United States Virgin Islands Health IT Strategic Plan 2021 - 2024

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Introduction

Albert Bryan Jr, Governor of the U.S. Virgin Islands is pleased to share the U.S. Virgin Islands Health Information Technology (Health IT) Strategic Plan. The Health IT Strategic Plan supports the Governor's Healthier Horizons Initiative and supports the mission of the Office of Health IT to improve the health and wellness of Virgin Islands residents through the use of Health Information Technology. The Healthier Horizons Initiative has three major tenants:

- To Increase access to care
- Modernize the healthcare delivery system
- Strengthen the healthcare infrastructure.

The Health IT Strategic Plan lays out the vision for territory- wide collaboration and coordination of Health IT efforts over the next three years. It builds upon a history of community partnership and guides future projects by building community capacity, establishing foundational infrastructure and fostering technology adoption. The Health IT Strategic Plan defines the direction and priorities for Office of Health IT, USVI public sector agency partners, and private sector healthcare partners. The Office of Health IT encourages our partners and the community to review the plan and identify opportunities for alignment to enable interoperability of health information and thereby to improve the health and wellness of residents while meeting the challenges of today and the future.

Governor's Office of Health IT

The Governor established the Office of Health IT within the Office of the Governor to provide greater visibility and accountability for major health IT investments to include those associated with the Governor's Healthier Horizons Initiative. The Office of Health IT will be at the forefront of the Bryan Roach Administration's health IT efforts and will serve as a resource to the entire healthcare eco-system to support the adoption of health information technology and the promotion of Territory-wide standards-based health information exchange to improve healthcare. The following list outlines key actions the Office of Health IT will be responsible for coordinating and guiding:

- Coordinate and guide an aligned strategic approach on health information technology across public and private partners in the U.S. Virgin Islands to include the Health IT Taskforce.
- Coordinate the Health Information Exchange (HIE) efforts.
- Lead the major Medicaid Health IT investments and oversee the implementation of the 2021 Territorial Health IT Strategic Plan.
- Advance safe and secure data interoperability.
- Drive the implementation and maintenance of health technology initiatives across government agencies and the territory.
- Recommend Health IT legislation that supports the safe development and secure usage of health information technology.
- Facilitate collaboration across government agencies to coordinate and secure resources that can ensure high performance, consistency, reliability, scalability, and sustainability of all health technology offerings.
- Create curricula to build capacity, train and educate students and the current workforce in clinical informatics and digital health.
- Work with UVI, the RT Park, local physician practices and the business community to build pipelines to opportunities that will attract local talent and talent that wished to return or relocate to the USVI.
- Build and manage a detailed Implementation, identifying specific tactics and aligned efforts to facilitate the execution of priority efforts.

Alignment with Federal Health IT 2020-2025 Strategic Plan

The USVI's Health IT Strategic Plan aligns to the 2020-2025 Federal Health IT Strategic Plan, which outlines federal health IT goals and objectives, with a focus on individuals' access to their electronic health information. The Federal Health IT Strategic Plan was developed by the Office of the National Coordinator (ONC) in collaboration with more than 25 federal organizations and informed by nearly 100 public comment submissions. The Plan demonstrates the federal government's ongoing, coordinated focus on improving the access, exchange, and use of electronic health information. Specifically, the Plan explains how the federal government intends to use health IT to:

1) Promote Health and Wellness;
2) Enhance the Delivery and Experience of Care;
3) Build a Secure, Data-Driven Ecosystem to Accelerate Research and Innovation; and
4) Connect Healthcare with Health Data.

Health IT Strategic Plan Process

The Office of the Governor established the Health IT Taskforce (Taskforce) in January 2020, (See Appendix A, List of Health IT Taskforce Members). This taskforce consists of over sixty persons representing thirty organizations from the public and private sector who engaged in thirteen intensive working sessions developing the Health IT Strategic Plan. The Taskforce's purpose is to:

1) Increase the awareness of health IT solutions and resources,
2) Contribute to a cross sector strategic plan to organize, prioritize, and shepherd health IT efforts, dollars, and initiatives across the Territory,
3) Foster collaboration with National, Federal, Local Government, public, private providers, businesses, and key stakeholders, and
4) Promote the use of health IT solutions to include Telemedicine, Telehealth, and the Health Information Exchange.

Through this collaborative effort, Health IT Taskforce members confirmed the Territory's 2021-2024 Health IT Strategic Plan consists of the following sections:

- **Vision Statement –** A mental picture of what we want to accomplish or achieve.
- **Mission Statement –** A general statement of how the vision will be achieved. The mission statement is an action statement that usually begins with the word "to".
- **Focus Areas –** The priority areas to focus coordination, implementation tasks, and stakeholder engagement.
- **Goals –** A general statement of what we want to achieve.
- **Objectives –** An objective turns a goal's general statement of what is to be accomplished into a specific, quantifiable, time-sensitive statement of what is going to be achieved and when it will be achieved.
- **Strategies –** The strategies and actions identified to achieve the objectives, goals for each focus area.

United States Virgin Islands
2021 – 2024 Health IT Strategic Plan

Vision

To improve individual and population health in the Virgin Islands through digital and interoperable data and the use of health information technology.

Mission

To design and implement an integrated healthcare system that uses health information technology and seamless electronic health information exchange to improve the health and wellness of Virgin Islands residents.

Focus Areas

Empowered Patients and Providers	Health IT Infrastructure	Capable and Resilient Workforce
Goal #1	Goal #2	Goal #3
To empower patients and providers to use telehealth, telemedicine and HIE to advance health and wellness.	Enhance the delivery and experience of care through an interoperable health IT infrastructure.	Empower and equip the local workforce with the knowledge and technical skill to continue build the modern health IT foundation and structures ensuring affordable, accessible health and wellness for all.

Empowered Patients and Providers

Goal #1: To empower patients and providers to use telehealth, telemedicine and HIE to advance health and wellness

Objective 1A: Improve individual access to health information

A key aspect of person-centered care is empowering individuals by providing them access to their health information. It allows patients to become more engaged in their care and management of their conditions and alleviates strain on caregivers who manage the care of their loved ones. To expand access to health information, it is necessary to improve access to technology, especially for populations in rural areas, persons with disabilities, racial and ethnic minorities, and those with low socioeconomic status.

Strategies

1) **Work with wireless companies locally to improve access to smartphones and other technologies** needed to attain and use health information, especially for at-risk, disabled populations.
2) **Work with providers on action plans to enable individuals to access their health information** by ensuring that they can view and interact with their data via secure mobile apps, patient portals, and other tools.
3) **Promote greater portability of health information** through educating on and encouraging adoption of APIs (application programming interface) and other interoperable health IT that permits individuals to readily send and receive their data across various platforms.
4) **Build the evidence base on the use of health information**, including on the types of information that will benefit individuals most and the best ways to present information to patients.
5) **Encourage and support providers in the creation of internal support teams of "IT social workers"** – a small group of individuals including community health workers and tech support to provide technical assistance and build a case file to track the needs of specific patients.

Objective 1B: Advance healthy and safe practices through health IT

Health IT is used every day to improve quality of care and patient outcomes. However, its full potential for improving overall **population health** and **promoting safety** is still being realized. *Health IT can be further leveraged to promote access to care for preventing new or addressing existing health needs, as well as to identify and respond to public health threats.*

Strategies

1) **Work with the Department of Health and the Department of Human Services to collect, analyze and safeguard all levels of data** (e.g., individual and community-level) to help predict epidemics, inform, and monitor public health action outcomes, improve quality of life, and address disease occurrence and preventable deaths.
2) **Utilize the HIE to connect providers and information** by utilizing data analytics, create a health information repository from which we can assess, monitor, predict and plan population health strategies.
3) **Use electronic clinical quality measure (eCQM) data** to optimize healthcare providers' and researchers' abilities to assess quality and outcomes for Medicaid providers and population.
4) **Conduct an annual provider conference on virtual and electronic health**, emerging technologies and solutions and best practices. When the HIE is fully functional, present most current data and trends emerging from the HIE.

5) **Support the development of a public and private provider marketing and communications plan** to ensure differentiated and appropriate messaging to various provider specialties and groups. Plan should help educate around use of evidence-based digital therapeutics as treatment options for patients to prevent, manage, and treat conditions through smartphones, tablets, and other personal and remote patient monitoring devices.
6) **Create a multi-agency mar-comm plan to promote healthy behaviors and self-management.** Educate the general public and providers about patient-facing apps and wearable technology that enable individuals to view and adhere to care plans, track physical activity, track medication management, share and compare health and fitness data, and make informed lifestyle choices.

Objective 1C: Ensure safe, confidential, and high-quality care through the use of Health IT

Education and ongoing support for providers is essential for the adoption and use of Health IT and the HIE. Partners, continuing education and communication promoting the benefits and best practices will help establish the core capabilities for the community.

Strategies

1) **Help educate providers on the health IT tools available** to improve the benefits, efficiency, and effectiveness for their practice, including reduced costs, patient quality of care, medical safety, and security.
2) **Educate providers on the benefits of** remote patient monitoring, telehealth, and other mobile and health IT services to reduce cost of care and to also supplement clinical care outside of traditional setting.
3) **Partner with DHS, DOH, Territory hospitals and the FQHCs to leverage federal resources (Medicaid, Medicare, ONC, HHS, CDC, medical associations) and develop incentives to encourage providers** to adopt and utilize cyber security measures to safeguard health IT investments.
4) **Develop policies to ensure that health IT information is safe and secure**, including legislation, Medicare, Medicaid, and internal policies.
5) **Develop a provider and patient media campaign to educate on cybersecurity and help build community confidence** about the security of using health information technology.
6) **Work with DOH to utilize HIE data to assess and address the social determinants of health** as they affect patient care and outcomes. Apply these findings to mitigate social and environmental factors.

Objective 1D: Foster health literacy and educate patients about health IT including the privacy, confidentiality, and security considerations

Informing the community and patients on the safe and secure use of health IT will help engage and encourage use of technology to support chronic conditions and wellness strategies, while improving individual and community health.

Strategies

1) **Collaborate with and support DOH, hospitals and FQHCs to develop and deploy a comprehensive patient communication and marketing plan**, potentially including print, radio, television, and websites, focused on specific demographics and key groups to teach patients how to utilize available technology (i.e., EHR patient portal).
2) **Foster greater understanding of how to use health IT through community health IT subject matter experts and engagement events** (e.g., workshops). Events will help foster greater

understanding of health IT, the benefit of technology tools, and to assess and address unmet health and social needs for individuals and communities.

3) **Support educational sessions on specific chronic conditions, wellness strategies and community health** in partnership with Department of Health utilizing health IT solutions.
4) **Leverage partnerships with community organizations that provide health information to specific constituencies** (i.e., individuals, families, and seniors) to promote and co-sponsor educational health IT information.

Objective 1E: Foster transparency and healthcare affordability

Affordability of healthcare services and treatment remains a key barrier to accessing quality care for many individuals. The availability of information on prices and quality can help reduce barriers to entry and lower costs associated with switching healthcare providers. This encourages competition in healthcare and drives down costs and prices. Furthermore, consumers need to be able to choose from a variety of health products and services based on which best meet their needs.

Strategies

1) **Demonstrate the financial benefits of telehealth for providers**, including bringing in subject matter experts to detail how these services can be reimbursed.
2) **Pursue legislation to address and remove barriers** to reimbursement for health IT investments and help advocate effectively for payment parity between in-person and telehealth visits.
3) **Work across public and private entities to help make care quality** and price information available to individuals in an accessible, easily understandable format. Support consumer education on the availability of quality and price information and how to use this information to shop for care based on value.

Health IT Infrastructure

Goal #2 - Enhance the delivery and experience of care through an interoperable health IT infrastructure

With an interoperable health IT infrastructure, all individuals, families, and healthcare providers who reside in the US Virgin Islands will have appropriate access to health information that facilitates informed decision-making, supports coordinated health management, allows patients to be active partners in their health and care, and improves the overall health of our population.

Objectives and Strategies

Objective 2A: Develop a territorial data interoperability plan

The Office of Health IT, under the Governor's leadership, will collaborate with other government agencies to oversee the establishment of a long-term interoperability plan to advance the use of Health IT among healthcare providers to support high-quality healthcare and reduce provider burden.

Strategies

1) **Ensure the territorial data interoperability plan uses industry standards** to ensure health information is easily accessible across care settings for patient care, public health, research, and emergency and disaster preparedness, response, and recovery.
2) **Establish a coordinate governance model with a multi-stakeholder advisory group** to help develop and advocate for the HIE strategy and implementation of HIE technical services.
3) **Coordinate across territory agencies to facilitate stakeholder engagement** and advance policy goals to increase access to and usability of health information technology.
4) **Implement mechanisms and technical infrastructure for information sharing and data governance to align with USVI goals** to promote safe, secure, and accountable use of health IT functionality using industry standards.

Objective 2B: Advance adoption and use of health IT among healthcare providers through integrated workflows and data sharing across organizations.

Understand the current state of health IT capabilities and identify strategies to ensure health information is easily accessible across care settings for patient care, public health, research, and emergency and disaster preparedness, response, and recovery.

Strategies

1) **Develop and deploy and internal audit** of hospital, FQHC and provider health IT project and health workflows to create workflow walkthroughs and create a plan to match and integrate workflows.
2) **Support adoption and use of health IT** by incentivizing (and possibly requiring) the use of health IT by payers, hospitals, and providers to participate in the territory and federal programs through the dentification of funding opportunities. Supporting the building of a health IT workforce is also critical to effective adoption and use of health IT
3) **Strengthen communities' health IT infrastructure** by facilitating the bi-directional, secure exchange of data across healthcare and human services settings via HIE and data centers to improve care and effectively administer social programs.
4) **Work with Medicaid and other agencies that can support and fund access to and advocacy for an equitable system of technical tools** facilitating the onboarding and use of health IT and data interoperability.
5) **Support the onboarding of health providers and health facilities to health information technology and HIE** by communicating the value proposition and providing training, making

resources available to support adoption and use, technical support, and integrations with existing EHRs.

6) **Develop a Health IT Resource Center with reusable resources, communication plans,** including guidance related to best practices, national standards, federal regulations, and policy, as well as resources for healthcare providers and other staff at healthcare organizations on how to comply with regulations.
7) **Support provider workflows and find alignment for integrating technical functions** into existing workflows reducing provider burden.

Objective 2C: Establish and prioritize territory and federal policy use cases that will leverage the health information technology infrastructure to maintain relevance and financial sustainability.

Identify the priority HIE use cases in USVI to meet federal requirements, territory health goals, and community priorities for building out technical HIE capabilities supporting clinical care, care coordination, and public health.

Strategies for Territory policy use cases

1) **Adopt and advance nationally endorsed standards, implementation specifications, and certification criteria** through continued collaboration across public and private sectors.
2) **Develop governance** that enables the Office of Health IT to coordinate data across government agencies.
3) **Leverage all levels of data** (e.g., individual- and community-level) to predict epidemics, inform and monitor public health action outcomes, improve quality of life, and address disease occurrence and preventable deaths.
4) **Support and advance public health reporting** with secure and appropriate sharing of health data from EHRs and public registries (DOH and DHS) for public health insight for community interventions, epidemiology, and emergency preparedness and response.
5) **Advance data collection, analysis, and integration for health and human services information** to address territory population health priorities and addressing health equity and social determinants of health by collecting and analyzing cross-agency data sets.

Strategies for Federal policy use cases

1) **Support a common agreement** for the nationwide exchange of health information that drives interoperability and promotes effective governance.
2) **Establish transparent expectations for data sharing** by addressing information blocking and other actions taken by healthcare providers, health IT developers, and other regulated entities limiting access, exchange, and use of electronic health information.

Objective 2D: Advance the development of shared health information technology infrastructure to support priority use cases.

Collaborate with government agencies and providers to procure health information technology and project management office vendors to build and establish HIE technical infrastructure and functionality. This will enable health information sharing and interoperability among USVI agencies, payers, providers, health systems, and residents.

Strategies

1) **Improve harmonization of data elements and standards** by creating a shared vocabulary set to improve the consistency, integrity, and quality of data and to enable data for effective sharing

between systems using APIs. Create and maintain a standard terminology of technical terms, permitted uses, and a data framework to scale interoperability of electronic health information.
2) **Define the roles and responsibilities guiding information and data sharing** across the public-private health system of data senders, users, and intermediaries by developing governance policies and procedures.
3) **Work with BIT, viNGN, Vaya, Broadband VI and others** to ensure the infrastructure, internet connections, bandwidth, fail safes, redundancies and federal compliance measure are all in place to support a successful HIE and Data Lake (warehouse).

Objective 2E: Improve patient access to health information and care

Support healthcare providers by advocating for and advancing health IT capabilities to support all Territory residents and enabling access to interoperable personal health information.

Strategies

1) **Enable individuals to access their health information** by ensuring that they can view and interact with their data via secure mobile apps, patient portals, and other tools.
2) **Promote greater portability of health information** through APIs and other interoperable health IT that permits individuals to send and receive their data across various platforms readily.
3) **Increase access to data and technology for patients and providers** through all care modalities, including virtual and in-person services.
4) **Align patient access initiatives across agencies** to inform health IT policies and investments for a coordinated approach.

Objective 2F: Enhance technology and communications infrastructure

Collaborate with public and private partners to build a foundational technology and communication infrastructure enabling telehealth and HIE capabilities for healthcare providers and government agency programs.

Strategies

1) **Assess current and expected broadband needs and gaps** in the health and healthcare sectors.
2) **Advocate with Senate and federal partners to improve and expand affordable broadband access and wireless infrastructure**, especially in rural and underserved areas that are less likely to have access to high-speed internet.
3) **Leverage policymaking opportunities to advance adoption and use of telehealth** to increase access to healthcare services.
4) **Delineate and define the infrastructure and technical capabilities** across the telecommunications infrastructure from the HIE infrastructure.
5) **Develop the roadmap for a reliable, secure infrastructure with emergency plans** to support seamless connections for integrated systems in all conditions.

Objective 2G: Promote secure health information that protects patient privacy

Establishing appropriate health information privacy and security policies is a foundational step in ensuring the safe, efficient access to protected health information.

Strategies

1) **Conduct environmental scan and document the inventory** of various EHR, EMR, Meaningful Use, Virtual Health, information access and information sharing agreements, policies, procedures, rules, regulations to assess and develop best practices for appropriately sharing information, in accordance with patient preference.

2) **Provide guidance to providers, payers, and health systems about policies and regulations** that pertain to the exchange of health information and enforce such rules.
3) **Guide and support development of a universal patient consent policy across HIE participants.**
4) **Develop capabilities for access, exchange, and use** of patient information by HIE implementer and providers, in accordance with the patient consent policy.
5) **Identify and execute data and information governance practices** to ensure data integrity, data provenance, and secure access through identity management with oversight and monitoring.
6) **Work with providers to integrate privacy and security considerations into the design and use of health IT** to promote a culture of privacy and security and protect the individual- and population-level data from cybersecurity attacks, fraud, misuse, and other harms.
7) **Increase public awareness education to advance patient awareness and understanding of rights and responsibilities for maintaining control over their data** to make informed decisions about data exchange and secondary uses of their data.

Objective 2H: Ensure secure protection of patient information

Security protocols for protected health information in all technical systems and transport of health data is important to protecting against security threats and inappropriate access.

Strategies

1) **Document and communicate data security protocols for electronic health data storage and exchange** and determine what legislative or regulatory requirements are available to monitor and enforce these security protocols.
2) **Advocate for local and federal funding to properly ensure cyber security** and the security of resident data and information through reliable cyber security systems.
3) **Promote safe data security protocols for all stakeholders managing electronic health information proactively**, preventing misuse, cybersecurity attacks, fraud, and other harms.
4) **Promote compliance of providers with HL7 FHIR interface standards** interface, FedRAMP responsiveness, and NIST requirements to protect PHI (patient data).
5) **Monitor and enforce security protocol practices keeping health information secure**, preventing breaches and fraud across health systems and the public sector.
6) **Provide guidance and technical assistance on policies and regulations at the federal, territory, and organization levels** that pertain to the secure collection, storage, exchange, and use of health information and enforce such rules.

Capable and Resilient Workforce

Goal #3: Empower and equip the local workforce with the knowledge and technical skill to continue build the modern health IT foundation and structures that will ensure affordable, accessible health and wellness all.

Objective 3A: Advance alignment and coordination between government agencies, including education/training/Department of Labor (DOL), Department of Health (DOH), Department of Human Services (DHS), and healthcare stakeholders focused on emerging health IT and other digitally focused health workforce needs (including bridges between agencies and training for workforce on these connections).

Strategies

1) **Develop a standing advisory group** to facilitate ongoing collaboration.
2) **Identify existing frameworks, industry standards, and best practices** for health IT workforce/ cybersecurity strategies.
3) **Establish Health Information Technology as a workforce priority** through the workforce development board to attract technical training educators.
4) **Engage the University of the Virgin Islands and the Research Technology (RT) Park** in the development of targeted upskilling and credentialing programs.

Objective 3B: Prioritize and coordinate on current territorial workforce assets

Coordinate with the Department of Labor on maintaining and developing shared database of health IT workforce resources and opportunities.

Strategies

1) **Enable the compilation and submission of quarterly reports from key stakeholders** to Office of Health IT that outline and update respective health IT assets and industry trends.
2) **Partner with DOL to inventory current IT resources**, positions, strategic projects, individuals, businesses, and agencies. Survey to assess current eligible workers and workforce with the ability to be quickly retrained in the Health IT field.
3) **Assess the opportunity to centralize territorial IT workforce coordination** and to standardize relevant job descriptions.
4) **Create a territory health IT and Interoperability mentoring and networking organization** or user group, similar in structure to Future Business Leaders of America or Future Farmers of America.
5) **Work across agencies building on current efforts** to focus on re-entry population as a territorial workforce asset.

Objective 3C: Advance the development of pathways for workforce development that begin with building awareness in the K-12 setting and extend through upskilling opportunities.

Coordinate with Department of Education and Department of Labor on health IT workforce curriculum and measurement to advance the workforce pipeline.

Strategies

1) **Work with the BIT and the VI Department of Education to develop age appropriate / differentiated IT and data analysis curricula** in VIDE. Encourage private schools to do the same, and benchmark against appropriate existing curricula.
2) **Support DOL and VIDE in the development of career pathways for K-12 students** that map out credential and postsecondary opportunities in health IT, along with workforce

projections/need. Map out credentials that speak to key competencies connected to the workforce needs- ex. data analytics, cybersecurity, project management.

3) **Create prize based, competitive opportunities for K-12** to receive age-appropriate training and tools to apply in an engaging and fun way. Do the same for workforce, (i.e., Mobile Application Development Fair / Hack-a-Thon). Explore opportunities for grades 6-12 students to participate in cybersecurity competitions. Could connect to student club development in relevant spaces.
4) **In conjunction with BIT and VIDE, create a timeline of expectations for focus and preparation** – what skills or competencies should be expected at a particular grade/ group related to the credentialing and preparation of the health IT workforce (Vision 2040).
5) **Partner with UVI, VIDE, the RT Park and BIT to craft professional development for education professional counselors** (in coordination with the Department of Education) on the emerging cyber/IT/health IT workforce opportunities in USVI.
6) **Identify opportunities for industry partners/employers** to offer work-based learning for K-12 and adult students (job shadowing/internships/apprenticeships).

Objective 3D: Prioritize the integration of cybersecurity workforce needs into a territorial workforce plan and create a consistent culture around cybersecurity (connect to current USVI efforts)

Collaborate with Bureau of Information Technology (BIT) on the development and promotion of cybersecurity protocols and best practices.

Strategies

1) **Identify national cybersecurity frameworks and relevant credentials** that can be prioritized within USVI workforce plans in collaboration with the University of the Virgin Islands and relevant training partners. Also, identification of opportunities and barriers to student recruitment.
2) **Connect with and collaborate with Small Business Association, the Chamber of Commerce, the PFA, Department of the Interior and the wider business community to identify funding to help small businesses, organizations, and schools integrate cyber security platforms** into their operations and upskill their IT workforce.
3) **Collaborate with BIT to develop a list of priorities to engage with legislature on the importance of cybersecurity** in order to secure buy-in and creation of legislation that supports prioritizing agency integration of cybersecurity training and oversight.
4) **Partner with the Department of Labor, UVI and the RT Park to create and conduct a baseline assessment of the cybersecurity workforce** needs across the territory.
5) **Work through VIDE to develop a widespread awareness and education campaign** to frame why cybersecurity is foundational to the public, territorial agencies, and private businesses. This should include a connection to K-12 curriculum on cybersecurity concepts and cybersecurity hygiene.

Objective 3E: Identify needed partnerships and funding streams to advance health IT workforce development opportunities

Create a collaborative funding strategy and mechanisms for current and future health IT workforce needs across the public and private sectors.

Strategies

1) **Form multidisciplinary advisory group on partnerships and funding** to manage a working document of available and prospective resources.

2) **Map out eligible grants, and funding streams / sources within** HHS and CMS, Dept of Interior, FCC, EDCs, PFA, DHS, DOL, UVI and RT Park so that funding opportunities are not missed but are represented in one document.
3) **Consider possibilities for funding** including additional fee on cruise and airlines passengers and hotel occupancy fees or legislatively allocated funds to support education, training, and ongoing alignment. Also, meet with EDA to explore opportunities to help raise funds through the EDCs.
4) **Identify philanthropic organization-sponsored funding opportunities** focused on STEM and key priorities for funding opportunities to develop health IT workforce training programs and collaboration opportunities.

Appendix A Stakeholder List

Strategy Team 1: Empowered Patients and Providers	
Stakeholder	**Title, Agency/Organization**
Dr. Donna Christensen	Former Member of Congress and Chair of CBC Health Braintrust
Richard Dorsey	CEO, Island Analytics & Marketing, LLC
Dr. Mercedes Dullum	Former Commissioner, USVI Department of Health
Michelle Francis	Office of the Governor, Office of Health Information Technology
Christine Lett	Office of the Governor, Communications
Tracy Sanders	Continuum Care
Gary Smith	Medicaid Director, USVI Department of Human Services
Dr. Jan Tawakol	CEO, Pleasen Healthcare
Pamela Toussaint	Co-Director, University of the Virgin Islands
Dr. Janis Valmond	Deputy Commissioner, Department of Health

Strategy Team 2: Health IT Infrastructure	
Stakeholder	**Title, Agency/Organization**
David Beck	Virgin Islands Telephone Corporation
Johanne Clendinen	US Virgin Islands Public Service Commission
Kareem Francis	US Virgin Islands Division of Personnel
Mike Meluskey	Broadband VI
Rueben Molloy	Deputy Commissioner, USVI Department of Health
Kate Ricker-Kiefert	Amelia Mayme Health IT Consulting
Rupert Ross	Director, Bureau of Information Technology Director
Robert Schuster	Kestrel, SP/Inner Circle Energy
Daryl Wade	CIO, viNGN
Francois Koutchouk	

Strategy Team 3: Capable and Resilient Health IT Workforce Development	
Stakeholder	**Title, Agency/Organization**
Thomas Bane	
Shauna Bass	
Sonia Boyce	
Rueben Molloy	Deputy Commissioner, USVI Department of Health
Rupert Ross	Director, Bureau of Information Technology Director
Amanda Winters	National Governors Association
Michael Carty	

Appendix B Glossary and Acronyms

The following terms are used by the Office of the National Coordinator for Health IT (ONC).

Application Programming Interface (API) – A set of tools, definitions, and protocols for building and integrating application software. It lets a product or service communicate with other products and services without needing to know how they're implemented.

Consolidated Clinical Document Architecture (C-CDA) – A document standard for the transmission of structured summary data between providers, and between providers and patients. Transmitted data supports care transitions, referrals, and care coordination.

Electronic Health Record - An electronic health record (EHR) is a digital version of a patient's paper chart. EHRs are real-time, patient-centered records that make information available instantly and securely to authorized users. While an EHR does contain the medical and treatment histories of patients, an EHR system is built to go beyond standard clinical data collected in a provider's office and can be inclusive of a broader view of a patient's care. EHRs are a vital part of health IT and can:

- Contain a patient's medical history, diagnoses, medications, treatment plans, immunization dates, allergies, radiology images, and laboratory and test results
- Allow access to evidence-based tools that providers can use to make decisions about a patient's care
- Automate and streamline provider workflow

Healthcare Interoperability Resources (FHIR®) Standard – An interface specification that specifies the content of the data exchanged between healthcare applications, and how the exchange is implemented and managed. The data exchanged includes clinical data as well as healthcare-related administrative, public health, and research data.

Health Information Exchange (HIE) – Both the act of moving health data electronically between organizations and an organization that facilitates information exchange. HIEs may be statewide, regional, metropolitan, or organization-specific and may be privately owned or publicly funded.

Information Blocking – The Cures Act defines the term 'information blocking' as a practice that:

(A) Is likely to interfere with, prevent, or materially discourage access, exchange, or use of electronic health information; and

(B) (i) If conducted by a health information technology developer, exchange, or network, such developer, exchange, or network knows, or should know, that such practice is likely to interfere with, prevent, or materially discourage the access, exchange, or use of electronic health information; or

(ii) if conducted by a healthcare provider, such provider knows that such practice is unreasonable and is likely to interfere with, prevent, or materially discourage access, exchange, or use of electronic health information.

Interoperability – The Cures Act defines interoperability, with respect to health information technology, as such health information technology that:

1) Enables the secure exchange of electronic health information with, and use of electronic health information from, other health information technology without special effort on the

part of the user.
2) Allows for complete access, exchange, and use of all electronically accessible health information for authorized use under applicable State or Federal law; and
3) Does not constitute information blocking as defined in section 3022(a).

Logical Observation Identifiers Names and Codes (LOINC) – A common language (set of identifiers, names, and codes) for identifying health measurements, observations, and documents[159]

Medical Device – An instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent, or other similar or related article intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease.[160]

Patient Unified Lookup for Emergencies (PULSE) - The PULSE™ initiative is an effort to create national resilience through access to health information during disasters, including public health emergencies. PULSE provides a process for states and localities to grant response personnel (e.g., epidemiologists, emergency medical services, and healthcare volunteers) secure access to vital health information during disasters, ensuring patients can continue to receive care when and where they need it.

Telehealth – The use of electronic information and telecommunications technologies to support long-distance clinical healthcare, patient and professional health-related education, public health, and health administration. Technologies include videoconferencing, the internet, store-and-forward imaging, streaming media, and terrestrial and wireless communications. Telehealth is different from telemedicine because it refers to a broader scope of remote healthcare services than telemedicine. While telemedicine refers specifically to remote clinical services, telehealth can refer to remote non-clinical services, such as provider training, administrative meetings, and continuing medical education, in addition to clinical services.

Trusted Exchange Framework (TEF) – A set of principles and minimum required terms and conditions for trusted exchange as required by the Cures Act.

U.S. Core Data for Interoperability (USCDI) – A common set of data classes that are required for interoperable exchange. The USCDI will be expanded over time.

Usability – The extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use.

Appendix C Health IT Standards to Watch

- **Consolidated-Clinical Document Architecture** (C-CDA) — C-CDA is a framework for creating clinical documents that contain both human-readable text and machine-readable XML
- **Direct** — is a standard for sending health information securely over the internet.
- **Fast Healthcare Interoperability Resource** (FHIR) — FHIR is a specification for exchanging clinical and administrative healthcare data. The standard is based on REST and OAuth.
- **Validated Healthcare Directory Implementation Guide** – an HL7 FHIR based implementation guide and architectural considerations for attesting to, validating, and exchanging validated data as well as a RESTful FHIR API for accessing data from that directory.
- **Integrating the Healthcare Enterprise** (IHE) — IHE's work is organized into profiles that define how systems should cooperate. Commonly implemented profiles include:
  - ATNA — audit trail and node authentication: basic security and audit logging
  - XCA — cross-community access: query and retrieve patient records held by other communities
  - XCPD — cross-community patient discovery locates patient records in other communities and resolves different patient identifiers
  - XDR — cross-community interchange: point-to-point sharing of electronic documents
  - XDS — cross community document sharing discovery and sharing of electronic documents
  - PDQ — patient demographics query: consult a central patient information server to look up patient identity based on demographics
  - PIX — queries for patient identity cross references among different sites
- **Health Level 7 (HL7) v2 messaging** — a commonly used data interchange standard. This standard includes messaging specifications for patient administration, orders, results, scheduling, claims management, document management, and many others.
- **Quality Reporting Document Architecture** (QRDA) — a standard for communicating healthcare quality measures
- **Health Quality Measure Format** (HQMF) — a standards-based representation of quality measures as electronic documents
- **OAuth 2.0** — a simple authorization framework that enables a third-party application to obtain access to an HTTP service.
- **HEART** (Health Relationship Trust) — a set of profiles that enables patients to control how, when, and with whom their clinical data is shared.
  - HEART Profiles Webinar and Workshop Recording
  - HEART Webinar Slides [PDF - 7.8 MB]
- **OpenID Connect** — a simple identity layer designed to work with Oauth 2.0.

Appendix D Principles

The following guiding principles were developed by stakeholder to guide the development and execution of USVI's Health IT Strategic Plan.

Empowering Patients and Providers Principles

- Historically, everyone's experience and conception of healthcare is based upon a fully in-person experience.
- In introducing the element of Health IT, we must be sensitive to the experiences of each audience (i.e., patients, providers, administration) and provide information that relates to the knowledge and concerns of each group.
- Information needs to be designed for delivery to a mass audience (i.e., via all forms of traditional and social media) and directly to individuals.
- Recognize that there are numerous differences among patients in relation to accessing Health IT, including: access to broadband; variations in comfort and experience with technology; degree of trust or security with online communications.
- Providers must be trained to educate, support and coach patients in how to utilize Health IT.
- We need to track data on utilization of Health IT to track the amount of Health IT visits; the number of sites, providers and patients using Health IT; and satisfaction levels among both providers and patients using Health IT.
- We need systems to receive and integrate feedback from patients and providers to improve the delivery of Health IT services.
- Consider access to technology especially for seniors and vulnerable populations.
- Ensure that providers and patients have confidence in the privacy and security policies, controls, and technical system capabilities.
- Ensure that platforms are user-friendly.
- Ensure that there are adequate resources (money) to implement health IT solutions.
- Training of tech and support staff to deploy health IT systems, there will need to be ongoing end-user training as you bring up different health IT systems.
- Develop strategies to address the digital divide (for this team, only strategies not directly related to infrastructure) – i.e., teaching patients how to utilize the system.

Health IT Infrastructure Principles

- An interoperable health IT infrastructure is one in which all individuals, their families, and healthcare providers have appropriate access to health information that facilitates informed decision-making, supports coordinated health management, allows patients to be active partners in their health and care, and improves the overall health of our population.
- Effective interoperability must be understood as more than just a technology challenge.
- Health information from the integrated care delivery system should be easily accessible to individuals and empower them to become more active partners in their health, just as other kinds of data empower them in other aspects of their lives.
- The strategic plan will identify and assess the existing health IT infrastructure, then build upon the current foundation, increasing interoperability and functionality, as needed.
- Individuals and caregivers have an ongoing need to find, send, receive, and use their health information both within and outside the care delivery system, and interoperable infrastructure should enable this.

- Broad adoption of health IT requires efficiently and appropriately shared health information to support multiple uses.
- One size does not fit all. Interoperability requires technical and policy conformance among networks, technical systems, and their components, and behavior and culture change on the part of users.
- The health IT infrastructure must factor in the needs and knowledge of numerous stakeholders, including clinicians, hospitals, public health, patients, technology developers, researchers, and policymakers.
- Onboarding strategy will recognize that not every practice will adopt health IT at the same pace or same level of sophistication.
- Work within the technical infrastructure that exists and build from there.
- HIE architecture will build from the telecommunications infrastructure as the base architecture. Different technical layers will be identified and defined to facilitate what can be used and reused.

Capable and Resilient Workforce Principles

- Building and sustaining a Health IT workforce includes short- and longer-term planning steps. It is desirable to have territory agency alignment prior to beginning conversations with partners outside of government. This will allow for consideration of federal funding streams, programmatic flexibility, and compliance requirements at the outset.
- When developing programmatic and policy solutions, consider HIT pathways as a part of an IT or digitally competent workforce. This will bring more resources and employers to the table. Also, it is easier to marshal resources around a few connected pathways, rather than focusing on a single area that may only need a small number of key positions filled.
- Data will be key to maximizing impact. A robust plan will require a coordinated territorial agency assessment of data across public and private partners. Draw upon all territory data sources for education, training, and employment projections. Employers should also contribute their existing and emerging workforce needs.
- The health IT workforce planning process must factor in the needs and knowledge of numerous stakeholders, including hospitals/health employers, government and public health entities including DOH, FQHCs, DHS Medicaid, K-12 education, university and industry training partners, and policymakers. This should include short term opportunities and longer-term pipeline development.
- Strategic planning should identify and assess the existing USVI health IT workforce assets, then build upon the current foundation, leveraging key partnerships and investments. Utilize an asset mapping strategy to analyze current training opportunities and possible target populations for training. This will help to identify the quickest routes to upskill and reskill the current workforce.
- Consider seeking public and or private funding to support private sector partnerships, such as tax credits for upskilling employees or employee tuition support programs.
- Consider creation of forums for information sharing, such as a standing collaborative committee, that includes representatives from the healthcare industry; leadership from a cross section of government agencies, key public systems such as workforce, higher education, and k12 education. Cross-sector communication can ensure that education and training programs are closely aligned with current and emerging workforce needs.
- Align Policies across Systems. Just as it takes practical coordination among workforce, education, and economic development programs to create a successful strategic partnership, it

takes policy coordination at the state level to remove barriers and align strategies so that local stakeholders can work better together.

- Build on other state or national frameworks for documenting the competencies, tasks, knowledge, and skills required for the highest impact HIT positions to establish a common terminology for describing the roles. Coordinating health agencies and healthcare organizations by utilizing a common framework can help align training and education programming to make it easier to assess a very decentralized workforce.