



NDHIN/ORION KICK-OFF

North Dakota Health Information Network (NDHIN)

May 15, 2013

Agenda

- 12:30 Welcome/Introductions
- 12:45 Health IT, NDHIN Overview and Update
- 1:00 Demo of Direct, Clinical Portal, Patient Portal, other functionality
- 3:00 Break/networking
- 3:20 Onboarding and Implementation, Project Approach
- 4:15 Q&A, additional demonstrations as requested



OVERVIEW & UPDATE

Sheldon Wolf, ND Health Information
Technology Director



Health Information Exchange

Why is Health Information Exchange Important?

The ability to exchange health information electronically is the foundation of efforts to improve health care quality and safety. HIE can provide:

- The **connecting point** for an organized, standardized process of data exchange across statewide, regional, and local initiatives
- The means to **reduce duplication of services** (resulting in lower health care costs)
- The means to **reduce operational costs** by automating many administrative tasks
- **Governance and management** of the data exchange process

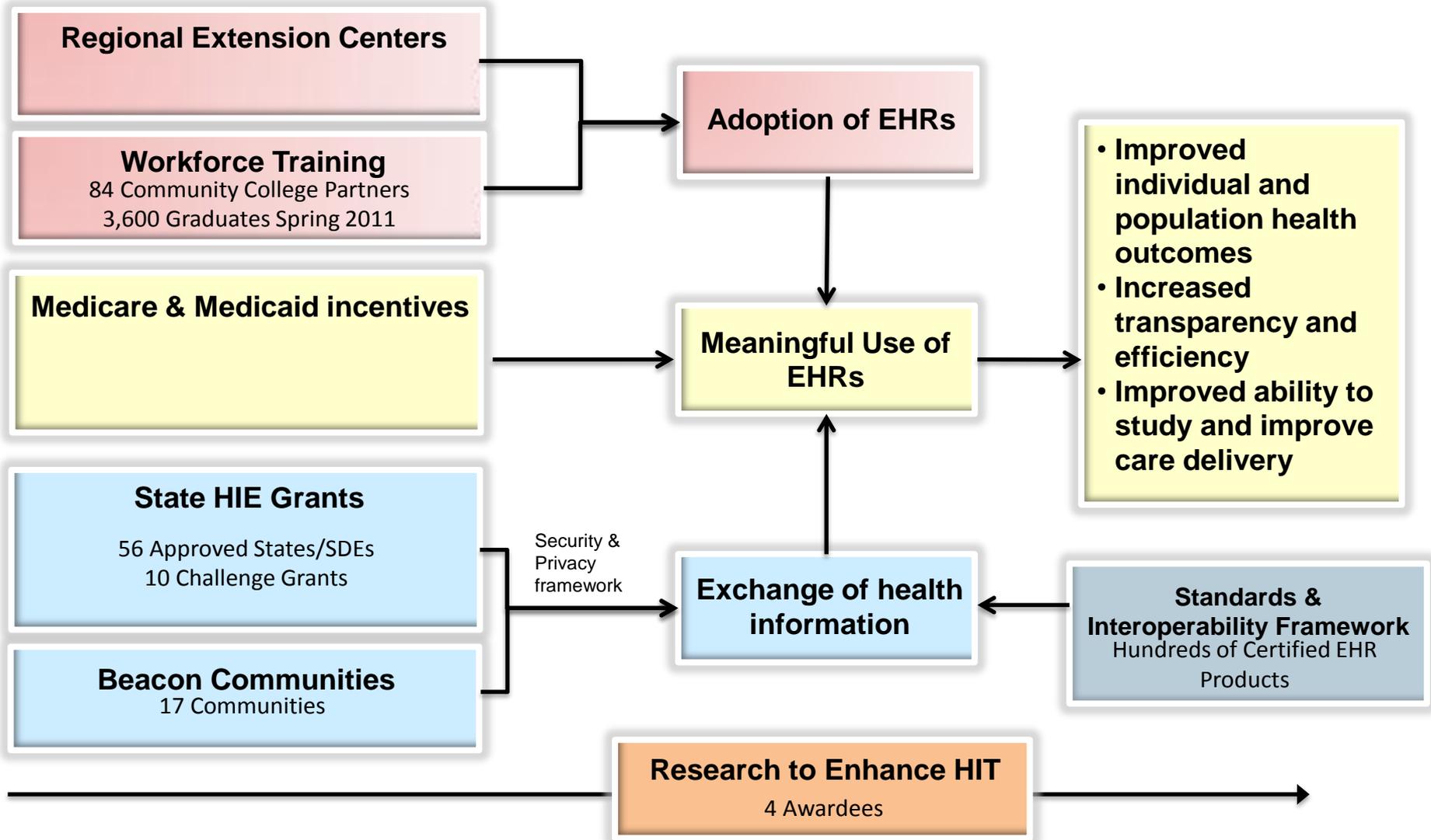


Health Information Exchange

Benefits: A Few Examples

- Provides a vehicle for improving quality and safety of patient care
- Provides a basic level of interoperability among EHRs maintained by individual physicians and organizations
- Stimulates consumer education and patients' involvement in their own health care
- Helps public health officials meet their commitment to the community
- Creates a potential loop for feedback between health-related research and actual practice
- Facilitates efficient deployment of emerging technology and health care services
- Provides the backbone of technical infrastructure for leverage by national and State-level initiatives

HITECH Programs and Goals: Where Are We Today?



Better
Technology

Better
Information

Transform
Health Care

Goal V: Achieve Rapid Learning and Technological Advancement

Goal IV: Empower Individuals with Health IT to Improve their Health and the Health Care System

Goal III: Inspire Confidence and Trust in Health IT

Goal II: Improve Care, Improve Population Health, and Reduce Health Care Costs through the Use of Health IT

Goal I: Achieve Adoption and Information Exchange through Meaningful Use of Health IT

Health Information Technology Advisory Committee



- *Chair-**Lisa Feldner, CIO** *State of North Dakota, Information Technology Department*
- *Vice-Chair-**Lynette Dickson, Associate Director** *Center for Rural Health, UND School of Medicine and Health Sciences*
- ***Barb Groutt, CEO** *North Dakota Healthcare Review*
- Courtney Koebele, Director of Advocacy** *North Dakota Medical Association*
- ***Caryn Hewitt, CIO** *Sanford Health System, Fargo*
- ***Dan Kelly, CEO** *McKenzie County Healthcare System*
- Dave Molmen, CEO** *Altru Health System/Chair Hospital Association*
- Janis Cheney, Executive Director** *AARP*
- Jennifer Witham, IT Director** *North Dakota Department of Human Services*
- Jerry Jurena, President** *North Dakota Healthcare Association*
- Jim Long, CEO** *West River Health Systems*
- Jon Rice, MD** *Consumer Representative*
- Laurie Peters, RHIT, Past-President** *North Dakota Health Information Management Assoc.*
- Lisa Clute, Executive Officer** *First District Health*
- ***Tony Tardugno, CIO** *BCBS of North Dakota*
- ***Nancy Willis, Medicaid HIT Coordinator** *NDDHS-ITS*
- Neil Frame, Operations Director** *Metro Area Ambulance*
- Representative Robin Weisz** *North Dakota Representative*
- Senator Judy Lee** *North Dakota Legislature*
- Shelly Peterson, President** *Long-term Care Association*
- Tami Wahl, Sr. Policy Advisor-HHS** *Governor's Office*
- Darrin Meschke,** *North Dakota Department of Health*
- Todd Bortke, Director of Information Systems,** *St. Alexius Medical Center*

**Executive Committee*



Domain Workgroups

- Technical Infrastructure
- Finance
- Legal and Policy
- Clinical
- Communication and Education
- Data Use

IF YOU WANT TO PARTICIPATE ON A WORKGROUP,
LET US KNOW!



Legislative Update

- House Bill 1435
 - Bill relates to medical identity theft and breach notification. Language was added for alternative compliance indicating “A covered entity, business associate, or subcontractor subject to the breach notification requirements under title 45, Code of Federal Regulations, subpart D, part 164, is considered to be in compliance with this chapter.”
- Senate Bill 2021
 - Appropriation for the NDHIN and the HIT Office
- Senate Bill 2065
 - Added “A health care record may be released to the subject of the document, the subject’s agent, or the subject’s health care provider” to the advance directive statute.

<http://www.healthit.nd.gov/legislative-updates/>

Legislative Update

- Senate Bill 2250
 - Three Options of HIE Participation
 - In (Default)
 - Allows the individually identifiable health information on an individual to be searchable by a provider
 - Opt-Out of Participation
 - Individual's identifiable health information may not be accessed by search by a health insurer, government health plan, or healthcare provider other than the provider who originally created or ordered the creation of the individually identifiable health information
 - Conditional Opt-Out
 - Information is not available for search, like the first option. However, if a health care provider determines access is required because of a medical emergency, the health care provider can “break the privacy seal” and search for the information



Connectivity Grant Program

- Purpose: Provide funds to providers to connect their electronic health record system to the NDHIN
- Funds Available - 1 to 1.3 Million Dollars
 - Hospitals - \$30,000
 - Clinics and Other Providers - \$10,000
 - Pharmacies - \$5,000



Connectivity Grant Program (Continued)

- Allowable Expenses
 - Contractual/Consultants
 - Vendor, legal, workflow, technical
 - Salaries directly related to connecting
 - Other Costs
 - Hardware / Software (Pharmacy)
- Application Deadline Dates
 - June 3, 2013
 - July 1, 2013
 - August 2, 2013
 - TBD
- Information and Application – www.ndhin.org

Community Assessment - 2012



- What comes to mind when you hear HIE?
 - Continuity of care
 - Improved quality
 - Improved efficiency
 - Sharing of complete information between providers
- Concerns
 - Security
 - Challenges of change
 - Restrictive nature of government (State and Federal) regulations



Community Assessment – 2012 (Continued)

- What comes to mind when you hear EHR?
 - Access health care services in the US
 - Do not have to repeat information multiple times
 - Paperless/digital
 - Legible record
 - Financial benefits – reduce duplication of services



Community Assessment – 2012 (Continued)

- If you were told that your medical record would be available electronically to your provider(s) that you gave permission to, anywhere you went for care, how supportive would you be of efforts to accomplish that?
 - Very supportive – 75%
 - Supportive – 25%
 - Not Supportive – 0%



Community Assessment – 2012 (Continued)

- What do you believe would be the best method(s) of communication to inform, educate and reach ND Residents
 - Provider/healthcare system
 - Media
 - Community Forums
 - Brochures

NDHIN Videos

- [Pixels](#)
- [ER Visit](#)
- [Off to College](#)





Community Assessment – 2012 (Continued)

- Would you at this point choose the option of opt in or opt out for North Dakota?
 - All but three participants chose the opt out option.
- Who should run the organization
 - 68% preferred an entity made up of a combination of a state agency and non-profit structure.

Vendor Update

- Mutually terminated the contract with Axolotl/Optum in February
- Released a request for proposals in February
- After the evaluation process, contract was awarded to Orion Health in March
- Contract was negotiated and signed April 22
- Statement of Work was negotiated and signed May 6
- Project Plan was developed and accepted May 8
- Direct Infrastructure is being installed/configured
- NDHIN Direct will be operational for participants as soon as possible, but no later than June 3



Direct Secure Messaging (DSM)

- DSM Web
 - Web-based Direct Messaging
 - Resides in Clinical Portal
 - Send Structured and Unstructured Messages - Securely
- DSM Connect
 - 3rd party EHR Direct Connectivity (NDHIN as HISP)
- DSM Direct
 - EHR Connectivity for EHRs without Direct functionality
- Alerts/Notifications

Direct Secure Messaging 2.0



Home | Feedback | Help1 (joe.martin) ▾ Logout

- ▾ PATIENTS
 - Patient Search
 - Inpatient Search
 - Outpatient Search
 - Recent Patients
 - Lists
 - Medical Templates
 - Patient Search
- ▾ REPORTS
- ▾ LISTS
- ▾ DIRECT SECURE MESSAGING
 - Inbox**
 - Drafts
 - Sent
 - Trash
- ▾ MESSAGING
- ▾ TASK LIST
- ▾ PATIENT PORTAL
- ▾ NOTIFICATIONS
- ▾ COMMON
- ▾ LINKS

 New

Search Inbox

Sort recent at top ▾

dr.stevens@direct.demo 28-Feb-2013
Review of Cardinal's record

alice.bush@direct.... ★ 21-Jan-2013
Some Attachments

alice.bush@direct.de... ★ 21-Jan-2013
Re: Fwd: Hey dude, how's going?

Some Attachments

★ **alice.bush@direct.demo** to joe.martin@direct.demo Mark as Unread ⓘ 21-Jan-2013 17:50

Some Attachments

 *If you download an attachment you are responsible for using appropriate safeguards to prevent improper use and/or disclosure of any personal identifying information (PII) including patient protected health information (PHI). You also agree not to use or disclose PII or PHI contained in a downloaded attachment other than as permitted or required by applicable law.*

 **xdm_2.zip** (XDM File) 39.5 kB

TEST, Charles Born 31-Oct-1972 Gender Male
Address 3 CCD Street, Richmond VA 23219 Phone +1-703-555-2323

[Continuity of Care Document / CHARLIE_TEST_CCD_v3_0.XML](#) (CCD Document) Download ▾

No patient information available

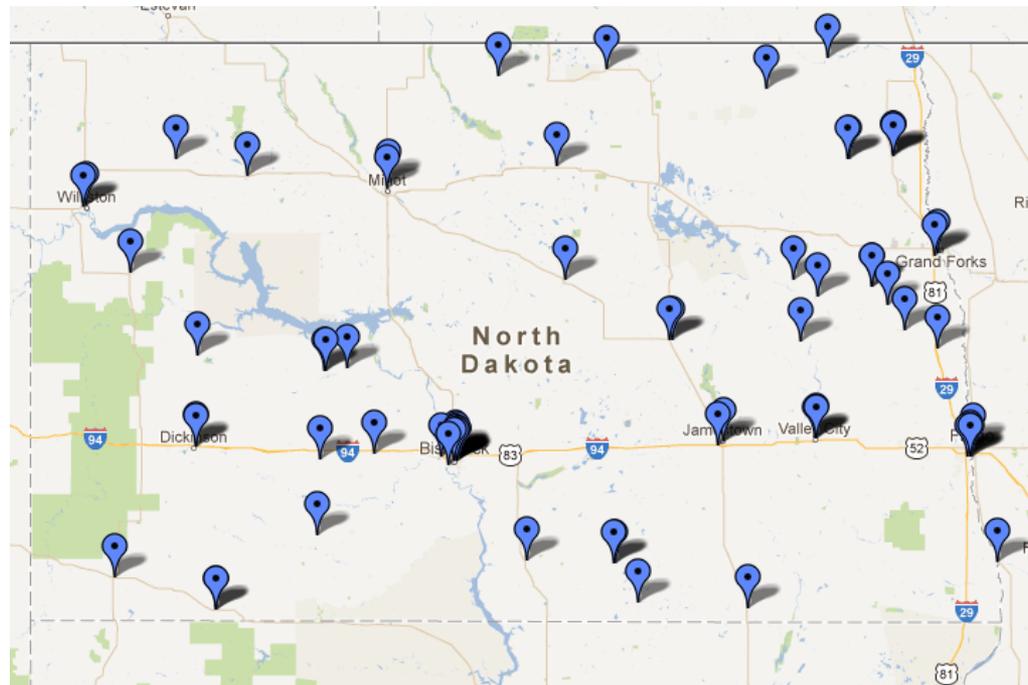
 **1043_bppc.xml** (text/plain; charset="UTF-8") 3.6 kB Download



NDHIN
North Dakota Health Information Network

NDHIN Update

- 87 Participation Agreements
- 360 DSM Users
- <http://www.ndhin.org/providers/participating-providers>





Orion HIE Videos

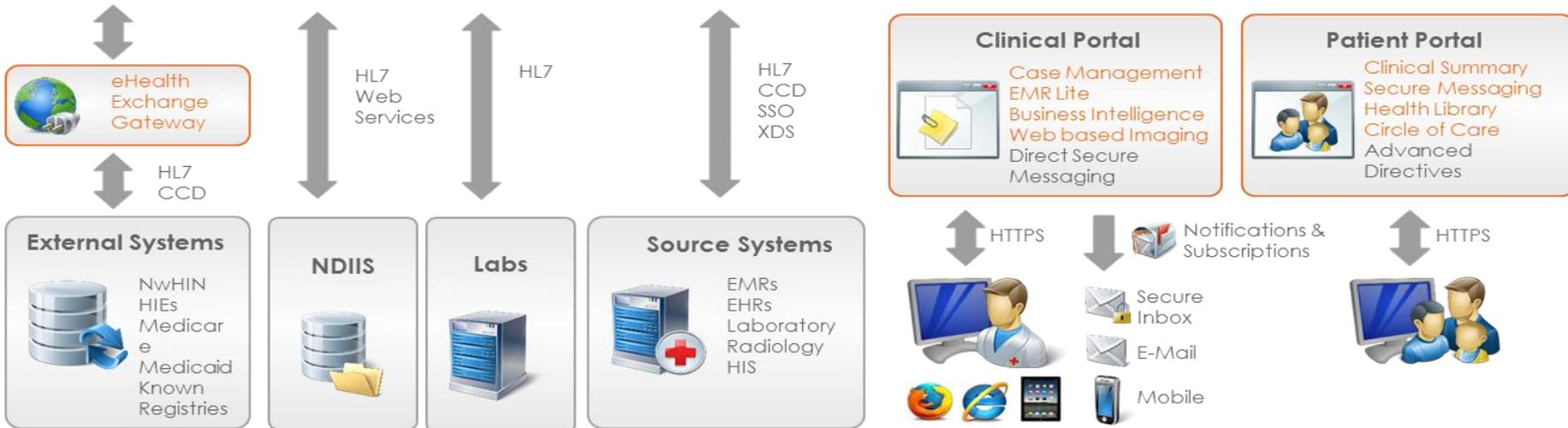
- [Interoperability, Sustainability, Clinical Adoption](#)
- [Interoperability](#)
- [Sustainability](#)
- [Clinical Adoption](#)



Data Feeds to HIE

- VPN Connection to Data Providers
- HL7
 - Admission, Discharge, Transfer (ADT)
 - Labs
 - Radiology Reports/Documents
 - Clinical Documents
 - Immunizations
- CCD/CDA Exchange

Integrated Health Data Architecture



NDHIN Clinical Portal

- Comprehensive View of Patient Information
- Customizable User Interface
- Notifications/Subscriptions
- Timeline View
- Normalization of Data
 - Lab Results
 - Problems
 - Allergies and Medications



CARDINAL, John Q DOB 12-Nov-1949 (63y) GENDER Male MRN 84568-4564

- Patient Summary
- Problem List
- Patient Task List
- Orders
- Patient Portal
- Timeline
- Imaging
- Privacy Details
- Relationship Details
- Privacy Log
- External Records
- More...

Advanced Medical Directive (4 weeks ago)

Print | Send | Update

Some items are not shown due to privacy restrictions. Break Privacy Seal

Page: 1 of 1 Automatic Zoom

Document View

Showing All Mark All As Read Group By Category Sort By Date

- Acute Care Flow Sheet
- Add New Document
- Clinical Content (1)
- Clinical Documents (12)
 - Advanced Directive (1)
 - 19-Feb-2013 Advanced Med
 - Care Plans (1)
 - Clinical Document (4)
 - EKG (3)
 - Radiology (1)
 - Referrals (1)
 - Respiratory (1)
- Laboratory (2 / 49)
 - Blood Gases (2)
 - Chemistry (16)
 - 03-Mar-2013 Creatinine (1)
 - 01-May-2012 ESR (1) Dr Ba
 - 05-Mar-2012 INR (10) Dr Jo

Advanced Medical Directive

Source date	19-Feb-2013
Category	Advanced Directive
Subcategory	Advanced Directive
Service	Family Medicine
Author	Francis MCNAMARA
Mark As	Read Unread

HEALTH CARE DIRECTIVE – PAGE 1 OF 14

INTRODUCTION

I, JOHN CARDINAL
 (name)
3437 MASONIC DRIVE, ALEXANDRIA, LA 71301
 (address)

understand this document allows me to do ONE OR ALL of the following:

PART I: Name another person (called a health care agent) to make health care decisions for me if I am unable to make and communicate health care decisions for myself. My health care agent must make health care

Example Integration (Epic)

Single Click access to Clinical Portal

Hyperspace | Epic | Home | Schedule | In Basket | Patient Station | Chart | My Reports | Print | Secure | Log Out

Cardinal, John | MRN: 84568-4564 | DOB: 11/12/1949 | Room: None | Allergies: Penicillin, Bee Stings | Isolation: None | Attend Prov: None
 CSN: 104532R | Sex: Male | Age: 61 yrs | Bed: None | Code: Inactive | Infection: None | Language: None

Health Information Exchange | 84568-4564 CARDINAL John Q (M / 62) | 12:17 14-11

Document View | Showing All | Mark All As Read | Group By Category | Sort By Date

Demographics

Other Identifiers		Emergency Contact	
ID1	104532R	Name	JARGON, Carol
		Relationship	Sister
		Phone	(408) 455-2112

Demographics		Primary Care Provider	
Sex	Male	Name	WOOD, Brandon R
Date of Birth	12 Nov 1949 (62 years)	Clinic	Bough Family Clinic
Address	840 Chester Ave Pasadena	Address	315 Maple Ave Pasadena
Phone	(463) 321-4568	Phone	(468) 456-2421

Allergies & Alerts

Details	Reaction	Severity	Date Entered	Source
Penicillin	Hives	Moderate	03-Jun-1995	City Hospital
Bee Stings	anaphylactic shock	Severe	03-Jun-1991	Health Alliance Medical Centre

Active Problems

Not all results have been displayed due to patient privacy restrictions. Break Privacy Seal

Status	Type	Description	Severity	Onset	End	Last	Comments

PAT LEAD | Results | Patient Calls | Pt Reminder | My Open Charts | My Open Encounters | Cosign - Meds | Verbal Order Cosign | Unsent Letters | 11:37 AM

Example Integration (Cerner)

Single Click access to Clinical Portal

The screenshot displays a Cerner clinical portal interface for patient JOHN Q. CARDINAL. The top navigation bar includes options like 'Task', 'Edit', 'View', 'Patient', 'Chart', 'Links', 'Notifications', and 'Navigation'. Below this, a patient information bar shows: CARDINAL, John Q, DOB: 11/12/1949, Age: 61 years, Gender: Male, Admit Date: 08/03/11, Loc: ICU; 3328; 1, FIN: 2097254 Inpatient, MRN: 84568-4564, Code Status: Full Code, Provider: TUSZYNSKI, THO... A left-hand menu is visible, with 'HIE' highlighted in a green box. The main content area is divided into several sections:

- Document View:** Shows a list of documents including Patient Summary, Add New Shared File, Add New Document, Advance Directive (1), Clinical Content (1), Clinical Documents (3 / 8) with sub-items like EKG (1 / 3), Radiology (2), Respiratory (2 / 2), and Ultrasound (1), Laboratory (18 / 35) with sub-items like Blood Gases (1 / 1), Chemistry (12), Hematology (16 / 21), and Surgical Pathology (1 / 1), Microbiology (1 / 4), and Outstanding Orders (2) with sub-items like Diabetes Clinic (1) and Radiology (1).
- Demographics:** Displays patient details for 84568-4564 CARDINAL, John Q. It includes tables for Other Identifiers (NHR: 104532R), Emergency Contact (Name: JARGON, Carol, Relationship: Sister, Phone: (408) 455-2112), Demographics (Sex: Male, Date of Birth: 12 Nov 1949 (61 years), Address: 840 Chester Ave Pasadena, Phone: (463) 321-4568), and Primary Care Provider (Name: WOOD, Brandon R, Clinic: Bough Family Clinic, Address: 315 Maple Ave Pasadena, Phone: (468) 456-2421).
- Allergies & Alerts:** A table listing allergies: Penicillin (Reaction: Hives, Severity: Moderate, Date Entered: 03-Jun-1995, Source: City Hospital) and Bee Stings (Reaction: anaphylactic shock, Severity: Severe, Date Entered: 03-Jun-1991, Source: Health Alliance Medical Centre).
- Encounter History:** A table showing past admissions: 16-Jul-2010 (Admission: 16-Jul-2010, Discharge: , Admit Reason: Angina, Discharge Diagnosis: , Visit Type: Inpatient, Specialty: General Medicine, Facility: City Hospital, Clinician: Dr Joe MARTIN) and 31-Jan-2008 (Admission: 31-Jan-2008, Discharge: 31-Jan-2008, Admit Reason: Diabetes, Discharge Diagnosis: Diabetes, Visit Type: Outpatient, Specialty: Endocrinology, Facility: Health Alliance Medical Centre, Clinician: Dr Leroy HOOD).

The bottom status bar shows 'P0112 | CL18397 | 11 August 2011 | 10:53 PDT'.

CCD Exchange

ORION HEALTH **84568-4564** CARDINAL John Q (M /62 years) 03-Jul, 08:56

Some items are not shown due to privacy restrictions. [Break Privacy Seal](#)

Continuity of Care Record Send To My EHR | Download | Print | Send

Continuity of Care Document
Created On: July 3, 2012

CARDINAL, John Q
Male/62y, 12-Nov-1949 (DOB)
84568-4564 (MRN)
841 Chester Ave
Pasadena, CA, USA, 91175
(239) 555-1515

Electronically generated by PPHC on July 3, 2012

Results

Result Type	Result Name	Result	Units	Reference Range	Effective Date	Abnormality
Chest X-Ray	Report (Report)	History of cough and night sweats with hemoptysis. There is a right sided pleural effusion, and some suggestion of right apical scarring. The films are otherwise normal.				
	Impression (Impression)	Consistent with clinical diagnosis of primary Tb. Other possibilities include fibrosing alveolitis and possibly an early right upper lobe pneumonia.				
Chest x-ray	Findings (Fin)	"image/jpeg" content is embedded				
	Summary Final (Sum)	No signs of heart failure. No recent abnormality shown in the lungs.				
CBC	WBC (WBC)	12	10 ⁹ /L	3.8-10.8		Above high normal
	RBC (RBC)	4.56	10 ¹² /L	3.6-5.1		
	Hb (Hb)	13.6	g/L	11.1-15.5		

Notifications

ORION HEALTH «

jmartin

My Subscriptions 03-Jul, 08:59

Logout

Patients

Notifications

My Subscriptions

Common

Links

Patient Portal

EMR Lite

Dashboard

Messaging

NICoE Scheduling

Español

ORION HEALTH

Direct

My EHR

By default

- Notify By Concerto User Messaging
- Notify By Direct
- Notify By Email
- Notify By Fax
- Notify By SMS
- Notify in Summary Email
- Notify in Summary Concerto User Messaging
- Send any associated document to My EHR

Choose which notifications you want to receive and where to send them. Daily Summary and Email cannot contain patient information so the detail must be sent elsewhere.

All notifications are sent as they happen except the Daily Summary, which is sent during the night.

Subscriptions for patients I have a relationship with

Notification	Delivery Options
<input checked="" type="checkbox"/> Clinic Appointment Completed	Use default Change
<input checked="" type="checkbox"/> Inpatient Admission	Use default Change
<input checked="" type="checkbox"/> Inpatient Discharge	Use default Change
<input type="checkbox"/> New Patient Problem Entered	
<input checked="" type="checkbox"/> Patient is admitted to ED	Use default Change
<input checked="" type="checkbox"/> Patient is discharged from ED	Use default Change
<input checked="" type="checkbox"/> Final Radiology Report is available	Use default Change
<input checked="" type="checkbox"/> New Imaging Report available	Use default Change
<input checked="" type="checkbox"/> Final Laboratory Result is available	Use default Change
<input checked="" type="checkbox"/> Final Microbiology Result available	Use default Change
<input checked="" type="checkbox"/> Interim Microbiology Result available	Use default Change
<input checked="" type="checkbox"/> New Shared File in Patient Portal	Custom Change
<input checked="" type="checkbox"/> New Transcribed Document available	Use default Change

Audit Log

Sarah Secure (NADEMO2)

Clinical Log 21-Jun, 12:16

Select a favorite search ▾

Clinical Log

User ID: Patient ID: Application: Update list

User Events: Concerto Events:

Other Events: Date: From: To:

Session: Result: All Success Fail

Search Reset +

Time	User ID	Event Type	Message	Patient ID	Patient Name	ID Type
21 Jun 12:10	jmartin	Open Application	User Messaging, New Message	84568-4564	Cardinal John	Patient.Id.MRN
21 Jun 12:10	jmartin	Open Application	HIE, View CCD	84568-4564	Cardinal John	Patient.Id.MRN
21 Jun 12:10	jmartin	Open Document	Continuity of Care Document	84568-4564	Cardinal John	Patient.Id.MRN
21 Jun 12:10	jmartin	Open Application	HIE, View CCD	84568-4564	Cardinal John	Patient.Id.MRN
21 Jun 12:09	jmartin	Open Application	Orion - Allergies & Alerts, Allergies & Alerts	84568-4564	Cardinal John	Patient.Id.MRN
21 Jun 12:09	jmartin	Open Application	Orion - Dynamic Patient Summary, Patient Summary	84568-4564	Cardinal John	Patient.Id.MRN
21 Jun 12:09	jmartin	Open Application	Orion - Encounter History, Encounter History	84568-4564	Cardinal John	Patient.Id.MRN
21 Jun 12:09	jmartin	Open Application	Demo - Clinical Data, Key Clinical Information	84568-4564	Cardinal John	Patient.Id.MRN
21 Jun 12:09	jmartin	Open Application	Orion - Medication History, Medication History	84568-4564	Cardinal John	Patient.Id.MRN
21 Jun 12:09	jmartin	Open Application	Orion - Patient Search & Demographics, Demographics - Future	84568-4564	Cardinal John	Patient.Id.MRN
21 Jun 12:09	jmartin	Open Application	Demo - Clinical Data, Active Problems	84568-4564	Cardinal John	Patient.Id.MRN
21 Jun 12:09	jmartin	Open Application	Orion - Dynamic Patient Summary, Dynamic Patient Summary	84568-4564	Cardinal John	Patient.Id.MRN
21 Jun 12:08	jmartin	Open Application	User Messaging, Received Messages	84568-4564	Cardinal John	Patient.Id.MRN
21 Jun 12:08	jmartin	Open Application	Orion - Allergies & Alerts, Allergies & Alerts	84568-4564	Cardinal John	Patient.Id.MRN

Español

ORION HEALTH

Imaging



CARDINAL, John Q DOB 12-Nov-1949 (63y) GENDER Male MRN 84568-4564

- Patient Summary
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- More...

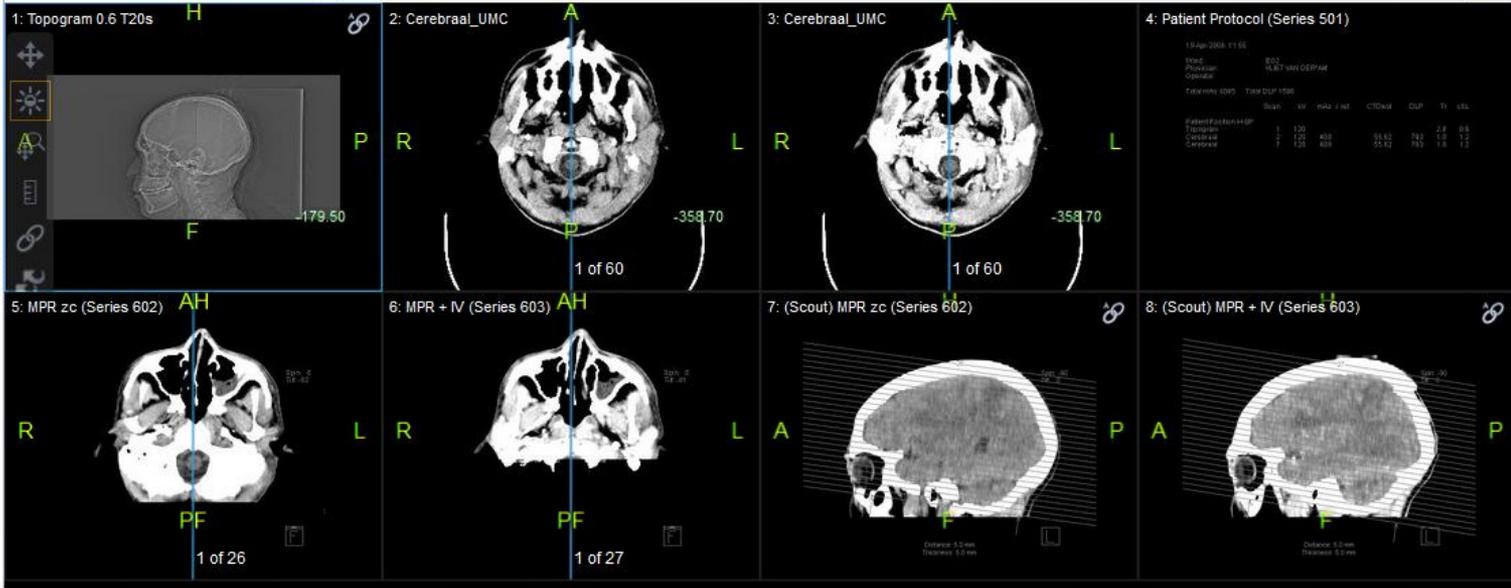
i Some items are not shown due to privacy restrictions. Break Privacy Seal

CARDINAL, JOHN | 84568-4564 Male Nov 12, 1949

CT cerebraal_mc kliniek CCHCERK
Apr 19, 2006 11:55 AM

Document View
Showing All Mark All As Read
Group By Category Sort By Date

- Patient Summary
- Acute Care Flow Sheet
- Add New Document
- Clinical Content (1)
- Clinical Documents (12)
- Laboratory (2 / 49)
- Microbiology (7)
- Outstanding Orders (3)
- Radiology (12)
 - CAT Scan (7)
 - 23-Sep-2008 CHEST FOR I
 - 20-Apr-2006 CT cerebraal**
 - 19-Apr-2006 Chest CT Dr T
 - 25-Jan-2006 CT Brain Mary
 - 04-May-2005 Chest CT Dr T
 - 22-Mar-2005 Cranial CT Sc
 - 09-Jan-2005 Abdominal-Th
 - Computed Radiography (1)
 - 06-Oct-2000 CHEST AP Po





NDHIN Patient Portal

- Provide patients secure access to their current medical records from all participating sources
- Improve communication between patients and providers
- Upload relevant documents (such as Advance Directives)
 - The NDHIN Clinical Portal will be the statewide Advance Directive Repository
- View who has accessed their Clinical Portal record
- Providers can:
 - Electronically delivering results
 - Confirm/Remind upcoming appointments
 - Provide patient reference information



DEMO

Clinical Portal/Direct Secure Messaging
Patient Portal



PROJECT APPROACH



Project Management Objectives

- Guide the project through a controlled and visible set of activities to achieve project goals
- Facilitate collaborative planning, execution, control and communication of the project
- Ensure ND project management standards and legislation are followed

Project Plan

- Developed jointly with Orion Health
- Aligns with the Statement of Work for Orion Health's services
- Includes the scope, budget, and schedule for the project
- Includes management plans for controlling the project and managing issues, risks and changes

Project Scope

- Core Infrastructure and Direct (Deliverable 1)
- Core HIE Solution (2A)
- Core HIE Solution and Integration of Initial Participants (2B)
- Implementation, Integration and Onboarding with Additional Participants (3)
- Patient Portal (4)



Project Scope (continued)

- Public Health Reporting (5)
- Immunization Registry Integration (6)
- eHealth Exchange Gateway (7)
- DSM 2.0 with Health Provider Directory (HPD) (8)
- Business Intelligence Utilization Dashboard (9)
- User Adoption Services (10)
- Training Services (11)



Project Schedule

	High Level Activities/Deliverables/Milestones	Planned Start Date	Planned End Date
0	NDHIN-Orion Health Project Schedule	Wed 4/22/13	Fri 3/14/14
1	Contract Execution	Wed 4/22/13	Wed 4/17/13
2	Planning	Thu 4/18/13	Thu 6/13/13
3	Execution	Mon 4/29/13	Thu 3/20/14
3.1	Core Infrastructure and Direct (Deliverable 1)	Mon 4/29/13	Tue 6/4/13
3.2	Core HIE Solution (Deliverable 2A)	Mon 5/13/13	Mon 9/30/13
3.3	Core HIE Solution and Integration of Initial Participants (Deliverable 2B)	Fri 5/17/13	Thu 12/19/13
3.4	Implementation, Integration and Onboarding with Additional Participant (Deliverable 3)	Wed 7/17/13	Thu 3/20/14
3.5	Patient Portal (Deliverable 4)	Tue 10/1/13	Wed 1/29/14



Project Schedule (continued)

	High Level Activities/Deliverables/Milestones	Planned Start Date	Planned End Date
3.6	Public Health Reporting (Deliverable 5)	Wed 7/17/13	Thu 11/14/13
3.7	Immunization Registry Integration (Deliverable 6)	Fri 5/17/13	Fri 8/30/13
3.8	eHealth Exchange Gateway (Deliverable 7)	Fri 5/17/13	Thu 3/20/14
3.9	DSM 2.0 with Health Provider Directory (HPD) (Deliverable 8)	Fri 8/30/13	Mon 1/27/14
3.10	Business Intelligence Utilization Dashboard (Deliverable 9)	Fri 1/17/14	Tue 3/18/14
3.11	User Adoption Services (Deliverable 10)	Fri 5/17/13	Wed 1/22/14
3.12	Training Services (Deliverable 11)	Fri 5/17/13	Wed 1/22/14
3.13	Transition to Phase 3, Implementation of Remaining Participants	Thu 1/23/14	Thu 3/6/14
3.14	Project Management, NDHIN Management	Thu 4/23/13	Fri 3/14/14



Project Controlling Activities

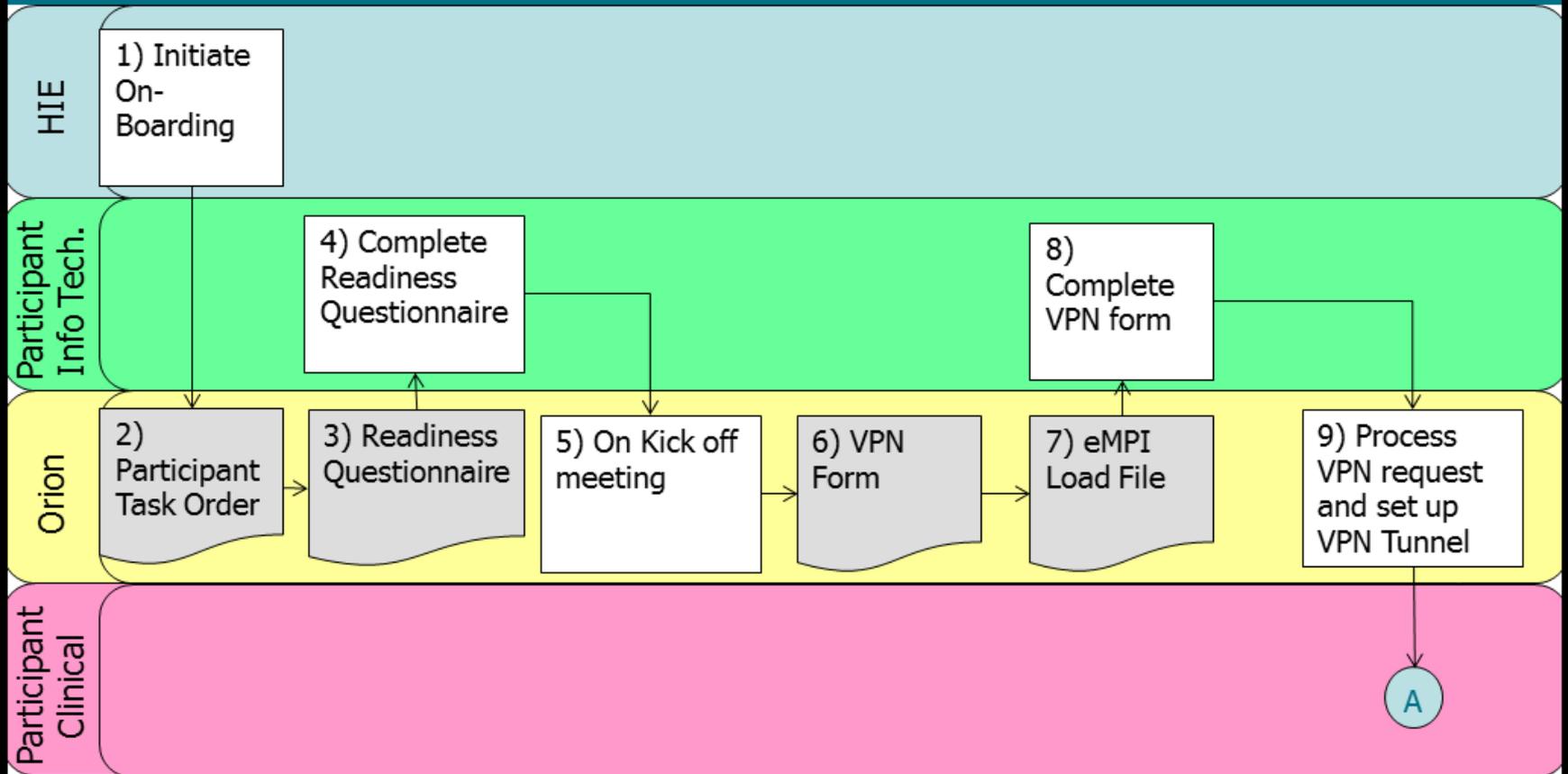
- Comprehensive issue, risk and change management process
- Weekly joint status meetings of the NDHIN-Orion Health team
- Monthly meetings of the NDHIN-Orion Health sponsors and managers for issues
- Quarterly meetings of the NDHIN Project Executive Steering Committee for approvals/issues
- Regular status and metrics reporting
- Biweekly communication to the HITAC and Domain Workgroups



ONBOARDING & IMPLEMENTATION

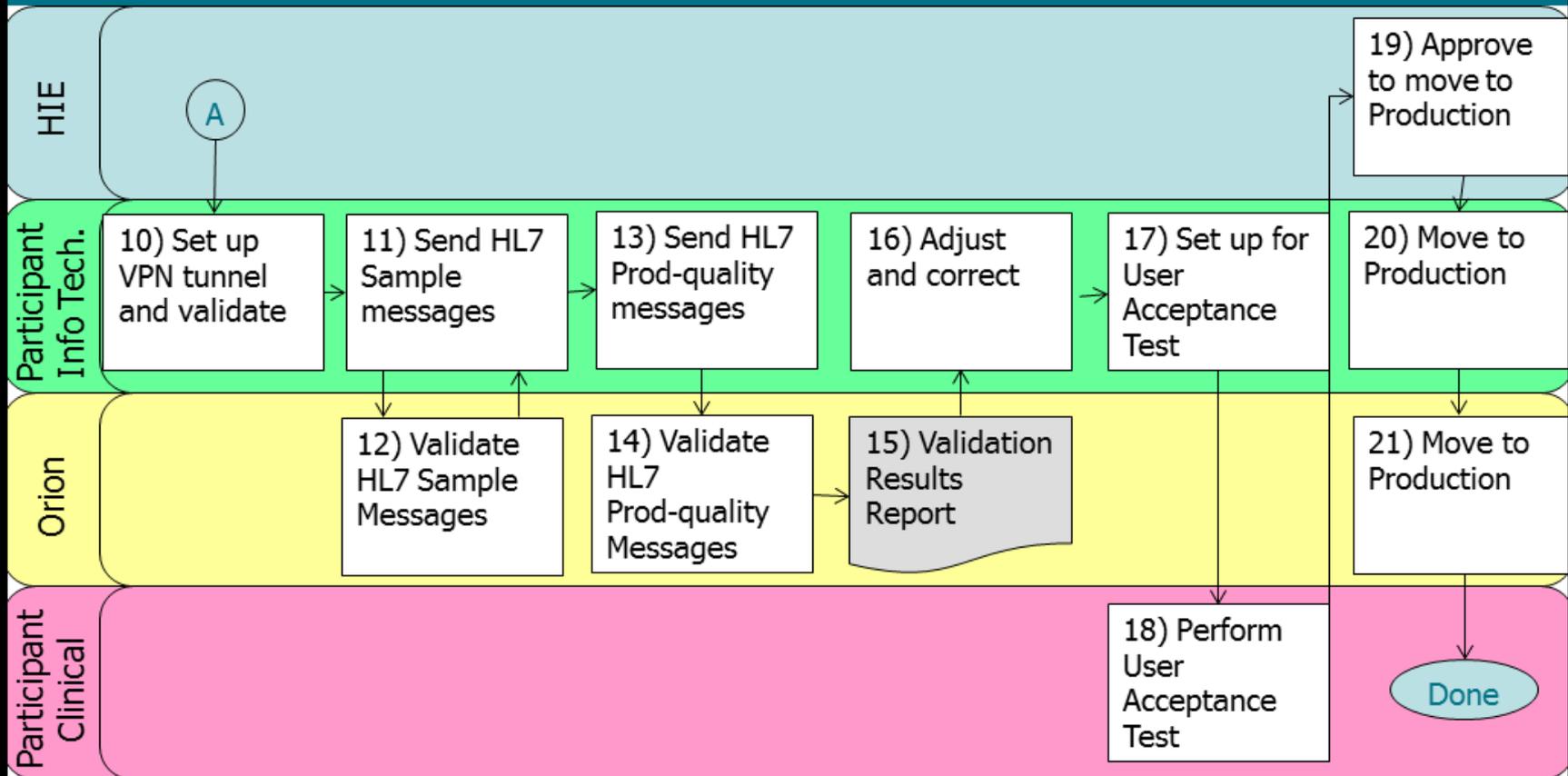
Participant On-boarding

Process Overview – Part I



Participant On-boarding

Process Overview – Part II



Participant Integration

Participant Preparation (In advance of Integration)

Integration Review with Participant – confirm data and interfaces to be provided

Test Messages Provided per Orion HL7 Specification

Validate messages (Orion) and Feedback to Participants

Create EMPI and other Bulk Files

Create Code Set Mappings – if Participant is using Proprietary Code sets

Create User List (Based on Standard Roles and Groups)

Participant Integration – Continued

Participant Integration Tasks	Resource	Effort
Participant Preparation	Interface Resource	10 days (before connection)
VPN Connectivity	Network/Interface	1-5 days
Code Set Mappings and Bulk File Generation	Interface Resource	2-5 days
Participant Integration Testing in DEV and TEST Environments	Interface Resource	10 days
Integration Testing Signed Off	Participant	
Participant Verification	Resource	Effort
Verification Testers confirmed	Subject Matter Experts, Clinical SMEs approx 2 to 5 resources	10 days before Verification Testing
Training Webex Provided	SMEs	1 Hour
Complete Verification Testing	SMEs	10 Day Period
Verification Testing Signed off	Participant	

Interfaces

Type of Data	Interface Approach	User Interface (Front end View)
Patient Demographics	HL7– ADT Demographics to EMPI	Homepage Patient Search Patient Summary - Demographics & Emergency Contacts
Encounter History	HL7 – ADT (PV1 segment) Inbound	Patient Summary – Encounter History Windowlet
Laboratory Results	HL7 - ORU Inbound - Numerical and Textual (e.g. Pathology and Microbiology)	Document Tree/Results Viewer Normalized to LOINC
Radiology Reports	HL7 - ORU Inbound - Textual	Document Tree/Results Viewer
Clinical Documents	HL7 or MDM – Inbound or PDFs/Scanned documents	Document Tree/Results Viewer

Interfaces - Continued

Type of Data	Interface Approach	User Interface (Front end View)
Allergies	HL7 – ADT (AL1 segment) or CCD Inbound	Patient Summary - Allergies Windowlet Normalized to SNOMED
Diagnosis	HL7 – ADT (DG1 segment) Inbound	Patient Summary – Encounter History Windowlet
Immunizations	HL7 – VXU or CCD	Patient Summary – Immunizations Windowlet
Medications (Current Inpatient and historical)	HL7- RDSO13, RDEO11, RAS017 and OMPO09 – or CCD Inbound	Patient Summary – Medications Windowlet Normalized to RXNorm or NDC
Problems	HL7-PPR or CCD	Patient Summary – Problems Windowlet Normalized to ICD 9/10 or SNOMED
Procedures	HL7 – ADT (PR1 segment) or CCD Inbound	Patient Summary – Procedures Windowlet Normalized to ICD 9/10 or CPT4

Integration - Continued

- ★ Relationships between patients and providers are captured from key fields within the ADT message feed
 - ★ Referring, Attending, Admitting, and Primary Care Providers, if present, within ADT messages are associated to the patient automatically for use with the Notification Module
- ★ Notifications
 - ★ Setup at the Provider level depending on Provider preferences
 - ★ Default settings can be set at the enterprise level
 - ★ Possible notifications include:
 - ★ Inpatient Admission
 - ★ Inpatient Discharge
 - ★ New Laboratory Result (Final) is available
 - ★ New Radiology Result (Final) is available
 - ★ A new document is available
 - ★ Interim Microbiology Result available
 - ★ Patient is admitted to the ER
 - ★ Patient is discharge from ER

Integration – Keys to Success

- ★ Complete production quality messages Day 1
 - ★ Provides true validation to be performed for message layout, content, and display within the Portal
 - ★ Ideally a production feed to the test environment
- ★ Proprietary codes are identified early on
 - ★ Mapping proprietary codes to standards (i.e. LOINC, CPT, SNOMED, etc.) can be time consuming
- ★ Dedicated integration/interface resource
 - ★ Allows for quick turn around during interface validation testing
- ★ Clinical resource identified
 - ★ Allows for any clinical questions related to the data within interface feeds to be answered and resolved
 - ★ Typically for translation/understanding of clinical data

