

**NEVADA HEALTH INFORMATION EXCHANGE BOARD OF DIRECTORS
MEETING MINUTES**

**December 4, 2012
1:00 PM**

**Nevada State Health Division
4150 Technology Way
Room 204
Carson City, NV 89706**

**Division of Child and Family Services
6171 W. Charleston Blvd, Bldg. 8
Conference Room A
Las Vegas, NV 89146**

BOARD MEMBERS PRESENT

Carson City:

Joan Hall – Chair
Elizabeth “Betsy” Aiello
Lindsey Niedzielski
Andrew “Andy” Pasternak IV, MD
Lynn O’Mara, Non-voting Ex officio, State Health IT Coordinator

Las Vegas:

Leo Basch, PharmD – Vice Chair
Brian Labus
Eric Lloyd

BOARD MEMBERS EXCUSED

Michael Willden

DEPARTMENT OF HEALTH AND HUMAN SERVICES (DHHS) STAFF PRESENT:

Stefani Hogan, Director’s Office, DHHS
Theresa Presley, Health Division
Ernesto Hernandez, Health Division

OTHERS PRESENT

Carson City:

Gerry Yantis, Capgemini Government Solutions
Terry Fitch, Capgemini Government Solutions
Brian Sichi, Capgemini Government Solutions
Deborah Huber, HealthInsight
Scott Heinze, Saint Mary’s Health Plans

Las Vegas:

Mark Alcantar
Bryan Oliver- Capgemini

Rachel Papka, HealthInsight
Erick Maddox, HealthInsight
Nield Montgomery, The Learning Center
F. Thornton Boulware III
Ann Lynch, March of Dimes

1. Call to order, roll call and determination of a quorum

Ms. Hall called the meeting to order at 1:00 pm. Ms. Hogan called the roll, and informed Ms. Hall that a quorum was present.

2. Public comment

There was none.

3. Informational item: Presentation and Discussion of updated state agency list of potential HIE customers

Ms. O'Mara provided updated information about potential state agency HIE customers. Dr. Basch asked about the potential revenue from Nevada Medicaid. Ms. O'Mara stated that she would provide the information during the next Board meeting.

4. Informational item: Presentation and Discussion of State HIE Cooperative Agreement NHIE Sub-recipient Award timeline

Ms. O'Mara reviewed the anticipated timeline for the NHIE to receive the sub-recipient award. She also reported that she and Ms. Hogan were working with Mr. Tirus on the required Form 1023 IRS filing to request 501(c)3 status for the NHIE. After discussion, it was agreed that the NHIE would start their CEO recruitment, prior to receiving their award funding, with the stipulation that the individual could not begin work until either grant or grant match funding was received.

5. Workshop Topic A: Presentation and Discussion of key initial results from the 2012 e-Health Survey

6. Workshop Topic B: Review and Discussion of Nevada's State Health IT Plan and the Draft Governance and Operations Guidelines

7. Workshop Topic C: Review, Discussion and Possible Determination of go-to-market strategic options

Ms. Hall stated that since Agenda Items 5, 6, and 7 were inter-related, they were being combined. She also noted for the record that action could only be taken on Agenda Item #7, and that similar to the Board's workshop meeting held on November 14, 2012, staff from Capgemini would present the information and facilitate the Board discussions. Mr. Yantis provided information from a presentation entitled, "Nevada Health Information Exchange: Overview of Vision and Approach," which covered Agenda Items 5, 6 and 7. The Board then broke into two geographic groups for a "go-to-market and communications/messaging" workgroup exercise, led by Mr. Sichi. The Reno workgroup presented the results of their discussion, and then the Las Vegas workgroup shared theirs. Based on the results, Dr. Basch offered to develop a list of probable committees that they would need to convene, and present the list at the December 18,

2012 meeting. Dr. Basch asked that Agenda Item #6 be placed on the December 18, 2012 meeting agenda, as there was no time to address it during this meeting.

8. Workshop Topic D: Discussion and Determination of recruitment process options for hiring or contracting with a NHIE CEO/Executive Director by January 31, 2013

The possibility of hiring an interim CEO was discussed, and the Board decided that this was not an effective option. The Board also discussed a possible salary range for the CEO position, and Ms. Niedzelski would research further and report her findings during the December 18, 2012 meeting.

9. Public comment;

In response to a query from Ms. Aiello, Ms. O'Mara will report on the NV DIRECT during the December 18, 2012 meeting. Mr. Lloyd requested an update of the project timeline during the next Board meeting, and recommended it be a standing agenda item.

10. Adjournment

There being no further business to come before the NHIE Board, Ms. Hall adjourned the meeting at 4:30 pm.

**NEVADA HEALTH INFORMATION EXCHANGE BOARD OF DIRECTORS
MEETING
MEETING MINUTES**

**December 18, 2012
2:30 PM**

**Department of Employment, Training and Rehabilitation
1325 Corporate Blvd.
Reno, NV**

**Department of Employment, Training and Rehabilitation
2800 East St. Louis Avenue
Conference Room C
Las Vegas, NV**

BOARD MEMBERS PRESENT

Reno:

Joan Hall – Chair
Elizabeth “Betsy” Aiello
Lindsey Niedzielski
Andrew “Andy” Pasternak IV, MD
Lynn O’Mara, Non-voting Ex officio, State Health IT Coordinator

Las Vegas:

Leo Basch, PharmD – Vice Chair
Brian Labus
Eric Lloyd

On by phone

Elizabeth “Betsy” Aiello

BOARD MEMBERS EXCUSED

Michael Willden

DEPARTMENT OF HEALTH AND HUMAN SERVICES (DHHS) STAFF PRESENT:

Stefani Hogan, Director’s Office, DHHS
Megan May

OTHERS PRESENT

Reno:

Gerry Yantis, Capgemini Government Solutions
Bryan Oliver, Capgemini Government Solutions
Rachel Papka, HealthInsight
Amber Jointer, Nevada State Medical Association
Kim West, Quantum Mark

Las Vegas:

Mark Alcantar
Erick Maddox, HealthInsight

Nield Montgomery, The Learning Center
F. Thornton Boulware III
Ann Lynch, March of Dimes

By phone:

Mandy Harris, Nevada WebIZ
Sherri McGee, Division of Health Care Financing & Policy
Brett Crown, Tiani

1. Call to order, roll call and determination of a quorum

Ms. Hall called the meeting to order at 2:30 pm. Ms. Hogan called the roll, and informed Ms. Hall that a quorum was present.

Ms. O'Mara informed the Board that January 8, 2013 meeting would be held via conference call, due to the unavailability of meeting locations. She also stated that the final results of the 2012 e-Health Survey would be presented during that meeting.

2. Public comment

There was none.

3. Approve November 14, 2012 and November 20, 2012 meeting minutes.

MOTION: Dr. Pasternak moved to approve meeting minutes from the November 14, 2012

SECOND: Dr. Basch

PUBLIC COMMENT: None

APPROVED: UNANIMOUSLY

MOTION: Ms. Niedzielski moved to approve meeting minutes from November 20, 2012

SECOND: Dr. Pasternak

PUBLIC COMMENT: None

APPROVED: UNANIMOUSLY

4. Informational Item: ONC Annual HITECH All Grantee meeting

5. Informational Item: Update on Nevada DIRECT Implementation

6. Informational Item: Updated information regarding state agency list of potential HIE customers

Ms. Hall noted that Agenda Items 4, 5 and 6 were bring combined, as they were all informational and related. Ms. O'Mara provided an overview of the ONC Annual HITECH All Grantee meeting that she, Ms. Hogan, Ms. Hall and Mr. Yantis attended December 11-13, 2012 in Washington, DC. Ms. Hall reported on her observations and experiences regarding the meeting.

Dr. Basch asked if NV DIRECT was up and running yet. Ms. O'Mara reported that a licensing agreement had been executed between DHHS and Orion Health, and that Orion was working on

establishing the necessary technical capabilities. DHHS was working on obtaining a domain name, procuring the necessary digital certificate, and finalizing the enrollment package for the 200 physicians that would need to be recruited. Dr. Pasternak and Ms. Niedzielski offered to help recruit physicians in the rural areas, and Ms. Hall stated that once she had the packet, she would provide it directly to interested physicians.

Ms. O'Mara provided updated information regarding potential NHIE state agency customers, including possible revenues. She also reported on a possible ACA grant opportunity that was being explored with the Nevada WebIZ. Ms. Harris provided a brief overview of using existing grant funds to develop an interface between the NHIE and WebIZ. A proposal would be submitted to CDC in early January 2013. Ms. O'Mara also reported that Capgemini and DHHS were compiling a list of possible state agency health-related programs and registries that may wish or need to utilize NHIE services.

7. Informational Item: Status Report on NHIE Project Plan

Due to time constraints, Ms. Hall announced that this item would be moved to a future agenda.

8. Discuss and Determine recruitment process options for hiring or contracting with a NHIE CEO/Executive Director

Ms. O'Mara reported the filing of the IRS Form 1023 requesting 501(c)3 status for the NHIE was on process. She stated that Mr. Titus had informed her that the current NHIE Bylaws would be sufficient for the filing itself, so that the necessary receipt of filing could be obtained to meet that state requirement for grant sub-recipient awards. Ms. O'Mara noted that the IRS was expected to require certain revisions to the Bylaws before granting 501(c)3 status.

Ms. Hall stated her concerned about having the funding to proceed with the hiring of a CEO. Ms. Hogan reviewed what steps in the CEO recruitment process could be completed until the sub-recipient award could be made. Ms. Niedzielski outlined a proposed recruitment and hiring process for the NHIE CEO, that she developed after meeting with Rob Hooper at NNDA, and speaking with Ms. Hogan. Ms. O'Mara noted that Ms. Hogan had an extensive background in human resources, and could provide subject matter expertise to the Board. Ms. Niedzielski then presented a draft recruitment posting that was based on the CEO job description approved by the Board. After discussion, the Board agreed on two changes to the posting: the CEO must have both business and technical experience and the compensation would be a salary of \$100,000 – 130,000 plus benefits. The Board also agreed that the recruitment should move forward, and Dr. Pasternak offered to donate funding for posting the position on appropriate job recruitment Web sites. After additional discussion regarding the CEO selection process and Open Meeting Law, Ms. Niedzielski stated that she would contact the Silver State Health Insurance Exchange about the process they used to hire their Executive Director.

MOTION: Ms. Aiello moved to approve the CEO Committee move forward with the CEO recruitment, with the two changes to the job description.

SECOND: Dr. Basch

PUBLIC COMMENT: None

APPROVED: UNANIMOUSLY

9. Discuss and Determine NHIE Committees

Dr. Basch provided the Board with the list of potential committees he had offered to compile, after obtaining input from the Board members. After discussion by the Board, it was agreed that the list could be consolidated to six committees: CEO and Staffing, Technology, Communications, Finance and Sustainability, Governance and Legal, and Evaluation. Dr. Basch said that he would attempt to develop a goal and a scope of work for each one, and then seek feedback from the Board members.

10. Present overview, Discuss options, and Determine next steps of Nevada HIE Communications, Outreach, Awareness and Change Management Strategy and Plan

Mr. Oliver provided information from a presentation entitled, “Overview: Nevada HIE Marketing Strategy and Planning.” After discussion by the Board, Dr. Basch stated that he would include the information when he developed the Communication Committee’s proposed goals and scope of work.

11. Public Comment

There was none.

12. Adjournment

There being no further business to come before the NHIE Board, Ms. Hall adjourned the meeting at 4:45 pm.

Hiring Timeline

Task	Responsible Party	Completion Date
Job Description/Qualifications Approved	Board	Completed
Determine Salary/ Benefits	Board	Completed
Establish Committee	Board	Completed
Post Job Description	Lindsey/Andy	Completed
Review Resumes for Minimum Qualifications	Staff/Lindsey	1/11 & *1/24
Create a Contract	NNDA	
Ranking of Desired Qualifications	Committee	*1/25
Drafting/Review of Phone Screening Questions-Assign Candidates for Phone Screening	Committee	*1/25
Drafting/Review of in person interview questions	Committee	*1/25
Phone Screening with Candidates	Committee	*1/28
Create Application and Reference Check Sheet	Staff/Lindsey	*2/1
Committee Meeting to discuss Rankings-Top Candidates for Review	Committee	*2/1
Board Interviews in person	Board	*Early February
Extend offer Letter	Board	*Early February
Candidate Starts		30 days after extension

Nevada Health Information Exchange

NHIE Sub-Recipient Statement of Work

State of Nevada
Department of Health and Human Services
Office of Health Information Technology

January, 2013

Table of Contents

1	Introduction	4
2	Financially Sustainable Business Operations	4
2.1	NHIE Services Revenue	5
2.2	Financial Management.....	6
2.3	Audits and Controls.....	6
2.4	NHIE Business Operations.....	6
2.5	NHIE Staffing	6
3	Sustainability Plan and Management	10
3.1	Public and Private Financing Strategies	10
3.2	Business Sustainability Plan	11
3.3	NHIE Services Sustainability	11
3.3.1	NHIE Service Portfolio	12
3.3.2	Stakeholder On Boarding Plan	18
3.3.3	NHIE Cost Model	20
4	Establish Statewide HIE System	21
4.1	Statewide HIE System Requirements.....	21
4.2	Procure Statewide HIE System Capabilities	23
4.3	Implement Core Statewide HIE System Capabilities.....	24
4.4	Transition NV DIRECT from DHHS to NHIE	24
4.5	Integrate Statewide HIE System with NHIE Customers	24
4.6	Validate Statewide HIE System Capabilities.....	25
5	NHIE Operations.....	27
5.1	Operate Statewide HIE System	27
5.1.1	Consumer Support Services	27
5.1.2	Security Management.....	28
5.1.3	Provider Directory Maintenance.....	28
5.1.4	Patient Index Maintenance.....	29
5.1.5	HIE Supplier Management	30
5.1.6	HIE Performance Reporting	30
5.1.7	HIE Integration Maintenance.....	31
5.2	Operations	31

5.2.1	Strategic Planning	31
5.2.2	Public Relations Management & Communication	31
5.2.3	Internal IT Service Management (non-HIE).....	32
5.2.4	HR Management	32
5.2.5	Facilities Management	32
5.2.6	Financial Management.....	32
5.2.7	Overall Operations Management	33
5.2.8	Vendor Management	33
5.3	Performance Reporting.....	33
5.3.1	Establish Measures (Program Evaluation)	34
5.3.2	Perform Monitoring	34
6	Nevada HIE Governance	35
6.1	Support for the Establishment of Nevada HIE Regulations	37
6.2	Support for the Privacy & Security Policy	37
6.2.1	Consent	37
6.2.2	Authorization, Authentication, Access, and Audit	38
6.2.3	Confidentiality, Integrity and Availability (CIA).....	42
6.3	Promote Adoption of HIEs and EHRs	42
7	Sub-Recipient Award Disbursements.....	43
8	Deliverables Summary	43

1 Introduction

As defined in the State of Nevada HIT Strategic and Operations Plan (State Plan) and pursuant to NRS 439.588, the Nevada Health Information Exchange (NHIE) will be a sub-recipient to Nevada's ARRA HITECH State HIE Cooperative Agreement between the Nevada Department of Health and Human Services (DHHS) and the US Department of Health and Human Services, Office of the National Coordinator (ONC).

As a sub-recipient, NHIE, a nonprofit organization, will provide Nevada with Health Information Exchange (HIE) governance as well as statewide HIE system capabilities, in accordance with the Terms and Conditions under the American Recovery and Reinvestment Act of 2009; the State HIE Standard Terms and Conditions, ONC Program Information Notice (PIN) 001, 002 and 003; NRS 439.581-595; and the State HIT Strategic and Operations Plan. It is expected that NHIE will also develop itself into a business that will be viable and sustainable on an ongoing basis.

This document describes the requirements that the NHIE will fulfill as part of the sub-recipient agreement.

2 Financially Sustainable Business Operations

It is essential that the NHIE be financially independent of federal and state funding beyond what is being made available initially via the ARRA HITECH program. The State Plan defines an initial business model that identifies potential revenue streams that will fund the initial implementation and ongoing sustainment of the operation of the statewide HIE system, Nevada HIE Governance, and supporting business functions (e.g., internal, governance, communications, financial management, deployment, adoption, innovation, and any outreach and adoption efforts, etc.).

NHIE will create and sustain a HIE business model that will ensure that the non-profit organization will be a viable business on an ongoing basis.

DHHS is successfully deploying the Nevada DIRECT Secure Messaging Service (NV DIRECT) to 200 Nevada health care providers in early 2013. This will be the first step of an approach in achieving long term sustainability. NHIE will take over this service and the enrolled users of NV DIRECT no later than October 1, 2013.

To be a sustainable business, there must be quantifiable opportunities in the health care delivery value chain for all stakeholders of the HIE services (e.g., care cost reductions, administrative efficiencies and cost saving, new revenue streams, etc.). It is expected that these opportunities will be represented within the NHIE business model that will be agreed with DHHS and the stakeholders/customers of the NHIE. Within the business model, each opportunity will be converted into an estimated revenue stream. It is expected that NHIE stakeholders/customers

will pay into the NHIE business in one of three ways: message usage, subscription, or a hybrid of usage and subscription.

The formulation of the NHIE business model for sustainability is based on health needs and economics of the state (e.g., costs, volumes, etc.). NHIE will facilitate workshops and other appropriate outreach with key stakeholders (e.g., hospital, payer, PCPs, diagnostics, e-prescribing services, etc.), and health economic analysis will be conducted to iteratively develop the required business model agreements. Stakeholder groups generally include:

- All licensed health care providers in the State and health care providers in other states serving State consumers.
- All health care consumers in Nevada.
- Associations, consortiums, and work groups.
- Health plans, including managed care.
- State, county, and local government agencies.
- All military and Veterans' Affairs medical services.
- Universities and colleges.
- HIT, HIE, and EMR vendors.
- Existing and future HIEs operating in Nevada or neighboring states.
- The Department of Health and Human Services, the Centers for Medicare and Medicaid Services, the Centers for Disease Control and Prevention, and ONC.
- Indian health clinics.
- Indian tribes.
- The Indian Health Board of Nevada.
- Nevada's Regional Extension Center
- eHealth Exchange
- The Department of Defense.
- Clinical laboratories.
- Lobbyists and advocates.

(A more specific listing of key stakeholders can be found in the State Health IT Plan.)

The State Health IT Coordinator will work with NHIE to manage risks and controls of the State HIE Cooperative Agreement in a comprehensive and cost-effective manner, while having visibility into the NHIE implementation status. In the event of control failures, the NHIE organization will have notification mechanisms and mitigation procedures in place – and a protocol of accountability back to the State Health IT Coordinator as to the status and resolution of all issues, actions, remedies specific to any problematic event. To facilitate and support higher level decision making, visibility into the performance of controls and their impact on specific risks will be enabled.

2.1 NHIE Services Revenue

As mentioned previously, NHIE's business sustainability is contingent on it raising recurring revenues to offset the costs of the system and business operations. It is expected that, following initial startup mode, the necessary revenues will be provided through NHIE's delivery of

information services (e.g., messaging, consent management, alerts, information portals, and analytics/reporting). During startup mode, it is recognized that necessary revenues may come a variety of sources including grants and match in-kind.

Regardless of sources, NHIE will provide to DHHS a specific plan for attaining financial sustainability as well as monthly reporting of actual and forecasted revenues and costs.. The initial NHIE Financial Sustainability Plan will be delivered to DHHS no later than July 31, 2013. Updated plans will be delivered to DHHS by December 31, 2013 and February 7, 2014 (last day of sub-recipient agreement).

Section 3 provides detail NHIE requirements for creating and delivering a sustainable business model.

2.2 Financial Management

The NHIE Business will need to implement the appropriate financial systems and processes to track and report on costs in a segregated manner. The systems and reporting will meet all required reporting to DHHS in an accurate and timely manner. Financial statements will be audited annually by independent auditors, and may be audited by Nevada's Department of Administration and the Legislative Counsel Bureau.

NHIE will provide DHHS a plan for implementing operational financial management capabilities by July 31 and by December 31, 2013 NHIE will attest to DHHS that compliant financial systems have been implemented and validated.

2.3 Audits and Controls

The State HIE Cooperative Agreement is subject to program review and audit by Federal HHS, Nevada's Department of Administration, Legislative Counsel Bureau and by Nevada's State Controller's Office. As such, NHIE will be required to implement and utilize the auditing and control processes and systems necessary to comply with oversight requirements.

2.4 NHIE Business Operations

DHHS expects NHIE will establish and run the business and system operations according to industry standards and in accordance with applicable State and Federal laws and regulations. During the term of this sub-recipient agreement, NHIE will be accountable to DHHS for compliance with the Terms and Conditions under the American Recovery and Reinvestment Act of 2009; the State HIE Standard Terms and Conditions, ONC Program Information Notice (PIN) 001, 002 and 003; NRS 439.581-595; and the State HIT Strategic and Operations Plan.

2.5 NHIE Staffing

The creation/implementation of the NHIE organization will ultimately be the responsibility of the leadership of NHIE. The intent of this initial organizational and staffing model is to outline the expected level of effort and to estimate staffing costs. Key roles in the NHIE organization are as follows:

- **Chief Executive** – Ultimately accountable to the NHIE Board of Directors and DHHS via the sub-recipient agreement. It is envisioned that the Chief Executive will have a significant role in the community representing the NHIE across the State with continuous interaction with key stakeholders.
- **Governance, Finance, & Business Operations** – Oversees three major elements of the NHIE:
 - **Finance and Operations** - responsible for the planning and delivery of major operational services of the NHIE Business. This work will include:
 - Establishment of supporting business systems and processes (e.g., email, financials, complaints, registrations, contracts management, etc.).
 - Development of the agreed pricing model for NHIE services.
 - Creation and operation of monitoring and reporting services (e.g., tracking effectiveness of HIE to meet meaningful use objectives).
 - Contracting with users of NHIE services (i.e., subscription, usage, hybrid).
 - **Governance** - responsible for defining, implementing, monitoring and managing all aspects of policies, legislations, statutes, compliance requirements, and information governance requirements (e.g., information sharing, privacy, security).
- **Privacy Officer**. This role, likely filled by a person with one of the other major roles of NHIE, is responsible for compliance with all security and privacy requirements set forth in HIPAA , NRS 439.581-595 and applicable federal and state laws.
- **Communications & Marketing** - accountable for the ongoing engagement of stakeholders such as Medicaid, the Regional Extension Center (REC), patients/ residents, hospitals, diagnostic facilities, PCP practices, health insurance payers, employer groups, the Indian Health Service, the Department of Defense (Health Affairs), and Veterans Affairs. Tactically, this role is responsible for:
 - Creating community awareness of NHIE and the services it offers;
 - Sale of NHIE services.
 - Sustaining the outward facing perspective of the NHIE Business.
 - Refinement of the NHIE Business strategy including the constant focus on supporting innovations to care services across the care community. This will include research of care innovations being implemented around the world and then adjusting them for proposal to the NV health community through workshops and planning sessions leading to implementation of new HIE services and outcome reporting metrics/processes.
- **HIE Technology & Operations** – responsible for the planning and delivery of statewide HIE system and the integration of that system to customers of NHIE. This work will include
 - Procurement and implementation of HIE systems and services from vendors that will be utilized for the delivery of the HIE services:

- Day-to-day management of HIE service vendor(s);
- Creation and operation of monitoring and reporting services (e.g., tracking effectiveness of HIE to meet meaningful use objectives);
- Certification of HIE providers that operate in Nevada as well as those that would like to connect to the NHIE.
- Support to the contracting process for with users of NHIE services.
- Working as a facilitator for HIE innovations and new value-add services.
- Management of NHIE statewide HIE system operations including but not limited to:
 - Ongoing registration of providers and commercial HIEs;
 - Maintenance of master patient index and the business rules and algorithms for patient matching;
 - Maintenance of provider directories (individual and facility) and the provider information the directories support;
 - Information Security Plan will be developed to document information security services and will be maintained in accordance with industry and Federal standards, as well as HIPAA and related state laws and/or regulations;
 - Maintain compliance with the requirements of HIPAA Privacy (45 CFR Parts 160 and 164), HIPAA Security (45 CFR Parts 160, 163, and 164), 42 CFR Part 2 requirements for Substance Abuse information and all State privacy and security rules;
 - Configuration planning and management will focus on four major functions: identification, control, status accounting, and audits. Configuration baselines will maintained by check-in/check-out procedures supported by configuration management tools. Periodic internal audits will be performed to verify product and software baselines.
 - High availability of health information message exchange over the statewide HIE system NHIE Business will need to be prepared to deliver complete infrastructure and application management services with either internal or external (contracted) resources. These infrastructure services include data center, network management and monitoring, as well as all application management and maintenance support of the HIE and Business Support Service;
 - Robust business continuity capabilities including data backup and restore, network services, hot site facilities, etc. The Business Continuity and Disaster Recovery Plan will be developed and maintained with services delivered according to the agreed plan and service levels.
 - Help desk services that will be available 24x7x365 with primary services available during normal business hours of 8am to 7pm Pacific Time.
 - Quarterly, analyze the key metrics provided by the various hardware and software systems (e.g., CPU, Memory, Local Disk Utilization, network utilization, etc.)

that are being hosted. Based upon the analysis of these metrics, adjust capacity and capability as required to meet agreed to performance levels.

- Standard change management processes and tools will be used to record, track, and document any change made to the applications.

The initial staffing model for NHIE is summarized in **Figure 3-8** with a summary of the key responsibilities and implementation consideration noted above. This staffing model will be refined as the business model, HIE services, and revenue streams emerge. The final staffing model and associated costs will be the responsibility of NHIE.

Figure 3-8. NHIE Business Staffing Model (Initial Version)

Organization Component	Head Count	Key Responsibilities and Considerations
Board of Directors	7 plus 2 ex-officio	<ul style="list-style-type: none"> • Participation on a voluntary basis. • Composition based on ARRA HITECH Act and State HIE Cooperative Agreement mandates. • Will be comprised of stakeholders who will be selected to form a balanced representation of the Nevada care community (e.g., public health, Medicaid, commercial hospitals, payers, employer groups, unions, diagnostic service providers, and State residents).
Chief Executive Office	2	<ul style="list-style-type: none"> • Essential individual hired into the Chief Executive role will be respected and trusted in the NV care community. • Accountable to the NHIE Board of Directors as well as the State HIT Authority for the fulfillment of the ONC Cooperative Agreement. • Responsible for proper engagement of the NHIE Board of Directors.
Communications and Marketing	1	<ul style="list-style-type: none"> • Responsible for overall communications strategy as well as content development of NHIE Business website and all Press Releases. • Works with Chief Executive to sustain positive relations with NHIE stakeholders including ONC. • Responsible for services related to outreach, adoption, training/education/ advisory services (in coordination with REC), and potential participation with the creation of work force (e.g., use of HIE in new practices as they form).
HIE Systems & Operations	2 to 3	<ul style="list-style-type: none"> • Responsible for development, integration, deployment, maintenance, and ongoing operation of the HIE applications and infrastructure. • Responsible for services and reporting operations (e.g., service contracts, HIE certification, ONC reporting, consumer interactions, etc.). • Responsible for coordinating and collaborating with key stakeholders of the NHIE.
Finance & Business Operations	1 to 2	<ul style="list-style-type: none"> • Responsible for the ongoing financial sustainment of the NHIE Business. • Responsible for establishing HIE stakeholder contract agreements as well as contracts with HIEs operating within Nevada to deliver certified HIE services. • Responsible for internal HR function. • Responsible for all internal business systems including HR, Finance, Customer Relations Management, and Procurement/Contracts Management.

Organization Component	Head Count	Key Responsibilities and Considerations
Policy, Medical, and Innovation Management	1	<ul style="list-style-type: none"> • Responsible for overseeing medical viability of the HIE services being delivered. • Responsible for monitoring and assessing impacts of health reform, policy changes, and new mandates from ONC and other Federal/State entities. • Responsible for working with health community and patient groups to confirm usefulness of deployed HIE services and to identify/define care innovations to be enabled by future NHIE services. • Responsible as HIPAA Security Officer.
TOTAL (Excluding Board)	7 to 9	Subject to adjustments over life cycle of the NHIE Business formation.

By March 30, 2013, NHIE will develop and deliver to DHHS the organizational structure and staffing plan that will be implemented over the following twelve (12) months.

3 Sustainability Plan and Management

The sustainability plan of the NHIE will be defined in parallel and in iteration with the development of the technical and business requirements and technical architecture. This iterative approach will enable the NHIE to develop a HIE service model that delivers value and creates demand for health data exchange and associated HIE services. Included in the approach is the practical matter of financial sustainability that includes the ongoing operation of the NHIE without state general fund allocations. The defined approach is directly aligned with the ONC PIN 002 and the Sustainability Plan guidance it provides.

DHHS's initiative to deploy the Nevada Direct Secure Messaging Service (NV DIRECT) in early 2013 will contribute to NHIE's information sustainability approach by supporting eligible physicians to achieve Meaningful Use Stage 1 and on boarding the first physicians to the future HIE system. No later than October 1, 2013, NHIE will take over the operation of the NV DIRECT services as well as the associated services revenue.

3.1 Public and Private Financing Strategies

On February 8, 2010, DHHS received a four-year ARRA HITECH State HIE Cooperative Agreement award of \$6,133,426 million from the ONC to develop this plan and facilitate the statewide HIE infrastructure necessary for intra-state, inter-state, and nationwide HIE. A portion of this funding will be allocated for NHIE's use as a sub-recipient. Broadly, these funds will be used to pay for NHIE's initial staffing costs and for the implementation of the statewide HIE system.

In addition, as part of the State HIE Cooperative Agreement, the Grantee (DHHS) is responsible for identifying and collecting a proportional amount of the grant to demonstrate commitment to the program. As a sub-recipient, NHIE will collaborate and coordinate with DHHS in obtaining the necessary funding to meet the Match requirement which is estimated to be two to three

million dollars (\$2M-\$3M) by January 31, 2014. Match Funding can come in a variety of forms including cash donations, asset donations, services rendered (i.e., contribution of time and effort), and compensation for HIE services performed by NHIE. Given that the NHIE system will likely not be operational until January 2014, it is not expected to generate significant revenue via HIE services performed by NHIE.

3.2 Business Sustainability Plan

NHIE will finalize its business plan after deriving information from multiple sources on the cost and value associated with the HIE services, the most likely sustainability model, and after conducting formal and informal market assessments.

NHIE revenue strategies will need to be built around arrangements used by any local HIEs across the State, with consideration of who will provide value and reliable services, and how NHIE will be involved. Five primary revenue strategies to be explored are as follows:

- **Subscription Fees.** Data providers or data users pay fees to the NHIE on a subscription basis. Subscriptions can be in the form of annual membership, monthly subscription or specific set fees for value-add services consumed or to be consumed (i.e., pay ahead, which could also include related discounts if any services paid ahead).
- **Transaction Fees.** Data providers or data users pay fees to the NHIE based on transactional usage and volume. This may include a tiered scale with volume discounts – lower fee per message delivered for higher volumes.
- **Service/Cost Sharing Fee.** Fees are charged or paid based on meeting certain milestones or cost savings for case management or coordination of care.
- **Pay for Performance.** HIE-enabled pay for performance models can be deployed in two ways: (1) through fees paid by insurers on per member basis, or (2) by insurers paying financial incentives to physicians and health systems for achieving certain health care-related quality measures.
- **Hybrid Models.** Variations combining two or more of the above strategies.

In addition to revenues associated with services to the Nevada health community, NHIE may be able to generate revenues through partnerships with other service providers that would choose to work with NHIE as a channel for their service offerings. Examples include services related to smart cards for individuals or providers, emergency medical information, health analytics, and telehealth/telemonitoring devices.

NHIE will need to develop a pricing model for the services being rendered to NHIE customers. It is anticipated that an initial pricing model will be developed and delivered to DHHS no later than August 31, 2013. Updated model(s) will be delivered to DHHS by December 31, 2013 and February 7, 2014 (last day of sub-recipient agreement).

3.3 NHIE Services Sustainability

The creation and ongoing operation/evolution of any business will have numerous costs elements that must be offset by incoming revenues. Such common sense logic holds true for the NHIE

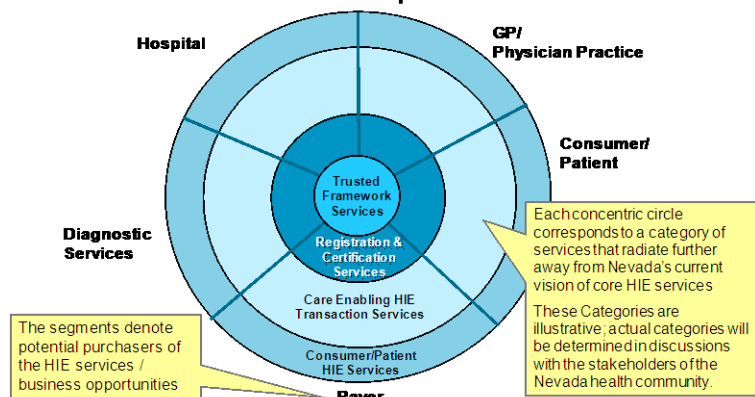
which will be responsible for its own existence, once the ONC funding and State matching funds are no longer available. This section provides the approach that the State anticipates as necessary to ensure long-term sustainability of the NHIE through the health information exchange demand management.

For NHIE, demand management will be the creation of HIE service demand through direct interaction with the Nevada health community as well as the delivery of services and solutions that satisfy that demand. The demand management approach by its nature, will balance the value buyers will receive (i.e., the costs they will pay to NHIE) with the costs NHIE will bear in the delivery of those services (e.g., implementation cost and ongoing operational costs). The remainder of this section addresses the guidance provided by ONC PIN 003, Section 2—Sustainability.

3.3.1 NHIE Service Portfolio

Financial sustainability will require a clear articulation of the HIE-based services, the value of those services, who the service participants (or actors) will be and when they will connect, and associated revenue streams. The approach to be taken will be determined over time, but there are some common frameworks to be applied. Figure 3-1 depicts one such model. It is anticipated that the NHIE Business will develop a portfolio of services that will be delivered to the different

Figure 3-1 – Example Portfolio Framework
Balanced Portfolio Development Framework



stakeholders (or buyers) within the care community. The services will evolve over time in different service categories starting with common or core services.

To initiate the development of the HIE Service Portfolio, the State has prepared two lists of HIE Service opportunities to be considered for delivery by NHIE. For each service identified in Figure 3-2 and Figure 3-3, the actors involved are identified as well as the potential value proposition for the service (i.e., highlights of how does the service add value to the players involved). It is anticipated that these tables will be part of NHIE reporting to DHHS (twice per year) and will evolve over time as services are qualified out and new services are identified and agreed.

These tables will be the foundation for working with the NHIE stakeholders. Through a series of workshops including the parties as well as health economic analysis, it is anticipated that the services will be agreed along with the specifics associated revenue streams. The NHIE Business will be responsible for codifying these agreements in contracts and then the ongoing management of those contracts.

In the Figure 3-2, the column headings have the following meaning:

- **Transaction Based HIE Service.** The rows identify unique types of NHIE transactions designed to share patient data with the Requester from the Sender. Each transaction type (row) reflects both the request message as well as the response message.
- **Sender.** Identifies the organization(s) and/or individuals that will respond to requesting message that flow across NHIE. The requested information will be provided via a HIE message to the Requester.
- **Requester.** Identifies the organization(s) and/or individuals that will initiate a HIE transaction by sending a requesting message via NHIE. The reply message from the Sender will contain the content requested.
- **Potential Service Payers.** Identifies the organization(s) that are candidates to pay for the transaction directly or indirectly. Payment will be provided to NHIE which may or may not be shared with another player depending on the economics and agreements.
- **Value Proposition.** Partial list of the value the transaction will provide to one or more of the players in the transaction. The intent is to outline why the transaction should be paid for.

NOTE 1: The final figure will need to include expected volumes of transactions and potential transaction costs to understand the value of the transaction to NHIE (i.e., revenue).

NOTE 2: It is possible to utilize this analysis to define and justify subscription based agreements in which the transactions are delivered based on a monthly fee to NHIE (or via a hybrid model of subscription plus costs over particular volumes).

Figure 3-2. Transaction Based NHIE Services

Transaction Based HIE Service	Sender	Requester	Potential Service Payers	Value Proposition
Claims	Provider, Third Party	Payer (receiver rather than requester)	Sender	Utilizes standard ANSI X12 4010/5010 transaction Leverages existing communications and registration services for EDI
Eligibility	Provider, Third Party	Payer (receiver rather than requester)	Sender	Utilizes standard ANSI X12 4010/5010 transaction Leverages existing communications and registration services for EDI
Referral	GP, ER, Hospital, Retail clinics, DoD, VA, I	Specialist, GP, Hospital, DoD, VIIHS)	Sender	Optimize continuity of care (quality) Better patient service/ experience (quality, market) Reduction in administrative time (cost) Utilizes standard ANSI X12 4010/5010 transaction Leverages existing communications and registration services for EDI
* E-prescribing	GP, ER, Hospital, Retail clinics, DoDIA, IHS	eRx (Surescripts) Pharmas	Primary Care Insurance Medicaid Retail Clinic	Better patient service/experience (quality, market) Reduction in transcription errors (quality, cost)

Transaction Based HIE Service	Sender	Requester	Potential Service Payers	Value Proposition
			Acute Care Hospital, DoD, VA	Administrative phoning in Rx (cost) Support meaningful-use (quality)
Medication History	eRx (e.g., Surescripts) Pharmas	GP, ER, Hospital, Retail clinics, I, VA, IHS	Primary Care: Insurance Retail: Clinic Acute Care: Hospital, DoD, VA	Avoid medication adverse reactions and unnecessary care (quality, cost) Administrative savings on patient histories (cost)
* Lab Order/Results	Lab company	Ordering provider	Receiving Provider (% share) Lab company (% share)	
Historic Lab Results	Lab company (Quest, Associated Pathologists, LapCorp, small labs)	GP, ER, Hospital, Retail clinicDoD, VA, IHS	Receiving Provider (% share) Insurance/Medicaid (% share)	Better patient service/experience (quality, market) Optimize ability to diagnose (quality) Reduction in duplicative lab orders (cost)
Specialist Consult Report	Specialist (GP, HospII, DoD, VA, IHS)	GP, ER, Hospital, Retail Inics, DoD, VA, IHS	Sender Commercial Payer Medicaid	Optimize continuity of care (quality) Better patient service/ experience (quality, market) Reduction in administrative time (cost)
* Clinical Summary & Demographics (Prior Primary Care Visits/ Discharge Summaries)	GP, ER, Hospital, Retailclinics, DoD, VA, IHS	GP, ER, Hospital, RIil clinics, DoD, VA, IHS	Receiving Provider (% share) Insurance/Medicaid (% share)	Better patient service/experience (quality, market) Optimize ability to diagnose (quality) Administrative savings on patient histories (cost) Improved ability to detect medication abuse (cost)
Care Transfer/Care Plan	GP, ER, Hospital, DoD, VA, IHS	Nursing/Home Care/Physical Therapist	Receiving Provider (% share) Insurance (% share)	Better patient service/experience (quality, market) Optimize continuity of care (quality) Effective care in less expensive care setting (cost) Reduction in administrative time (cost)
Patient Immunization Update (NV WebIZ exists)	GP, ER, Hospitalretail clinics, DoD, VA, IHS	State Public Health (Vaccine Registry)	State of Nevada	Proper vaccination of individuals (quality/cost) Support meaningful-use (quality) Reduction in administrative time (cost)
Patient Immunization History	State Vaccine Registry	GP, ER, Hospil, Retail clinics, DoD, VA, IHS	Hospital (% share) Primary Care (% share) Insurance/Medicaid (% share)	Proper vaccination of individuals (quality/cost) Support meaningful-use (quality) Reduction in administrative time (cost)

Transaction Based HIE Service	Sender	Requester	Potential Service Payers	Value Proposition
Public Health Reportable Syndromic Surveillance Event	GP, ER, Hospital, Retail clinics, DoD, VA, IHS	State Public Health, CDC	Provider	Delegates proper reporting requirement to HIE (quality, cost) Reduction in administrative costs of processes, systems and infrastructure for reporting to multiple requesters (e.g., CDC, State Health) (cost) NOTE: Need to look at implications of EpiCenter being used at hospitals and urgent care facilities today
Public Health Reportable Lab Result	GP, ER, Hospital, Retail clinics, DoD, VA, IHS	State Public Health, CDC	Provider	Delegates proper reporting requirement to HIE (quality, cost) Reduction in administrative costs of processes, systems (i.e., NEDSS) and infrastructure for reporting to multiple requesters (e.g., CDC, State Health) (cost) NOTE: NEDSS is normally used, but it is not functionally properly.
Payment Status	Payer	Provider or third party	Provider or third party	Utilizes standard ANSI X12 4010/5010 transaction Leverages existing communications and registration services for EDI
PACS Images	Care provider, Diagnostic imaging center	Care provider, Diagnostic imaging center	Requesting provider Payer Medicaid	Optimize continuity of care (quality) Better patient service/ experience (quality, market) Reduction in administrative time (cost) Reduce duplicative diagnostic imaging costs and patient exposure to radiation
Telemonitoring Uploads (e.g., glucometer readings, heart monitors, sleep monitors, etc.)	Patient	GP, Accountable Care Organization, Managed care organization	Patient Insurance/Owner of Care Risk Pharmaceutical Company? (underwriter of device and related supplies)	Improve wellness of individual by early identification of declining condition prior to acute or emergency situation May enable new lines of care services by providers
Patient Visit Summary & Care Instructions	GP, Primary Care provider, Retail Clinic	Patient	Sender (%) Payer (%) Medicaid (%)	Reminder of health status and care instructions given following visit (market) Improved compliance with care prescribed care protocols (quality, cost) Reduction in patient calls for clarifications (cost)
Patient Alert	GP, Primary Care provider, Retail Clinic	Patient	Sender	Timely communications related to care process (e.g., lab results delivered) Better patient service/experience (quality, market) Reduction in administrative time (cost)
Family Member	GP, Primary	Family Member	Family Member	Timely communications related to care

Transaction Based HIE Service	Sender	Requester	Potential Service Payers	Value Proposition
Alert (assumes Family Member consent or like)	Care provider, Retail Clinic		Patient	process for family member (e.g., elderly parent care visit, diabetic child blood sugars elevated) Summary of health status and care instructions given following family member visit (quality, cost, market)

* Denotes services directly supporting Stage 1 Meaningful Use.

Successful deployment and adoption of the Nevada DIRECT Secure Messaging Service (NV DIRECT) initiative will be the first service to be offered as part of the approach in achieving long term sustainability. While the revenues associated with DIRECT Messaging are expected to be relatively low dollar value, the process of validating, contracting, and enrolling participants will generate a “customer” population to which additional services will be offered; the next of which will likely be core HIE services including query based access to patient data.

In the **Figure 3-3**, the column headings have the following meaning:

- **NHIE Service.** The rows identify unique NHIE services designed to enable patient data sharing or enable participation in the HIE “economy of services”.
- **Service Recipient.** Identifies the organization(s) and/or individuals that will benefit from the service being provided by NHIE.
- **Potential Service Payers.** Identifies the organization(s) that are candidates to pay for the service directly or indirectly.
- **Value Proposition.** Partial list of the value the transaction will provide to one or more of the players in the transaction. The intent is to outline why the transaction should be paid for.

Figure 3-3. Event/Subscription Based NHIE Services

Event/Subscription Based NHIE Services	Service Recipient	Potential Service Payers	Value Proposition
Provider Enrollment	Registering provider	Registering provider	The list of providers with EMR systems will be known to the health community Facilitates electronic sharing of patient data between providers
GP EMR (SaaS)	Registered Medicaid Provider	Registered Medicaid Provider	Enables Medicaid and non-Medicaid providers access to a EMR solution that is integrated to the NHIE services Delivers ‘meaningful use’ capabilities Low cost option for PCPs without existing EMR systems

Event/Subscription Based NHIE Services	Service Recipient	Potential Service Payers	Value Proposition
Broadband Services	Care Delivery Organizations	Care Delivery Organizations	Provides access to high speed network for connectivity needed to participate in the HIE and other related programs Support for the care delivery organizations in the rural and frontier geographies of Nevada
Health Insurance Exchange (HIX) Shared Services	State of Nevada, Silver State HIX (SSHIX)	State of Nevada, Silver State HIX (SSHIX)	Services implemented by NHIE that can be utilized by SSHIX as a shared service thereby reducing the initial investment to be made by SSHIX. Potential service areas include: Provider Directory/EMPI; Person Directory/EMPI/Identifier; Secure Messaging; Care Data Access (if needed); Consent Management (if needed)
HIE Registration	Registering HIE	Registering HIE	The list of HIEs will be known to the health community Facilitates electronic sharing of patient data between providers
HIE Certification	Requesting HIE	Requesting HIE	Ensures that HIE participating in the NHIE and NHIN will be operating within the standards and governance rules agreed within the State
Trusted Infrastructure Subscription	Registered providers and HIEs	Registered providers and HIEs	Trusted Infrastructure enables communications and understanding of health data transactions: Message Registration Service: Identifies the message standard(s) supported by NHIE for use by a sender/receiver for each specific transaction type (e.g., Reno PCP Practice sends/receives HL7 V2.5 lab orders/results with LOINC) Translation Service: For HIE parties that are not able to communicate via the selected NHIE standard message implementations, a translation service would be used to make the transactions understandable for sender and receivers.
Public Health Summary / GIS Mapping	HIE Business	Requester	Access to Public Health Threat Trends in form of geographic mapping

While engaging the stakeholders, NHIE will assess the HIE Services to be offered and the potential revenue these services would offer NHIE. Figure 3-4 depicts one of the assessment models to be used in evaluating the NHIE Services opportunities and Figure 3-5 presents some of the assessment criteria to be considered in this initial assessment and market evaluation of the services.

Figure 3-4. NHIE Service Evaluation Framework

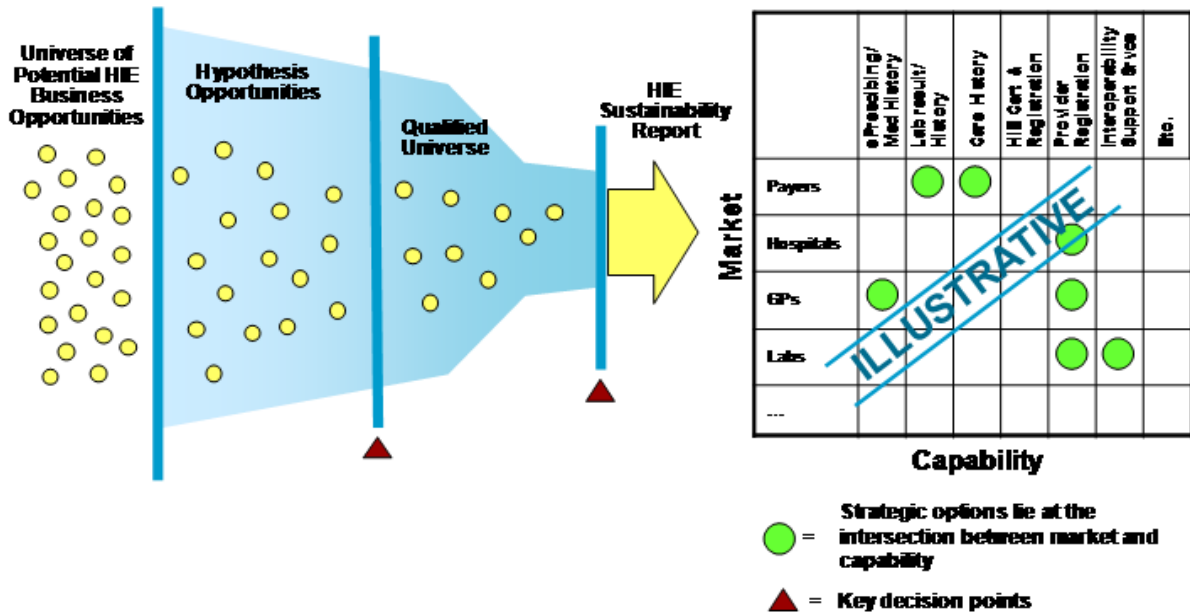
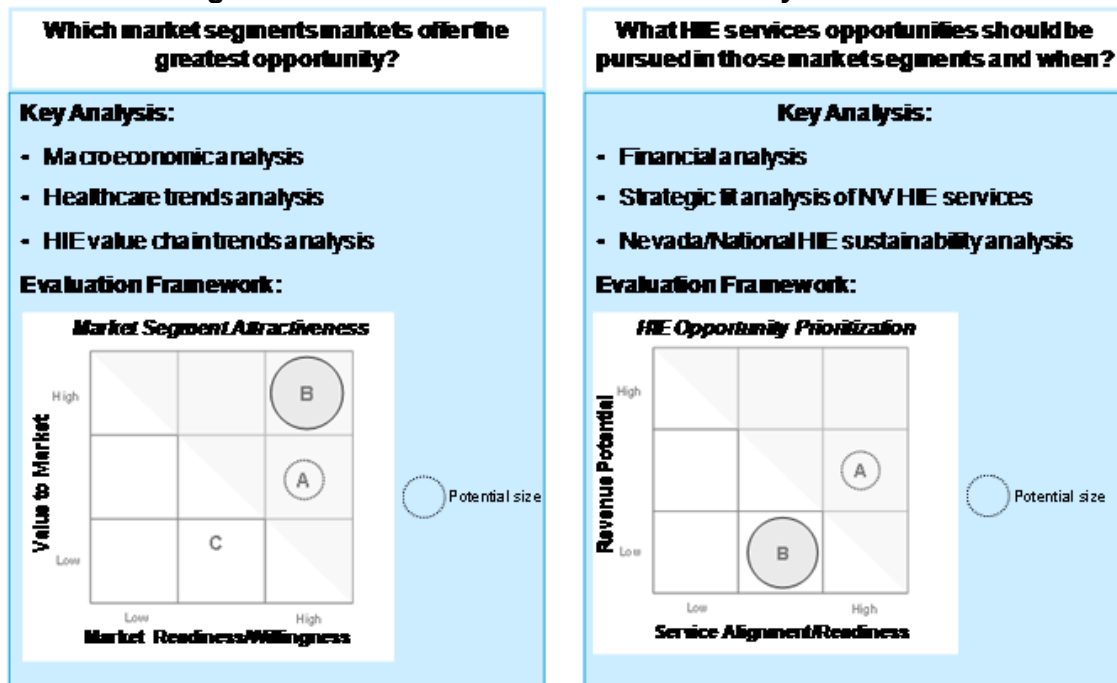


Figure 3-5. NHIE Service Assessment Analysis Models



3.3.2 Stakeholder On Boarding Plan

Parallel and in iteration with the development of the NHIE service portfolio, NHIE will develop a stakeholder on boarding plan. This on boarding plan will map the different stakeholders groups (e.g. hospitals, physicians, labs, public health organizations, etc.) to be connected to the statewide HIE system and which services they will subscribe to over time. **Figure 3-6** is an

example of NHIE On Boarding plan. The plan will be a useful tool to target stakeholders in connecting to the HIE system, but also the estimate future revenues. Participants subscribing to NV DIRECT will be the first group of stakeholders to be populated in the Provider Directory. NHIE staff will develop and populate the plan in collaboration with the Board of Directors and apply guidelines that will ensure a conservative but realistic view of its future financial sustainability. Key considerations include:

- Subscription of services; In the first year of on boarding it is most likely that stakeholders will only subscribe to the core service to experience the benefits of an HIE and the value it delivers to their organization. After that organizations might consider Value Added Services to expand their subscription.
- Implementation time: depending on provisions set out in the agreement it is most likely that participant will not pay for services before the integration with the NHIE is accomplished. A time window of two to four months should be taken into consideration after signing the agreement before revenues will start to flow into NHIE.
- Critical mass: It will be helpful to determine the critical mass of participants connected to NHIE before the HIE reaches its potential value. It can be assumed that on boarding of participants will increase after that number has been reached.
- Patient consent: In Nevada, residents must proactively opt-in to having their health information shared electronically. The exception to this legal requirement is the State Medicaid population which is considered to be “opted in” by default. Since HIEs have value when there is patient information flowing, the early stages of the NHIE may target Medicaid related information services to rapidly move to securing dependable revenue streams.

NHIE will develop Stakeholder On Boarding Plan and provide to DHHS by April 30, 2013. An updated plan will be updated and delivered to DHHS on the first of each month following through the end of the sub-recipient agreement.

Figure 3-6. Example NHIE Stakeholder On Boarding Plan

Stakeholder On Boarding Assumptions		Total # of stakeholders	2013				2014				2015		
Provider-Based Networks			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
RHIOs and statewide aggregators	5				1								
Large IDNs (more than 1,000 beds, non-RHIO affiliated)	5						1						
Mid-sized IDNs (between 600 and 1,000 beds non-RHIO affiliated)	2												1
Large, independent practices (more than 100 providers)	2		1										
Large FQHC	3									1			
Large Rural Clinics	1												
Large Free Clinics	1												
Local Health Department (70 sites on 1 system, 15 on separate systems)	2												
Qualified Organization Cumulative Total		21	0	1	2	2	3	3	3	4	4	4	5
Estimated Number of Physicians Connecting to NC HIE by QO type													
RHIOs and statewide aggregators (varying number of providers per org)	1,000				1,000								
Large IDNs (varying number of providers per IDN)	500					500							
Mid-sized IDNs (varying number of providers per IDN)	200												200
Large, independent practices (more than 100 providers)	200		200										
Large FQHC (approximately 50 providers per clinic)	300									300			
Large Rural Clinics (approximately 50 providers per clinic)	100												
Large Free Clinics (approximately 50 providers per clinic)	500												
Local Health Department (90 FTEs total across 85 sites)	-												
Total Added per Quarter		-	200	1,000	-	500	-	-	300	-	-	200	
Add estimated growth of connected physicians within Qos over time	721		-	5	29	30	43	44	45	53	55	56	
Annual physician adoption percentage	10%												
Estimated Number of Physicians Connected to NV HIE Cumulative Total		3,521	-	200	1,205	1,234	1,764	1,807	1,851	2,196	2,249	2,304	2,560
Percentage of Nevada Physicians Connected to Statewide HIE		74%	0%	4%	25%	26%	37%	38%	39%	46%	48%	49%	54%
Ancillary Data Sources													
Large Radiology Centers (more than 5 sites)	8				2		2		2		2		
Large Indep Laboratories (more than 5 sites)	4		2		2								
Commercial Payers (6 largest plans)	6	1		1			1		1		1		
Medicaid	1		1										
Cumulative Totals		19	1	4	7	9	11	12	14	15	17	18	18

3.3.3 NHIE Cost Model

In addition to exploring the NHIE revenue potential, NHIE's cost model deserves some attention as well. A way to look at the expenses of an operational HIE is to distinguish costs related with operations, core services and value added service. **Figure 3-7** shows an overview these costs components.

Figure 3-7. Example of NHIE Cost Model Components

Operations	Core Services	Value Added Services
<ul style="list-style-type: none"> Facilities and Operations Finance Human Resources Personnel Legal Services Marketing 	<ul style="list-style-type: none"> Development and Implementation Technology Operation and Hosting Solution Development Services Software Licenses Integration Costs 	<ul style="list-style-type: none"> Licenses Implementation and Setup Costs Hosting Costs Support and other costs

NHIE costs strategies will be aligned with its overall strategy and should provide guidance on costs justification, distribution of cost, and ability to invest in gap filling areas. Some primary costs strategies to be explored are as follows:

- Balance of internal versus external labor: What is a healthy balance in budget for external hiring versus staffing the organization?

- Manageable streams of work: Smaller stream of work will likely be easier to manage and will decrease an overrun on integration and deployment budgets
- Avoid duplicate costs: Allocate costs where they make sense, in a highly federated deployment approach less NHIE staffing will be required.
- Partners: IT vendors, health plans and other organizations could be a partner in NHIE by investing or mitigating risks.
- Self funding value added service: Add on or value added service should be self-funding or even profitable as the existing infrastructure and operations can be leveraged while deploying these services.

NHIE will develop a cost model and provide to DHHS by April 30, 2013. An updated cost model will be delivered to DHHS on the first of each month following through the end of the sub-recipient agreement.

4 Establish Statewide HIE System

NHIE will be responsible for the acquisition and implementation of the technical components that will comprise the Nevada statewide HIE system. To be successful, NHIE must implement HIE technology that will:

- Support high quality, safe, and efficient health care services;
- Deliver HIE-based information services to all providers operating in the State including and especially Medicare and Medicaid providers who will be eligible for incentive payments;
- Ensure the privacy and security of personal health information, both stored and exchanged;
- Enable intra-state, inter-state and nationwide health information exchange;
- Provide for a centralized consumer/patient consent management capability;
- Facilitate two way exchanges of information between the health community and the State of Nevada departments and agencies supporting Nevadans' health (e.g., DFHS of Medicaid care services; Public Health registries such as immunization, cancer; Secretary of State advanced directives);
- Support Meaningful Use requirements (Stages 1, 2, and 3); and
- Support the services and products called for as part of an overall NHIE business model that is financially viable and sustainable without state general funding.

The following subsections address component strategies for the development of the Nevada statewide HIE system.

4.1 Statewide HIE System Requirements

The envisioned Nevada statewide HIE system will be hybrid infrastructure model consisting of the NHIE run statewide HIE system operating in partnership with HIE businesses that are or will

operate within Nevada and neighboring states, as well as a separately developed statewide HIE platform. This strategic approach enables commercial HIE businesses to thrive within the state while the NHIE provides the “HIE of last resort” to ensure equal access to health information services for all residents and health consumers located in the State, and connectivity to the national HIE, eHealth Exchange (formerly NwHIN) to those HIE participants within the state requiring such connectivity for interstate interactions and with Federal Partners including Centers for Disease Control and Prevention (CDC), Indian Health Service (IHS), Veteran Affairs (VA), Social Security Administration (SSA), and the Department of Defense (DoD).

The statewide HIE system to be implemented by NHIE will be based on architecture that is open and utilizes standardized functions within a Service Oriented Architecture (SOA) framework that is compliant with industry standards as well as the State’s implementation of Medicaid Information Technology Architecture (MITA).

For the statewide HIE system, NHIE will implement the core information services that will meet the State HIE Cooperative Agreement requirements.

The broad requirements NHIE must meet for the statewide HIE system are described in Section 10 of the State HIT Strategic and Operations Plan. Minimal elements to be implemented by NHIE include:

- Master Patient Index that support patient identity and merge/split of patient records;
- Provider Directory (Facilities) services that enable master data management of facility information where care is being delivered to one or more patients;
- Provider Directory (Individual) services that enable master data management of information regarding individual care providers who are performing care for one or more patients;
- Access Control Services that automate policy and administrative rights that limit or control access to patient data (e.g., consent management);
- Centralize Consent Management Services that enable the Access Control Services to be made available to inter- and intra-state HIEs;
- Record Locator Services that enable search for retrieval of federated patient data;
- Terminology Engine that normalizes the incoming medical coding and terminology into consistent forms enabling semantic interoperability (i.e., consistent meaning of health information regardless of its source);
- Messaging and Interoperability Services that enable reliable and secure flow of information via standard messages that are implemented utilizing open interoperability standards and follow interoperability profiles defined by IHE (Integrating the Health Enterprise);
- Clinical Portal Services that enable authorized providers and other care givers to view a personal health record via a user interface that facilitate quick and easy understanding of a patient’s health status and history while enabling easy access to detail care information;

- Federal Partner Gateways Services that are certified and meet agreed integration standards for the sharing of patient information between HIEs operating in Nevada and the Federal Partners;
- State Agency Gateway Services (e.g., Medicaid, Immunization, etc.) that are certified and meet agreed integration standards for the sharing of patient information between HIEs operating in Nevada and the various health registries and health programs;
- Security Controls including authorization, authentication, access, audit, and breach reporting, and
- Performance Reporting Services that provide access to operational information about the HIE (e.g., numbers of messages by message type, by provider type; number of users by type, system outages, etc.).

Optional elements to be implemented by NHIE include:

- EHR for Physician Practices;
- Analytic Services;
- Clinical Decisions Support Services;
- Specialist Portal Services (e.g., emergency services, urgent services, etc.);
- Clinical Alerts and Notifications – Providers;
- Clinical Alerts and Notifications – Payers for Managed Care;
- Clinical Alerts and Notifications – Patients; and
- Telehealth/Telemonitoring Support Services (e.g., messaging, portals, storage of clinical data, etc.).

NHIE will expand, as necessary, the above requirements to create a set of procurement ready requirements that will be incorporated into the request for proposal (RFP) that will be used to select one or more HIE vendors. Before being issued, the RFP will require the approval of the State Health IT Coordinator, as the State HIE Cooperative Agreement Principal Investigator.

4.2 Procure Statewide HIE System Capabilities

For the procurement of the statewide HIE system, NHIE will be required to contract with a HIE services vendor to deliver the HIE capabilities required. Due to minimum initial funding, it will be necessary to acquire HIE capabilities as a software as a service (SaaS) rather than acquiring the technical infrastructure assets, software licenses, and data center facilities necessary. Key deliverables for this stage of work include:

- Summary of key HIE system requirements based on initial information sessions conducted with HIE vendors;
- Request for Proposal for Statewide HIE System;
- Statewide HIE System Selection Evaluation Criteria;
- Statewide HIE System Contract;

- Production Ready Statewide HIE System (includes Development, Test, Production, Business Continuity, and Demonstration environments);

4.3 Implement Core Statewide HIE System Capabilities

As described in the State HIT Strategic and Operations Plan, NHIE will hire and contract for the resources necessary to implement the core functionality of the statewide HIE system. This functionality must include Direct Secure Messaging.

Following this implementation effort, NHIE will be ready to begin integration efforts to connect systems of Qualified Participants (e.g., State agencies, other HIEs, hospitals, physician practices, labs, payers, etc.).

4.4 Transition NV DIRECT from DHHS to NHIE

By October 1, 2013, NHIE will complete the transition of the DHHS implemented NV DIRECT service to the Direct secure messaging services operated by NHIE. In early 2013, DHHS will implement Secure Direct Messaging services in collaboration with Orion Health which donated their DIRECT solution and hosted services for a period not to exceed September 30, 2013.

NHIE will transition the NV DIRECT services from the Orion Health platform to the DIRECT Secure Messaging service of the platform selected by NHIE. This transition effort includes, but is not limited to:

- Migration of all NV DIRECT addresses for enrolled users;
- Migration of all NV DIRECT logon credentials for enrolled users (i.e., user identifiers and passwords);
- Migration of all NV DIRECT saved and historic messages for enrolled users;
- Provision of awareness communications to all enrolled NV DIRECT users; and
- Provision of training and reference materials for the new Secure Direct Messaging service (e.g., logon, user interface, etc.).

4.5 Integrate Statewide HIE System with NHIE Customers

Following the successful implementation of the core HIE capabilities of the statewide HIE system, NHIE will integrate with the customers of the HIE services. Integration efforts will utilize open interoperability standards and follow interoperability profiles defined by IHE (Integrating the Health Enterprise).

As part of an onboarding process for new Qualified Participants, NHIE customers will work with NHIE technical staff to build the messages necessary to integrate with the statewide HIE. The expected NHIE customers include, but are not limited to:

- Nevada State Medicaid (e.g., population health, individual care management, notifications, etc.).
- Nevada State and Local Public Health agencies (e.g., immunization registry)

- Commercial/private HIEs (i.e., end-to-end integration of EHR to HIE to HIE to EHR).
- Federal health partners (e.g., Veteran Affairs, Indian Health Service, DoD, NIH, CDC, etc.).
- Health plans/payers (e.g., HMOs, PPOs, ERISAs and PEBP, etc.).
- Healthcare providers (e.g., physician practice and hospital EHRs, closed IDN HIEs, specialist EHRs, dentists, etc.).
- Accountable Care Organizations (ACOs).
- Patient consumer organizations (e.g. ACLU of Nevada, AARP, State Office of Consumer Health Assistance, and Health Insurance Plans, etc.).
- Education and research entities (e.g., NSHE, Nevada Cancer Institute, Nevada State College, and Touro University, etc.).
- Broadband projects and providers (i.e., the Nevada Hospital Association, the Nevada Broadband Task Force, and broadband service providers).
- Others to be identified.

4.6 Validate Statewide HIE System Capabilities

NHIE will be required to validate the statewide HIE system each time there is new functionality introduced and each time a new Qualified Participant is brought online. Validation efforts include the following:

- **Core HIE Services Testing.** All elements of the core HIE solution must be validated to demonstrate functionality and performance. Key elements to be validated include, but are not limited to:
 - Master Patient Index;
 - Provider Directory – Facilities;
 - Provider Directory – Individual;
 - Access Control Services;
 - Centralize Consent Management;
 - Record Locator Services;
 - Terminology Engine;
 - Messaging and Interoperability Services;
 - Clinical Portal Services;
 - Federal Partner Gateways Services;
 - State Agency Gateway Services
 - Clinical Data Repository Services;
 - Security Controls;
 - Performance Reporting.

NHIE will attest to the completion of Core HIE Services Testing by November 30, 2013 and will make available, upon request, test scenario and test result documentation.

- **NV DIRECT Testing.** Validate that existing functionality (as implemented by DHHS) is at least comparable to the new implementation. Validate message delivery, message audit logs, reporting, and user authentication.

NHIE will attest to the completion of NV DIRECT Testing by September 30, 2013 and will make available, upon request, test scenario and test result documentation.

- **Statewide Interoperability Testing.** All elements of each interface developed and implemented for all Qualified Participants works as defined and agreed with the Qualified Participant. Key elements to be validated include, but are not limited to:
 - Messaging Service. Testing will entail sending and receiving test data between NHIE and the Qualified Participant.
 - Consent Management. Verify that variance patient consent options properly limit the sending and viewing of patient data based on user profiles.
 - Record Locator Service. Verify that all valid patient records (e.g., considering patient consent, proper patient indices, etc.) are properly retrieved and displayed via the clinical portal.
 - Terminology Services. Verify terminology services are properly configured to provide clinically valid results.
 - Federal Partner Gateways Services. Following ONC certification, test with each Federal partner to validate ability to safely exchange patient data.
 - State Agency Gateway Services (e.g., Medicaid, Immunization, etc.). Test with each State agency to validate ability to safely exchange patient data.
 - Clinical Data Repository;
 - Security Controls including Authorization, Authentication, Access, Audit, and Breach Reporting, and

At the conclusion of each Qualified Participant interface implementation, NHIE will attest to the completion of Statewide Interoperability Testing by December 31, 2013 and will make available, upon request, test scenario and test result documentation.

- **Performance Testing.** Verify that clinical portal response times are within agreed service levels. This validation should be done while simulated stress is applied to duplicate a scenario of high usage.

NHIE will attest to the completion of Performance Testing by November 30, 2013 and will make available, upon request, test scenario and test result documentation.

5 NHIE Operations

NHIE will need to establish a comprehensive set of operational functions to fulfill the sub-recipient agreement. The required functions have been divided into the following three categories:

- Operate Statewide HIE System
- Operate NHIE Business
- Performance Reporting

NHIE may organize itself as it sees fit to fulfill these operational requirements.

5.1 Operate Statewide HIE System

5.1.1 Consumer Support Services

NHIE will need to establish a set of contact center services (e.g., online, toll free call center) available to consumers/patients access to information and support that would include (at a minimum) the following:

- Patient Consent Management: Enables individuals to selectively choose to allow their health information to be shared electronically via the HIE services offered by NHIE or by Qualified Participants of NHIE. Patients may elect to have their data made available via HIE services. Per NRS 439.591, a patient's health information may not be shared electronically without their consent. However, patient information about Medicaid beneficiaries can be shared electronically without their consent, per NRS 439.538. NOTE: The electronic sharing of patient data is protected under HIPAA and other State statutes and regulations.
- Health Record Requests: Enables individuals to get a paper or electronic (e.g., CCD) version of their electronic health record as is known to NHIE at the time.
- Health Record Amendments: Enables individuals to submit amendments to their health record which they believe are necessary to correct or clarify the information on the electronic health record accessible via NHIE.
- Health Record Access Audit Log Requests: Enables individuals to receive a list of people that have accessed their electronic health record via the NHIE. NOTE: This requires an ability to gather this information from across the statewide HIE system of Qualified Participants.
- Complaint Filing Management: Consumers and patients have the right to submit complaints about the usage of NHIE services to exchange their protected health information. Customer support must be able to accept these complaints, assign actions to develop responses, track the complaint and response, and deliver a response to the individual. A reporting capability will be required.
- Data Breach Alert from Consumers: NHIE customer support must be able to receive, investigate, track, and respond to consumers and patients that believe there has been a breach of their health data. This process, depending on the results of the investigation, may trigger NHIE to launch a Data Breach alert to consumers and HHS.
- Data Breach Reporting to Consumers & HHS: Should NHIE detect or determine that protected health information has been improperly accessed, tampered with, or otherwise

breached, then NHIE Customer Support will need to announce this to consumers and to US Department of Health and Human Services (HHS).

5.1.2 Security Management

Security related guidelines, policies, and procedures will be needed to minimize the risks of inappropriate access to personally identifiable health information. All necessary precautions need to be implemented both from a technical perspective as well as from an operational perspective. The processes and tools necessary to implement required security measures will be tightly coupled with the capabilities of the selected HIE Vendor. As such, NHIE must include these requirements in the contract with the HIE Vendor and ensure that the HIE Vendor implements, supports, operates, and maintains required security functions as well as security management capabilities.

By December 31, 2013, NHIE will provide DHHS with a detailed plan/process definition that demonstrates how Security Management will be performed.

5.1.3 Provider Directory Maintenance

The provider directories (both facility and individual) will be supported by the selected HIE vendor's technical solution, but the content of the NHIE Provider Directory will require manual intervention to assure its reliability as a dependable source of provider identification information. Individual providers and provider facilities will be identified within the patient health information messages exchanged between parties in the statewide HIE system. As these messages flow to/through NHIE, the automated directory services will attempt to match identifiers to known providers in the existing NHIE provider directory. When there is a match, then the NHIE directory is updated to reflect a new index is now known for an existing provider.

When there is no match, there are several possible next step scenarios, one of which must be taken by NHIE.

- First, the mismatch may indicate that this is a new provider to be added to the directory. This will require manual intervention to build a complete entry in the provider directory (e.g., name, address, etc.).
- Second, the mismatch may indicate that the information is not sufficient to match to an existing provider entry. In this case, manual intervention will be needed to update the directory so the matching occurs properly.
- Third, the mismatch may indicate an improper provider identifier. This will require research by NHIE to determine cause of mismatch and escalation to source of record, or to the State.

A separate element of provider index maintenance is the rules and algorithms that determine how provider and facility identities are resolved to determine whether or not to combine provider/facility records or to maintain them as separate records. Over time, the nuances of the Nevada demographics will be discovered and used to tune these business rules and algorithms to increase effectiveness of the automated matching. It is expected that the initial rules will be defined conservatively to minimize the risk of incorrectly combining provider/facility records (a major health information disclosure risk concern). This will cause more manual intervention (as described above), but during the manual intervention process it will be important that NHIE

observe patterns in matching that can be used to revise matching rules and improve automated matching within the provider indices.

By December 31, 2013, NHIE will provide DHHS with a detailed process definition that demonstrates exactly how the Provider Directory will be maintained.

5.1.4 Patient Index Maintenance

The master patient index (MPI) will be supported by the selected HIE vendor's technical solution, but the content of the NHIE MPI will require periodic manual intervention to assure its reliability as a dependable capability for matching and combining patient identification information. Patients will be identified within the health information messages exchanged between parties in the statewide HIE system. As these messages flow to/through NHIE, the automated MPI services will attempt to match identifiers to known patients in the existing NHIE MPI. When there is a match, then the NHIE MPI is updated to reflect the new index that is now known for an existing patient.

When there is no match, there are several possible next step scenarios, one of which must be taken by NHIE.

- First, the mismatch may indicate that this is a new patient to be added to the MPI. This may require manual intervention to build a complete entry in the provider directory (e.g., name, address, etc.).
- Second, the mismatch may indicate that the information is not sufficient to match to an existing patient entry. The issue could be that the information relates to two individual records that are about the same person, but reliability of the automated match is not sufficient to combine data into a single record (i.e., risk of creating multiple records for a single individual). Alternatively, the issue could be that the automated match relates to two records that are for two different individuals, but the reliability is not sufficient to confirm that this is the case (i.e., risk of creating duplicate records). In these cases, manual intervention will be needed to update the directory so the matching occurs properly.

Note that, the most common message type expected to provide MPI updates are Admission-Transfer-Discharges (ATDs). In addition to clinical data, these messages will provide the patient demographic information needed to perform the matching described above. In addition, these messages include the information about the provider providing the care. This information is used to establish the patient-provider relationship that is essential to controlling access to personal identifiable health information.

A separate element of MPI maintenance is the rules and algorithms that determine how patient identities are resolved to determine whether or not to combine patient records into a single electronic health record or to maintain them as separate patient records. Over time, the nuances of the Nevada demographics will be discovered and used to tune these business rules and algorithms to increase effectiveness of the automated matching. It is expected that the initial rules will be defined conservatively to minimize the risk of incorrectly combining patient records (a major health risk concern). This will cause more manual intervention (as described above), but during the manual intervention process it will be important that NHIE observe patterns in matching that can be used to revise matching rules and improve automated matching within the MPI.

By December 31, 2013, NHIE will provide DHHS with a detailed process definition that demonstrates exactly how the Master Patient Index will be maintained.

5.1.5 HIE Supplier Management

It is anticipated that NHIE will contract for the implementation, validation, and operation of the statewide HIE system. As such, NHIE will need to establish robust supplier management processes to establish, monitor, and control the work performed by the vendor(s) that are contracted by NHIE. Key elements of the HIE Supplier Management function include:

- **Contracting:** All vendor relationships will be formalized in contracts that will include standard terms and conditions, flow down terms and conditions from sub-recipient agreement, statement(s) of work that describe expected work and/or services to be performed, NHIEs responsibilities, key assumptions, billing and payment terms, termination clauses (rights to terminate at convenience or for cause), and cost recovery for early termination;
- **Change Control:** Over the course of a vendor contract, it is possible that the products or services needed by NHIE may change. As such, it is imperative that strong change control mechanisms and processes be in place to document the changes. This includes forms, flow of approval, levels of approval required, timeframes for submitting and approving changes, etc. The change control process should be referenced within the vendor contract.
- **Service Level Management:** Depending on the vendor service, NHIE will need to define a set of operational measures the vendor will be expected to meet over varying periods of time. The measures and periods of time will comprise the Service Level Agreements (SLAs) that will govern the ongoing relationship between NHIE and the vendor. Examples include system availability (i.e., limited down time), defined times for maintenance, system response times, help desk response times, effectiveness of business continuity (e.g., testing of system restore in case of catastrophic event), etc.

By August 31, 2013, NHIE will provide DHHS with a detailed process definition that demonstrates exactly how the selected HIE Vendor(s) will be managed over the course of the contract as well as all service level monitoring and enforcement.

5.1.6 HIE Performance Reporting

There will be a wide variety of performance reporting requirements. During service implementation, NHIE will want to receive periodic (e.g., weekly) status reporting on the progress of the implementation effort as well as risks, issues, and change control items. Following implementation, operational reports will be required to understand use of services being provided and the operational performance of those services (e.g., average response time, response time at peak loads, patient index matches, patient index mismatches, number of transaction by transaction type, etc.). In addition, NHIE will be required to provide DHHS operational information regarding HIE performance.

A critical element of performance reporting will be the constant monitoring and periodic reporting of the performance of the interfaces to the NHIE customer base. The sustainability model for NHIE depends on top quality performance of the core services. Message availability and delivery will be the primary measure of success. When an interface goes down (i.e., is no longer operational and available), NHIE must be able to provide instantaneous response and get

the interface operational rapidly. Detailed reporting of interface availability and downtime, by NHIE customers, will likely be part of the SLAs between NHIE and its customers.

By December 31, 2013, NHIE will provide DHHS with a detailed process definition and summary of HIE performance reports to be made available by the HIE Vendor(s) that demonstrates exactly how HIE performance reporting will be performed.

5.1.7 HIE Integration Maintenance

Following the initial implementation of the core HIE system, NHIE and/or a contracted vendor or set of vendors will develop and validate the interfaces between NHIE and the NHIE customers (e.g., state agencies, hospitals, provider practices, laboratories, payers, etc.). Following that initial interface implementation, NHIE, or its vendor(s), will need to continue to maintain the interface definition to account for changes to the messages being exchanged (i.e., revisions to acceptable values, new formats and/or standards).

By December 31, 2013, NHIE will provide DHHS with a detailed process definition and staffing plan that demonstrates exactly how HIE interfaces will be developed, tested, implemented, and maintained. Under no circumstances will NHIE agree to HIE Vendor integration services that make the NHIE dependent solely on the selected HIE Vendor for integration services (i.e., NHIE must always have the option of developing HIE interfaces themselves and/or contracting with alternative HIE Vendors for such integration services).

5.2 Operations

5.2.1 Strategic Planning

The NHIE business will include an annual (minimally) strategic plan update. The strategic plan must reference the State Health Information Technology Strategic and Operations Plan (SOP) and must support the implementation of the SOP during the course of this sub-recipient agreement.

By June 30, 2013, NHIE must establish a strategic planning process including, but not limited to:

- Timing of strategic planning efforts;
- Time horizon for the NHIE Strategic Plan (e.g., 2-3 years);
- Key elements of the Strategic Planning document;
- Outline approach for creating the Annual Strategic Plan update with DHHS; and
- Required input from key constituents (e.g., NHIE Qualified Participants); and
- Required approvals (e.g., DHHS, NHIE Board of Directors).

5.2.2 Public Relations Management & Communication

NHIE Public Relations (PR) Management will use various communication approaches as the primary tools to further the following NHIE Public Relations goals:

- To stimulate public interest and sustain awareness of NHIE as an independent, trusted, and valued member in the Nevada health community;
- Through awareness, understanding, and education, NHIE will generate a sufficient level of confidence among Nevadans in the NHIE's safe and secure stewardship of personal

health information, resulting in a consistently high level of patients “opting-in” to sharing their health information electronically;

- To respond quickly and accurately to media questions regarding NHIE services and results;
- To align with NHIE marketing strategy by generating appropriate publicity through increased awareness, understanding, and education;
- To set and manage common standards of external communication excellence to the public.

Communication must be planned in sufficient detail to ensure consistency of message, optimal use of communication media and resources, and alignment of appropriate theme and message with the targeted audience. The initial communication strategy and tactical communication plan, developed by DHHS is available in the draft NHIE Operational Framework and Guidelines document. Communication, by its nature is perishable. News and information can become stale. Therefore, the Communication Plan should be constantly appended to reflect updated messages, and evolving themes.

By April 30, 2013, NHIE will provide DHHS with a detailed process definition and budget that demonstrates how public relations and communications will be performed minimally through February 7, 2014.

5.2.3 Internal IT Service Management (non-HIE)

NHIE staff will require access to information technology services in the same way all businesses do. As such, NHIE must incorporate operational services for PCs, network/internet access, desktop applications, email services, financial management, human resources, document management, etc.

5.2.4 HR Management

NHIE, as any business, will need operational capabilities for hiring staff, paying staff, providing benefits to staff, and managing staff ongoing performance.

5.2.5 Facilities Management

Depending on timing and need, the NHIE staff will require office space to perform their work efficiently. The NHIE will be responsible for the management of these facilities (e.g., physical security in accordance with HIPAA, supplies, furniture, phone services, etc.).

5.2.6 Financial Management

NHIE will have significant financial obligations to meet and, accordingly, will have significant revenue income to manage (e.g., .bill, collect, account, etc.) to pay for those obligations. NHIE is expected to create the financial management processes required for this internal operational requirement. In addition, these operational requirements include sub-recipient management in which NHIE will be accountable to DHHS.

Some expected revenue streams include:

- Payments from NHIE Qualified Participants;
- Payments from sponsors (e.g., pharmaceutical companies, medical device companies, etc.);
- Payments from grants; and
- Payments from third party partners for service delivery (e.g., labs).

Note that with grants as a key source of income, the financial management processes must include those required to support federal and state grant management and reporting requirements.

5.2.7 Overall Operations Management

NHIE requires that there be an overarching management function in place to ensure that all elements of the NHIE business are working in a coordinated and efficient manner across the processes associated with the statewide HIE system and non-HIE operations. NHIE must implement internal guidelines and processes necessary to properly control the growth of the operations relative to the extent that requirements (e.g., customer, grant, etc.) are being met and which revenues are able to sustain the operational costs.

5.2.8 Vendor Management

NHIE will be dependent on a number of vendors for the IT services required for the operations of the business and the HIE infrastructure. It is essential that NHIE manage their vendors closely and collaboratively to ensure NHIE customers are delighted with services and service levels. NHIE must properly manage their vendors. Key elements of vendor management include, but are not limited to:

- Contract negotiations;
- Establishing strong service level agreements (SLAs);
- Creating strong relationships with vendor account managers;
- Strict monitoring of service performance against SLAs (e.g., system response times, access to audit trails, system availability, etc.);
- Spot checking help desk services to understand customers' experience with NHIE;
- Proactively communicating current and future needs as well as associated expectations from vendors; and
- Listening to new service offerings in relation to NHIE Strategy and Services Portfolio.

By July 31, 2013, NHIE will provide DHHS a detailed process definition that demonstrates how vendor management will be performed by NHIE.

5.3 Performance Reporting

While the governance of the NHIE has been and will continue to be designed to maximize transparency and public/private collaboration, a comprehensive set of measures and monitoring programs will be required to ensure the full benefits of the statewide HIE system are being realized and effectively communicated with our federal grantor, ONC. To this end, NHIE will be required to follow the guidance set forth in PIN 003, specifically the sections pertaining to Program Evaluation within the State Health IT Strategic and Operational Plan.

5.3.1 Establish Measures (Program Evaluation)

To address Program Evaluation, DHHS has developed the required Program Evaluation Plan which is attached as Appendix I of the State Health IT Plan. Please refer to that document for the approach that NHIE will be required to implement.

5.3.2 Perform Monitoring

DHHS will be tracking progress on a number of dimensions in response to various stakeholders including federal stakeholders and the Governor. The objective is to demonstrate the achievement of practical measures in relation to the financial and time investment made by the stakeholder groups and the federal ARRA funds. NHIE will be required to support all monitoring requirements.

For the statewide HIE monitoring, the following table (modeled on requirements from PIN 003) depicts the progress being achieved against the defined targets.

Program Priority	Report June 2012	
	Status as of December, 2011	Target for December, 2012
1. % of pharmacies participating in e-prescribing	93.3%	95%
2. % of labs sending electronic lab results to providers in a structured format ¹	97% (91 of 94)	97% (91 of 94)
3. % of labs sending electronic lab results to providers using LOINC	97% (91 of 94)	97% (91 of 94)
4. % of hospitals sharing electronic care summaries with unaffiliated hospitals and providers	34.7%	37%
5. % of ambulatory providers electronically sharing care summaries	21%	23%
6. Public Health agencies receiving ELR data produced by EHRs or other electronic sources in HL7 2.5.1 format with LOINC and SNOMED	No	No
7. Immunization registries receiving electronic immunization data produced by EHRs in HL7 2.3.1 or 2.5.1 formats using CVX codes	Yes	Yes

¹ **Structured format:** Documentation of discrete data using controlled vocabulary, creating fixed fields within a record or file, or another method that provides clear structure to information (is not completely free text).

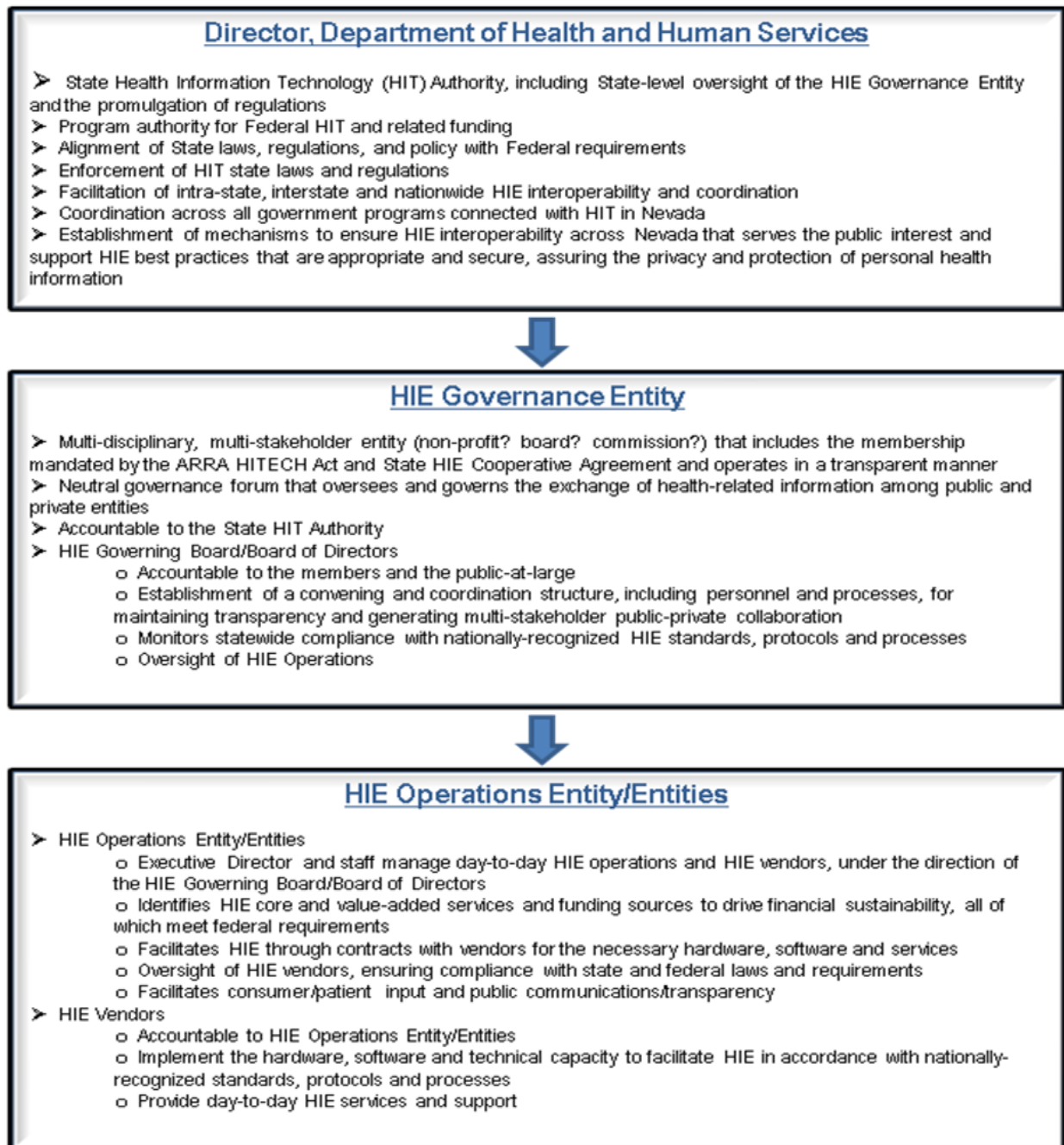
	Report June 2012	
Program Priority	Status as of December, 2011	Target for December, 2012
8. Public Health agencies receiving electronic syndromic surveillance data from hospitals produced by EHRs in HL7 2.3.1 or 2.5.1 formats (using CDC reference guide)	NV Public Health Authorities do not accept syndromic surveillance data.	NV Public Health Authorities do not accept syndromic surveillance data.
9. Public Health agencies receiving electronic syndromic surveillance ambulatory data produced by EHRs in HL7 2.3.1 or 2.5.1 formats (using CDC reference guide)	NV Public Health Authorities do not accept syndromic surveillance data, and there are no plans to do so	NV Public Health Authorities do not accept syndromic surveillance data, and there are no plans to do so

6 Nevada HIE Governance

Pursuant to NRS 439.588, NHIE is the governing entity for Nevada's statewide HIE system in collaboration and coordination with DHHS. This public-private partnership will foster close and effective collaboration between the public and private sectors. This governance model recognizes and builds on many of the current collaborations across the State. The governance model is designed to enhance and uphold the public's trust through transparent (publicly posted, easily understood, and readily available) and effective use of public funds.

Figure 6-1. Proposed Nevada HIE Governance Structure*

Figure 6-1. Proposed Nevada HIE Governance Structure*



**Pursuant to the ARRA HITECH Act and State HIE Cooperative Agreement requirements.*

In **Figure 6-1**, NHIE will take the roles identified and described as *HIE Governance Entity* and *HIE Operations Entity*.

The rest of this section describes the governance requirements NHIE must fulfill as part of the sub-recipient agreement.

6.1 Support for the Establishment of Nevada HIE Regulations

NRS 439.581-595 authorizes DHHS to adopt regulations regarding the statewide HIE system. NHIE will support the promulgation of these regulations through the engagement of stakeholders to provide input and feedback to DHHS.

6.2 Support for the Privacy & Security Policy

NHIE will be required to develop policy guidance to address privacy and security needs for interoperable health information exchange among NHIE participants, including: consent, authorization, authentication, access, audit, breach, confidentiality, data integrity, and data availability.

6.2.1 Consent

Consumer or patient consent is the process by which consumers control the exchange of their health information through an HIE and can be a tool to allow health care providers access to more complete health information, thereby strengthening the provider's ability to provide informed care and improving care coordination amongst providers.

NHIE will provide input to DHHS for the creation of policies and regulations, pursuant to NRS 439.591 which stipulate how consumers will be able to control the exchange of their electronic health information while balancing privacy considerations with the overall vision of the NHIE and its potential impact on public health, the coordination of care, improved health care quality and ultimately, improved health outcomes as supported by better access to more robust patient data. The NHIE must take into consideration the following for the Nevada consent policy²:

- Meaningful patient control over and protection of their health information.
- Quality, well-coordinated care.
- Delivery of high quality and well-coordinated care.
- Maximal quantity and quality (i.e., utility) of data.
- Protection against liability.
- Minimal administrative burden and cost.
- Maximum patient and provider participation.
- Access to data to facilitate payment and reimbursement for services to both providers and patients and to inform quality improvement activities.
- Maximum flexibility to sustain the exchange.
- Maximum ability to provide value to participants.

² Melissa Goldstein and Alison Rein. "Consumer Consent Options for Electronic Health Information Exchange: Policy Considerations and Analysis." Prepared for the Office of the National Coordinator for Health Information Technology, March 23, 2010.

- Uses of health information available through the exchange.
- Break the glass capability to obtain health information in emergency situations where consumer consent has not been granted.
- Consumer outreach and education efforts related to the consent decision.
- Extent of security, enforcement, and remedies in place.
- A consent framework that complies with HIPAA and NRS 439.581-595.
- Consumer trust:
 - NHIE represents a paradigm shift in the way health information is shared.
 - Consumer trust is paramount to engender public support for NHIE and ensure consumers' interests are protected.
- All Applicable Federal and State laws
- Technical feasibility and cost—generally the cost and technical complexity will increase with requirements to exclude certain types of data and/or providers.
- Administrative burden and implementation cost—deployment of consent policies require varying degrees of involvement, resources, and cost among providers and other HIE participants.
- Finally, NHIE will need to consider consent models from three perspectives: (1) under current Nevada law, (2) under revised or recommended law changes, and (3) ability to address for interstate information sharing.

6.2.2 Authorization, Authentication, Access, and Audit

NHIE will establish policy guidance relative to authorization, authentication, access, and audit for NHIE and HIEs that operate in Nevada. These policies will be critical to facilitating trust among participants in the statewide HIE system that do not have direct relationships or contractual agreements at the individual organization level. NHIE will adopt and comply with established national standards to the extent they exist and are applicable to the NHIE. The privacy and security policies will continue to be evolved by NHIE to afford maximum protection to its participants and the information that flows through the statewide HIE system.

Authorization

NHIE will establish authorization policies and procedures for verifying the identity of all individuals accessing patient health information through the statewide HIE system. The ability of authorized users to access patient health information through the HIE will be based on a minimum set of role-based access standards that apply to all participants. NHIE's authorization policy will, at a minimum, include the following:

- A process and registry for verifying the identity and credentials of individuals seeking authorization to access/exchange health information.

- A set of systems and processes to enable specific access permissions approved for the individual seeking access.
- A process for providing individuals seeking authorization the information and mechanisms to be authorized when accessing/exchanging health information upon approval.

Principles for role based access to be defined including:

- Establish and implement role-based access standards.
- Principles of user access permissions.
- Minimum required role-based access categories.
- Special policy consideration for disaster situations.
- Regular monitoring and updating.
- Termination of access.
- Sanctions for violations of role-based access
- Standards

Authentication

Authentication is the process for verifying that an individual or system that has been authorized and is requesting access to information or services through NHIE is in fact who he or she claims to be. Authentication policies are an important technical security safeguard used to protect patient health information from unauthorized access; the policies establish minimum requirements that participants in the statewide HIE system must follow prior to enabling access to an authenticated individual through the statewide HIE system.

NHIE will adopt and comply with national policies that require a minimum level of authentication for verifying the identity of all individuals accessing patient health information through the statewide HIE system. In establishing the appropriate authentication level, the policy will need to take into account:

- Technical considerations.
- Operational considerations and barriers to adoption.
- Costs.

NHIE will develop a recommendation for authentication, addressing key questions including:

- What should the policies and procedures established through NHIE require as the minimum authentication assurance level?

- Should the policies and procedures mandate use of minimum technologies to support those assurance levels?
- Should the policies and procedures established through NHIE require/allow use of more stringent authentication policies and procedures for sensitive information?

Access

Access policies establish minimum behavioral controls that NHIE will implement to verify that access to patient health information is only granted for purposes consistent with patient consent and with any role-based access standards for which individual users have been authorized.

All Qualified Participants (customers) of the NHIE will be required to follow:

- Training requirements for educating authorized users about the policies and procedures for accessing/exchanging patients' health information through NHIE that meet or exceed the NHIE's basic requirements.
- Common sanction policies to address policy or procedural violations related to access to or the exchange of patient health information through NHIE.
- Standard policies related to user names and passwords, failed-access attempts, periods of inactivity, and other activities to be identified by NHIE.
- Standard policies related to de-provisioning and removal of accounts for departed users.

NHIE will develop policies and procedures that require training for authorized users on use of the statewide HIE system and recommend that training is done by participants as part of HIPAA or other staff training. NHIE should explore the possibility of creating a website with online training materials; and consider whether to require attestation of completion of training (including possible consideration of testing for comprehension), and whether attestation should take electronic or paper form.

Audit

Audits are oversight tools for recording and examining access to information (e.g., who accessed what data and when) and are necessary for verifying compliance with access controls developed to prevent/limit inappropriate access to information. Audit policies will establish minimum requirements that statewide HIE system participants must follow when logging and auditing access to health information through the NHIE.

NHIE will develop an audit policy that requires periodic audits and outlines procedures for audits related to:

- Data access.
- Data integrity.
- System performance.

- Compliance with HIE policies.
- Legal subpoena.

All Qualified Organizations participating in the NHIE will be required to meet or exceed the NHIE Business minimum standards for routine auditing of individual access to patient health information through the system. Minimum standards should address:

- What activity and information must be logged.
- How long logs must be retained.
- Frequency of audits and who must conduct them.
- Minimum sample size for audits.
- Public availability of audit results
- Minimum security of audit logs.

Audit policies should be sensitive to limited resources of smaller HIE participants, and may be made scalable (e.g. larger participants expected to implement more intensive activities than smaller participants) if appropriate.

Breach

A breach is, generally, an impermissible use or disclosure under the HIPAA Privacy Rule that compromises the security or privacy of the protected health information such that the use or disclosure poses a significant risk of financial, reputational, or other harm to the affected individual.

The success of NHIE is dependent on participants' trust that the exchange is secure and that personal health information will be protected. The assigned workgroup(s) will establish policies, procedures and security standards to prevent security breaches from happening in the first place, but if a breach or suspected breach does occur, NHIE will need to be prepared by adopting a set of policies and procedures for both NHIE and participating Qualified Participants to facilitate swift resolution.

Principles for breach management that need to be defined include:

- Compliance with State and Federal laws.
- Need for accountability.
- Commitment to preventing breaches.
- Implementation of a breach notification policy and breach plan by NHIE.
- Implementation of a breach plan by participant in NHIE.
- Obligation of participants to report actual and suspected breaches.

- Minimize burden on participants.

6.2.3 Confidentiality, Integrity and Availability (CIA)

NHIE will only collect, use, and/or disclose individually identifiable health information to the extent necessary, the data quality and integrity will be reasonably protected, and individually identifiable health information will be protected with reasonable administrative, technical, and physical safeguards to ensure its confidentiality, integrity, and availability and to prevent unauthorized or inappropriate access, use, or disclosure.

The CIA framework is a widely used benchmark for evaluation of information systems' security, focusing on the three core goals of confidentiality, integrity and availability of information:

- **Confidentiality.** Protection of information from being viewed or read by individuals who should not access it. Loss of confidentiality can happen physically (for example, theft) or electronically (for example, lack of encryption or lack of protection against spyware).
- **Integrity.** Protection of information from being modified without the modification being authorized. Unauthorized modification of information can be intentional or accidental. In addition to human error or malicious intent, accidental integrity loss can happen at a system level (for example, file deletions caused by a computer virus).
- **Availability.** Assurance that information is available to be accessed when a user attempts to access it. To support its commitment to the principles of CIA, NHIE will:
 - Develop a policy/approach, in partnership with assigned workgroups and in alignment with its breach policy, regarding data encryption.
 - Develop a policy on data integrity, including defining NHIE's role in protecting data integrity and specifying a set of expectations for participants in the statewide HIE system related to implementing data corrections once misinformation is identified.
 - Develop a set of requirements for participating organizations in the statewide HIE system related to ensuring availability of data, including expectations for organizations from whom data will be sought (depending on the adopted technical model) and timeframes for availability, response times, and scheduled down times for maintenance.

6.3 Promote Adoption of HIEs and EHRs

In 2010 and 2012, the State conducted a HIT survey that identified key opportunities to bolster EHR adoption and utilization of by providers as well as participation in the statewide HIE system that will operate in the State. It is expected that NHIE will implement Stakeholder Operations that will capitalize on these opportunities. Specifically, NHIE is expected to:

- Collaborate with DHHS for education and awareness activities:
 - Facilitate ongoing coordinated communication of State-level HIE efforts and activities with providers and consumers;

- Provide detailed information about statewide HIE capabilities;
- Ongoing education about the benefits of EHRs and HIE in clinical practice; and
- Enhance provider awareness of the value of EHR adoption as a means of streamlining business processes and creating more efficient health care practices.
- Enhanced stakeholder participation to:
 - Minimize and mitigate rumors and incorrect information;
 - Augment trust-building and buy-in efforts;
 - Obtain stakeholder feedback for HIE implementation and supporting meaningful use; and
 - Engage consumers to better understand their wishes and concerns while encouraging their participation in HIEs (i.e., providing consent; “opting in”).

7 Sub-Recipient Award Disbursements

Disbursements made under this sub-recipient award will be made in accordance with DHHS policies and procedures regarding federal grant sub-recipients and based on approval of the NHIE proposed budget.

8 Deliverables Summary

The Nevada Health Information Exchange (NHIE) will perform the work designated by this Sub-Recipient Award under the direction of the State Health IT Coordinator, as the State HIE Cooperative Agreement Principal Investigator.

Deliverable anticipated due dates have been established with reasonable care and based upon the current requirements. If it is determined that deliverable due dates require adjustment, prior approval by the State HIT Coordinator, as the State HIE Cooperative Agreement Principal Investigator is required.

The following table summarizes key deliverables the NHIE (as a sub-recipient to the State HIE Cooperative Agreement) will be responsible for delivering to DHHS.

Summary of Required Deliverable	Anticipated Due Date
Nevada Health Information Exchange (NHIE) Business Operations	
• Progress and Financial Reporting to DHHS (monthly, quarterly and semi-annually)	March 10, 2013
• Initial business model based on draft provided by DHHS	March 31, 2013
• Initial staffing plan	March 31, 2013
• HIE Service Portfolio and Cost Model	April 30, 2013
• Stakeholder On Boarding Plan	April 30, 2013
• Final Communications Plan based on draft provided by DHHS	April 30, 2013
• Final Governance and Operations Manual	TBD
• Audited Financial Statement by independent auditors.	June 30, 2013
• Strategic Planning Process	June 30, 2013
• Financial Sustainability Plan	July 31, 2013
• Detailed Vendor Management Process	July 31, 2013
• Plan for implementing operational financial management capabilities	July 31, 2013
• Pricing Model	August 31, 2013
• Implement an audit and control process	TBD
• Information Security Plan	TBD
• Consent Management Plan	TBD
• Authorization, authentication, access and audit policies and procedures	TBD
• Business Continuity and Disaster Recovery Plan	TBD
• Security Management Plan	December 31, 2013
• Detailed Internal Procedure for maintaining the Provider/Entity Directory and Master Patient Index	December 31, 2013
Technical Infrastructure to enable Statewide Exchange of Health Information	
• Written process for procuring HIE technical infrastructure	March 31, 2013
• Procure statewide HIE system capabilities to include DIRECT capabilities	July 31, 2013
• HIE Vendor Management process definition	August 31, 2013
• DIRECT secure messaging transition from DHHS	October 1, 2013
• Implement core statewide HIE system capabilities	
• User acceptance testing	October 1, 2013
• Core capabilities fully operational	January 1, 2014
Statewide Health Information Exchange System Governance and Oversight	
• The NHIE Board of Directors will provide governance and oversight of the statewide HIE system in compliance with NRS 439.581-595, and will meet under Nevada Open Meeting Law and in accordance with the NHIE bylaws.	Ongoing

Nevada Health Information Exchange

Governance and Operations

Manual of Guidelines and Processes

State of Nevada

Department of Health and Human Services

Office of Health Information Technology

January 2, 2013

Version 2.0

TABLE OF CONTENTS

Version Control	6
Introduction.....	7
Section 1 – NHIE Operational Framework.....	9
Introduction to the NHIE Operational Framework.....	9
Nevada HIE Vision	9
Nevada HIE Mission Statement.....	9
Principles and Values that Guide NHIE Roles, Responsibilities, and Relationships.....	9
The Nevada HIE Organization Landscape	11
DHHS Director.....	12
Scope of Responsibility.....	12
DHHS Director Responsibilities	12
NHIE Board of Directors (Governing Entity)	14
Scope of Responsibility.....	14
Board Roles and Responsibilities.....	14
(Sub)Committees and Workgroups	15
NHIE Corporation (Governing Body)	17
Scope of Responsibility.....	17
NHIE Corporation Roles and Responsibilities	17
Customer Relationships and Responsibilities	23
Legislation, Statute, and Policy Impacts on Nevada HIE External Relationships and Responsibilities.....	23
Organization Guidelines for Customer NHIE Operations.....	24
Section 2 – NHIE Operational Guidelines and Processes	30
Introduction.....	30
Health Information Exchange Functional Model.....	30
Marketing & Service Portfolio Management	31
Marketing Strategy Development Process.....	32
Marketing Operations Process	33
Service Portfolio Management Guidelines.....	33
NHIE Service Portfolio	34
Phase 1 Operation – DIRECT & Interim Operations.....	35
DIRECT Enrollment & Attestation Process.....	36

DIRECT Help Desk & Issue Resolution Process	36
HIE Patient Consent Process	37
Interim Complaint Filing – Process, Guidelines, and Complaint Form.....	37
Phase 1/DIRECT Breach Guidelines	38
DIRECT Provider Cancelling Process	38
HIE Sales & Participant On Boarding.....	39
HIE Sales Management	39
HIE Participant Enrollment Guidelines	39
Privacy and Security Guidelines.....	45
HIE Services Administration & Operation Management.....	45
Consumer Support Services	45
Security Management	46
Provider Directory Maintenance.....	46
Patient Index Maintenance	47
HIE Supplier Management.....	48
HIE Performance Reporting	48
HIE Integration Maintenance	49
Operations	49
NHIE Board Administration	49
Strategic Planning.....	49
Public Relations Management & Communication.....	50
Policy & Regulations Management.....	51
Internal IT Service Management (non-HIE)	51
HR Management.....	51
Facilities Management	52
Financial Management	52
Operations Management.....	52
Vendor Management	53
Appendices	54
Appendix A: Transaction Based HIE Services.....	54
Appendix B: Event Subscription Based HIE Services.....	57
Appendix C: Marketing Strategy Development Process	58
Overview	58

Process Definition.....	58
Marketing Strategy Development Flowchart	60
Appendix D: Marketing Operations Process.....	66
Overview	66
Marketing Operations Flowchart	67
Appendix E: DIRECT Enrollment & Attestation Process	74
NV DIRECT Enrollment Flowchart	74
NV DIRECT Enrollment Process Definition	75
Access Enrollment Instructions & Forms	75
Complete Enrollment Form	76
Review and Verify Enrollment Form	77
Enrollment Approval.....	78
Setup New DIRECT User.....	79
Send Welcome Package	80
Send Sample Continuity of Care Document Message.....	81
Sign and send attestation form.....	82
Attestation Received	83
Appendix F: DIRECT Help Desk & Issue Resolution Process.....	84
Nevada DIRECT Two Tier Issue Resolution Support	84
Issue Resolution Management.....	84
Priority Definitions	84
Resolve Time	85
NV DIRECT Help Desk and Issue Resolution Process	86
NV DIRECT Help Desk and Issue Resolution Definition.....	87
Appendix G: HIE Patient Consent Process.....	92
NHIE Patient Consent Process.....	93
Appendix H: Interim Complaint Filling – Process, Guidelines, and Complaint Form	97
Introduction	98
Robust HIE.....	99
Policy	100
Procedure.....	100
Review Authority.....	102
Appendix I: Phase 1/DIRECT Breach Guidelines.....	105

Introduction	105
HISP Server Breach of Patient’s Information.....	105
DHHS Notification from HISP	105
Participant Notification from DHHS	105
Patient Notification from Participant	105
Appendix J: DIRECT Provider Cancelling Process.....	107
NV DIRECT Provider Cancellation Process Definition	108
Appendix K: HIE Sales Management.....	114
Appendix L: HIE Participant Enrollment Guidelines.....	115
Overview	115
Process Definition	115
Annexes	121
Annex A – Initial Marketing Strategy Presentation.....	121
Annex B – Example Marketing Campaign Plan.....	128

VERSION CONTROL

Date	Version	Name	Comments
9/12/ 2012	0.1	Bryan Oliver	
9/13/2012	0.2	Rutger Koning	
9/18/2012	0.3	Bryan Oliver	Restructuring
9/18/2012	0.4	Gerry Yantis	Review and edit
9/19/2012	0.5	Bryan Oliver	Revised Topic index
9/28/2012	0.6	Bryan Oliver	Final draft of NHIE Operational Framework section of document
10/12/2012	0.7	Gerry Yantis	Edits to NHIE Operational Framework section. Inclusion of document structure for the NHIE Operational Guidelines & Processes section that will reference detailed processes definitions which have been developed.
10/24/2012	0.8	Bryan Oliver	Updates to Operational Framework section.
10/24/2012	0.9	Gerry Yantis	Incorporation of descriptive paragraphs for the sections within the Operations Section. These sections will be populated by NHIE and/or NNDA.
10/29/2012	1.0	Rutger Koning / Gerry Yantis	Edits to Operational Framework based on insights from work performed at another state-wide HIE.
11/2/2012	1.1	Richard Patterson/ Terry Fitch	Edits to add introductions and references to operational processes included as appendices.
11/21/2012	1.2	Gerry Yantis	Edits to incorporate additional content and to prepare as DRAFT for NHIE Board information.
11/21/2012	1.3	Brian Oliver	Application of edits provided by Leo Basch based on his review of paper copy of document.
12/13/2012	1.4	Gerry Yantis	Additional edits to HIE Services Administration & Operation Management section.
12/30/2012	1.5	Terry Fitch	Incorporated detailed procedures, process, and guideline elements of document.
1/2/2013	2.0	Gerry Yantis	Final review and edits. Track changes left on since shared with NHIE Board in November.

INTRODUCTION

The purpose of this document is to provide the Nevada Health Information Exchange (NHIE) with a “business architecture” that will guide the formation of the corporation over the next 3-12 months.

The document contains an organizational framework and initial operational definitions. Operational definitions are provided in the form of guidelines that will inform future development of policies, processes, and procedures. The document also contains detailed operational process definitions for Phase 1 service capabilities, specifically for NV DIRECT Secure Messaging.

To accomplish the objectives of this document, there are two sections of guidance provided. The first is organizational governance and structure (an organizational framework). For the purposes of this document, governance has been defined to comprise organizations (e.g., Board, Chief Exec, State of Nevada DHHS OHIT, regional HIEs, etc.), relationships between these organizations, and the formalization of these relationships and how they will operate (e.g., contracts, agreements, bylaws).

The second section is for operational guidelines and processes. This section covers the functional requirements of what NHIE will need to establish within the corporations capabilities. Key elements of this section include

- **Marketing & Service Portfolio Management.** Guidance on marketing tactics that can be deployed to engage Nevadans and the health community, and identifying HIE Service Demand Management and HIE Service Offering Development opportunities.
- **Phase 1 Operation.** In the case where specific solutions are being deployed (e.g., DIRECT Secure Messaging), the process definitions have been developed to a detailed level and can be assumed ready to be used.
- **HIE Sales and Onboarding.** Guidelines and process descriptions for the work required from first contact with a NHIE prospective customer to the point of integration into the NHIE infrastructure for delivery of services.
- **Privacy & Security Guidelines.** This is an extensive section that will be the basis for NHIE policies and procedures related to:
 - Protected Health Information Ownership
 - Privacy & Security
 - System Auditing
 - Communications in Event of Data Breach/Theft
- **HIE Services Administration & Operation.** Description of work that will need to be done by NHIE in support of the HIE Services. These descriptions are focused on the operational elements of the organization that are necessary to deliver dependable services to NHIE customers.
- **Operations.** Descriptions of the corporate functions all organizations need to operate. These include finance, human resources, communications & public relations, facilities management, vendor management, and IT support services (for NHIE staff).

Other than for Phase 1 operations and some select process areas, the level of process definition is high level and will require further definition as technical solutions are acquired and implemented.

Similarly, NHIE will need to implement a number of policies and participate with the State in formulating Regulations regarding Health Information Exchanges in Nevada (e.g., privacy and security, notice of breach, etc.). In these instances, the document contains guidelines that NHIE will be able to use as reference during the formulation of the policies and procedures needed to operate the NHIE effectively.

NOTES:

This document is being developed at a time when the Nevada Health Information Exchange (NHIE) organization is in the early stages of formation. The Board of Directors were named in May 2012 and their first meeting was held in August 2012. At that time, an initial set of bylaws were approved pending finalization of changes proposed during that meeting. It is expected that approved bylaws will be finalized during special meeting of the Board in early October.

As this document was intended to be a “starter kit” for NHIE, elements of the Operational Definition will need to be expanded and refined over time. This is particularly true in the case where technical solutions and services will need to be acquired which will in turn shape the detailed processes and procedures of NHIE.

In addition, Nevada statute requires that regulations be established to implement the provisions of statute. These regulations will be formulated with NHIE and workgroups during 2013 and 2014. Until these regulations have been adopted, NHIE will have a lead role in developing guidelines and policies that will inform the regulation development process. The guidelines and processes within this document are intended to assist in that development effort.

SECTION 1 – NHIE OPERATIONAL FRAMEWORK

INTRODUCTION TO THE NHIE OPERATIONAL FRAMEWORK

At its foundation, NHIE's basis for existence derives from Nevada's HIE vision, and the principles and values emanating from it. As context for the explanation of NHIE's roles, responsibilities and organization relationships, the NHIE Vision and Mission statements are reiterated below.

NEVADA HIE VISION

The NHIE vision continues to be to establish a sustainable statewide HIE business that delivers an information exchange capability and encourages broad use of health information services to improve and innovate the delivery of wellness and care to individuals in the State. The information exchange capability will enable the sharing of health care data across organizational boundaries (inter- and intra-state lines) and will eventually be shared with consumers to improve patient care coordination and safety, mitigation of medical errors and reduce unnecessary and duplicate testing.

The state of Nevada supports a resident population of approximately 2.7 million, with a transient population that reaches as much as 40 million or more. In addition to supporting native, resident Nevadans, the NHIE will also support this transient population that comes into the State as a result of the gaming and tourism industry. For this transient population, HIE services are essential to expedite routing and delivery of accurate information and enabling quick, timely treatment.

NEVADA HIE MISSION STATEMENT

What the NHIE is doing to achieve its Vision:

"Provide affordable and easy-to-adopt Health Information Exchange Services for the Nevada Health Care community and beyond (interstate), and encourage broad use of these services."

PRINCIPLES AND VALUES THAT GUIDE NHIE ROLES, RESPONSIBILITIES, AND RELATIONSHIPS

The HIE Vision points to foundational principles and values which guide the design of NHIE Organization Landscape Model.

To be successful and sustainable, the NHIE must:

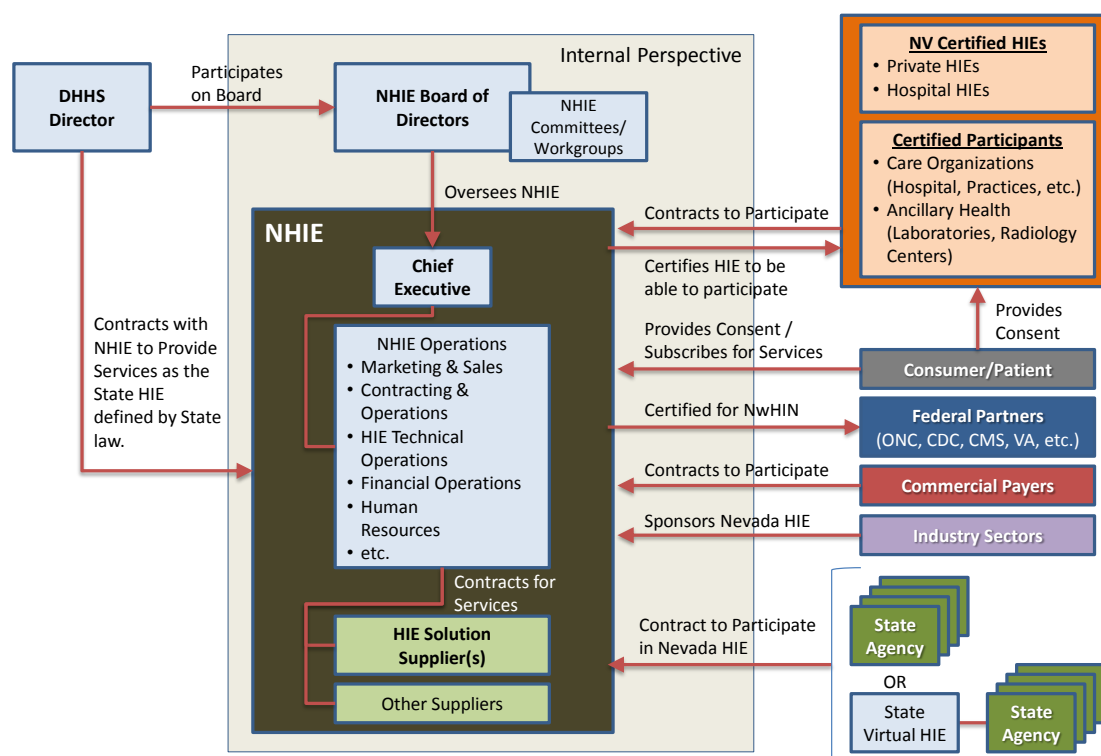
- Support high quality, safe, and efficient health care services through improvements in continuity of care and better information for care decisions.
- Promote the benefits of health information exchange and the usage of the statewide HIE system among providers, payers and patients.
- Provide the individual patients with access to their health information and supporting tools that empower them to participate in their health and wellness.
- Ensure the privacy and security of personal health information, both stored and exchanged.
- Enable intra-state, inter-state, and nationwide health information exchange.
- Operate within a governance structure that is transparent, includes stakeholder participation, and is in compliance with all state and federal laws.

- Provide equal access for underserved and rural/frontier populations as well as those in the urban areas.
- Deliver HIE-based information services to Medicaid providers and to the Medicaid organization for improved care delivery to the State's Medicaid population.
- Deliver HIE-based information services to Nevada State agencies both within the Department of Health and Human Services (DHHS) as well as those in other State departments (e.g., Department of State, Department of Corrections, Department of Insurance).
- Effectively manage Cooperative Agreement resources as a one-time investment to enable long-term value for Nevadans and the Nevada health community.
- Establish a HIE business that is operationally and financially feasible, achievable, and sustainable.
- Help ensure HIE capabilities are available to enable meaningful use outcomes for health systems and providers.
- Facilitate adoption of health information services for Nevada patients and across relevant stakeholder organizations (e.g., hospitals, practices, payers, State agencies) across a broad range of uses and scenarios.
- Proactively foster innovation and adapt to emerging trends, standards and developments, both locally and nationally.

THE NEVADA HIE ORGANIZATION LANDSCAPE

The model presented in Figure 1-1 depicts the major organizations of Nevada's HIE environment and the salient relationships among them. Other than the NHIE, the organizations represented in this model are well known as key participants in the Nevada health community and patients' value chain.

Figure 1-1: Nevada HIE Organizational Landscape



By statute, the NHIE Board, under direction of the DHHS Director, will be the “governing body” for health information exchange in Nevada as well as a HIE service provider to patients and health organizations. The NHIE Executive Director will lead the NHIE Corporation, which is the “governing entity” as defined in statute.

Relationships among HIE organizational components will be controlled by combination of statute, policy, regulation, contractual agreement, and participation agreement. The organizations and the formalization of their relationships amongst each other will be used to execute the Nevada HIE mission. Key elements of that mission are to realize:

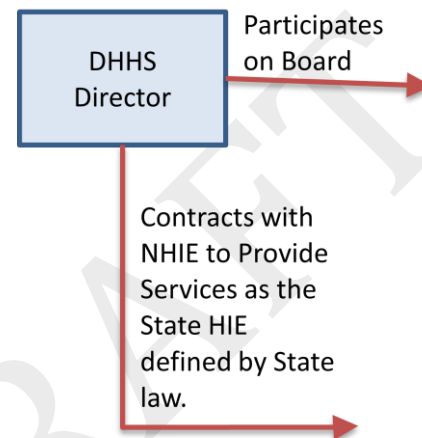
- Compliance with Federal laws and policies,
- Compliance with Nevada State statutes and regulations,
- Advancement of the NHIE goals and objectives, and
- Achievement of the vision for Nevada HIE.

The sections that follow provide a description of the operational-level responsibilities, relationships, and accountabilities of the organizational entities existing in the Nevada Health Information Exchange (NHIE) landscape. These include the following major organizational entities: DHHS Director, NHIE Board of Directors and its Workgroups and Committees, the NHIE Non-Profit Operating entity, and “customers”/stakeholders (patients) of NHIE.

DHHS DIRECTOR

SCOPE OF RESPONSIBILITY

Overarching NHIE Governance begins with the DHHS Director as defined in NRS 439.588. NRS 439.588 established the DHHS Director as the State HIT Authority, with the power to promulgate necessary regulations. Additionally, it requires the Director of DHHS to establish the governing entity (NHIE) which should meet HITECH requirements and Health Insurance Portability and Accountability Act’s Security and Privacy Framework (HIPAA).



As a state agency and frequent grant recipient, DHHS is itself, mandated to follow all applicable federal and state laws for purchasing and contracting activities. Relevant Nevada state laws and regulations are contained in the Nevada Revised Statutes (NRS) and the Nevada Administrative Code (NAC): NRS. 281 and 281A (Ethics in Government), NRS Chapter 333 and NAC Chapter 333 (State Purchasing Act), and NRS Title 8 (Uniform Commercial Code). The web site maintained by the Nevada Division of Purchasing includes contract and purchasing information for vendors and state agencies (<http://purchasing.state.nv.us>).

DHHS DIRECTOR RESPONSIBILITIES

Overall, the DHHS Director has a responsibility to advocate the board adoption and use of the statewide HIE services by healthcare providers, payers, and patients. As the success of the HIE depends on a trusted relationship between the NHIE and the stakeholders, the DHHS Director will be responsible for ensuring integrity of the services, privacy of Nevadans, and transparency in operations.

Participates on the NHIE Governing Entity Board of Directors

In the appointed role of State HIT Authority, the DHHS Director is a participating member (ex officio) of the NHIE Governing Entity established under.

The DHHS Director may establish an HIE Advisory Forum (select stakeholder and academic representatives) to serve as an advisory to the State HIT Authority and the NHIE Business, regarding HIE issues, business intelligence, and technological innovations.

Contracts with NHIE to Provide Services

Under NSR 439.588, The DHHS Director will contract with the NHIE as the governing entity which is being established as a 501(c)3 nonprofit organization.

The DHHS Director will provide funding from the State HIE Cooperative Agreement to the NHIE governing entity to establish the statewide HIE system as part of a contractual relationship which ensures alignment with ONC grants management and reporting requirements, state contracting/reporting requirements, and the intent and purpose of the HITECH Act. As part of the contract with the NHIE, the DHHS Director will incorporate provisions which require the NHIE governing entity to provide information on status and progress on a periodical basis.

The NHIE Board of Directors, with the approval of the State HIT Authority, may either hire staff or contract with the governing entity to administer the statewide HIE. The NHIE governing entity may, in turn, contract with vendors and state-certified community and/or regional HIEs to achieve State HIE objectives. Such contracting on the part of NHIE must be done so in compliance with applicable state laws and regulations, and in accordance with the terms and conditions of the contract with the State HIT Authority.

Relationship with ONC

Nevada's DHHS, the recipient of the state's HIE Cooperative Agreement and represented by the Nevada Office of Health Information Technology, will be the sole entity interacting with ONC and responsible for managing all reporting, periodic updates, budget management and Strategic and Operation Plans revisions related with the HIE Cooperative Agreement. In order to do so DHHS, will utilize its significant experience in managing Federal programs and funds, as historically over half of the department's biennial budget is federally funded, to meet the requirements.

At its discretion, DHHS may elect to contract with NHIE for services that will enable DHHS to meet ONC requirements in a more effective or efficient manner (e.g., achieving results defined in Evaluation Plan agreed with ONC).

DHHS DIRECTOR Responsibility for Establishing Regulations

NSR 439.581 to 439.585 specifies a number of provisions in which the DHHS Director is to promulgate regulations necessary to enable the exchange of health information in the State. It is understood that there are existing Federal and Nevada specific laws and regulations already in place regarding the creation and maintenance of electronic medical records and the protection of electronically transmitted PHI. Regardless, new regulations will be required for the certification of HIE organizations, and HIE based sharing and retention of personal health information. It is the responsibility of the DHHS Director to promulgate such regulations necessary to meet the requirements set forth in statute.

In review of the current provider usage of electronic prescribing, it has been identified that certain existing provisions seem to be a barrier to expanded use of these services in prescribing of medications. As such, some existing regulations will need to be amended in order to meet federal requirements and support meaningful use.

Finally, patient consent is required for electronic transmittal of health records via electronic health information exchange. Patient's rights are specified, and the DHHS Director is required to promulgate regulations establishing standards for state-wide consent management services as well as the security and confidentiality of electronic health records and health information exchange in alignment with applicable federal laws.

NHIE BOARD OF DIRECTORS (GOVERNING ENTITY)

SCOPE OF RESPONSIBILITY

Current composition of the NV HIE Business Board of Directors (established May 2012) complies with mandates contained in the HITECH Act and State HIE Cooperative Agreement. The organization is accountable to the DHHS Director, as the State HIT Authority. During the 2011 session of the Nevada Legislature, SB 43 was passed aligning state and federal laws for enabling HIE, and insulating the NV HIE Business from impacts associated with administration changes.

Its first act has been to establish a set of By Laws, by which it may govern itself. Under Governance principles, those rules may then be monitored for compliance by both, the DHHS, and through Open Meeting Law, the Nevada Public. In that way, the Board of Directors remains accountable for adherence to its purpose.

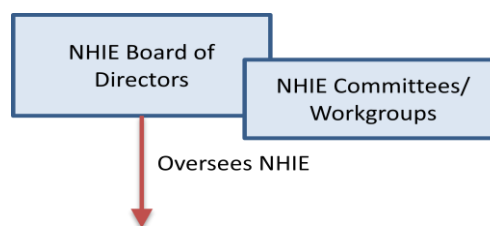
The NHIE Business Board of Directors will operate in a transparent manner. Minimally, it is expected to meet under Nevada Open Meeting Law at least four times during the state fiscal year. The Board will provide a neutral governance forum that oversees and governs the exchange of health-related information among public and private entities as well as patients or their representatives.

The specific responsibilities and approach for providing governance to the NHIE Corporation are defined in the bylaws that were formally introduced during the first meeting of the Board on August 21, 2012.

BOARD ROLES AND RESPONSIBILITIES

The composition of the initial Board consists of:

- The State Medicaid Agency's Deputy Director
- DHHS Director/representative as the State HIT Authority (ex officio)
- An MD/MS from Silver Sage Center for Family Medicine and Clinical Assistant Professor at the University of Nevada School of Medicine.
- Nevada Rural Hospital Partners President.
- Clinical Pharmacist, PharmD, RPh, Sunrise Hospital and Medical Center.
- Chief Operating Officer, AMERIGROUP Community Care of Nevada, MHA.
- Public Health Informatics Scientist, PhD, Southern Nevada Health District.



1.2: NHIE Board of Directors and its Committees

- State Program Manager, MEd, Connect Nevada.
- State HIT Coordinator (ex officio).

Key elements of the Board responsibilities include:

- Accountable to the NHIE members (to be defined in future Bylaw revisions) and the public-at-large.
- Establishment of a convening and coordination structure, including personnel and processes, for maintaining transparency and generating multi-stakeholder public-private collaboration.
- Monitoring compliance with nationally recognized HIE standards, protocols, and processes.
- Ensuring compliance with state and federal laws, including privacy protection.
- Oversight of Workgroups (e.g., Technical, Legal/Policy, Privacy/Security, etc.) and of HIE operations.
- Facilitation of consumer/patient input and public communications/transparency.
- Advice and counsel to the DHHS Director, as the State HIT Authority.

(SUB)COMMITTEES AND WORKGROUPS

As per the Bylaws of the NHIE Board of Directors they are permitted to establish standing committees, subcommittees and advisory committees to assist the NHIE Board with matters within the scope of powers, duties, and functions of the NHIE Board.

It is recommended that the NHIE Board of Directors make use of this prerogative and establish committees in the areas of Governance, Finance, Legal, and Financial Sustainability. In the near future the Board of Directors could consider establishing committees on Consumer Engagement, Behavioral Health, and on any other market issues as needed.

Expectations and Responsibilities for (Sub) Committee Members

- Membership shall include at least one member of the NHIE Board, any former members of the NHIE Board, any eligible members of the NHIE entity, and any members of the public who have experience or knowledge relating to matters of concern.
- Committees members are asked to draw on their expertise and perspective from across healthcare industry sectors and geographical areas with an eye toward supporting the greater goal of developing a statewide resource for Nevada.
- Committees are expected to be multi-stakeholder and nonpartisan and all discussions, meetings and decision-making processes to be fully transparent.
- Committees will be asked to make consensus-based recommendations to the NHIE Board of Directors. In cases where consensus is not reached, the workgroup is expected to put forth a balanced, fair consideration of the pros and cons of an issue.
- Committee members are expected to respect the opinions and input of others and to engage in fair meeting conduct to work toward consensus recommendations.
- Committee members should attend meetings in person whenever possible.
- As the meeting will be held under Open Meeting Law public stakeholder input is encouraged.

Governance Workgroup

The Governance Workgroup is charged with recommending to the NHIE Board of Directors specific measures, listed below:

- A governance framework that will ensure broad-based stakeholder collaboration, transparency, and accountability;
- Methods to ensure the governance framework is characterized by:
 - Alignment with Medicaid and public health programs,
 - The ability to provide oversight and accountability to protect the public interest,
 - Statewide support of providers to achieve meaningful use,
 - Consumer oriented principles and policy priorities for HIE activities,
 - Mechanism(s) to ensure stakeholder perspectives are invited and integrated throughout the Statewide HIE planning process; and
- Strategic and operational models that ensure financial sustainability and a continuous role in facilitating the flow of relevant health information.

These measures are intended to reinforce NHIE principles espoused in the Section on Principles and Values of NHIE.

Legal and Policy Workgroup

The Legal and Policy Workgroup is charged with recommending to the NHIE Board of Directors:

- A statewide policy framework that protects the privacy and security of health information and allows for the incremental development of policies over time;
- Practical privacy and security strategies and policies to support secure HIE while protecting consumer interests;
- A process to harmonize federal and state legal and policy requirements to support HIE;
- Policies to resolve identified potential barriers to intrastate and interstate HIE;
- Legal agreements governing participation in statewide HIE;
- Statewide compliance with applicable federal and state legal and policy requirements;
- Policies and guidance around Consent Management (See Consent Management below); and
- Provide input to other workgroups, specifically to the Clinical and Technical Operations Workgroup, to ensure consistency in privacy and security requirements.

Clinical and Technical Operations Workgroup

In the near term, the sustainment success of the NHIE will stem from its ability to develop business through technology and services that customers will pay for. This subcommittee will play a critical role in guiding, and raising visibility of innovative ideas from concept to implementation. The Clinical and Technical Operations Workgroup is charged with recommending to the NHIE Board of Directors:

- High-value/high-priority uses and use cases for HIE consistent with meaningful use of certified EHRs and additional clinical priorities;
- Strategy for statewide HIE infrastructure to address high-priority use cases and clinical objectives;

- Development of a flexible and scalable statewide technical architecture that supports statewide interoperable HIE;
- Technical requirements as part of the Request for Proposal process to contract an HIE Vendor;
- How shared technical services may be utilized for the state's approach to:
 - Electronic prescribing and refill requests,
 - Electronic clinical laboratory ordering and results delivery,
 - Clinical summary exchange;
- Strategy to support health IT and HIE adoption and meaningful use among the state's providers; and
- Evaluation of project including data collection and performance measurement.

Finance Workgroup

The Finance Workgroup is charged with recommending to the NHIE Board of Directors:

- Analysis of the costs and ongoing funding streams associated with HIE
- Financing strategies to support adoption of HIE
- The value and business case (return on investment) of investments at the state, regional, and institutional levels
- Strategies to ensure sustainability

NHIE CORPORATION (GOVERNING BODY)

SCOPE OF RESPONSIBILITY

Under NSR 439.588, The NHIE governance and technical operations will be a contracted service to the state from a 501(c)3 nonprofit organization.

Articles of Incorporation

Once established and operational, the DHHS Director expects the NHIE 501(c)3 nonprofit organization to operate as a financially and technically self-sustaining business enterprise.

NHIE CORPORATION ROLES AND RESPONSIBILITIES

The DHHS Director anticipates that the operational aspects of the business will be staffed and organized, as NHIE deems appropriate, to operate the following functions:

- Marketing and sales;
- Governance operations;

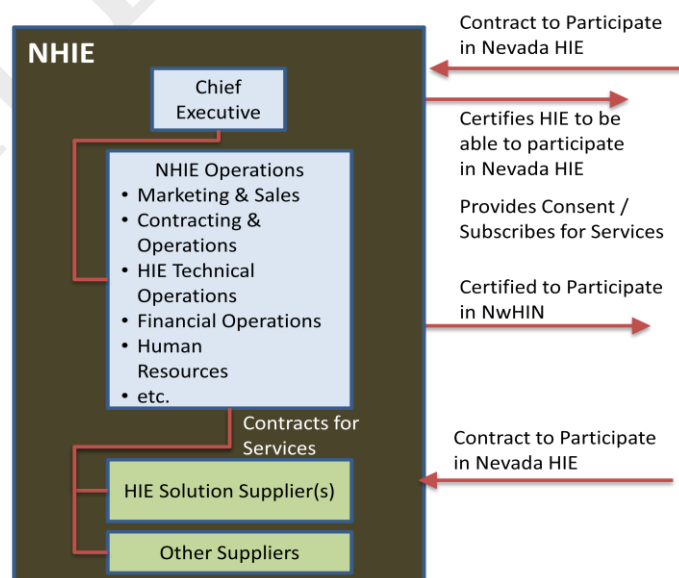


Figure 1.3: NHIE Corporation Responsibilities

- Contracting and operations;
- HIE service operations;
- Financial operations;
- Human resources management; and
- Other operational functions as required.

In each function, the Chief Executive will be expected to develop a performance management framework that consists of a system for measuring success, analyzing and reporting, as well as executing or complying with Statutes, Policy, Regulation, Contracts, and Agreements (SPRCA). In addition to this governance activity, which focuses internally and upward to the Board of Directors and to DHHS, the NHIE Corporation will have responsibility for establishing formal relationships with service and technology vendors, independent/private HIE's, health providers and payers, and patients. As depicted in Figure 1.3, additional responsibilities include:

- Certifying organizations applying to be Qualified Participates (QPs) in the NHIE for sharing of patient health information;
- Contracting with HIE organizations that will participate in the NHIE as QPs such that their HIE service definitions as well as terms and conditions reflect the essential requirements of interoperability and financially sustainable businesses;
- Establishing participation agreements with health provider and payer organizations which are certified for sharing of health information via the NHIE services (i.e., Qualified Participants);
- Establishment of standards, evaluation of performance, management of performance with certification or de-certification, and performs any number of performance measurements for reporting upwards to the Board and beyond; and
- Certifying NHIE gateway services based on NwHIN standards and certifications for participation with the Federal partner health information exchange services (e.g., Military Health, Veteran Affairs, CDC, CMS, etc.).

The NHIE Board of Directors will delegate responsibility for specific activities to the NHIE Corporation, once it is incorporated and staffed:

- Hire and orient staff into the NHIE Business;
- Rapidly establish "go to market" plan to establish NHIE as a known entity in the Nevada health community, and to develop a "pipeline" of potential revenue sources for NHIE (e.g., grants, customers, sector specific sponsors, etc.);
- Develop and negotiate contracts and participant agreements with NHIE "customers" including data usage agreements, financial arrangements, mutual service levels, support services, and compliance with information sharing standards;
- Create the NHIE "brand" by utilizing all available channels (within limited budget) to communicate about the NHIE services and associated value propositions.
- Refine State developed NHIE Business Model (e.g., operating costs, revenue streams, innovation investments) to define the services/products and the pricing models necessary to become financially sustainable within 9 months;

- Rapidly complete a procurement for HIE technical services starting with the definition of HIE service requirements and completing with a signed contract for HIE technical services on a supplier hosted technology platform (i.e., running in supplier data center);
- Establish Advisory Committee(s) as needed to gain insights from NHIE stakeholders;
- Design and implement internal and external policies and procedures necessary to enact governance activity;
- Develop detailed plans for collaboration with key stakeholders of the NHIE;
- Define consumer friendly opt-in/opt-out policies and procedure to be implemented across the Nevada health community and the Nevada residents;
- Either apply to the ONC for authorization as an ONC-Authorized Testing and Certification Body (ONC-ATCB), or contract with a supplier to provide such certification services;
- Initiate a NHIE Business website as a common resource for HIE stakeholders (e.g., patients, hospitals, primary care doctors, payers, new participants and enrollees, etc.) as well as a public forum to post Board meetings and other open forum governance meetings;
- Issue communications to stakeholders that establish points of contact and access to information/resources;
- Design and implement supporting business processes and systems; and
- Customer support (e.g., providers for HIE access, patients for opt-out, opt-in, and complaints, etc.).

Governance Aspects of the NHIE Service Portfolio

Financial sustainability will require a clear articulation of the HIE-based services; the value of those services; who the service participants (or actors) will be; when participants will connect; and how much the revenue streams will be worth for NHIE. The approach to be taken will be determined over time, but there are some common frameworks to be applied. It is anticipated that the NHIE Business will develop a portfolio of services that will be delivered to the different stakeholders (or buyers) within the care community. The services will evolve over time in different service categories and for differing customer segments, starting with common or core services. To ensure that the service portfolio business milestones, financial goals and objectives align to the NHIE strategy, the NHIE Executive Director should put in place a Service Portfolio Management function. Such a function will include performance measurement, analysis and reporting, and program tracking.

Privacy and Security of Personal Health Information

The State will continually drive the privacy and security aspects of NHIE by researching, adopting, and applying, when appropriate, the best of industry privacy and security frameworks and practices. HIEs are expected to raise the bar on the need to provide information to providers, payers, and patients and to share information securely across many different types of networks, and the data protection requirements of HIPAA, FISMA, HITECH, and other data protection state and federal regulations.

The NHIE corporation will be expected to put in place specific governance processes to execute SPRCA established by DHHS or the HIE Board of Directors. It will identify and track specific key indicators pertaining to successful implementation or compliance, and report same.

See guidelines included in this document for more detail.

NHIE Legal/Policy Development

The State is committed to establishing comprehensive policies and regulations that protect privacy, strengthen security, and allow clinicians and public health authorities to have critical access to health information when and where needed to improve health care delivery and health outcomes for all State residents. As an external governance responsibility, the NHIE must support the State's development of regulations and provide policy guidance addressing privacy and security needs for interoperable HIE among its participants, including: consent, authorization, authentication, access, audit, breach, confidentiality, data integrity, and data availability.

The State is committed to establishing comprehensive policies and regulations that protect privacy, strengthen security, and allow clinicians and public health authorities to have critical access to health information when and where needed to improve health care delivery and health outcomes for all State residents. As an external governance responsibility, the NHIE will support the State's development of regulations and provide policy guidance addressing privacy and security needs for interoperable HIE among its participants, including: consent, authorization, authentication, access, audit, breach, confidentiality, data integrity, and data availability.

Where DHHS will have the responsibility to prepare and conduct the workshops, NHIE will develop guidelines that will form the basis of regulations. These guidelines will be further developed by DHHS and the to-be-established regulation workshops. During public workshops and hearings DHHS will solicit feedback from the health community. This feedback will be used by DHHS to finalize regulations that will be submitted to Nevada State Legislature during the 2014 session. The table below provides an overview of the regulations to be established by the Director of DHHS pursuant to NRS 439.581 – 439.595.

Section	Provision	Domain
NRS 439.587 1(c)	Prescribe by regulation standards for the electronic transmittal of electronic health records, prescriptions, health-related information, electronic signatures and requirements for electronic equivalents of written entries or written approvals in accordance with federal law;	Standard and Interoperability Framework
1(d)	Prescribe by regulation rules governing the ownership, management and use of electronic health records, health-related information and related data in the statewide health information exchange system; and	Data Ownership
1(e)	Prescribe by regulation, in consultation with the State Board of Pharmacy, standards for the electronic transmission of prior authorizations for prescription medication using a health information exchange	Standard and Interoperability Framework

Section	Provision	Domain
2	The Director may enter into contracts, apply for and accept available gifts, grants and donations, and adopt such regulations as are necessary to carry out the provisions of NRS 439.581 to 439.595 , inclusive	Other
NRS 439.588 1	The Director shall establish or contract with not more than one nonprofit entity to govern the statewide health information exchange system. The Director shall by regulation prescribe the requirements for that governing entity.	Requirements Governing Entity (NHIE)
4	The Director shall by regulation establish the manner in which a health information exchange may apply for certification and the requirements for granting such certification, which must include, without limitation, that the health information exchange demonstrates its financial and operational sustainability.	HIE Certification Requirements
NRS 439.589 1(a)	The Director shall by regulation prescribe standards: To ensure that electronic health records and the statewide health information exchange system are secure;	Privacy and Security
1(b)	To maintain the confidentiality of electronic health records and health-related information, including, without limitation, standards to maintain the confidentiality of electronic health records relating to a child who has received health care services without the consent of a parent or guardian and which ensure that a child's right to access such health care services is not impaired;	Privacy and Security
1(c)	To ensure the privacy of individually identifiable health information, including, without limitation, standards to ensure the privacy of information relating to a child who has received health care services without the consent of a parent or guardian;	Privacy and Security
1(d)	For obtaining consent from a patient before transmitting the patient's health records to the health information exchange system, including, without limitation, standards for obtaining such consent from a child who has received health care services without the consent of a parent or guardian;	Patient Consent
1(e)	For making any necessary corrections to information or records included in the statewide health information exchange system; and	Data Ownership
1(f)	For notifying a patient if the confidentiality of information contained in an electronic health record of the patient is breached.	Data Breach

Section	Provision	Domain
NRS 439.590 7	The Director shall adopt regulations establishing the manner in which a person may file a complaint with the Director regarding a violation of the provisions of this section. The Director shall also post on the Internet website of the Department and publish in any other manner the Director deems necessary and appropriate information concerning the manner in which to file a complaint with the Director and the manner in which to file a complaint of a violation of the Health Insurance Portability and Accountability Act of 1996, Public Law 104-191.	Complaint Filing

Table 1: Nevada HIE related regulations to be established

NHIE Corporation Individual Roles and Responsibilities

The four roles described in this section have not yet been created, but are recommended. Each one plays a discrete critical role within the scope of governance for the HIE Corporation. Note, one individual may fulfill one or more roles depending on level of effort and availability of resources.

1. **The Executive Director** will ultimately be accountable to the Board and, via a contractual relationship, the DHHS (the State Designated Entity of the Cooperative Agreement with ONC). In a governance role, the Executive Director is accountable for the Governance process as it pertains to the business. More specifically, the Executive Director will be responsible for the business strategy, and accountable for a performance measurement system, and the establishment of standards through creating policy, regulation, contracts and agreements. It is envisioned that the Executive Director will have a significant role in the community representing the NHIE across the State with continuous interaction with key stakeholders. Reporting into the Executive Director will be three operational leads: one for governance, one for external stakeholder management, and one for business and systems operations, each having governance roles and responsibilities.
2. **The Governance Operations Manager** develops and manages the governance process on behalf of the Executive Director. He/She will have the lead role in implementing, monitoring and managing all aspects of policies, legislations, statutes, regulations, compliance requirements, and information governance requirements (e.g., information sharing, privacy, security). The governance operations group will support reporting and enforcement requirements to the State and ONC as related to governance requirements and ongoing operation of the NHIE. Specific plans for developing and maintaining policies (i.e., bylaws, charter, and/or articles of incorporation) will be finalized during the 3rd calendar quarter of 2012.
3. **The Stakeholder Operations Manager** will be responsible for developing plans for and the ongoing engagement of stakeholders such as Medicaid, the REC (HealthInsight), patients/residents, hospitals, diagnostic facilities, PCP practices, health insurance payers, employer groups, the Indian Health Service, Centers for Medicare and Medicaid (CMS), Centers for Disease Control and Prevention (CDC), the Department of Defense (Health Affairs), and Veterans Affairs. This team will also be accountable for the refinement of the

NHIE Business strategy including the constant focus on supporting innovations to care services across the care community. This will include research of care innovations being implemented around the world and then adjusting them for proposal to the NV health community through workshops and planning sessions leading to implementation of new HIE services and outcome reporting metrics/processes. Perhaps the most visible exercise of External Governance will be the implementation and management of an Independent HIE Certification Program in which standards are set, evaluated, and periodically measured, with Certification performance and compliance continually managed. Finally, this team will be responsible for developing the agreed pricing model for NHIE services. The pricing model will be developed in collaboration across the Nevada care community in recognition of the value chain which considers the dynamics of the health delivery process and the associated reimbursement models (i.e., the user of a HIE service may not receive financial benefit, whereas another bystander in the community may realize benefits of the HIE service usage).

4. **The Business Operations and Systems Manager** will be responsible for the planning and delivery of major operational services of the NHIE Business. This work will include:
 - Establishment of supporting business systems and processes (e.g., eBusiness cloud/SaaS for email, financials, complaints, registrations, contracts management, etc.).
 - Creation and operation of monitoring and reporting services (e.g., tracking effectiveness of HIE to meet meaningful use objectives).
 - Registration of providers and commercial RHIOs/HIEs.
 - Certification of commercial RHIOs/HIEs/providers that would like to connect to the NHIE.
 - Contracting with users of NHIE services (i.e., subscription, usage, hybrid).
 - The development of the HIE technical infrastructure and application services.

Technology and service vendors will be utilized to facilitate the delivery of the HIE and business services outlined above. The vendors will be contracted with directly by the NHIE Corporation.

CUSTOMER RELATIONSHIPS AND RESPONSIBILITIES

LEGISLATION, STATUTE, AND POLICY IMPACTS ON NEVADA HIE EXTERNAL RELATIONSHIPS AND RESPONSIBILITIES

NSR 439.587 requires the DHHS Director to foster and educate the use of HIE among stakeholders.

Current legislation impacting External Relationships is Senate Bill 43, and the Coordinating Agreement, as well as Federal legislation, HIPAA, FISMA, ARRA. As the NHIE Corporation organizes, it will be expected to codify an external relationships role through creating policy, regulation, contracts or agreements with each of the stakeholder groups represented in Figure 1.4.

ORGANIZATION GUIDELINES FOR CUSTOMER NHIE OPERATIONS

The creation and formation of the envisioned NHIE Business is complex in the breadth and interdependencies of activities to be performed as well as the number of stakeholders that will be involved. Future impact on organizational structure of stakeholder organization via established Guidelines, recommendations from the Corporation are possible, and should be developed in a collaborative environment between NHIE and all stakeholder groups indicated in Figure 1.4.

Contract and Certify to Participate in Nevada HIE

Studies of successful HIEs show how they value their core competencies of understanding clinical workflows and managing change. HIE implementation and training personnel work closely with clinicians and office staff to understand the impact of HIE applications and to identify opportunities to improve practice efficiency. Managing change in this context means integrating applications into existing workflows with minimum disruption to the practice and bringing users – including clinicians – online as quickly as possible.

A collaborative approach to establishing NHIE customer relationships is recommended in order to succeed, and sustain them. It is recommended that the Stakeholder Operations Manager role initiates a sustained program of collaborative efforts in developing the customer relationships by engaging a distribution of stakeholders at every opportunity.

In realization that NHIE will be responsible for its own sustainment after 02/2014, it should be focusing immediately on providing services that are demonstrably useful, solve clearly defined business problems, and can provide value to the customers. Value propositions and financial models must be well defined, and well communicated to prospective participants. To survive, NHIE should continuously communicate its value to key stakeholders (e.g., sponsors) as well as

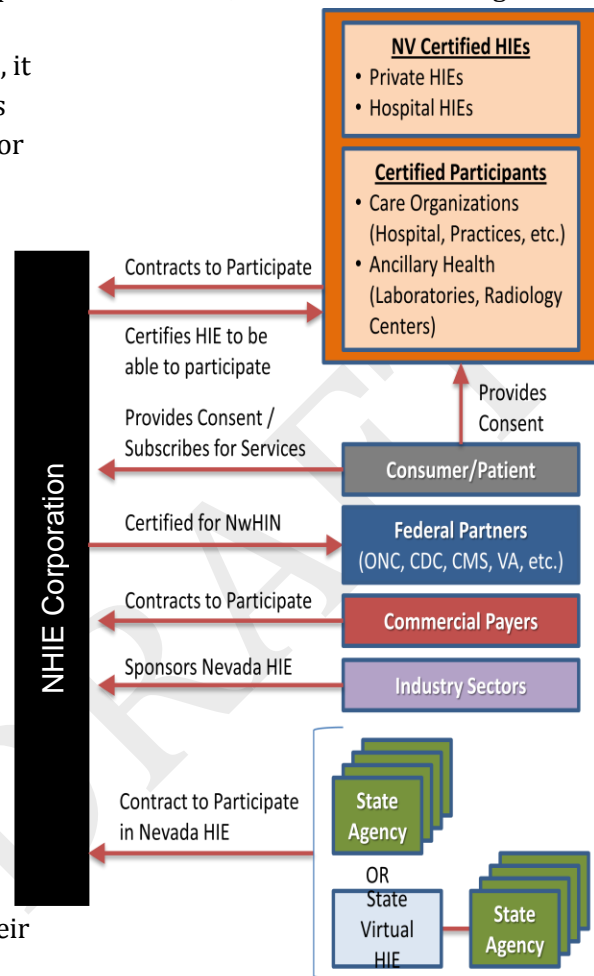


Figure 1.4: External Relationships with NHIE Corporation

prospective customers including private HIEs, hospitals, physician practices, and imaging centers, in terms that are meaningful. In addition, it is recommended that NHIE issue annual reports which communicate the benefits and value generated for the Nevada health community and Nevadan patients.

Sustain the Operation of DIRECT Messaging

Once DIRECT Messaging is fully implemented the NHIE corporation must be prepared to continue to facilitate, administer, and manage DIRECT connectivity within the HIE program indefinitely for those stakeholders requiring basic secure email as the approach to information sharing.

Provides Consent / Subscribes for Services

Experience from several states indicate that Nevada's chosen policy of "Opt-in" will pose additional obstacles to be considered in growing the HIE business. Specifically, without a large portion of the population elected to have their health data shared electronically via HIE services, the value to the health community will be limited (e.g., if a physician in an emergency department rarely finds a record for his/her patients, then they may stop even looking).

To overcome the complex but realistic privacy and security requirements inherent in the Opt-In statute, the NHIE Corporation will be expected to:

- Invest appropriate effort into a marketing/education program aimed at building trust and understanding among patients;
- Engage providers and payers as advocates to deliver a value proposition message to patients/consumers, in the course of their interactions; and
- Build a streamlined easy-to- execute "Opt-in" process for both, patient, and provider.

Certified to Participate in NwHIN

In September, 2012, the Office of the National Coordinator for Health Information Technology (ONC) announced that it was [dropping its request for information \(RFI\)](#) for a governance framework for the Nationwide Health Information Network (NwHIN). Many IT leaders applaud this effort in light of a waning regulatory bandwidth as the industry focuses on requirements for Stage 2 meaningful use, ICD-10, and the three Medicare programs, value-based purchasing, avoidable readmissions reduction, and healthcare-acquired conditions reduction, mandated under the Affordable Care Act (ACA). The Western States Consortium, of which Nevada is a member would see this as a welcome development, in that the deferment provides some respite and freedom from Federal distractions, enabling more productive work to advance interstate standards for HIE.

ONC is expected to continue to highlight best practices for trusted and interoperable exchange, "actively engage with entities currently serving in governance/oversight roles," use its convening authority to promote guidance and tools, and "evaluate how and what consumer protections can be appropriately applied to health information exchange through existing regulatory frameworks."

Expertise in connecting to NwHIN can be a source of revenue. For example, MedVirginia, a private HIE, has developed expertise in the use of the NwHIN Gateway with the local Social Security

Administration offices. They are now obtaining professional fees for helping SSA gain access to claimant health data needed for adjudicating worker compensation claims.

Sponsors of Nevada HIE

The NHIE Business Plan must account for the end of Federal Funding by February 2014, and therefore must be self-sustaining by that time. There exists a significant risk in the ability of NHIE to sustain itself without a sufficient revenue stream in operation. One risk mitigation strategy takes advantage of the DHHS Director's authority to accept available Gifts, Grants and Donations by engaging one or more stakeholder organizations as Sponsors to underwrite components of NHIE. Sponsors may represent any number of industries who will benefit in the short and long term from better quality healthcare and reduced costs. Examples include, entertainment, mining, healthcare payers, pharmaceutical companies, medical device manufacturers, and large self-insured employer groups (e.g., unions).

NHIE Vendor Operational Activities

A fully articulated plan administered using robust project management tools and best practices will help guide the State and NHIE through the phases of building, deploying, and managing this entire state-wide program. Figure 1.5: NHIE Implementation and Operation Approach below depicts phases of the end-to-end lifecycle of the NHIE Business formation, HIE development/ implementation, and ongoing operation along with the organizations accountable and responsible for the delivery. This figure provides a high-level context for the responsibilities of different businesses and vendors in supporting, development of the NHIE Business established by the NHIE Corporation.

Delivery Organizations →	Nevada DHHS / OHIT	NHIE Business (incl. Board of Directors)	Service Vendor(s)	HIE Technology Product Vendors
Phase 1 – Initiation				
Stage 1 – Governance Definition	Accountable / Responsible	Not Involved	Supporting	Not Involved
Phase 2 – Creation				
Stage 2 – Governance Implementation	Accountable to ONC / Responsible for NHIE Delivery	Accountable / Responsible	Supporting	Not Involved
Stage 3 – Business Model Definition		Accountable / Responsible	Supporting	Not Involved
Stage 4 – Technology Definition & Selection		Accountable / Responsible	Accountable / Responsible	Not Involved
Stage 5 – HIE Solution Integration & Deployment		Accountable	Responsible OR Supporting	Supporting OR Responsible
Stage 6 – Technology & Application Products		Accountable	Supporting OR Responsible	Responsible OR Supporting
Phase 3 – Operations				

Delivery Organizations →	Nevada DHHS / OHIT	NHIE Business (incl. Board of Directors)	Service Vendor(s)	HIE Technology Product Vendors
Stage 7 – Governance & Operations Oversight		Accountable / Responsible	Supporting	Not Involved
Stage 8 – Evolution, Operations & Maintenance.		Accountable	Supporting	Responsible

Figure 1.5: NHIE Implementation and Operation Approach

For clarity, ‘accountable’ is intended to mean that while the accountable organization has oversight and contractual obligations for delivery of that stage of work, it is not necessarily responsible for the performance of the activities that encompass that stage. The ‘responsible’ organization is obligated to perform the work defined within the assign stage/activities/tasks and according to the direction of the accountable organization.

Privacy and Security

The State will continually drive the privacy and security aspects of NHIE by researching, adopting, and applying, when appropriate, the best of industry privacy and security frameworks and practices for effective Governance. HIEs are expected to raise the bar on the need to provide information to providers, payers, and patients and to share information securely across many different types of networks, and the data protection requirements of HIPAA, FISMA, HITECH, and other data protection state and federal regulations.

Consent Management

Consumer or patient consent is the process by which consumers control the exchange of their health information through an HIE and can be a tool to allow health care providers access to more complete health information, thereby strengthening the provider’s ability to provide informed care and improving care coordination amongst providers.

The issue of Consent Management, similar to Privacy and Security of PHI, is a significant Customer Relations and Governance issue due to the confluence of National Law (HIPAA), State law and regulation, and Patient trust. As such, NHIE Corporation is responsible for establishment and exercising of Customer Governance among the provider/payer/vendor, and independent HIE. An opportunity exists for a collaborative effort by engaging selected stakeholders in developing an appropriate Consent Management process.

The NHIE Legal/Policy Workgroup of the NHIE Board of Directors will provide input to the creation of policies that will:

- dictate to what extent, and how consumers should be able to control the exchange of their health information
- balance privacy considerations with the overall vision of the NHIE
- drive a positive potential impact on public health, the coordination of care, improved health care quality

- ultimately improve health outcomes as supported by better access to more robust patient data.

The Workgroup will take into consideration the following for the NV consent policy¹:

- Meaningful patient control over and protection of their health information.
- Quality, well-coordinated care.
- Delivery of high quality and well-coordinated care.
- Maximal quantity and quality (i.e., utility) of data.
- Protection against liability.
- Minimal administrative burden and cost.
- Maximum patient and provider participation.
- Access to data to facilitate payment and reimbursement for services to both providers and patients and to inform quality improvement activities.
- Maximum flexibility to sustain the exchange.
- Maximum ability to provide value to participants.
- Uses of health information available through the exchange.
- Whether and to what extent consumers may control which providers are allowed to share and/or access their information.
- Break the glass capability to obtain health information in emergency situations where consumer consent has not been granted.
- Consumer outreach and education efforts related to the consent decision.
- Extent of security, enforcement, and remedies in place.
- A consent framework with regard to opt-in, opt-out, or a hybrid model.
- Consumer trust:
 - NHIE represents a paradigm shift in the way health information is shared.
 - Consumer trust is paramount to engender public support for the NHIE and ensure consumers' interests are protected.
- State and federal law requirements:
 - Federal law under HIPAA does not require patient consent to exchange personal health information (PHI) for treatment, payment or health care operations.
 - While in many cases consent is not required for treatment purposes, there are existing laws that require consent for (1) disclosure by certain types of care providers or (2) disclosure of certain types of health information.
- Clinical value of information:
 - The NHIE must include information necessary to provide effective treatment; without robust information, physicians will not participate and the NHIE will not be sustainable.
 - Allows maximum information sharing under current Nevada law.
 - Technical feasibility and cost—generally the cost and technical complexity will increase with requirements to exclude certain types of data and/or providers.

¹ Melissa Goldstein and Alison Rein. "Consumer Consent Options for Electronic Health Information Exchange: Policy Considerations and Analysis." Prepared for the Office of the National Coordinator for Health Information Technology, March 23, 2010.

- Administrative burden and implementation cost—deployment of consent policies require varying degrees of involvement, resources, and cost among providers and other HIE participants.

Finally, the workgroup will need to consider consent models from three perspectives: (1) under current Nevada law, (2) under revised or recommended law changes, and (3) ability to address for interstate information sharing. The Governance Operations Manager role in the Non-Profit Operating Entity should take lead responsibility in a collaborative effort with selected stakeholders, in formulating the Performance Measurement effort in support of the Consent Management Process.

SECTION 2 – NHIE OPERATIONAL GUIDELINES AND PROCESSES

INTRODUCTION

This section provides initial definitions of the operational processes for the NHIE, which will be refined and further defined as the NHIE organization continues to form and evolve. The Governance Body, along with NHIE, will provide on-going oversight of compliance with the internal policies and procedures by conducting regularly scheduled internal reviews. NHIE will establish and document a process for the on-going maintenance of the policies and procedures, which will include triggers that will result in a review of the policy and procedure a method for making, approving and adopting the changes.

NHIE has begun to establish Governance Body policies and procedures through the creation of the HIE Bylaws. Additional governance policies should continue to be a high priority. These policies and procedures are critical to defining and facilitating direct oversight and interaction with the state of Nevada. Implementing these first will define and facilitate the interaction of the Governing Body to support the policy development process across the remainder of the policy areas.

It is recommended that guidelines and processes be implemented through the training of staff and resources. NHIE will leverage the guidelines and procedures in this document, extending them as appropriate to accommodate the complexities, nuances, and the financial management requirements of the NHIE. It is important that these policies and procedures provide for the necessary controls to ensure the financial success of this effort. NHIE should establish personnel policies and procedures for managing the HIE, leveraging existing DHHS policies and procedures, extending them as appropriate to support the NHIE.

HEALTH INFORMATION EXCHANGE FUNCTIONAL MODEL

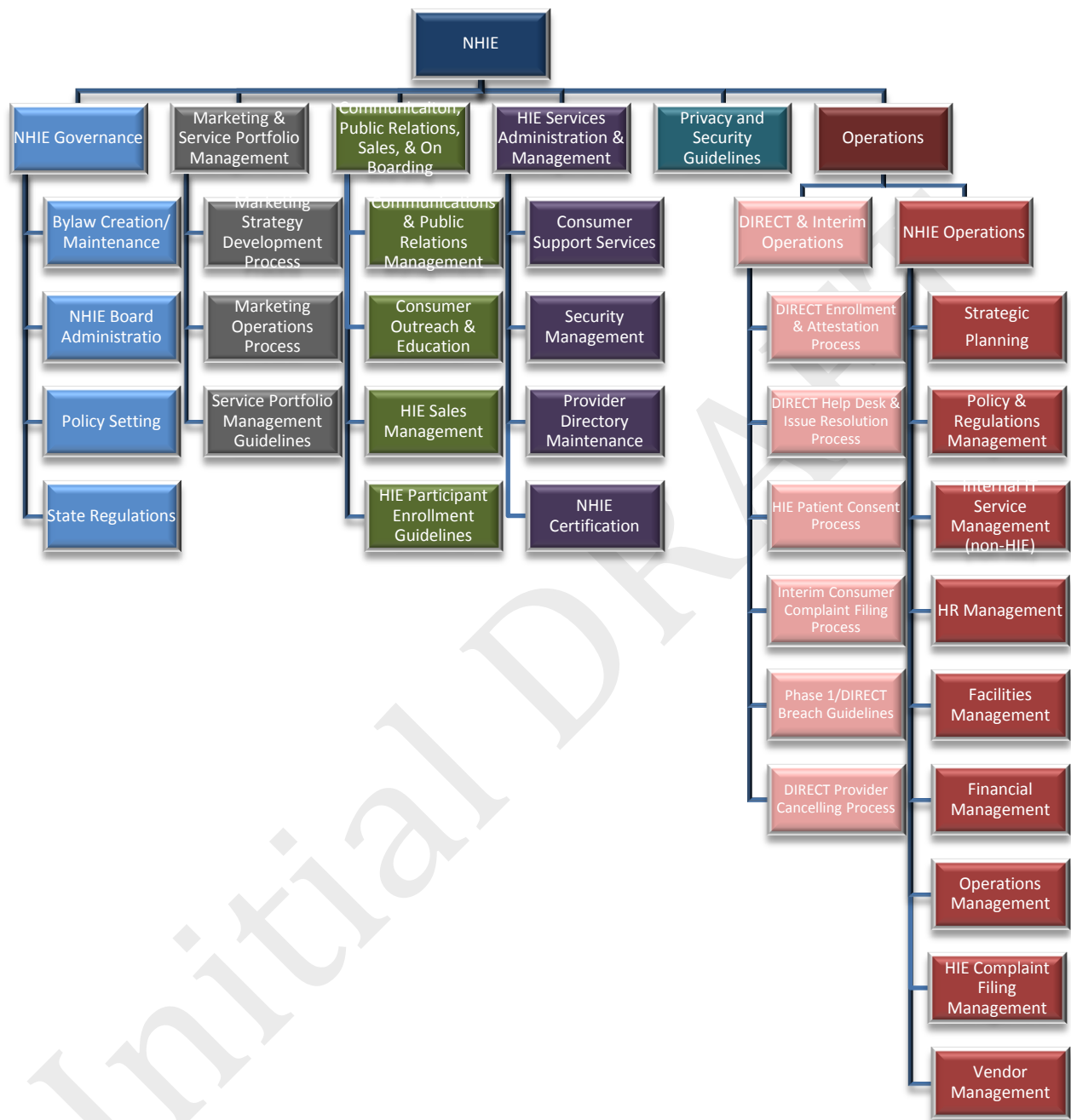
Operations of the NHIE need to involve statewide management, participation from healthcare providers, participation from patients, and oversight at the State and Federal level. Adding to this complexity is the sensitivity of sharing and storing patient information.

In order to facilitate the organizations' understanding of the necessary NHIE operations, below is an NHIE functional model. The functional model includes areas of operations and governance that require addressing with appropriate procedures. The functional model provides a way to simplify and manage the processes needed to address business and regulatory requirements.

NHIE should be comprised of six primary functional areas:

- | | |
|--|-------------------------------------|
| 1. NHIE Governance | 4. HIE Services Administration and |
| 2. Marketing and Service Portfolio | Management, |
| 3. Communications, Public Relations, Sales | 5. Privacy and Security Guidelines, |
| and On Boarding, | 6. Operations |

Each of the functional areas contains processes or guidelines to manage mission critical operations or policy in order to facilitate the establishment of the NHIE.



**Figure 2.1: NHIE Functional Decomposition Chart
(not necessarily organizational structure)**

The National eHealth Collaborative (NeHC) [recently published](#) a report that emphasized Market Assessment and Strategic Planning as two of four critical components to the implementation and sustainability of a HIE. IDC HealthInsight published an April 2012 report in which an analyst concluded: "Too many HIOs have relied on the "build and they will come" strategy. Instead, HIOs must plan for sustainability from the very beginning." It follows that a rigorous HIE Business Model, mapped to a Marketing Strategy founded on realistic, knowledgeable assessment of the target market provides a crucial prerequisite for a sustainable HIE. In this process, that target market assessment is developed through three inputs, the Business Model itself, the eHealth Assessment, and an Organization Change Management (OCM) Strategy. This last deliverable has already been created as a result of an assessment of the overall HIE landscape in Nevada and feeds much of the insight necessary to developing a Marketing Strategy.

MARKETING STRATEGY DEVELOPMENT PROCESS

The Marketing Strategy for NV DIRECT and NHIE is produced as part of NHIE Corporate Strategic Planning as a strategic guidance document from whence will be developed separate Marketing Campaign Plans targeting discrete stakeholder groups. The Strategy and Operations Plan, the current OCM Strategy, and the Outreach Communication Strategy provide the foundation of information on which to develop the initial Marketing Strategy under NHIE. Additional information can be found in Annex A (Initial Marketing Strategy Presentation) and Annex B (Example Marketing Campaign Plan) as well as further work performed by subcommittees of the NHIE Board in collaboration with DHHS OHIT.

The OCM Strategy will provide the following content in support of Market Strategy development:

- Identify the HIE's stakeholder groups across the State, (groups who may be impacted by HIE). This component identifies potential target markets for the Marketing Strategy and subsequent Marketing Campaigns.
- Analyze the different ways they will be impacted. This component will help prioritize potential target markets.
- Understand the benefits and challenges of these stakeholder groups to adoption and sustainment of HIE. This component describes factors that help prioritize target markets.
- Identify the entities who, possess influence or power to facilitate these Stakeholder Groups in adoption and sustainment of HIE. This component supports specific Market Campaign planning.

Identify various actions, that facilitate the readiness of each stakeholder group to successfully participate in, and benefit from the implementation of a HIE. This component contributes to communication, publicity, awareness, and education aspects of developing Marketing Campaign and Public Relations Campaigns.

Patients and Consumers Comprise a Unique Market.

Patients and healthcare consumers are defined as a separate stakeholder group in the OCM Strategy. They can further the success of NHIE by their willingness to Opt-In, or they can degrade success by their not doing so, or even by simply “dragging their feet.” Rather than being viewed strictly as a target market, with a corresponding Marketing Campaign Plan, patients and consumers may be more effectively engaged using an Organization Change Management perspective. The NHIE will be most successful in engaging this target market by applying tools to raise awareness of what is changing, and to raise their understanding of the benefit to them and their providers. Additionally NHIE may deliver education that enables patients to learn how the system protects and secures their individual health data, and eventually, how they can access their own data. The process steps for developing a Marketing Strategy are located in the [Appendix C](#). Also in [Appendix C](#) is the original Organization Change Management Strategy, and Communication Strategy, for better focusing on Patients and Consumers.

MARKETING OPERATIONS PROCESS

Marketing Operations will be organized and executed as Marketing Campaigns. Each Campaign will focus on a specific Target Market, consisting of a Stakeholder Group, or collection of groups based on similarity of their value proposition. The Marketing Process for NV DIRECT and NHIE will initially benefit from deliverables provided under the Communication Outreach and OCM Workstream. A stakeholder Adoption Assessment, OCM Strategy, Communication Strategy and Plan, and initial Marketing Strategy provide the foundation of stakeholder group analysis on which to develop the Marketing Campaigns under NHIE. From those products, Stakeholder Groups were reviewed from which have been selected the Target Markets. Leader/Influencers in Nevada’s Health Care Industry have been identified. Through them, a significant portion of the Marketing message will be delivered to the target markets. The process steps which describe market operations are posted in the [Appendix D](#).

SERVICE PORTFOLIO MANAGEMENT GUIDELINES

The creation and ongoing operation/evolution of any business will have numerous costs elements that must be offset by incoming revenues. Such common sense logic holds true for the NHIE and the business which will be responsible for its own existence, once the ONC funding and matching funds are no longer available. It is expected that NHIE will utilize those funds to deploy a Robust Query based HIE and NV DIRECT Secure Messaging to meet Nevada’s current market demand for HIE services. While generating revenue from these services will contribute to NHIE financial sustainability more sources need to be explored. These will include engaging potential sponsors, identifying grants, increasing the number of participants, and extending NHIE service portfolio. This section provides an approach to develop NHIE service portfolio to meet the evolving needs of the Nevada healthcare environment and fulfill the potential (latent) demand.

For NHIE, demand management is the creation of HIE service demand through direct interaction with the Nevada health community as well as the delivery of services and solutions that satisfy the existing demand. The demand management approach by its nature, will balance the value buyers will receive (i.e., the service they are subscribed to) with the costs NHIE will bear in the delivery of those services (e.g., implementation cost and ongoing operational costs).

NHIE SERVICE PORTFOLIO

The development of NHIE Service Portfolio will require a clear articulation of the HIE-based services, the value of those services, and who the service participants (or actors) will be. Figure 2.2 provides a common framework to visualize the HIE service portfolio. It is anticipated that the NHIE Business will develop a portfolio of services that will be delivered to the different stakeholders (or buyers) within the care community. The services will evolve

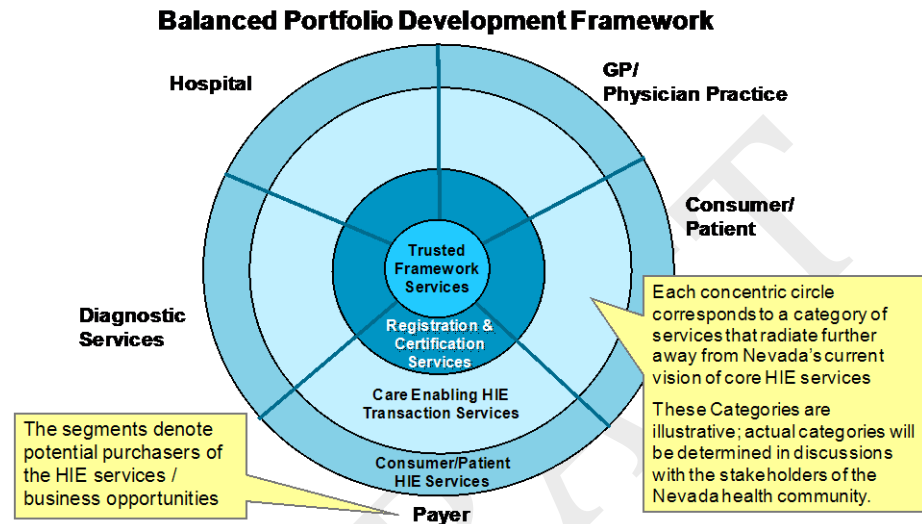


Figure 2.2: Balanced Portfolio Development Framework

over time in different service categories starting with common or core services.

To initiate the development of the HIE Service Portfolio, we have prepared two lists of HIE Service opportunities to be considered for delivery by the NHIE Business. For each service identified in [Appendix A and Appendix B](#), the actors involved are identified as well as the value proposition for the service (i.e., highlights of how does the service add value to the players involved). It is anticipated that this table will evolve over time as services are qualified out and new services are identified and agreed.

Prior to engaging the stakeholders, NHIE should envision the HIE services to be offered and the potential revenue these services would offer the NHIE Business. The resulting outline business model will be used to establish NHIE Business as a non-profit or trust operating in the State.

The [Appendix A and Appendix B](#) will be the foundation for working with the NHIE stakeholder. Through a series of workshops including the potential customers as well as health economics and HIE technology resources, it is anticipated that an initial set of core and value added services will be agreed along with the specifics associated revenue streams. The aim of these workshops is to discover whether the business issues, value propositions and hypotheses from the business model are important for customers. Ultimately, the goal is to discover if there is a market and customers for the envisioned services.

Figure 2.3 depicts one of the assessment models to be used in evaluating the HIE Services opportunities and Figure 2.4 presents some of the assessment criteria to be considered in this initial assessment and market evaluation of the services during the workshops.

Figure 2.3: HIE Evaluation Assessment

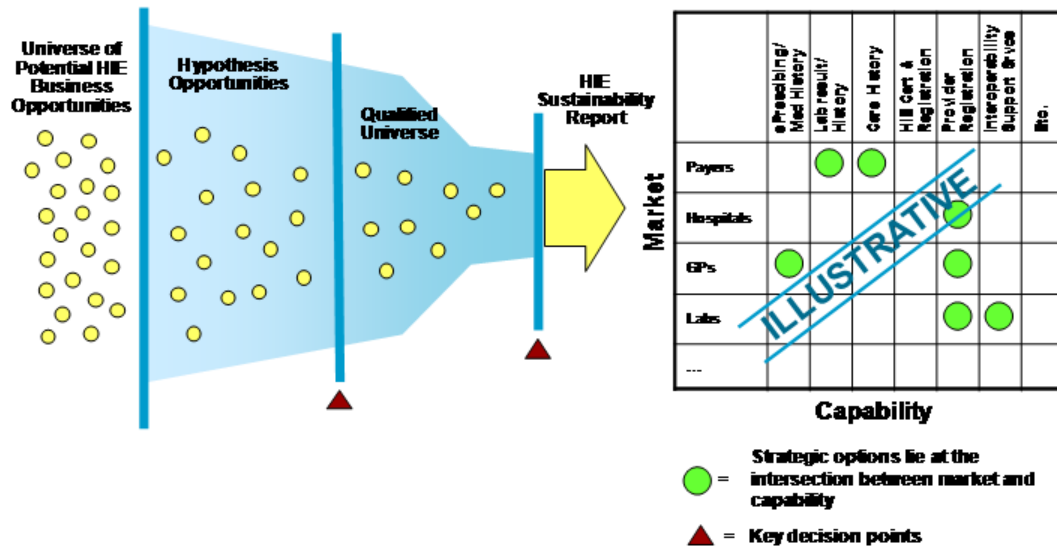
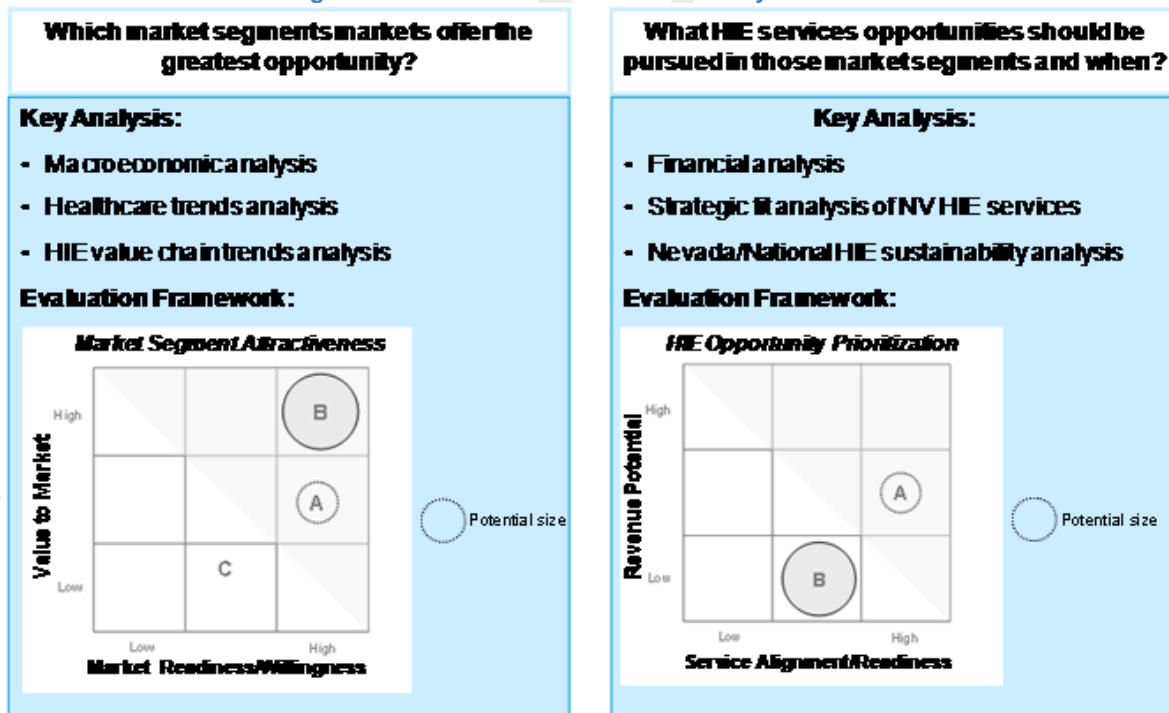


Figure 2.4: HIE Service Assessment Analysis Models



PHASE 1 OPERATION – DIRECT & INTERIM OPERATIONS

The purpose of this section is to provide specific operational guidelines and processes to assist with the establishment of an initial and interim HIE solution. Due to the complexities of the Nevada

health care community of providers and patients, there are challenges in meeting the Federal regulations and timelines. It is not possible to establish in one implementation an entire suite of HIE solutions to meet both health care community needs and Federal regulations.

Therefore, the strategy to overcome these challenges is to develop the necessary HIE capabilities in increments. The priority of capabilities has been established using input from the health care community and guidance from ONC. This section describes the guidelines and processes that are necessary to meet the capability criteria as decided by priorities.

This section covers:

- Enrollment and Attestation
- Help Desk & Issue Resolution
- Patient Consent
- Complaint Filing
- Data Breach
- Provider Cancellation

DIRECT ENROLLMENT & ATTESTATION PROCESS

NV DIRECT is the initial implementation phase of developing the Nevada Health Information Exchange (NHIE). It will allow participants to send authenticated, encrypted patient health information directly to known, trusted recipients. The NV DIRECT Enrollment and Attestation process describes the necessary steps needed to verify the provider's identity and to receive their attestation of sending a patient summary care (i.e. CCD). Receiving the attestation of 200 providers by the end of 2012 is one of the requirements of OHIT corrective action plan for OHIT.

The NV DIRECT Enrollment and Attestation Process definition in [Appendix E](#) will define exact steps for the enrollee and the Office of Health Information Technology (OHIT). After the enrollee downloads the instructions and forms, they are properly filled out, signed, notarized, and sent to the OHIT. After receiving the enrollment packet, OHIT will verify for completeness, set up their DIRECT account, and send a welcome packet with instructions on setting up and using NV DIRECT. Also, the packet will have instructions on sending a sample CCD message to satisfy the Meaningful Use requirement. After successfully sending the sample CCD, the attestation form needs to be filled out and sent to OHIT by the NV DIRECT user.

DIRECT HELP DESK & ISSUE RESOLUTION PROCESS

The Nevada DIRECT Help Desk and Issue Resolution process has been established to manage, track, and resolve technical issues that may arise from the use of the DIRECT system. The process has a two-tier approach to resolution, using both resources at OHIT and the DIRECT vendor.

The objective is to promote satisfaction of issue resolution for the provider community. In order to do so, timeliness of issue resolution has been developed based on the criticality and complexity of issues. The process is available in its entirety in [Appendix F](#) of this document.

The Nevada DIRECT Help Desk and Issue Resolution process and lessons learned from managing the process will act as a template to create the NV HIE Help Desk and Issue Resolution process.

HIE PATIENT CONSENT PROCESS

The HIE Patient Consent Process for NV DIRECT has been defined and included below. The patient consent process for the robust HIE services of NHIE will be defined once the detailed solution options are known and a HIE solution has been selected.

NV DIRECT Patient Consent Process

Under Senate Bill 43, Nevada is an “opt-in” state. Therefore, patient consent is required before sending a patient’s health record electronically. Furthermore, NV DIRECT is phase I of the more robust Health Information Exchange (HIE) that the state is developing. At this time, there is no master patient consent portal, so consent will need to be given every time their health records are sent electronically. Because of periodic audits, records of consent will need to be kept for each patient.

Participants of NV DIRECT are required to have patient consent forms readily available. There are numerous ways to get these forms. The HIPAA form can be used, they can be made by the participant, and there is a sample patient consent form available on the Nevada OHIT website - <http://dhhs.nv.gov/HIT.htm>.

Under HIPAA and SB43, it is the responsibility of the participant to acquire patient consent before sending health records electronically. The process is available for viewing in [Appendix G](#). This consent form must contain the patient’s signature, is properly marked giving consent, and stored for no less than 5 years for any future auditing.

Robust HIE Patient Consent Process

DOCUMENT NOTE: Appendix G provides an initial HIE Patient Consent Process. This process will need to be completed and defined by NHIE once the detailed solution options are known and a HIE solution has been selected for the implementation of the centralized patient consent management capability.

INTERIM COMPLAINT FILING – PROCESS, GUIDELINES, AND COMPLAINT FORM

Part of the mandatory regulations is to establish a complaint filing process for consumers and customers regarding the violation of one the provisions regulating health information exchange in Nevada. Guidelines, form and complaint filing process to establish these in regulations are provided in [Appendix H](#) of this document. This section provides the interim process before regulations have been established.

During the interim period it is recommended that the Nevada Office of Health IT will leverage applicable existing DHHS processes and resources. This will include HIPAA Complaint forms currently used by Medicaid and the expertise of DHHS Privacy and Security Officer. Based on the current capabilities it is recommended to submit all the received complaints by NHIE to the State Health IT Coordinator or its designee. The State Health IT Coordinator or its designee will work then with the Director of DHHS, as the State HIT Authority, to address the complaints on a case-by-case basis.

To communicate the interim complaint filing process with the outside world, it is recommended to provide information on the NHIE, Nevada DHHS and OHIT website how to file a complaint.

PHASE 1/DIRECT BREACH GUIDELINES

The Nevada Department of Health and Human Services (DHHS) Office of Health Information Technology (OHIT) has contracted with Orion Health Inc. to provide the technical services for NV DIRECT. This service is a secure email system that requires servers for the exchange of emails containing patient data. The DIRECT Breach Guideline in [Appendix I](#) defines the proper protocol if there is a data breach of Orion Health's servers.

When a breach is detected by Orion Health Inc. (HISP) or if they are notified by any other third party of a data breach, they will report to the OHIT the type of breach and the participants involved in the breach. The OHIT will forward the breach information to any participants involved and if necessary, notify the community. The participants involved will then inform their affected patients of the data breach.

DIRECT PROVIDER CANCELLING PROCESS

Should a participant want or need to cancel their NV DIRECT account, there is a process to follow. The DIRECT Provider Cancellation Process Definition and form in [Appendix I](#) defines the steps needed if a participant cancels NV DIRECT. The first step is for the participant to download fill out the cancellation form that is provided on the OHIT website. They will then send it to the Office of Health Information Technology (OHIT). After identification verification, their account will be cancelled and DIRECT email address removed from the provider directory.

HIE SALES & PARTICIPANT ON BOARDING

NHIE will exist only if there are paying clients using the services offered by NHIE. The On Boarding function described in this section outlines the requirements and guidelines for capturing a client base and establishing the connectivity to HIE services that these clients will pay to use.

HIE On Boarding includes two major functional areas: HIE Sales Management, and HIE Participant Enrollment. While HIE Sales Management is generic in nature (i.e., follows sales processes used in most industries), the HIE Participant Enrollment function will be highly specific to the activities necessary to first inform prospective NHIE Participants about the enrollment and integration requirements, and second to work with the NHIE Participants as they go through the enrollment and system integration process. The effort to inform prospects is the point of intersection between the two functional areas.

NHIE will need to define staffing and organizational structures to perform the Sales Management and Enrollment processes in the most effective way possible. It is expected that the structure implemented in year one will change as the NHIE market, customer base, and service offerings mature over time.

HIE SALES MANAGEMENT

NHIE will operate a traditional sales operation that includes lead identification, opportunity qualification, service/solution definition, proposal development, relationship management, and contracting (close the deal).

DOCUMENT NOTE: This section or an associated attachment will be completed by NNDA under contract with DHHS.

HIE PARTICIPANT ENROLLMENT GUIDELINES

One of NHIE fundamental value proposition is to connect the healthcare ecosystem and provide them services to coordinate care more efficient and lessen redundant testing by providing HIE services. The more organizations are connected, the more value the HIE will provide in improving healthcare delivery. That being said, one of NHIE fundamental processes will be the enrollment of participants into the NHIE Network. Even more, as the steps needed to enroll participants between initial contacts through the actual exchange of health information could be challenging due to legal, technical, and financial constraints and barriers. In addition, it is expected that no revenue will be received from participant before the data flows. A standardized process is needed.

Effective and efficient enrollment of NHIE participant can be achieved by addressing these characteristics, and outlining a clear defined enrollment process which supports parallel activities and acknowledges dependencies. Furthermore, the described enrollment guidelines below should be customized on a case by case basis depending on the organizational needs, capabilities, and size.

Orientation Phase

The key objective during the orientation phase is to discover if NHIE value proposition meets the prospective client needs. After the prospective clients has been reached by NHIE various marketing and outreach communications and shows interest, NHIE will schedule a meeting to present its

current solution and value proposition. In addition, it will be important to have a high level design discussion to start defining the integration approach. NHIE will explain the various methods to integrate with the NHIE network on the sliding continuum from tightly integrated through highly federated.

It is expected that NHIE leadership and the prospective participant's leadership, including technology subject matters experts, will be attending these meetings.

Application and Approval Phase

The key objectives during the application phase are to verify the application, conduct a technical readiness assessment, define corrective measures (if any) and sign agreements. Depending on the prospective participant integration profile, varying from Private HIE to Individual Provider, different requirements will apply to be approved. During the due diligence review will be determined if the applicant meets the business, legal, technical and governance integration requirements and ultimately if the application will be approved.

As stipulated in NRS 439.588 Private HIEs integrating with the NHIE need to be certified by the Director of DHHS. Therefore the application process includes some additional steps. More specifically, NHIE needs to provide written recommendation to the Director of DHHS after due diligence and DHHS needs to grant a certificate to operate as an HIE in the NHIE network.

Contracting

After the application is approved by NHIE contracting will start between NHIE and the approved participant. Important inputs for the agreements are the services the participants will utilize, the estimated integration costs (result of the technical readiness assessment), and desired integration profile. This phase is finished when the subscription and participation agreements are signed by both parties.

Technical Onboarding

Technical Onboarding will include all the steps necessary to develop and test the interface between the NHIE and the Participant. During this phase it is recommended that the following steps will be completed, including

1. SOW; Sign the Statement of Work to develop and test the interface. This document should include timing, expenses and resources needed.
2. Kick-off; Set up a kick-off meeting with the participants and contractors to align involved parties, clarify solution (Data bulk load, HL 7, CCD, data flow, etc.), explain approach, and establish project management.
3. Integration; Determine the communication protocols, provision of sample data by participant, mapping of selected messages, document the agreed interfaces and finally construct and configure interfaces.
4. Test; Prepare and conduct unit (interface) test, system test, and user acceptance test.

Go – Live

If the tests are successful completed the interfaces will be moved into production environment. The final steps before Go-Live will be training of end-users and setting up the accounts.

The enrollment guidelines described above will need to be further refined by NHIE into specific processes that will utilize the strengths of the selected HIE technology solution. The NHIE processes will also need to address the different enrollment requirements for the various types of Qualified Participants, including:

1. Private HIEs

Private HIEs will need to pass a set of NHIE Certification requirements and be able support some NHIE operational processes that are unique to their role as a provider of HIE services to their Participants. Examples include: Ensuring their Participants sign Participation Agreements which flow down the terms of NHIE; Implementing NHIE Consent Management services such that the Participants have access to these services; Reporting of HIE performance metrics; First tier support for NHIE education and help desk; etc..

2. Care Providers & Ancillary Service Providers

These providers will also need to pass NHIE Certification requirements and provide some NHIE operational support (e.g., education, help desk), but the requirements may be less involved than those for the Private HIEs

3. Nevada State Departments and Agencies

The process to onboard Nevada Departments and Agencies will vary depending on the services being rendered. In some situations, the requirement will be satisfied by enabling authorized staff to have access to health records via the NHIE Clinical Portal (e.g., Division of Aging and Disability Services case managers). In other situations a more in depth set of services will be required (e.g., integration to the Medicaid data warehouse for current Medicaid beneficiaries)

4. Federal Partners

Onboarding with organizations like Veteran Affairs, Military Health System (DoD), Centers for Disease Control and Prevention (CDC), Indian Health Service (IHS), and Social Security Administration (SSA) will first require obtaining HIE Certification from the Office of the National Coordinator (ONC), and then certifications with each of the Federal Partners to be connected with. These certification processes include verification of governance models as well as technical integration and testing of integration services.

5. Interstate Partners

On boarding with other State HIE services is a process that will become clear over time. Nevada's work with the Western States Consortium will help to define interstate on boarding as pilot projects continue to lay the ground work for the service and integration requirements as well as the frameworks for Onboarding State HIEs with each other.

HIE Certification Requirements (DRAFT)

As promulgated by NRS 439.588 provision 4 the Director of DHHS shall describe the requirements to operate as a certified HIE in Nevada. The requirements have not been determined but it is expected that the requirements as shown in Figure 2.5 will be established in regulations

Figure 2.5: HIE Certification Requirements

Domain	Requirements
Electronic Healthcare Accreditation Commission (EHNAC)	HIE Accreditation * <ul style="list-style-type: none"> Accredited HIEA Program. For more information please visit http://www.ehnac.org/accreditation-programs/programs-hieap
NHIE Governance Compliance	Financial Sustainability Plan* <ul style="list-style-type: none"> Entity is structured as a corporation, partnership, limited liability company, foundation, or other entity permitted by Nevada law and has a valid taxpayer identification number 3 year budget including sources of funding (e.g. HIE services revenue, grants, others) and expected costs for development and operations. Certificate of Good Standing in Nevada Overview of governance structure and associated numbers (e.g. Board Members) Plan and procedures related to participant outreach and education. Results of annual independent financial audit of applicant or Parent/Sponsor. Proof of adequate liability coverage relevant to the exchange of individually identifiable health information (e.g., directors' and officers' liability, data theft, data mismanagement, data generation errors, data breach, etc.).
	Technical Infrastructure** <ul style="list-style-type: none"> Compliance with NHIE technical standards and interoperability framework as described in the following Technical Integration Guidelines. NHIE will utilize a technical assessment questionnaire to determine readiness and compliance. Usage of the Nevada statewide HIE Patient Consent Management service and Enterprise Master Patient Index.
	Legal and Policy** <ul style="list-style-type: none"> Privacy policies and procedures that govern the use, disclosure and maintenance of health information available through the HIE Network in a manner consistent with the Health Insurance Portability Accountability Act, Privacy Rule and Security Rule, 45 C.F.R. §§ 160, 164 Fair use policies and procedures that includes the following principles of fair use of the NHIE: (1) Individual Access and Control; (2) Collection, Use and Disclosure Limitation; (3) Data Quality and Integrity Safeguards; (5) Commitment to

	Reciprocity and Timeliness; and (6) Accountability.
	Governance** <ul style="list-style-type: none"> • Governance model that supports integrity of patient data.

* Private HIEs only

** All HIE Participating Entities (e.g. Private HIEs, State Agencies, Healthcare Organizations, Payers, Federal Partners, Labs, Radiology Centers, Pharmacies, etc.)

Technical Integration Guidelines

Technical integration of the NHIE core services to the systems of the Qualified Participants will be a function of the HIE solution that NHIE will procure. The requirements for that procurement have not been defined, but it is expected that common industry standards will be the basis of those requirements. The tables in Figure 2.6 and Figure 2.7 provide a view of example and possible integration requirements for NHIE.

Figure 2.6: HIE Integration Profiles for Qualified Participants (QPs)

Support Area	Profile I	Profile II	Profile III
Data Storage	<ul style="list-style-type: none"> • QP stores clinical documents (e.g., CCDs) locally & manages document registry • NHIE stores data required to manage consent & patient relationship 	<ul style="list-style-type: none"> • Edge Server with NHIE technical stack and a CDR within the QP environment • Other options available 	<ul style="list-style-type: none"> • QP makes use of HIE technology
Messaging	<ul style="list-style-type: none"> • HL7 for Minimum Data Set (see table below) • XDS • IHE Technical Framework 	<ul style="list-style-type: none"> • HL7 for Minimum Data Set • CCD that may or may not be parsed (goal will be to parse) 	<ul style="list-style-type: none"> • Integration between NHIE systems of QPs • HL7 messages • Atomic data & codes required • Standard CCD allowed
Integration	<ul style="list-style-type: none"> • Standard XDS protocol to Query or Request a document • NHIE Registry contains meta data about all the documents 	<ul style="list-style-type: none"> • Web services 	<ul style="list-style-type: none"> • Interface • Single sign-on integration possible

Support Area	Profile I	Profile II	Profile III
Consent Management (QP is always responsible Privacy/Consent Policies)	<ul style="list-style-type: none"> NHIE sends Consent information to QPs (e.g., opt-in, opt-out) QP responsible for Consent Management capability 	<ul style="list-style-type: none"> QP may be able to use HIE consent engine 	<ul style="list-style-type: none"> NHIE provides Privacy/Consent Mgmt services

Figure 2.7: Potential Set of HIE Integration/Interoperability Requirements

Category	Probable Requirements
Clinical Data Sharing	<ul style="list-style-type: none"> HL7 Messages v2.x sent to NHIE from the source system on a real time basis CCD Messages that conform to NHIE 's specifications sent to NHIE from the source system on a real time basis or pulled on request from NHIE
Clinical Message Types	<ul style="list-style-type: none"> ADT – Admit/Discharge/Transfer ORU – Observation Result Unsolicited Medications SIU – Schedule Information Problems
Consent Management	<ul style="list-style-type: none"> Composite Privacy Consent Directive (CPCD) (HL7) TP 30 - HITSP Manage Consent Directives Transaction Package
Minimum Data Set for Exchange	<ul style="list-style-type: none"> EMPI feed containing Patient Demographics and Identifier ADT (HL7) – Admissions for Patient/Provider Relationship ADT/Encounters feeds (HL7) Medication Segments (HL7)
Desired Data Set for Exchange	<ul style="list-style-type: none"> Minimum Data Set, plus all other supported HL7 message types
Health Languages (Normalization Code Sets)	<ul style="list-style-type: none"> Problems: ICD-9-CM or SNOWMED CT, ICD-10-CM (future) Procedures: ICD-9-CM or CPT-4, ICD-10-PCS (future) Labs: LOINC Medications: RxNorm

PRIVACY AND SECURITY GUIDELINES

DOCUMENT NOTE: This section has been completed as part of the State Strategic and Operations Plan. These Appendices will be made available by reference. Detailed NHIE policies and procedures will need to be developed based on the selected HIE technology. Drafts of these policies and procedures may be developed based on known capabilities of commonly available HIE vendor solution capabilities.

- **SOP Appendix M - Privacy Security Framework - Collection-Use-Disclosure Domain**
- **SOP Appendix N - Privacy Security Framework - Safeguards Domain**
- **SOP Appendix O - Privacy Security Framework - Accountability Domain**

HIE SERVICES ADMINISTRATION & OPERATION MANAGEMENT

CONSUMER SUPPORT SERVICES

NHIE will need to establish a set of contact center services (e.g., online, toll free call center) available to consumers/patients access to information and support that would include (at a minimum) the following:

- **Patient Consent Management:** Enables individuals to selectively choose to allow their health information to be shared electronically via the HIE services offered by NHIE or by Qualified Participants of NHIE. Patients may elect to have their data made available via HIE services (opt-in). They may also elect to not have their data made available via HIE services (opt-out). By current statute, the default consent election is opt-out (i.e., no patient data will be sharable electronically unless a patient specifically grants their consent. The exceptions to this default consent is Medicaid beneficiaries whose default is to be opt-in (i.e., their data can be shared electronically without explicit consent being given). NOTE: The electronic sharing of patient data is protected under HIPAA and other State statutes and regulations.
- **Health Record Requests:** Enables individuals to get a paper or electronic (e.g., CCD) version of their electronic health record as is known to NHIE at the time.
- **Health Record Amendments:** Enables individuals to submit amendments to their health record which they believe are necessary to correct or clarify the information on the electronic health record accessible via NHIE.
- **Health Record Access Audit Log Requests:** Enables individuals to receive a list of people that have accessed their electronic health record via the NHIE network. NOTE: This requires an ability to gather this information from across the NHIE network of Qualified Participants.
- **Complaint Filing Management:** Consumers and patients have the right to submit complaints about the usage of NHIE services to exchange their protected health information. Customer support must be able to accept these complaints, assign actions to develop responses, track the complaint and response, and deliver a response to the individual. A reporting capability will be required.
- **Data Breach Alert from Consumers:** NHIE customer support must be able to receive, investigate, track, and respond to consumers and patients that believe there has been a

breach of their health data. This process, depending on the results of the investigation, may trigger NHIE to launch a Data Breach alert to consumers and HHS.

- Data Breach Reporting to Consumers & HHS: Should NHIE detect or determine that protected health information has been improperly accessed, tampered with, or otherwise breached, then NHIE Customer Support will need to announce this to consumers and to HHS.

SECURITY MANAGEMENT

Security related guidelines, policies, and procedures will be needed to minimize the risks of inappropriate access to personally identifiable health information. All necessary precautions need to be implemented both from a technical perspective as well as from an operational perspective.

DOCUMENT NOTE: This section or associated attachment(s) will be completed by HIE Vendor under contract with NHIE.

PROVIDER DIRECTORY MAINTENANCE

The provider directories (both facility and individual) will be supported by the selected HIE vendor's technical solution, but the content of the NHIE Provider Directory will require manual intervention to assure its reliability as a dependable source of provider identification information. Individual providers and provider facilities will be identified within the patient health information messages exchanged between parties in the HIE network. As these messages flow to/through NHIE, the automated directory services will attempt to match identifiers to known providers in the existing NHIE provider directory. When there is a match, then the NHIE directory is updated to reflect a new index is now known for an existing provider.

When there is no match, there are several possible next step scenarios, one of which must be taken by NHIE.

- First, the mismatch may indicate that this is a new provider to be added to the directory. This will require manual intervention to build a complete entry in the provider directory (e.g., name, address, etc.).
- Second, the mismatch may indicate that the information is not sufficient to match to an existing provider entry. In this case, manual intervention will be needed to update the directory so the matching occurs properly.
- Third, the mismatch may indicate an improper provider identifier. This will require research by NHIE to determine cause of mismatch and escalation to source of record, or to the State.

A separate element of provider index maintenance is the rules and algorithms that determine how provider and facility identities are resolved to determine whether or not to combine provider/facility records or to maintain them as separate records. Over time, the nuances of the Nevada demographics will be discovered and used to tune these business rules and algorithms to increase effectiveness of the automated matching. It is expected that the initial rules will be defined conservatively to minimize the risk of incorrectly combining provider/facility records (a major health information disclosure risk concern). This will cause more manual intervention (as

described above), but during the manual intervention process it will be important that NHIE observe patterns in matching that can be used to revise matching rules and improve automated matching within the provider indices.

DOCUMENT NOTE: This section or an associated attachment will be completed by HIE Vendor under contract with NHIE.

PATIENT INDEX MAINTENANCE

The master patient index (MPI) will be supported by the selected HIE vendor's technical solution, but the content of the NHIE MPI will required periodic manual intervention to assure its reliability as a dependable capability for matching and combining patient identification information. Patients will be identified within the health information messages exchanged between parties in the HIE network. As these messages flow to/through NHIE, the automated MPI services will attempt to match identifiers to known patients in the existing NHIE MPI. When there is a match, then the NHIE MPI is updated to reflect the new index that is now known for an existing patient.

When there is no match, there are several possible next step scenarios, one of which must be taken by NHIE.

- First, the mismatch may indicate that this is a new patient to be added to the MPI. This may require manual intervention to build a complete entry in the provider directory (e.g., name, address, etc.).
- Second, the mismatch may indicate that the information is not sufficient to match to an existing patient entry. The issue could be that the information relates to two individual records that are about the same person, but reliability of the automated match is not sufficient to combine data into a single record (i.e., risk of creating multiple records for a single individual). Alternatively, the issue could be that the automated match relates to two records that are for two different individuals, but the reliability is not sufficient to confirm that this is the case (i.e., risk of creating duplicate records). In these cases, manual intervention will be needed to update the directory so the matching occurs properly.

Note that, the most common message type expected to provide MPI updates are Admission-Transfer-Discharges (ADTs). In addition to clinical data, these messages will provide the patient demographic information needed to perform the matching described above. In addition, these messages include the information about the provider providing the care. This information is used to establish the patient-provider relationship that is essential to controlling access to personal identifiable health information.

A separate element of MPI maintenance is the rules and algorithms that determine how patient identities are resolved to determine whether or not to combine patient records into a single electronic health record or to maintain them as separate patient records. Over time, the nuances of the Nevada demographics will be discovered and used to tune these business rules and algorithms to increase effectiveness of the automated matching. It is expected that the initial rules will be defined conservatively to minimize the risk of incorrectly combining patient records (a major health risk concern). This will cause more manual intervention (as described above), but during the

manual intervention process it will be important that NHIE observe patterns in matching that can be used to revise matching rules and improve automated matching within the MPI.

DOCUMENT NOTE: This section or an associated attachment will be completed by HIE Vendor under contract with NHIE.

HIE SUPPLIER MANAGEMENT

It is anticipated that NHIE will contract for the implementation, validation, and operation of the state-wide HIE system. As such, NHIE will need to establish robust supplier management processes to establish, monitor, and control the work performed by the vendor(s) that are contracted by NHIE. Key elements of the HIE Supplier Management function include:

- Contracting: All vendor relationships will be formalized in contracts that will include standard terms and conditions, flow down terms and conditions from sub-recipient agreement, statement(s) of work that describe expected work and/or services to be performed, NHIE's responsibilities, key assumptions, billing and payment terms, termination clauses (rights to terminate at convenience or for cause), and cost recovery for early termination;
- Change Control: Over the course of a vendor contract, it is possible that the products or services needed by NHIE may change. As such, it is imperative that strong change control mechanisms and processes be in place to document the changes. This includes forms, flow of approval, levels of approval required, timeframes for submitting and approving changes, etc. The change control process should be referenced within the vendor contract.
- Service Level Management: Depending on the vendor service, NHIE will need to define a set of operational measures the vendor will be expected to meet over varying periods of time. The measures and periods of time will comprise the Service Level Agreements (SLAs) that will govern the ongoing relationship between NHIE and the vendor. Examples include system availability (i.e., limited down time), defined times for maintenance, system response times, help desk response times, effectiveness of business continuity (e.g., testing of system restore in case of catastrophic event), etc.

DOCUMENT NOTE: This section or an associated attachment will be completed by NHIE staff to comply with State sub-recipient requirements as well as internal control policies and procedures.

HIE PERFORMANCE REPORTING

There will be a wide variety of performance reporting requirements. During service implementation, NHIE will want to receive periodic (e.g., weekly) status reporting on the progress of the implementation effort as well as risks, issues, and change control items. Following implementation, operational reports will be required to understand use of services being provided and the operational performance of those services (e.g., average response time, response time at peak loads, patient index matches, patient index mismatches, number of transaction by transaction type, etc.). In addition, NHIE will need to provide all HIE operational reporting required by ONC via the sub-recipient agreement.

A critical element of performance reporting will be the constant monitoring and periodic reporting of the performance of the interfaces to the NHIE customer base. The sustainability model for NHIE depends on top quality performance of the core services. Message availability and delivery will be the primary measure of success. When an interface goes down (i.e., is no longer operational and available), NHIE must be able to provide instantaneous response and get the interface operational rapidly. Detailed reporting of interface availability and downtime, by NHIE customer, will likely be part of the SLAs between NHIE and its customers.

DOCUMENT NOTE: This section or an associated attachment will be completed by NHIE staff to comply with State sub-recipient requirements as well as internal control policies and procedures.

HIE INTEGRATION MAINTENANCE

Following the initial implementation of the core HIE system, NHIE and/or a contracted vendor will develop and validate the interfaces between NHIE and the NHIE customers (e.g., state agencies, hospitals, provider practices, laboratories, payers, etc.). Following that initial interface implementation, NHIE, or its vendor, will need to continue to maintain the interface definition to account for changes to the messages being exchanged (i.e., revisions to acceptable values, new formats and/or standards).

DOCUMENT NOTE: This section or an associated attachment will be completed initially by HIE Vendor under contract with NHIE and will be completed by NHIE staff.

OPERATIONS

NHIE BOARD ADMINISTRATION

Nevada State Statutes mandate that the NHIE Governance Body meet no less than four times per year. This section describes these meeting requirements in detail, and provides specific guidance and process definition regarding how NHIE staff will support the administration and logistics of these meetings. In addition, responsibilities and processes related to other administrative aspects of the NHIE Board (e.g., elections of Board positions, replacement of directors on Board, etc.) will also be described.

DOCUMENT NOTE: This section or an associated attachment will be completed by NNDA under contract with DHHS.

STRATEGIC PLANNING

The NHIE business will include an annual (minimally) strategic plan update. This section provides guidance for that planning process including, but not limited to:

- Timing of strategic planning efforts;
- Time horizon for the NHIE Strategic Plan (e.g., 2-3 years);
- Key elements of the Strategic Planning document;
- Outline approach for creating the Annual Strategic Plan update;

- Required input from key constituents (e.g., NHIE Qualified Participants); and
- Required approvals (e.g., DHHS, NHIE Board of Directors).

DOCUMENT NOTE: This section or an associated attachment will be completed by NNDA under contract with DHHS.

PUBLIC RELATIONS MANAGEMENT & COMMUNICATION

Public Relations (PR) Management in NHIE encompasses Communication as its primary tool to further these NHIE Public Relations goals:

- To support the NHIE mission by stimulating public interest and sustaining awareness of NHIE as a valued, respected component of Nevada Health Care
- Through awareness, understanding, and education, generate a sufficient level of confidence among Nevadans in the NHIE's safe and secure stewardship of personal health information, resulting in a consistently [high level] xx% of patients "opting-in" to sharing their health information electronically.
- To respond quickly and accurately to media questions regarding NHIE operations.
- To align with NHIE Marketing Strategy by generating appropriate publicity through increased awareness, understanding, and education.
- To set and manage common standards of external communication excellence to the Public.

Public Relations Management

As part of NHIE Strategic Planning, NHIE Public Relations (PR) will develop its PR Strategy in alignment with the above goals and NHIE's Strategic Plan. From that strategy, a PR Budget must be created to support implementation of the various components of the PR Strategy.

Communication is a tool of Public Relations Management.

PR Management and Marketing Management share Communication as a common tool, as well as other PR methods for educating external entities and generating publicity. Often, their targeted audiences will be the same. NHIE Public Relations Management goals, however, diverge from Marketing Management in that it fosters the image or brand of the organization as opposed to selling product or service. The components of a PR Strategy, is organized and managed through a Communication Strategy and Plan. If PR Strategy consists almost wholly of communication-based activity, the Communication Strategy and PR Strategy may become one and the same. An NHIE Communication Strategy and Plan was developed to support Nevada DIRECT, and NHIE implementation. As organized it provides information that supports both Marketing Campaign Planning and PR Strategy development, and should suffice as an initial PR Strategy, but it must expand to address the following business objective-related issues:

- How will we use Public Relations communication to stimulate public interest in NHIE and sustain awareness of NHIE as a valued, respected component of Nevada Health Care?
- How will we organize communication capability to respond quickly and accurately to media questions regarding NHIE operations? What are those questions likely to be?

- Where does PR need to align with NHIE Marketing Strategy? Where do we share objectives and communication capabilities?
- What does the Nevada Public expect from NHIE in the way of communication excellence?

Communication must be planned in sufficient detail to ensure consistency of message, optimal use of communication media and resources, and alignment of appropriate theme and message with the targeted audience. The current Communication Strategy and Tactical Communication Plan, developed to support the OCM strategy, are available from DHHS OHIT and/or the communications subcommittee of the NHIE Board. Communication, by its nature is perishable. News and information can become stale. Therefore, the Communication Plan should be constantly appended to reflect updated messages, and evolving themes.

POLICY & REGULATIONS MANAGEMENT

NHIE will likely be contracted to support DHHS to support the development of regulations pertaining to the existence and operation of health information exchanges in the State and operating across State borders. The regulatory process and associated deliverables will be defined by the State and DHHS as part of the scope of work for NHIE. This section will provide guidance to what the regulation management process and assistance may be so NHIE staff can properly plan for their involvement.

Similarly, NHIE will need to define and deploy policies necessary to enforce their role as a governing organization and to ensure proper operation of the NHIE network among Qualified Participants (including private HIEs). As such, this section will also describe the approach and guidelines to developing, maintaining, and deploying the NHIE policies internally and externally to NHIE participants and stakeholders.

DOCUMENT NOTE: This section or an associated attachment will be completed by NNDA under contract with DHHS.

INTERNAL IT SERVICE MANAGEMENT (NON-HIE)

NHIE staff will require access to information technology services in the same way all businesses do. As such, this section will outline those services (e.g., PCs, network/internet access, desktop applications, email services, financial management, human resources, document management, etc.) that will be required and the management of those services. It is expected that many of these IT services will be made available to staff through a subscription basis rather than acquisition as a means to avoid significant capital expenditures.

DOCUMENT NOTE: This section or an associated attachment will be completed by NNDA under contract with DHHS.

HR MANAGEMENT

NHIE will be hiring staff, paying staff, providing benefits to staff, and managing the ongoing performance of those staff. This section of the document provides a description of the processes that need to be established to properly manage the NHIE staff. In addition, this section will describe the requirements for any systems that may be needed to support these processes. These system

requirements will account for the low number of employees expected to be needed in the early years of NHIE (e.g., 4-8 people over the first 12-18 months).

DOCUMENT NOTE: This section or an associated attachment will be completed by NNDA under contract with DHHS.

FACILITIES MANAGEMENT

Depending on timing and need, the NHIE staff will require office space to perform their work efficiently. This section describes the near-term (next 6 to 12 month) requirements for facilities as well as the anticipated approach for managing those facilities (e.g., physical security in accordance with HIPAA, supplies, furniture, phone services, etc.).

DOCUMENT NOTE: This section or an associated attachment will be completed by NNDA under contract with DHHS.

FINANCIAL MANAGEMENT

NHIE will have significant financial obligations to meet and, accordingly, we have significant income to manage to pay for those obligations. This section will outline the expected financial management processes required for this internal requirement. In addition, these operational processes include sub-recipient management requirements which NHIE will be accountable to DHHS for while grant funding from the State is made available to NHIE.

Some expected revenue streams include:

- Payments from NHIE Qualified Participants;
- Payments from sponsors (e.g., pharmaceutical companies, medical device companies, etc.);
- Payments from grants; and
- Payments from third party partners for service delivery (e.g., labs).

Note that with grants as a key source of income, the financial management processes must include those required to support grant management and reporting requirements.

DOCUMENT NOTE: This section or an associated attachment will be completed by NNDA under contract with DHHS.

OPERATIONS MANAGEMENT

NHIE requires that there be an overarching management function in place to ensure that all elements of the NHIE business are working in a coordinated and efficient manner across the processes associated with HIE and non-HIE operations. This section will document the guidelines and processes necessary to properly control the growth of the operations relative to the extent that requirements (e.g., customer, grant, etc.) are being met and which revenues are able to sustain the operational costs.

DOCUMENT NOTE: This section or an associated attachment will be completed by NNDA under contract with DHHS.

VENDOR MANAGEMENT

NHIE will be dependent on a number of vendors for the IT services required for the operations of the business and the HIE infrastructure. It is essential that NHIE manage their vendors closely and collaboratively to ensure NHIE customers are delighted with services and service levels. This section will provide clear guidance on what NHIE must do to properly manage their vendors. Key elements include, but are not limited to:

- Contract negotiations;
- Establishing strong service level agreements (SLAs);
- Creating strong relationships with vendor account managers;
- Strict monitoring of service performance against SLAs (e.g., system response times, access to audit trails, system availability, etc.);
- Spot checking help desk services to understand NHIE's customers' experience with NHIE;
- Proactively communicating current and future needs as well as associated expectations from vendors; and
- Listening to new service offerings in relation to NHIE Strategy and Services Portfolio.

DOCUMENT NOTE: This section or an associated attachment will be completed by NNDA under contract with DHHS.

APPENDICES

APPENDIX A: TRANSACTION BASED HIE SERVICES

Transaction Based HIE Service	Sender	Requester	Potential Service Payers	Value Proposition
Claims	Provider, Third Party	Payer (receiver rather than requester)	Sender	Utilizes standard ANSI X12 4010/5010 transaction Leverages existing communications and registration services for EDI
Eligibility	Provider, Third Party	Payer (receiver rather than requester)	Sender	Utilizes standard ANSI X12 4010/5010 transaction Leverages existing communications and registration services for EDI
Referral	GP, ER, Hospital, Retail clinics, DoD, VA, I	Specialist, GP, Hospital, DoD, VIIHS)	Sender	Optimize continuity of care (quality) Better patient service/ experience (quality, market) Reduction in administrative time (cost) Utilizes standard ANSI X12 4010/5010 transaction Leverages existing communications and registration services for EDI
* E-prescribing	GP, ER, Hospital, Retail clinics, DoDIA, IHS	eRx (Surescripts) Pharmas	Primary Care Insurance Medicaid Retail Clinic Acute Care Hospital, DoD, VA	Better patient service/experience (quality, market) Reduction in transcription errors (quality, cost) Administrative phoning in Rx (cost) Support meaningful-use (quality)
Medication History	eRx (e.g., Surescripts) Pharmas	GP, ER, Hospital, Retail clinics, I, VA, IHS	Primary Care: Insurance Retail: Clinic Acute Care: Hospital, DoD, VA	Avoid medication adverse reactions and unnecessary care (quality, cost) Administrative savings on patient histories (cost)
* Lab Order/Results	Lab company	Ordering provider	Receiving Provider (% share) Lab company (% share)	
Historic Lab Results	Lab company (Quest, Associated Pathologists, LapCorp, small labs)	GP, ER, Hospital, Retail clinicDoD, VA, IHS	Receiving Provider (% share) Insurance/Medicaid (% share)	Better patient service/experience (quality, market) Optimize ability to diagnose (quality) Reduction in duplicative lab orders (cost)
Specialist Consult Report	Specialist (GP, HospII, DoD, VA, IHS)	GP, ER, Hospital, Retail Inics, DoD, VA, IHS	Sender Commercial Payer Medicaid	Optimize continuity of care (quality) Better patient service/ experience (quality, market) Reduction in administrative time (cost)

Transaction Based HIE Service	Sender	Requester	Potential Service Payers	Value Proposition
* Clinical Summary & Demographics (Prior Primary Care Visits/ Discharge Summaries)	GP, ER, Hospital, Retail clinics, DoD, VA, his	GP, ER, Hospital, Retail clinics, DoD, VA, IHS	Receiving Provider (% share) Insurance/Medicaid (% share)	Better patient service/experience (quality, market) Optimize ability to diagnose (quality) Administrative savings on patient histories (cost) Improved ability to detect medication abuse (cost)
Care Transfer/Care Plan	GP, ER, Hospital, DoD, VA, his	Nursing/Home Care/Physical Therapist	Receiving Provider (% share) Insurance (% share)	Better patient service/experience (quality, market) Optimize continuity of care (quality) Effective care in less expensive care setting (cost) Reduction in administrative time (cost)
Patient Immunization Update (NV WebIZ exists)	GP, ER, Hospital/retail clinics, DoD, VA, his	State Public Health (Vaccine Registry)	State of Nevada	Proper vaccination of individuals (quality/cost) Support meaningful-use (quality) Reduction in administrative time (cost)
Patient Immunization History	State Vaccine Registry	GP, ER, Hospital, Retail clinics, DoD, VA, IHS	Hospital (% share) Primary Care (% share) Insurance/Medicaid (% share)	Proper vaccination of individuals (quality/cost) Support meaningful-use (quality) Reduction in administrative time (cost)
Public Health Reportable Syndromic Surveillance Event	GP, ER, Hospital, Retail clinics, DoD, VA, his	State Public Health, CDC	Provider	Delegates proper reporting requirement to HIE (quality, cost) Reduction in administrative costs of processes, systems and infrastructure for reporting to multiple requesters (e.g., CDC, State Health) (cost) NOTE: Need to look at implications of EpiCenter being used at hospitals and urgent care facilities today
Public Health Reportable Lab Result	GP, ER, Hospital, Retail clinics, DoD, VA, his	State Public Health, CDC	Provider	Delegates proper reporting requirement to HIE (quality, cost) Reduction in administrative costs of processes, systems (i.e., NEDSS) and infrastructure for reporting to multiple requesters (e.g., CDC, State Health) (cost) NOTE: NEDSS is normally used, but it is not functionally properly.
Payment Status	Payer	Provider or third party	Provider or third party	Utilizes standard ANSI X12 4010/5010 transaction Leverages existing communications and registration services for EDI
PACS Images	Care provider, Diagnostic	Care provider, Diagnostic imaging	Requesting provider Payer	Optimize continuity of care (quality) Better patient service/ experience (quality, market)

Transaction Based HIE Service	Sender	Requester	Potential Service Payers	Value Proposition
	imaging center	center	Medicaid	Reduction in administrative time (cost) Reduce duplicative diagnostic imaging costs and patient exposure to radiation
Telemonitoring Uploads (e.g., glucometer readings, heart monitors, sleep monitors, etc.)	Patient	GP, Accountable Care Organization, Managed care organization	Patient Insurance/Owner of Care Risk Pharmaceutical Company? (underwriter of device and related supplies)	Improve wellness of individual by early identification of declining condition prior to acute or emergency situation May enable new lines of care services by providers
Patient Visit Summary & Care Instructions	GP, Primary Care provider, Retail Clinic	Patient	Sender (%) Payer (%) Medicaid (%)	Reminder of health status and care instructions given following visit (market) Improved compliance with care prescribed care protocols (quality, cost) Reduction in patient calls for clarifications (cost)
Patient Alert	GP, Primary Care provider, Retail Clinic	Patient	Sender	Timely communications related to care process (e.g., lab results delivered) Better patient service/experience (quality, market) Reduction in administrative time (cost)
Family Member Alert (assumes Family Member consent or like)	GP, Primary Care provider, Retail Clinic	Family Member	Family Member Patient	Timely communications related to care process for family member (e.g., elderly parent care visit, diabetic child blood sugars elevated) Summary of health status and care instructions given following family member visit (quality, cost, market)

APPENDIX B: EVENT SUBSCRIPTION BASED HIE SERVICES

Event/Subscription Based HIE Services	Service Recipient	Potential Service Payers	Value Proposition
Provider Enrollment	Registering provider	Registering provider	The list of providers with EMR systems will be known to the health community Facilitates electronic sharing of patient data between providers
GP EMR (SaaS)	Registered Medicaid Provider	Registered Medicaid Provider	Enables Medicaid and non-Medicaid providers access to a EMR solution that is integrated to the NHIE services Delivers 'meaningful use' capabilities Low cost option for PCPs without existing EMR systems
Broadband Services	Care Delivery Organizations	Care Delivery Organizations	Provides access to high speed network for connectivity needed to participate in the HIE and other related programs Support for the care delivery organizations in the rural and frontier geographies of Nevada
Health Insurance Exchange (HIX) Shared Services	State of Nevada, Silver State HIX (SSHIX)	State of Nevada, Silver State HIX (SSHIX)	Services implemented by NHIE that can be utilized by SSHIX as a shared service thereby reducing the initial investment to be made by SSHIX. Potential service areas include: Provider Directory/EMPI; Person Directory/EMPI/Identifier; Secure Messaging; Care Data Access (if needed); Consent Management (if needed)
RHIO/HIE Registration	Registering RHIO/HIE	Registering RHIO/HIE	The list of RHIOs/HIEs will be known to the health community Facilitates electronic sharing of patient data between providers
RHIO/HIE Certification	Requesting RHIO/HIE	Requesting RHIO/HIE	Ensures that RHIO/HIE participating in the NHIE and NHIN will be operating within the standards and governance rules agreed within the State
Trusted Infrastructure Subscription	Registered providers and RHIOs/HIEs	Registered providers and RHIOs/HIEs	Trusted Infrastructure enables communications and understanding of health data transactions: Message Registration Service: Identifies the message standard(s) supported by NHIE for use by a sender/receiver for each specific transaction type (e.g., Reno PCP Practice sends/receives HL7 V2.5 lab orders/results with LOINC) Translation Service: For HIE parties that are not able to communicate via the selected NHIE standard message implementations, a translation service would be used to make the transactions understandable for sender and receivers.
Public Health Summary / GIS Mapping	HIE Business	Requester	Access to Public Health Threat Trends in form of geographic mapping

APPENDIX C: MARKETING STRATEGY DEVELOPMENT PROCESS

OVERVIEW

The National eHealth Collaborative (NeHC) [recently published](#) a report that emphasized Market Assessment and Strategic Planning as two of four critical components to the implementation and sustainability of a HIE. IDC HealthInsight published an April 2012 report in which an analyst concluded: "Too many HIOs have relied on the "build and they will come" strategy. Instead, HIOs must plan for sustainability from the very beginning." It follows that a rigorous HIE Business Model, mapped to a Marketing Strategy founded on realistic, knowledgeable assessment of the target market provides a crucial prerequisite for a sustainable HIE. In this process, that target market assessment is developed through two inputs, the Business Model itself, and the eHealth Assessment.

The Marketing Strategy Development Process for NV DIRECT and NHIE will initially benefit from the Strategy and Operations Plan, deliverables provided under the Communication Outreach and OCM Work Stream. A stakeholder Adoption Assessment, Adoption Strategy, Communication Strategy and Plan, and initial Marketing Strategy provide the foundation of information on which to develop the overall Marketing Strategy, and the next Marketing Campaign under NHIE. Under that effort, Stakeholder Groups were categorized from which were selected the Target Markets. Leader/Influencers in Nevada's Health Care Industry have been identified, through which will be engaged to deliver a significant portion of the Marketing message to the target markets.

PROCESS DEFINITION

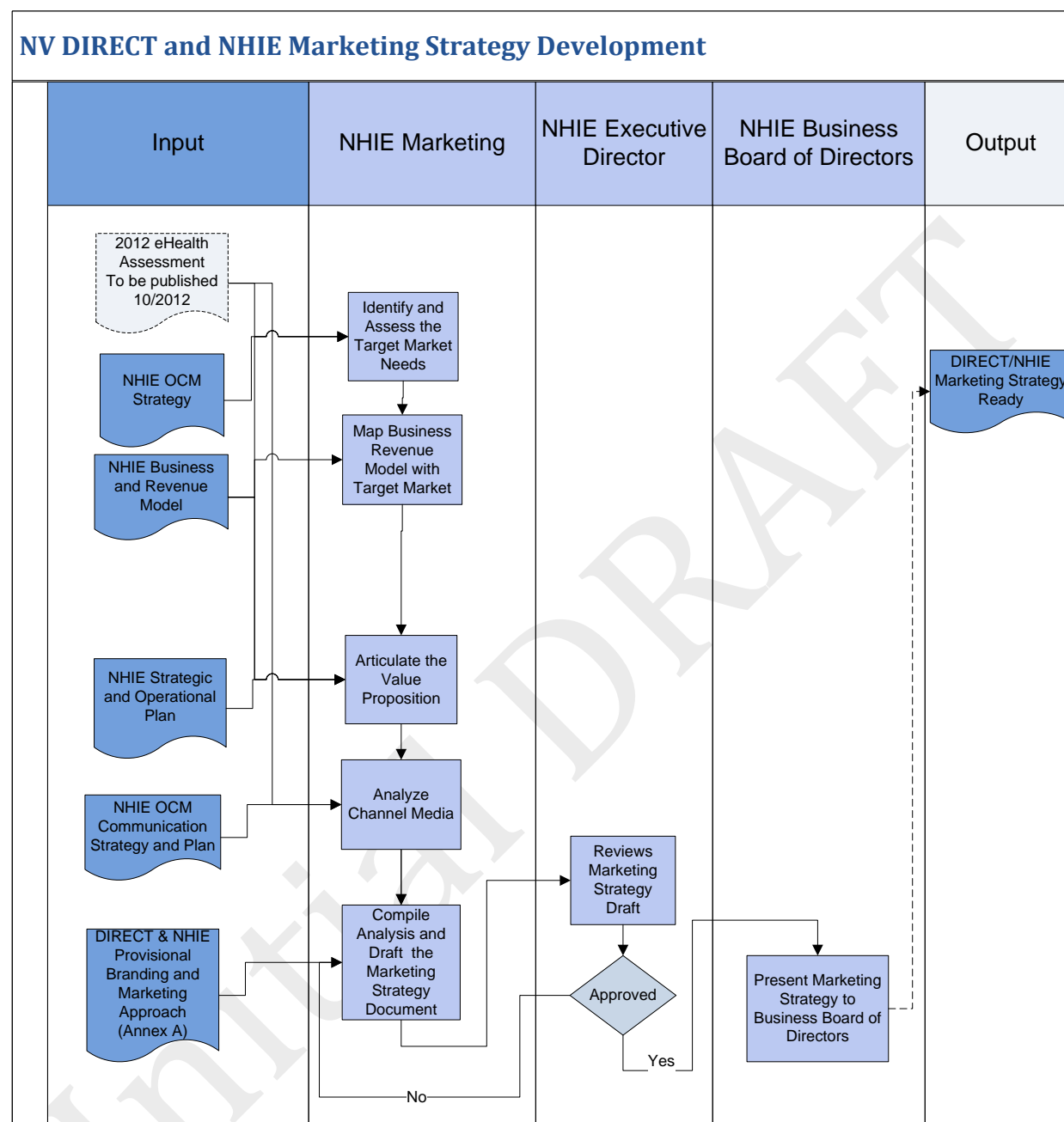
Roles and Responsibilities

Role Description	Responsibilities
NHIE Executive Director	<ul style="list-style-type: none"> The NHIE Executive Director is accountable to the Business Board of Directors for the successful implementation of the NHIE Marketing Strategy, and subsequent Marketing campaigns. He/she will provide guidance and set annual and semi-annual objectives for the NHIE Marketing Director, in alignment with the Sales Forecast. Approves the Marketing Strategy and Marketing Campaign Plans
Marketing Director	<p>This role leads the Marketing Process, and may be integrated with the Communication Director/Public Affairs role.</p> <ul style="list-style-type: none"> Drafts, updates and manages the Marketing Strategy, Marketing Campaign Plan, and deploys the Branding Strategy. Facilitates the DIRECT/NHIE leadership in developing a Brand and Brand Strategy.

Some Definitions of Terms

- **Stakeholder/Stakeholder Groups** –Any person or group of persons who will be impacted by implementation of Nevada DIRECT or NHIE. Individual stakeholders may be managed as stakeholder groups, based on similarities in how they are impacted, or how they are expected to respond to a change. Examples of Stakeholders are: Individual Physicians, a hospital, Pharmacy, or private practice, Dept of Corrections, Dept of Veterans Affairs. Examples of Stakeholder groups are; Urban Hospitals, Payers, Pharmacies, Rural Patients.
- **Change Agents/Change Leaders /Influencers** – Individuals or organizations (a subset of stakeholders) which have formal or informal power and potential to influence the behavior of stakeholders/stakeholder groups. Examples are: Nevada Medical Association, Nevada Rural Hospital Partners, and DHHS.

MARKETING STRATEGY DEVELOPMENT FLOWCHART



Activity - Identify and Assess Target Market Needs

Identify and Assess Target Market Needs	
Input	<ul style="list-style-type: none"> 2012 eHealth Assessment (Results published September, 2012) HIE Organization Change Management (Adoption) Strategy NHIE Business Model
Activity Description	<ul style="list-style-type: none"> In accordance with the Business Plan, the Marketing Director

		and Executive Director collaborate to confirm Market segmentation into initial target markets which will guide the priority of effort in the Marketing Strategy. <ul style="list-style-type: none"> From 2012 Assessment data, for each market segment, identify specific needs which can be addressed through adoption of an HIE solution.
Output		Confirmed definition and description of the target markets including identification of early adaptors, potential high revenue markets.
Key Performance Indicators		Information is current.
Timeframe		This activity continues in an iterative manner based on feedback from initial enrollments, follow-on assessments throughout the implementation lifecycle.
Roles	Responsible	Marketing Director
	Accountable	NHIE Executive Director
	Consulted	Communication Director/Public Affairs, Legal, Selected Champions/Influencers,
	Informed	None

Activity - Map Business Revenue Model with Target Markets

Map Business Revenue Model with Target Markets		
Input		<ul style="list-style-type: none"> Business Model Segmented Target Market Listing from Activity 2.4
Activity Description		<ul style="list-style-type: none"> Marketing Director collaborates with the Executive Director to identify Target Market criteria that will be used to prioritize target markets in the next step. The Marketing Director cross walks the Segmented Target Market list with the Revenue Model from the Business Model Document. The intent is to identify the most attractive and likely markets according to, both their ability, and willingness to buy. The Marketing Director creates a matrix of target markets such that selected Markets can be identified according to the criteria set in the first step above.
Output		<ul style="list-style-type: none"> Prioritized Segmented Target Market List
Key Performance Indicators		<ul style="list-style-type: none"> Target Markets are sufficiently differentiated in discrete segments according to how they will marketed through separate marketing media, communication, publicity, pricing, and product solutions.
Timeframe		<ul style="list-style-type: none"> This activity continues in an iterative manner based on feedback from the Business Plan or as Target Markets evolve.
Roles	Responsible	Marketing Director/
	Accountable	NHIE Executive Director

	Consulted	None
	Informed	DHHS Leadership, Business Board of Directors,

Activity – Articulate the Value Proposition

Articulate the Value Proposition		
Input		<ul style="list-style-type: none"> HIE Business Model HIE Strategic and Operational Plan (SOP) Segmented target market list from previous activity
Activity Description		<p>In this activity, the Marketing Director will use input from the Business Model, and HIE SOP to articulate print-ready Value propositions for each target market segment defined in the previous activity. The Value Propositions should include the proper salient points:</p> <ul style="list-style-type: none"> Description that demonstrates an insightful understanding of Customer needs. Brief explanation of how this solution will resolve, or assuage those needs. Recapitulation of the value, benefits to be gained as a result, in such a compelling way that the value exceeds the cost to the customer to obtain the benefit.
Output		Listing of Value Propositions for each segmented Target Market.
Key Performance Indicators		Value Proposition statements reflect accurate analysis of target market needs, and indicate a clear benefit to that specific market over cost.
Timeframe		<ul style="list-style-type: none"> This activity continues in an iterative manner based on feedback from implementation start up, throughout the implementation lifecycle.
Roles	Responsible	Marketing Director/
	Accountable	NHIE Executive Director
	Consulted	Communication Director, Public Affairs Officer or equivalent
	Informed	DHHS Leadership, Business Board of Directors

Activity - Analyze Available Media Channels

Analyze Available Media Channels		
Input		<ul style="list-style-type: none"> Communication Strategy and Communication Plan 2012 eHealth Assessment
Activity Description		In this Activity, the Marketing Director will draw from the Communication Strategy to crosswalk each target market with

		<p>available communication and other marketing media appropriate to its value proposition.</p> <p>As part of the crosswalk, the Marketing Director should analyze media preference from the perspective of risk to the marketing strategy. The 2012 eHealth Assessment may serve as a source of intelligence regarding effectiveness of some media over others by market.</p>
Output		<ul style="list-style-type: none"> A matrix mapping each target market with available media channels, including a analysis of risk and benefits
Key Performance Indicators		<ul style="list-style-type: none"> Risk analysis is sufficiently in-depth to provide a discrete differentiator among different media and markets.
Timeframe		<ul style="list-style-type: none"> This activity continues in an iterative manner based on feedback from implementation start up, throughout the Marketing Campaign.
Roles	Responsible	Marketing Director
	Accountable	NHIE Executive Director
	Consulted	Communication Director/Public Affairs
	Informed	None

Activity - Compile Analysis and Draft a Marketing Strategy

Compile Analysis and Draft Marketing Strategy		
Input		<p>Prioritized Market Segment List with Value Propositions</p> <p>Target Market/Media Analysis</p> <p>Initial Marketing Strategy and Provisional Branding Approach (Annex A)</p>
Activity Description		<p>Marketing Director drafts a Marketing Approach based on analysis of previous four Marketing Activities, and guidance provided in the Initial Marketing Strategy and Provisional Branding Approach (Annex A). Analysis from the previous four activities is compiled into follow-on sections, including a strategic timeline synchronized to the HIE Business Plan.</p>
Output		<p>A Single Marketing Strategy Document comprised of the topics below:</p> <ul style="list-style-type: none"> Summarized Assessment of Target Market s and Needs General Marketing Approach Value Propositions by segmented Market Priority of Marketing Effort Allocation of Media Channels Timeline of Marketing Campaigns
Key Performance Indicators		<ul style="list-style-type: none"> Draft is completed within time constraints for review by Executive Director, and presentation to the Business Board of Directors, and conform to the Strategic timeline incorporated in the HIE Business Plan. Sufficient Guidance on which to draft individual Marketing

		Campaign Project Plans for segmented Markets.
Timeframe		<ul style="list-style-type: none"> This Activity continues in an iterative fashion as need arises for the Marketing Strategy to adjust as target market situations evolve.
Roles	Responsible	Marketing Director/Communication SME, Public Affairs Officer or equivalent
	Accountable	NHIE Executive Director
	Consulted	OHIT, Communications/Public Affairs,
	Informed	None

Review Marketing Strategy Draft

Review Draft Marketing Strategy		
Input		<ul style="list-style-type: none"> Draft Marketing Strategy
Activity Description		<ul style="list-style-type: none"> The Marketing Director delivers the Draft Marketing Strategy to the NHIE Executive Director for review and approval. NHIE Executive Director reviews for adherence to Executive Guidance, and anticipated topics of interest/concern by the HIE Business Board of Directors. Returns the Draft for revision or signifies approval and arranges for presentation and review by the Business Board of Directors.
Output		Final Version of Marketing Strategy for review with Business Board of Directors.
Key Performance Indicators		<ul style="list-style-type: none"> Final Version passes review by Executive Director and presented for Review Business Board of Directors in synch with HIE Business Plan Timeline.
Timeframe		This Activity continues in an iterative fashion as need arises for the Marketing Strategy to adjust as target market situations evolve.
Roles	Responsible	NHIE Executive Director
	Accountable	NHIE Executive Director
	Consulted	NHIE Marketing Director , Communications Director/Public Affairs
	Informed	NHIE Business Board of Directors

Present Marketing Strategy to NHIE Business Board of Directors

Input		<ul style="list-style-type: none"> Final Draft Marketing Strategy

Activity Description		In this Activity, the Business Board of Directors has an opportunity to hear from the Business, it's strategic approach to marketing HIE. The discussion is intended to remain at a high-level, and may focus on gaining consensus for the general approach as well as for the role of the Board in supporting the Marketing Strategy.
Output		<ul style="list-style-type: none"> Board Consensus in support of the NHIE Marketing Strategy
Key Performance Indicators		<ul style="list-style-type: none"> Executive Director and Board of Directors achieve consensus on Boards role in supporting the Marketing Strategy.
Timeframe		<ul style="list-style-type: none"> This activity is reviewed periodically throughout the Marketing Campaign lifecycles to affirm Board consensus around the Strategy.
Roles	Responsible	NHIE Executive Director
	Accountable	NHIE Executive Director
	Consulted	NHIE Business Board of Directors
	Informed	NHIE Organizational Staff

APPENDIX D: MARKETING OPERATIONS PROCESS

OVERVIEW

The Marketing Process for NV DIRECT and NHIE will initially benefit from deliverables provided under the Communication Outreach and OCM Workstream. A stakeholder Adoption Assessment, Adoption Strategy, Communication Strategy and Plan, and initial Marketing Strategy provide the foundation of information on which to develop the next Marketing Campaign under NHIE. Under that effort, Stakeholder Groups were categorized from which were selected the Target Markets. Leader/Influencers in Nevada's Health Care Industry have been identified, through which will be engaged to deliver a significant portion of the Marketing message to the target markets.

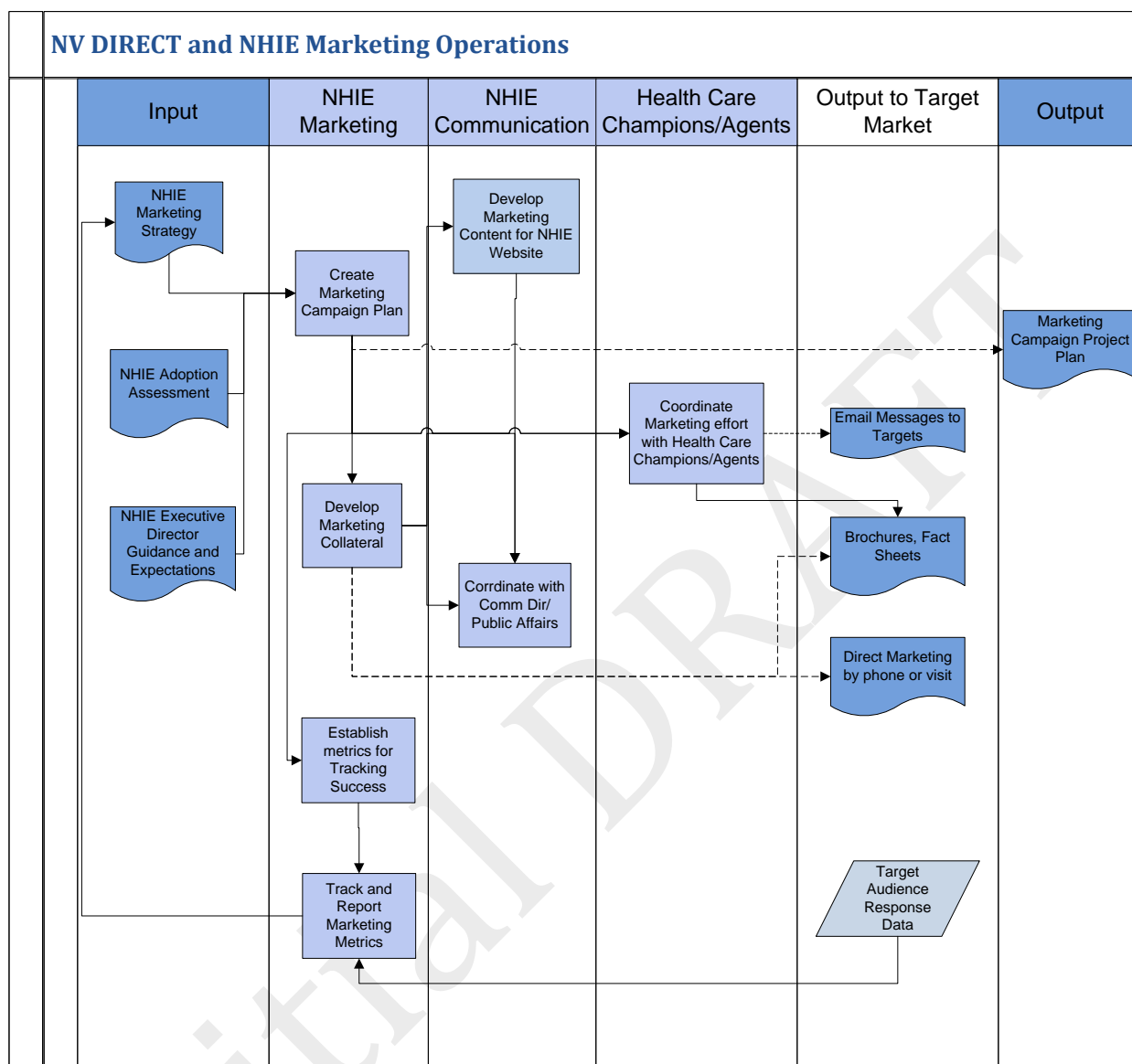
Roles and Responsibilities

Role Description	Responsibilities
NHIE Executive Director	<ul style="list-style-type: none"> The NHIE Executive Director is accountable to the Business Board of Directors for the successful implementation of the NHIE Marketing Strategy, and subsequent Marketing campaigns. He/she will provide guidance and set annual and semi-annual objectives for the NHIE Marketing Director, in alignment with the Sales Forecast. Approves the Marketing Strategy and Marketing Campaign Plans
Marketing Director	<p>This role leads the Marketing Process, and may be integrated with the Communication Director/Public Affairs role.</p> <ul style="list-style-type: none"> Drafts, updates and manages the Marketing Strategy, Marketing Campaign Plan, and deploys the Branding Strategy. Facilitates the DIRECT/NHIE leadership in developing a Brand and Brand Strategy.

Some Definitions of Terms

- Stakeholder/Stakeholder Groups** –Any person or group of persons who will be impacted by implementation of Nevada DIRECT or NHIE. Individual stakeholders may be managed as stakeholder groups, based on similarities in how they are impacted, or how they are expected to respond to a change. Examples of Stakeholders are: Individual Physicians, a hospital, Pharmacy, or private practice, Dept of Corrections. Examples of Stakeholder groups are; Urban Hospitals, Payers, Pharmacies, Rural Patients.
- Change Agents/Change Leaders /Influencers** – Individuals or organizations which have formal or informal power and potential to influence the behavior of stakeholders/stakeholder groups. Examples are: Nevada Medical Association, Nevada Rural Hospital Partners.

MARKETING OPERATIONS FLOWCHART



Activity - Creating /Modifying Marketing Campaign Plan

Creating /Modifying Marketing Campaign Plan	
Input	<ul style="list-style-type: none"> Marketing Strategy with Annual Forecast-Sales Objectives Document Adoption Assessment NHIE Executive Director Guidance and Expectations
Activity Description	<ul style="list-style-type: none"> Marketing Director Creates first draft of Marketing Campaign Project Plan Marketing Director reviews Input documents: <ul style="list-style-type: none"> Marketing Strategy will provide target markets and subscription objectives, constraints, and other guidance. Adoption Assessment provides insight into challenges

		<p>expected in engaging the target market, and maps to leaders and influencers most likely to be effective in engaging each target market.</p> <ul style="list-style-type: none"> Target Market List, provides more detail on potential Champions/Influencers and the final target audience, to help deliver the Marketing Message for best effect. Marketing Performance Measures of past campaigns, provide information to aid decisions regarding reinforcing or modifying the Marketing Campaign Plan to improve its effect. Potential Market Champions are identified. Marketing Director creates a final draft Marketing Campaign Project Plan <p>See Annex: Marketing Campaign Project Plan</p>
Output		<ul style="list-style-type: none"> Marketing Campaign Project Plan
Key Performance Indicators		<ul style="list-style-type: none"> Campaign Project Plan published in sufficient time for action by designees.
Timeframe		<ul style="list-style-type: none"> This activity continues in an iterative manner based on feedback from implementation start up, throughout the implementation lifecycle.
Roles	Responsible	Marketing Director/Communication SME, Public Affairs Officer or equivalent
	Accountable	NHIE Executive Director
	Consulted	None
	Informed	DHHS Leadership, Business Board of Directors,

Developing Marketing Collateral

Developing Marketing Collateral		
Input		<ul style="list-style-type: none"> Marketing Strategy Marketing Campaign Project Plan Adoption Communication Strategy and Tactical Communication Plan NHIE Executive Director Guidance and Expectations
Activity Description		<p>In this activity the Marketing Director will develop Marketing Collateral, as well as other material that will support Marketing Strategy. Depending on the target market, this collateral may include:</p> <ul style="list-style-type: none"> Brochures for Physicians, patients, or payers, downloadable, or distributed from provider offices. Talking Points, PowerPoint presentation decks for use by "Champions/Change Agent Organizations, for presentations,

		public speaking, interviews, or advertising. <ul style="list-style-type: none"> Phone scripts for contacting prospective DIRECT or NHIE subscribers.
Output		Marketing Collateral in Electronic or hard-copy form, ready for distribution thru Champions, to Physicians, providers, payers, or to patients other target audiences.
Key Performance Indicators		Guidance for Electronic content on Web pages available in sufficient detail to foster timely web development. Collateral available to Champions and Agents, containing the right message for the Audience.
Timeframe		This activity continues in an iterative manner based on feedback from implementation start up, throughout the implementation lifecycle.
Roles	Responsible	Marketing Director/Communication SME, Public Affairs Officer or equivalent
	Accountable	NHIE Executive Director
	Consulted	Communication Director/Public Affairs, Legal, Selected Champions/Influencers,
	Informed	DHHS Leadership, Business Board of Directors,

Establishing Metrics for tracking Marketing Campaign success

Establishing Metrics for Tracking Marketing Campaign Success	
Input	<ul style="list-style-type: none"> Marketing Strategy Marketing Campaign Project Plan Adoption Communication Strategy and Tactical Communication Plan NHIE Executive Director Guidance and Expectations
Activity Description	<p>In this activity the Marketing Director will develop Marketing Collateral, as well as other material that will support the Marketing Strategy. Depending on the target market. This collateral may include:</p> <ul style="list-style-type: none"> Brochures for Physicians, patients, or payers, downloadable, or distributed from provider offices. Posters or PowerPoint decks for use by "Champions/Change Agent Organizations, for presentations or advertising. Phone scripts for contacting prospective DIRECT or NHIE subscribers.
Output	<ul style="list-style-type: none"> Marketing Collateral in Electronic or hard-copy form, ready for distribution thru Champions, to Physicians, providers, payers, or to patients other target audiences.
Key Performance Indicators	<ul style="list-style-type: none"> Guidance for Electronic content on Web pages available in

		sufficient detail to foster timely web development. <ul style="list-style-type: none"> • Collateral available to Champions and Agents, containing the right message for the Audience.
Timeframe		<ul style="list-style-type: none"> • This activity continues in an iterative manner based on feedback from implementation start up, throughout the implementation lifecycle.
Roles	Responsible	Marketing Director/Communication SME, Public Affairs Officer or equivalent
	Accountable	NHIE Executive Director
	Consulted	Adoption SME,
	Informed	DHHS Leadership, Business Board of Directors,

Tracking and Reporting Marketing Metrics

Establish Metrics for Tracking Success	
Input	<ul style="list-style-type: none"> • Marketing Strategy • Marketing Campaign Project Plan • Adoption Communication Strategy and Tactical Communication Plan • NHIE Executive Director Guidance and Expectations
Activity Description	<ul style="list-style-type: none"> • The Marketing Director will implement a method for tracking specific key performance measures in order to measure success of the Marketing campaign. Those metrics may include: <ul style="list-style-type: none"> ○ Subscriber enrollments, by segment, over a specific period of time, against an objective ○ Number of patient opt-ins, by segment, over a specific period of time, against an objective. ○ Consult initially with OHIT, or NHIE office responsible for receiving/processing subscriber enrollments, and Patient opt-ins via new entries in Patient directory, for collecting data. • Produce standard reports to regularly inform DIRECT/NHIE Governance and Operating entities on effect of Marketing Campaign, including analysis of data, and recommended adjustments to the campaign.
Output	<ul style="list-style-type: none"> • Marketing Collateral in Electronic or hard-copy form, ready for distribution thru Champions, to Physicians, providers, payers, or to patients other target audiences.
Key Performance Indicators	<ul style="list-style-type: none"> • Guidance for Electronic content on Web pages available in sufficient detail to foster timely web development. • Collateral available to Champions and Agents, containing the right message for the Audience.

Timeframe		<ul style="list-style-type: none"> This activity continues in an iterative manner based on feedback from implementation start up, throughout the Marketing Campaign.
Roles	Responsible	Marketing Director/Communication SME, Public Affairs Officer or equivalent
	Accountable	NHIE Executive Director
	Consulted	OHIT DIRECT/NHIE Enrollments, Patient Directory Administrator
	Informed	DHHS Leadership, Business Board of Directors,

Develop Marketing content for DIRECT/NHIE Website

Develop Marketing Content for DIRECT/NHIE Website		
Input		<ul style="list-style-type: none"> Marketing Strategy Marketing Campaign Project Plan Adoption Communication Strategy and Tactical Communication Plan NHIE Executive Director Guidance and Expectations
Activity Description		<ul style="list-style-type: none"> The Marketing Director will coordinate with the DIRECT/NHIE Webpage administrator to post appropriate content to the webpage, including, if capable, a method for capturing data on “website” or specific area “hits”, and downloads. The Marketing Director should also maintain a feedback mechanism through the site, via survey engine (Survey Monkey link) or email address, monitored daily.
Output		<ul style="list-style-type: none"> Marketing content posted appropriately on the DIRECT/NHIE website.
Key Performance Indicators		<ul style="list-style-type: none"> Content is fresh, useable, and replaced prior to its becoming “stale.” Content aligns to and reinforces Marketing Campaign objectives. Feedback contacts are monitored and responded to, within 24 hours.
Timeframe		<ul style="list-style-type: none"> This process continues in an iterative manner, adjustments to the strategy, posting of fresh news, information, throughout the Marketing Campaign.
Roles	Responsible	Marketing Director/Communication SME, Public Affairs Officer or equivalent
	Accountable	NHIE Executive Director
	Consulted	Web Administrator, Selected Champions/Influencers, Communication Director/Public Affairs.
	Informed	DHHS Leadership, Business Board of Directors,

Coordinating with Communication Director/Public Affairs

Coordinating with Communication Director/Public Affairs		
Input		<ul style="list-style-type: none"> • Marketing Strategy • Marketing Campaign Project Plan • Adoption Communication Strategy and Tactical Communication Plan • NHIE Executive Director Guidance and Expectations
ActivityDescription		The Marketing Director conducts an ongoing coordination with the Communication Director role, throughout the Marketing Campaign. Specific activity will require consultation with the Communication Director, such as coordination for webpage use, message development and delivery expertise
Output		No output is generated. However, several benefits are created as well as several risks minimized.
Key Performance Indicators		<ul style="list-style-type: none"> • Marketing communication is delivered on time and to expectations • Communication resources are deployed effectively in support of the Marketing Campaign. • Communication expertise is fully leveraged to maximize Marketing impact.
Timeframe		This process continues in an iterative manner, as adjustments to the strategy and the Marketing Campaign impact communication.
Roles	Responsible	Marketing Director
	Accountable	NHIE Executive Director
	Consulted	Web Administrator, Selected Champions/Influencers, Communication Director/Public Affairs.
	Informed	DIRECT, NHIE Executive Director

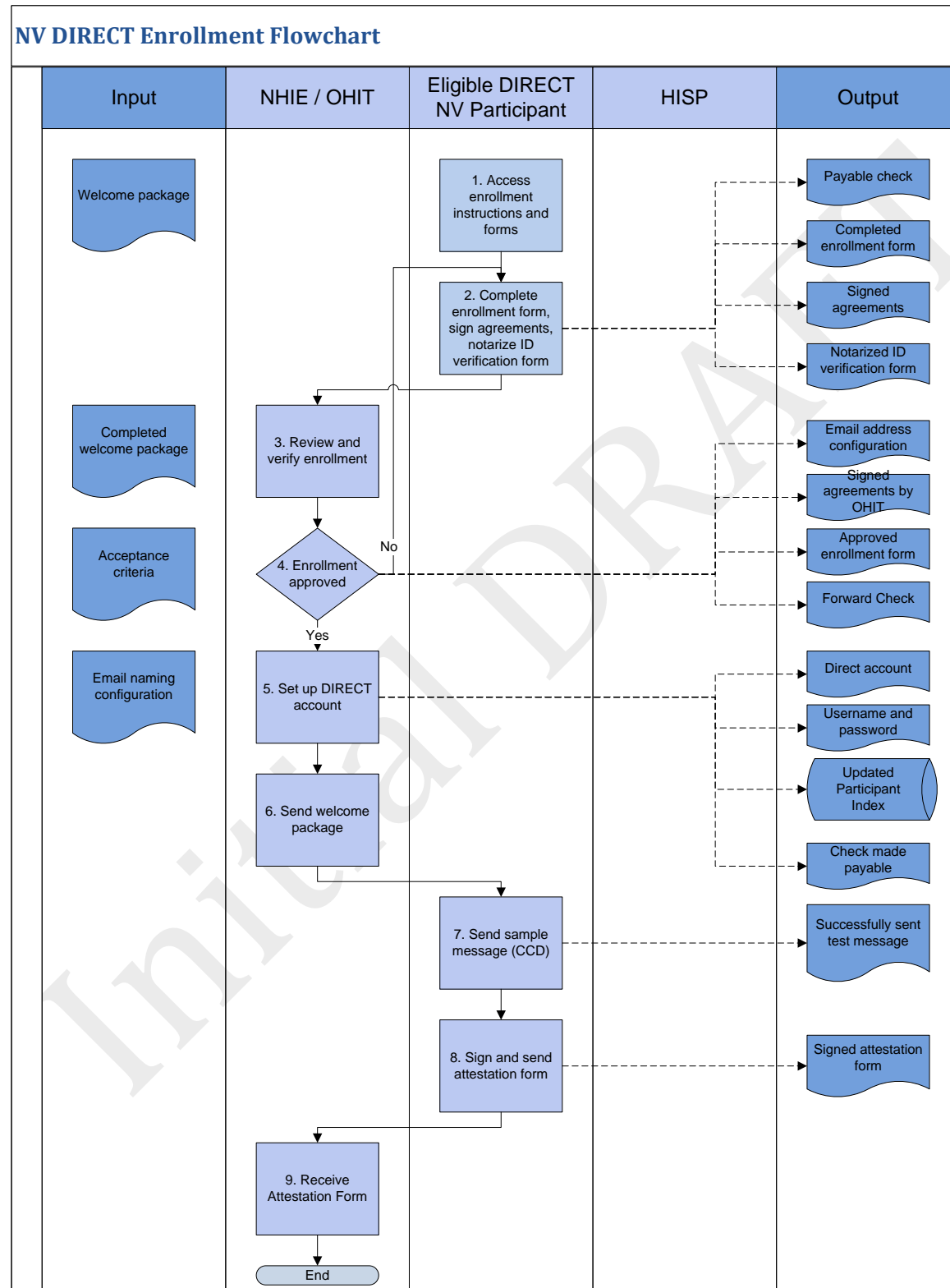
Coordinating Marketing Operations with Health Care Champions/Influencers

Coordinating Marketing Operations with Health Care Champions/Influencers		
Input		<ul style="list-style-type: none"> • Marketing Strategy • Marketing Campaign Project Plan • NHIE Executive Director Guidance and Expectations • Marketing Campaign Collateral

Activity Description		In this activity, the Marketing Strategy, and more tactical Campaign Plan is actually executed thru direct action by selected Marketing Champions, through their direct contact with the target market. This requires that Marketing Champions understand and have been engaged to perform their crucial role as influencers of their target market audiences.
Output		No output is generated. However, several benefits are created as well as several risks minimized.
Key Performance Indicators		<ul style="list-style-type: none"> Marketing communication is delivered on time and to expectations Communication resources are deployed effectively in support of the Marketing Campaign. Communication expertise is fully leveraged to maximize Marketing impact.
Timeframe		<ul style="list-style-type: none"> This process continues in an iterative manner, adjustments to the strategy and the Marketing Campaign.
Roles	Responsible	Marketing Director
	Accountable	NHIE Executive Director
	Consulted	Web Administrator, Selected Champions/Influencers, Communication Director/Public Affairs.
	Informed	DIRECT, NHIE Executive Director

APPENDIX E: DIRECT ENROLLMENT & ATTESTATION PROCESS

NV DIRECT ENROLLMENT FLOWCHART



NV DIRECT ENROLLMENT PROCESS DEFINITION

Process Name	NV DIRECT Enrollment
Process Owner	Office of Health Information Technology (OHIT)
Process Objective	An efficient and effective process for enrolling eligible participants into the NV DIRECT Secure Messaging Service.
Scope and Range	Start: Application Form Downloaded by applicant End: Enrollee begins using NV DIRECT. Stakeholders: OHIT/NHIE, Eligible Participants, and HISP Vendor
Requirements	<ul style="list-style-type: none"> • Implemented and operational DIRECT Secure Messaging Service • Operational support organization • Installation of the HISP DIRECT digital certificate • Assign provider DIRECT email address/mail-box from NV DIRECT service/system • State approved Cover Letter, Enrollment Form, Participant Agreement, and Attestation Form/Instruction • State approved Welcome Letter, User Guide, and Attestation Guidance and Resources • List of candidate/prospective NV DIRECT Participants • Completed enrollment process by participant • Compliance with patient consent requirements
Key Performance Indicators	<ul style="list-style-type: none"> • Process Lead Time • Percentage of applicants approved and enrolled

ACCESS ENROLLMENT INSTRUCTIONS & FORMS

Process step	1. Access Enrollment Instructions & Forms
Requirements	<ul style="list-style-type: none"> • Online DIRECT website (for initial Waves, the documents may be sent via email to accelerate the process) • Enrollment Package (individual documents and as .zip file) <ul style="list-style-type: none"> ○ NV DIRECT Enrollment Letter ○ NV DIRECT Enrollment Form ○ NV DIRECT Enrollment Instructions ○ NV DIRECT Participation Agreement ○ Nevada DIRECT Communiqué • NV DIRECT Enrollee Tracking sheet
Process Description	Interested enrollee in NV DIRECT visits website (www.dhhs.nv.gov/hit.htm) to download (individual documents or a .zip file) enrollment form, information and participation agreement. For the initial waves OHIT staff will send the enrollment package through its partners to the potential DIRECT

		<p>participants.</p> <p>After the enrollment package is sent out to OHIT's partners, OHIT staff will log date into NV DIRECT Enrollee Tracking sheet.</p>
Output		<ul style="list-style-type: none"> Downloaded or sent enrollment packages. Updated NV DIRECT Enrollee Tracking sheet.
Key Performance Indicators		<ul style="list-style-type: none"> Uptime website
Timeframe		<ul style="list-style-type: none"> For initial waves, OHIT staff will follow up with its partners within 10 business days of initial invitation to enroll.
Roles	Responsible	OHIT staff
	Accountable	State Health IT Coordinator
	Consulted	None
	Informed	None

COMPLETE ENROLLMENT FORM

Process step	2. Complete Enrollment Form, Sign Agreements, and Notarize ID Verification Form
Requirements	<ul style="list-style-type: none"> Downloaded Enrollment Form NV DIRECT Participation Agreement Business Associate Agreement (from applicant) Nevada registered Notary Contact Center Support (call and/or email)
Process Description	<p>Enrollee(individual or principal applicant) completes the NV DIRECT enrollment form, calculates the annual subscription fees (for more than one DIRECT address), and includes a check to cover these fees. In addition, the enrollee signs the DIRECT Participation Agreement and includes an unsigned Business Associate Agreement. The final step in the application process is for the enrollee to have the identity verification form notarized by a licensed Public Notary. All required documentation should be sent to OHIT by mail.</p> <p>For faster processing, the enrollee can fax or email documents. However, final verification cannot be completed without notarized ID verification form.</p> <p>Mail Office of Health Information Technology Department of Health and Human Services 1000 E. William St., Suite 209 Carson City, NV 89701</p>
Output	<ul style="list-style-type: none"> Completed enrollment form, signed Participation Agreement, unsigned Business Associate Agreement, and notarized ID verification form. Payment for Direct services made to designated agent/office

		by acceptable payment method (check, money order)
Key Performance Indicators		<ul style="list-style-type: none"> Number of received application forms per month (initial goal of 200 providers enrolled and received attestation forms by September 28, 2012)
Timeframe		<ul style="list-style-type: none"> Enrollee needs 30 minutes to complete enrollment form
Roles	Responsible	Applicant
	Accountable	None
	Consulted	None
	Informed	None

REVIEW AND VERIFY ENROLLMENT FORM

Process step	3. Review and Verify Enrollment Form and Agreements
Requirements	<ul style="list-style-type: none"> Notarized identity verification form Completed enrollment form Signed Participation Agreements Unsigned Business Associate Agreement (BAA) Payment for DIRECT services complete and DIRECT email address and mailbox assigned to individual participant(s). NV DIRECT Enrollee Tracking sheet NV DIRECT Enrollee Review Checklist
Process Description	<p>OHIT receives enrollee's documentation, signs section E of the enrollment form and enters the enrollee's credentials and date of receipt in the NV DIRECT Enrollee Tracking spreadsheet.</p> <p>Subsequently, OHIT staff sends the enrollee's BAA for legal review to the HIPAA Privacy Officer and or the Attorney General's Office.</p> <p>Further on, the OHIT staff reviews and verifies the applicant's enrollment documentation for completeness and accuracy by utilizing the NV DIRECT Enrollee Review Checklist.</p> <p>Review checklist</p> <ul style="list-style-type: none"> All required fields filled out and boxes checked All required documentation submitted, including Enrollment Form, Participation Agreement, Business Associate Agreement and ID Verification Form. Calculated annual subscription fee in accordance with number of DIRECT email accounts to be created. Providers' license number or national provider number for each provider applying for a Direct email account Notarized identity verification form Signed DIRECT participation agreement Principal enrollee similar to verified identity Received proper payment via acceptable payment method (check, money order, wire transfer, credit card)

		Acceptance criteria <ul style="list-style-type: none"> • Verification of Nevada State Professional License • Active Nevada State business license in good standing <p>Subsequently, the OHIT staff presents the results of the enrollment assessment and all enrollee's submitted documentation, for approval to the State Health IT Coordinator or designee (Director of DHHS or Deputy Director for Fiscal Services)</p>
Output		<ul style="list-style-type: none"> • Updated NV DIRECT Enrollee Tracking Sheet • Forwarded enrollee's BAA for legal review • Completed enrollment review • Receipt of payment
Key Performance Indicators		<ul style="list-style-type: none"> • Number of completed application reviews per month • Initial enrollment goals of 30 providers within the first 30 days, then at least a total of 200 providers enrolled by September 28, 2012
Timeframe		<ul style="list-style-type: none"> • 2 business days
Roles	Responsible	OHIT Staff
	Accountable	State Health IT Coordinator
	Consulted	None
	Informed	None

ENROLLMENT APPROVAL

Process step	4. Enrollment Approval
Requirements	<ul style="list-style-type: none"> • Application assessment. • Received legal review on enrollee's BAA from HIPAA Privacy Officer or AG's office. • Sent signed BAA after legal approval by OHIT and returned signed copy of BAA by Enrollee. • Enrollment form and submitted documentation (ID Verification Form). • Signed Participation agreement. • NV DIRECT Enrollee Tracking sheet • NV DIRECT Enrollee Review Checklist
Process Description	<p>Before the State Health IT Coordinator or designee can review the enrollment assessment and decide to approve or disapprove the application, the enrollee's BAA legal review and signing process should be completed. This includes forwarding the BAA to the HIPAA Privacy Officer or AG's Office for legal review, if approved sending the signed BAA to the enrollee and finally receive a copy of the signed BAA by the enrollee.</p> <p><u>Approved applications:</u> The State Health IT Coordinator signs section F of the enrollment form and signs NV DIRECT Participation agreement.</p>

		<p>In addition, OHIT staff forwards the applicant's check to the HISP.</p> <p><u>Disapproved applications:</u> The State Health IT Coordinator or designee disapproves the applications and notifies OHIT Staff to adjust enrollee's status to disapproved. OHIT staff returns check and sends the enrollee a letter of determination about the disapproval.</p> <p>After the State Health IT Coordinator has approved or disapproved the application, OHIT's staff will log the information in the NV DIRECT Enrollee Tracking Sheet.</p>
Key Performance Indicators		<ul style="list-style-type: none"> Approved and Rejected Applications per month
Output		<ul style="list-style-type: none"> Enrollee status update with receipt of payment and notification of approval to enrollee, or receipt of payment and notification to enrollee of disapproval with refund of fees. DIRECT email address configuration. Updated NV DIRECT Enrollee Tracking sheet
Timeframe		<ul style="list-style-type: none"> 2 business days
Roles	Responsible	State Health IT Coordinator or designee
	Accountable	State Health IT Coordinator or designee
	Consulted	None
	Informed	None

SETUP NEW DIRECT USER

Process step	5. Set up new DIRECT User.
Requirements	<ul style="list-style-type: none"> Email address convention (will be used as username for DIRECT portal) DIRECT Participant information, including alternate email address Approved NV DIRECT application NV DIRECT Enrollee Tracking sheet
Process Description	<p><u>Manual set up</u> OHIT Staff logs in on the DIRECT Portal and performs the following:</p> <ol style="list-style-type: none"> Set up DIRECT Portal User <ol style="list-style-type: none"> Create new DIRECT Portal user, including username and password. Create username. No field length limitations and it is an alpha numeric field. Nevada DIRECT email domain name is fixed to be @NVdirect.org Create suffix/prefix or organization name. Each organization needs to have their own identifier. John.Smith.ctrmc@nvdirect.org Establish initial password. Assign role to control access permissions.

		<p>g. Check group membership as part of role access permissions</p> <p>h. Click create user. A new user will be created. If the entered username already exists for another participant, the system will issue an error or warning, and a unique name must be entered.</p> <p>2. Create User in NV DIRECT user set up application</p> <p>a. Create username: the same as the DIRECT portal.</p> <p>b. Create password: copy paste the DIRECT portal password.</p> <p>c. Create user</p> <p><u>Upload spreadsheet</u></p> <p>In addition to the manual set up, OHIT staff has the capability to upload a spreadsheet containing enrollee user information (xls./csv.) to set up new users.</p> <p>When the DIRECT account is set up and DIRECT email address is created, NV DIRECT Portal will notify the participant by sending an email with login credentials to the participants alternate email address.</p>
Output		<ul style="list-style-type: none"> • DIRECT Portal username and password. • DIRECT email address • Updated NV DIRECT Enrollee Tracking sheet
Key Performance Indicators		<ul style="list-style-type: none"> • Created new users per month
Timeframe		<ul style="list-style-type: none"> • 1 business day after application is approved
Roles	Responsible	OHIT Staff
	Accountable	State Health IT Coordinator
	Consulted	None
	Informed	None

SEND WELCOME PACKAGE

Process step	6. Send Welcome Package
Requirements	<ul style="list-style-type: none"> • Updated Provider Index • All required notifications sent to participant • Welcome package, including welcome letter, signed participation agreement by OHIT, NV DIRECT USER Guide, attestation guidelines, attestation form, sample CCD message. • NV DIRECT Enrollee Tracking sheet
Process Description	<p>After a new NV DIRECT user account has been set up, OHIT staff collects and sends the signed participation agreement and enrollment form to the DIRECT participant and includes the NV DIRECT Welcome Package.</p> <p><u>NV DIRECT Welcome Package</u></p>

		<ul style="list-style-type: none"> Signed Participation Agreements by OHIT Welcome Letter NV DIRECT User Guide Attestation guidelines Attestation Form Sample CCD Message Email address to send DIRECT Sample message <p>After the enrollment package is sent, OHIT staff logs the information into the NV DIRECT Enrollee Tracking sheet.</p>
Output		<ul style="list-style-type: none"> Welcome package sent to approved Enrollees New Operational DIRECT account(s) Updated NV DIRECT Enrollee Tracking sheet
Key Performance Indicators		<ul style="list-style-type: none"> Operational DIRECT email accounts per month
Timeframe		<ul style="list-style-type: none"> Within 1 business day of Enrollment approval
Roles	Responsible	OHIT Staff
	Accountable	State Health IT Coordinator
	Consulted	None
	Informed	None

SEND SAMPLE CONTINUITY OF CARE DOCUMENT MESSAGE

Process step		7. Send Sample CCD Message
Requirements		<ul style="list-style-type: none"> Created user account with email address and DIRECT mailbox set up for each participant. Attestation Guidelines Sample CCD Message Assigned NV DIRECT user to send message to
Process Description		<p>The new NV DIRECT user enters username and password in NV DIRECT Web Portal to access DIRECT email account and is prompted to change the password.</p> <p>On the first day of activating the DIRECT account, the user ensures the working of the system by sending a sample CCD message to an NV DIRECT enrolled provider. The name, email address and message is included in the welcome package.</p>
Output		<ul style="list-style-type: none"> Sent CCD Message to enrolled DIRECT user
Key Performance Indicators		<ul style="list-style-type: none"> None, not able to monitor
Timeframe		<ul style="list-style-type: none"> First day of NV DIRECT account usage
Roles	Responsible	NV DIRECT user
	Accountable	None
	Consulted	None
	Informed	None

SIGN AND SEND ATTESTATION FORM

Process step		8. Sign and send attestation form
Requirements		<ul style="list-style-type: none"> • Sent sample CCD message • NV DIRECT attestation form • Attestation Guidelines
Process Description		<p>When the approved enrollee successfully sends a sample CCD message to at least one other DIRECT enrolled provider, the enrollee will be asked to complete and sign the NV DIRECT Attestation form and mail, fax or email it to OHIT.</p> <p>Mail Office of Health Information Technology Department of Health and Human Services 1000 E. William St., Suite 209 Carson City, NV 89701</p>
Output		<ul style="list-style-type: none"> • Sent signed attestation form
Key Performance Indicators		<ul style="list-style-type: none"> • Number of received attestation forms.
Timeframe		<ul style="list-style-type: none"> • By September 28th, 2012 for the first 200 enrollees
Roles	Responsible	NV DIRECT Participant
	Accountable	None
	Consulted	None
	Informed	None

ATTESTATION RECEIVED

Process step	9. Attestation received	
Requirements	<ul style="list-style-type: none"> Signed Attestation Form received NV DIRECT Enrollee tracking sheet 	
Process Description	<p>OHIT staff receives the signed attestation form by mail, fax or email and verifies if the form is completed and filed out correctly. If not, OHIT's staff will reach out to the enrollee to adjust any deficiencies.</p> <p>After verifying, OHIT staff logs the information in the NV Direct Tracking sheet.</p>	
Output	<ul style="list-style-type: none"> Updated NV DIRECT Enrollee tracking sheet 	
Key Performance Indicators	<ul style="list-style-type: none"> Received signed attestation forms per month (for the initial waves, 200 signed attestation forms before September 28, 2012) 	
Timeframe	<ul style="list-style-type: none"> By September 28, 2012 for the first 200 enrollees 	
Roles	Responsible	OHIT Staff
	Accountable	State Health IT Coordinator
	Consulted	None
	Informed	None

APPENDIX F: DIRECT HELP DESK & ISSUE RESOLUTION PROCESS

NEVADA DIRECT TWO TIER ISSUE RESOLUTION SUPPORT

Nevada Department of Health and Human Services (DHHS) Office of Health Information Technology (OHIT) has established a two tier Help Desk process to resolve technical issues or questions that may arise from the use of NV DIRECT.

The table below outlines some typical questions and related responsibilities by Tier. The basic principle is that the OHIT provides Tier 1 Help Desk support to the DIRECT Participants. DHHS OHIT will facilitate Tier 2 support with the Health Information Service Provider (HISP), if needed. Tier 2 support may require communication between the participant and the HISP, which the OHIT will facilitate.

In addition, OHIT will provide issue tracking and documentation, answers to FAQ, and system documentation.

	Tier 1 Participant to OHIT	Tier 2 OHIT to HISP
User Questions	Participant Administrator or end user Participants that have a question regarding: <ul style="list-style-type: none"> • What is my user id? • Could you reset my password? • How do I access my email? • How do I do connect to NV DIRECT? • Could you help me with a technical issue with NV DIRECT? 	OHIT's NV DIRECT System Administrators Tier 1 Help Desk cannot resolve: <ul style="list-style-type: none"> • That a participant <u>cannot</u> access or connect to DIRECT. • Slow performance of the system • Technical error messages that a participant is receiving.
OHIT Role	Help Desk and Support to the participants	Inform outcome to participants, facilitate communication between HISP and participants
HISP Role	Make training and FAQ available for OHIT Help Desk	Help desk and support to the OHIT (designated contacts)

ISSUE RESOLUTION MANAGEMENT

Coverage Hours

Help Desk coverage shall be provided by NV DHHS OHIT by phone and email on Business Days (Monday – Friday) 8 a.m. to 5 p.m. PST. After hours coverage will be available for Priority 1 and Priority 2 problems on a 24x7x365 basis.

PRIORITY DEFINITIONS

All issues or requests received by NV DIRECT Help Desk shall be given a problem priority based on the feedback from the reporting party. The definitions for Issue Priority are as follows:

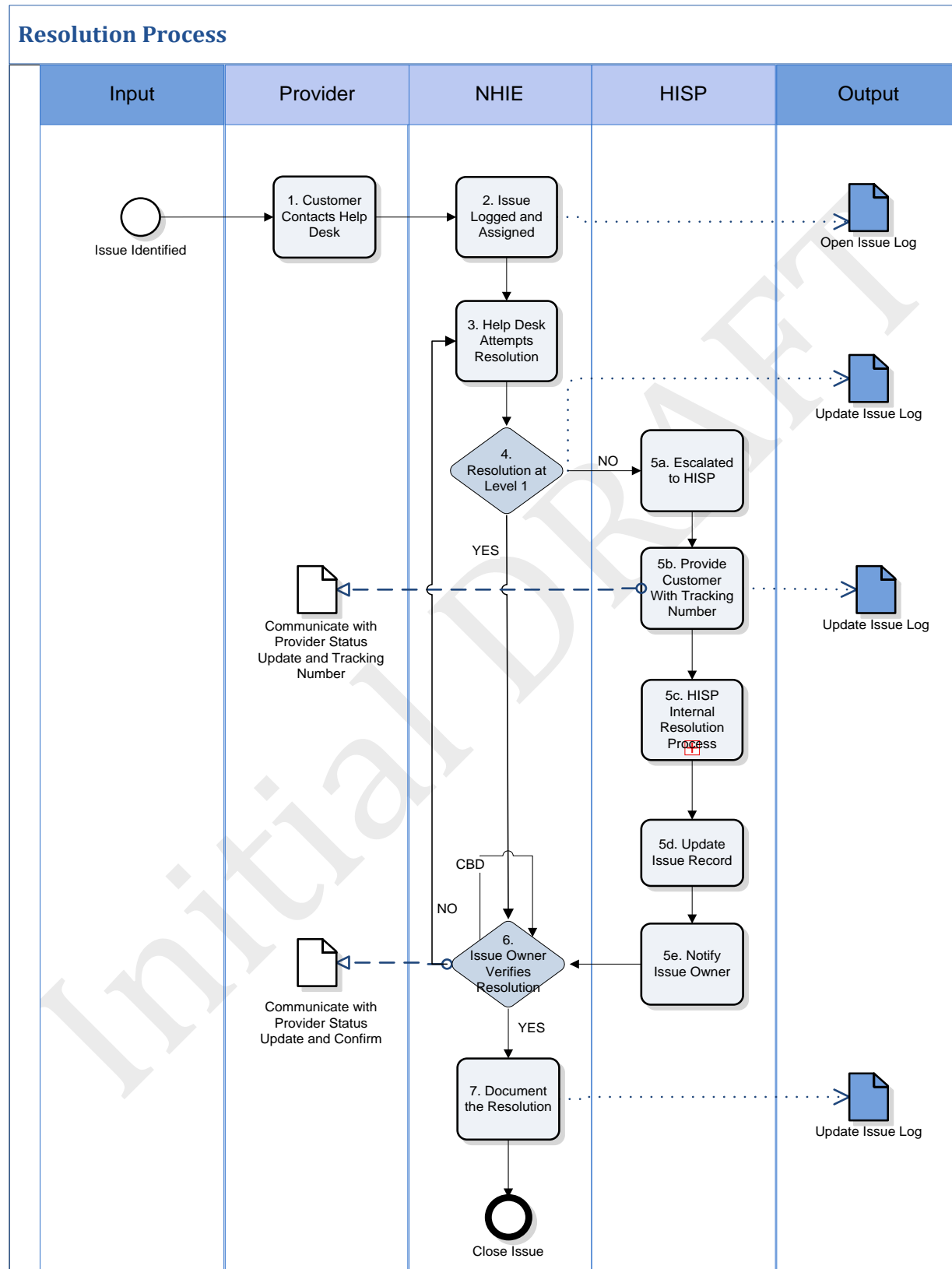
Priority	Definition
Priority 1	Priority 1 Critical Business Impact – System down or immediate work stoppage of a critical business service that threatens current and future productivity.
Priority 2	Priority 2 Significant Business Impact – Problem where system or business service is proceeding but in a seriously impaired or in a restricted fashion and no acceptable workaround is possible.
Priority 3	Priority 3 Some Business Impact – Problem for which the impact is an inconvenience, which may require a workaround to restore functionality and productivity is not seriously impaired.
Priority 4	All other problems or requests.

RESOLVE TIME

Based on the issue assigned priority each issue will be resolved within a certain timeframe. The definitions of response time per priority are as follows:

Priority	Resolve time
Priority 1	The issue will be resolved as soon as possible, with a target resolve time of 1 business day. The reporting party will receive initial feedback within 1 business hour after the issue is reported.
Priority 2	The target issues resolve time is between 24 – 48 hours. The reporting party will receive initial feedback within 1 business hour after the issue is reported.
Priority 3	The target issues resolve time is between 48 – 72 hours. The reporting party will receive initial feedback within 4 business hours after the issue is reported.
Priority 4	The target issues resolve time is between 48 – 72 hours. The reporting party will receive initial feedback within 4 business hours after the issue is reported.

NV DIRECT HELP DESK AND ISSUE RESOLUTION PROCESS



NV DIRECT HELP DESK AND ISSUE RESOLUTION DEFINITION

Process Name	NV DIRECT Help Desk Issue Resolution Definition
Process Owner	Office of Health Information Technology (OHIT)
Process Objective	Provide an efficient and effective process for documenting and resolving technical issues that arise as participants use the NV DIRECT Secure Messaging Service.
Scope and Range	Start: A participant identifies an issue and contacts the Help Desk End: Issue is resolved and documented Stakeholders: OHIT/NHIE, Eligible Participants, and HISP Vendor
Requirements	<ul style="list-style-type: none"> Establish a DIRECT Help Desk email address. Provide online FAQ/answers Service Level Agreement between HISP and OHIT
Key Performance Indicators	<ul style="list-style-type: none"> Response time Resolution time Percentage of issues resolved

Customer Contacts Help Desk

Process step	10. Customer Contacts Help Desk	
Requirements	<ul style="list-style-type: none"> Participant is enrolled in NV DIRECT Participant has received welcome package, with DIRECT email address included 	
Process Description	A DIRECT participant (i.e. customer) contacts the OHIT NV DIRECT Help Desk when a technical issue arises. Means of contacting the Help Desk are email and telephone.	
Output	<ul style="list-style-type: none"> None 	
Key Performance Indicators	<ul style="list-style-type: none"> None 	
Timeframe	<ul style="list-style-type: none"> None 	
Roles	Responsible	DIRECT Participants
	Accountable	None
	Consulted	None
	Informed	OHIT Help Desk

Issue Logged and Assigned

Process step	11. Issue Logged and Assigned
Requirements	<ul style="list-style-type: none"> DIRECT Participant contacts the OHIT Help Desk
Process Description	After a DIRECT Participant contacts the Help Desk and explains the technical issue, an issue description is documented in the log. The issue description should contain as much detail as possible.

		<p>Based on the issue description, the issue is categorized. The issue is then assigned to a party for resolution, which is logged.</p> <p>An email containing the date and time, organization name, contact information, issue description, tracking information, priority response time estimate, and assigned party is then sent to the Participant.</p> <p>As needed, an issue assignment email is sent to the assigned party for resolution.</p>
Output		<ul style="list-style-type: none"> • Issue information logged • Confirmation email sent to participant • Issue assignment email
Key Performance Indicators		<ul style="list-style-type: none"> • Time between “Customer Contacts Help Desk” and confirmation email sent to customer
Timeframe		<ul style="list-style-type: none"> • Immediately after initial contact for “Priorities 1” • Within 1 business hour after initial contact for all “Priorities 1-2” • Within 4 business hours after initial contact for “Priorities 3-4”
Roles	Responsible	OHIT Help Desk
	Accountable	None
	Consulted	None
	Informed	DIRECT Participants

Help Desk Attempts Resolution

Process step		12. Help Desk Attempts Resolution
Requirements		<ul style="list-style-type: none"> • Issue logged and confirmation email sent
Process Description		<p>OHIT Help Desk will review the issue and determine if the issue falls into a category in which the Help Desk can provide support and resolve, or if the issue needs to be escalated to the HISP.</p> <p>If the Help Desk can resolve the issue, then appropriate steps, per the issue, will be taken to provide resolution.</p> <p>If the Help Desk determines that they are unable to support the resolution of the issue, then process advances to next step.</p>
Output		<ul style="list-style-type: none"> • None
Key Performance Indicators		<ul style="list-style-type: none"> • Number of resolved issue per number of calls • Time to exhaust attempts to resolve issue
Timeframe		<ul style="list-style-type: none"> • Immediately after initial contact for “Priorities 1” • Within 2 hours after initial contact for “Priorities 2” • Within 1 business days after initial contact for “Priorities 3-4”
Roles	Responsible	OHIT Staff
	Accountable	None
	Consulted	None

	Informed	None
--	----------	------

Resolution at Level One

Process step	13. Resolution at Level One	
Requirements	Issue has been processed in step “Help Desk Attempts Resolution” AND The issue is thought to be resolved by	
Process Description	<p>This is a decision point. Based on the previous step “Help Desk Attempts Resolution”, one of three out comes is possible:</p> <ol style="list-style-type: none"> 1) Issue was resolved 2) Issue was not resolved after failed attempts 3) Issue was not resolved because categorized for HISP resolution <p>If issue was resolved, proceed to step 6, “Issue Owner Verifies Resolution”.</p> <p>If issue “was not resolved”, proceed to step 5a “Level Two Support From HISP; Escalate to HISP”</p>	
Key Performance Indicators	<ul style="list-style-type: none"> None 	
Output	<ul style="list-style-type: none"> Log the status of issue, decision, if applicable HISP ticket number and POC 	
Timeframe	<ul style="list-style-type: none"> Within 1 hour after initial contact for “Priorities 1” Within 6 hours after initial contact for “Priorities 2” Within 1 business days after initial contact for “Priorities 3-4” 	
Roles	Responsible	OHIT Staff
	Accountable	None
	Consulted	None
	Informed	None

Level Two Support From HISP

Process step	14. a: Escalate to HISP b: Provide Customer With Tracking Number c: HISP Internal Resolution Process d: Update Issue Records e: Notify Issue Owner	
Requirements	<ul style="list-style-type: none"> Issue was not resolved by OHIT Help Desk DIRECT customer contact information Orion has internal process 	
Process Description	<p>5a. OHIT will contact the HISP on behalf of the customer. OHIT will communicate the issue to the HISP and receive an issue tracking number and estimated time for resolution.</p> <p>5b. OHIT will provide a status update, estimate time for resolution,</p>	

		<p>and issue tracking number to the customer. This information will be documented in the Issue Log. OHIT will work as intermediary between the customer and HISP.</p> <p>5c. The HISP will implement their internal issue resolution process.</p> <p>5d. The HISP will update their issue record with detailed information which will be made available to OHIT on a monthly basis.</p> <p>5e. HISP will notify OHIT issue owner of issue resolution. In some events it is necessary for the customer to work directly with the HISP to resolve issues. In these cases it remains a requirement that the HISP notifies OHIT of the resolution.</p>
Output		<ul style="list-style-type: none"> • Issue tracking information will be sent to OHIT from the HISP • OHIT will update Issue Log and inform the customer with tracking information
Key Performance Indicators		<ul style="list-style-type: none"> • Time to resolution
Timeframe		<p>TBD by SLA (Below is suggestion)</p> <ul style="list-style-type: none"> • Within 1 hour after escalation for “Priorities 1” • Within 6 hours after escalation for “Priorities 2” • Within 1 business days after escalation for “Priorities 3-4”
Roles	Responsible	HISP
	Accountable	OHIT Staff
	Consulted	
	Informed	DIRECT Participant

Issues Owner Verifies Resolution

Process step	15. Issue Owner Verifies Resolution
Requirements	<ul style="list-style-type: none"> • Issue is thought to be resolved by OHIT Help Desk OR • Issue is thought to be resolved by HISP
Process Description	<p>This is a decision point. The issue owner, the OHIT staff member assigned to the ticket, will attempt to verify with the Direct participant that the issue has been resolved. One of three outcomes is possible:</p> <ol style="list-style-type: none"> 1) Issue is verified resolved 2) Issue is verified not resolved 3) Issue cannot be verified resolved <p>If issue “is verified resolved”, proceed to step 7, “Document the Issue Resolution”.</p> <p>If issue “is verified not resolved”, loopback to step 3 “Help Desk</p>

		Attempts Resolution". It issue "cannot be verified resolved", loopback to step 6 for "holding patter" until either issue is resolved, or ticket is close after 30 days.
Output		None
Key Performance Indicators		<ul style="list-style-type: none"> 5% or less of issues are not resolved on first attempt
Timeframe		<ul style="list-style-type: none"> Within 1 business day of issue resolution
Roles	Responsible	OHIT Staff & DIRECT customer
	Accountable	Occasionally Orion
	Consulted	None
	Informed	None

Document the Issue Resolution

Process step		16. Document the Issue Resolution
Requirements		<ul style="list-style-type: none"> Issue owner has verified resolution with customer
Process Description		Document resolution information into issue logs. Include date and time issue resolution was verified with customer. Update status of issue to "closed".
Output		<ul style="list-style-type: none"> Updated issue log
Key Performance Indicators		<ul style="list-style-type: none"> Less than 24 business hours after initial contact for "Priorities 1" Within 24 -48 business hours after initial contact for all "Priorities 2" Within 48 - 72 business hours after initial contact for "Priorities 3-4"
Timeframe		<ul style="list-style-type: none"> First day of NV DIRECT account usage
Roles	Responsible	NV DIRECT user
	Accountable	None
	Consulted	None
	Informed	None

APPENDIX G: HIE PATIENT CONSENT PROCESS

NV DIRECT Patient Consent Guidelines

Introduction

Under Senate Bill 43, Nevada is an “opt-in” state. Therefore, patient consent is required before sending a patient’s health record electronically. Furthermore, NV DIRECT is phase I of the more robust Health Information Exchange (HIE) that the state is developing. At this time, there is no master patient consent portal, so consent will need to be given every time their health records are sent electronically. Because of periodic audits, records of consent will need to be kept for each patient.

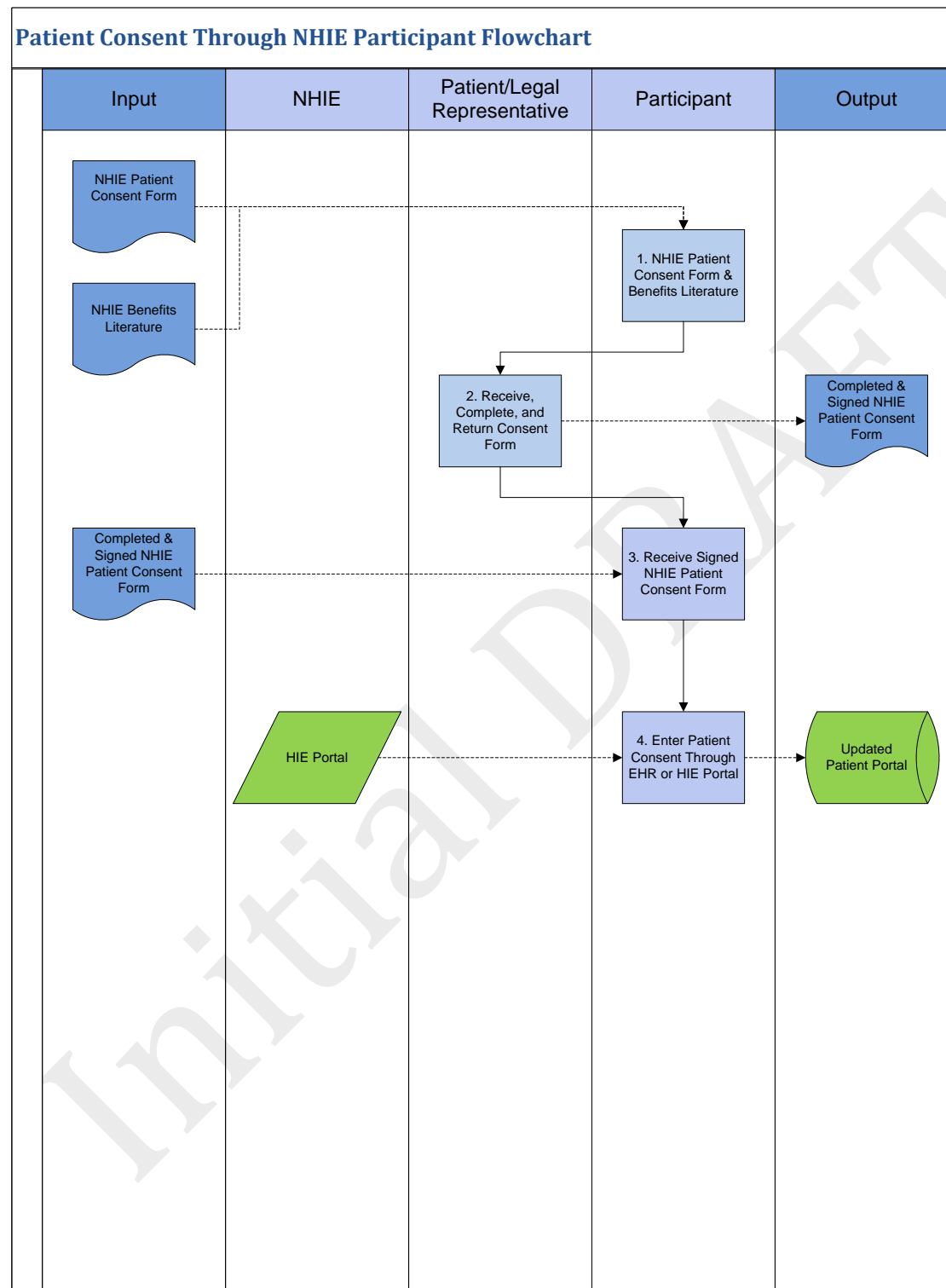
Consent Forms

Participants of NV DIRECT are required to have patient consent forms readily available. There are numerous ways to get these forms. The HIPAA form can be used, they can be made by the participant, and there is a sample patient consent form available on the Nevada OHIT website - <http://dhhs.nv.gov/HIT.htm>.

Patient Consent

Under HIPAA and SB43, it is the responsibility of the participant to acquire patient consent before sending health records electronically. This consent form must contain the patient’s signature, be properly marked giving consent, and stored for no less than 5 years for any future auditing.

NHIE PATIENT CONSENT PROCESS



Patient Consent through NHIE Participant Process Definition

Process Name	Patient Consent Through NHIE Participant
Process Owner	Department of Health and Human Service
Process Objective	Obtaining patient consent through an eligible NHIE participant. After obtaining consent, participant enters patient consent information into the NHIE patient portal before any participant can transmit the patient's health records electronically.
Scope and Range	Start: Initial patient encounter with a NHIE participant. End: NHIE participants start sharing patient's information using NHIE Network Stakeholders: NHIE, NHIE Participants, and Patients.
Requirements	<ul style="list-style-type: none"> • Participant enrolled with NHIE • Operational Support Organization • Deployed statewide HIE Network • EHR system that automatically adds consent status, or • Computer to add consent status on the NHIE portal • Scanner to add to patient file
Key Performance Indicators	<ul style="list-style-type: none"> • Number of obtained patient consent versus total population Nevada • Multiple medical entities the patient will use • Percentage of participants enrolled with NHIE that the patient uses

Available Form & Benefit Literature

Process step	17. Available Consent Form & Benefit Literature	
Requirements	<ul style="list-style-type: none"> • Educated and enrolled participant with NHIE • Accessible NHIE patient portal website and availability of consent form. • Available hard-copy consent form from participants and other public areas and authorized State agents 	
Process Description	The patient will be made aware of their right to grant consent during the first encounter with a participant enrolled into the NHIE Network. Before personal health records can be transmitted or included in the NHIE Network, a consent form has to be completed.	
Output	<ul style="list-style-type: none"> • Received literature and consent form to educate patient on their right to grant consent before personal health records can be transmitted or included in the HIE Network. 	
Key Performance Indicators	<ul style="list-style-type: none"> • Participant is enrolled with NHIE 	
Timeframe	<ul style="list-style-type: none"> • None 	
Roles	Responsible	Participant's and NHIE's staff

	Accountable	NHIE
	Consulted	
	Informed	

Receive, Complete, and Return Patient Consent Form

Process step	18. Receive, Complete, and Return Patient Consent Form	
Requirements	<ul style="list-style-type: none"> Any patient encounter with enrolled participant. 	
Process Description	<p>The patient receives the consent form and benefits literature from a NHIE participant or authorized State agent. Subsequently, the patient reads the supporting documentation and grants or denies consent by signing the consent form. The patient then returns consent form to participant.</p>	
Output	<ul style="list-style-type: none"> Educated patient on their rights and benefits of the NHIE Completed patient consent form 	
Key Performance Indicators	<ul style="list-style-type: none"> Number of completed patient consent forms Participant versus NHIE completed forms 	
Timeframe	<ul style="list-style-type: none"> None 	
Roles	Responsible	Patient
	Accountable	
	Consulted	
	Informed	

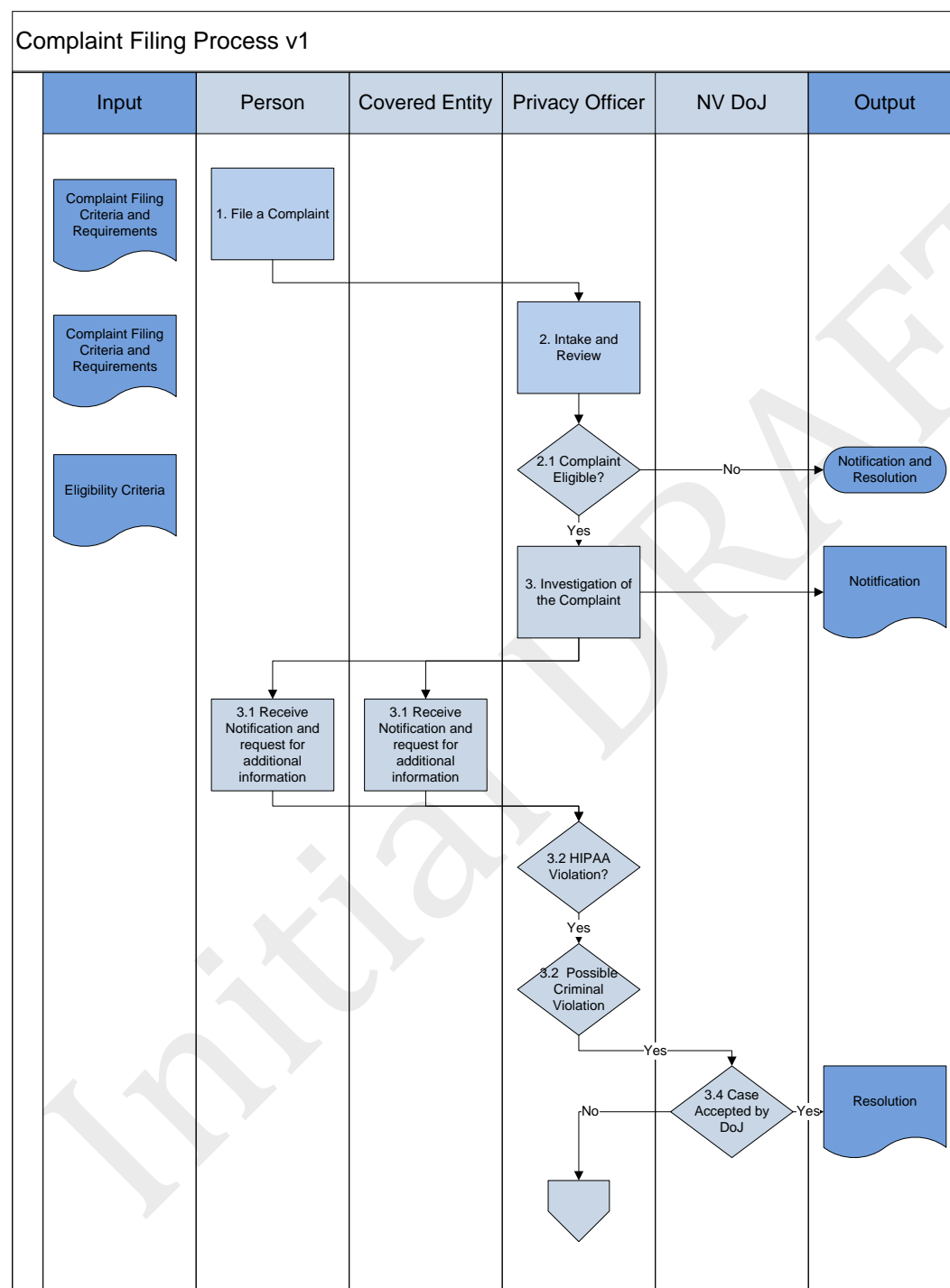
Received Signed Patient Consent Form

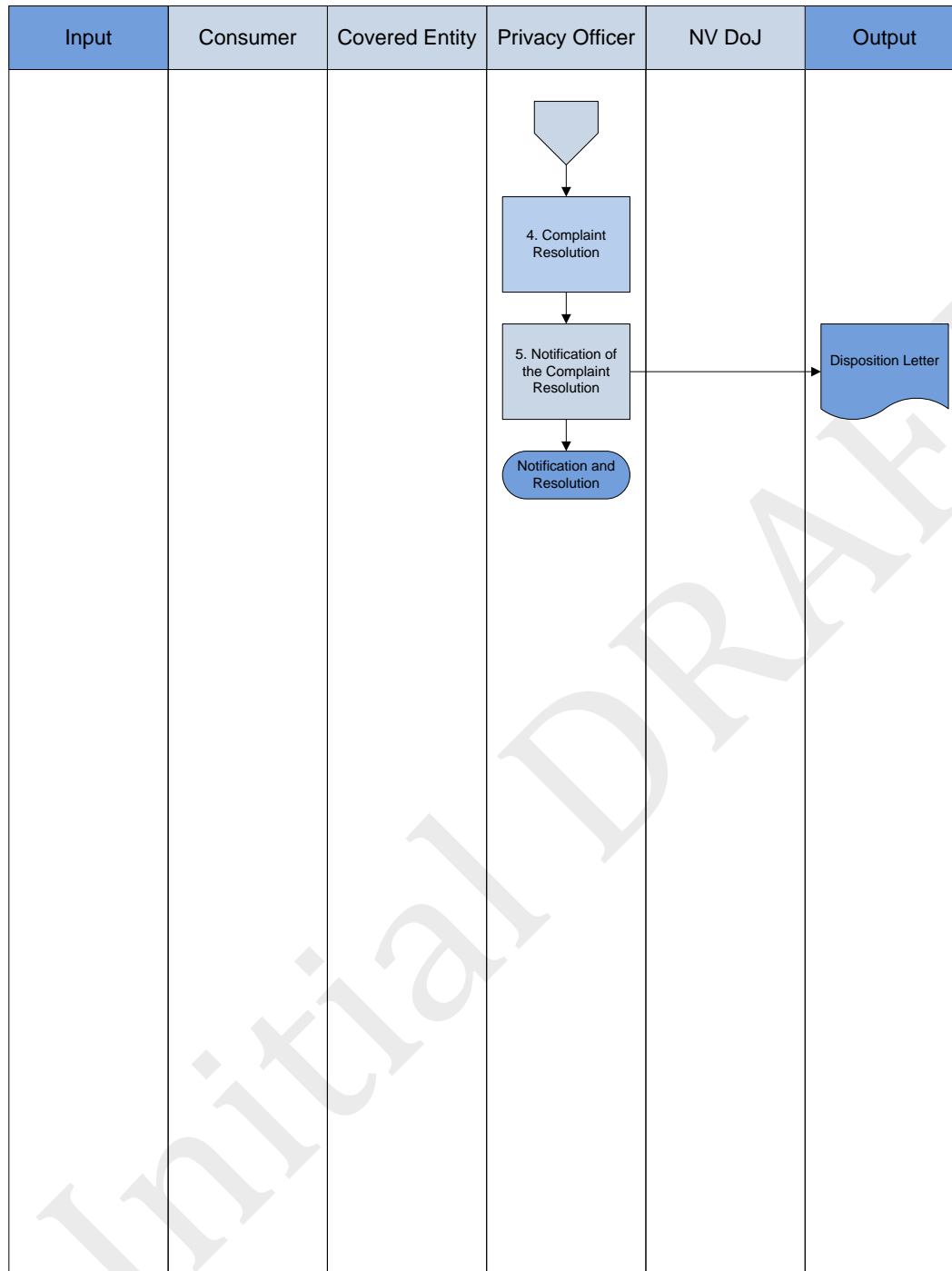
Process step	19. Received Signed Patient Consent Form	
Requirements	<ul style="list-style-type: none"> Completed patient consent form 	
Process Description	<p>The NHIE participant receives the patient consent form and verifies identity with photo identification.</p> <p>The NHIE participant's staff will verify, through photo identification, the patient's identity. After identity is established, verification that all required fields on the form is completed.</p>	
Output	<ul style="list-style-type: none"> Completed and signed consent form 	
Key Performance Indicators	<ul style="list-style-type: none"> Number of new patient consent forms received per month 	
Timeframe	<ul style="list-style-type: none"> None 	
Roles	Responsible	Participant's staff
	Accountable	NHIE Participant
	Consulted	
	Informed	

Update Patient Directory

Process step		20. Update Patient Directory
Requirements		<ul style="list-style-type: none"> • The form is completed • The patient is verified • Accessible patient directory • Scanner to enter form into patient file
Process Description		When the patient is verified and consent form filled out properly and completely, the information will be updated into the patient directory by participant's staff. The staff will then scan the consent form and add to patient's file.
Key Performance Indicators		<ul style="list-style-type: none"> • Number of consent forms processed per month
Output		<ul style="list-style-type: none"> • Updated patient directory
Timeframe		<ul style="list-style-type: none"> • Same business day
Roles	Responsible	NHIE Participant's staff
	Accountable	NHIE Participant
	Consulted	
	Informed	

APPENDIX H: INTERIM COMPLAINT FILING – PROCESS, GUIDELINES, AND COMPLAINT FORM





INTRODUCTION

The codified laws of the State of Nevada regulating the Statewide Health Information Exchange (HIE) System, in particular NRS 439.590 section 7, state that the Director of Department of Health and Human Services (DHHS) shall adopt regulations in which a person may file a complaint. This document will provide the Office of Health IT (OHIT) some guidelines on the policy, including a high level process flow, supporting content, and decisions points. The context in which this policy should be developed is as follows:

- Persons (i.e. natural person, any form of business, social organization or any other nongovernmental legal entity) may file a complaint regarding a potential violation of the HIPAA privacy and security rule or any other complaint regarding a violation of the provisions of NRS 439.590 including but not limited to, violations of entities participating in the HIE, and for persons being prohibited to participate in the HIE. In this document these two different types of complaints (i.e. HIPAA and other violations) will be discussed separately.
- During the start up phase of the Nevada HIE (NHIE), initiated by the launch of NV DIRECT in September and before the robust Statewide HIE Network is set up, a set of complaint filing processes and procedures needs to be developed and established by DHHS OHIT. These will be replaced by the complaint filing and investigation policy to be established in NHIE regulations.
- As per the Attorney General's Office advice during the start up phase the complaints should be submitted to the State Health IT Coordinator and be handled by the State Health IT Coordinator and the Director of DHHS on a case by case basis.
- DHHS Division of Health Care Financing & Policy established HIPAA Privacy and Security policies for the State Medicaid and Medicare services, including a complaint filing process and form. OHIT could consider leveraging those processes and forms during the start up phase.
- The NHIE will likely adapt a federated approach by connecting multiple local or regional HIEs to the statewide HIE. In addition, to leverage the regional HIE's technological capabilities the NHIE might want to consider to utilize their existing HIPAA oversight and enforcement policies as well. In other words, a person could also use the Covered Entities established complaint filing procedures which are required by HIPAA.

ROBUST HIE

Purpose

Codified Law requires DHHS to provide persons with the means to file a complaint with the Director, if:

- A provider, insurer or other payer participating in the statewide health information exchange does not comply with Nevada requirements.
- They believe that they are wrongfully excluded from participating in the statewide health information exchange.
- They are required to participate in the statewide health information exchange.
- Their protected health information has been improperly used or disclosed.
- Scope
 - HIPAA – Any persons who believes that their protected Health information has been disclosed or used improperly caused by any Covered Entity or Business Associate incorporated in Nevada may file a complaint with the Director
 - Other complaints – Any person who believes a violation of the provisions of NRS 439.590 has occurred, regarding participation in the statewide HIE or non compliance by Nevada HIE Participants, may file a complaint with the Director. Possible violations caused by other HIEs, not Nevada statewide HIE Participants, are excluded.

In addition, a fair investigation process should be developed which can be executed in a timely matter.

Decision point

- *Determine the complaint filing scope and investigation process*

Policy

The Nevada HIE (NHIE) and authorized users of the statewide NHIE Network will accept complaints pertaining to the statewide NHIE Network. NHIE will make this policy known through educational materials and online resources.

All complaints are private, confidential and protected under the Health Insurance Portability and Accountability Act of 1996 guidelines. Patient identity is confidential and cannot be released without the express written permission of the patient. Access to information or documents regarding a complaint will be restricted to appropriate NHIE designated Privacy Officer. Records related to complaints will be stored in a secure location either hardcopy or electronic format. Neither the NHIE nor users who view information through the statewide NHIE Network will retaliate, discriminate against, intimidate, coerce, or otherwise reprise patients or patient advocates related to the filing of a complaint.

Patients will be advised of their right to seek civil and criminal penalties under the Nevada State and federal law for any actions taken by statewide NHIE participants or the NHIE that violate state or federal law.

Procedure

The following steps constitute the NHIE complaint filing process.

1. **File Complaint** – A person should utilize the standardized NHIE Complaint Form (see appendix A) to file a complaint or appear in person at the NHIE.
2. **Intake and Review** – NHIE Privacy Officer shall verify if the completed NHIE Complaint Form includes the following information:
 - The date the on which the alleged act or omission occurred;
 - The name of the person, organization or agency involved; and
 - The acts or omissions the person believes to have occurred, including a description of the Protected Health Information (PHI) affected and how it was affected or any other complaint related to the NHIE.

All Privacy Complaints received by the Privacy Officer or designee shall be date stamped upon arrival.

- The Privacy Officer or designee shall review and act on the complaint in a timely manner and notify the complainant within 5 business days from receipt whether the complaint meets the eligibility criteria as set forth in section 1.5.

3. **Investigation of the Complaint** - If the complaint meets the eligibility criteria the Privacy Officer or designee shall accept the complaint for investigation and notify the complainant and the organization, person or agency named in it.
- Then the complainant and the organization, agency or person named in it is asked to present information about the incident or problem described in the complaint. The Privacy Officer or designee may request specific information from each to get an understanding of the facts.
 - During the investigation the Privacy Officer or designee shall determine if the complaint describes an action that could be a violation of HIPAA or a other violation as set forth in NRS 439.590.
 - If there is a possible violation of HIPAA the Privacy Officer or designee shall determine if the complaint describes an action that could be a violation of the criminal provision of HIPAA (42 U.S.C. 1320d-6), the Privacy Officer or designee may refer the complaint to the Department of Justice for investigation.

The Privacy Officer or designee shall determine what PHI is affected by the complaint and if the PHI was provided to other covered entities and business associates.

4. **Resolution** - The Privacy Officer or designee shall determine if there is cause to believe that a violation of privacy department operating regulations occurred, and the course of action to be taken.
- If no violation has occurred the complaint and finding shall be date-stamped, the complaint will be considered closed and a written notice of this shall be provided to the person.
 - If cause exists to believe that a violation has occurred, the Privacy Officer or designee shall be responsible for determining if:
 - Performance or training need to be improved;
 - A recommendation for a change to the department operating regulation should be forwarded to the Central Office Privacy Officer (if a facility complaint); or
 - A recommendation shall be made to the Central Office Privacy Officer to establish a new Privacy department operating regulation (if a facility complaint).
5. **Notification of the Complaint Resolution** – The Privacy Officer or designee shall notify the appropriate administrators, staff or committees of the action needed.

Decision points

- *Determine if NHIE want to communicate that it strongly encourages and wishes to promote that consumers and service providers discuss and attempt to resolve issues in the most direct and informal manner at the local level.*
- *Determine if any other communication methods to file a complaint should be implemented in addition to writing or in person.*

REVIEW AUTHORITY

The NHIE should appoint a Privacy Officer and establish and maintain a standing subcommittee for consultation and review of complaints.

Complaint Eligibility Criteria (HIPAA Violation)

The Privacy Officer or designee shall perform a complaint eligibility assessment for complaints regarding a violation of HIPAA Privacy and Security rule before entering into further investigation. Each of the following criteria needs to be met.

(A) The complaint must be filed against an entity that is required by law to comply with the Privacy and Security Rules. Entities subject to these rules are considered covered entities. A covered entity is:

- A health plan, including but not limited to health insurance companies and company health plans; or
- A healthcare provider that electronically transmits any health information in connection with certain financial and administrative transactions: including but not limited to
 - Doctors
 - Clinics
 - Hospitals
 - Psychologists
 - Chiropractors
 - Nursing homes
 - Pharmacies; and
 - Dentists; or
- A healthcare clearinghouse

Examples of organizations that are not required to comply with the Privacy and Security Rules include

- life insurers,
- employers,
- workers compensation carriers,
- many schools and school districts,
- many state agencies like child protective service agencies,
- many law enforcement agencies,
- many municipal offices

(B) A complaint must allege an activity that, if proven true, would violate the HIPAA Privacy or Security Rule.

(C) Complaints must be filed within 180 days of when the person submitting the complaint knew or should have known about the alleged violation of the Privacy or Security Rule. NHIE may waive this time limit if it determines that the person submitting the complaint shows good cause for not submitting the complaint within the 180 day time frame (e.g., such as circumstances that made submitting the complaint within 180 days impossible).

Record Keeping of Complaints

The NHIE will be primary responsible of logging and retaining complaints in a retrievable manner for a minimum of six years and identifying:

- Person or entity making the complaint;
- Date complaint was received;
- A list of what PHI was affected or any other complaint;

- Status of complaint;
- Business associated and or facilities affected;
- Actions taken.

Timeframe

The NHIE will review and act on the complaint in a timely matter and not more than 30 days from receipt of the complaint form, if circumstances does not allow to conclude within 30 days involved persons will receive notification 5 business days before due date.

Reporting on number of Complaints

The NHIE Privacy Officer will collect information in January of each year and report on the numbers of complaints filled, resolutions, violations occurred, identification of trends, and average resolution time.

Appeal

If the alleged victim or complainant is not satisfied with the outcome of the investigation, he/she is entitled to appeal to the Director of the Nevada Department of Human Resources or file a complaint with the U.S. Department of Health and Human Services, Office for Civil Rights.

Freedom of Information Act

TBD

Fraud and False Statements

TBD

Complaint Form:

NEVADA DEPARTMENT OF HEALTH AND HUMAN SERVICES

HEALTH INFORMATION VIOLATION COMPLAINT**Mail or return completed form to:**Office of Health Information Technology
Department of Health and Human Services
1000 E. William St., Suite 209
Carson City, NV 89701**General Information**

FIRST NAME

LAST NAME

HOME PHONE

WORK PHONE

STREET ADDRESS

CITY

STATE

ZIP

EMAIL ADDRESS (if available)

Are you filing this complaint for someone else? ☐ Yes ☐ No

If yes, whose health information do you believe has been violated?

FIRST NAME

LAST NAME

Who (or what agency or organization, e.g., provider, health plan) do you believe violated your health information privacy rights or committed another violation of the Health Insurance Portability and Accountability Act (HIPAA) and/or other Nevada healthcare information law.

PERSON / AGENCY / ORGANIZATION

STREET ADDRESS

CITY

STATE

ZIP

PHONE NUMBER (if available)

When do you believe that the violation of health information privacy rights occurred?

LIST DATE(S)

Describe briefly what happened. How and why do you believe your (or someone else's) health information privacy rights were violated, or the Health Insurance Portability and Accountability Act (HIPAA) and/or other Nevada healthcare information law was violated? Please be as specific as possible (Attach additional pages as needed).**Please sign and date this complaint form. You do not need to sign if submitting this form by email because submission by email represents your signature.**

SIGNATURE

DATE (mm/dd/yyyy)

APPENDIX I: PHASE 1/DIRECT BREACH GUIDELINES

INTRODUCTION

Section 13402(e) (4) of the HITECH Act requires reporting of a breach of unsecured protected health information affecting more than 500 individuals to the Secretary of Health and Human Services (HHS). However, the Nevada DHHS Office of Health Information Technology (OHIT) requires notification of any breach of HISP servers.

HISP SERVER BREACH OF PATIENT'S INFORMATION

If a breach of patient's information occurs, the HITECH Act and HIPAA rules for reporting take effect. Also, if a breach of any participant, an OHIT Breach Reporting letter must be drafted and sent to the Nevada DHHS OHIT. The information provided in the letter includes:

- Date of breach
- DIRECT email address of each participant affected
- Date of breach resolution
- Short summary of event

This letter is sent to: **Nevada Office of Health Information Technology**
1000 E. Williams Street, Suite 209
Carson City, NV 89701

Or email: **shogan@dhhs.nv.gov**

DHHS Notification from HISP

After receiving the OHIT Breach Reporting letter from the HISP, a DIRECT email to each participant affected will be drafted and sent. This email notification will include:

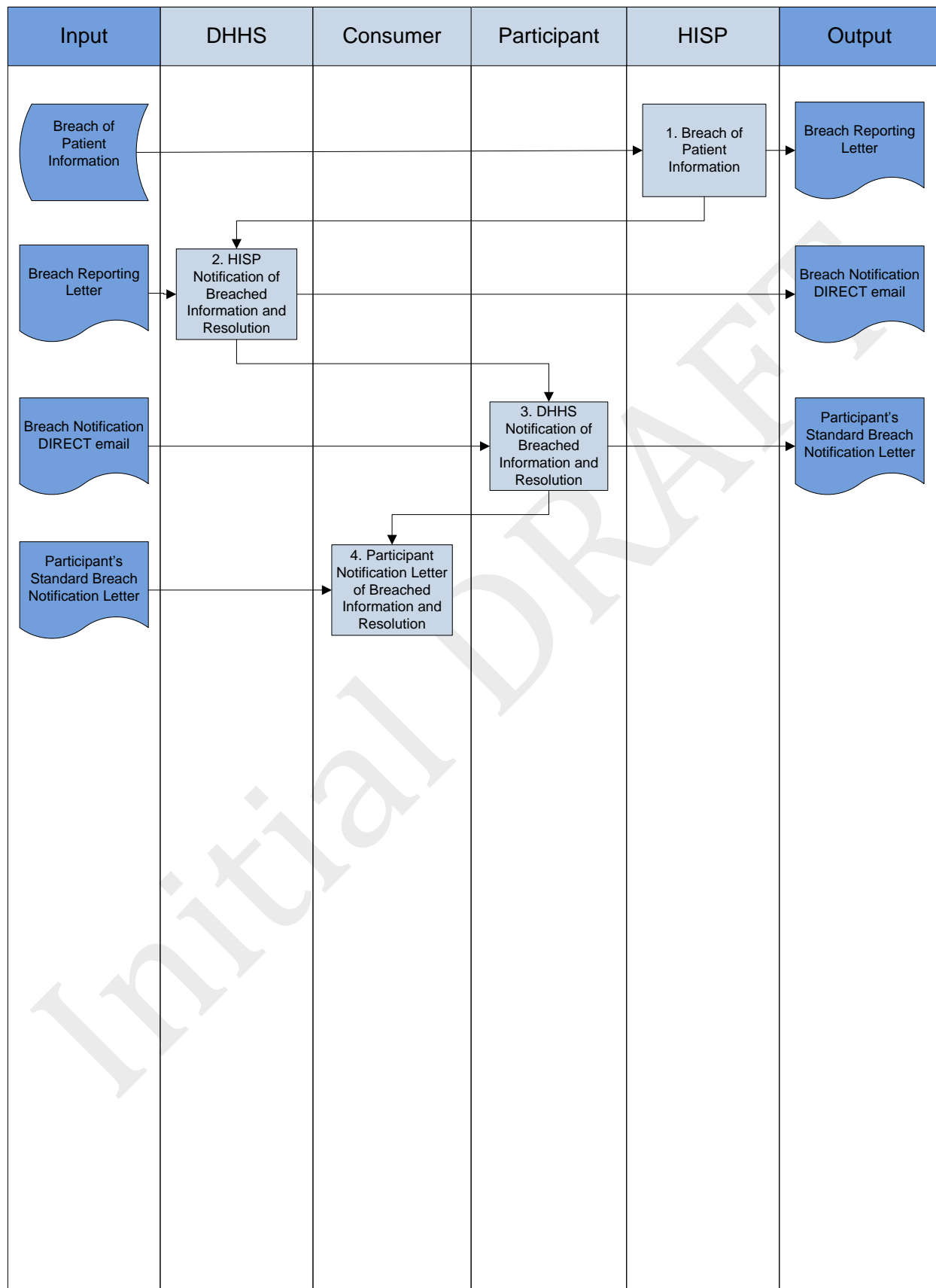
- Date of breach
- Date of breach resolution
- Short summary of event

Participant Notification from DHHS

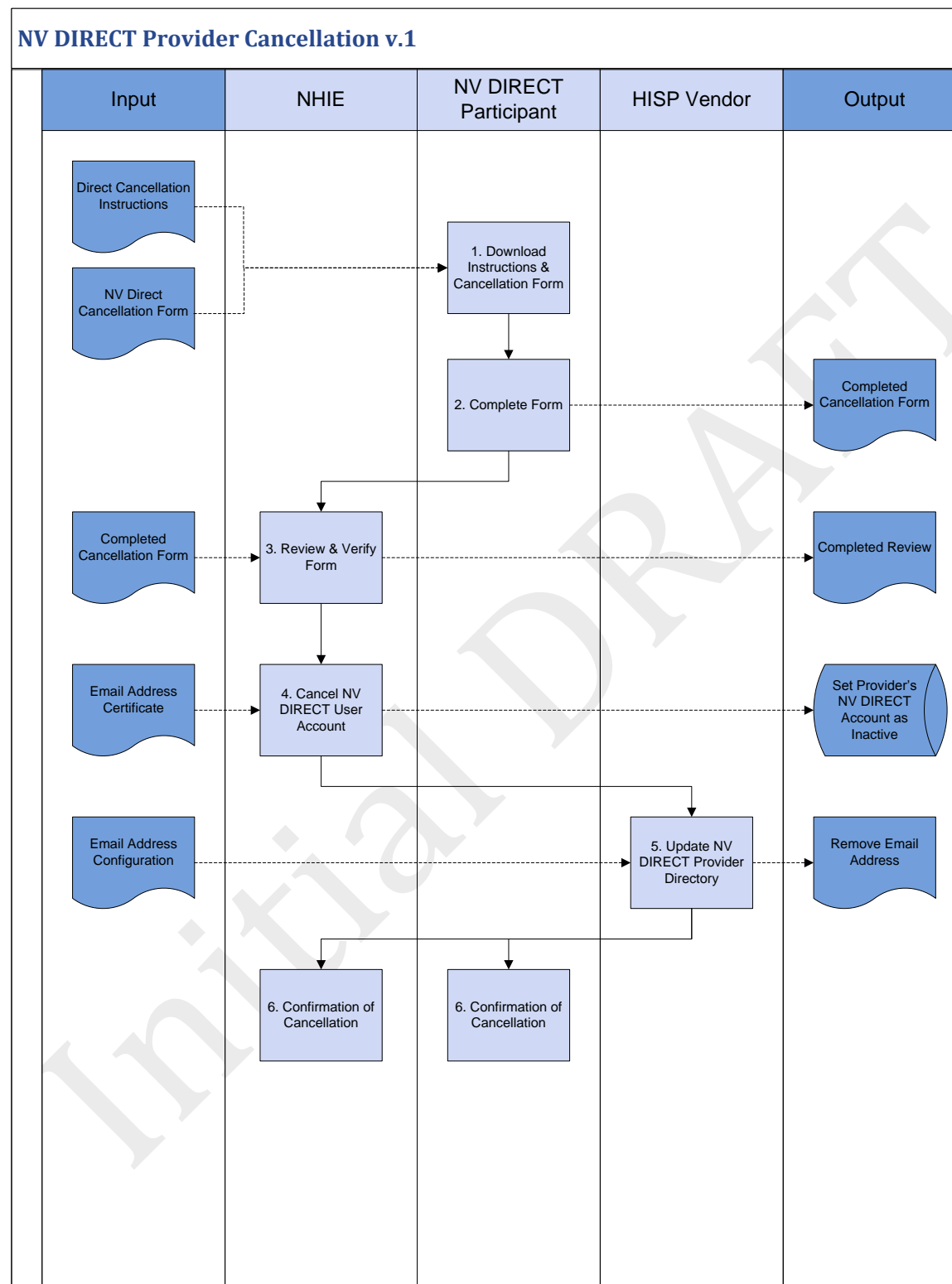
After receiving the DIRECT email from OHIT reporting a breach, the participant is to investigate which patients were affected and if they need to be notified. Any HITECH Act and HIPAA rules for reporting a breach to patients will take effect.

Patient Notification from Participant

Patients receiving notification of a breach has the right to file a formal complaint to the Nevada DHHS OHIT and/or HIPAA.



APPENDIX J: DIRECT PROVIDER CANCELLING PROCESS



NV DIRECT PROVIDER CANCELLATION PROCESS DEFINITION

Process Name	NV DIRECT Provider Cancellation Process
Process Owner	OHIT, NHIE
Process Objective	An efficient and effective provider cancellation process for NV DIRECT secure messaging services.
Scope and Range	Start: Form made available on website participant portal. End: Provider receives a notification of cancelled services. Stakeholders: OHIT, NHIE Participants, Patients, and HISP
Requirements	<ul style="list-style-type: none"> • Provider enrolled with NV DIRECT • Operational Support Organization • 90 days advance notice <ul style="list-style-type: none"> ○ Notice is required before October 1 to stop automatic yearly renewal
Key Performance Indicators	<ul style="list-style-type: none"> • Percentage of NV DIRECT cancelled accounts compared with NV DIRECT active accounts.

Download Instructions & Cancellation Form

Process step	Download Instructions & Cancellation Form	
Requirements	<ul style="list-style-type: none"> • Holder of current NV DIRECT account • Online DIRECT Website participant portal • Online Documents <ul style="list-style-type: none"> ○ NV DIRECT Cancellation Form ○ NV DIRECT Cancellation Instructions 	
Process Description	Provider interested in cancelling their NV DIRECT secure messaging services must download the instructions and form at: http://dhhs.nv.gov/HIT.htm	
Output	<ul style="list-style-type: none"> • Downloaded instructions and form. 	
Key Performance Indicators	<ul style="list-style-type: none"> • Website is online 	
Timeframe	<ul style="list-style-type: none"> • None 	
Roles	Responsible	Provider
	Accountable	
	Consulted	
	Informed	

Complete & Send Cancellation Form

Process step	Complete and Send Cancellation Form	
Requirements	<ul style="list-style-type: none"> Downloaded cancellation form Downloaded instructions 	
Process Description	<p>Provider completes the NV DIRECT cancellation form and sends it to:</p> <p>Mail Office of Health Information Technology Department of Health and Human Services 1000 E. William St., Suite 209 Carson City, NV 89701</p> <p>Or</p> <p>Email megan.may@dhhs.nv.gov</p> <p>Or</p> <p>Fax 775-684-7590</p>	
Output	<ul style="list-style-type: none"> Completed cancellation form 	
Key Performance Indicators	<ul style="list-style-type: none"> Number of downloaded cancellation forms. 	
Timeframe	<ul style="list-style-type: none"> None 	
Roles	Responsible	Provider
	Accountable	
	Consulted	
	Informed	

Verify & Review Cancellation Form

Process step	21. Verify and Review Provider Cancellation Form	
Requirements	<ul style="list-style-type: none"> Provider is enrolled with NV DIRECT Form is filled out completely and correctly 	
Process Description	<p>OHIT receives the cancellation form and verifies the NHIE Participant's:</p> <ul style="list-style-type: none"> Name Account Number NV DIRECT Email Address Phone Number <p>Review form for completeness and call to confirm.</p> <p>Determine when NV DIRECT account is to be cancelled.</p>	

		<ul style="list-style-type: none"> If notice received prior to October 1, then cancellation occurs on December 31 of current year If notice received after September 30, then cancellation occurs on December 31 of the following year and payment of final year is due.
Output		<ul style="list-style-type: none"> Completed verification and review
Key Performance Indicators		<ul style="list-style-type: none"> Number of reviews per year
Timeframe		<ul style="list-style-type: none"> Two business days
Roles	Responsible	OHIT staff
	Accountable	OHIT coordinator
	Consulted	
	Informed	

Cancel NV DIRECT User Account

Process step	22. Cancel NV DIRECT User Account	
Requirements	<ul style="list-style-type: none"> Form verified and completed 	
Process Description	<p><u>Notice received prior to October 1</u> NV DIRECT System Administrator sets the providers' accounts and NV DIRECT email addresses as inactive with an end date December 31 of the current year.</p> <p><u>Notice received after September 30</u> NV DIRECT System Administrator sets the providers' accounts and NV DIRECT email addresses as inactive with an end date December 31 of the following year.</p> <p>Notifies the HISP of cancellation of the agreement.</p>	
Output	<ul style="list-style-type: none"> Sets account and address as inactive 	
Key Performance Indicators	<ul style="list-style-type: none"> Number of accounts cancelled 	
Timeframe	<ul style="list-style-type: none"> 90 days 	
Roles	Responsible	OHIT staff
	Accountable	OHIT coordinator
	Consulted	
	Informed	

Update NV DIRECT Provider Directory

Process step	23. Update NV DIRECT Provider Directory	
Requirements	<ul style="list-style-type: none"> Approved cancellation form Storage for inactive account's data and activity 	
Process Description	NV System Administrator provides the HISP with email addresses and end dates. The HISP configures the provider directory	

		<p>accordingly.</p> <p>Data and activity for all inactive accounts and NV DIRECT email addresses are stored for no less than seven years. All future emails sent to an inactive address will have an “Email Address No Longer Exists” emailed to the provider sending the message.</p>
Output		<ul style="list-style-type: none"> Email address removed from directory
Key Performance Indicators		<ul style="list-style-type: none"> Number of removed email addresses
Timeframe		<ul style="list-style-type: none"> One business day
Roles	Responsible	HISP
	Accountable	
	Consulted	
	Informed	

Confirmation of Cancellation

Process step	24. Confirmation of Cancellation	
Requirements	<ul style="list-style-type: none"> Address of cancelled provider Address of OHIT 	
Process Description	<p>After removing the providers’ email addresses from directory, a confirmation notification is sent to the provider and OHIT.</p> <p>The letter should state at least.</p> <ul style="list-style-type: none"> Received notification of cancellation on..... NV DIRECT Account and Email will be inactive starting January 1 of the following year or the year following on the following year. 	
Output	<ul style="list-style-type: none"> Notification letter 	
Key Performance Indicators	<ul style="list-style-type: none"> Number of letters sent 	
Timeframe	<ul style="list-style-type: none"> After removing email address from directory 	
Roles	Responsible	HISP
	Accountable	
	Consulted	
	Informed	

NV DIRECT Cancellation Form:**NV DIRECT Cancellation Form**

Cancellation policy (*Please review NV DIRECT Participation Agreement for reference*):

- Ninety days notice required.
- If notice is received after September 30, the agreement will automatically renew and yearly fee will be due December 15 prior to the new subscription year.
- There are **NO** refunds of any kind.

Principal Provider

First Name	:
Last Name	:
Account Number	:
Phone Number	:
Organization Name	:
NV DIRECT Email Address	:

Principal Provider's Members

If signing on behalf of multiple providers of an organization, please provide the providers whom will no longer participate in NV DIRECT.

First Name	Last Name	Phone Number	NV DIRECT Email address

Reason for Cancellation:

Signature _____ Date _____

Please return above form to:

<u>Mail</u> Office of Health Information Technology Department of Health and Human Services 1000 E. William St., Suite 209 Carson City, NV 89701	<u>Email</u> megan.may@dhhs.nv.gov	<u>Fax</u> 775-684-7590
---	---	-----------------------------------

APPENDIX K: HIE SALES MANAGEMENT

This appendix heading is listed as a “place holder” for inclusion or reference at a future date.

Initial DRAFT

APPENDIX L: HIE PARTICIPANT ENROLLMENT GUIDELINES

OVERVIEW

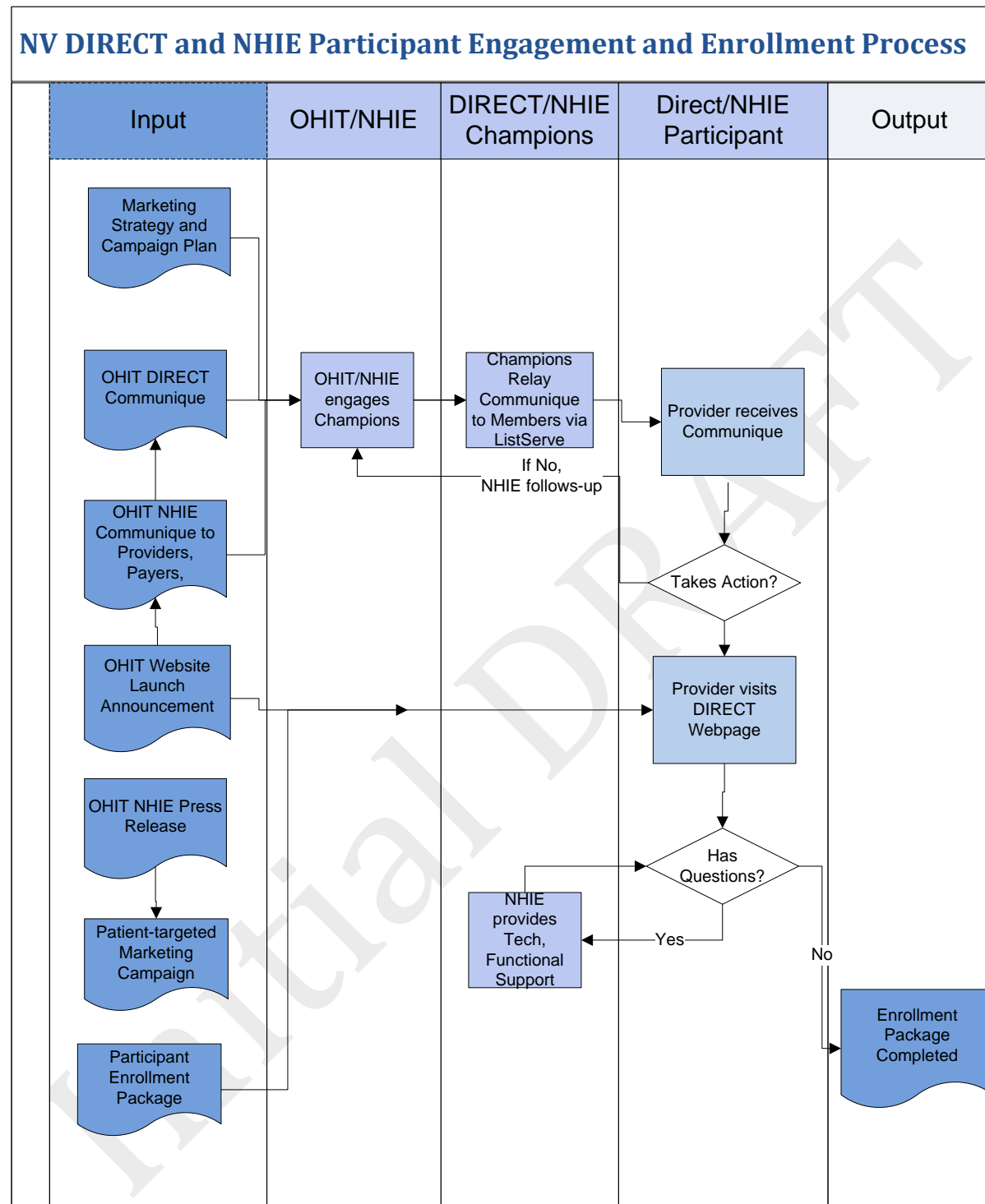
This process describes the basic mechanics of contacting potential eligible participants, and engaging them with awareness and sufficient information to influence them to enroll in NV DIRECT or NHIE. The Marketing Strategy, created by NHIE, defines the approach to engaging participants and designates influential professional organizations and individuals, labeled as Champions or Advocates to play a critical role in initially engaging participants.

PROCESS DEFINITION**Roles and Responsibilities**

Role Description	Responsibilities
NHIE	<p>This role leads the Marketing Process, and may be integrated with the Communication Director/Public Affairs role.</p> <ul style="list-style-type: none"> • Drafts, updates and manages the Marketing Strategy, Marketing Campaign Plan which guide the approach to engaging participants. • Facilitates the DIRECT/NHIE leadership in developing a Brand and Brand Strategy. • Responsible for creating themes and messages for communication used by Champions/Advocates to target potential participants, and patients. • Maintains the websites as go-to locations for participants seeking news, information, education, and tools.
Champions/Advocates	<ul style="list-style-type: none"> • Individuals and organizations with power to influence potential participants to enroll. (Examples are: Nevada Rural Hospital Partners, Nevada Medical Association, Nevada Nurses Association.) The current Marketing Strategy engages Champions/ Advocates to deliver the marketing message to potential participants, via their listservs, and other media channels, and to use their influence to advocate for enrollment in DIRECT/HIE.

Some Definitions of Terms

- **Stakeholder/Stakeholder Groups** –Any person or group of persons who will be impacted by implementation of Nevada DIRECT or NHIE. Individual stakeholders may be managed as stakeholder groups, based on similarities in how they are impacted, or how they are expected to respond to a change. Examples of Stakeholders are: Individual Physicians, a hospital, Pharmacy, or private practice, Dept of Corrections, Dept of Veterans Affairs. Examples of Stakeholder groups are; Urban Hospitals, Payers, Pharmacies, Rural Patients.
- **Champion/Advocate /Influencer** – Individuals or organizations (a subset of stakeholders) which have formal or informal power and potential to influence the behavior of stakeholders/stakeholder groups. Examples are: Nevada Medical Association, Nevada Rural Hospital Partners, and DHHS, Governor.



Activity – OHIT/NHIE Engages Champions

OHIT/NHIE Engages Champions	
Input	<ul style="list-style-type: none"> OHIT/NHIE Marketing Strategy and Campaign Plan OHIT DIRECT Communiqué (for initial DIRECT only)

		<ul style="list-style-type: none"> • OHIT NHIE Communiqué announcing HIE (after HIE Launch) • DIRECT and NHIE Webpage Enrollment content
Activity Description		<ul style="list-style-type: none"> • OHIT/NHIE initially contacts selected individuals and organizations to enlist their support in advocating for DIRECT / NHIE enrollment among their constituents. They will act as Champions/Change Leaders, making initial contact with potential participant providers and payers, and facilitate their access to awareness, information, education, and online enrollment at the OHIT DIRECT or NHIE website. • OHIT/NHIE provides Awareness, Information, and Education Materials through the website, and directly to potential participants, as needed. Examples of messaging includes initial contact message (DIRECT Communiqué), “Invitation to Participate”, Recommended “Recognition” messages” for constituents who respond by enrolling.
Output		<ul style="list-style-type: none"> • At least one willing and able Champion/Advocate per identified Stakeholder Group • Agreement on clear goals and objectives for enrollment from each Champion/Advocate • Agreement or Statement of understanding between NHIE and Champions
Key Performance Indicators		<ul style="list-style-type: none"> • At least one willing and able Champion/ Advocate per identified Stakeholder Group • Clear enrollment goals and objectives for each Champion.
Timeframe		Starting 30 Days prior to Go-live throughout the HIE implementation lifecycle.
Roles	Responsible	Marketing Director
	Accountable	Executive Director NHIE
	Consulted	Director Operations
	Informed	OHIT

Activity – Champions Communicate to Constituents, the Marketing Message

Champions Communicate to Constituents, the Marketing Message	
Input	<ul style="list-style-type: none"> • OHIT DIRECT Communiqué (for DIRECT only) • NHIE Communiqué to Providers-Payers (after HIE Launch) • DIRECT, and NHIE Webpage Enrollment Content
Activity Description	<ul style="list-style-type: none"> • In this activity, Champions will employ their ListServ or directory of constituents, to make initial contact, delivering as the message content of the NHIE-furnished “Communiqué”. The objective is to invite/influence each constituent to visit the DIRECT or NHIE Website, as appropriate, review FAQ’s and other information, and make a decision to enroll. • Champions are expected to follow-up in approximately one month, with a subsequent message, as a “nudge”.

		<ul style="list-style-type: none"> NHIE, as the HIE operator will acquire a list of enrollees, and will share those with Champions, so that that enrolls will be recognized for their participation, and not be redundantly contact. Conversely, they will be able to identify those constituents who have not enrolled, and can make a decision to contact those a second time.
Output		<ul style="list-style-type: none"> 100% of eligible potential participants contacted prior to DIRECT or HIE go-live. Non-respondents are re-contacted after HIE Go-Live.
Key Performance Indicators		<ul style="list-style-type: none"> 100% of eligible potential participants contacted prior to DIRECT or HIE go-live. ??% of eligible participants contacted first time, enroll within 30 days; another ??% enroll in next 60 days. Recognition communication is published for participants.
Timeframe		
Roles	Responsible	Champion, Advocate
	Accountable	NHIE Executive Director
	Consulted	NHIE Service Sales, and Contracting, NHIE Marketing Director
	Informed	DHHS

Activity – Participant receives Champion’s message – makes decision

Participant receives Champion’s message – makes decision.		
Input		<ul style="list-style-type: none"> “Communiqué” Message from Champion/Advocate and invitation to participate.
Activity Description		<ul style="list-style-type: none"> Participant reviews the communiqué, and other supporting information. Participant may decide to seek additional information at the NHIE website and review the Enrollment package, or consult with the Champion. Participant makes a decision to : <ol style="list-style-type: none"> Enroll Not enroll Delay enrollment pending another decision
Output		Decision to enroll
Key Performance Indicators		Participant receives sufficient information, and has adequate understanding of DIRECT, including benefits over cost, meaningful use requirement, and prerequisites to participate.
Timeframe		Participant receives Communiqué approximately 30 days prior to HIE Go-Live. This activity is expected to be performed individually by participants or participant groups throughout the duration of the implementation lifecycle.
Roles	Responsible	Participant
	Accountable	Director Service, Sales and Contracting

	Consulted	NHIE Support,
	Informed	Executive Director

Activity - Participant visits web page - completes enrollment package

Participant visits web page - completes enrollment package		
Input		Decision to enroll
Activity Description		<ul style="list-style-type: none"> In this activity, the participant visits the NHIE website, locates the links which access enrollment materials, completes and submits three documents according to the enclosed instructions. Participant may also choose to download from the website, brochures or other documents for reprinting as handouts to patients for awareness and education. If questions arise, the participant may email the HIE Support point of contact, whose email address is available on the website.
Output		<ul style="list-style-type: none"> Completed Enrollment Form Completed NHIE Participation Agreement Completed HIPAA Business Associates Agreement
Key Performance Indicators		<ul style="list-style-type: none"> All three above forms completed and received by NHIE 30% of targeted eligible participants enroll prior to NHIE Go-live Total of 60% of targeted eligible participants enroll 60 days post NHIE Go-Live.
Timeframe		<ul style="list-style-type: none"> This activity begins as early as 30 days prior to Go-live and continues throughout the NHIE lifecycle as newly eligible participants are identified and contacted.
Roles	Responsible	Participating Provider or Payer
	Accountable	Executive Director, NHIE
	Consulted	NHIE Help Support, NHIE Director of Service, Sales, and Contract Support
	Informed	DHHS

The following appendices are listed as “place holders” for inclusion or reference at a future date.

Appendix M: Consumer Support Services
Appendix N: Security Management
Appendix O: Provider Directory Maintenance
Appendix P: Patient Index Maintenance
Appendix Q: HIE Supplier Management
Appendix R: HIE Performance Reporting
Appendix S: HIE Integration Maintenance
Appendix T: NHIE Board Administration
Appendix U: Strategic Planning
Appendix V: Public Relations Management & Communication
Appendix W: Policy & Regulations Management
Appendix X: Internal IT Service Management (non-HIE)
Appendix Y: HR Management
Appendix Z: Facilities Management
Appendix AA: Financial Management
Appendix BB: Operations Management
Appendix CC: Vendor Management

ANNEXES

ANNEX A – INITIAL MARKETING STRATEGY PRESENTATION

This initial Marketing and Branding Strategy was created to support the initial implementation of NV DIRECT, and NHIE pending the activation of the NHIE Operating Entity.





Assumptions.

- The future financial sustainability of the Nevada HIE necessitate a strong marketing push to start to capture mind and market share for HIE services in the State.
- The Nevada HIE governance organization (NHIE-to own the brand) not likely to be stood up before Jan 1, 2013.
- Branding will be the purview of NHIE when they are operational, until then, a "Provisional brand" will be quickly developed (with little debate and rapid agreement) so marketing efforts can progress.
- NHIE Business Board of Directors may be willing to advance a Brand development effort prior to becoming fully operational.
- Marketing for NV DIRECT must proceed with speed.
- Engaging Providers requires starting conversations about the future HIE (branded)
- Establishing a Brand is a critical early objective in initiating a marketing campaign

The Branding Basics – What we can confirm now and what must be determined



• Who we are: Vision – mission

- **Vision:** The NV HIE vision is to establish a financially sustainable statewide HIE business that minimally delivers a set of health information exchange services and encourages broad use of those services to improve and innovate the delivery of wellness and care to individuals in the State. The information exchange capability will enable the sharing of health care data across organizational boundaries (inter- and intra-state lines) and will eventually be shared with consumers to improve patient safety, security, quality, and cost.
- In addition to supporting Nevadans, the envisioned NV HIE will support a significant transient population that comes into the State as a result of the gaming and tourism industry. For this transient population, HIE services are essential to expedite routing and delivery of accurate information and enabling quick treatment as well as continuity of care in their home state following that treatment.

- **Our Focus:** Near-term priority is to implement NV DIRECT, providing secure messaging services (similar to email) that will enable health record exchange among providers. This service will enable providers to demonstrate ability to exchange health data for incentive payments. Mid-term priority is to establish credibility and trust in a State HIE operator, governed by a Business Board of Directors and subscribe Nevada's health providers, hospitals, and payers to a Health Information Exchange Network; at the same time, fostering a health information exchange environment.

- **Verbal Branding Standards – How we talk about it [TBD- can be advanced now]**

- **Branding Graphic Standards – What it will look like – How we will display it [TBD]**

Branding components for the Board's discretion.



➤ Visual Brand Development – TBD (Recommend this be handed off to NNDA)

- Logo and Tag line
- Color Family

Brand Development – a starting point question that can be confirmed with assessment results.



What do we want our target market to think about on seeing/hearing the brand?

Secure, private	For Nevadans	Safer
Accessible	Cross-borders	More accurate
Healthcare savings	For tourists	Quality care
Healthier	Connected	Private
Whole ?/view of health status	efficient	Population Health
Emergency/urgent care		

The meaning of this brand will have commonalities across target markets - Providers, payers, and patients -, but also some perspectives unique to each market.



8

Branding/Marketing



Integrating Branding and Marketing strategies with OCM Strategy via Communication makes sense.



- **The Market** – target audiences (Marketing focus on a subset of stakeholders) already organized and assessed in the OCM Comm Strategy , and Leader Alignment Matrix.
- **The Product** – awareness, understanding, adoption messages supported by the Comm Strategy
- **Marketing Message** – already organized in the Comm Strategy (=Value Prop + Incentives)
- **Marketing Media** – options are already listed in the Comm Strategy
- **Publicity** – ingredients (audience, events, media, desired result, timings) are available in the Comm Strategy
- **Pricing** – (Domain of the Board) Communication support for communicating pricing is organized via the Comm Plan
- **Promotion** – Communication support for promotional discounts, incentives, available via the Comm Plan



8

The HIE target market is a subset of Stakeholders (those who will subscribe to NHIE, and those who will influence those subscribers)



The target market for HIE in Nevada, in general, maintains a positive perception towards HIE.

- **Providers –**
 - Challenged by initial costs – impacted by State economy
 - Facing many choices for EHR
 - Concerns on ability to meet meaningful use requirements – most will apply for Medicare, Medicaid incentives*
 - Early adoption is considered more risky – much wait and see – PCP's more proactive than specialists*
- **Hospitals –**
 - Disparity between urban and rural hospitals – Half of rural systems have no EHR
 - Urban systems already have EHR's actively modifying to comply for meaningful use.
- **Payers –**
 - No perceived downside; All Payers, except United Health are interested in supporting HIE.
- **Patients (influencers of providers and payers)**
 - Some need for education in benefits/value with encouragement to opt-in
 - Patients may have an influence on Providers (who will pay for the service) Expect a concern for privacy and security
 - Will have interest in access primarily for confidence in completeness of information
 - Tourists (non-Nevadans) make up 8% of health care activity
 - Tribes make up a 7% of health care activity whose engagement can impact immunization management, etc.

* Source: 2010 Assessment of Providers.



15

Going to Market



Primary Strategy is to engage and support selected Champions in carrying the message and expectations of adoption.

- **Build a network of Champions or agents from key leaders and influencers in Nevada Health Care.**
- **Identify and build collateral and other marketing material to reinforce and support the messaging of the Champions.**
- **Develop the Marketing Plan on top of / in sync with the Communications Plan**
 - Sequence the messages appropriately with NHIE program events
 - Evolve the message with the commitment curve
 - Identify the early adopters and identify early on, the late adopters; prioritize the marketing effort as required to get them all to the finish line
- **Track success over time using metrics such as:**

• Provider enrollments	• Opt-ins
• # of Messages	• Diversity of enrollment
• Payments as % of Income	• Contracts in the pipeline
• Close rate	

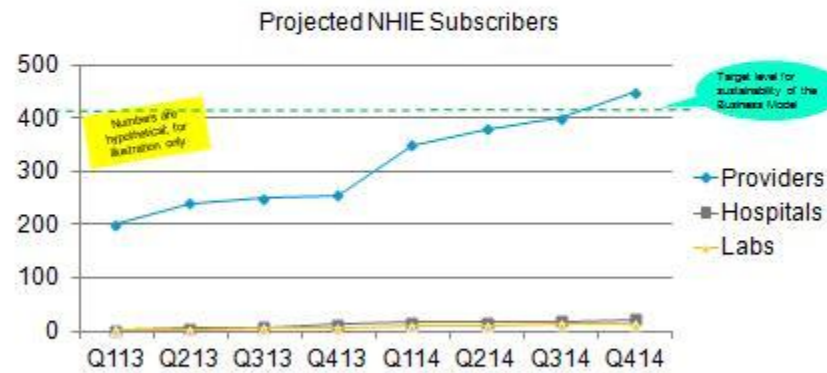


16

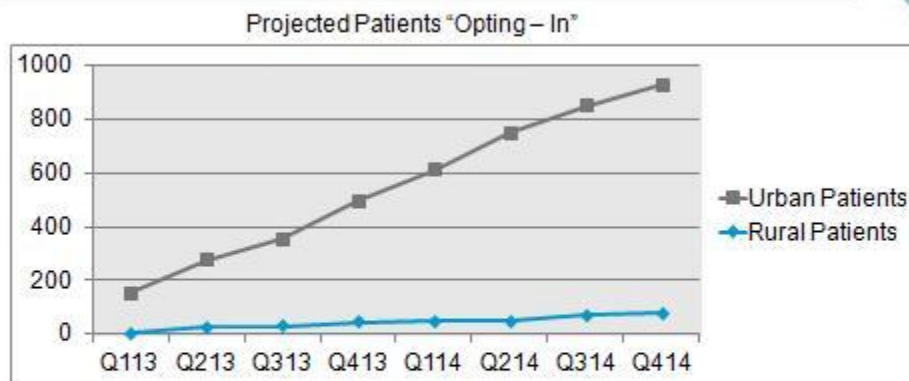
Example Marketing Campaign Objectives Timeline (Providers)

NHIE

Observable, measurable performance metrics, illustrating desired results of the campaign, must be created and tracked.



Example Marketing Campaign Objectives Timeline (Patients)













































Next Steps



- Confirm the Marketing Campaign Project Plan
- Obtain consensus for a Provisional Brand
- Review Leader Alignment Matrix – Define Approach to initial contact sessions, including a common Agenda
- Review – Schedule initial marketing events/contact sessions on Communication Tactical Plan
- Engage NNDA in discussions

ANNEX B – EXAMPLE MARKETING CAMPAIGN PLAN

Electronic Version of this plan available in Microsoft Project from OHIT HIE Coordinator

ID	Task Name	Duration	Start	Finish	1, '12 M T
0	 NHIE Marketing Campaign Planning and Execution	200 days?	Mon 4/2/12	Fri 1/4/13	
1	 Dev elop Campaign Concepts	20 days?	Mon 7/23/12	Fri 8/17/12	
2	 Develop preliminary campaign concepts	4 days	Mon 7/23/12	Thu 7/26/12	
3	 Identify Budgeting and Resource constraints	9 days?	Mon 8/6/12	Thu 8/16/12	
4	 Conduct a Provisional Branding Workshop/meeting	1 day	Fri 8/17/12	Fri 8/17/12	
5	 Assess SWOT of Competition (REC - Health Insight)	1 day?	Mon 8/6/12	Mon 8/6/12	
6	 Conduct Marketing Action Planning Workshops	30 days	Mon 7/23/12	Fri 8/31/12	
7	 Confirm campaign target markets	25 days	Mon 7/23/12	Fri 8/24/12	
8	 Establish campaign focuslist	10 days	Mon 7/23/12	Fri 8/3/12	
9	 Establish campaign priorities	11 days	Wed 8/1/12	Wed 8/15/12	
10	 Identify segmentation requirements	10 days	Mon 8/13/12	Fri 8/24/12	
11	 Conduct Champion/Agent Engagement action planning	10 days	Mon 8/6/12	Tue 8/28/12	
12	 Conduct Consumer/Patient Outreach Planning Workshop	10 days	Wed 8/8/12	Fri 8/31/12	
13	 Identify List of Supporting Collateral/Marketing materials required	5 days	Thu 8/30/12	Wed 9/5/12	
14	 Dev elop Collateral and Marketing Materials	13 days	Mon 9/10/12	Wed 9/26/12	
15	 Production	13 days	Mon 9/10/12	Wed 9/26/12	
16	 Submit campaign material for broadcast publication	3 days	Mon 9/10/12	Wed 9/26/12	
17	 Select vendor for appropriate production methods	10 days	Thu 9/13/12	Wed 9/26/12	
18	 Production of materials	5 days	Thu 9/13/12	Wed 9/19/12	
19	 Dissemination of materials	5 days	Thu 9/20/12	Wed 9/26/12	
20	 Production Complete	0 days	Wed 9/26/12	Wed 9/26/12	
21	 Develop campaign success metrics	15 days	Mon 8/6/12	Fri 8/24/12	
22	 Develop campaign tracking and analysis process	14 days	Mon 8/13/12	Thu 8/30/12	
23	 Add to Communication Plan, a schedule for Champion contacts	6 days	Mon 9/3/12	Tue 9/11/12	
24	 Develop public relations strategy	5 days	Tue 9/4/12	Mon 9/10/12	
25	 Conduct Champion contact Visits	40 days	Tue 9/11/12	Mon 11/5/12	
26	 Champions/Agents Reach out Campaign Complete	0 days	Mon 11/5/12	Mon 11/5/12	
27	 Customer Relationship Management	3 days	Mon 4/2/12	Wed 4/4/12	
28	 Review Change Agent, consumer, and provider data and	3 days	Mon 4/2/12	Wed 4/4/12	
29	 Dev elop Plan for External Promotions	40 days	Mon 9/17/12	Fri 11/9/12	
30	 Develop promotion Plan	2 days	Mon 9/17/12	Tue 9/18/12	
31	 Develop press releases	4 days	Wed 9/19/12	Mon 9/24/12	
32	 Develop announcements	4 days	Wed 9/19/12	Mon 9/24/12	
33	 Provide pre-release information to analysts	3 days	Wed 10/3/12	Fri 10/5/12	
34	 Execute publicity plan	20 days	Mon 10/15/12	Fri 11/9/12	
35	 Promotion - External Complete	0 days	Fri 11/9/12	Fri 11/9/12	
36	 Campaign Effectiveness	184 days	Mon 4/2/12	Thu 12/13/12	
37	 Review regional subscriptions and opt-ins	47 days	Mon 10/8/12	Tue 12/11/12	
38	 Review regional subscriptions and opt-ins 1	2 days	Mon 10/8/12	Tue 10/9/12	
39	 Review regional subscriptions and opt-ins 2	2 days	Mon 11/12/12	Tue 11/13/12	
40	 Review regional subscriptions and opt-ins 3	2 days	Mon 12/10/12	Tue 12/11/12	
41	 Perform Target Market Analysis	47 days	Wed 10/10/12	Thu 12/13/12	
42	Perform Target Market Analysis 1	2 days	Wed 10/10/12	Thu 10/11/12	
43	Perform Target Market Analysis 2	2 days	Wed 11/14/12	Thu 11/15/12	
44	Perform Target Market Analysis 3	2 days	Wed 12/12/12	Thu 12/13/12	
45	Identify any gaps	1 day	Mon 4/2/12	Mon 4/2/12	
46	Develop future campaign ideas	5 days	Tue 4/3/12	Mon 4/9/12	
47	Campaign Effectiveness	0 days	Mon 4/9/12	Mon 4/9/12	
48	Marketing Campaign Complete	1 day	Fri 1/4/13	Fri 1/4/13	

Initial DRAFT