to ensure that they have adequate code coverage.

3.5 Area: Project Planning, Design, and Execution

Description

Project planning, design, and execution is critical for large complex systems, such as the VHC, with multiple collaborating organizations involved. Project plans must be aggressive, but also realistic so as not to "cut corners" on industry standard practices related to executing IT projects (e.g. proper requirements definition, proper testing, etc.). The assessment of the Project Planning and Execution is based on the key findings related to software quality, infrastructure design, reporting, requirements, automation, and performance.

Assessment Summary

High Risk – High Impact and Some likelihood

There is a general awareness among project staff regarding the value of following industry best practices related to project planning, design, and execution. However, consistently utilizing best practices is challenging on projects as large and aggressive as the VHC – a large team of IT professionals with expertise in implementing successful IT systems must be involved. The VHC project team has insufficient staff resources for project planning and execution that would ensure proper methods are utilized[10]. The impacts, and evidence, of this inadequate planning and execution includes:

- **More Frequent Unexpected Emergencies.** With fixed and aggressive timelines, inadequate planning or execution causes project teams make decisions to drastically reduce or forgo important activities (e.g. inadequate requirements, testing, etc.) which then causes larger, more pressing problems later.
- **Increased Costs due to Poor Staff Resource Coordination.** Some resources may not be fully utilized due to planning deficiencies.
- **Timeline Delays.** Many project teams from different organizations support the VHC. Dependencies exist within and between the teams that must be well understood and coordinated. Without planning these dependencies in advance, significant timeline delays may occur.

The current VHC project team has insufficient staff resources for project planning and execution that would ensure proper methods are utilized. Without thorough planning and proper execution, new development on the VHC system will continue to create new deficiencies that impact constituents, Carriers, and the billing provider.

Strengths and Weaknesses

Strengths:

[10] Expectations and best practices regarding project planning and execution methodologies are well defined within the industry. See Appendix A for references of guidelines related to such System Development Lifecycles (SDLC).

- **Awareness of the Preferred Best Practices.** There is an awareness and agreement among the project staff and leadership regarding the value of industry best practices related to the planning and execution of large IT projects.

- **Agreement on Overall Approach.** There is alignment of principles on the value of incremental implementations as opposed to trying to take on larger "big-bang" projects. This approach is supported by CMS and evidenced by the recent re-thinking of the project approach for Integrated Eligibility.

Weaknesses:

- **Project Management.** There is ineffective project oversight and accountability ensuring proper methods are used.
    - Planned milestones are not met; they should be made in a more thoughtful and formal manner.
    - Compromises to best practices are made. The magnitude of work and the number of project dependencies is not well understood. This negatively impacts timelines and/or the thoroughness of the approach.
    - Many parts of the project planning are reactionary to correct past errors, address an immediate need, or satisfy a compliance issue.

- **Design and Development.** There does not seem to be proper architectural and design oversight of the third-party vendor development.
    - There is evidence of a lack of detailed architectural and design oversight by Vermont of third-part development vendors based on past work and no observed satisfactory code or architecture reviews.
    - There is no Vermont staff effectively serving the important architectural oversight function, although DII staff is assigned. There was no observed formal design review process of the third-party deliverables. Poor architecture and design oversight leads to software development that does not follow industry best practices. This will cause the system be more susceptible to future deficiencies and costlier to maintain.

- **Testing.** There does not appear to be adequate testing given the complexity and size of the VHC project.
    - Proper test data was not available to perform the necessary level of system testing.
    - It was mentioned that there were times when the proper hardware test environments were not available. In particular, to be able to test using production data requires a properly secured server hosting environment that can contain production data.
    - Existing Quality Assurance (QA) test cases did not cover all the necessary conditions for thorough testing. System components went into production without being adequately tested. Some testing occurred in production, which is unacceptable by industry standards. Insufficient testing thoroughness leads to unknown deficiencies emerging in production systems. This item is particularly applicable to the testing of the Data Exchange interfaces with systems of the Carriers and the billing partner. These interfaces must exercise a large set of scenarios to ensure data and transactional integrity.

- Regression testing evaluates if new changes negatively impact the existing system. Thorough regression testing was not done consistently. There are examples where new changes broke previous functionality.
- Test automation reduces labor-intensive time consuming processes. This permits an increase in the amount of testing that can be performed. Test automation does not seem to be fully utilized.
- Performance testing evaluates the user experience of a solution is satisfactory. Vermont's limited system's facilities do not provide an adequate environment to accomplish this important work.

Remediations

1. Develop an agreed upon methodology with appropriate and defined processes.

2. Establish clear and detailed project documents (e.g. business processes, requirements, test cases, test results, project plans, etc.).

3. Define communication and escalation channels to be used.

4. Assess the current test plan, test cases and test data being used is adequate.

5. Conduct a thorough review of all contracts to ensure optimal coordination of vendors and best value.

6. Ensure architectural and design accountability by empower one individual as the VHC system architect. This staff resource much ensure that all delivered custom code follows a set of minimum standards related to industry best practice design. Since Vermont is purchasing software development services and therefore owns the resulting code base, Vermont must work to ensure that the code meets industry standard design practices.

4 Task 2: Long-Term Feasibility Assessment

4.1 Summary of Task 2

Task 2 of the assessment addresses the feasibility and cost-effectiveness of the current VHC system as a sustainable solution over the long term to support health benefits eligibility determination and plan management. The following identifies the most cost-effective and feasible long-term technology solution for the VHC, describes some of the key drivers behind the analysis, and finally, identifies some critical organizational requirements that must be addressed and acted on in order to successfully achieve sustainability.

Analysis of the Current VHC system and Long-term Sustainability

Overall, the VHC enhancements and resulting capabilities have progressed in a positive direction over the last year. Significant improvements were achieved as a result of the recent development "surge" activities completed in July 2016. Additional operational improvements, including functionality to support passive renewals, were also made prior to open enrollment for the 2017 Plan Year. However, while there has been marked progress, there remains significant deficiencies in needed functionality that make the current VHC system not sustainable or operationally cost-effective.

Although the current VHC system is unsustainable, the most feasible and cost-effective option for achieving long-term sustainability is to build on it. In support of this conclusion are four key drivers: Vermont's distinct health benefits policy direction, the Agency of Human Services (AHS) vision of a shared enterprise eligibility system, the strength of the current VHC technology foundation, and finally, the significant financial support of the Centers for Medicare and Medicaid Services (CMS) for the current technology vision.

In September of 2016, the Agency of Human Services (AHS) successfully secured over $62 million of federal funding for the VHC and Integrated Eligibility and Enrollment modularization program (VHC/IE). This funding requires a 10% State match of $6.8 million, making the total program funding around $69 million dollars. This funding represents the best opportunity to realize improvements needed to address the current deficiencies of the VHC system. The work proposed by Vermont and approved by CMS under the Implementation Advance Planning Document (IAPD) addresses the major areas of deficiency. If completed successfully, this work will provide the needed functionality to create long-term sustainability. CMS strongly supports the current technology vision of Vermont (i.e. single front door for benefits eligibility determination, establishment of a reusable shared services platform, etc.). Urgently proceeding with these CMS approved improvements is the most feasible solution for long-term sustainability.

Challenges and Risks

A significant amount of work must be completed in order to achieve long-term sustainability for the VHC system. The magnitude of IT implementation work (approximately $69 million worth) and the required timelines for completion (approximately 21 months) combine to present significant risks for success.

Additionally, the greatest concern and risk to program success is the lack of sufficient qualified staff resources necessary to successfully manage and execute the project work. Without the appropriate

level of knowledgeable staff resources who are committed to the VHC project execution, success will be limited. Specifically, the program disciplines that are mandatory for success and need to be exclusively staffed are:

- program and project management
- business analysis
- systems integration management and execution
- systems design and architecture
- quality assurance and quality assurance testing automation
- vendor management
- procurement and contract management
- security and compliance
- network & infrastructure
- Independent Verification and Validations (IVV) and project success

While existing Vermont staff are qualified, many more are necessary for a program the size and complexity of the VHC system.

The most feasible and cost-effective technical solution to achieve long-term sustainability of the VHC system is to build on it. But the necessary work has significant risks. These risks are a result of the magnitude of work, the aggressive timelines, and an insufficient number of qualified staff resources. Success will be limited unless Vermont urgently makes significant organizational changes.

Initial Implementation Road Map

For Vermont to consider embarking on the execution of the work to address the deficiencies of the VHC system, an immediate strategic planning session is required. This multi-day session should be used to review recommended strategies, prepare a high-level program roadmap, define tracks of work, assign clear accountability, identify budget estimates, establish timelines, and identify project dependencies. This intense planning effort requires the full commitment from the Administration leadership. The rapid execution of the project work requires extensive collaboration and cooperation across all program stakeholders, so any resulting plans must have the endorsement of the Administration. This detailed planning should be complete by the end of March 2017. If this planning goal is not feasible, then Vermont should strongly consider other more conservative approaches to implementing improvements.

Organizational Requirements to Address Risks

The project risks present a formidable challenge for Vermont, regardless of the technology solution utilized. To address and mitigate these risks, some critical organizational requirements have been identified, namely in the areas of program governance, project governance, staff planning, maintaining strong relationship with CMS, and contingency planning to reduce risk.

Governance. The magnitude of required work (~$69 million budget), the many organizational entities involved with the VHC program (AHS, Carriers, billing partners, implementation vendors, etc.), and the aggressive timeline (21 months) necessitates quick decision-making, consistent accountability, and strong executive level support across all interested parties.

Project Planning and Execution. A coherent high-level plan must be established so that the many resources needed to successfully execute the project work can be engaged, coordinated, and efficiently utilized. Multiple parallel tracks of work should be established, priorities should be well understood, the work should be broken down into iterations that produce value as soon as possible, and all project dependencies (e.g. procurement processes, etc.) must be understood.

Staff Planning. The number of expert staff resources currently supporting the VHC is not commensurate with the needs of a program as complex and large as the VHC/IE. Especially in light of the CMS project deadline of September 30, 2018, Vermont must pursue all channels to engage the appropriate staff resources to execute the program work. Possible avenues to engage staff resources include starting new procurements for third-party support, leveraging existing staff augmentation contracts, and purchasing vended solutions to meet particular needs. All necessary procurements should be identified immediately and fast tracked as soon as possible to engage the necessary resources.

Contingency Planning in Case Risks Materialize. Completing a $69 million project in 21 months without the appropriate staff resources presents significant risk. Therefore, Vermont must closely monitor progress and have contingency plans available should the current vision not seem possible to achieve. These contingency plans will identify actions to mitigate and address risks, such as reducing the scope of the current effort or deploying more turnkey commercial solutions to address particular needs of the VHC.

More specifically, the following are two less intensive, more conservative approaches to the existing plan that present a scope of work over the next 21 months with less risk of failure. These approaches are not mutually exclusive so can both be pursued in parallel as necessary.

- Contingency Plan Approach 1: Reduce the Scope of the VHC/IE Implementation Plan.
  The first approach involves de-scoping the project plan and reordering the tasks to bring stability and mandatory minimalistic changes to the VHC system. This approach could bring significant value and reduce operating expenses. The amount of proposed work would be a function of Vermont's ability to organize the program resources and agree on a prioritized 21-month plan. However, it should be understood that the reduction in program scope will result in a less comprehensive solution than was originally proposed in the IAPD approved by CMS in September of 2016.

- Contingency Plan Approach 2: Explore the Use of Commercially Available Products and Services to Meet Program Needs.
  The second approach explores the use of commercially available products and services where they may be applicable. These may accelerate the process of implementing IT software and sourcing teams of experts in support of VHC/IE priorities. Exploring opportunities to use commercially available modular products that complement the needs of the VHC/IE could accelerate implementation time frames. Also, modular implementation of software supported by vendor-supplied expertise may reduce the need to recruit staff resources. To be most effective in this approach, Vermont should retain expertise to oversee contract procurements and vendor management so as to maintain control over the external partners and their deliverables.

Conclusion

While the current VHC system is not sustainable as-is, Vermont has a funding opportunity to build on the current system and make the necessary improvements for sustainability over the next 21 months. Done correctly, the efficient and successful investment of this funding makes it feasible that the VHC will be sustainable over the long-term. However, the work necessary to achieve sustainability has significant risk, primarily driven by the magnitude of the work, the tight timelines, and a lack of sufficient qualified staff resources. It is critically important that Vermont urgently address the organizational requirements that are identified for success. Immediately acting on these requirements will allow the team to proceed with the aggressive execution of quality project work. The risk in not addressing these items is that existing funding may be underutilized over the next 21 months. Should this occur, long-term sustainability will not be achieved.

4.2 Sustainability of the Current VHC System

To evaluate the current sustainability of the VHC system to deliver satisfactory health benefit services, several components of the underlying technology, operational efficiency, and the associated costs required were evaluated. Sustainability in this context should be understood as the amount of resource (time, funds, staffing, opportunity costs) that Vermont commits to enable a reliable and operationally ready system that overall meets the needs of constituents, carriers, CMS, and other partners. This section considers the current published sustainability budget necessary to maintain the existing VHC system and compares it to the projected actual costs. Note this section assumes that no significant additional work will be done on the VHC system to achieve long-term sustainability. The amount to maintain current year operations has been determined by the Agency of Human Services CFO and provided as the sustainability budget (see Appendix J "Sustainability Budget").

The current system architecture, technology components, and the business staffing models of the VHC system do not provide a cost-effective sustainable solution. The system deficiencies identified in Task 1 must be addressed to provide operating stability and efficiency. This stability and efficiency is a prerequisite to effectively and affordably service the Medicaid and QHP participants in Vermont in the long term.

As evidence of the unsustainable nature of the current VHC system, the operational budget of the VHC has increased in both FY 2015 and FY 2016. SSG's current projections suggest an additional budget adjustment request will likely follow in FY 2017. The reasons for these unforeseen operational costs are the number of manual workarounds required to make up for the following high level deficiencies within the VHC:

- Flawed data architecture and integrity creates reconciliation issues and manual data cleansing activities
- Flawed system design, notably the Exeter OneGate product
- Poor data exchange interface for billing
- Lack of appropriate automation of business processes

In addition to the high-level deficiencies above, licensing agreements for Oracle software may also impact the sustainability of the current VHC. The major licensing issue for VHC is the licensing for the various Oracle products that make up much of the bulk of commercial products used in the VHC. These licenses were originally obtained via an Oracle Unlimited License Agreement (ULA) that was originally purchased in 2011. This agreement was extended several times over the next six years, and the current extension is due to expire on February 17th, 2017. At that time, AHS will be required to certify all existing licenses in order to continue using them as part of VHC (or IE). The alternative to certification is to extend the existing ULA for a period of one or more years. AHS has not committed to either approach at this time, which represents a risk to the continued operation of VHC. If the ULA is not extended, there is a limited time to certify existing licenses (30 days), beyond which the State may be deemed to be noncompliant with the Oracle licensing agreement. In short, there is a negotiation currently underway that could have an impact on the future operation of the VHC. The likely outcomes of this negotiation are currently not understood by SSG with the information provided.

AHS Sustainability Budget Projections for VHC and Projected Budget Excesses

The following illustration shows the projected budgets as guided by AHS (blue bars), the actual expense (red line) and SSG's projected budget increases in excess of AHS guidance (green line).

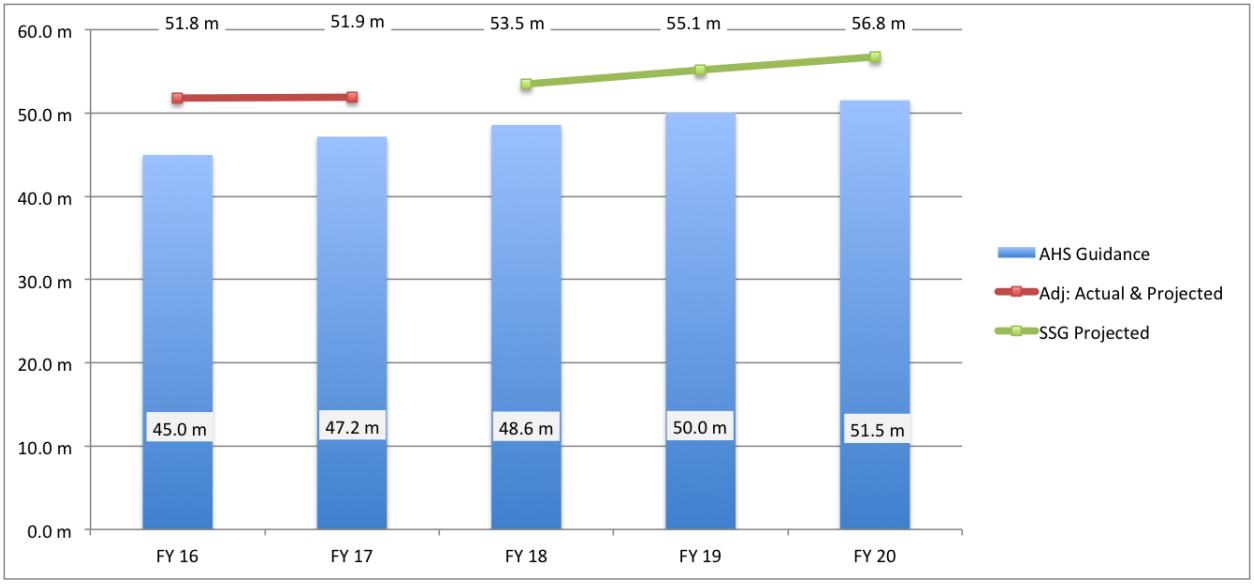


Figure 1: VHC Sustainability Budgets (blue bars) Vs. Actual and Projected Excesses[11]

- FY16 and FY17 Sustainability Budgets with 3% increases for FY18, FY19, FY20
- Projected budget adjustments based on actuals in FY16 and FY17 (red line)
- Projected budget adjustments FY18, FY19, FY20 (green line)
- All projections are in excess of the AHS sustainability budgets
- Does not account for any new efficiencies associated with VHC proposed body of work

The operational costs through FY2020 are substantial. The current impact to State General Fund in both FY16 and FY17 is roughly 43% of the total program cost (as displayed in the chart above, the total program costs for FY17 are 47.2M). The federal operating match projected in the current budget is 57%. If this remains the case and the populations served don't dramatically change, the VHC could potentially require $93 million in State funding for FY17-FY20 (calculated as the state portion of the total program costs for the 4 years FY17-FY20). This would include $8.6M in excess of the sustainability budget provided to SSG.

If no enhancements are made to the current system to reduce the number of manual workarounds and system deficiencies, further requests for more funding in excess of these predetermined sustainable levels will follow quite predictably. This level of ongoing planned and unplanned State funding will significantly impact the funding available to support other Vermont programs. The current VHC system, without any improvements, does not represent a sustainable mode of operation.

[11] See Appendix J "Sustainability Budget" for details on the AHS estimations for the program costs.

4.3 The Context of the VHC – Supporting Vermont's Health Benefits Programs

As demonstrated in section 4.2, the current VHC system is not sustainable. The next sections will describe a recommended and feasible path to sustainability. To better understand this recommendation, it is important to provide some context and background specific to Vermont.

Vermont has a unique opportunity to lead the country in health care direction due to the following (each of which is described in the sections below):

- Vermont's Distinct Policy Direction
- Vermont's Demographics and Various Benefits Programs
- Vermont's Technology Vision of a One Door Approach
- Vermont's Award of CMS Funding as of September 2016

Vermont's Distinct Policy Direction

Vermont has played a significant and positive role in the history of Health Care Reform and innovation in the U.S. For example, the Blueprint for Health, Dr. Dynasaur, Vermont's Global Commitment 1115 Medicaid Waiver, and the All-Payer Model are examples of innovative approaches that have been modeled and/or are being watched closely by other states. Furthermore, currently, Vermont is one of only two states that offer additional exchange subsidies in addition to the federal subsidies or qualified beneficiaries. The analysis of the VHC system assumes that Vermont wishes to continue to be on the forefront of health care reform in this country and is committed to continuing to offer these additional exchange subsidies beyond those of federal policy.

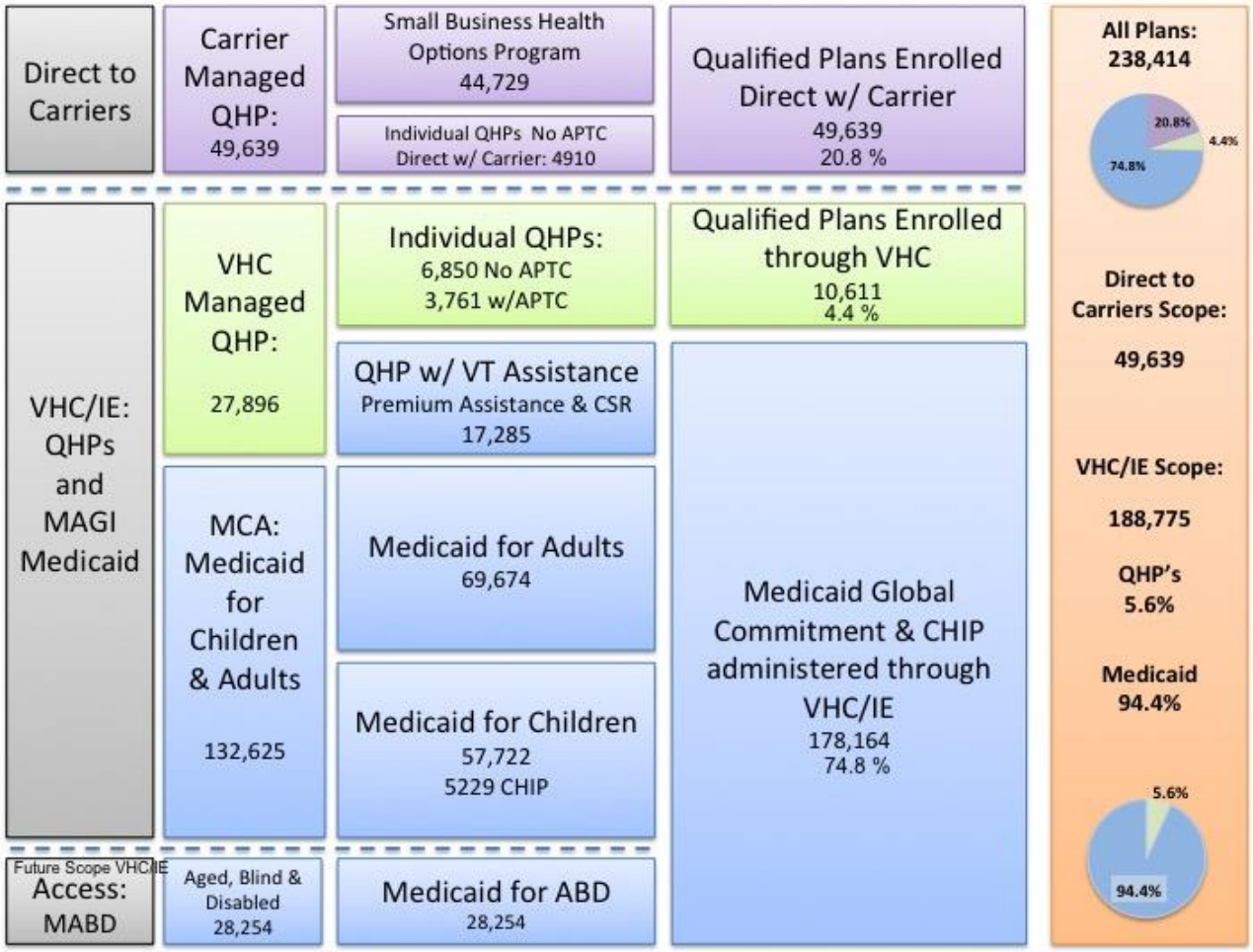
The ambition for universal, local, and progressive health care policies, however, has been inextricably linked with the broader challenges of enacting a National health-care agenda. The VHC/IE has been dependent on guidance and funding from both the Centers of Medicare and Medicaid (CMS), and the Center for Consumer Information & Insurance Oversight (CCIIO). It has required *considerable* Vermont policy, technology, and operations staffing. All these resources have been necessary to develop and enable a State-based exchange in accordance with the mandates of the Affordable Care Act of 2010 (ACA). Vermont's State-based exchange has proven very difficult to build and operate with effectiveness.

The ACA provided Advanced Premium Tax Credits (APTC) and cost sharing subsidies to eligible participants to offset the cost of Qualified Health Plans, as an incentive for widespread adoption. The State of Vermont has gone further in its attempt to reduce the uninsured rolls by maintaining additional programs for affordability: The *Vermont Premium Assistance* and *Vermont Cost Sharing Reduction* programs are key initiatives of the Vermont Legislature providing continuity with past initiatives in maintaining access to coverage. SSG interviewed several legislators in the course of this assessment and found a commitment to these programs in each and every instance. This continued commitment to affordability in excess of federal minimum guidelines is a major assumption of this assessment. This assessment assumes that Vermont will continue to keep these subsidies, in some form. This commitment to providing additional subsidies beyond those of federal policy complicates the technical solution.

Vermont's Demographics and Various Benefits Programs

Understanding the various user groups and the subsidies available that Vermont must manage are key to fully appreciating the decisions required and the funding available in the near and long-term that will create a feasibility path to future sustainability.

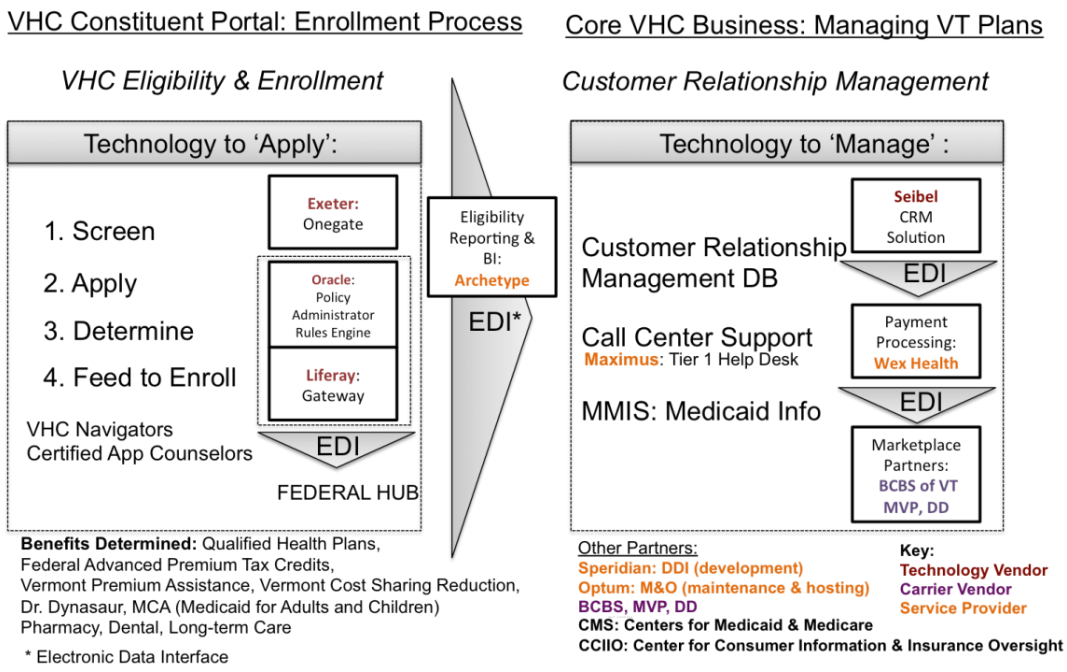
QHP and Medicaid Benefit Groups and Delivery Methods from November 2016 Data:



Qualified Health Plan (**QHPs**) ❖ Small Business Health Options Program (**SHOP**) ❖ Medicaid for Children & Adults (**MCA**) ❖ Advanced Premium Tax Credit (**APTC**) ❖ Medicaid for Aged, Blind, and Disabled (**MABD**) ❖ Integrated Eligibility (**IE**) ❖ Medicaid Adjusted Gross Income (**MAGI**) ❖ Children's Health Insurance Program (**CHIP**)

Vermont's Technology Vision of a One-Door Approach for Health Plans and Benefits

As originally conceived, The Vermont Health Connect was to provide an easy-to-use health insurance exchange where residents could evaluate the marketplace, apply for mandatory health insurance, and be predetermined for applicable state and federal subsidies. The following chart illustrates the VHC, its business technologies and partners, and major areas of interaction.



The VHC, at its core, has a blueprint for a state-run, single portal for 'one-stop-shopping' and an operating system for the subsequent servicing of all health-care plans and benefits provided to Vermont residents, including programs that provide assistance in excess of the current federal minimum guidelines. The VHC has strived to maintain Vermont's pre-ACA commitments to all Vermonters, while introducing new and affordable health care plans and servicing options.

Given the unique characteristics of the Vermont programs as well as Vermonters need for assistance, the VHC current and future scope should be first and foremost the State's system for Medicaid eligibility determination and servicing. Of the approximately ~189,000 Vermonters who receive their health care from either a Medicaid or QHP program directly enrolled through the State, over 94% are covered by the Vermont Medicaid Global Commitment. The vision is to utilize a single system, called the Human Services Platform, to serve both as the VHC system and Integrated Eligibility system.

With the exception of individuals who receive the ACA Advanced Premium Tax Credits (APTC) as their only benefit and are required to enroll through an exchange, all non-subsidized QHPs could enroll directly with insurance Carriers thus reducing the 5.6% of non-Medicaid recipients to 1.2% of the VHC enrollee base. That would make VHC/IE 98% Medicaid when you include Medicaid for the Aged, Blind, and Disabled as VHC/IE plans to do. Should the APTC or other ACA related mandates and benefits be reevaluated or overturned by the new Administration in Washington, DC, this system could conceivably become 100% Medicaid in short order. CMS has been very favorable to Vermont's vision of a single shared services platform for Medicaid and all Human Services programming. The current CMS funding

opportunities seem to support an approach that would maximize participation by Medicaid recipients on this platform in large part, or if possible, in its entirety. Although it is significant to note that the benefits structured in Vermont's Global Commitment agreement with CMS may be subject to change by the future Administration in Washington, DC, it would be premature to speculate how without additional time, insight, and guidance.

Vermont's Award of CMS Funding to Achieve VHC Sustainability as of September 2016

In September of 2016, the Agency of Human Services (AHS) successfully secured over $62 million of federal funding for the VHC and Integrated Eligibility and Enrollment modularization program (VHC/IE). This funding requires a 10% State match of $6.8 million, making the total program funding around $69 million dollars. The federal funding has an expiration of September 30, 2018 and was approved based on proposed enhancements to the current VHC system. The availability of this funding permits Vermont to explore several options to achieve VHC sustainability. It must be determined whether Vermont is positioned to effectively use the funding to successfully realize improvements that create lasting value.

Currently the planned usage of the funding is to strengthen and extend the VHC/IE system and transition ACCESS functionality into it. There is a total enrollment of ~189,000 eligible participants on the VHC and legacy ACCESS system. Over 94% of these participants are Medicaid enrollees. This is an extremely important concept because CMS pays up to 90% match funding for all systems development costs related to Medicaid. This funding from CMS is integral to the approach that Vermont must take to make the VHC a sustainable solution into the future. Since the Center for Customer Information and Insurance Oversight (CCIIO) is no longer providing any funding for State exchange development, other sources of funding must be identified. The existing CMS funding award is the primary funding opportunity available to achieve long-term cost-effective sustainability for the VHC system.

4.4 Recommendation: Build on the Current VHC/IE Technology

Task 2 requires SSG to evaluate the sustainability of the current VHC system and review the proposed improvements outlined in the IAPD dated July 29, 2016 to facilitate long-term sustainability. By comparing the existing VHC system to the proposed VHC improved system, SSG can identify the "gap" between the current and the newly enhanced VHC system. SSG can also evaluate the feasibility to execute a plan that addresses the gap, with the intention to render a long-term sustainable VHC system. In determining the most feasible option, the critical project components of funding, time, and staff resources were assessed. Particular attention was given to the organizational commitment to undertake a large complex program like enhancing the VHC system. Further evaluation considered industry standard methods and requirements to successfully execute IT programs and compared it with Vermont's capacity to execute the plan in the IAPD. SSG's findings relative to the current VHC system and team, and the need to execute the program using industry best practices is the basis for the following recommendation.

The findings indicate it is possible to use the existing VHC system as a foundation to achieve future sustainability. Continuing to enhance the existing system is considered the most cost-effective and expedient method to reach sustainability without major disruption to constituents.

SSG recommends urgently moving forward with a version of the project defined in the Integrated Eligibility IAPD dated July 29, 2016. A number of SSG findings support the recommendation to improve the existing VHC system. The VHC team's knowledge of the technology and operations along with Vermont's adoption of the commercially viable Oracle suite are viewed as positive strengths. Also in favor of this recommendation are the VHC stakeholders and constituents' familiarity and working knowledge of the VHC. The improvements seen over the last year of VHC operations demonstrate a level of value that can be further enhanced to achieve sustainability. Other important considerations include the support CMS has demonstrated in the form of approved funding and continued support of Vermont's Health and Human Services vision. The importance of CMS' endorsement of Vermont's continuation of enhancing the existing VHC system should be viewed as a knowledgeable 3rd party affirmation that there is value in the proposed approach.

As stated before, CMS' approval and encouragement of the VHC/IE program is indicative of their belief of a successful outcome. The CMS 90% funding match requires 10% of the overall total project funding be covered by the State. Vermont must carefully consider how the funding can be used prudently to create usable value. Since there are limited alternatives eligible for CMS funding, Vermont should carefully consider the approved proposal to enhance the existing VHC system.

The proposal to improve the VHC is a practical and cost-effective approach to achieve future feasible sustainability. **However, the scope of the proposed work in the IAPD comes with many substantial challenges.** Vermont's capacity to successfully execute the implementation as proposed in the IAPD in an allotted 21-month time frame is of extreme concern. Without a firm commitment, and full consideration of the challenges and SSG's recommended actions, a more conservative approach should be considered as outlined in section 4.8 "Additional Recommendation: Establish Contingency Plans".

4.5 Challenges and Risks to Adopt Recommendation

Simply put, there remains significant work and cost to render an acceptable and affordable health care system that will satisfy the current and future expectations of Vermont constituents. As discussed, the prerequisites to build, operate, and maintain a system that can deliver reliable State health and human services are extremely challenging. Furthermore, a very large portion of the funding available to support the activity is based on a federal grant that may not extend beyond September 30th, 2018.

The VHC has endured and managed through three very difficult years of development challenges, implementation issues, and delivery concerns. **As a result, if lessons learned are studied and realistically applied, Vermont is better positioned today to make proactive and informed decisions about how to achieve future sustainability.** Requirements for success can be addressed now to improve the likelihood of program success for the VHC assuming appropriate levels of funding are provided by Vermont and CMS.

The most challenging aspect of the recommendation is the mandatory CMS requirement for implementation to be completed no later than September 30th, 2018, as identified in the CMS IAPD commitment letter (see Appendix I "CMS IAPD Commitment Letter"). Twenty-one months is not a tremendous amount of time to implement the required stability improvements and efficiencies previously discussed in this assessment while also completing the additional work outlined in the IAPD, including migrating Aged, Blind, and Disabled user populations off of the legacy ACCESS system.

This central question of ongoing future sustainability is highly dependent on the ability of the VHC team, business partners, and program vendors to successfully execute a highly complex program plan in a relatively short period of time. This endeavor has **extremely high** risk given that Vermont does not currently have all the necessary staff resources or expertise that can immediately be assigned on a full-time basis to support a program of this size. The following highlights areas of immediate concern.

1) Risk: Lack of qualified resources in number, expertise, and immediate availability.

2) Risk: Lack of an effective program governance structure that can permit successful execution of the project.

3) Risk: Current State mandated procurement procedures and program oversight structure could cause delays that extend the project timeframe well beyond the CMS funding expiration date. Therefore, funding to complete the program may be uncertain.

Each of these high risks should be addressed immediately in a planning session to determine the level of organizational readiness to implement the scope of work identified in the IAPD.

SSG emphasizes that now is a critical juncture in the VHC/IE program. Vermont has its greatest potential to move closer to securing long-term sustainability by developing the required improvements to the VHC system. Specifically, the necessary and extensive task of extracting the unsupported OneGate code and replacing it with a supportable solution can be accomplished during the implementation of the current planned and funded work within the VHC/IE program. Therefore, both an intensive planning process within the VHC/IE program and strong support from the Administration and Legislature are highly recommended.

For Vermont to consider embarking on the execution of the VHC/IE project work, as planned, SSG recommends an immediate strategic planning session within the VHC/IE program. The objectives of this multi-day session are to prepare a high-level program roadmap and identify important project planning items, including tracks of work, assignments, high-level budgets, timelines and dependencies. The session will not address the technical aspects of the implementation or review health care policy. Ideally, these plans within the VHC/IE program should be in place by the end of **February 2017**.

The ultimate goals of the planning session are to establish program activities and obtain a commitment to initiate the work that can address the needs of the VHC/IE system. To increase the potential for success in implementing the scope of work of the VHC/IE program, the program should have the strong support of the Administration and Legislature. **If this support, to establish a high priority for the program and empower the execution team to make decisions related to completing the project work, cannot be committed by the end of March 2017, SSG strongly recommends other more conservative approaches to implementing incremental improvements into the VHC/IE system.** This would involve a reduction in scope and focusing the team on the basic necessities to stabilize the existing VHC system and address the data integrity issues.

4.6 Organizational Requirements for Success

From a technology perspective, building on the current VHC system is the most feasible and cost-effective option for long-term sustainability. Throughout the course of the analysis, however, other organizational challenges and related requirements emerged. To some extent, regardless of the technology option pursued, addressing these organizational requirements are critical to the long-term success of the VHC.

This section provides further details and requirements to achieve sustainability from both an organizational and technology perspective. These requirements are organized into the following main areas:

- **Program Governance** – The organizational and management framework that exists to support overall decision making within several concurrent projects, addresses critical challenges, and creates the necessary environment for projects to succeed.

- **Project Governance** – The organizational and management framework at the project level: clear executive sponsorship, a well-defined charter, the definition of initial project scope, budget and timeline for the project completion and a process by which change can be introduced and managed in the system.

- **Staff Planning and Management** – The practices and processes of staffing projections and capacity management that ensures project execution will meet the stated goals and expectations of the plans.

- **Compliance and Engagement with Centers of Medicare and Medicaid Services (CMS) – Existing federal regulations require specific functionality to be available within the VHC system and secured to federal standards. All deficiencies herein must be remediated in order to be considered in good order and feasible.**

4.6.1 Requirement: Establish Robust Program Governance

Program Governance addresses the organizational and management framework that exists to support overall decision making within several concurrent projects, addresses critical challenges, and creates the necessary environment for projects to succeed. As such, appropriate *Program Governance* represents a critical component of large complex business and IT initiatives. Governance may be initiated from various parts of the organization and typically applies focus to sub-projects, multiple implementation partners and multiple stakeholders. Successful governance can only be realized when the proposed model is accepted, adopted, and institutionalized within organizations.
Program Governance supports project teams in the following ways:

- Clearly identifies the decision-making process.
- Provides guidance and direction to enable organizations to quickly react to and adapt to changing project needs.
- Creates an environment where the goals, scope and budget of projects are clear to all teams.
- Provides leadership where needed in order to help address critical risks and challenges that are properly escalated.
- Provides a feedback loop and direct monitoring oversight to ensure that the projects achieve the original goals, business outcomes, and business value.
- Establishes clear organizational structures, roles and responsibilities for organizations and executive leadership.
- Provides a channel for escalation and centralized enterprise wide communication.

Expectations and best practices regarding Program Governance are well defined within the industry. See Appendix A for references of guidelines related to Program Governance.

In summary, the primary goal of *Program Governance* is to create and foster an environment that supports the individual teams executing projects by providing clear unambiguous accountability. Further it supports the required escalation paths for making decisions quickly, addressing risks, and providing clear leadership input as appropriate to ensure overall program success.

Assessment of Program Governance

The technology and business operations supporting the Vermont Health Connect program are highly complex and involve many government agencies, external partner organizations, vendors, and oversight organizations. Additional ongoing challenges for the VHC system and operations teams include:

- A major vendor component no longer supported due to bankruptcy.[12]
- A high level of customization.
- A need for significant manual interventions to compensate for lack of systems automation.
- Deadlines for delivering non-compliant functionality that are fixed and aggressive.[13]

[12] The unsupported Exeter OneGate product interfaces with every major core component in the VHC architecture. The product can no longer truly be considered a product but rather a wholly customized collection of code interfacing with a standard Oracle stack of products.
[13] Vermont has fixed deadlines associated with the current CMS Mitigation Plan for Medicaid and Integrated Eligibility funding award.

- A program culture that is in' fire-fighting' mode and defensive due to historically poor project execution results and increased customer dissatisfaction.

This collection of factual and observed realities makes *Program Governance* critically important for long-term success.

The management and delivery of all program components must be coordinated such that VHC products and services can be predictably provided to constituents in a timely, accurate, and value driven manner. Significant improvements in *Program Governance* must be made to manage successfully the Executive Administration, program partners', and constituent expectations. Without such improvements, senior leadership will continue to experience difficulty supporting the distinct project teams. They will not have an accurate and reliable measurement of progress and the reasonableness of project expectations will go untested. Furthermore, project teams working under senior leadership will not have a clear understanding of the project's executive decision-making process or escalation channels.

SSG Finding in the State of Vermont: Based on observations related to project planning, progress against timelines, and resource planning, SSG does not believe effective program governance currently exists to create the necessary environment for the program to succeed. As an example, decision making, resource acquisition and procurements are hampered due to prolonged decision making, potentially duplicative oversite efforts, and convoluted approval processes.

Detailed Strengths and Weaknesses

Strengths:

- **Strong Organizational Structure.** The VHC determines eligibility for numerous health benefit options, including Qualified Health Plans (QHPs), MAGI, Non-MAGI and Medicaid benefits. Organizationally, Vermont has a structure that allows for easier coordination of the funding streams and staff pertinent to these benefit programs. Specifically, the Department of Vermont Health Access (DVHA), the Health Services Enterprise Initiative, and the Department of Health are all within the Agency of Health Services. This one-agency efficiency may be easy to underestimate.[14]

- **Strong Strategic Vision**. A one-agency approach presents a tremendous opportunity for Vermont to serve constituents in a united and streamlined manner. It also presents opportunity to establish and strengthen reliable *Program Governance*.

- **Some Established Leadership Groups.** There is an existing Leadership Committee that meets regularly to discuss issues that are escalated. This does provide some outlet to project teams for those that choose to escalate issues.

Weaknesses:

- **Lack of mature command and control.** There is a lack of a mature framework that permits the collective robust vetting of issues, a fully supported decision making process, the rapid throughput

[14] The HIX Program at the Commonwealth of Massachusetts provides an example of the difficulty inherent in having three distinctly chartered entities tasked with providing effective governance for their State-based exchange: Health and Human Services, The Commonwealth Connector authority, and the University of Massachusetts Medical School each struggled to assert control during the initial phases of deployment.

of changes, an ability to effectively manage multiple program participants, and the level of unambiguous centralized oversight necessary to efficiently respond to project challenges.

At the VHC Program level the "Rules of Engagement" and the interaction and accountabilities of program and project leaders are not clearly defined to optimize the synergies of competent staff across the Vermont staff, vendors, and program partners.

While a Leadership Committee may exist, the members on the committee may not have the appropriate time or be empowered to properly support Program Governance functions.

- **Established Goals and Service Levels for All Project Teams (internal and external to Vermont).** There is no observed agreement on the end-to-end degree of service that an integrated service like a State exchange should be provide. The end-to-end customer journey and the many systems touched lack a holistic and complete definition of service accountability. This degree of defined services is required to ensure problems are properly escalated. The VHC must take full responsibility for the final deliverable to constituents by working across all program stakeholders.

- **Escalation Channels.** VHC does appear to have defined escalation channels but they do not always scale and facilitate rapid throughput for chronic service issues. Escalations are sometimes ad-hoc particularly with regards to escalated constituent problem resolution. Providing quick one-off resolutions promotes a frustrating perception of 'fixes require knowing someone' and creates inefficiency in prioritizing and solving systemic problems once and for all.

- **Program Level Planning and Management.** There seems to be a need to establish a vetted IT roadmap for the entire program including budgets, and resourcing options. Effective means of socializing the long-term plan including Integrated Eligibility should be conducted on a routine basis with affirmation across the Administration, CMS, and partners.

  In general, the mode of operation seems more ad-hoc than disciplined and systematic. *Program Governance* measures should be put in place to ensure that realistic plans are established based on the availability of qualified people. If project teams are allowed to execute against plans that are not realistic, then downstream issues may occur: defects emerge due to lack of proper processes, expectations around the scope of functionality delivered are not met, etc. In short, well-intentioned project teams may try to achieve more than is realistic which increases project risk and leads to underperformance and disappointment.

  There does not appear to be a cohesive well managed 'plan of plans' to manage, coordinate, and communicate with the multitude of program partners. All program stakeholders are dependent on a broad knowledge of the total program, their roles and responsibilities regarding each other, their deliverables and any dependencies they may have across the multiple service providers: i.e. Blue Cross/Blue Shield, Maximus, Optum, WEX Health, Speridian, Legal Aid, DVHA.

- **Establishing Expectations and Monitoring Accountability.** The ownership and accountability of some key delivery components of the VHC program is not clear to all team members. For example, making it clear to all team members who owns the Call Center initiatives, versus the software development initiatives, versus the scope management, etc. There seem to be multiple staff contributing to each, and sometimes each in a part-time capacity, which makes it difficult to

determine who has final accountability and ownership. From a governance perspective, a single point of accountability for each major component of the system and operations should be identified and made clear to all project team members and stakeholders. There is a lack of understanding of the named staff that maintain *accountability* and ultimate authority to finalize decisions in key areas of the program. In some cases, a matrixed organizational model further challenges throughput that is demanded in several activities where time is of the essence.

Remediations

1. The urgent nature of the VHV/IE program and necessity to expedite authorized senior level decision making requires a commitment from the Administration leadership that all program participants across agencies will work collaboratively as a team. The VHC/IE Program must be established as a high priority for both the Administration and Legislature. Decisions regarding project resourcing and procurements must be expedited.

2. Ensure that the current Senior Leadership Team (SLT) is empowered to make binding decisions related to the VHC/IE program. Communication and adoption of SLT agreements will be championed and facilitated throughout the enterprise by each SLT member. Vendors, subject matter experts, compliance resources, and the Information Verification and Validation team (IVV) will attend SLT meetings by invitation when called on.

3. Empower one individual from AHS to who will manage the day-to-day execution of the program. This individual will report to the governing body (currently the SLT) of the program and be held unambiguously accountable to meet all program goals and objectives. This individual should be empowered to make day-to-day project level decisions and should be evaluated based on achieving successful outcomes of the program.

4.6.2 Requirement: Establish Robust Project Governance

Successful project implementation hinges on adequate *Project Governance* and disciplined project execution. *Project Governance* includes many of the same aspects of Program Governance applied at the project level: clear executive sponsorship, a well-defined charter, the definition of initial project scope, budget and timeline for the project completion and a process by which change can be introduced and managed in the system. The *Project Governance* activities require input from key team members and vendors to ensure that the plans created are realistic and will be staffed appropriately.

Expectations and best practices regarding Project Governance are well defined within the industry. See Appendix A for references of guidelines related to Project Governance.

Assessment of Project Governance

The VHC Program presents numerous complexities when it comes to individual *Project Planning*, including the following:

- Multiple organizations and vendors involved with delivery. There are numerous dependencies and other unforeseen coordination issues that impact the project schedule.
- Complex IT infrastructure, some of which was developed by organizations now out of business, makes it difficult for project teams to accurately estimate the level of effort for particular tasks.
- The timelines are fixed and aggressive for the desired scope, so best practices around implementation methodologies are sometimes compromised and any defects or issues that come up during project execution have large downstream impacts on the schedule.

There are select project components of VHC where some forms of *Project Governance* have been applied, but not in the broader, systemic and generally accepted form necessary to drive successful programmatic results.

Project Planning. These complexities make it difficult for project teams to properly establish realistic project schedules and plans in advance, and to successfully achieve those plans. Numerous project plans exist, but the challenge is to make them realistic and remain on schedule.

While the plans to deliver a satisfactory product and service appear to be in place the execution is often impacted with unknown and often unplanned reaction to system deficiencies, inadequate project performance, or slow throughput. The issues with execution may be a clear indicator that the *Project Governance* does not adequately budget and staff the project to achieve the stated goals of the project within the desired timeline.

Scope and Change Management. The VHC Program has been challenged with many adverse and unplanned conditions that require special attention and extensive team collaboration and engagement with all program participants. The importance of maintaining prospective IT capabilities to support the long-term view of products and services to constituents cannot be deferred. Several discussions indicate Vermont's awareness of the issues. However, the number of unplanned issues that continue to require immediate and urgent attention distract from a rhythm of predictable stable product and service to the constituents. Throughout a project's execution, the team must continuously triage potential change requests with a goal of keeping the plans aligned with the overall goals of the project.

Clear Expectations and Accountability. Executive Leadership and AHS must support institutionalizing clear *expectations* and *accountability* to managing a successful delivery of VHC product and services. The two disciplines are codependent, and both must be engrained within the mindset of program and project management teams, and the project staff. Lack of one or both of these disciplines often leads to a confused, apathetic, and a sub-optimized workforce that otherwise may be high performing with adequate structure in place and adhered to. *Accountability* is especially important at the senior levels within project teams where decision making, clear communication, and escalation procedures start.

Successful programs are driven by clear *accountability* for all program and project participants. Large complex programs like VHC where there is no pre-defined blueprint require extensive affirmation of *accountability* for each deliverable with its associated dependencies. There is an appearance that the VHC team may establish pockets of clear expectations, but individuals who clearly own accountability are not known for many components of the program.

SSG Finding in the State of Vermont: SSG does not believe effective project disciplines and industry best practices are consistently used to enable project success.

Detailed Strengths and Weaknesses

Strengths:

- **Strong Collaboration.** A significant asset of the State of Vermont is the individual dedication to mission of much of the workforce and an impressive and pervasive culture of respect. State employees have demonstrated a willingness to do the right thing by constituents. They understand it's been a very difficult customer experience. There is *not* a culture of infighting, blame, and victimization that can easily manifest in project teams with as many high-profile challenges and in some instance, failures, as the VHC Program of work.

- **Project Plans Exist.** Numerous existing plans exist which have been vetted and approved by external organizations, including CMS, the primary funding source for the project.

- **Status Updates Sent to key Stakeholders.** The project teams provide routine status updates and memorandums to some key stakeholders, including the JFO. This communication allows others to better understand the progress and challenges of the project teams.

Weaknesses:

- **Project Planning Sometimes is with a Narrow Perspective and is Unrealistic.** Project Planning tends to be done independently without adequate program partner collaboration. It also appears to be non-proactive, focused on correcting past errors, addressing sudden and immediate urgent need, or satisfying a compliance issue. A determination of the actual feasibility of execution against a proposed plan should be thoughtfully done. It seems that execution does not often meet the planned expectations. This is either because of unknown and often unplanned issues that arise, inadequate project performance, or slower than expected throughput.

  Several plans have been approved in the past, and resets occur without the proper post mortems. There is no rigor in establishment of root cause for failure, and proper monitoring of the remediation steps.

- **Accountability Sometimes Unclear.** Accountability should be assigned to specific individuals who will "own" and be responsible for their respective parts of the plan and the monitoring of dependencies for their success. It is often not clear who is driving, and ultimately accountable for, the project teams, including vendor staff, from a project management perspective.

  Processes for collaboration, meetings, communication to program participants, and clearly defining roles and responsibilities are not managed in a predictable way. Disciplines like transparency, monitoring critical deliverables, and accurate reporting to the Administration are not managed in a consistent way across all projects.

- **Quality Control.** Deliverables and project outcomes should be measured against expectations to ensure that the State of Vermont is getting the proper value. This is especially true in the management of contracts with third party vendors. From a quality of deliverables perspective, examples of poor technical design within the source code have been raised. This is evidenced by the compromise to the data integrity of the system (e.g. decision to turn off data integrity checks with Siebel, process for record updates may include creating duplicate new records in the database, as opposed to updating existing records, etc.)

- **Identifying and Proactively Managing Risks.** There seems to be ineffective risk assessment processes with no observed routine maintenance, review or proper attention to remediate project risks. No formal process or owner for overall risk management and accountability.

Remediations

1. Encourage the use of more flexible project management methodologies when possible. Identify the inexperienced project teams and provide support through mentoring from experienced resources

2. Maintain an understanding of the Enterprise tools and applications that are the approved standard, and build the project plan around approved Enterprise guidelines

3. Apply greater focus on basic project management concepts and monitor programs using dashboards, metrics, and consistency in reporting that can be consolidated across the program.

4. Ensure that project dependencies are well understood by all program participants and each partner project plan is synchronized with the most current information on dependencies.

5. Develop financial reporting for projects that can be adopted by all projects that make up the program.

6. Agree on rules of engagement of how projects will evaluate status, performance, code releases, Human resource management (contractors), and migration from a project to an operational product or services.

4.6.3 Requirement: Institute Timely Program Staffing and Effective Management

For programs as complex as the VHC Program with multiple organizations contributing, it is critical that staff planning and management are robust. Regardless of how well intentioned plans are, if there are deficient plans related to staffing, then the project execution will not meet the expectations of the plans.

Assessment of Staff Planning and Management

Considering the high level of program complexity and the scarce number of VHC expert technology and subject matter business resources, there is genuine concern that the success of the program has a high potential for the risk of failure. Project disciplines such as business analysis, quality assurance, program and vendor management, system integration, and systems architecture are areas that are exposed to the most risk because of insufficient resources and lack of expertise.

SSG Finding in the State of Vermont: SSG does not believe Vermont currently has adequate staff in number and expertise to satisfy the needs of the VHC/IE program. The strong leadership needed to rapidly recruit and execute in a compressed timeframe should not be underestimated.

Detailed Strengths and Weaknesses

Strengths:

- **Prioritization is High.** There seems to be a willingness to make the VHC a high priority project within the State of Vermont from a resource perspective, evidenced by the transfer of some staff members onto the project from other projects within the State.

- **Agreement on Need for More Staff.** In general, Executive leadership seems to agree on the staffing needs of the project. The challenge has been in finding the proper people to fill the roles identified.

- **Professional Development Ideas In-Progress.** Professional development opportunities (for example, training related to Vendor Management) have been made available to staff members as a means to fill staffing voids.

Weaknesses:

- **Staff Management Not Adequate.** There appears to be an inadequate number of management level team members with the requisite experience relative to the size and complexity of the VHC project and operations.

  Some leadership roles and some key team members have received roles by default or are filling in temporarily. They may lack the IT expertise required to make realistic plans and identify risks before they materialize. Career IT implementation experience seems missing.

  There appears to have been turnover in some key roles, including executive leadership.

- **Existing Staffing Vacancies.** Recruiting local high quality IT staff is a challenge. There are numerous staffing needs that are not filled, including AHS Implementation Project Manager,

Vendor Managers, System Architects, and System Integrators. All these roles can support governance and monitoring controls to ensure efficiency and quality of deliverables.

- **Expectation Management for Roles and Responsibilities.** Many competent people participate in the build and delivery of VHC, but they are not managed in a coordinated way that drives toward predictable and desirable outcomes. Many Vermont staff could make a significantly greater contribution to the program if they were made aware of their responsibilities as they relate to the entire program and to others that are dependent on their deliverables. Overall management, monitoring, frequent feedback, recognition, and broader engagement encourages team members to fully vest in the total success of the VHC program as opposed to just their specific deliverables.

- **Vendor Management.** Vendor Management is a challenge within the existing environment of aggressive timelines and firefighting. There does not seem to be proper and proactive oversight of vendors to measure the value of work related to costs proposed and accountability. As an example, there were project delays when one vendor was waiting on the work of another for access to systems or information.

  There is evidence of ineffective State vendor management: the inability to properly manage the relationship with Maximus has resulted in very poor service; the new development vendor, Speridian, will need ramp-up time and having two vendors involved with code implementation may present a risk.

Remediations

1. Determine the capacity of the organization by mapping out a staffing plan using the most current consolidated program plan and identifying staffing requirements against availability of resources. In particular, rapidly fill possible vacancies within the project disciplines of business analysis, quality assurance, program and vendor management, system integration, and systems architecture.

2. Immediately identify someone who is knowledgeable with the State procurement process, understands the urgent needs of the VHC/IE program, can commit time to the VHC program, and is capable of finding real means to expedite procurements.

3. Determine the needs for special expertise and propose next steps to acquire resources.

4. Increase or decrease scope of work in the project to align with each respective organization's capacity to manage and execute against the project plan. Special attention should be placed on capacity to commit knowledgeable business representation, and resources that can commit time to performing user acceptance testing (UAT). These are two critical areas that often overlooked and the end result is a compromised or failed deliverable.

5. Use staff augmentation for execution of program/project disciplines that can be effectively executed with generic business or program management skills. Deploy experienced Vermont internal staff in subject matter expert (SME) roles, or positions that require a State employee.

6. Build an organization that embraces the success of the entire program instead of individual components or specific projects. Program leadership must motivate teams understand the importance of their assigned work and the impact on the successful deliver of VHC/IE.

7. Consider various alternatives to attracting qualified resources to the program. Hire managers who know how to recruit, hire, and manage outside contractor and remote resources.

8. Gain access to a professional vendor manager who is knowledgeable with negotiating and constructing vendor agreements. The individual should also be experienced in the management of the overall vendor relationships and maintain accountability for satisfaction of the Statement of Work (SOW).

4.6.4 Requirement: Continue Strong Relationship with CMS.

The VHC is heavily reliant on federal funding from CMS. This and existing federal regulations require specific functionality to be available within the VHC and IE systems. The following section describes the degree to which VHC is compliant with existing CMS regulations and guidelines.

Assessment Summary

The VHC is not fully compliant with CMS regulations and guidelines, however the State has transparently shared these deficiencies with CMS and created formal Mitigation Plans to address them. CMS has reviewed and approved these plans. Overall, it seems that Vermont and CMS have a strong working relationship and mostly agree to the existing short-term and long-term plans related to the VHC.

SSG Finding in the State of Vermont: SSG believes the relationship Vermont has with CMS is one of the stronger and most effective partnerships of the State.

Detailed Strengths and Weaknesses

Strengths:

- **Strong working relationship with CMS.** There is a common understanding between Vermont and CMS related to the short-term and long-term plans for the VHC. This mutual understanding at both the short-term and long-term time horizon is documented in the CMS approved Mitigation Plans and Implementation Advanced Planning Documents (IAPD), respectively.

Weaknesses:

- **Non-Compliant with CMS Regulations and Guidelines.** The following is a list of some the key deficiencies of the VHC against the CMS regulations and guidelines. These deficiencies are identified in the CMS-approved Mitigation Plan:
    - A number of outstanding online Dynamic/full approval or interim application issues for the single, streamlined application exist and content changes to the online application should be made. Vermont is still waiting on a timeline from the systems vendor to fix some of these changes.
    - No multi-benefit application in place - Multi-Benefit Health Care Application including Medicaid Aged, Blind, and Disabled (MABD) functionality will be delivered by 12/2017
    - Inconsistencies between an applicant's attestation of income and information from data sources for applicants who applied between 8/24/15 and 12/31/15 (Group 1) and those who applied between 1/1/16 and 6/30/16 (Group 2). Verification of all elements will be complete, and any terminations processed for Group 1 by 12/31/16. Verification noticing and manual lookups for income, SSN, and citizenship and immigration for Group 2 is to be completed by 12/31/16. Verification of all elements will be complete, and any terminations processed for Group 2 by 4/30/17. For 7/1/16-12/31/16 Population: Beginning 7/1/16, The State began noticing for income verification on a weekly basis.
    - No Automated Verification Notices - automated notice functionality for verifications has been delivered. Data quality issues have prevented Vermont from turning on that functionality. The State is working with vendors on a data quality clean-up plan in 2016 and turning on these automated verification notices is a priority.
    - Regulations 42 CFR §435.916 ((a)(2) requires that the agency re-determine eligibility without requiring information from the individual if able to do so based on information

from available data sources) and 42 CFR §435.916 ((a)(3) requires the agency to send a pre-populated form to beneficiaries eligible on a MAGI basis, if necessary, and provide the beneficiary at least 30 days to respond and provide necessary information) are not currently in place.

- Functionality is not currently in place to support hospitals making preliminary eligibility (PE) determinations.

Remediations

1. Have a single point of contact that maintains an inventory of all CMS compliance issues and status of mitigation plans. This individual or team should provide up to date status and documentation on all CMS communications relative to deficiencies or violations.

2. Prioritize CMS guideline deficiencies by urgency to remediate (per CMS instruction).

3. Identify all workarounds that address CMS deficiencies, and establish an estimated Total Cost of Operation (TCO) for existing or planned workarounds. This information will provide insight into the relative urgency to repair low level or nonessential CMS requirements.

4. Internal State auditors and the Secretary of AHS should be proactively advised on a quarterly cycle about the disposition of CMS deficiencies, and the risk exposure related to each violation.

5. A Vermont resource who is CMS knowledgeable should collaborate with the AHS finance team. They should identify if current CMS funding opportunities are being fully realized and identify potential new opportunities. Classification of types of work should be reviewed to ensure the appropriate federal matching dollars are properly applied for.

4.7 Additional Recommendation: Establish Contingency Plans for CMS approved Work

Significant emphasis has been placed on the urgency to move quickly to engage in the execution of the work planned in the IAPD. Vermont may soon make an assessment that the program execution is not feasible when considering the challenging program requirements. It may also be revealed that the urgently required organizational changes may take significant time to agree upon and structure. For these reasons, along with many other unknowns, it may be necessary and prudent to establish contingency plans (fallbacks) that can be pursued should risks materialize. Two possible high-level contingency strategies are to reduce scope and to explore commercially offered solutions. Both of these options are described below.

Reduce Scope and Just "Fix"

If it is decided that Vermont is not in a position to commit to addressing the requirements of the VHC/IE program, then other more conservative approaches may be more appropriate. Under a scenario where Vermont cannot organize a governance structure, on-board necessary resources, and reduce the time to procure, SSG believes a scaled back version of the current program vision may be more appropriate. This reduced scoping will limit the risk of project failure.

This approach more narrowly targets improvements that address core deficiencies, and focuses on creating stability and improving data integrity in the existing system. For example, it may be limited to only the following:

- Migrating participants off of ACCESS to the VHC/IE system
- Addressing a number of VHC system maintenance, data integrity, and workarounds
- Evaluating current risks, stability issues, and impact to constituents relative to the presence of OneGate

An analysis of the costs and risks associated with managing the VHC system deficiencies with workarounds should be part of the planning effort. Areas where additional human resources exist, as opposed to automation, should be revisited for possible remediation.

From a business process perspective, possible areas that could be explored to reduce scope include, but are not limited to:

- Exploring QHP billing to go direct to Carriers
- Simplifying the Vermont benefits offered

Critical information to be considered includes any potential impact on funding availability and the impact of compromises made by adopting a new scope and plan. In any event, should reductions in scope be necessary, the new program plan and the details of the agreement should be well documented and communicated to the enterprise.

Given the current uncertainties in how the ACA and commitment to State exchanges may change in the future, an approach to invest time and available federal dollars into "cleaning up" the VHC/IE system could be a viable strategy and responsible use of CMS funding. Under all circumstances, the necessity of good data and a solid modular architecture will be required to support long-term sustainability. Using modularity takes better advantage of the availability of existing or new commercially offered solutions and can be beneficial to the program.

Throughout the scoping process there should careful consideration of responsible use of the CMS funding. Since the CMS funding is approved and has a limited time for usage, it is important that the Administration understand the value it has to the VHC program. To support future decision making regarding enhancements to the VHC system, consideration should be given to both VHC expenditures and the potential impact to the State budget if federal funding becomes more scarce.

Explore Commercial Offered Products and Services

Another viable alternative would be to explore the suitability of introducing commercially offered products and services. Ideally, this would be conducted separately from the VHC team and would not be a distraction or create resource contention. This is often done by organizations to meet the changing demands of the health and human services business requirements. Other states have found success in this approach, and it can address many of the resource and expertise challenges that Vermont is faced with in program execution. A review of this approach is in the next section called "VHC alternatives". SSG believes the use of viable commercially offered products managed and implemented by a skilled vendor management team should be explored. Additionally, there may be opportunities to implement limited functionally of the VHC system with commercially available software to potentially provide a faster implementation with less exposure to risk.

SSG's proposal to invest time in researching the suitability of commercially offered alternatives has heightened since the Presidential election. The increased potential for future changes in ACA and Medicaid programming as well as CMS funding may require new strategic thinking around the delivery of health and human services. This is a recommendation to explore in more detail. SSG recognizes considerable challenges in finding a suitable commercially offered solution. Customization would still be required. But the few vendors that are in this market have offerings that are going to mature and the potential benefits should not be underestimated. The modularity of a more structured commercial product may provide greater flexibility to adapt to future unknown systems requirements. Additionally, commercial product vendors will be implored to maintain their core products to address the requirements of future health care changes. This benefit may alleviate Vermont's need to maintain costly and scarce resources, and permit more priority to other important IT initiatives the new Vermont Administration may want to initiate. The only caveat to this study would be a reminder to use subject matter expertise judiciously. The demands of additional study could restrict the effective use of expert State's resources in support of our recommendation to continue to build upon the current VHC system.

SSG's assessment has identified multiple vendors providing products and services to state exchanges in support of SHOP, IE, QHP's, and Medicaid participants. One commercially offered and operational solution that can be implemented in modules is currently servicing SHOP, QHP's and Medicaid enrollments. Most vendors understand the challenges in providing commercially offered products to support health and human services. Since no two states are exactly alike in their provision of benefit programs, customization can be a large part of any implementation. However, some vendors have architected their commercially available products to be implemented in modules. This allows customers to select components that satisfy and match the unique requirements of their more specific needs without the overhead of implementing many parts of a product that go unused or must be customized. SSG recommends the consideration of an approach that explores commercially available modules that may complement specific needs in the VHC. This approach would not involve replacement and decommissioning of the VHC system. The strengths of using a commercially available modular solution include:

- Vendor expert resources are familiar with many state needs and the best way to accommodate requirements.
- Commercially available products are maintained by the Vendor who is generally responsible to understand and provide mandatory regulatory updates
- Commercially available modular software or product solutions may reduce Vermont resource requirements and workload. Potentially time to completion could be improved.
- Commercial available products have the full attention of the Vendor, and an organized user community often brings knowledge to the development and deployment of the vendors' products and services
- Commercial products may be more cost-effective depending on the fees for usage and Vermont's necessity for customization.
- The CMS regulations require Modularity as one of their seven conditional guidelines:
    - Use of a modular, flexible approach to systems development, including the use of open interfaces and exposed application programming interfaces; the separation of business rules form core programming; and the availability of business rules in both human and machine readable formats.

Leveraging existing commercial solutions can potentially facilitate a more rapid implementation with less risk. In the evaluation of commercially available solutions careful attention should be placed necessary time to perform the procurement process.

5 Task 3: Alternatives for the Vermont Health Connect

5.1 Summary of Task 3

The current system, without any enhancements, is not a feasible long-term solution for VHC sustainability. That said, the purpose of Task#3 is to explore alternative solutions that can satisfy Vermont's need for achieving feasible long-term VHC sustainability. In Task#2, SSG made a recommendation to continue with the current VHC/IE roadmap. This proposed plan assumes long-term sustainability can be achieved if improvements are made to the existing VHC system. This plan adopts the proposal of implementing the work as outlined in the IAPD dated July 29, 2016. CMS approved the plan on September 29th 2016, and committed funding of $62M to be used for the implementation scheduled for completion by no later than September 30th 2018. At this time, SSG believes this option is the most appropriate of all the alternatives that were evaluated.

However, any alternative chosen will want the Vermont Administration and Legislature to take action on three critical program criteria that are highly recommended for the success of this planned work. The next stage of VHC/IE program enhancements will be as challenging as the previous work over the last three years. The more extensive scope of the proposed VHC/IE program, and the compressed time frame for completion add new levels of complexity and risk. The program resources and inadequate governance model that was in place over the last three years will need to be addressed to meet the demanding requirements for the work to be performed. Understanding and addressing the three most important foundational program components should be started immediately. The three areas are:

1. The acquisition of knowledgeable resources should be a timely and efficient process.
2. More effective program governance should be established that can provide program oversight and achieve consensus of all program stakeholders
3. Vermont business policies such as the State's procurement process should be reviewed and adjusted to provide special provisions for more expedience.

The balance of the report elaborates on the viability of six different alternatives. The criterion used to evaluate the alternatives was vetted with VHC stakeholders, Vermont Legislators, CMS, vendors, and other State exchanges. This exercise facilitated an initial screening process that helped narrow the number of potentially feasible alternatives. The following lists the criteria and considerations used in the evaluation:

- **Potential to meet constituent needs for health insurance and human services**.
- **Funding available for the program.** Achievement of feasible sustainability has to be affordable to the State.
- **Impact on the subsidies or benefits to Vermont Constituents.** Interviews with several legislators and the Administration indicated that maintaining existing subsidy and benefit programs should remain a priority.
- **~94.4% of anticipated users of the VHC/IE are Medicaid participants**. The current QHP population using the VHC is ~ 5.6% of the projected VHC/IE user base. This represents a very limited number of individuals who would be serviced by QHP solutions like the Federal Facilitated Marketplace (FFM) also known as Healthcare.Gov. Also, Vermont would still need to maintain services to Medicaid participants using the existing VHC system.
- **Feasibility of implementing the solutions in the current State IT environment**.

- **Vermont commitment to using the Oracle technology suite of products.** Optimal choice of alternatives should be compatible with this commercially stabile and robust platform.
- **The total Vermont population that could potentially have necessity to use the VHC system is relatively small, and not anticipated to grow rapidly <250K.** Several alternatives are not cost-effective for a small population. Implementation costs and ongoing licensing fees could be prohibitive.
- **VHC Team and stakeholder experience with the existing system.** Any program to achieve sustainability will require participation from VHC team members and program stakeholders. Using the existing team and business partners who are familiar with the product and services is an advantage that can reduce cost, risk, and time to market.
- **CMS confidence and endorsement of Vermont's vision for Health care and Human Services technology program.** CMS believes Vermont demonstrated a forward thinking and progressive approach using the proposed VHC and IE systems. CMS commitment of $62M for the work described in the IAPD is indicative of CMS's approval of the proposal to enhance the existing VHC system.

When the finalist alternatives were identified each one was exposed to a more rigorous analysis of feasibility and stack ranking. Each alternative was graded on satisfaction of specific attributes that drive a successful implementation and can support the achievement of feasible sustainability. The finalist alternatives highlighted in this report were evaluated against the attributes listed below:

- % of solution
- Technology change
- Business change
- Ease of transition
- Transition costs
- Duration of change
- Operating costs
- Security
- Regulatory
- Funding
- Vermont policy

The Evaluation of Alternatives -- Determining the Optimal Vermont Solution

Several alternatives to move beyond the existing VHC/IE status quo have been outlined in the content of Task 3#. Some may offer partial, modular, or limited solutions while others are more comprehensive and would require a significant change in direction for the VHC/IE. SSG findings do not identify a complete plug and play commercially offered alternative. **Therefore, under the most ideal conditions Vermont still has a sizable workload to implement a feasible solution that can be sustained into the foreseeable future.**

This evaluation process involves making a fact based and realistic appraisal of what can be accomplished in the current Vermont organization and VHC/IE operating environment. Specifically, if success is dependent on rapidly executing procurements, this known fact must be considered as a constraint to success. If the acquisition of expert resources is necessary to execute the program, Vermont should

explore the resources acquisition process including the potential of recruiting, compensating, and hiring the necessary resources to support program execution. If there exists a long-term commitment to enterprise technology such as Oracle, this further constraint may decide the viability of certain alternatives. Finally, Vermont must consider what State funding may be available to satisfy the 10% State match necessary to secure the federal funding at the 90% matching level. Understanding the non-negotiable constraints and adherence to prioritized business preferences will allow the evaluation process to confidently eliminate some alternatives. By excluding certain alternatives that do not align with Vermont's policies, enterprise technology or funding models the selection process can become more focused on reviewing fewer viable solutions.

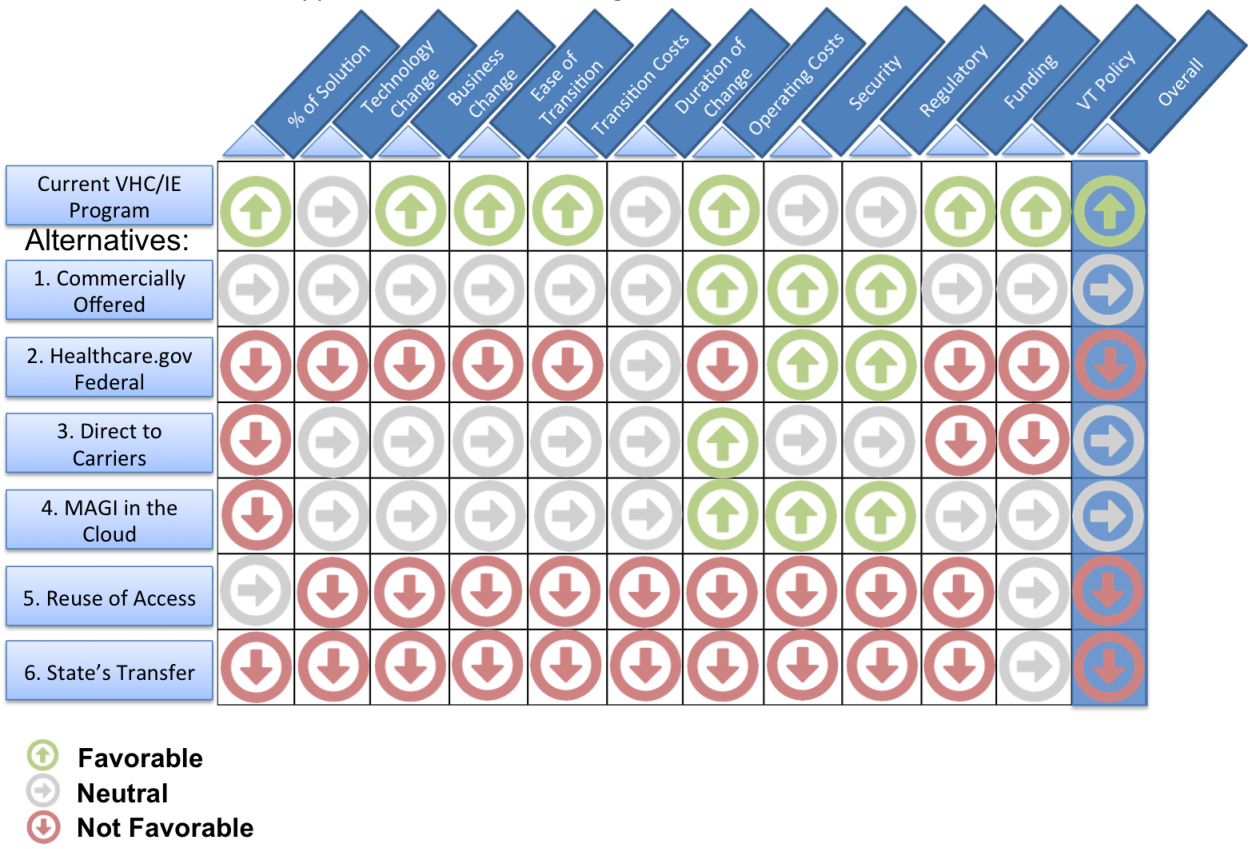
SSG recognizes the investment in the experienced Vermont VHC/IE team and the stakeholder familiarity with the current system. Also, the value of the established core IT platform of the current VHC system cannot be ignored in the evaluation of the most effective and efficient way to move forward with a proposed solution. As a result, SSG believes there is value in prioritizing any alternatives that can effectively utilize the existing VHC system. The value of the VHC/IE coupled with one of the proposed alternatives most likely would offer quickest time to market and the least amount of distraction and re-tooling across the organization. This strategy leads us back to earlier recommendations to enhance the existing VHC/IE system. A well thought out strategy of how to address program deliverables without over encumbering State resources will be critical to a successful execution of any selected alternative.

5.2 Summary of Analysis of Alternatives

The following provides a summary of the detailed analysis SSG performed on alternatives to support our recommendations in Task # 2. The analysis considered 11 standard categories of issues, risks, concerns, and factors. SSG has endeavored to provide a simple view into the complexity of these solutions. We have determined whether each alternative is essentially **favorable**, **neutral**, or **not favorable** to these 11 defined areas of program interest.

% of Solution	How favorable is the alternative to issues of coverage and need
Technology Change	How disruptive would the change be to the current technology system
Business Change	How disruptive would the change be to the current business practice
Ease of Transition	How simple or complex would transition to alternative be
Transition Costs	How affordable would the change be
Duration of Change	How long might the transition take if undertaken with proper resources
Operating Costs	How affordable is the long-term operating of alternative
Security	How secure is the long-term operating of alternative
Regulatory	How responsive to change is the long-term operating of alternative
Funding	How favorable is alternative to available funding programs
Vermont Policy	How responsive to Vermont policy is the alternative

The following chart shows the recommended approach with the current VHC/IE Program in comparison with several alternative approaches across the categories researched.



The following sections describe each alternative. Note that the current VHC/IE Program is described in Task 2 above.

5.3 Alternative 1: Commercially Offered Products and Services

Description

Many strong points can be made for Vermont to explore the products and services that are available commercially. To qualify as a viable alternative the product or service should demonstrate some features that could potentially satisfy Vermont's needs relative to VHC. Responding to that inquiry, SSG references the hCentive system that is implemented and operational in Massachusetts for both 170,000 QHP's, and a more limited customized deployment to satisfy the unique requirements of MassHealth Medicaid. As with any commercial solution, careful consideration should be given to the actual benefits that can be realized. Rarely do "out of the box" solutions meet all the customer requirements. This requires the customer to take an action such as customizing the standard product, changing the requirements, or creating a workaround to mitigate the deficiency.

The suitability of hCentive to provide State based exchange and Medicaid processing solutions for Vermont's needs would have to be rigorously investigated. For example; Vermont's more generous State subsidized health care is unique, and commercially offered software may have to be customized to satisfy requirements. Vermont's interest in purchasing a commercially offered product and determination of how it could be used in the VHC system would have to be evaluated. The implementation of modules of commercially offered products could also present an opportunity to accelerate VHC improvements and reduce execution risk. The adoption of a standardized or configurable packaged solution is a different approach than that being used today to manage the VHC system. Principally the current VHC approach uses many commercial products such as the Oracle rules engine and Siebel for customer relationship management. However, oversight and management of the integration of the components and the implementation is managed by the VHC team. Vendors providing commercial products and services are often prepared to manage the implementation of their products whether it is one module or the entire system. Additionally, vendors often have subject matter expertise and teams of resources who specialize in the implementation of their company products and services. The distinct benefits in both time to market and the reduced need for Vermont to maintain a large specialized IT staff may be attractive. Based on the assessment findings, SSG strongly believes exploring commercially available software modules may provide cost-effective and compliant functionality for IE or Medicaid participants and may be of future interest.

Vermont's Adoption of Commercially Available Solution

Understanding the business and technical constraints along with the availability of requisite expert resources may help validate the need to consider various delivery alternatives. The potential to rapidly build a functioning program team should be considered as a "must have" in any scenario. Also, the limited human resources in the highly competitive New England labor market, and the mandatory logistical requirements need to be factored into difficulty of on-boarding a program team. Organizations choosing to manage IT in-house know that recruiting, hiring, and retaining experienced human resources are all integral components to the success of the program. This drives more organizations to consider buying commercially vended software opposed to building IT solutions in-house. Outsourcing is widely used by technology companies and large consulting firms. Creating business relationships with strategic partners to manage components of the product line, service offering, and operational components has become the new normal.

Organizations have found that utilizing commercially available products and outsourcing for particular projects efforts can increase productivity, cost effectiveness, and time to market. **SSG recommends that Vermont becomes more knowledgeable about the availability, feasibility, and affordability of using commercially available products, services, and resources that could benefit the VHC program.**

The following lists examples of commercially offered solutions such as product service delivery, and expert resource acquisition that should be considered to support and complement the VHC program execution:

- Standardized software package that is implemented, operated, and managed at customer site
- Outsource--
- Use of modules (partial solutions)
- Software as a Service (SAAS)
- Systems Integrators (team of experts that manage technical execution)
- Independent Validation and Verification (IVV)
- Program Management Office (PMO)-- In entirety or expert resources
- Staff Augmentation (external program and technical resources--Expert teams or Individuals

Summary

For a state like Vermont having a proud history of being an independent and progressive leader in health care services, a commercially packaged solution may not be immediately embraced. The extensive investment in the existing VHC coupled with the perception of starting over with an entirely new direction may tend to inhibit any serious consideration of these viable options. However, the complexity of the ACA and CMS regulations and maintaining the technology for health and human services may become onerous over time. The industry trend in both the private and public sectors has been to focus on core business needs and opportunities, and outsource non-core functions. The limited number of requisite qualified resources available in Vermont will continue to challenge successfully executing large complex programs with the in-house resource availability.

Favorability of Approach Analysis

Option 1: Commercially Offered Options Consideration of commercially available products and services, especially for particular modules of functionality, should be strongly considered as the market continues to mature. The use of a commercially offered solution for all QHPs, SHOP program, Vermont assistance programs and all Medicaid programming; includes use of outsourced expert technology and policy resource with established exchange and Medicaid product roadmap.		
Attribute	Indication	Analysis
% of Solution		There are a number of various commercially offered solutions that address a specific functional area or limited partial solution IT needs of State based exchanges. Some of the more widely used vended COTS solutions include SoftHeon, GetInsured, IBM- Curam, Connecture, and hCentive. SSG found hCentive to be the most comprehensive solution with an operational implementation in Massachusetts for both QHP's and Medicaid It is currently understood that hCentive can adequately handle QHP's, and Medicaid solutions may vary depending on the unique requirements of the Medicaid program. SSG recognizes that Vermont's unique needs would need to be assessed to determine the level of customization that would be required for any commercially offered solution.
Technology Change		hCentive is compatible with Oracle, the same technology that VHC/IE uses. Optum hosting and IT operating environments similar to that of Vermont's are compatible with hCentive. Demonstration of the working product can be explored in Massachusetts where hCentive was implemented August of 2014 for 2015 Open Enrollment. Adapting to Vermont specific requirements and programming will require configuration management and perhaps some custom work to satisfy. Solution would be modular and would provide a phased in approach for functional coverage.
Business Change		There is risk of business disruption in introducing any new vendor product. Some functionality may not exist presenting the need to introduce some customization or change business process or advocate for policy change. All of this could represent some delay in realizing full benefit of solution. There is no one system that will handle all the unique needs of every state-based exchange. Whenever any new technology is implemented the planning process should evaluate the business process being automated. Antiquated or unnecessary business policies should be addressed to eliminate any customizing of industry standard COTS functionality.
Ease of Transition		A labor-intensive transition process that requires extensive upfront planning and significant commitment from subject matter experts in the business policy and operations area. Commercially offered vendors provide IT development and implementation resources, but businesses must define rules, policies, and probable workaround conditions. Governance for an outsourced vendor managed program requires strong IV&V and skilled vendor management. Developing necessary technical

		and business disciplines within State agencies may not be as timely or cost-effective in achievement of same or better results using a commercially offered/vendor. The availability of skilled resources, demonstrated experience implementing in a similar state based exchange, and the immediacy of need to satisfy both technology and policy requirements is a very strong case for this solution.
Transition Costs		Transition costs are difficult to estimate until a determination is made of how well hCentive can satisfy the completeness of a solution. Typically, more costly vendor resources can be augmented with available and qualified State resources, lowering the overall cost of the implementation. Speed of transition may also influence cost, as tasks that could be done serially would need to be done in parallel, and therefore require more expensive staff augmentation options to be used. Finally, since hCentive is architected in a way that it can be implemented using modules, due diligence would have to be performed to determine the most appropriate plan of usage in Vermont. Each module implementation could be appraised for cost, time, and necessity of resource commitment.
Duration of Change		Full implementation of hCentive or any other commercially offered solution is a significant undertaking. Much depends on the completeness of the solution the current standard commercially offered product contains in functionality to meet Vermont's needs. Other factors like the required customization, time for procurement, and Vermont making adequate resources available all have great influence of duration of the program implementation / change. At a very high-level, programs similar to Vermont's range between 12 to 18 months assuming most of the commercially offered product can be adopted for usage – but it would be speculative for SSG to estimate without thoroughly mapping the State's requirements to existing functionality. This should be studied further.
Operating Costs		Unlike several other commercially offered products and the Federal Facilitated Markets that charge a 3 % of premium, hCentive charges are based on actual enrollments. This may provide advantages in forecasting costs and maintaining the cost feasibility in the future. Costs for customizations can be estimated prior to commencement of work and can be charged at a fixed or time and materials basis.
Security		The use of an outsourced commercially offered product puts the security of the solution into the care of security professionals more readily available in the private sector. The widespread use of security standards and protocols and the ability to update those standards to newly identified threats are more affordable in managed solutions. hCentive provides multiple levels of security to protect State exchange users' data.
Regulatory issues		One of the most significant advantages of using a commercially offered product is the elimination of the tedious overhead of maintaining product compliance. This can relieve the State of not only the cost of the ongoing development, but also an opportunity to be part of a user's group that collaborates on new regulations. While there may be some compliance regulations that are specific to Vermont, typically commercially offered

		products satisfy new compliance requirements in a timely and manner.
Funding Opportunities		The ability to match most functionality covered in the Integrated Eligibility program would justify presenting a commercially offered alternative to CMS for approval. Approval would most likely require 10% funding match from Vermont for this approach. The assumption is made that the implementation of hCentive would be benefiting the users of the VHC/IE system ~94% are Medicaid participants.
Vermont Policy Alignment		SSG found hCentive to be the most comprehensive solution with an operational implementation in Massachusetts for QHP's. It is currently understood that hCentive provides >90% of the solution for QHP's, and varying degrees of a solution for Medicaid participants. This would be a viable approach to maintain Vermont's current benefits within a commercially offered roadmap if the existing functionality mapped to Vermont's needs. Future policy changes would require some negotiation but would be feasible as Vermont's needs would have to be considered in light of a growing user community of the vended product. Some custom rules could also be maintained.
Total Score:		**Neutral** to the needs of Vermont.

5.4 Alternative 2: Federally Facilitated Marketplace (FFM): Healthcare.gov

Description

The evaluation of the FFM alternative reveals it is not a reasonable option to replace or complement the VHC. The Vermont demographics reflect an overwhelming majority of Medicaid participants (>95%) that are required to acquire health insurance (Medicaid) through a State managed system, namely the VHC/IE. The segment of individuals that the FFM could service with the specific purpose of facilitating their eligibility for the federal Advance Premium Tax Credit (APTC) is a small group (<2%) of Qualified Health Plan (QHP's). These individuals are required under CMS/CCIIO rules to use a federal or a State exchange to acquire their health care insurance. QHP's who are not eligible to receive federal and State subsidies (APTC) can go directly to the carrier to purchase a plan.

The Value of the FFM- Vermont Demographics do not Support the Need

The FFM (also known by consumers as HealthCare.gov) is a federally operated facility that provides a market place for individuals to acquire federally mandated health insurance. Most individuals secure health insurance through their employers. However, for those who are uninsured they must have access to either the FFM or a State Based Exchange (SBE) to acquire health insurance. Requirements specify that individuals "come through a single door" to be determined for eligibility and benefit levels. The first part of determining eligibility in both the FFM and VHC is to "fail Medicaid eligibility". This determination is used to direct the individual who are below the Federal Poverty Level (FPL) to the States' Medicaid application process. If they are above the FPL, then they are identified as a QHP who may be eligible for a federal APTC. This population of QHP's in Vermont that is eligible for an APTC, but not entitled to a Vermont subsidy is >2% of the population currently using VHC. A notable constraint of the FFM is that it does not have any flexibility to address State benefit determinations. Therefore, the ~15,000 QHP's who are covered now covered under the global commitment waiver **must** use the State exchange for determination of their eligibility for Vermont subsidies.

CMS/CCIIO requires individuals who are eligible to receive a federal "advance premium tax credit" (APTC) must apply and acquire insurance though the FFM or an approved State exchange like Vermont's VHC/IE. Applicants who use the FFM, and are entitled to receive Medicaid benefits, are directed to use their respective States' application and determination procedure. Currently, all Medicaid benefits are solely managed and processed at the State level, and the FFM and CMS do not extend influence other than defining the Federal Poverty Level (FPL) guidelines that States may use for benefits calculation.

Since the commencement of the ACA in 2014, 38 States have opted to use all or some of the services offered by the FFM. Generally, this is the case because these states have not provided access to a State exchange. However, some States have opted to build and manage their own State exchanges. Common drivers supporting the use of a State exchange and **NOT** the FFM include:

- There is very little flexibility to vary from the federal guidelines and continue providing services that may be different than what is currently offered or permitted by the FFM. Specifically, the FFM uses the FPL to test for Medicaid eligibility and potential subsidies. States like Vermont use the FPL plus a certain percentage added on to provide a more generous subsidy to vulnerable constituents. Currently there is no way to accommodate Vermont's unique subsidy programs.

- States believe the current FFM 3% fee on premiums is too high and challenges the affordability for constituents.
- States cannot get any information about constituent participation and who the consumers are. The FFM does not provide States with the participant enrollment information or the means to do effective outreach and education necessary to satisfy constituent needs.
- States are not able to maintain relationships with the Carriers and negotiate on the costs and services that are appropriate for the State's constituents.
- The FFM services provided to constituents such as call center support, and directing Medicaid eligible customers back to the State have been inefficient, labor intensive, and confusing to constituents.
- In many cases FFM services and fees have not created a positive experience for the constituent. Additionally, many States believe that the FFM will most likely need to raise fees in the near future to operate at the mandated cost neutral mode. Any increases in FFM fees will either have to be passed on to consumers, absorbed by Carriers or paid out of State budgets.

In Vermont, the number of individuals who are not receiving health insurance through their employer is ~194,000[15]. Of that number, approximately 178,000 or 92% of the participants are eligible for Medicaid assistance and MUST be serviced by Vermont's VHC/IE. It's estimated that the number of individuals who could actually use an FFM solution is <11,000 individuals or about 5.6% of the currently serviced population of the VHC/IE. This number could be much smaller as many these QHP individuals who are not eligible for the APTC can go direct to the carrier and purchase a plan. Only ~4000 Vermonters would be required to use the FFM if they wanted to keep their federal APTC. That represents about 2% of individuals in the total population of uninsured.

The Feasibility of Migrating to the FFM, and Costs

Federal funds that have been committed in the past are no longer available to cover the cost associated with migrating the VHC to the FFM. Funds would need to be sourced from the State Budget or some other means. Therefore, CCIIO funding to build out, remediate, or migrate State exchanges to achieve sustainability cannot be depended on in the future. This may obligate the State to raise the funding to migrate to the FFM if they elected to offer a minimal number of Vermont QHP's the option to use the FFM- Healthcare.Gov. Even with Vermont's implementation of the FFM, Vermont would still need to maintain and fully operate the VHC/IE system to accommodate ~94% of the uninsured population that is eligible for Medicaid. Fortunately, CMS is still strongly committed to funding Medicaid related development and operations. Therefore, Vermont may be best served by directing attention to explore ways to leverage the availability of federal funding to enhance the IE and Medicaid Management Information Systems (MMIS). These two IT systems are the primary systems that facilitate services to over 94% of the constituents that are using VHC/IE.

The actual time and costs to migrate from the VHC to an implementation of the FFM is estimated to be in the range of 8 to 18 months, and $10M-$25M. These estimates are derived from States who have made the transition, and from the vendors who have participated in the project execution. It is assumed there would be a significant State resource requirement, and the State's capacity to commit competent IT staff, testers, and operations personnel would largely influence the range of program durations and

[15] This only considers Vermonters who have signed up for coverage either direct to Carriers or through the VHC/IE. This does not include those Vermonters who forgo any coverage and are truly 'uninsured'.

overall costs. Other significant adjustments to Vermont program management and oversight would occur as a result of working with the Federal government under their rules of engagement. Vermont would be subject to all the FFM and Federal sub-contractor methodologies, schedules, security requirements, and acceptable program standards throughout the project. States that have made the transition to the FFM have indicated the interaction with the FFM and the two-way information flow was the least anticipated challenge that generated the most encumbering constraints on efficient, cost-effective, project execution.

Summary

A transition to the FFM would be costly, time consuming, and very restrictive to providing a system for many of Vermont's unique services and more generous subsidies to constituents. Vermont would most likely have to pay the majority of the cost to transition to the FFM that could range between $10-$25M. Finally, the number of the uninsured populations who are currently using the VHC that could possibly extract use from a transition to the FFM is <11,000 participants. This equates to <6% of the total uninsured participants in the State and in reality, only ~2% would be required to use it to be eligible for APTC if the VHC did not exist. Most importantly in the decision process is the fact that the VHC/IE would still need to be maintained to address the needs of 94% of the uninsured Vermont population that uses Medicaid. The FFM alternative appears to provide potential value to a very small number of individuals considering the cost to the State. Also, the distraction of the transition project and the need to continue operating the VHC/IE platform would be difficult with limited resources and funding.

Favorability of Approach Analysis

Option 2: FFM/FFP: Healthcare.gov The use of the FFM/FFP Healthcare.gov solution for all QHPs, and SHOP program; does not include Medicaid programming so the VHC/IE would remain for MCA and ABD programming; Vermont assistance programs for QHPs would need an alternative mechanism to maintain benefits – either in the form of an annual State tax credit or a stand-alone State managed subsidy program or use VHC/IE for Vermont subsidized QHPs.		
Attribute	Indication	Description
% of Solution		The FFM/FFP solution only addresses the needs of some QHPs >2% and possibly SHOP participants. The technology for managing the majority of VHC/IE benefits for Medicaid would remain. The estimated % of solution is < 6%. This estimate is qualified on the recent agreement reached on the ongoing Global Commitment, and the CCIIO flexibility to continue to permit SHOP users to go direct to carrier.
Technology Change		The technology used is proven in other States and has an established roadmap. It is difficult, time consuming, and costly to adopt. The need to have bi-directional data exchange is an additional complexity given the data integration problems that currently exist with the VHC/IE solution. Additionally, regardless of the implementation of the FFM solution, the full functionality of the Medicaid system i.e. Integrated Eligibility and MMIS would still need to be maintained for ~95% of users of the VHC/IE system

Business Change		There is a very high risk of business disruption in introducing the FFM/FFP solution. The solution is incomplete and also requires a two-way exchange of data into the State's Medicaid systems. The support model would be very disruptive. Determining multiple options available to implement the FFM / FFP would be an ongoing distraction to managing and delivery services to constituents. Cost models involving FFM services and the optimization of staffing could dramatically change the health services business. Not having insight into the consumers and participation information could be a major drawback to the current State relationship with its constituents.
Ease of Transition		The FFM/FFP requires 5 distinct service partners to deliver an incomplete solution for the state. The governance model would be very difficult to establish and maintain. The use of several vendors to deliver the solution has demonstrated weakness with many states very dissatisfied in the result and looking to replace. The availability of skilled resources to satisfy both technology and policy requirements is very difficult given the multi-provider nature of the solution. The most difficult adjustment may be the State's ability to independently manage the program and control costs. In addition to the transition process, Vermont would need to continue to provide IT and program resources to the IE system that hosts Medicaid participants. Also, most likely at least one open enrollment for QHP's would need to occur in parallel with the FFM transition.
Transition Costs		Interviews with CMS and CCIIO have revealed that all costs related to a transition to the FFM would need to be paid by the State. In discussions with States who have made the transition to the FFM the costs have ranges from $10M to $25M+. Since each State factors different costs and variables into the total cost of the transition program, actual cost projects would need to be built around Vermont's actual needs etc. For example, if there are penalties to exit vendor contracts or eliminate the need for equipment this may or may not be considered on the overall cost of the transition. Also, the availability Vermont to commit State resources to the transition cold impact the program duration and overall costs to complete.
Duration of Change		Interviews from States who have executed the transition to FFM have indicated that the shortest possible time frame is most likely 6-8 months with an extensive and full time commitment of competent State resources as well as external contractor support. A more conservative estimate may be closer to 18 months in a normal operating environment. The duration may also be impacted by the IT systems that are currently in operation, and any reuse of process, operational procedures, knowledge transfer that can occur.
Operating Costs		Operating costs for the use of the FFM are currently based at 3% of premiums. Since the FFM must operate at "break even" it is assumed that the 3% fee could rise as much as 1-3% to cover the ongoing loss that has been occurring each year since 2014. States may not have any control over future cost increases and would have to pass the costs on to consumers or absorb it in the State budget/

Security		Although healthcare.gov is a secure system, the incompleteness of the solution requires the State to maintain its current security posture with the VHC/IE as well as open up the Medicaid systems to the Fed for two-way exchange. New two-way traffic in and out of State IT systems that would be precipitated by using the FFM most likely would require greater security.
Regulatory issues		Regulatory issues and need for regulatory enhancement would be managed via collaboration between the FFM and State. It is assumed that the FFM would proactively notify, and make the necessary technology enhancement to remain compliant. The State would need to participate in any testing and modification to state information that may be necessary.
Funding Opportunities		There is no longer any Federal establishment grant funding available. From recent discussions with CCIIO who was responsible for the funding for State based exchanges no more funding to build, enhance, or migrate to the FFM is available. Approval would require 100% funding from Vermont for this approach. This does not support the integrated eligibility interest with CMS for Medicaid.
Vermont Policy Alignment		The FFM is very rigid in their offering of services and there is very little opportunity to accommodate any State interests that may require a change. Also, the FFM provides very little information back to the State about consumer participation, and insight into health insurance purchasing dynamics. Therefore, a transition to the FFM would most likely significantly inhibit Vermont from exercising policies that may different than the FFM guidelines.
Total Score:		**Not Favorable** to the needs of Vermont.

5.5 Alternative 3: Direct to Carriers

Description

In March 2014, CMS issued guidance that allowed for waivers to the States' requirement for direct enrollment of The Small Business Health Options Programs (SHOP). States' had universally not been able to provide for online enrollment to small businesses through their State-based exchanges. The waiver was a concession to CMS's delayed guidance that failed to accommodate the States' deadlines to comply in time for Open Enrollment in 2013. These waivers were issued for Plan years 2015, 2016, and 2017. The practice has paved the way for substantial "Direct to Carriers" enrollment for ACA QHP plan participants pooled by small business affiliation. The State of Vermont has ~45K participants annually in this SHOP category.

In discussions with CMS for this assessment, this "Direct to Carriers" **flexibility** (their term) seems to be available for the foreseeable future. Given the change of administration in Washington, SSG believes this may become a fairly predictable and reliable option for SHOP QHP participants. Additionally, there has always been the ability for individual QHP participants to contract directly with Carriers for their coverage. In fact, the only benefit to apply for coverage through VHC/IE is for federal APTC or Vermont Premium assistance programs. Any QHP who does not qualify for a subsidy receives no substantial benefit in applying through the VHC portal. If they are part of a mixed household and/or applying for coverage on the VHC because of effective outreach – and are determined to not qualify for any federal or State based assistance – they could conceivably be redirected to apply for coverage direct to the carrier of their choice.

Currently Vermont has about 4900 individual QHPs that contract directly with Carriers. The additional 7000 Vermonters that don't qualify for any benefits could make this category of QHP participants around 11,500 individuals if the State were to mandate. Combined with SHOP – Vermont could direct 55 - 60K participants Direct to Carriers. This would eliminate all but those participants who receive the APTC or Vermont Premium assistance from the VHC/IE system. This population could increase should the APTC or other programs come under scrutiny or be reevaluated.

Although the constituent impact of this may not seem great – it would have very real impact to the cost allocations of the VHC/IE system relative to federal operations funding support. The impact to State budget of the current VHC/IE system allocation is around 43% of the total operating costs. That is, the federal operating grants for Medicaid support the VHC/IE at a level of 57%. If the State were to reduce the QHPs serviced on the system, that support would increase given the 75%/25% operating funds available from CMS for Medicaid platform. This would potentially lower the impact to State budget and increase sustainability for the VHC/IE from Vermont's perspective.

Favorability of Approach Analysis

Option 3: Direct to Carriers The use of Direct to Carriers solution for all QHPs, and SHOP program; does not include Medicaid programming so the VHC/IE would remain for MCA and ABD programming; Vermont assistance programs for QHPs would need an alternative mechanism to maintain benefits – either in the form of an annual State tax credit or a stand-alone State managed subsidy program or maintain VHC/IE for Vermont subsidized QHPs.		
Attribute	Indication	Description
% of Solution		The Direct to Carriers solution only addresses the needs of some QHPs and SHOP participants. The technology for managing the majority of VHC/IE benefits for Medicaid would remain. As a partial solution, however, it remains an attractive alternative to servicing QHPs who receive no subsidy, tax credit, or cost share reduction.
Technology Change		The technology needed to divert most QHPs direct to Carriers is relatively straightforward and simple. Complexity would be introduced should Vermont want to create the means to provide a tax credit through the State's revenue and tax systems in lieu of premium assistance programs. This could potentially allow for more of Vermont's QHPs to be serviced directly through Carriers. SSG recognizes this as a potential post-ACA alternative should the new administration in Washington propose dramatic changes to the law.
Business Change		There is some risk in introducing more Direct to Carriers solutions – particularly if the alternative Vermont benefits delivery through the State's revenue and tax systems is introduced. As a partial solution, though, there is little business change besides a de-scoping of services for some QHPs in DVHA.
Ease of Transition		The Governance required for internal program delivery is dependent on developing the necessary technical and business disciplines within State agencies to achieve desired results. Recommendations for better program governance are made elsewhere in Task 2. Removing non-subsidized QHPs is quite easy. Delivering Vermont premium assistance through alternative means is not. This aspect of the solution could create a difficult path forward from a policy, business, and technology perspective and would need to be studied thoroughly.
Transition Costs		Minimal if limiting to non-subsidized QHPs. However, the costs associated with a new mechanism for delivering benefits through a tax credit managed by the State's revenue agency could be of substance. They would not be comparable to the costs associated with the exchange technology – but they would have to be considered.
Duration of Change		Minimal if limiting to non-subsidized QHPs. However, the duration of delivering benefits through a tax credit managed by the State's revenue agency could be 6-12 months for an automated solution deployed with considerable training.
Operating Costs		VHC/IE support costs could conceivably decrease by moving non-Medicaid populations off the system thereby increasing the federal share of the operating costs.

Security		Vermont would have to maintain its current security posture for VHC/IE and the State's revenue and tax systems as well as adapt to all newly identified threats.
Regulatory issues		The biggest detriment to Direct to Carriers currently is the requirement for APTC to be administered through a State's exchange or the FFM. Should this be altered, then direct to Carriers for all non-subsidized QHPs would be compliant. Vermont regulatory concerns would need to be addressed.
Funding Opportunities		There is no longer any Federal establishment grant funding available. Approval would require 100% funding from Vermont for this approach. This does not support the integrated eligibility interest with CMS for Medicaid.
Vermont Policy Alignment		Vermont is very progressive and generous in its programs of support. Encouraging direct relationships with Carriers provides less business intelligence for Vermont and less Vermont policy support. It may not be ideal. The savings attributed to the federal allocation however could be substantial.
Total Score:		**Neutral** to the needs of Vermont.

5.6 Alternative 4: MAGI in the Cloud

Description

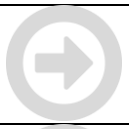
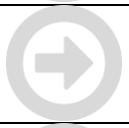
MAGI in the Cloud (MAGI/Cloud) is an open source project of CMS and is made available to States for determination purposes for MAGI Medicaid and CHIP eligibility. This service is only one component of many that make up the VHC/IE system. It should not be considered a complete alternative, but represents the future direction of shared data practices. It is a cloud-based offering with the ability to integrate readily into existing state solutions as a service call. It is an available addition to any IE solution stack and represents a small efficiency in accessing the most current determination rules engine at the federal level. It also represents reliable federal policy expertise embedded in the rules maintained by CMS. There are some State's based rules as well but this is determined State-by-State and would likely not be applicable to Vermont.

Successful deployments in New Jersey, North Dakota, District of Columbia, and Tennessee make this a viable source for basic federal determinations for MAGI Medicaid eligibility as well as Advanced Premium Tax Credits for ACA compliance purposes. The adoption by at least three States, with Iowa potentially incorporating it into their determination strategy, insures this will remain a viable service from CMS. The cloud-based product provides a relevant roadmap for change according to the most up-to-date federal guidelines and policies. Federal expertise is leveraged and Vermont would not have to maintain the Federal rules set. Incorporating this service could also be the first in a series of eligibility services planned by CMS. Rules sets for consideration in States' integrated eligibility systems for federally supported Health and Human Services programs (and in scope for VHC/IE) are in the planning stages.

The distinct needs for Vermont subsidy programs are not addressed in this solution. Further, no Qualified Health Plan participant would benefit as the current need for APTC enrollment through either a State-based exchange or the FFM could not be met by this service alone.

Favorability of Approach Analysis

Option 4: MAGI in the Cloud **MAGI in the Cloud (MAGI/Cloud) is an open source project of CMS and is made available to States for determination purposes for MAGI Medicaid and CHIP eligibility. It is an available addition to any IE solution stack and represents an efficiency in accessing the most current determination rules engine at the federal level as well as the embedded policy expertise maintaining those rules require.**		
Attribute	Indication	Description
% of Solution		This solution provides for the federal portion of the policy and technical resource needed for MAGI determination in Vermont. It is an incomplete solution – especially in regards to Vermont premium assistance programs. It does not currently provide for MABD as well.
Technology Change		The changes to access are minimal, as CMS has created a very functional API call to this managed service offering. There would be some integration work required to process the output into the current or future required workflows -- which could be substantial.

Business Change		There is risk of business disruption in introducing a new cloud offering. Some functionality may not exist presenting the need to introduce some customization or change business process or advocate for policy change. All of this could represent some delay in realizing full benefit of solution.
Ease of Transition		The solution is a partial solution. The ability to integrate into the current determination workflow could present some difficulty – but not insurmountable.
Transition Costs		There would be cost associated with the transition. A business case would need to determine if the long-term operating benefits have a reasonable return relative to the investment.
Duration of Change		8-12 months would be a realistic time-line to achieve demonstrable results.
Operating Costs		MAGI/ Cloud has demonstrated operational efficiency in determining some classes of eligibility. Open source and shared infrastructure across NJ, ND, DC, TN is encouraging – shared, cloud, and managed all are real drivers off cost savings.
Security		The use of an outsourced cloud-based service puts the security of the solution into the care of security professionals more readily available in the private sector. The widespread use of security standards and protocols and the ability to update those standards to newly identified threats are more affordable in managed solutions.
Regulatory issues		MAGI/Cloud is a Federally compliant solution and given adoption by States will only grow in solving State's needs to access a regulatory framework through managed services. The issue of Federally compliant becomes moot – regarding the determinations covered.
Funding Opportunities		The ability to match functionality covered in the Integrated Eligibility program would likely justify presenting this alternative to CMS for approval. Approval would require 10% funding match from Vermont for this approach.
VERMONT Policy Alignment		The nature of this solution is Federal determination only. It is by definition incapable of Vermont specific policy alignment. It does, however, present a viable federal compliance mechanism for Vermont.
Total Score:		**Neutral** to the needs of Vermont.

5.7 Alternative 5: ACCESS - Improve Functionality to Replace VHC

Description

ACCESS is a Vermont legacy system that currently supports the administration of Medicaid services for the Aged, Blind, and Disabled participants. Over the past several years the system has performed with reliability and in a predictable manner. However, the age of ACCESS and the outdated technical architecture have made it **a non-acceptable system to be eligible for CMS funding.** Since ACCESS does not meet CMS Medicaid system development guidelines, Vermont's VHC/IE roadmap includes an approved IAPD to migrate ACCESS participants to the VHC/IE system. To encourage this important Vermont initiative, CMS has committed $62M in funding to execute the work outlined in the IAPD dated July 29th, 2016. Additionally, Vermont is further motivated to replace ACCESS to continue receiving up to a 75% CMS match funding for Medicaid operations. For these reasons, ACCESS in not an acceptable alternative to replace or complement VHC.

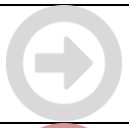
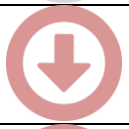
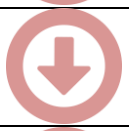
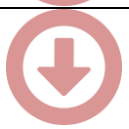
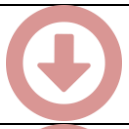
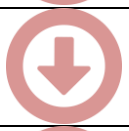
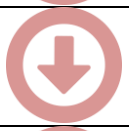
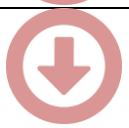
While many Vermonters have asked about the viability of future use of ACCESS, there are several challenges to maintaining very old legacy systems. These challenges include:

- It does not satisfy CMS Medicaid Information Technology Architecture (MITA) conditions / guidelines for continued use and funding:
  - Modularity condition
  - Industry Standards Security, portability, and accessibility
  - Leverage and reuse of technology across other States
  - Reporting does not support continuous improvement of business operations and accountability
  - Interoperability - ensuring seamless coordination and integration with the State exchange, and allowing interoperability with health information exchanges, public health agencies, and community organizations.
- CMS will not provide any funding for enhancing ACCESS
- ACCESS does not meet certain security criteria and could expose the State to risk
- ACCESS legacy code will become more difficult, costly, and inefficient to maintain
- ACCESS may not be capable to retain critical information required in the VHC/IE system to support it as the system of record. This is an important prerequisite for IE to provide reliable and accurate information on to constituents' health and human service needs.

Summary

In reviewing ACCESS, the findings indicate this should not be considered as an acceptable alternative. To further affirm this opinion, the VHC/IE team submitted an IAPD to CMS in July 2016 proposing the migration of aged, blind and disabled Medicaid participants to the VHC/IE system. At successful completion of this project planned for September 30th 2018, the ACCESS system is planned for decommissioning. CMS approved the project plan with a commitment of $62M in federal funding assuming a $6.2M (10%) state match can be committed.

Favorability of Approach Analysis

Option 5: Reuse of Access **Take the existing mainframe technology and update it to manage all QHPs, SHOP program, Vermont assistance programs and Medicaid programming.**		
Attribute	Indication	Description
% of Solution		ACCESS is not considered a viable solution for future sustainability. CMS will not provide any future funding for the enhancement, remediation or interoperability if health and human services systems with ACCESS.
Technology Change		The technology chances to migrate Medicaid participants from ACCESS to a viable system are documented in the IAPD that AHS submitted to CMS in July of 2016.
Business Change		Business operations processes and procedures will need to be evaluated and restructured if ACCESS is retired.
Ease of Transition		The transition to migrate from ACCESS to VHC/IE is complex given the scope of work that has to occur with stabilizing the VHC/IE system and readying it for the Aged, Blind, and Disabled Medicaid population. Additionally, time is of the essence to complete the work of the project no later than 9/30/2018 to secure the full funding commitment from CMS.
Transition Costs		Transition costs per the IAPD are estimated at $69M. It should be noted however that actual cost for just the transition off of ACCESS to the VHC/IE system may be less depending the mandatory scope of work to complete the most basic necessities of the transition.
Duration of Change		The documented plan for the transition off of ACCESS is defined in the IAPD and is scheduled to occur over a 24-month period. It is proposed that the project would commence immediately and be done by the end of 2018.
Operating Costs		Operating costs on the new system are not projected, but planned to be equal to or less than that of today.
Security		The ACCESS system is deficient in industry standard security requirements and the transition to VHC/IE or another system would address the security issues.
Regulatory issues		ACCESS does not meet the criteria and guidelines that CMS has defined that would make ACCESS viable for the future.
Funding Opportunities		There is no longer any Federal establishment grant funding available. Approval would require 100% funding from Vermont for this approach. Federal Medicaid funding would not be available as CMS has said a refresh of 30-year-old technology does not align with its seven conditions and standards required for approval. Currently, CMS has approved $62M in funding to transition from ACCESS to the VHC/IE system. The project plan was defined by AHS in July of 2016, and the CMS funding was

		committed in September of 2016. At this time the CMS funding for the project has an expiration of 9/30/ 2018.
Vermont Policy Alignment		Transitioning Medicaid participants off of ACCESS to VHC/IE is instrumental in driving the future automation and master data management strategies for Vermont health and human services.
Total Score:		**Not Favorable** to the needs of Vermont.

5.8 Alternative 6: Other State's Transfer Systems & Partnering Opportunities

Description

Several states have been attracted to using other state's technology system or modules to satisfy various technology requirements. This option appears efficient and cost-effective because the development work is complete and the product can be demonstrated. Also, any work product that was funded by CMS/CCIIO is made available free of charge to states that can find benefit. However, all costs associated with the migration, customization, and implementation must be paid by the receiving state. SSG findings reveal that this could be a possible alternative, but extensive work to customize unknown software requires an experienced systems integrator to execute the project. Also, the costs to replace the existing VHC with a different solution would most likely not be funded with federal money.

The challenges to execute the transfer of software can involve extensive customization. The effort and duration to retrofit the transfer software may be as short as 7 months (as was the case of Maryland) to over 18 months depending on the amount of customization. The receiving State's infrastructure and unique operating environment is rarely going to be a match or even a partial match to the State that is transferring the solution. An attempt at this exercise is best demonstrated by Connecticut providing their "system" to Maryland. While there appeared to be excellent compatibility, the cost to do customizations, implementation, and quality testing was grossly underestimated.

Transfer solutions often have significant costs associated with the systems integrator who has the responsibility to work between the two States to execute the transfer of the software. Also, difficult choices must be made relative to the receiving State's business functionality and benefit programs where changes may need to be made to accommodate the new system. Of course, customization can address many of these issues but that is time consuming and costly. Rigorous security testing to manage risk of the core system, interfaces, and peripheral applications must be executed and confirmed before acceptance.

Vermont and Hawaii shared a common interest in working together to explore the opportunity to transfer compatible applications and software. After many months of working together it was determined that there was marginal value to actually migrate large components of the software from Hawaii to Vermont. Since Hawaii moved their QHP participants to the FFM and the Medicaid policies greatly vary between the two states, there was a limited match to drive significant value. Hawaii continues to be helpful to Vermont in identifying issues with each state's system. However, there is no active project anticipated to migrate substantial functionality. Both Hawaii and Vermont use Oracle applications, and both were Exeter customers using OneGate. There has been value in Hawaii and Vermont sharing knowledge. Unfortunately, other non-technical challenges have been problematic. A conflict of interest with KPMG arose when it was determined that executing the program in Hawaii and being Vermont's auditor was unacceptable. This issue prevents Vermont from using KPMG program expertise and has inhibited progress to aggressively pursue the partnership.

Any State that has interest in attempting a system transfer or use of software is well advised to retain a systems integrator that has extensive experience in this discipline. The learning curve is very high to effectively execute a transfer into a State with a disparate infrastructure. Also, customizing the system to accommodate the benefit programs, operations, and business policies can be an extensive effort. At

this time, larger consulting and technology firms like Deloitte, Accenture, IBM, HP and others have focused on providing systems integration services to the state exchanges. They essentially manage the program from the planning phase through implementation. States' are responsible to provide business and policy expertise, and the systems integrators provide the resources to manage the technical components of the program. Program costs and duration are largely a function of the amount of effort to retrofit the migrating system, and to accommodate the customizations to address the receiving State's unique requirements.

State Exchange Partnering Opportunities

States have found continuing challenges with the affordability of operating their state exchanges. Interest has been expressed about the concept of partnering with other states to achieve long-term sustainability. This situation is most prevalent in state exchanges where there is a small number of APTC eligible QHP's that are required to purchase a health plan through either the FFM (if available) or the state exchange. The cost becomes prohibitive because the small number of QHP fees cannot cover the cost of operating and maintaining the state exchange. A situation like this occurred in Hawaii and a choice was made to migrate the QHP enrollments to the FFM. Medicaid participants are still processed on Hawaii's managed IE system.

Other states like Nevada tried to manage QHP processing in a state exchange, but made a choice to migrate QHP's to the FFM. However, they have continued to explore alternatives that can make the overall consumer experience more efficient, affordable, and user friendly. As the fees for the FFM continue to challenge affordability and there is an anticipation there may be increases above the 3.5% level. This is driving many states to have interest in and seek out more cost-effective solutions. Nevada believes there could be synergies in partnering with other state exchanges that have common challenges. In the interest of providing the best services and responsiveness to constituents there is a need to explore common goals and systems needs that could better served through partnering. It is well understood that Medicaid benefit programs can be significantly different from one state to another and the QHP processing tends to have more commonality.

Researching the most recent commercially offered modules and applications to address QHP and IE processing requirements identifies some products that may be worth considering. Commercial products that are well known include hCentive, GetInsured, and IBM-Curam. While of these packages are not considered relatively new to the market, there are a number of state exchanges that have experience with these products and their current capabilities. As more states express interest and product user groups form, there will be greater opportunities to see commercially available products and modules become more available. The development of health care technology to service state exchanges, IE, and other ACA requirements is still in a nascent stage. As the use of commercial products expands, there will be more standardization and may be greater interest in how states can partner. This can be driven by more proactive engagement with Vendors that are interested in providing solutions.

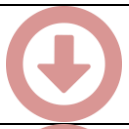
Summary

At this time, Vermont is probably not prepared to abandon major components of VHC/IE to replace it with another State's system. Also, the high cost of the transfer of systems could range between $15M to $30M and the majority of the funding would not be eligible to receive CMS support. There are other undesirable impacts of a transfer alternative. Vermont would need to manage the transfer project and

the ongoing operation in parallel throughout the project duration. **SSG does not believe at this time a State Transfer Solution is an optimal choice to achieve sustainability for VHC.**

Favorability of Approach Analysis

Option 6: Other State's Transfer Systems		
Attribute	Indication	Description
% of Solution		Transfer of another State's system may achieve up to a 90% solution, but in all likelihood, there will be significant customization and policy changes required to successfully execute the program.
Technology Change		Each State will have different requirements depending on infrastructure and existing enterprise technology commitments. Vermont is committed to the use of the Oracle suite and only transfers that would be compatible with Oracle would be most effective.
Business Change		Under most circumstances business processes will need to change to accommodate the constraints and standard features that are part of the incoming system and software. While some states have opted for extensive customization to more closely accommodate their unique policies and benefit structures, there will be a significant cost and increased project duration to move away from the formats of the incoming system.
Ease of Transition		Typically, an experienced systems integrator manages this type of project and they are well versed on the planning and execution. They can clearly identify the State's responsibilities in the program plan. Therefore, the overall transition may be less complex for the technology team, but much more challenging for the business partners in the Agencies.
Transition Costs		Based on conversations with other states, transition costs are estimated in the range of $15 to $30M depending on the compatibility to the infrastructure and the amount of the customizations required. Also, the commitment of the State to provide program resources will influence the overall cost. One cost efficiency is the benefit of any software or code that was developed using CMS or CCIIO funding can be offered to the receiving State at no cost. However, the largest component of cost will be the charges for customization and the systems integrator fee.
Duration of Change		The transition can range anywhere from 6 months to 18 months depending on complexity and the procurement cycle time for the receiving State.
Operating Costs		Operating costs can be determined when the transfer plan is complete, and the work break down structure defines where business changes will need to occur.
Security		Security is addressed no different than with any larger scale customer-facing system. Requirements would be defined in project plan. However, extensive testing would be required to insure the State is not exposed to risk as a result of the transfer.

Regulatory issues		Regulatory issues would undergo the same diligence, and accommodated by inclusion in the execution of the plan.
Funding Opportunities		Funding would be a combination of Federal match dollars where IE and MMIS was updated to accommodate CMS guidelines. State funding would be required to cover any work that was solely for the purpose of benefiting QHP processing.
Vermont Policy Alignment		Vermont's policies would be reviewed and documented so a Statement of Work could be developed to provide necessary customization to align with Vermont's unique policies and benefit structure. Accommodation of Vermont's policies would most likely not match other State policies at 100% so extra work would need to be estimated. This would add additional time and cost to the project.
Total Score:		**Not Favorable** to the needs of Vermont.

5.9 Alternative Billing Models - Issues and Alternatives

SSG's review of Vermont's billing focused on the system architecture, operational procedures, and data exchange between VHC, WEX Health (the billing 3rd party vendor), and the Carriers (BCBSVT and MVP). Over the past three open enrollments, billing issues have been a significant area called out by dissatisfied consumers. These issues manifest in a variety of ways:

- Incorrect invoice amounts
- No production of an invoice
- Multiple invoices for same period
- No evidence of payments received resulting in uncertainty of being insured
- Lack of assistance and resolution from the Call Center because there is no visibility into the billing system and CSRs cannot address the questions being asked
- Partial payments not managed appropriately or predictably
- MVP, BCBSVT, and VHC have different policies on how to address payments that are short or do not match the amount on the invoice
- No ability for VHC, WEX, BCBSVT, and MVP to reconcile accounts on a routine basis. This creates a significant and systemic lack of clarity when participants have issues that need resolution in order to obtain or retain coverage

These recurring billing issues are indicative of a very poor customer experience. Some progress has been made to understand where the issues are generated, but much more work in this regard is needed. SSG has identified several processing issues and continues to learn more, but has been advised not to provide a "solution" to this extensive problem. From a processing point of view, however, SSG believes general improvements can be made.

Billing Issues with Payments Hierarchy and Grace Periods

A known, serious, and ongoing problem is the need for an agreed-on hierarchy of payments – a predefined set of rules in the WEX Health system that can address the allocation of payments to Carriers and other providers. Since the customer receives one invoice that may include the amount due for several health and human services, there is great confusion when a partial payment is made and there is no definition of how to allocate the payment. The necessary hierarchy that defines the rules and the order of operations as to how the Carriers, dental, and other AHS services get portions of the short payment is not available through WEX or the VHC systems.

Each Carrier has different rules on grace periods and whether a participant will retain coverage if a partial payment is received. This discrepancy results in consumers and Carriers and the VHC being generally unaware of coverage status. For example, BCBS will continue extending coverage if the invoice is 75% paid when due. However, MVP Health Care will not extend coverage if the invoice in not fully paid within the tolerance of $1.00. When partial payments come into MVP Health Care, the funds are placed into a holding account until the invoicing issues and full payment can be satisfactorily addressed.

If the SoV continues to perform the important role of managing receivables it needs to act as an advocate for consistency, accuracy, and timeliness. It should work with the Carriers on establishing standard rules that govern these payments more effectively. The SoV should make certain the rules are

properly understood by all providers. Additionally, the State needs to provide timely information to the CSRs so they can more accurately facilitate these issues in the Call Center. Given the seriousness and frequency of these problems there is an alternative approach that can also be considered.

Reunite billing with Carriers' Plan Management

The concept of having the billing vendor (WEX Health) contracted with Vermont as opposed to contracting directly with the Carriers (BCBSVT/MVP) is **highly unusual and introduces unnecessary processing complexity into the overall business design**. This arrangement of billing may be the single most disruptive design in the current business workflow and the chief source of poor customer experiences in the VHC. While this configuration may have been optimal under a single payer model, it adds a level of extra work and process flow that is troublesome and no longer necessary. To compound the problem, there is a lack of automation to do data validations and daily reconciliations. Also, there does not exist a clear and reliable set of data at the State that is the authoritative "source of truth" on which all partners can agree. This makes addressing these problems with accurate data very difficult. It becomes difficult to track down and discover the root cause of many discrepancies when the data is always shifting and potentially in dispute.

Other significant issues in billing are precipitated by late and partial termination of plans. This situation is indicative of a need to investigate VHC operational procedures and the internal controls to manage reconciliation. The issue occurs when the carrier has provided coverage for an extended period of time and Vermont submits a request to terminate the participant retroactively back to the beginning of the year or some other date. In the event that the Carrier has paid claims on the assumption that the plan is in force, there is little recourse to retrieve back-payments made for health services when the plan is retroactively terminated. This continues to be a problem that could be managed more effectively if the Carrier was responsible for billing.

There is also the question of untimely notices for late payments. The lateness of these notices represents a regulatory compliance issue and can also have serious impact to Vermont's partners in understanding status and coverage. Again, these timing issues are indicative of lagging business processes that could be managed more effectively by the Carriers. They have material and significant impact on all stakeholders and need to be better understood and fixed. In general, SSG believes it may be prudent to review the State's need to insert itself in front of the billing process for the Carriers servicing QHPs.

The major disadvantage to reorganizing the operating structure to have the billing done by the Carriers is the household may receive multiple monthly invoices from State service providers. Currently the household may receive one consolidated invoice, and WEX Health assures that the payment received is allocated to all providers. If the Carriers were responsible for invoicing, the household may receive many invoices if members of the household are enrolled in multiple programs. The efficiency of one centralized invoice is very convenient for the household. In all likelihood, there is a better response rate on getting full and on-time payments with this approach than with sending out multiple invoices for every service from every provider. However, one incorrect bill may not be as favorable as many correct ones.

Overall, a case can be made that allowing the Carriers to direct bill the customer for health plans would procedurally be more efficient and reduce the number of errors. Also, the customers' interaction with the call c

enter would not necessarily need to address billing issues if the customers were in direct communication with the Carrier. Minimally, an analysis should be made if the Call Center can gain visibility into billing to enable them to effectively address questions.

Thank you

A special thank you to the many contributors to this report across multiple organizations. This report benefited from strong input, review and editing by numerous highly qualified professionals. Understanding the importance of the VHC Program and its impact, the many project teams involved share a resolute dedication to the mission of the VHC, and an impressive and pervasive culture of respect. This core strength of spirit will drive success. Thank you to all those who contributed to this report – your ongoing work is so important to us all.

6 Appendices

6.1 Appendix A: Sources Defining Evaluation Expectations for Assessment

#	Standard	Source	Applicable Area of Assessment
1.	Project Management Body of Knowledge	Project Management Institute	Tasks 1, 2, 3
2.	Business Analysis Body of Knowledge	International Institute of Business Analysis	Task 1
3.	The Open Group Architecture Framework	The Open Group	Task 1
4.	Information Technology Infrastructure Library	AXELOS	Task 1
5.	Control Objectives for Information and Related Technologies (COBIT)	Information Systems Audit and Control Association	Task 1
6.	ISO/IEC 20000	International Organization for Standardization (ISO)	Task 1
7.	Medicaid Information Technology Architecture (MITA)	CMS	Tasks 1, 2, 3
8.	Capability Maturity Model Integration (CMMI)	CMMI Institute	Tasks 1, 2, 3
9.	Customer Expectations	Comparison with other States, Town Hall meeting, email feedback	Tasks 1, 2, 3
10.	Partner Expectations	Interviews with Partners	Tasks 1, 2, 3
11.	CMS Regulations and Guidelines	CMS	Tasks 1, 2, 3

6.2 Appendix B: Artifacts Reviewed

SSG team received the following documents via email throughout the assessment period. These documents are grouped by Document Type. Note that N/A in the table below indicates "Not available".

Document Type	Document name	Filename	Version Number	Last Updated
Assessment/Audit Reports	Gartner IV&V Status Report	330007970 Gartner VHC QA Status Report 12.11.15.pdf	N/A	12/11/2015
Assessment/Audit Reports	Gartner IV&V Status Report	330007970 Status Report - VHC 091815. pdf	N/A	09/18/2015
Assessment/Audit Reports	Gartner IV&V Status Report	330007970 Status Report 051515 – VHC.pdf	N/A	05/15/2015
Assessment/Audit Reports	Gartner IV&V Status Report	330007970 Status Report 061915 VHC.pdf	N/A	06/19/2015
Assessment/Audit Reports	Gartner IV&V Status Report	330007970 Status Report 071715 – VHC.pdf	N/A	07/17/2015
Assessment/Audit Reports	Gartner IV&V Status Report	330007970 Status Report 101615 – VHC.pdf	N/A	10/16/2015
Assessment/Audit Reports	Gartner IV&V Status Report	330007970 Status Report 150501 VHC.pdf	N/A	05/01/2015
Assessment/Audit Reports	Gartner IV&V Status Report	330007970 Status Report VHC 060515.pdf	N/A	06/05/2015
Assessment/Audit Reports	Gartner IV&V Status Report	330007970 Status Report VHC 082115.pdf	N/A	08/21/2015
Assessment/Audit Reports	Gartner IV&V Status Report	330007970 VHC Status Report 103015.pdf	N/A	10/30/2015
Assessment/Audit Reports	Gartner IV&V Status Report	Gartner IV&V 330007970 Status Report 012916 VHC	N/A	01/21/2016
Assessment/Audit Reports	Office of Inspector General Report	11502500.pdf	N/A	09/2016
Assessment/Audit Reports	CCIO Open Enrollment Readiness Review Final Letter	VERMONT OERR Progress Letter_Final_10226015.docx	N/A	10/26/2015
Assessment/Audit Reports	CCIO Open Enrollment Readiness Review Agenda	VERMONT_2016 OERR Agenda_Final_10082015.docx	N/A	10/13/2015
Assessment/Audit Reports	CCIO Open Enrollment Readiness Review Agenda	VERMONT_2017 OERR Agenda_Final_09-19-2016.docx	N/A	09/21/2016
Assessment/Audit Reports	HSE Platform Technical Readiness Assessment Report	Confidential-HSE Platform Technical Readiness Assessment Report v2 2.pdf	2.2 Final	01/11/2016
Assessment/Audit Reports	HSE Platform Technical Readiness Assessment Report	HSE Platform Technical Readiness Assessment Report v2.3 FINAL MASTER	2.3 Final	12/05/2016

Assessment/Audit Reports	JFO Independent Review of State Information Technology Projects and Operations (H.492 Sec. 36). Project Integrated Eligibility Solution	JFO IT Project Review - IE v3.0.pdf	Interim update#1	06/30/2016
Assessment/Audit Reports	State of Vermont/OneGate Oracle Advanced Customer Support Services Siebel Configuration and Scripting Review	SOV Config and Script Review June 2014 - V2.pdf	N/A	06/2014
Assessment/Audit Reports	State of Vermont/OneGate Oracle Advanced Customer Support Services Siebel Configuration and Scripting Review	SOV OneGate Config Script Review May 2013.pdf	N/A	05/2013
Assessment/Audit Reports	Optum Vermont Health Connect IT Assessment	Stream_1_IT_Assessment_Deliverable_FINAL_Sign-Off.pdf	N/A	09/15.2014
Assessment/Audit Reports	Vermont Health Connect Operations Assessment Deliverable	Stream_2_VHC_Assessment_Recommendation_Document.pdf	N/A	06/27/2014
Assessment/Audit Reports	Vermont Health Connect: Exchange Options for 2017. An Assessment of the Alternatives	Vermont Health Connect Exchange Options FINAL 110215.pdf	N/A	11/02/2015
Assessment/Audit Reports	Vermont Health Connect: Exchange Options for 2017. Appendices	VHC Exchange Options Report - Appendices A-F Merged FINAL 110215.pdf	N/A	11/02/2015
Assessment/Audit Reports	Simplified VHC compared to Healthcare.gov application flow	VHC vs. Fed Ex.pptx	N/A	N/A

Assessment/Audit Reports	State of Vermont Million Dollar Technology Project Report	VERMONT Million Dollar Technology Report 2016.pdf	N/A	01/20/2016
Assessment/Audit Reports	Report of the Vermont State Auditor. Future Improvement Contingent on Successful System Development Project	Final VHC Report Repost 6.9.2015.pdf	N/A	04/14/2015
Assessment/Audit Reports	Report of the Vermont State Auditor. VHC Status of Planned Enhancements	Final report-VHC update bookmarks.pdf	N/A	11/18/2015
Contracts	Memorandum of Intent to Execute a Contract with OptumInsight	Optum M O Memo 8.11.2016.doc	N/A	08/11/2016
Contracts	CONTRACT #31750 between the SoV and OptumInsight	Optum MO 31750- Final signed.pdf	N/A	07/01/2015
Corrective Action Plans	CMS Vermont MAGI Application Processing, Verification, and Renewal Mitigation Plan	VERMONT Updated and Approved Mitigation Plan 7 25 16.pdf	N/A	07/25/2016
Corrective Action Plans	VHC 2014 Independent External Audit Intended Corrective Action Plan	VHC 2014 Independent External Audit Intended Corrective Action Plan Nov2015 Final.pdf	N/A	11/2016
Corrective Action Plans	CMS Approval Letter for Vermont ’s mitigation plan for addressing deficiencies in the Vermont Health Connect eligibility and enrollment system.	VERMONT Mitigation plan approval letter FINAL 7 21 16.pdf	N/A	07/21/2016
Customer Service Documentation	Vermont Legal Aid Quarterly Report	HCA Quarterly Report Apr-Jun 2016.pdf	N/A	06/19/2016
Customer Service	Vermont Legal Aid	HCA Quarterly Report Apr-	N/A	04/21/2016

Documentation	Quarterly Report	Jun 2016.pdf		
Financial Documentation	VHC Operating Costs FY16-17 Reduced	VHC Operating Costs SFY16-17 – Reduced.xlsx	N/A	N/A
Financial Documentation	VHC Operating Costs FY16-17	VHC Operating Costs SFY16-17.xlsx	N/A	N/A
Integrated Eligibility Planning Documents	CMS Approval for Vermont's implementation Advance Planning Document (APD) Update for the Integrated Eligibility Project.		N/A	09/23/2016
Integrated Eligibility Planning Documents	IE&E Program Charter	IE Program Charter DRAFT v0.13.docx	0.13	10/31/2016
Integrated Eligibility Planning Documents	Memorandum in Response to questions from 4/5/16 Testimony	Phase 1 of IE Projects - AHS Testimony.pdf	N/A	04/07/2016
Integrated Eligibility Planning Documents	Integrated Eligibility Implementation Advanced Planning Document	VERMONT_IE_IAPD_v3_FINAL.pdf	N/A	06/29/2016
Organization Charts	VHC Resources	VHCAssessment_Resources.xlsx	N/A	08/05/2016
Project Management Documentation	VHC OER Plan	VHC_OER_2017_PLAN_12SEP16	N/A	09/12/2016
Project Management Documentation	2017 VHC Open Enrollment and renewals Plan	2017 VHC Open Enrollment and Renewals Plan.pdf		08/02/2016
Project Management Documentation	Open Enrollment Presentation	Open Enrollment.pptx	N/A	08/02/2016
Project Management Documentation	VHC Open Enrollment and QHP Renewals for 2017 Memo	VHC Open Enrollment and QHP Renewals for 2017.pdf	N/A	N/A
Project Status Updates	Weekly Metrics and Reports from VHC	N/A	N/A	11/19/2016
Project Status Updates	Vermont Health Connect Report from Lawrence Miller to HCHC, SCHW, SCF, HROC, JFC	Aug1 Memo and VHC Update.pdf	N/A	08/01/2016

Project Status Updates	Vermont Health Connect, Preparation for Open Enrollment Memorandum	DVHA Memo_VHC Updates_7Oct16.pdf	N/A	10/07/2016
Project Status Updates	AN UPDATE ON VERMONT'S INTEGRATED SYSTEM FOR MEDICAID AND QHP ENROLLMENT	HROC 07-25-16 VHC Update – FINAL.pdf	N/A	07/25/2016
Project Status Updates	Integration - 834 Errors	Integration - 6_27.pdf	N/A	06/27/2016
Project Status Updates	Integration - 834 Errors	Integration - June 13 2016.pdf	N/A	06/13/2016
Project Status Updates	Integration - 834 Errors	Integration -7_14.pdf	N/A	07/14/2016
Project Status Updates	Integration - 834 Errors	Integration -7_7.pdf	N/A	07/07/2016
Project Status Updates	Integration - 834 Errors	Integration-June21.pdf	N/A	06/21/2016
Project Status Updates	2016 Vermont MAGI Medicaid Redeterminations	Redetermination Responses - 7_14.pdf	N/A	07/14/2016
Project Status Updates	2016 Vermont MAGI Medicaid Redeterminations	Redetermination responses and eligibility - 6-13.pdf	N/A	06/13/2016
Project Status Updates	2016 Vermont MAGI Medicaid Redeterminations	Redetermination responses eligibility - 6-23.pdf	N/A	06/23/2016
Project Status Updates	2016 Vermont MAGI Medicaid Redeterminations	Redetermination responses eligibility- 6-20.pdf	N/A	06/20/2016
Project Status Updates	AN UPDATE ON VERMONT'S INTEGRATED SYSTEM FOR MEDICAID AND QHP ENROLLMENT	VHC JFC Update - Sept15 2016-.pdf		09/15/2016
Project Status Updates	Vermont Health Connect Executive Ops Metrics & Trends	N/A	N/A	06/10/2016-07/19/2016
Project Status Updates	An Update on Vermont's Integrated System for Medicaid and QHP Enrollment	W-Lawrence Miller-Vermont Health Connect Update, March 9, 2016-3-9-2016.pdf	N/A	03/09/2016

Release Notes	Vermont Health Connect HIX Project Release Notes 3.10.0	Release Notes 3.10.0_090716_FINAL.docx	N/A	09/06/2016
Release Notes	Vermont Health Connect HIX Project Release Notes 3.8.0	Release Notes 3.8.0_072116.docx	N/A	07/21/2016
Release Notes	Vermont Health Connect HIX Project Release Notes 3.9.0	Release Notes 3.9.0_080816.docx	N/A	08/08/2016
Release Notes	Vermont Health Connect HIX Project Release Notes 3.7.0	Release Notes for 3 7 0_Final_062116.docx	N/A	06/21/2016
Requirements	Optum Requirements Document (REQ) Billing & Payment Enhancements-Part 1 Release 2A & 2B Amendment 8/ Stream 7	D-502__REQ__Requirements_Document_2A-2B__Billing-Payment_Enhancements_Part_1 – signed.pdf	1.5	07/29/2015
Requirements	Optum Requirements Document (RE) Billing & Payment Enhancements Part 2 Release 2C Amendment 8/ Stream 7 Doc ID: D-0503	D-0503__REQ__Requirements_Document_2C__Billing-Payment_Enhancements_Part_2 – signed.pdf	1.5	07/28/2015
Requirements	Optum Requirements Document (REQ) RN003 QHP Renewals and EN003 Medicaid Renewals Amendment 8/ Stream 7	D-0506__REQ__Requirements_Document_2A-2B__Renewals – signed.pdf	1.4	07/30/2015
Requirements	Optum Requirements Document (REQ) Department of Labor Interface EN-043 Amendment 8/ Stream 7	D-0509__REQ__Requirements_Document_2C__DOL_Interface – signed.pdf	1.8	08/03/2015
Requirements	Optum Requirements Document (REQ) Eligibility & Enrollment RN004 Release 2C Renewals	D-0511__REQ__Requirements_Document_2C__Eligibility_-_Enrollment – signed.pdf	1.4	07/31/2015

	Amendment 8/ Stream 7			
Requirements	Optum Requirements Document (REQ) Notices Release 2C Amendment 8/ Stream 7	D-0513__REQ__Requirements_ Document_2C__Notices – signed.pdf	1.7	07/13/2015
Requirements	SBS Release 2 Part 2	SBS_Release2_Part2 as of 20150908.xlxs	N/A	08/09/2015
Risk Logs	VHC Optum Risk Log	VHC_Optum_Risk_Log_12SEP 16.xlsx	N/A	09/12/2016
Risk Logs	VHC SoV Risk Log	VHC_SoV_Risk_Log_12SEP16	N/A	09/12/2016
Software Design Documentation	Optum Vermont Health Connect HIX Project SDLC Documentation Release 2	D-0552_SDLC_Documentation_ _System_Documentation__v 1_4.pdf	1.4	02/22/2016
Software Design Documentation	High Level VHC Solution Architecture	DRAFT-High Level VHC Solution Architecture.pdf	N/A	N/A
Software Design Documentation	Optum Exeter OneGate Transition Documentation	OneGate Transition document.docx	1.4	02/10/2016
Software Design Documentation	Environments Diagrams	VERMONT HBE Environment Optum v2.8.vsd		08/03/2016
Test Artifacts	3.9.0 Go/No Go	3-9-0_Go_NoGo_8-9_final.pptx	N/A	08/09/2016
Test Artifacts	R2C Traceability Matrix	R2C Test Case RTM.xlsx	N/A	08/09/2016
Test Artifacts	Go/No Go Decision	Re GoNoGo Decision.msg	N/A	08/09/2016
Test Artifacts	VHC Test Plan –Surge Release (08/10/2016) Release 3.9.0	Surge ID-1122a Test Plan Surge Release 3.9.0_SIGNED.pdf	N/A	08/10/2016
Test Artifacts	Vermont Health Connect HIX Project Test Summary Report – Surge Release (08/10/2016) Release 3.9.0	Surge ID-1122b Test Summary Surge Release 3.9.0_SIGNED	N/A	08/10/2016
Test Artifacts	TechOps Priority Crosswalk	TECH-OPS PRIORITYCROSSWALK - Sep13 -.xlsx	N/A	09/13/2016

6.3 Appendix C: Interviews Conducted

Met with:	Organization/Team	Area of Engagement/ Discussion Topic	Type	Date
Sean Sheehan, John Stern, and Cass Gekas	VHC	VHC Operations and Open Enrollment Readiness	In-person	08/05/2016
Sarah Clark and Carrie Hathaway	AHS/DVHA	Finance	In-person	08/05/2016
Cory Gustafson and Dawn Schneiderman - BCBS	BCBS	Partner/Carrier Engagement Issues	In-person	08/05/2016
Lawrence Miller	Governor's Office	Governance	In-person	08/05/2016
Richard Boes	DII	Governance	In-person	08/05/2016
Sean Sheehan, Grant Steffens, Addie Strumolo, and Thani Totaro	VHC	QA, Operational Readiness, Customer Service	In-person	08/12/2016
BCBS Technical Team	BCBS	Partner/Carrier Engagement Technical and QA concerns	Phone Call	08/16/2016
VHC Architectural Team	AHS/VHC	VHC Architectural and Platform Overview	In-person	08/18/2016
Senator Claire Ayer	Legislature	Legislative Perspective	Phone Call	08/22/2016
Steve Cudley and Mark Waterstraat	WEXHealth	Partner Engagement/Payment processing issues	In-person	08/24/2016
John Stern	AHS/VHC	Health Services Platform/IE	In-person	08/24/2016
JFO Weekly Meeting	Legislature	Status Update	In-person	08/25/2016
Addie Strumolo	VHC	VHC Operations/CMS Compliance	Phone Call	08/25/2016
Denise Nagelschmidt and Helen Tanona	AHS	Program Management	In-person	08/31/2016
Sarah Clark and Carrie Hathaway	AHS/DVHA	Finance	In-person	08/31/2016

Lawrence Miller	Governor's Office	Governance	In-person	09/01/2016
John Stern	AHS/VHC	Open Enrollment process	In-person	09/01/2016
Josh Kreiger	VHC	Operational Readiness	In-person	09/01/2016
Thani Totaro	VHC	Operational Readiness	In-person	09/01/2016
Grant Steffens	VHC	End-to-end Testing	In-person	09/01/2016
Lynn Wellspring	Optum	Operational Readiness	In-person	09/01/2016
Susan Valor, Kelly, Deven, Maximus	Maximus	Call Center issues	In-person	09/01/2016
Maureen from TechOps	VHC	Issue tracking	In-person	09/07/2016
WEXHealth	WEXHealth	Payment Processor	In-person	09/07/2016
Addie/Sean/Thani	VHC	Maximus discussion	In-person	09/07/2016
Secretary Hal Cohen	AHS	Governance	In-person	09/07/2016
Commissioner Steven Costantino	AHS/Department of Vermont Health Access	Governance	In-person	09/07/2016
Tena Perrelli	VHC	Call Center issues	In-person	09/08/2016
Marjorie Stinchcombe	Vermont Legal Aid	Hotline, customer complaints	In-person	09/08/2016
Speaker Shap Smith	Legislature	Legislative Perspective	In-person	09/08/2016
Susan Mesner and Linda Lambert	Auditor	Compliance	In-person	09/09/2016
Jane Kitchel	Legislature	Legislative Perspective	In-person	09/09/2016
Testimony	Legislature	Legislative Perspective	In-person	09/15/2016

Jessica Kahn (CMS)	CMS	CMS Perspective	Inperson at CMS	09/26/2016
Sarah Clark and Carrie Hathaway	VHC	Funding documentation	In-person	09/29/2016
Representative Don Turner	Legislature	Legislative Perspective	In-person	09/30/2016
Lauren McTear	VHC	Operational Readiness/ Agency Business Process Director	In-person	09/30/2016
Town Hall Meeting	Legislature	Overall Customer Experience	In-person	10/10/2016
DII Meeting	DII	Project Oversight/Licensing/Hosting	In-person	10/11/2016
Susan Gretkowski Chris Trant, Director of Enrollment Graham Goffin, Director of Finance LaQuisha Brunson, Manager of Accounts Kim Robbins, Supervisor of Accounts Amy Grabek, Manager of Exchange Business Meredith Rice, Process Manager, Exchange Business Brian Mosher, Director of Operations	MVP Health Care	Partner/Carrier perspective	Phone Call	10/11/2016
VERMONT State Officer Angelica Torres-Reid	CMS	CMS Compliance	Phone Call	10/18/2016
William Lippert	Legislature	Legislative Perspective	In-person	10/24/2016
John Stern	AHS	sustainability of VHC	In-person	10/24/2016
Sean Sheehan	VHC	billing and processing payments	In-person	10/24/2016
Thani Totaro	VHC	billing and processing	In-person	10/24/2016

		payments		
Josh Kreiger	VHC	billing and processing payments	In-person	10/24/2016
Lawrence Miller	Governor's Office	sustainability of VHC	In-person	10/24/2016
Cindi Aulson	AHS	Premium Processing and Enrollment	In-person	10/24/2016
BCBS Dawn Schneiderman Pam Getsie, Director Enrollment Services, and Seth Abbene, Accounting Manager	BCBS	Carriers/VHC challenges	In-person	11/02/2016
Ann Petrow and Ashley Berliner	AHS	CMS Requirements	In-person	11/02/2016
Sarah Clark and Carrie Hathaway	VHC	Funding	In-person	11/02/2016
John Stern	AHS	IE	In-person	11/09/2016
hCentive Team	Provider	Alternatives	In-person	11/15/2016
John Stern	AHS	IE	In-person	11/22/2016
Final SSG/AHS Meeting	AHS	Draft Report Discussion	In-person	12/06/2016
Final SSG/BCBSVT Meeting	BCBS	Draft Report Discussion	In-person	12/06/2016

6.4 Appendix D: Acronyms and Definition of Terms

The following terms will be used repeatedly in the document:

Term	Definition
ACCESS	A legacy system to VHC
Advanced Premium Tax Credits (APTC)	A refundable tax credit designed to help eligible individuals and families with low or moderate income afford health insurance purchased through the Health Insurance Marketplace, also known as the Exchange
Affordable Care Act (AHA)	A landmark health reform legislation passed by the 111th Congress and signed into law by President Barack Obama in March 2010
Agency of Human Services (AHS)	An agency created by the Vermont Legislature in 1969 to serve as the umbrella organization for all human service activities within state government.
Agile methodology	A particular approach to project management that is utilized in software development. This method assists teams in responding to the unpredictability of constructing software. It uses incremental, iterative work sequences that are commonly known as sprints.
Blue Cross Blue Shield (BCBS)	A federation of 36 separate United States health insurance organizations and companies, providing health insurance to more than 106 million Americans.
Center for Consumer Information & Insurance Oversight (CCIIO)	A part of the Department of Health & Human Services (DHHS), provides national leadership in setting and enforcing standards for health insurance that promote fair and reasonable practices to ensure that affordable, quality health coverage is available to all Americans
Centers for Medicare & Medicaid Services (CMS)	A federal agency within the United States Department of Health and Human Services (HHS) that administers the Medicare program and works in partnership with State governments to administer Medicaid, the State Children's Health Insurance Program (SCHIP), and health insurance portability standards
Change of Circumstance (COC)	A change in situation — like getting married, having a baby, or losing health coverage — that can make a person eligible for a Special Enrollment Period, allowing you to enroll in health insurance outside the yearly Open Enrollment Period.
Commercial Off the Shelf (COTS)	A term used to describe the purchase of packaged solutions which are then adapted to satisfy the needs of the purchasing organization, rather than the commissioning of custom made solutions.
Customer or Constituent	An end user of the VHC.
Customer Service Representative (CSR)	A teleservice representative who handles customer calls and contacts including account inquiries, complaints, or support calls.
Department of Information and Innovation (DII)	A department providing direction and oversight for all activities related to information technology for the State of Vermont.
DVHA	Department of Vermont Health Access
Electronic Data Interchange (EDI)	An electronic interchange of business information using a standardized format; a process which allows one company to send information to another company electronically rather than with paper.

Exeter OneGate Software	A front-end piece of the exchange called OneGate developed by Exeter Group, a subcontractor that worked on a Vermont Health Connect portal
Federally Facilitated Marketplace (FFM)	An organized marketplace for health insurance plans operated by the U.S. Department of Health and Human Services (HHS)
Health and Human Services Enterprise (HSE)	A multi-year, multi-phase portfolio of programs, which includes the redesign of business processes, optimizes utilization of information, and modernizes the IT environment
Implementation Advanced Planning Document (IAPD)	A recorded plan of action to request funding approval for a project
Independent Verification and Validation (IV&V)	Independent procedures that are used together for checking that a product, service, or system meets requirements and specifications and that it fulfills its intended purpose
Integrated Eligibility (IE)	An Eligibility and Enrollment Strategic Solution, part of HSE
Joint Fiscal Office (JFO)	Vermont Legislative Joint Fiscal Office (JFO)
Maximus	VHC Call Center vendor
Medicaid Management Information Systems (MMIS)	An integrated group of procedures and computer processing operations (subsystems) developed at the general design level to meet principal objectives.
Modified Adjusted Gross Income (MAGI)	The figure used to determine eligibility for premium tax credits and other savings for Marketplace health insurance plans and for Medicaid and the Children's Health Insurance Program (CHIP).
MVP Health Care	A family of companies providing a wide range of health care plans and programs in New York, Vermont and New Hampshire
Project Management Office (PMO)	A group or department within a business, agency or enterprise that defines and maintains standards for project management within the organization.
Qualified Health Plan (QHP)	A health plan certified by the marketplace to meet new benefit and cost sharing standards
Service-level agreement (SLA)	An official commitment that prevails between a service provider and the customer.
Small Business Health Options Program (SHOP)	A marketplace that helps businesses provide health coverage to their employees.
Stakeholder	An individual, group, or organization who may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project (5th Edition PMBOK® Guide)
State based exchange (SBE)	States running a State-based Marketplace are responsible for performing all Marketplace functions for both the individual market and the Small Business Health Options Program (SHOP). Consumers as well as small employers and their employees in these States apply for and enroll in coverage through Marketplace websites established and maintained by the States.
State of Vermont (SoV)	State of Vermont
Subject Matter Expert (SME)	A person who is an authority in a particular area or topic.
Sustainability	Adopting business strategies and activities that meet the needs of the enterprise and its stakeholders today while protecting, sustaining and

	enhancing the human and natural resources that will be needed in the future (The International Institute for Sustainable Development (2010))
System Development Lifecycle (SDLC)	The systems development life cycle (SDLC) is a conceptual model used in project management that describes the stages involved in an information system development project, from an initial feasibility study through maintenance of the completed application
Vermont Health Connect (VHC) or Health Benefit Exchange System	The system used to determine eligibility for Qualified Health Plans, MAGI and non-MAGI benefits. For the purpose of this document the VHC does not refer to the overall Integrated Eligibility system
VHC Implementation Team	VHC Team responsible for process improvement solutions to remedy performance gaps and for implementing those solutions to improve business process outputs.
VHC Operations Team	VHC Team responsible for Administration of business practices to create the highest level of efficiency possible within an organization.
WEX Health	A healthcare and financial technology solutions and payment services provider. Premium Payment Processor provider for Vermont Health Connect

6.5 Appendix E: Deficiencies List

The following is a compilation of deficiencies gathered as part of the Operational Readiness Assessment.

This list is not designed to identify all deficiencies in internal controls that might be significant deficiencies or material weaknesses.

The deficiencies are categorized by the following:

- System - deficiencies affecting hardware, software, infrastructure, communications, security, etc.
- Customers - deficiencies affecting enrollment, renewal, changes, payments, call center support, customer service, and customer satisfaction
- Data Management and Data Exchange - deficiencies affecting integration, access to care, reconciliation, and payments
- VHC Organization - deficiencies affecting organizational structure and leadership, data integrity, backlogs, payments, reconciliation, and State regulations
- CMS - deficiencies affecting CMS regulations

System Deficiencies

The following is a list of deficiencies affecting hardware, software, infrastructure, communications, security, etc.:

- **Poorly Designed Customizations and Extensions to Platform Tools.** There is a high degree of custom configuration and code built on the platform Oracle systems. This custom development and configuration have significant design and architectural flaws (e.g. lack of data integrity, duplicate records, lack of transactional integrity, etc.). The custom development and configuration was designed by Exeter, a company that has since filed for bankruptcy. The code is no longer supported by the originating organization or development teams. Numerous manual workarounds are required to support the system, which indicates that functionality is not well automated.

- **Continued Need for Customizations.** The continued need for new custom code from Development, Design, and Implementation (DDI) vendor and maintenance vendor presents risk. The VHC requires architectural and design oversight and thorough testing by all stakeholders (BCBS, WEX Health, MVP, etc.) that does not exist or occur.

- **Not Compliant.** The system lacks desired and required functionalities. Without mitigation, it is not compliant with CMS regulations. There is an approved mitigation plan that calls for additional software development.

- **Design and Development.** There does not seem to be proper architectural and design oversight of the third-party vendor development.
    - There is evidence of a lack of detailed architectural and design oversight by Vermont of third-part development vendors based on past work and no observed satisfactory code or architecture reviews.

  - There is no Vermont staff currently serving the important architectural oversight function. There was no observed formal design review process of the third-party deliverables. Poor architecture and design oversight leads to software development that does not follow industry best practices. This will cause the system be more susceptible to future deficiencies and costlier to maintain.

- **Testing.** There does not appear to be adequate testing given the complexity and size of the VHC project.
  - Proper test data was not available to perform the necessary level of system testing.
  - It was mentioned that there were times when the proper hardware test environments were not available. In particular, to be able to test using production data requires a properly hardened hosting environment.
  - Existing Quality Assurance (QA) test cases did not cover all the necessary conditions for thorough testing. System components went into production without being tested. Some testing occurred in production, which is unacceptable by industry standards. Insufficient testing thoroughness leads to unknown deficiencies emerging in production systems. This item is particularly applicable to the testing of the Data Exchange interfaces with systems of the Carriers and the billing partner. These interfaces must exercise a large set of scenarios to ensure data and transactional integrity.
  - Regression testing evaluates if new changes negatively impact the existing system. Thorough regression testing was not done consistently. There are examples where new changes broke previous functionality.
  - Test automation reduces labor-intensive time consuming processes. This permits an increase in the amount of testing that can be performed. Test automation does not seem to be fully utilized.
  - Performance testing evaluates the user experience of a solution is satisfactory. Vermont's limited system's facilities do not provide an adequate environment to accomplish this important work.

Customers Deficiencies

The following is a list of deficiencies affecting enrollment, renewal, changes, payments, call center support, and customer service:

- **Unclear Definition of Success.** There are no mutually agreed on, published, or understood criteria of VHC success. Customers and legislators have no published standards that would effectively manage service expectations; there is no definition of what success is and how it should be measured and perceived.

- **Individual Poor Customer Experiences.** The episodes of poor customer support services at the Call Center have not met expectations of the VHC, including average call wait times of 10 minutes. While these issues have been partially addressed, the resulting customer experience damages the team's reputation.

- **Inadequate Means to Measure Customer Service.** The metrics published by the Call Center operations are not robust enough to measure the complete customer experience of the VHC. Recently, VHC operations staff and Maximus have been working daily calls to review service metrics. They have accelerated a hiring plan to bring additional call-center expertise online. Early anecdotal indications and some metrics appear to support that these intensive actions have improved performance. However, there are some constraints in the current technology used to track performance metrics that make true customer-centric performance difficult to measure. For example, there are metrics related to average wait times before calls are answered, but not metrics about the end-to-end duration of a customer's experience with the Call Center (i.e. including all transfers and hold times, etc. until issue resolution). There is currently no means to depict the end-to-end experience of each caller into the VHC Call Center, including aggregate wait times when transferred from one Call Center staff resource to another.

- **Communication and Escalation of Customer Service Issues.** In some cases, inadequate customer service was not escalated to DVHA and Administration executives in time for an adequate management response.

- **Inadequate Means to Partner with Other Vendors in the Delivery of VHC services.** VHC has challenges in their ability to coordinate multiple partners. This leads to untimely problem mitigation or resolution. There is a lack of defined accountability for all aspects of the customer experience, which spans multiple organizations. AHS must assume accountability for the entire customer experience.

Data Management and Data Exchange Deficiencies

The following is a list of deficiencies affecting carriers and payment processing:

- **Lack of Adequate Data Validation.** There was universal agreement in interviews from BCBSVERMONT, WEX Health, and VHC Operations team on the lack of automated data validation and integrity checks across all points in the system. This lack of audit control points impacts data integrity and causes numerous downstream manual workaround efforts. This is a burden shared by the Carriers. Currently, data validations are very manual and tend to occur on a monthly and ad hoc basis.

- **Data Integrity Issues Exist.** Poor design, such as inadequate data validation, inadequate record de-duplication, not enforcing referential integrity, etc., has led to data integrity issues. As a result of existing corrupt data**,** there will probably be a number of billing errors, missed deadlines, faults with redeterminations, and some customer dissatisfaction. There is very little automated data validation and data integrity checks across all points in the system. Some critical platform tool configurations that automate some data integrity checks have been disabled.

- **Inadequate Data Exchange Interface Design and Performance.** There has been historically poor performance with the data exchange interface of the VHC system with those systems of the Carriers and the billing partner. This poor performance may originate from the VHC system deficiencies. Industry standard best practices for data exchange design exist, i.e. utilizing standard data exchange messages, cascading rollbacks, robust transaction audit trails,

transaction acknowledgement processing, and automated reconciliation functionality. However, the VHC System does not adequately utilize built-in safeguards that automate data exchange. As an example, Vermont intentionally suppresses industry standard acknowledgement messages in some transactions since the VHC Data Exchange cannot process the message. Additionally, there does not appear to be any end-to-end diagrams illustrating the data exchange architecture, processing sequence or infrastructure. These deficiencies create data discrepancies across the data sets of the VHC and the systems of other external partners. These data discrepancies negatively impact all of Vermont's partners (vendors, Carriers, billing provider and federal agencies) and also constituents.

- **Lack of Documented Business Processes.** There does not seem to be an Operations Manual that describes the business processes and expectations of all the parties that support customers and the data exchange interfaces. Without this clearly defined, the project team staff do the best they can, but are not well coordinated. Without documented business processes and expectations, customer service is impacted.

- **Lack of Design Documents.** There is not adequate requirements and design documents to support the coordination of the parties involved with the Data Exchange interface. For example, if the VHC team could share a requirements document that included the business rules and required data validations, they would enable external partners to better support the interface work.

- **Management and Coordination.** There are deficiencies in the management, coordination, and communication with partners related to implementation and on-going operations. For example, not all external partners felt they understood the implementation tasks necessary to complete the customer interface development and testing. An understanding of these project plans is necessary so that external partners can adequately plan their staff to support the project efforts. It was unclear who from the VHC Team acts as a point-person for the external partners to contact and who from within the VHC Team is managing the interface implementation and testing.

VHC Organization Deficiencies

The following is a list of deficiencies affecting organizational structure and leadership, data integrity, backlogs, payments, reconciliation, and State regulations:

- **Project Management.** There is ineffective project oversight and accountability ensuring proper methods are used.
    - Planned milestones are not met; they should be made in a more thoughtful and formal manner.
    - Compromises to best practices are made. The magnitude of work and the number of project dependencies is not well understood. This negatively impacts timelines and/or the thoroughness of the approach.
    - Many parts of the project planning are reactionary to correct past errors, address an immediate need, or satisfy a compliance issue.

Centers for Medicare and Medicaid Services (CMS) Related Deficiencies

The following is a list of deficiencies related to compliance with CMS regulations and guidelines:

- **Non-Compliant with CMS Regulations and Guidelines**
  The following is a list of some the key deficiencies of the VHC against the CMS regulations and guidelines. These deficiencies are identified in the CMS-approved Mitigation Plan:
  - A number of outstanding online Dynamic/full approval or interim application issues for the single, streamlined application exist and content changes to the online application should be made. VT is still waiting on a timeline from the systems vendor to fix some of these changes. Any changes to logic will involve DDI, which will be a longer process than OPA change
  - No multi-benefit application in place - Multi-Benefit Health Care Application including MABD functionality will be delivered by 12/2017
  - Inconsistencies between an applicant's attestation of income and information from data sources for applicants who applied between 8/24/15 and 12/31/15 (Group 1) and those who applied between 1/1/16 and 6/30/16 (Group 2). Verification of all elements will be complete, and any terminations processed for Group 1 by 12/31/16. Verification noticing and manual lookups for income, SSN, and citizenship and immigration for Group 2 is to be completed by 12/31/16. Verification of all elements will be complete, and any terminations processed for Group 2 by 4/30/17. For 7/1/16-12/31/16 Population: Beginning 7/1/16, The State began noticing for income verification on a weekly basis.
  - No Automated Verification Notices - automated notice functionality for verifications has been delivered. Data quality issues have prevented VT from turning on that functionality. The State is working with vendors on a data quality clean-up plan in 2016 and turning on these automated verification notices is a priority.
  - Regulations 42 CFR §435.916 ((a)(2) requires that the agency re-determine eligibility without requiring information from the individual if able to do so based on information from available data sources) and 42 CFR §435.916 ((a)(3) requires the agency to send a prepopulated form to beneficiaries eligible on a MAGI basis, if necessary, and provide the beneficiary at least 30 days to respond and provide necessary information) are not currently in place.
  - Hospitals making PE determinations functionality is not currently in place.

6.6 Appendix F: Comparison with Other States

SSG acknowledges the original RFP specifically requested information regarding operational performance and costs associated with other state's exchanges. There were some very real challenges to compiling this information for VT. Our initial effort to collect information was in our meetings with CMS and CCIIO. We were told by each organization they did not collect individual state metrics, and could not help us. A subsequent more formal request for information regarding state exchange participant statistics, budget information, and technology roadmaps was once again not available. SSG was advised to contact the states directly to discuss our information requests and interests. To accomplish this, SSG consulted or queried several states with active or formerly active state-based exchanges. We specifically asked regarding all available operational metrics and ongoing costs. We conducted interviews either directly with state's representatives or their partners in CT, HI, MA, MD, NV, ID, WA. In most cases, these states (and others with state exchanges) have struggled as mightily as VT to provide a reliable and working system. After their own painful and costly journeys, SSG finds reluctance from these and other states to speak 'on the record.' In some instances, there were pending legal and regulatory constraints prohibiting the ability to share openly. That said, there was a tremendous willingness to informally share lessons learned. The following discusses some of the cost information related to the FFM and then information related to state-based exchanges.

Metrics Related to the FFM

One of SSG's first areas of investigation was transition and on-going operating costs for the States that transitioned from a State exchange to the FFM. Our review included state exchanges that:

- Migrated to the FFM, and decommissioned their state exchange
- Migrated to the FFM, but still operate a state exchange
- Initiated a project to move to the FFM, but chose not to make the change
- States that have a Federally Facilitated Partnership where the state continues to manage significant components of the processing and operations for QHP's and MAGI.

Our findings presented that no reasonable cost estimate could be determined for a "standard and customary" migration to the FFM. Also, the wide range of unique program activities specific to each state rendered FFM transitions that were more customized than anticipated. The review revealed that no consistent methodology was used in calculating the "total cost of migration to the FFM". Further, no two states inclusion of costs, means for accounting, and reporting the information were close enough to establish common information to be compared. For example, Oregon and Nevada both chose to migrate to the FFM after it was decided they would not continue with their respective vendors, Oracle and Xerox. In the cases where vendor settlements occurred SSG notes that there have been many variations on how the settlement costs and rework is reported in the cost to transition to the FFM. Regarding the comparison of operating cost for the FFM, SSG found that several states were given waivers on the 3% fee, and they are charged 1.5%. However, in discussions with the States and CCIIO there is no guidance about the continuation of this special provision or if new migrations could receive the reduced fee. As a result, SSG could not present with certainty realistic comparatives or future operating costs for Vermont to factor in to consideration.

Also, there are many variables in the way states calculate and report on the costs incurred. Since there is a very close relationship between various health and human services technology systems the determination of how to allocate and attribute costs to the benefit of a specific system can be difficult. Also, securing federal matching funds of up to 90% match may insert inefficiency in the transition

process and accurate reporting of project costs. Some States may not include the changes made to MMIS or IE to support the transition to FFM in calculating the total cost of the FFM project. Since these costs may be considered necessary Medicaid updates to support the move to the FFM and covered by CMS they may not be viewed as FFM/QHP related cost.

Another large area of cost absorbed by state's transitioning to the FFM was the penalties to break contracts with vendors, and the decommissioning of capital equipment. In some cases, there were litigations that had to be resolved and settlements made as part of exiting the projects supporting the state exchange. Some states believed the entire costs of the Maintenance and Operations (M&O) contracts should be included in the FFM operating costs while other states may not include M&O contracts because they are necessary for Medicaid and Integrated eligibility systems. These examples represent some of the variables we were challenged with in establishing costs that could be reasonably compared.

All of these examples point to the difficulty in finding identical or relevant analogous experience – apples to apples are needed to render comparative data meaningful. While HI is most aligned with VT relative to technology chosen, they have elected a very different approach with the FFM and are now experiencing very different operational outcomes. The use of Federal call center support vs. a more regional vendor has implications for operational metrics. Different drivers of cost have different macro forces acting upon them making compares quite arbitrary. For instance, the labor market for HI has constraints, as does VT – but to compare those constraints and their implications would be a challenge. In short, SSG believes the decisions needed to move the VHC/IE forward need be seen and understood with their own set of data and on their own merits. To the degree that we could provide some useful information in regards to others technology choices and results – we have endeavored to incorporate in our material and in our recommendations.

Metrics Related to State-Based Exchanges

As stated previously, a requirement of this assessment was “a comparison of these costs to those of other State-based exchanges”. At the time of the assessment there are currently twelve states that operate their own exchange. The remainder of the states use either the Federally facilitated Marketplace (FFM), State-based Marketplaces on the Federal Platform, or State Partnership Marketplaces on the Federal Platform. The list of states and which option they use can be found on the Kaiser Family Foundation website, which also includes descriptions of the various exchange types.

List of State-Based Exchanges:
http://kff.org/health-reform/state-indicator/state-health-insurance-marketplace-types/?currentTimeframe=0

- California
- Colorado
- Connecticut
- District of Columbia
- Idaho
- Maryland
- Massachusetts
- Minnesota
- New York
- Rhode Island
- Vermont
- Washington

While there is no recent and accurate cost data available from either CMS or CCIIO, much of that information is available from the privately-operated HealthInsurance.org web site. This industry-sponsored site also provides some of the most comprehensive summaries of the status of State-Based Exchanges. The specific information sites for the State exchanges listed above are:

https://www.healthinsurance.org/california-state-health-insurance-exchange/
https://www.healthinsurance.org/colorado-state-health-insurance-exchange/
https://www.healthinsurance.org/connecticut-state-health-insurance-exchange/
https://www.healthinsurance.org/district_of_columbia-state-health-insurance-exchange/
https://www.healthinsurance.org/idaho-state-health-insurance-exchange/
https://www.healthinsurance.org/maryland-state-health-insurance-exchange/
https://www.healthinsurance.org/massachusetts-state-health-insurance-exchange/
https://www.healthinsurance.org/minnesota-state-health-insurance-exchange/
https://www.healthinsurance.org/new_york-state-health-insurance-exchange/
https://www.healthinsurance.org/rhode_island-state-health-insurance-exchange/
https://www.healthinsurance.org/vermont-state-health-insurance-exchange/
https://www.healthinsurance.org/washington-state-health-insurance-exchange/

The following table lists the enrollees and operating costs for the State Based Exchanges for 2016. All data is taken from HealthInsurance.org except where noted. Vermont is an exception to the state exchange data below in that unlike the other states the exchange serves both QHP and Medicaid enrollees.

Enrollment and Costs 2016:

State	QHP Enrollees	Operating Costs	Dollars / Enrollee
District of Columbia	22,912	$32,500,000	$1,418
Rhode Island	35,583	$30,900,000	$868
New York	565,000	$484,000,000****	$856
Connecticut	103,000	$81,600,000	$792
Washington	166,098	$110,000,000	$662
Minnesota	95,637	$56,650,000***	$592
Maryland	135,208	$76,211,000*	$563
Vermont (QHP+Medicaid)	160,521	$51,794,236	$322
Colorado	169,156	$53,700,000	$317
Massachusetts	233,536	$63,100,000**	$270
California	1,420,000	$335,000,000	$236
Idaho	102,353	$9,700,000	$95

* Source: http://mgaleg.maryland.gov/Pubs/BudgetFiscal/2016fy-budget-docs-operating-D78Y01-Maryland-Health-Benefit-Exchange.pdf
** Source: https://betterhealthconnector.com/wp-content/uploads/board_meetings/2015/2015-07-09/FY15-FY16-Administrative-Finance-VOTE-070915.pdf
*** Source: https://www.mnsure.org/assets/bd-2016-03-09-DRAFT-MNsure-FY16-17-18-prelim-3-yr-fin-plan_tcm34-194428.pdf

**** Source:
https://www.budget.ny.gov/pubs/executive/eBudget1617/fy1617littlebook/HealthCare.pdf

Comparisons of total costs (development and initial operation) for the State-based exchanges are once again not available from CMS or CCIO, however the following table may provide some insight.

Enrollment vs. Federal Costs 2014:
http://www.cnbc.com/2014/03/31/bang-for-bucks-best-and-worst-obamacare-exchanges.html#.

State	QHP Enrollees	Fed. $ allocated	Dollars / Enrollee
Hawaii	5,744	$205,342,270	$35,749.00
DC	6,516	$133,573,927	$20,499.37
Massachusetts	26,356	$180,067,775	$6,832.14
Oregon	50,137	$303,011,587	$6,043.67
Rhode Island	19,690	$105,305,029	$5,348.15
Kentucky	65,964	$253,167,439	$3,837.96
Maryland	44,836	$171,063,110	$3,815.31
Minnesota	41,273	$155,020,465	$3,755.98
Nevada	35,000	$90,773,768	$2,593.54
Connecticut	64,450	$164,466,460	$2,551.85
Colorado	100,112	$178,931,022	$1,787.31
Washington	191,677	$266,026,060	$1,387.89
New York	342,895	$429,065,407	$1,251.30
Vermont (QHP+ Medicaid)	155,000	$168,124,081	$1,084.67
California	1,018,315	$1,065,212,950	$1,046.05

6.7 Appendix G: Assessment Methodology

6.7.1 Background

Vermont Health Connect originally went live on October 1, 2013, but has experienced severe problems since that time. Despite years of additional development, defect correction, and business process change, the system does not satisfactorily meet the needs of customers, Carriers, or administrators. During the late spring and early summer of 2016, additional releases are scheduled to address known defects (the "Maintenance and Operations Surge"), and further development may take place later in the year. This assessment will evaluate whether VHC is likely to meet expectations both by State of Vermont Legislative Joint Fiscal Office Request for Proposal – Page 3 of 17 VERMONT LEG #318017 v.1 the beginning of the open enrollment period (November 1, 2016) and by the beginning of 2017.

6.7.2 Objective and Scope of Assessment

The purpose of the Operational Readiness Assessment is to document the assessment of operations of the Vermont Health Connect (VHC), the health exchange system for the state of Vermont, and provide recommendations to address any identified risks. This document contains findings, gaps and risks in key operational areas like customer relationship management, integration between partners, governance and CMS compliance. This document also lays out SSG's judgement and recommendations for improvements.

In August 2016, the State of Vermont Legislature Joint Fiscal Office executed a Statement of Work with Strategic Solutions Group (SSG), to conduct an independent, third party review of the State's health insurance exchange, Vermont Health connect, to determine to what extent the system is meeting expectations.

The assessment should include the following items:

- An assessment of VHC readiness for open enrollment 2017, which begins November 1 2016;
- An assessment of the validity of Agency of Human Services (AHS) plans for additional improvements to occur before December 31, 2016;
- An assessment of the expected operational state of VHC by December 31, 2016;
- Complete a deficiency list for VHC. The list shall include deficiencies from all perspectives: the system, the customers, the Carriers, the payment processor, the VHC organization, and Centers for Medicare & Medicaid Services (CMS). These lists will be used to document any measurable progress and to project the system status as of January 1, 2017, and shall include as a minimum:
    - System: deficiencies affecting hardware, software, infrastructure, communications, security, etc.;
    - Customers: deficiencies affecting enrollment, renewal, changes, payments, call center support, customer service, and customer satisfaction;
    - Carriers: deficiencies affecting integration, access to care, reconciliation, and payments;
    - Payment processor: deficiencies affecting payments, integration, and reconciliation;
    - VHC organization: deficiencies affecting organizational structure and leadership, data integrity, backlogs, payments, reconciliation, and State regulations;
    - CMS: deficiencies affecting CMS regulations;
- A review and analysis of the payment processing system and opportunities for improvement;
- Comparisons to operational metrics (response times, integration errors, customer satisfaction, etc.) of other State-based exchanges and the federal exchange;

• Any recommendations for improvement.

6.7.3 Methodology to Determine VHC/IE Feasibility

Assessing the Feasibility of Achieving Sustainability of the Vermont Health Connect and Integrated Eligibility Platforms.

An in-depth analysis of the current capabilities of the existing VHC/IE had to be established to create a baseline. To meet this requirement SSG spent 3 months working with the VHC/IE team to understand and review the VHC/IE architecture, operating environment, deficiencies, IT and program management organization, proposed development plans (IAPD), and the funding models. In addition, SSG worked with program partners such as:

- Carriers: Blue Cross / Blue Shield, MVP
- VHC Billing: WEX Health
- Customer Call Center: Maximus
- VHC Maintenance and Operation: Optum
- Federal Medicaid partner: Center for Medicare and Medicaid Services (CMS)
- Federal State Based Exchange partner: CCIIO
- Customers Advocates: Vermont Legal Aid
- State Representatives: 10 Vermont legislators
- Vermont Administration: Secretaries, Commissioners and IT leaders
- Constituents: Public Hearing on October 10th 2016 and Email Box for VHC commentary
- IV&V Vendor

The project was conducted over a 21-week time period comprised of the following activities:

- **Interview and Meetings:** SSG began the project by interviewing many of the key staff and stakeholders associated with the health insurance exchange using a set of standardized questions, with a focus on the scope areas. In SSG meetings with representatives from the VHC/IE user community, program partners, and VHC/IE IT leadership, there is a broad-based assumption that this activity has provided an accurate portrayal of the current status of the VHC/IE platform and plans about the strategic vision of achieving sustainability into the future. The SSG team defined and compiled a series of findings by reviewing available program documentation and affirming information in well over 50 interviews. The findings were used to determine the potential of the existing platform to support future VHC/IE enhancement. SSG also reviewed new AHS needs and CMS requirements to ensure that the existing VHC/IE platform has the capacity to accommodate a build out of necessary enhancements.

- **Review and Analysis of Project Artifacts and Documentation** - A key part of SSG's project approach involved conducting a detailed review of project artifacts and documentation. Similar to the interview process, SSG initially identified the types of documents requested for the review. The State of Vermont provided the artifacts that were requested by SSG. Type of documents reviewed:
    - Past assessments
    - Project Management artifacts
    - Requirements
    - Material published in the media
    - Issue Logs and Testing Artifacts
    - Release Notes

- Software Design Documents
- Status Updates and Metrics
- Financial Documentation
- Customer Service Documentation and Metrics
- Corrective Action Plans

Identify key areas of interest for deep dive- SSG identified Key Areas of Interest and broke down the Task 1 Operational Readiness Assessment into the following areas:

- VHC Technology Platform and System
- Project Governance
- Accountability and Resource Management
- Project Planning and Execution
- Customer Service
- Engagement with Carriers and Premium Payment Provider
- Compliance and Engagement with the Centers for Medicare and Medicaid Services (CMS)

- **Deficiencies List across the System**

In planning and performing VHC Operational Readiness Assessment SSG considered the information provided to us by VHC, AHS, VHC Partners, and CMS representatives as a basis for compiling a comprehensive list of deficiencies for VHC. SSG also obtained and reviewed the Master List of all escalated defects and request.

- **Deep Dive Analysis on Customer Service Support provided by Maximus and the State**

SSG analyzed Maximus performance in the past 18 months, their SLA, and their plans for Open Enrollment.

- **Testimony for the JFO on the VHC Operational Readiness**

SSG testified to the Joint Fiscal Committee on the findings on VHC Operational Readiness.

- **Discussions with other State Health Exchanges on their Experiences**

SSG participated in IT Solutions Management Conference (ISM) and had discussions with representatives from other States, such as Hawaii, Oregon, Idaho - as well as discussions with Deloitte, Accenture, and KPMG to learn about what they are doing with Integrated Eligibility.

- **Discussions with CMS on the future of VHC**

SSG met with Jessica Kahn who serves as the Director of the Data and Systems Group (DSG) in the Center for Medicaid and CHIP Services at CMS. The following topics were discussed at the meeting:

- Opinions regarding the option of going back to the usage of Access, particularly related to CMS's willingness to fund/support this decision.
- Discussion related to CMS's ongoing commitment or potential to fund various components of Integrated Eligibility, MMIS and possibly MDM (given the appropriate APD's were submitted). Discussion about waivers in place for Vermont.
- Discussion about the cost model, feasibility, pros, cons, and impact if Vermont decided to transition to the FFM.
- CMS recommendations about the best method to reach out to get comparative information and statistics on other States exchanges and State's usage of FFM.

- CMS view of Vermont's success to date and their potential for future success, and is there anything Vermont could do differently to ensure future success.
- Discussion on what other States CMS identifies as success stories on operating their own exchanges, and what have they done to achieve success. Discussion on how Vermont compares with other States.

- **Town Hall Meeting and Email Comments Analysis**

SSG led a Town Hall discussion at the State House Montpelier, Vermont to gain feedback from the public on their experiences with the VHC. SSG also analyzed email comments from the constituents. The responses received are valuable, and have included a spectrum of stories, antidotes, and suggestions on how the system can be improved.

Separately, but of great importance are the unanticipated outcomes of the Presidential election that has cast new uncertainties into the future federal commitment to the Affordable Care Act (ACA), and guidelines relative to the Federal Facilitated Marketplace (FFM), State based exchanges (SBE's), and Medicaid funding. In recent weeks, SSG has been engaging with the current Vermont Administration and the VHC/IE team to learn their perspectives on how this may change the future direction of the VHC/IE platform and delivery to constituents. SSG is planning to reach out to CMS independently to solicit and validate near-term perspectives on SBE and IE funding stream for States in general.

6.8 Appendix H: Proposed Strategic Actions

The following are actions that should be considered in undertaking a large program like the VHC/IE implementation. Vermont's capacity to address these items and make timely decisions is indicative of organizational “readiness" to move forward with a large program.

1. **Establish High Priority for the VHC/IE Program.** The urgent nature of the VHV/IE program and necessity to expedite authorized senior level decision making requires a commitment from the Administration leadership that all program participants across agencies will work collaboratively as a team. The VHC/IE Program must be established as a high priority for both the Administration and Legislature. Decisions regarding project resourcing and procurements must be expedited.

2. **Enhance and Empower Current Program Governance Bodies.** Ensure that the current Senior Leadership Team (SLT) is empowered to make binding decisions related to the VHC/IE program. Communication and adoption of SLT agreements will be championed and facilitated throughout the enterprise by each SLT member. Vendors, subject matter experts, compliance resources, and the Information Verification and Validation team (IVV) will attend SLT meetings by invitation when called on.

3. **Identify Single Individual to Be Accountable for Program Execution.** Empower one individual from AHS to who will manage the day-to-day execution of the program. This individual will report to the governing body (currently the SLT) of the program and be held unambiguously accountable to meet all program goals and objectives. This individual should be empowered to make day-to-day project level decisions and should be evaluated based on achieving successful outcomes of the program.

4. **Identify Staffing Needs.** Determine the capacity of the organization by mapping out a staffing plan using the most current consolidated program and project plans. Identify staffing requirements against availability of resources and the organizations where key subject matter experts (SME's) reside. Negotiate with Agency management to "loan" the SME's to the program and assist with backfilling if necessary. Identify the needs for special expertise, and propose next steps to acquire resources. In particular, rapidly fill possible vacancies within the project disciplines of business analysis, quality assurance, program and vendor management, system integration, and systems architecture.

5. **Build Project Teams to Execute Work.** Vermont must pursue all channels to engage the appropriate staff resources to sustain a rapid development and implementation pace. Seek out every opportunity to use all staff and contractual resources available to build skilled teams of professionals. Possible avenues to engage staff resources include procurements, leveraging existing staff augmentation contracts, and purchasing vended solutions to meet particular needs. All necessary procurements should be identified immediately and fast tracked as soon as possible to engage the necessary resources.

6. **Complete Parallel Iterative Tracks of Work.** Break the program work activity into parallel tracks of iterative work that produce value as early as possible. Projects should be planned to generate frequent delivery of work product that provide stand-alone value. This can be accomplished through project plans that produce deliverables in iterations as opposed to "big

bang" at the end of the program. Also, there may be value in retaining project execution experts to assist the VHC team in planning and aggressively managing the successful delivery of project "chunks". Executing tracks of work in parallel will more readily accommodate tight timelines. Breaking the work down into smaller more predictive iterations will reduce risk and ensure that some valued software assets will be generated throughout the duration of program execution.

The 6 proposed tracks of work are:

- Identify all projects in the VHC/IE program and the existing interdependencies.
- Break the program work activity into parallel tracks of iterative work that produce value as early as possible.
- Establish project schedules and conduct resource mapping to provision staff on projects.
- Establish project budgets and rules of engagement for project finance / accounting.
- Engage the project success team to assist with building the program governance structure and be the point of contact to coordinate program oversight and IV&V.
- Engage Data analyst to document all project data movement, storage, and updates.

7. **Identify All Project Dependencies.** Ensure that project dependencies are well understood by all program participants and each partners' project plan is synchronized with the most current information on program dependencies.

8. **Resolve Procurement Challenges.** Identify all known procurements for the duration of the project, and meet with the Procurement officer in Administration to determine feasibility of securing contracts in accord with proposed project plan. Ensure that sending RFP's and contracts to CMS for their approval prior to initiation satisfy the CMS requirements. Explore opportunities to accelerate the procurement process to accommodate the rapid execution.

   Make a determination of the long lead-time dependencies around procurements and each VHC stakeholders' capacity to accommodate proposed program plan. Increase or decrease scope of work in the project to align with contracts procurement schedule, (including time for CMS approvals), make adjustments for respective organizations capacity to manage and execute against the project plan, adjust for confirmed resource availability and specialized needs for expertise in different time periods.

9. **Aim to Leverage Existing Shared Services and Commercial Solutions.** Identify and encourage use of existing enterprise shared services and commercial solutions.

10. **Conduct Business Process Optimization.** Strive to build the project plan around approved enterprise guidelines. Identify and review business and operational processes that may be antiquated, unnecessary, or incompatible with use of effective automation. Explore the feasibility of making positive and constructive changes to policies or processes where appropriate.

11. **Monitor Progress.** Closely monitor the project plan and completion of tasks to confirm actual work completed and availability of remaining budget are in alignment. Agree on project

reporting and communications to ensure transparency. Ensure there is a structure with defined channels for timely escalation and management of issues.

12. **Utilize Modular Approach.** Utilize a modular approach in developing the platform's architecture in order to satisfy CMS systems development guidelines. This will permit key functionality of several enterprise applications to be more readily available for implementation and management on one platform.

6.9 Appendix I: CMS IAPD Commitment Letter

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop S2-26-12
Baltimore, Maryland 21244-1850

CENTERS FOR MEDICARE & MEDICAID SERVICES
CENTER FOR MEDICAID & CHIP SERVICES

September 23, 2016

Hal Cohen
Secretary
State of Vermont
Agency of Human Services
208 Hurricane Lane
Williston, VT 05495

RE: **VT-2016-08-15-EE-APD**

Dear Secretary Cohen:

Thank you for your letter dated August 15, 2016 requesting that the Centers for Medicare & Medicaid Services (CMS) approve Vermont's Implementation Advance Planning Document (APD) Update for the Integrated Eligibility Project. This request will fund Phase 1 of the Integrated Eligibility Project to transition Non-Magi Medicaid eligibility and enrollment functionality from the legacy system to the Health & Human Services Platform, (HSEP). CMS has completed its review of this APD and the supplemental information submitted on September 1, 2016.

CMS approves the scope described in Vermont's APD. CMS also approves the Medicaid Federal Financial Participation (FFP) for Federal fiscal year(s) 2017 and 2018 as described in the tables in Appendix A, covering the date of this letter through September 30, 2018.

This approval letter supersedes any previous letters that may have been issued for the approval period noted above. This letter includes all previously approved funds covering the approval period for Medicaid eligibility and enrollment funding. Appendix B contains additional information about Federal guidance and the state's responsibilities concerning the APD.

Please plan on submitting an Annual APD Update within 10 months of the date of your state's last Annual APD Update approval letter outlining budget and implementation activities for the future Federal Fiscal year so that the future year's funding may be approved. CMS has 60 days to review and respond to a state's APD submission. Failure to timely submit an Annual APD Update may put the state at risk for not having FFP for future Federal fiscal years.

Medicaid Eligibility and Enrollment (E&E) APDs, RFPs, and contracts should be sent to the CMS dedicated mailbox: MedicaidE&E_APD@cms.hhs.gov and the cover letter should be addressed to the

Page 2 – Secretary Cohen

Division of State Systems (DSS) Division Director. If you have any questions or concerns regarding this letter, please contact Pamela Pope, at (410) 786-3673, or by e-mail at Pamela.Pope@cms.hhs.gov.

Sincerely,

Martin H. Rice -S

Digitally signed by Martin H. Rice -S
Date: 2016.09.23 10:17:03 -04'00'

Martin H. Rice
Director, Division of State Systems
Data & Systems Group

Cc:
Carrie Feher, CMS, Acting Deputy Director, Division of State Systems
Steve Costantino, Commissioner, State of Vermont, Agency of Human Services
John Stern, HSE Portfolio Director, Deputy CIO
Sarah Clark, AHS Chief Financial Officer
Pamela Pope, CMS, Eligibility & Enrollment Analyst
David Guiney, CMS, MMIS Analyst
Art Douglas, Financial Analyst Lead
Karen Walsh, CMS EEI Analyst
Richard McGreal, CMS Boston Associate Regional Administrator
Khalid Mushtaq, CMS OTS IT Project Manager
Angelica Torres-Reid, CMS CCIIO State Project Officer
Jennifer Renegar, FNS, USDA

6.10 Appendix J: Sustainability Budget

	SFY '16 VHC Budget			SFY '17 VHC Budget		
	TOTAL	QHP w/o Subsidy	GC	TOTAL	QHP w/o Subsidy	GC
Personnel Services (Salaries & Fringe)						
DVHA (38 FTEs in SFY '16)	$ 3,240,259	$ 385,267	$ 2,854,992	$ 3,027,212	$ 359,935	$ 2,667,276
DII & AHS IT (4 FTEs in SFY '16)	$ 450,000	$ 53,505	$ 396,495	$ 463,500	$ 55,110	$ 408,390
AHS HSB	$ 74,571	$ 8,866	$ 65,705	$ 76,808	$ 9,132	$ 67,676
HAEU (109 FTEs in SFY '16)	$ 7,394,160	$ 879,166	$ 6,514,995	$ 3,904,134	$ 464,201	$ 3,439,932
Non-HAEU (14 FTEs in SFY '16)	$ 1,330,634	$ 158,212	$ 1,172,422	$ 1,370,553	$ 162,959	$ 1,207,594
Subtotal Personnel Services	$ 12,489,624	$ 1,485,016	$ 11,004,608	$ 8,842,207	$ 1,051,338	$ 7,790,868
Overhead						
DVHA	$ 810,065	$ 96,317	$ 713,748	$ 756,803	$ 89,984	$ 666,819
DII	$ 112,500	$ 13,376	$ 99,124	$ 115,875	$ 13,778	$ 102,097
AHS HSB	$ 18,643	$ 2,217	$ 16,426	$ 19,202	$ 2,283	$ 16,919
HAEU	$ 1,848,540	$ 219,791	$ 1,628,749	$ 976,033	$ 116,050	$ 859,983
Non-HAEU	$ 332,659	$ 39,553	$ 293,105	$ 342,638	$ 40,740	$ 301,899
Subtotal Personal Services	$ 3,122,406	$ 371,254	$ 2,751,152	$ 2,210,552	$ 262,835	$ 1,947,717
Grant & Contracts						
Security	$ 1,020,821	$ 121,376	$ 899,445	$ 1,616,401	$ 192,190	$ 1,424,211
Hosting	$ 4,484,229	$ 533,175	$ 3,951,054	$ 3,700,000	$ 439,930	$ 3,260,070
Application Maintenance and Operations**	$ 10,440,000	$ 1,241,316	$ 9,198,684	$ 10,753,200	$ 1,278,555	$ 9,474,645
SOV Application Licensing, Software Assurances, Services**	$ 4,455,391	$ 529,746	$ 3,925,645	$ 4,589,053	$ 545,638	$ 4,043,414
HSO Ombudsman - VERMONT Legal Aid	$ 300,000	$ 35,670	$ 264,330	$ 300,000	$ 35,670	$ 264,330
Customer Call Center- Maximus (Excl. SHOP)	$ 8,520,840	$ 1,013,128	$ 7,507,712	$ 8,520,840	$ 1,013,128	$ 7,507,712
Premium Processing - Benaissance (Excl. SHOP)	$ 4,060,926	$ 482,844	$ 3,578,082	$ 4,300,926	$ 511,380	$ 3,789,546
Navigators and In-Person Assistors	$ 400,000	$ 47,560	$ 352,440	$ 400,000	$ 47,560	$ 352,440

Outreach and Education	$ 800,000	$ 95,120	$ 704,880	$ 600,000	$ 71,340	$ 528,660
Advertising	$ 800,000	$ 95,120	$ 704,880	$ 400,000	$ 47,560	$ 352,440
Independent Audit	$ 350,000	$ 41,615	$ 308,385	$ 360,500	$ 42,863	$ 317,637
Actuarial Services/Plan development	$ 150,000	$ 17,835	$ 132,165	$ 154,500	$ 18,370	$ 136,130
Mailing (Notices, Premium Invoices, etc) - BGS MOU	$ 400,000	$ 47,560	$ 352,440	$ 412,000	$ 48,987	$ 363,013
Subtotal Grants & Contracts	$ 36,182,207	$ 4,302,064	$ 31,880,142	$ 36,107,419	$ 4,293,172	$ 31,814,247
Grand Total	$ 51,794,236	$ 6,158,335	$ 45,635,902	$ 47,160,178	$ 5,607,345	$ 41,552,832
State General Fund Impact	*$ 26,680,800*	*$ 6,158,335*	*$ 20,522,465*	*$ 24,872,277*	*$ 5,607,345*	*$ 19,264,932*
State GF Impact w/75% OAPD Funding Obtained (Revised Budget)	*$ 22,213,022*	*$ 6,158,335*	*$ 16,054,687*	*$ 20,194,952*	*$ 5,607,345*	*$ 14,587,607*