The Office of the National Coordinator for Health Information Technology

Longitudinal Coordination of Care Initiative Closing Ceremony

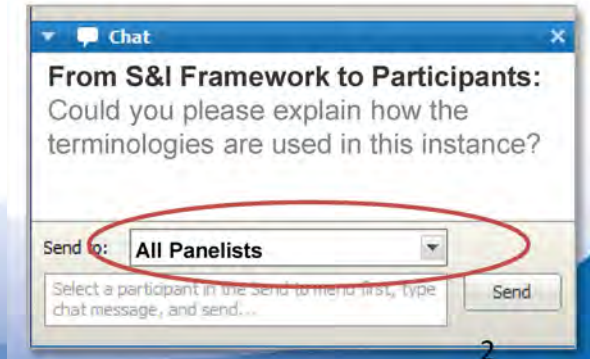
September 29, 2014

Meeting Etiquette

- PLEASE NOTE: **All participants on this call are muted.** If you want to ask questions or make comments please use the "Chat" feature on the web meeting.

TO CHAT, click on the "chat" bubble at the top of the meeting window.

- **Select "All Panelists" to send your message** in order to ensure the comments are addressed publically.



Agenda

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- **Introduction**
  - **Lauren Thompson** – ONC Office of Standards & Technology
- **Background of LCC Initiative**
  - **Evelyn Gallego** – ONC S&I LCC Initiative Coordinator
- **Accomplishments**
  - **Jennie Harvell** – U.S Dept. of Health and Human Services, ASPE
- **Key Deliverable 1: LCC Transitions of Care Use Case 1.0**
  - **Terry O'Malley** – Partners HealthCare System, Inc.
- **Key Deliverable 2: Care Plan White Paper/Glossary**
  - **Jennie Harvell** – U.S. Dept. of Health and Human Services, ASPE
- **Key Deliverable 3: LCC Care Plan Exchange Use Case 2.0**
  - **Jennie Harvell** – U.S. Dept. of Health and Human Services, ASPE
- **Key Deliverable 4: C-CDA R2 Implementation Guidance**
  - **Michael Tushan** – Lantana
- **Pilots**
  - **Tom Moore** – Healthix
- **Real World Applications**
  - **Michael Tushan** – Lantana
  - **Gordon Raup** – Datuit
  - **Andrey Ostrovsky, MD** – Care at Hand
- **Path Forward**
  - **Evelyn Gallego** – Initiative Coordinator

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Introduction

Lauren Thompson

Director for the Standards and Interoperability (S&I) Division of the Office of Science and Technology (OST)

Value of LTPAC Health Information Exchange

- ONC recognizes role HIE plays in helping health care providers share health information in a timely and secure manner across care settings to support
- Although LTPAC Providers are not eligible for incentive payments under Meaningful Use program, ONC initiated several programs to promote HIE in LTPAC settings:
  - HIE Challenge Grants for LTPAC Transitions of Care
  - Beacon Community Grants
  - S&I Longitudinal Coordination of Care (LCC) Initiative
  - ONC LTPAC and Behavioral Health Certification Program

Role of Standards in supporting LTPAC HIE

- "Care" is evolving and dynamic
  - Requires more robust information for effective transitions and care planning
- As population ages and number of individuals with complex conditions increases , we have an increased need in LTPAC Services
  - Requires ability to gather and share LTPAC information electronically
- LTPAC services cover wide arrange of services—from institutional services in specialty hospitals and nursing homes, to a variety of home and community based services
  - Standards need to transverse across variety of settings and multi-disciplinary providers

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Background

Evelyn Gallego, MBA, CPHIMS

S&I LCC Initiative Coordinator

ONC Office of Standards & Technology

Longitudinal Coordination of Care (LCC) Initiative: Background

- Initiated in October 2011 as a **community-led** initiative with multiple public and private sector partners, each committed to overcoming interoperability challenges in long-term, post-acute care (LTPAC) transitions
  - Addressed limitations in standards identified to meet Stage 1 and Stage 2 Meaningful Use (MU) Transitions of Care (ToC) requirements
  - Driven by work of Gesinger Keystone Beacon Project, MA IMPACT Project and ASPE sponsored HIE and Home Health Plan of Care Initiatives
- Initiative focused on advancing interoperable health information exchange (HIE) on behalf of LTPAC stakeholders and promoted LCC on behalf of medically-complex and/or functionally impaired persons
  - Looked beyond provider and patient populations targeted by the MU Program

LCC Scope Statement

- To define the necessary requirements that will drive the identification and harmonization of standards that will support and advance patient-centric interoperable health information exchange, including care plan exchange, for medically complex and/or functionally impaired individuals across multiple settings.

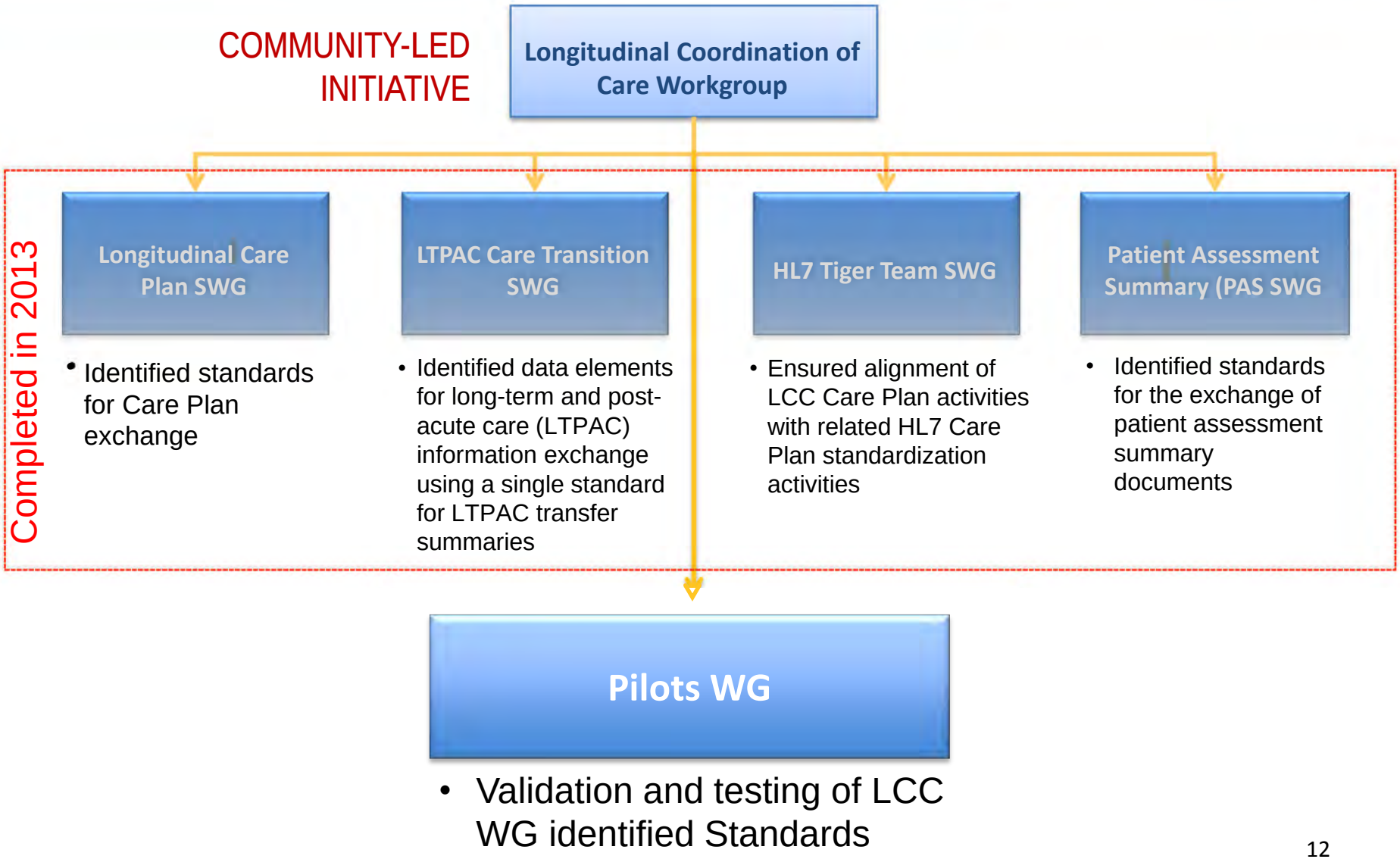
LCC Scope Activities

- To identify and validate a standards-based longitudinal care management framework built around the needs and experience of the patient respective to:
  - The Patient Assessment Summary (PAS) or LTPAC Summary document leveraging the CMS Minimum Data Set (MDS), Outcome and Assessment Information Set (OASIS) and Care Tool datasets
  - A more robust Transition of Care (ToC) dataset required by Care Team “receivers” building off the S&I ToC dataset
  - The Care Plan/Plan of Care documents used to coordinate patient care across multiple settings and disciplines

LCC Scope Activities

- Activities supported via 5 sub-workgroups (SWGs):
  - **Longitudinal Care Plan (LCP):** completed SEP2013
  - **LTPAC Care Transition (LTPAC)**: completed SEP2013
  - **HL7 Tiger Team**: completed AUG2013
  - **Patient Assessment Summary (PAS)**: completed JAN2013
  - **Pilots**: completed SEP2014

LCC Workgroups Structure



LCC Timeline in Brief

- Oct 2011: Initiative Kickoff
- Jun 2012: LCC Use Case 1.0
- Jun 2012: Balloted Functional Status, Cognitive Status & Pressure Ulcer Templates for C-CDA
- Aug 2012: Published Care Plan Whitepaper
- Dec 2012: Published Care Plan Glossary
- Jan 2013: Balloted LTPAC Assessment Summary Document and Questionnaire Assessment IG
- Jan 2013: Stage 3 MU Recommendations
- Jun 2013: LCC Use Case 2.0
- Aug 2013: Balloted C-CDA Release 2
- Sept 2013 to Sept 2014: Pilots Execution

Relevant Prior Work

- S&I Framework Transitions of Care (ToC) Initiative
- HL7 Patient Care WG
- ASPE-sponsored worked on HIT standards for LTPAC
- AHIMA LTPAC Health IT Collaborative
- ONC Challenge Grant Program
- ONC Beacon Community Program
- IHE Patient Care Coordination Technical Committee
- HIMSS HealthStory

LCC Stakeholder Engagement

102 Total Members

- 59 Committed
- 43 Other Interested Party

- Educational
- Government: Federal, State, Local
- Provider Associations: Medical, Physician etc.
- Health Information Exchanges
- Health IT Vendors (EHR, EMR, PHR, HIE)
- Health Professionals (DO, MD, DDS, RN, Tech)
- Healthcare IT
- Foundations
- Home Care and Hospice
- Licensing/Certification Organizations
- Managed Care Organizations
- Provider Organizations
- Research Organizations
- Standards Development Organizations
- Technology Hosting and Compliance
- Consultants/Contractors

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Accomplishments

Jennie Harvell

U.S. Dept. of Health and Human Services

Office of the Assistant Secretary for Planning and Evaluation

Patient Assessment Summary SWG

- Led by ASPE and Keystone Beacon Community Project
- Validated clinically relevant subset of MDS and OASIS data elements useful to exchange at times of ToC and for instances of shared care
- Supported and advanced with HL7 refinements to C-CDA for interoperable exchange of functional status, cognitive status, and pressure ulcer
  - *Functional Status and Cognitive Status included in MU2 Final Rule*
- Created a crosswalk of data from CMS assessments (i.e., MDS, OASIS, and CARE) and ToC data sets from the Beacon Community Affinity Group and the Massachusetts IMPACT program

Patient Assessment Summary SWG (cont'd)

- Collaborated with CMS, HL7 and Lantana to develop and ballot an implementation guide that identifies LOINC codes for CARE assessment content and represent these items in a CDA format.
- Collaborated with the Keystone Beacon Community, HL7, and Lantana to develop and ballot the HL7 Implementation Guide for CDA® Release 2: Long-Term Post-Acute Care Summary, DSTU Release 1 (US Realm) to support the interoperable exchange of summary MDS and OASIS content across Nursing Homes and Home Health Agencies
  - The IG leverages the CCD template in the C-CDA standard
- Monitored Keystone Beacon Community testing and implementation of new standards

LTPAC Care Transition SWG

- Led by Improving Massachusetts Post-Acute Care Transitions (IMPACT) Project
- Developed a priority list of acute/post-acute transitions based on volume, clinical instability and acuity
- Developed and published LCC Use Case 1.0
- Identified standard clinical content defined by the receiving clinicians for all high-priority transitions

LTPAC Transitions SWG (cont'd)

- In collaboration with the Longitudinal Care Plan SWG, and working with public and private partners in the development and balloting of the HL7 Implementation Guide for CDA® Release 2: Consolidated CDA Templates for Clinical Notes

  (US Realm) Draft Standard for Trial Use, Release 2 (Sept 2013) which provides new templates and requirements for the HL7 C- CDA standard for the exchange of data elements for:

  – consult note, summary note, transfer note and care plan/home health plan of care

Longitudinal Care Plan SWG

- Led by ASPE
- Developed and Published Care Plan White Paper
- Developed Care Plan Glossary
  - Informed LCC response to HITPC Request For Comment on Meaningful Use Stage 3
  - Informed LCC Use Case 2.0
- Prepared and submitted LCC recommendations for MU3 and 2015 EHR Certification Criteria
- Developed LCC Use Case 2.0
  - Outlined functional requirements and technical specifications for Care Plan and Home Health Plan of Care exchange
- Supported the development and balloting of new Care Plan document type revisions to C-CDA

LCC HL7 Tiger Team

- Led by S&I. Formed to resolve differences and promote alignment of LCC and HL7 artifacts that address and support exchange of care plans
- Submitted comments on the informative ballot of the HL7 Version 3 Standard: Service Oriented Architecture Care Coordination Service (CCS), R1.
- Collaborated with the HL7 Patient Care Workgroup Care Plan Project and provided recommendations on the Care Plan domain analysis model prior to its' release for HL7 balloting.
  - A majority of the recommendations made by the LCC HL7 Tiger Team were implemented in the ballot document

Stage 3 Meaningful Use

- S&I LCC Workgroup recommended MU3 Program incorporate the following requirements for the use of interoperable clinical content, standards, and implementation guides to support transitions of care and care planning:
  - LCC identified data sets for consult note, summary note, transfer note – supported by the HL7 C-CDAR2.0
  - LCC identified and defined care plan/home health plan of care content - supported by the HL7 C-CDAR2.0
- HITPC MU3 Final Recommendations to ONC in April 2014 include:
  - Additional data elements to support ToC: Transfers of care, Consult (referral) request, and Consult Result Note
  - New Summary of Care Components to align with Care Plan Components: patient goals, problem specific goals, patient instructions/ interventions, care team members

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LCC Key Deliverable 1: LCC Transitions of Care Use Case 1.0

Terry O'Malley, MD
Partners HealthCare System, Inc

Larry Garber, MD
Reliant Medical Group

Use Case 1.0: Background

Current State: 2011

- MU1 Transitions of Care (ToC) Data Set CCD
  - 175 Data Elements
  - Developed for Hospital to PCP transitions
- Missing (among many other data elements and concepts)
  - Functional Status
  - Cognitive Status
  - Skin/Wound
  - LTPAC Site specific information
- Initial S&I proposal
  - Limit focus to exchanges between LTPAC sites and patient/family

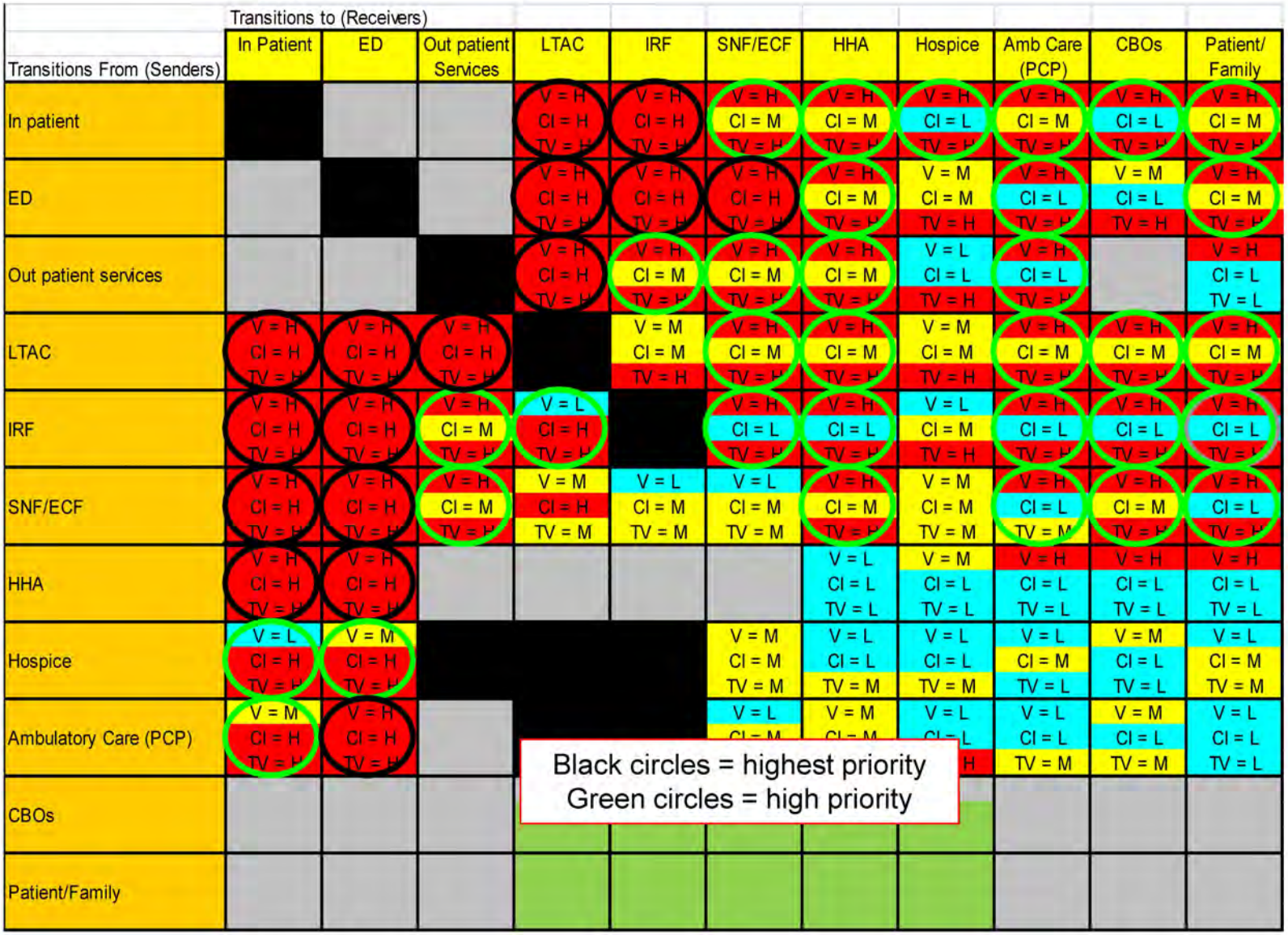
11x11 Sender to Receiver Grid. Old Scope in Green

Transitions From (Senders) \ Transitions to (Receivers)	In Patient	ED	Out patient Services	LTAC	IRF	SNF/ECF	HHA	Hospice	Amb Care (PCP)	CBOs	Patient/ Family
In patient											
ED											
Out patient services											
LTAC											
IRF											
SNF/ECF											
HHA											
Hospice											
Ambulatory Care (PCP)											
CBOs											
Patient/Family											

Use Case 1.0: New Improved Roadmap

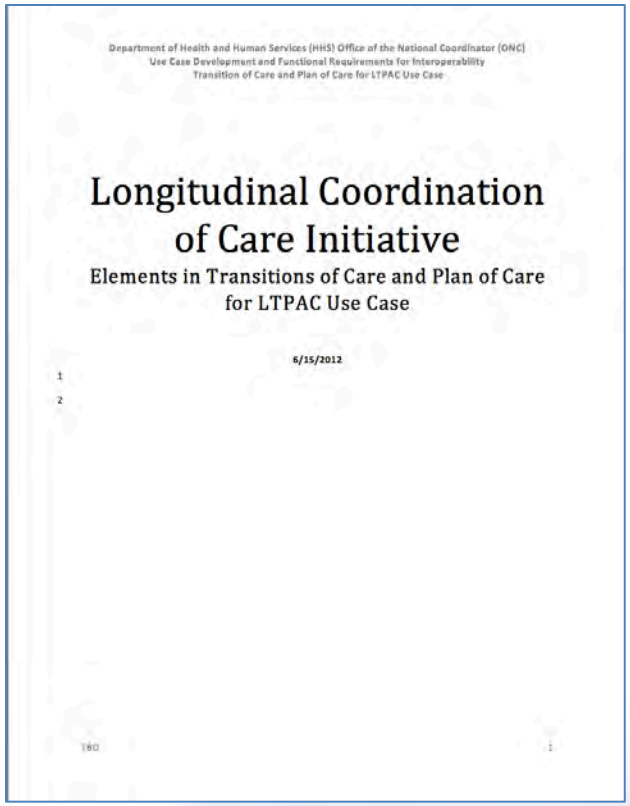
- Little benefit from those exchanges
- Instead, exchange information from LTPAC providers to Acute Care Hospitals:
  - In-patient floor
  - ED
  - Outpatient testing and treatment sites
- Exchange information from Acute Care Hospital units to LTPAC providers and patient/family
- Include PCMH in LTPAC
- Plan for C-CDA
- Expand MU1 Transition of Care CCD Elements

Prioritize Transitions by Volume, Clinical Instability and Time-Value of Information



Output

- Published June 2012
- New LTPAC Data Set
  - More than 50 changes made to the initial draft data set
  - Resulted in 325 data elements (vs 175)
  - Included requirements of all essential role groups in all sites for all priority transitions
- Included Data elements that were:
  - Missing from the C-CDA
  - Incomplete


Department of Health and Human Services (HHS) Office of the National Coordinator (ONC)
Use Case Development and Functional Requirements for Interoperability
Transition of Care and Plan of Care for LTPAC Use Case

Longitudinal Coordination of Care Initiative

Elements in Transitions of Care and Plan of Care for LTPAC Use Case

6/15/2012

1
2

TBD

http://confluence.siframework.org/download/attachments/34963728/SIFramework_LCC_UC.docx?api=v2

Additional Contributor Input

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National

- American College of Physicians
- NY's eMOLST
- Multi-State/Multi-Vendor EHR/HIE Interoperability Workgroup
- Substance Abuse, Mental Health Services Agency (SAMHSA)
- Administration for Community Living (ACL)
- Aging Disability Resource Centers (ADRC)
- National Council for Community Behavioral Healthcare
- National Association for Homecare and Hospice (NAHC)
- Longitudinal Coordination of Care Work Group (ONC S&I Framework)
- Transfer of Care & CCD/CDA Consolidation Initiatives (ONC's S&I)
- Electronic Submission of Medical Documentation (esMD) (ONC S&I)
- ONC Beacon Communities and LTPAC Workgroups
- Assistant Secretary for Planning and Evaluation (ASPE) and Geisinger: Standardizing MDS and OASIS
- Centers for Medicare & Medicaid Services (CMS)(MDS/OASIS/IRF-PAI/CARE)
- DoD and VA: working to specify Home Health Plan of Care dataset
- AHIMA LTPAC HIT Collaborative
- HIMSS: Continuity of Care Model
- **INTERACT** (**Inter**ventions to **R**educe **A**cute **C**are **T**ransfers)
- Transfer Forms from Ohio, Rhode Island, New York, and New Jersey

Five Transition Datasets

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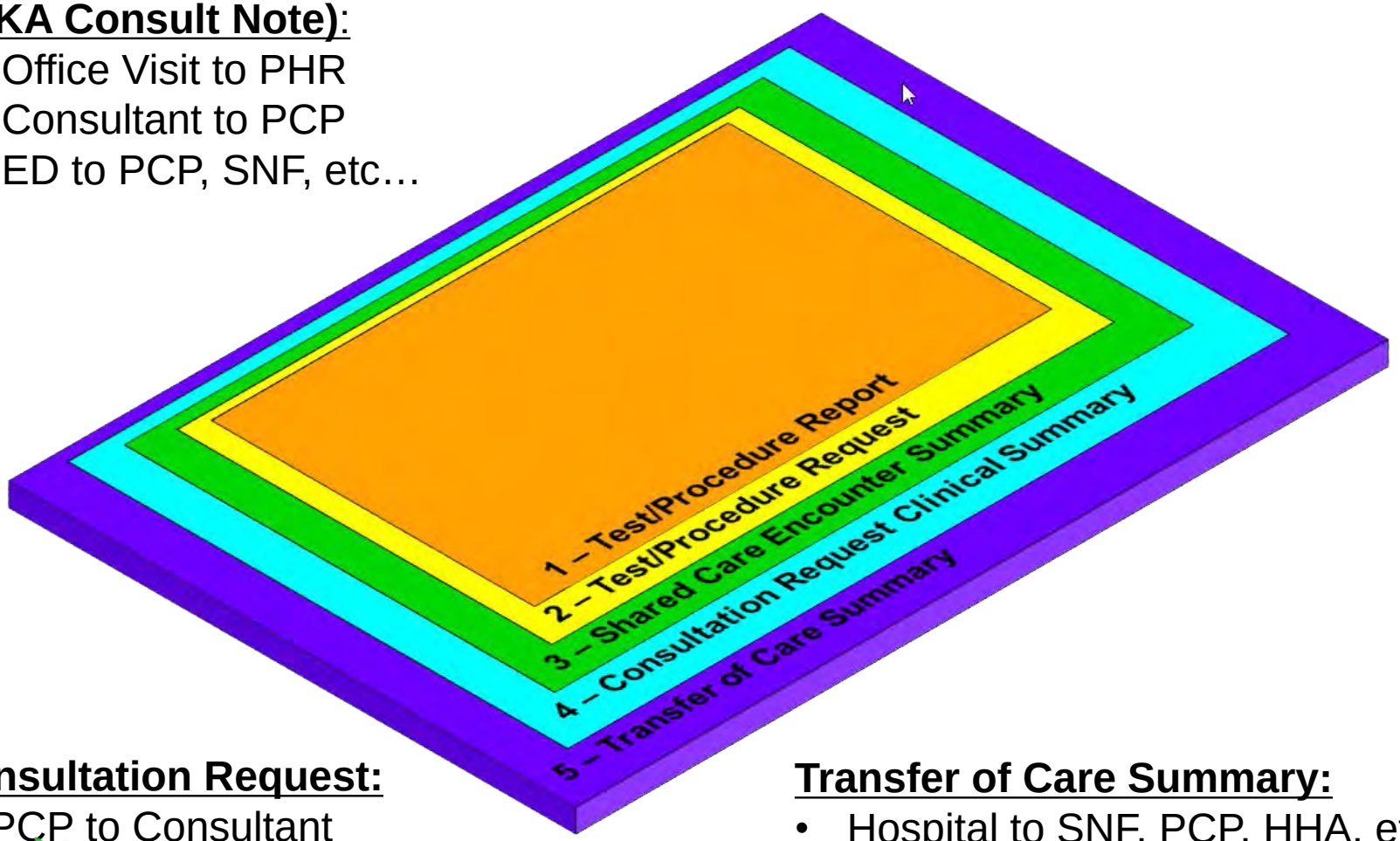
1. **Report from Outpatient testing**, treatment, or procedure
2. **Referral to Outpatient testing**, treatment, or procedure (including for transport)
3. **Shared Care Encounter Summary** (Office Visit, Consultation Summary, Return from the ED to the referring facility)
4. **Consultation Request** Clinical Summary (Referral to a consultant or the ED)
5. Permanent or long-term **Transfer of Care Summary** to a different facility or care team or Home Health Agency

Five Transition Datasets

Shared Care Encounter Summary (AKA Consult Note):

- Office Visit to PHR
- Consultant to PCP
- ED to PCP, SNF, etc…



Consultation Request:

- PCP to Consultant
- PCP, SNF, etc… to ED

Transfer of Care Summary:

- Hospital to SNF, PCP, HHA, etc…
- SNF, PCP, etc… to HHA
- PCP to new PCP

Baseline Use Case Transactions

Scenario 1: Transitions of Care and Referral

Representative Transitions

1. Acute Care to LTPAC (as represented by HHA) #5:
2. LTPAC (as represented by SNF/ NF) to ED #4
3. ED to LTPAC (as represented by SNF/ NF) #3

Scenario 2 –Patient Communications:

4. Copy all ToC and PoC transactions to patient/care giver PHR

Scenario 3 – HHA Plan of Care:

5. **Initial PoC** from HHA to Physician, Physician to HHA
6. **Ongoing PoC** from HHA to Physician, Physician to HHA
7. **Recertification PoC** from HHA to Physician , Physician to HHA

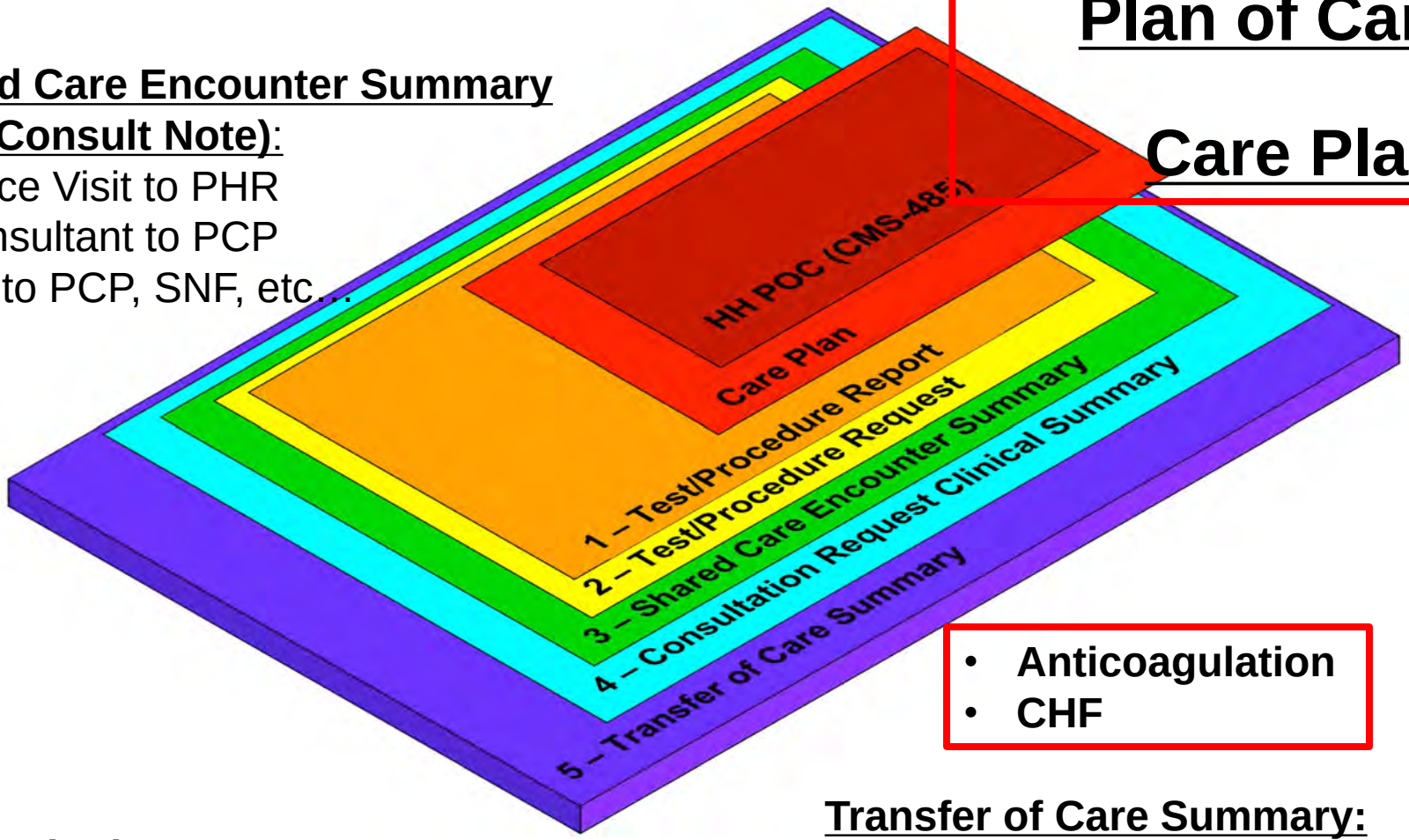
Datasets include Care Plan

Home Health
Plan of Care

Care Plan

Shared Care Encounter Summary (AKA Consult Note):

- Office Visit to PHR
- Consultant to PCP
- ED to PCP, SNF, etc…



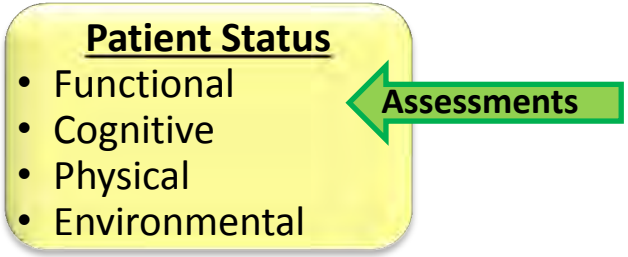
- **Anticoagulation**
- **CHF**

Consultation Request:

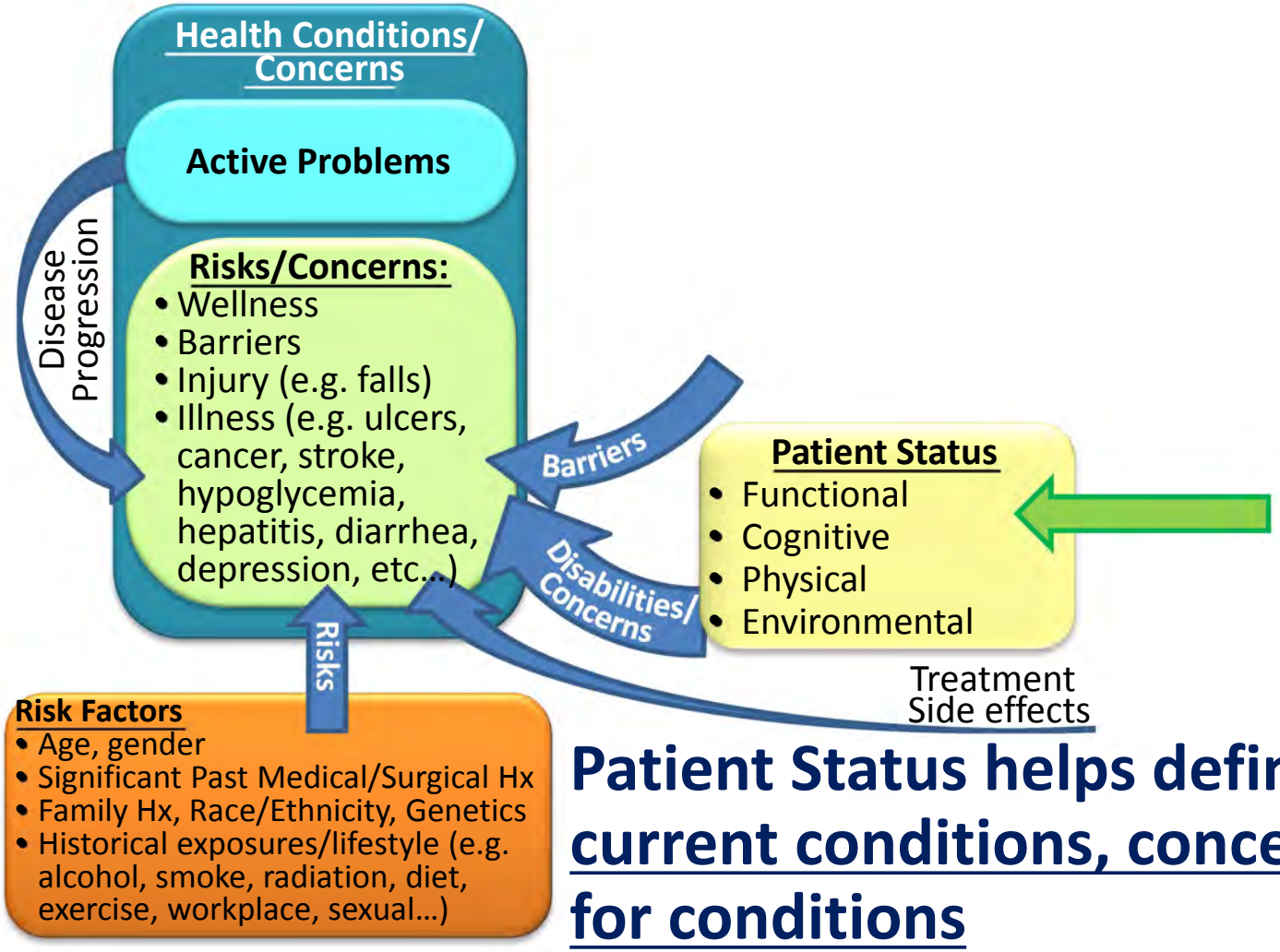
- PCP to Consultant
- PCP, SNF, etc… to ED

Transfer of Care Summary:

- Hospital to SNF, PCP, HHA, etc…
- SNF, PCP, etc… to HHA
- PCP to new PCP

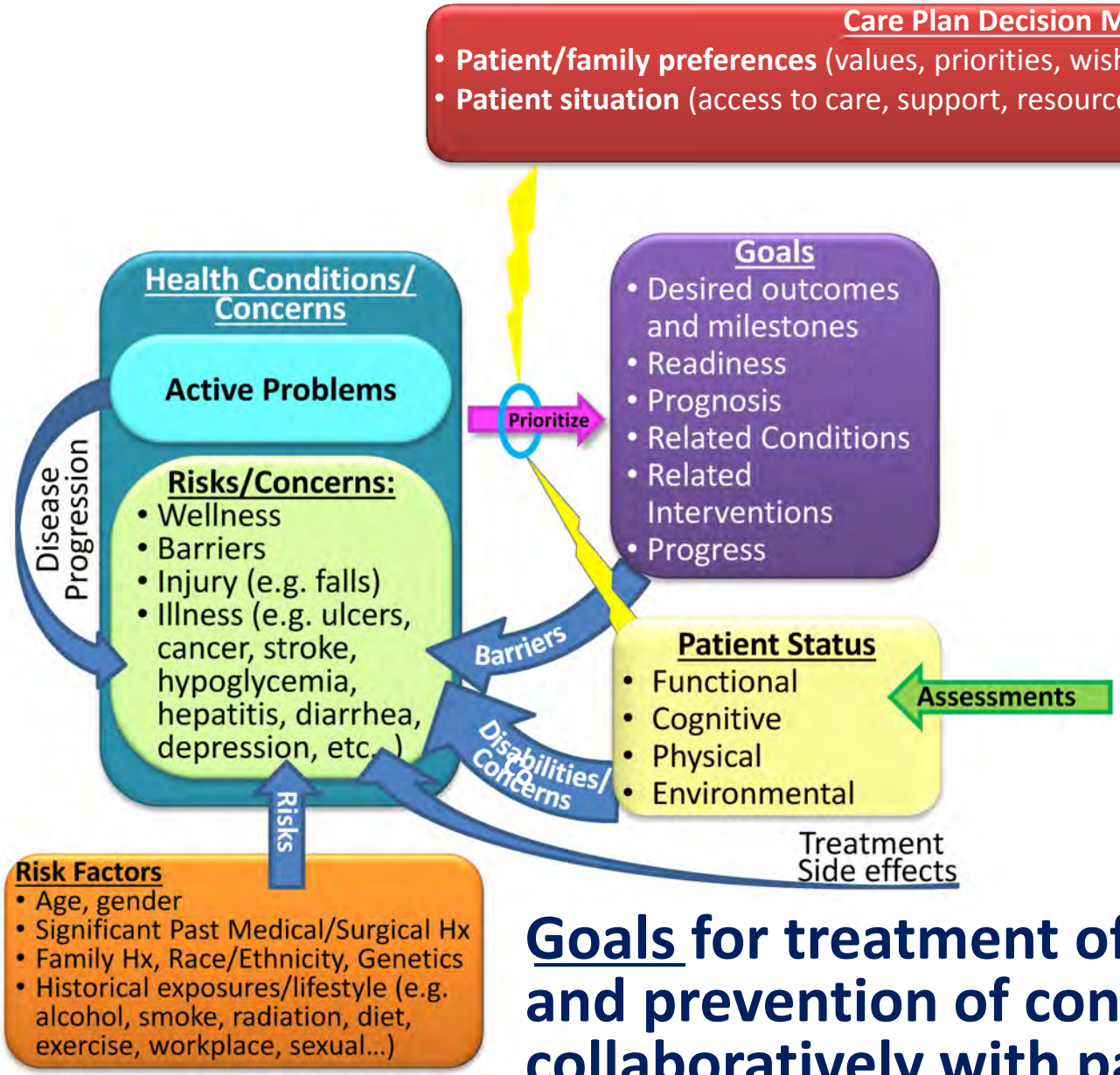


Patients are evaluated with assessments (history, symptoms, physical exam, testing, etc…) to determine their status

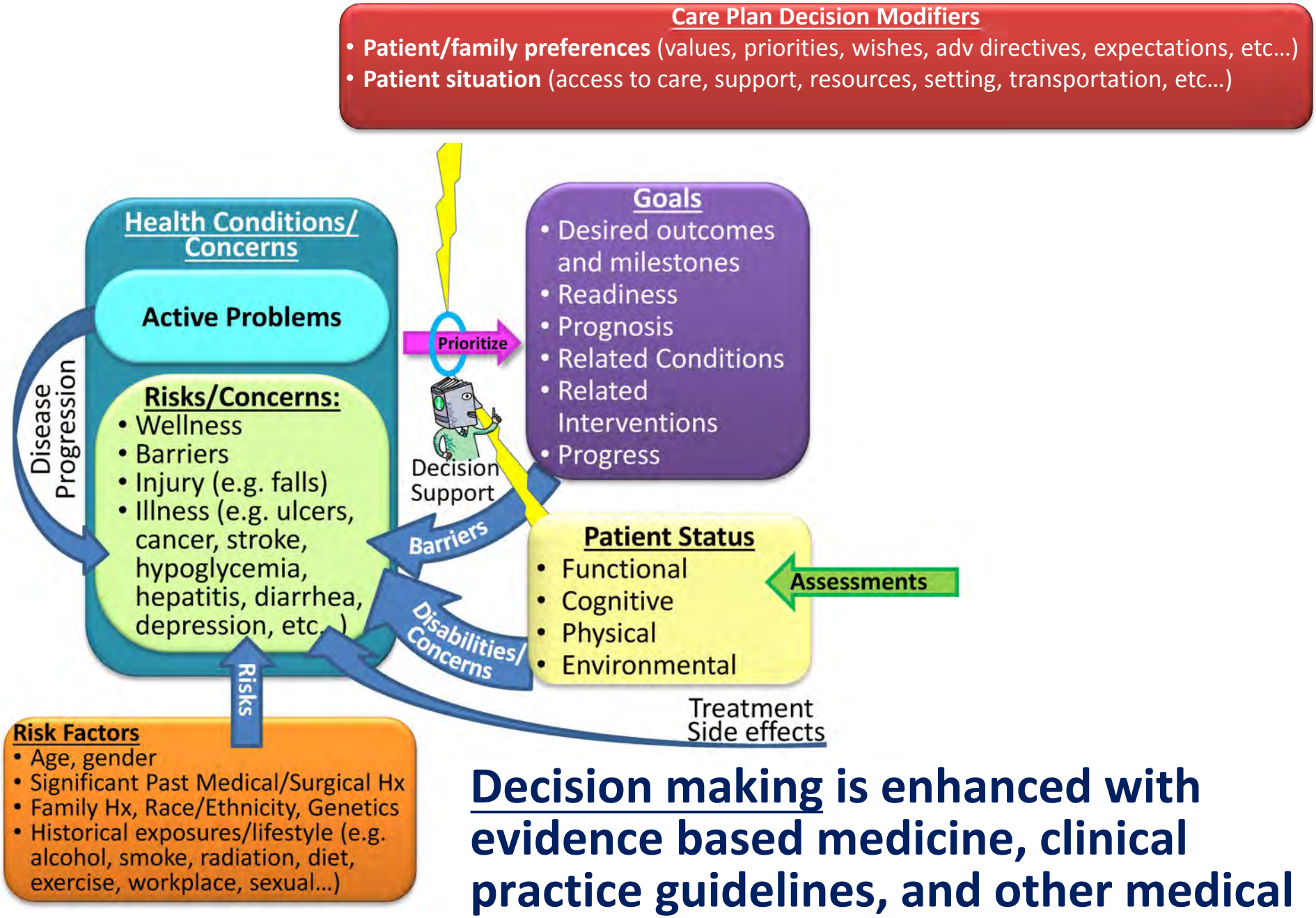


Patient Status helps define the patient's <u>current conditions, concerns, and risks for conditions</u>

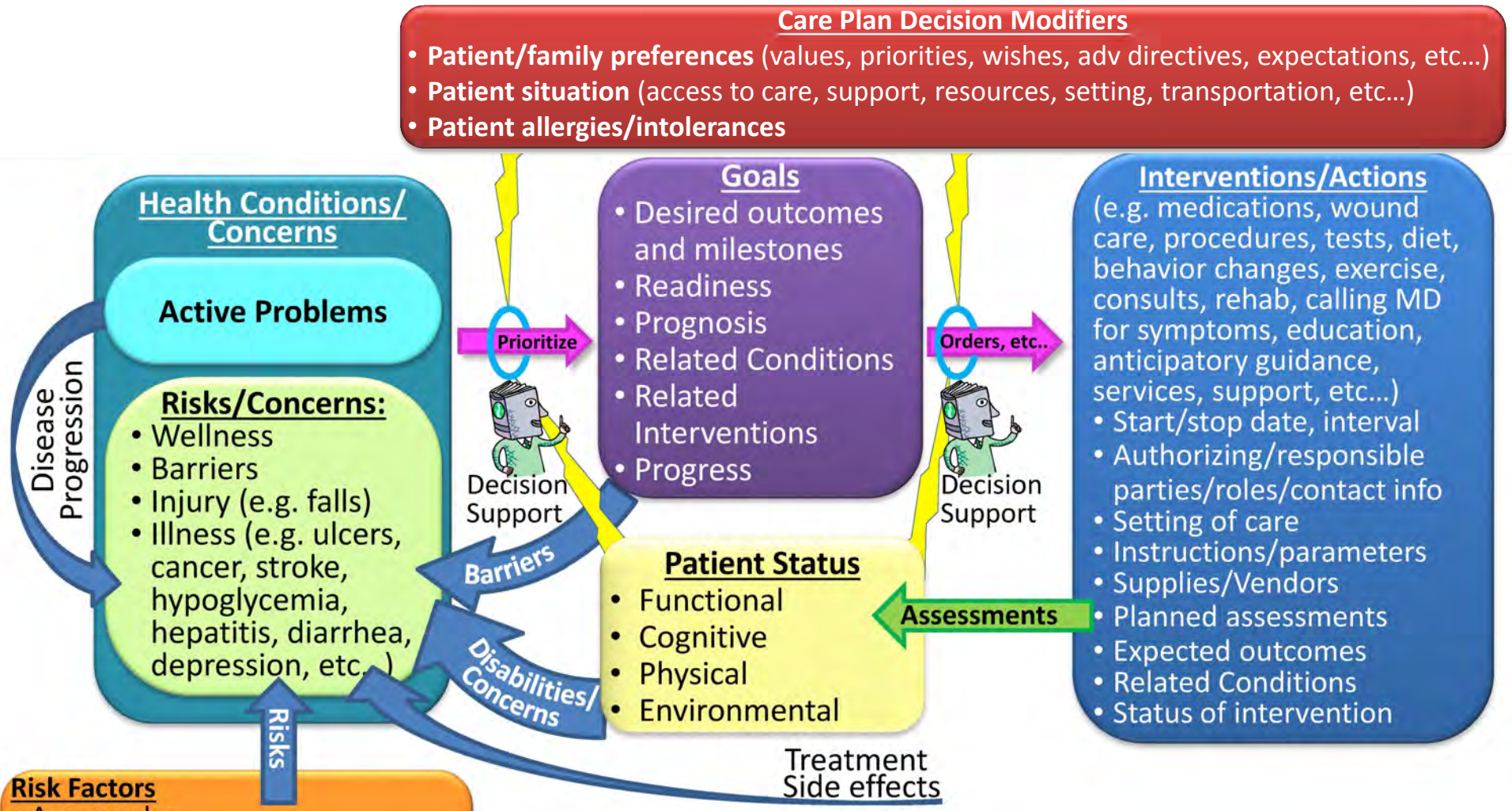
Risks/concerns come from many sources



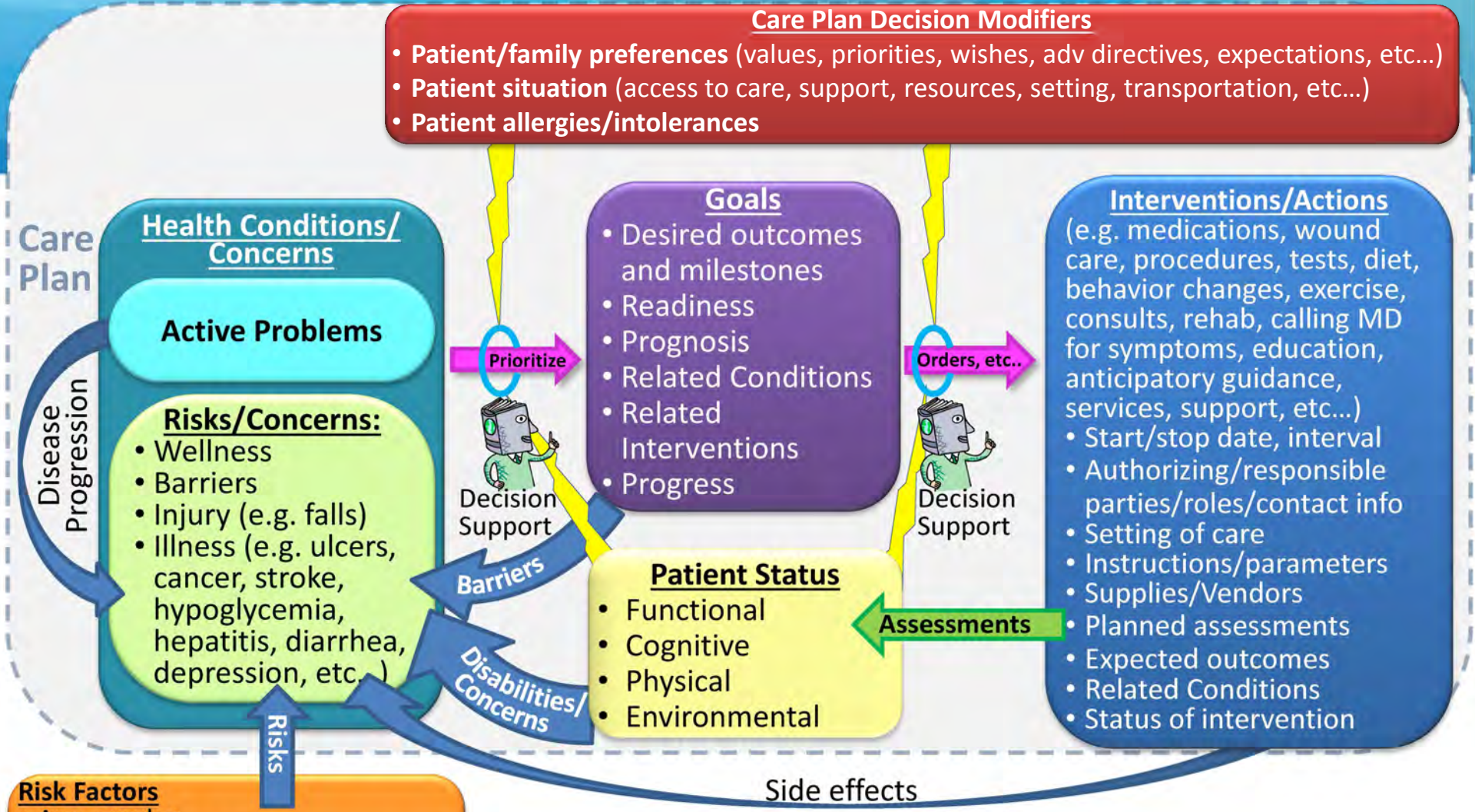
Goals for treatment of health conditions and prevention of concerns are created collaboratively with patient taking into account their statuses and Care Plan Decision Modifiers



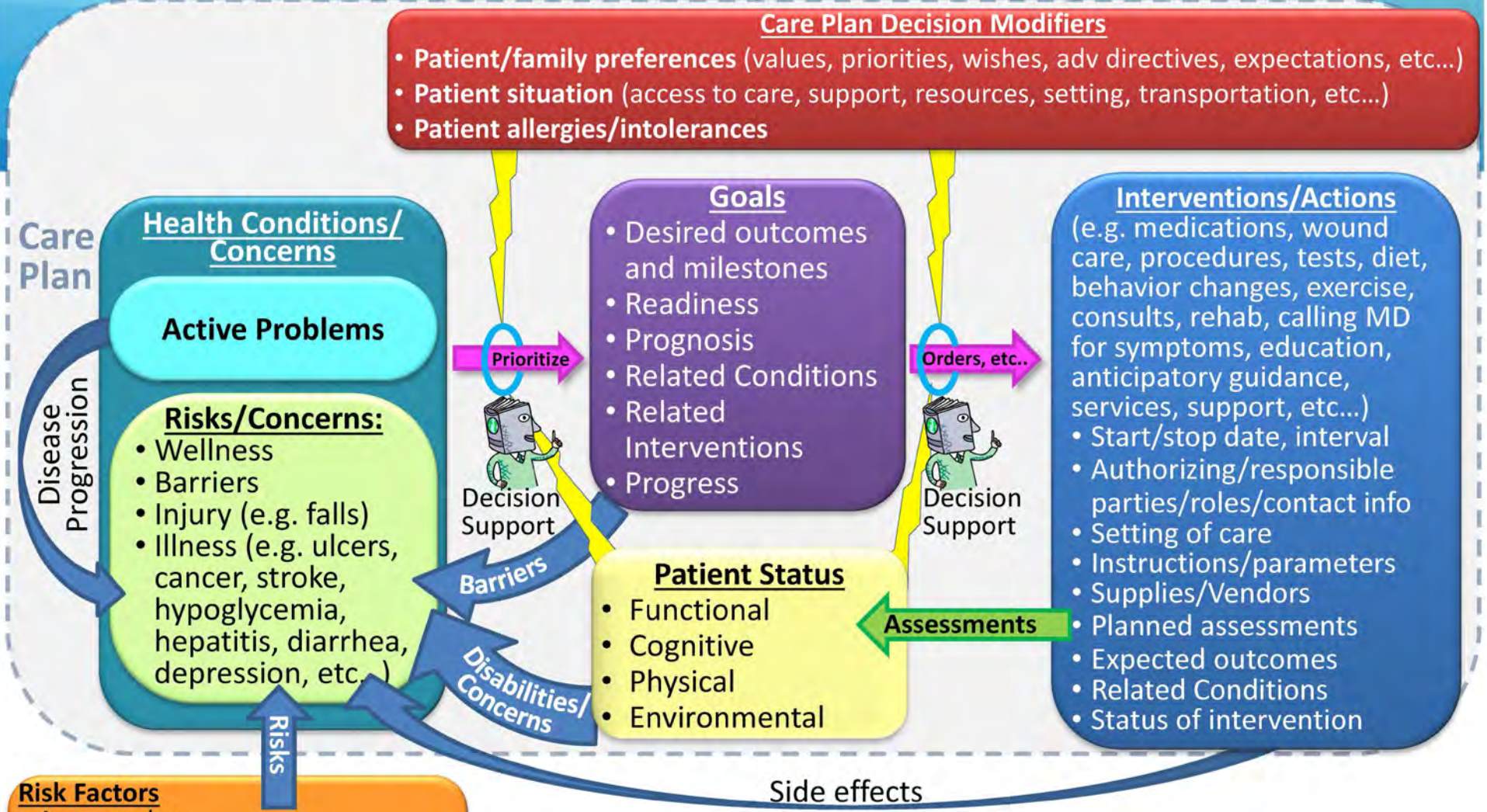
Decision making is enhanced with evidence based medicine, clinical practice guidelines, and other medical knowledge



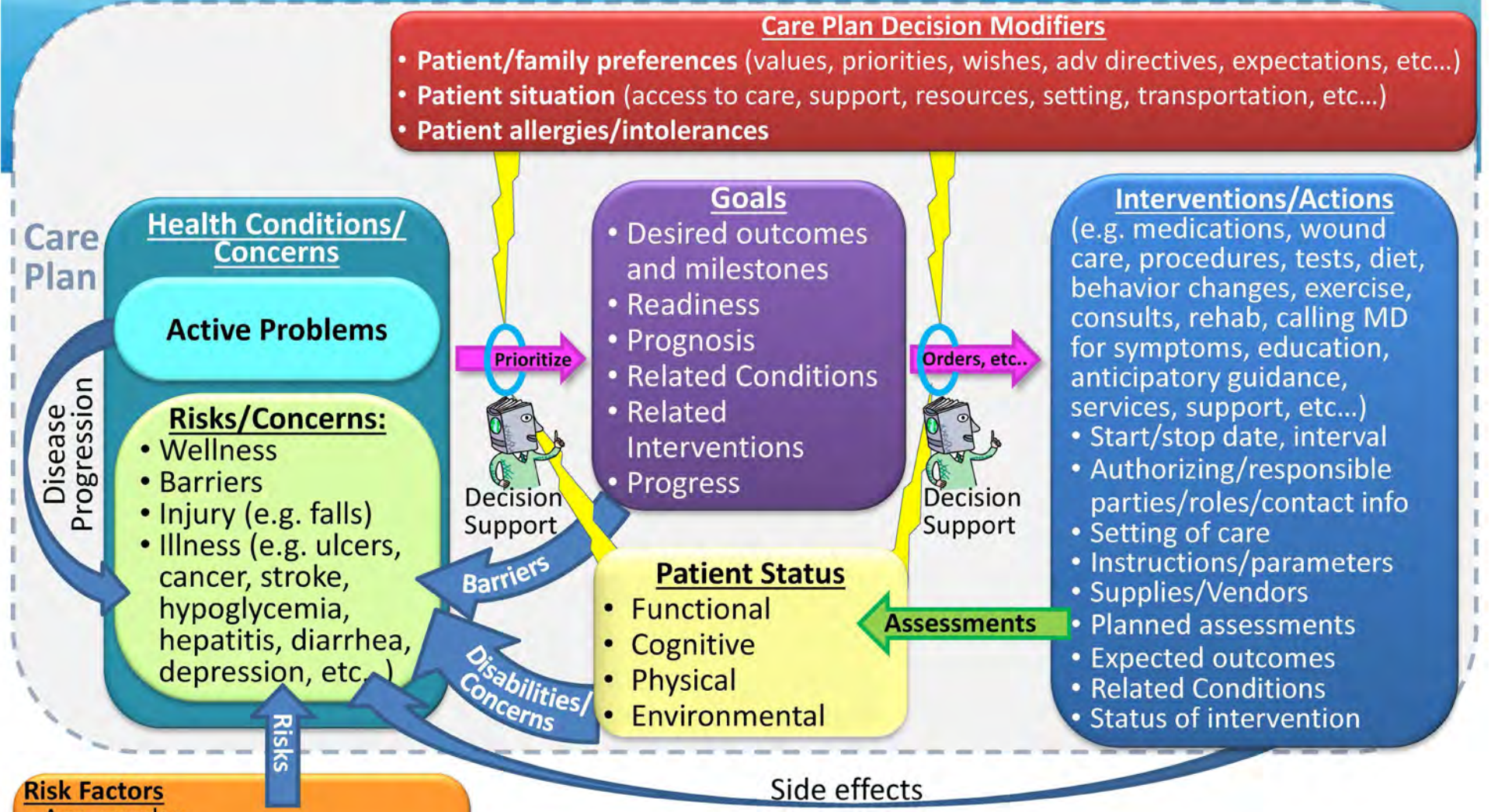
Interventions and actions to achieve goals are identified collaboratively with patient taking into account their values, situation, statuses, risks & benefits, etc…



The Care Plan is comprised of Modifiers, Conditions/Concerns, their Goals, Interventions/Actions/Instructions, Assessments and the Care Team members that actualize it



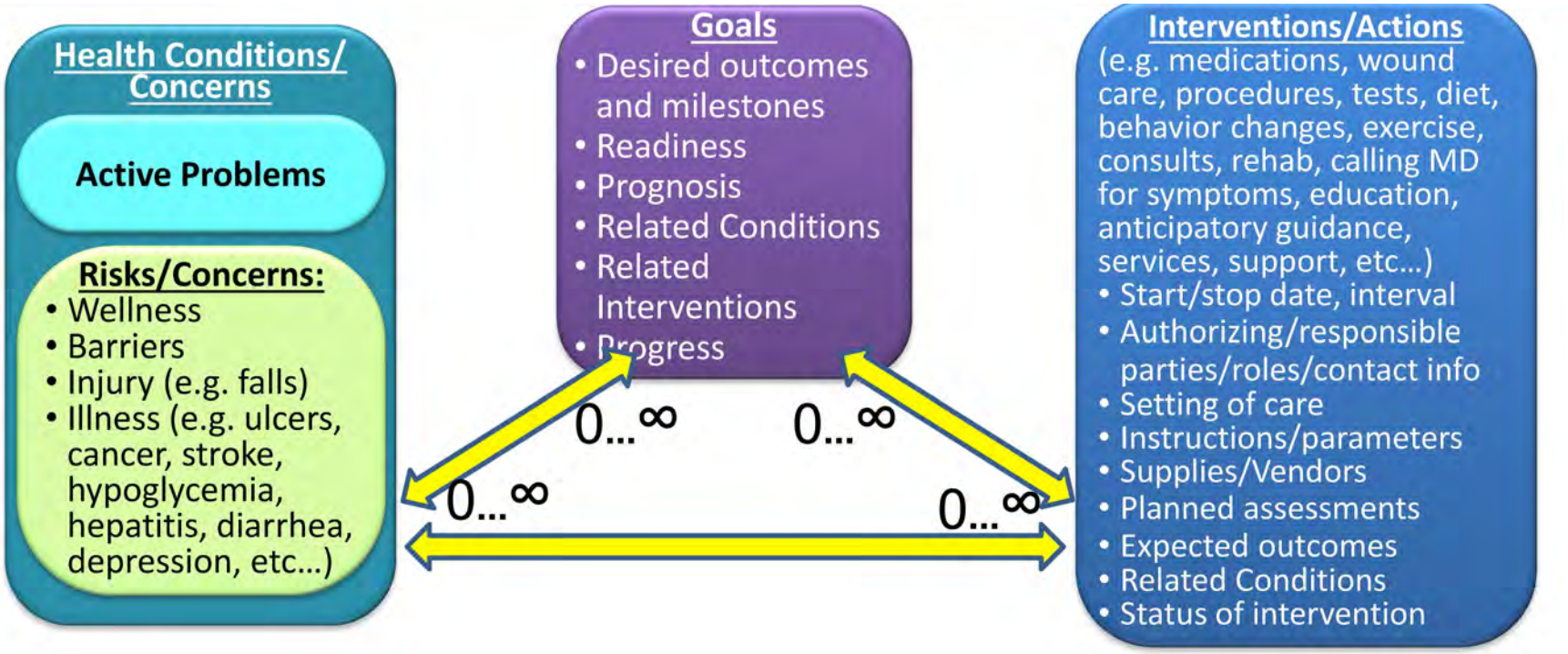
Interventions and actions achieve outcomes that make progress towards goals, cause interventions to be modified, and change health conditions



The Care Plan (Concerns, Goals, Interventions , and Care Team), along with Risk Factors and Decision Modifiers, iteratively evolve over time

Care Plan Decision Modifiers

- **Patient/family preferences** (values, priorities, wishes, adv directives, expectations, etc…)
- **Patient situation** (access to care, support, resources, setting, transportation, etc…)
- **Patient allergies/intolerances**

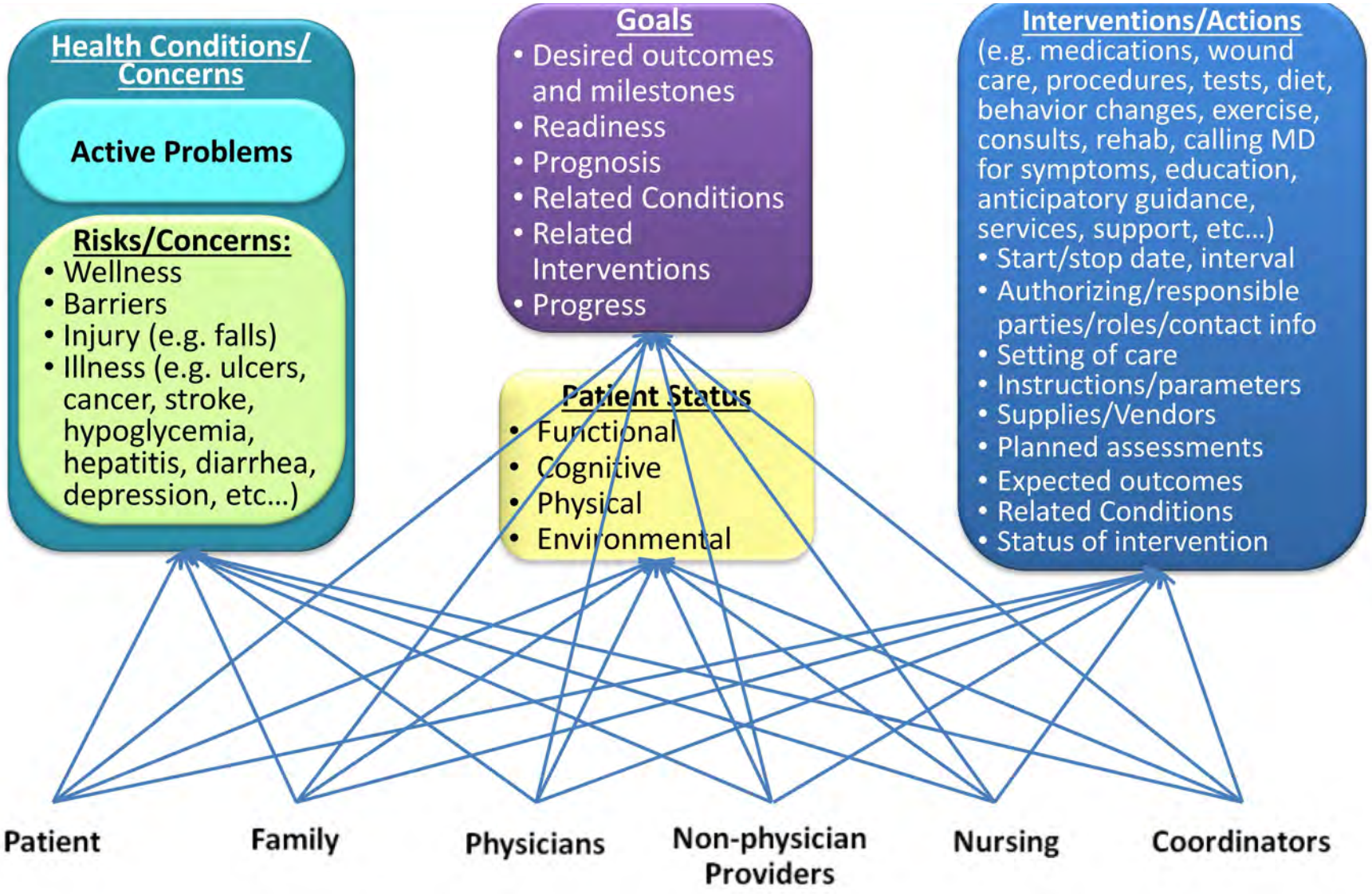


A many-to-many-to-many relationship exists between Health Conditions/Concerns, Goals and Interventions/Actions

Care Team Members each have their own responsibilities

Care Plan Decision Modifiers

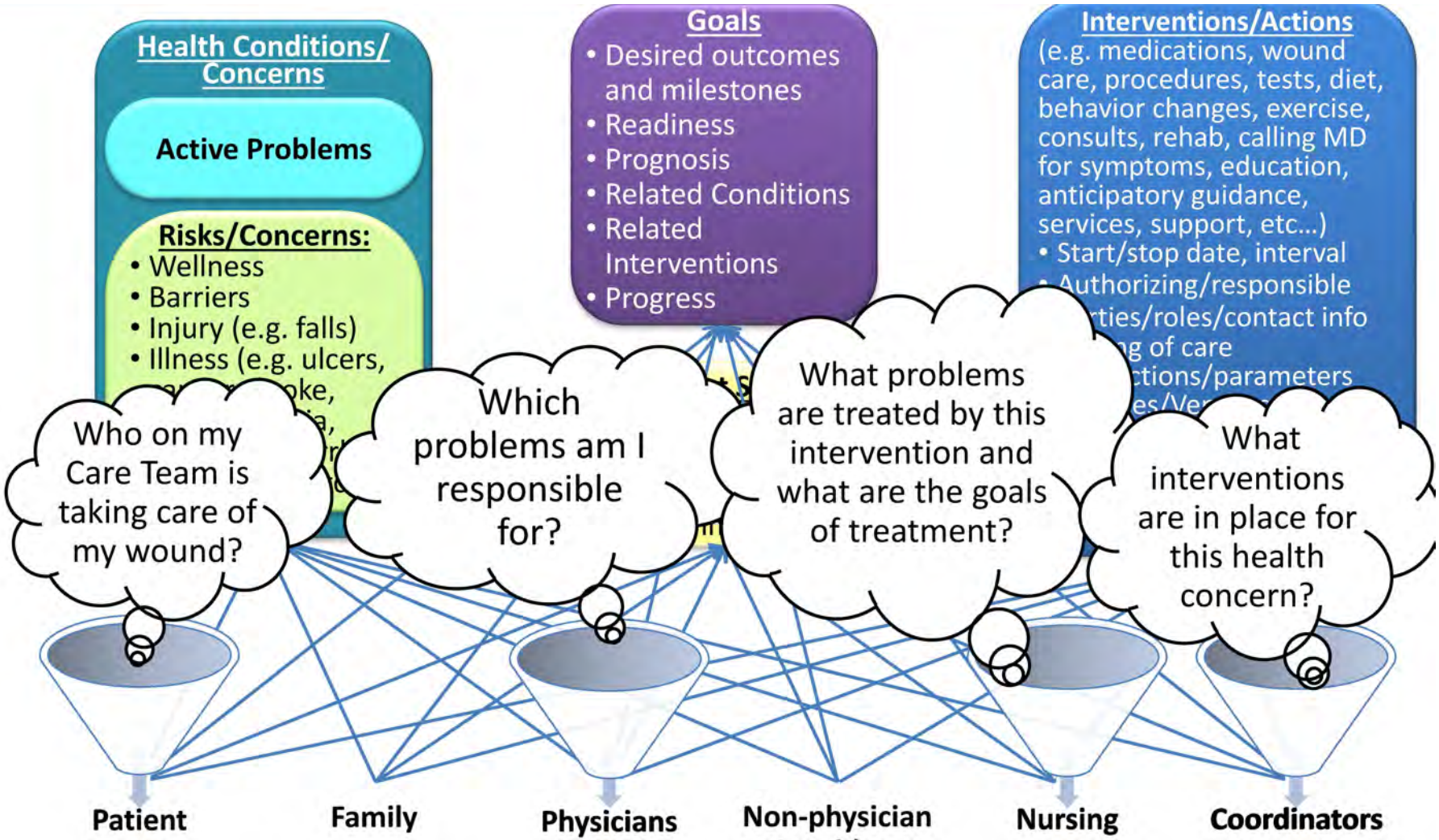
- **Patient/family preferences** (values, priorities, wishes, adv directives, expectations, etc…)
- **Patient situation** (access to care, support, resources, setting, transportation, etc…)
- **Patient allergies/intolerances**



Care Team Members each need different views of care plan

Care Plan Decision Modifiers

- **Patient/family preferences** (values, priorities, wishes, adv directives, expectations, etc…)
- **Patient situation** (access to care, support, resources, setting, transportation, etc…)
- **Patient allergies/intolerances**



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LCC Key Deliverable 2: Care Plan White Paper & Glossary

Jennie Harvell

U.S. Dept. of Health and Human Services

Office of the Assistant Secretary for Planning and Evaluation

White Paper Overview

- Published August 2012
- Explored the content and functionality of care plans needed to support longitudinal coordination care for medically-complex and/or functionally impaired individuals
- Described care plan components that aligned with and extended requirements in Meaningful Use requirements to support the care of medically complex and/or functionally impaired persons; and
- Identified opportunities to support the interoperable exchange of care plans, including the home health plan of care (HH-POC)

Care Plan Glossary

Term/ Component	LCC Proposed Definition
Care Plan	The term “care plan” considers the whole person and focuses on a number of health concerns to achieve high level goals related to healthy living. Care Plan and Plan of Care share the **SIX** components: health concern, goals, instructions, interventions, outcomes, and team member
Health Concern	Reflect the issues, current status and 'likely course' identified by the patient or team members that require intervention(s) to achieve the patient's goals of care, any issue of concern to the individual or team member
Goals	A defined outcome or condition to be achieved in the process of patient care. Includes patient defined goals (e.g., prioritization of health concerns, interventions, longevity, function, comfort) and clinician specific goals to achieve desired and agreed upon outcomes.
Instructions	Information or directions to the patient and other providers including how to care for the individual’s condition, what to do at home, when to call for help, any additional appointments, testing, and changes to the medication list or medication instructions, clinical guidelines and a summary of best practice. Detailed list of actions required to achieve the patient's goals of care.
Interventions	Actions taken to maximize the prospects of achieving the patient's or providers' goals of care, including the removal of barriers to success. Instructions are a subset of interventions.
Outcomes	Status, at one or more points in time in the future, related to established care plan goals.
Team Member	Parties who manage and/or provide care or service as specified and agreed to in the care plan, including: clinicians, other paid and informal caregivers, and the patient.

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LCC Key Deliverable 3: LCC Care Plan Exchange Use Case 2.0

Jennie Harvell

U.S. Dept. of Health and Human Services

Office of the Assistant Secretary for Planning and Evaluation

Use Case 2.0 Overview

- Published July 2013; built on recommendations and guidance presented in White Paper and Care Plan Glossary
- Identified the functional requirements for EHR systems so that clinical and administrative information related to a patient's Care Plan or Plan of Care can be exchanged across multiple settings and disciplines
- Highlighted key differentiators among three types of plans used in patient care: Care Plan, Plan of Care and Treatment Plan

Use Case 2.0 Overview (cont'd)

- Requirements presented in two types of scenarios:
  - Scenario 1: Exchange of Care Plan among Care Team Members
    - Includes exchange of HHPoC between Provider and HHA
  - Scenario 2: Exchange of Care Plan between a Care Team Member and the Patient
- Focus on information needs of receiving Care Team to include the Patient
  - Identified capabilities required by Sending Entity Information System (EHR), Receiving Entity Information System (EHR) and PHR Application

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LCC Key Deliverable 4: HL7 C-CDA Release 2 Implementation Guidance

Michael Tushan
Lantana Group
Director of Business Development

Key Deliverable 4 – C-CDA R2

- Critical Funders
  - New York eHealth Collaborative
  - Healthix
  - CCITI-NY
  - ASPE
  - SMART
  - MA IMPACT Project
- Lantana volunteered over 2000 unpaid hours which is almost half the total hours

Key Deliverable 4 – C-CDA R2

- S&I's LCC LCP SWG defined the data elements and assisted in design of the CDA templates
  - Based on IMPACT Dataset
- Release 2 adds
  - Care Plan
  - Referral Note
  - Transfer Summary
  - Patient Generated Document
- Lantana developed or modified over 50 templates to update Consolidated CDA

LCC C-CDA Revisions Project: C-CDAR2.0

- LCC Community sponsored updates to C-CDAR1.1 and balloting of this new version through HL7
- One ballot package to address 4 revisions based on IMPACT Dataset:
  - Update to C-CDA Consult Note
  - NEW Referral Note
  - NEW Transfer Summary
  - NEW Care Plan document type (includes HHPoC signature requirements and aligns with HL7 Patient Care WG's Care Plan Domain Analysis Model- DAM)
- Ballot Package received 1013 comments
  - All 1013 ballot comments were reconciled from Oct 2013 until March 2014
  - Final C-CDA R2.0 scheduled to be published in October 2014

C-CDA Release 1.1 Documents: 8 standard document templates

HL7 Implementation Guide for CDA® Release 2: IHE Health Story Consolidation, Release 1.1 - US Realm

Document Templates: 9

- Continuity of Care Document (CCD)
- Consultation Note
- Diagnostic Imaging Report (DIR)
- Discharge Summary
- History and Physical (H&P)
- Operative Note
- Procedure Note
- Progress Note
- Unstructured Document

Section Templates: 60

Entry Templates: 82

Document Template	Section Template(s)		
Continuity Of Care Document (CCD)	Allergies Medications Problem List Procedures Results Advance Directives Encounters	Family History Functional Status Immunizations Medical Equipment Payers Plan of Care	Section templates in GREEN demonstrate CDA's interoperability and reusability.
History & Physical (H&P)	Allergies Medications Problem List Procedures Results Family History Immunizations Assessments	Assessment and Plan Plan of Care Social History Vital Signs History of Present Illness History of Present Illness	Chief Complaint Reason for Visit Review of Systems Physical Exam General Status

Consolidated-CDA R2 Update Details

3 NEW Documents

- Transfer Summary
- Care Plan
- Referral Note

(Also enhanced Header to enable Patient Generated Documents)

6 NEW Sections

- Nutrition Section
- Physical Findings of Skin Section
- Mental Status Section
- Health Concerns Section
- Health Status Evaluations/Outcomes Section
- Goals Section

30 NEW Entries

- Advance Directive Organizer
- Cognitive Abilities Observation
- Drug Monitoring Act
- Handoff Communication
- Goal Observation
- Medical Device Applied
- Nutrition Assessment
- Nutrition Recommendations
- Characteristics of Home Environment
- Cultural and Religious Observation
- Patient Priority Preference
- Provider Priority Preference
- and lots more…..

The Office of the National Coordinator for Health Information Technology

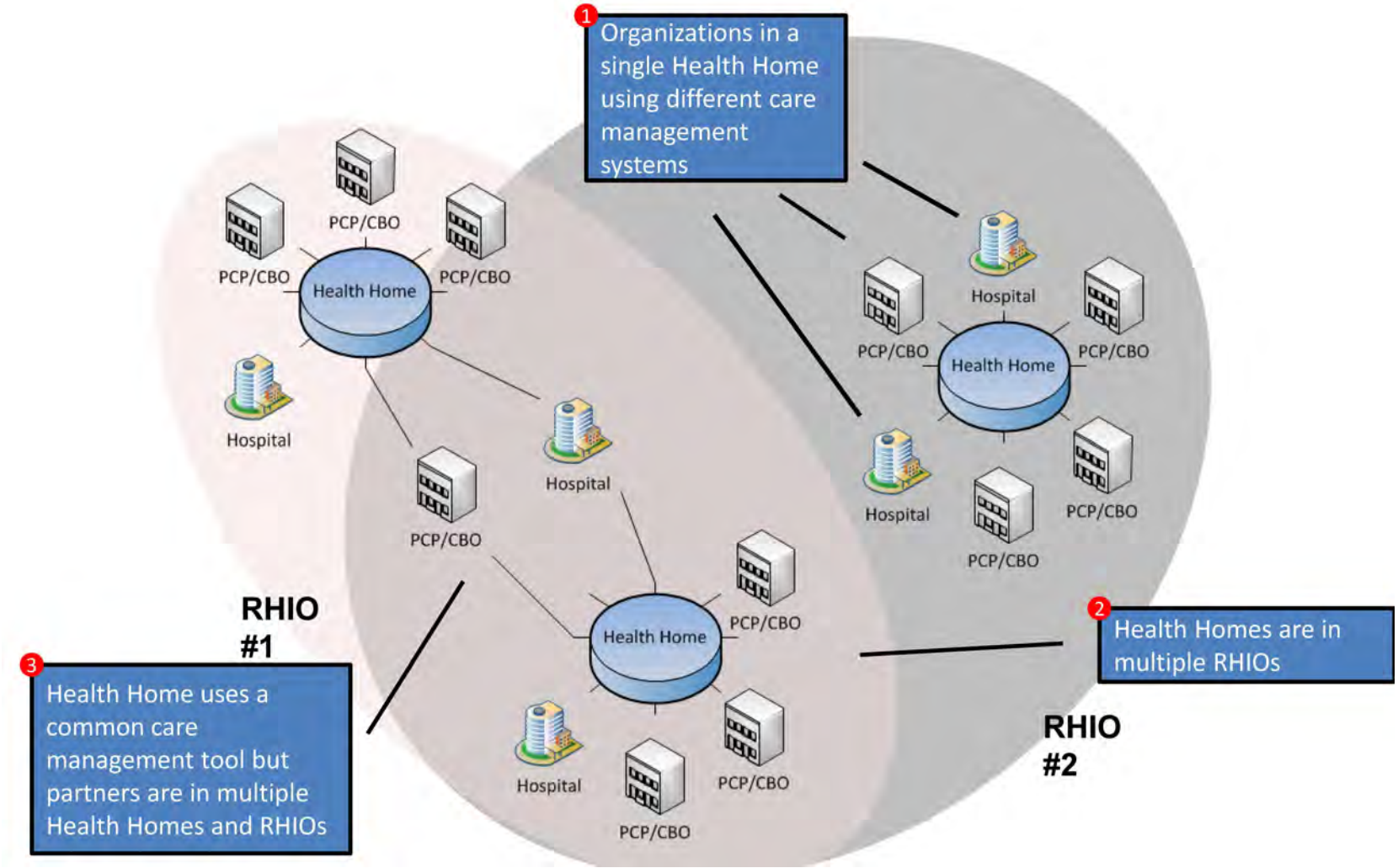
Pilots

Tom Moore
Vice President, Innovation
Healthix

Pilots Overview

- **Setting**
  - Large urban integrated delivery network
  - Behavioral health and substance abuse facility
  - Medicaid Health Home
- **Challenges**
  - Complex population
  - Complex configuration of facilities
  - Lack of interoperability
- **Goal**
  - Allow the exchange of and access to care plans by all members of the care team
- **Pilot Scope**
  - Adopt the pre-ballot CCDA care plan document
  - Implement interoperability of the care plan between two different care management systems

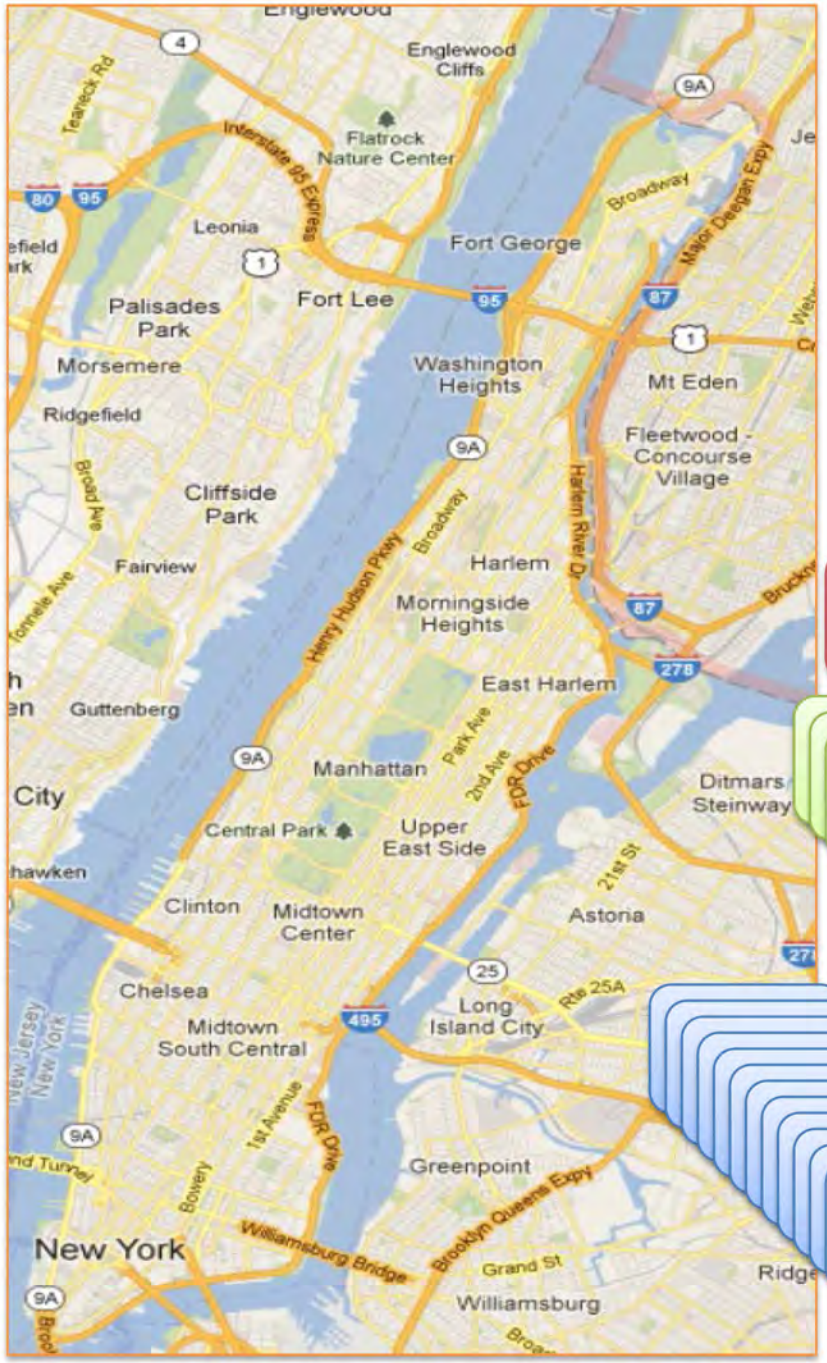
Care Coordination Challenges - Interoperability



Care Coordination Challenges - Stakeholders

- Complex populations – need for multi-disciplinary care team
  - Severe mental illness, suicide
  - Co-morbid medical illness
  - High rates of smoking, substance abuse
  - High rates of homelessness
  - High rates of incarceration
  - Lack of primary care
  - Lack of care coordination
- Complex configuration of facilities
  - Acute care facilities
  - Primary care, FQHCs, PCMHs
  - Home care agencies
  - Long term care facilities
  - Behavioral health agencies
  - Community based organizations
  - Housing organizations
  - Jails

The challenges faced by Medicaid Health Homes also must be addressed by other organizations with common goals including: **Health Information Exchanges** – both public (RHIOs like Healthix) and private (run by IDNs and payers), **Accountable Care Organizations**, FIDA and HARP programs being run by **Managed Care Organizations**.



10/17-11/1
Project Renewal Rehab

8/12-8/19
St. Johns Riverside Detox

8/30-9/21
Arms Acres Rehab

6/1-6/5
Jacobi Detox

4/20-4/21
West Mid-town ED

5/11-5/21
SLR Detox

4/12
Metropolitan ED

4/20
Bellevue ED

4/12-4/18
ACI Detox

4/1-4/5
Richmond University Hospital Detox

7/14-7/22
South Beach Hospital Detox

2/24-2/29
Staten Island Hospital Detox

5/22-5/29
Medical Arts Detox

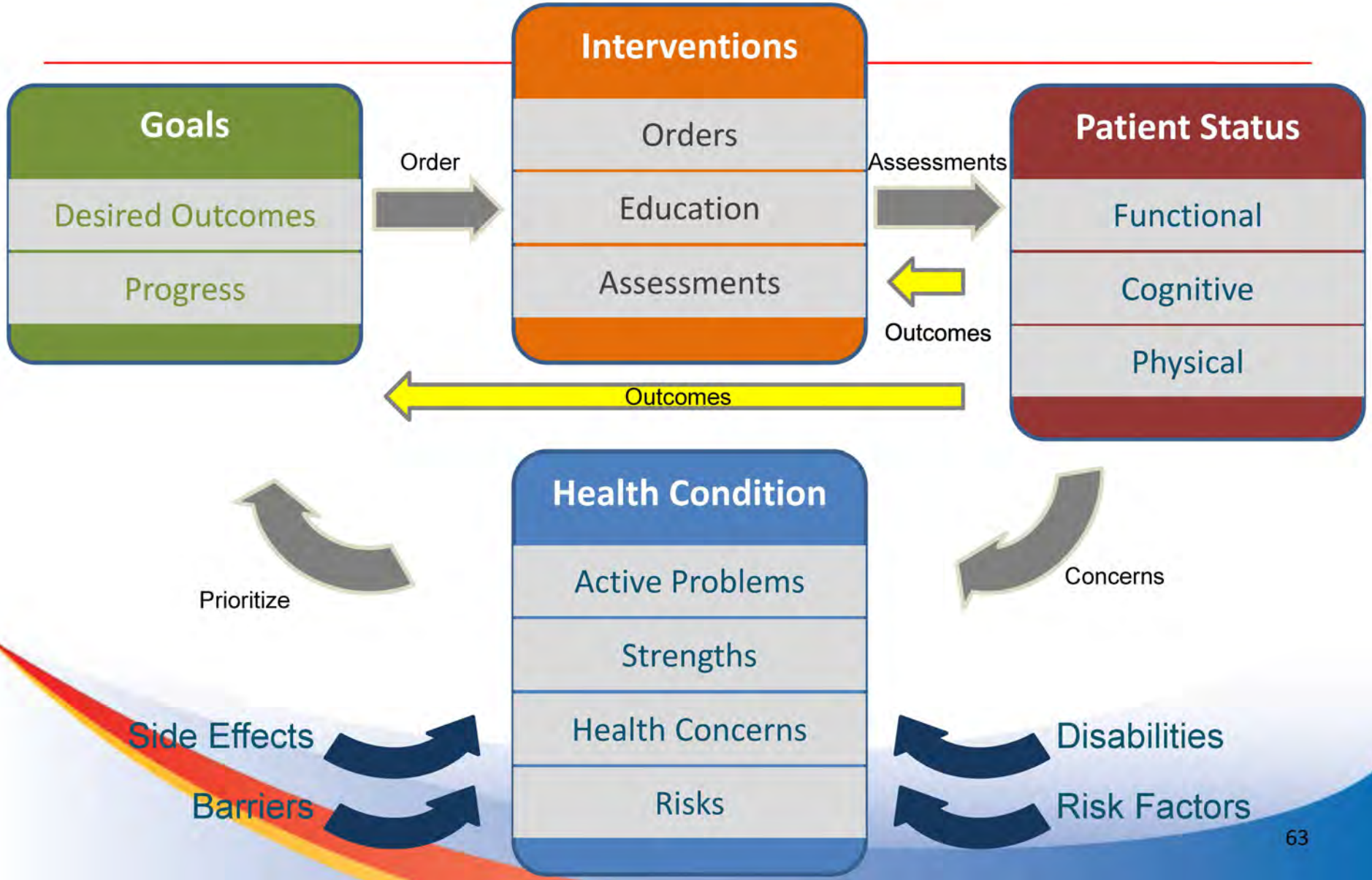
12/4
Wycoff Hospital ED

4/30
BIMC ED

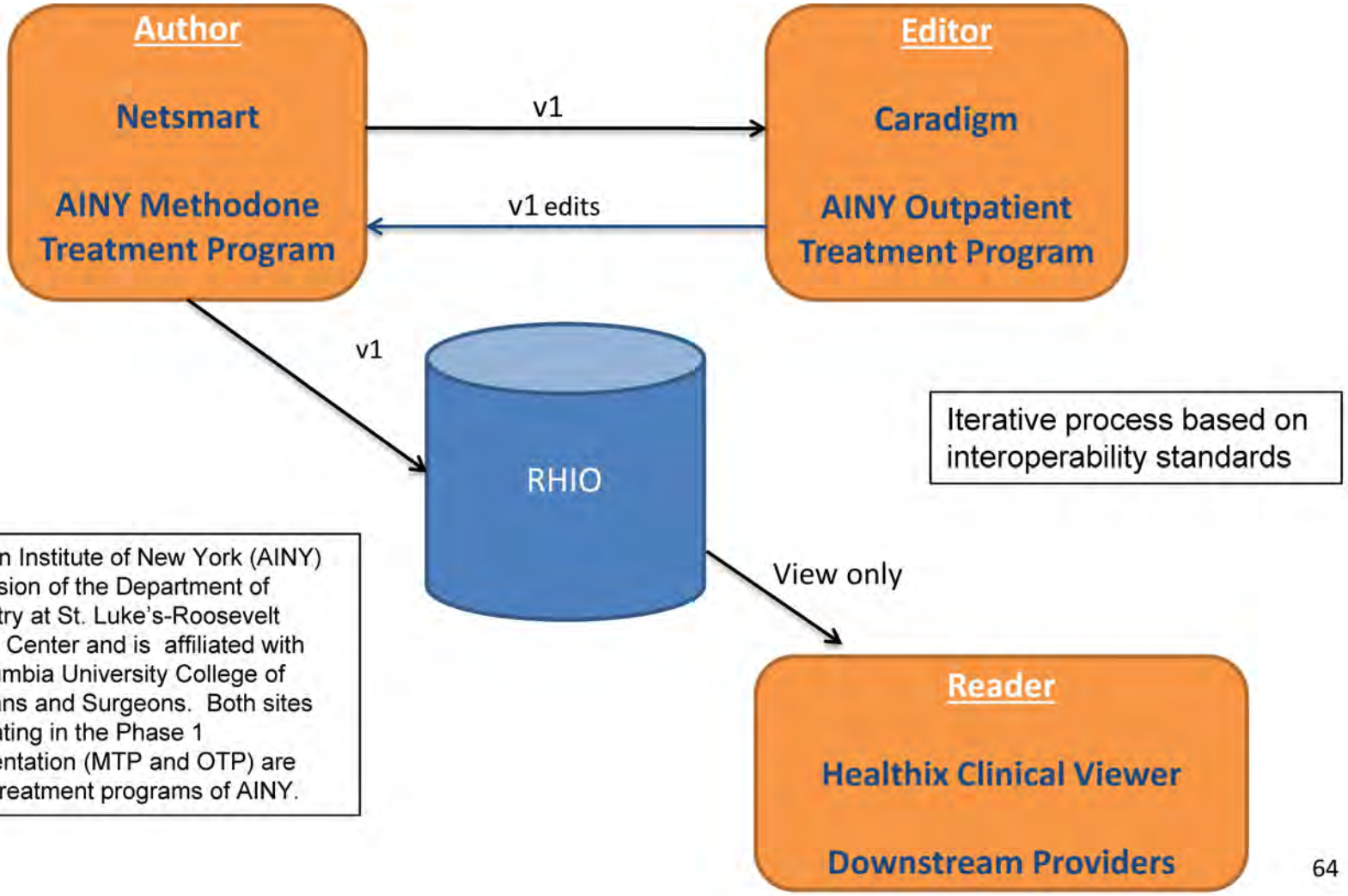
4/7
Woodhull Hospital ED

That's all the sites

Adoption of Standards for Care Plans



Phase I Implementation - CCP Collaboration



Addiction Institute of New York (AINY) is a Division of the Department of Psychiatry at St. Luke's-Roosevelt Hospital Center and is affiliated with the Columbia University College of Physicians and Surgeons. Both sites participating in the Phase 1 implementation (MTP and OTP) are clinical treatment programs of AINY.

Care Plan Exchange – Alignment with MU2*

Meaningful Use Stage 2, "Transitions of Care", Measure #2

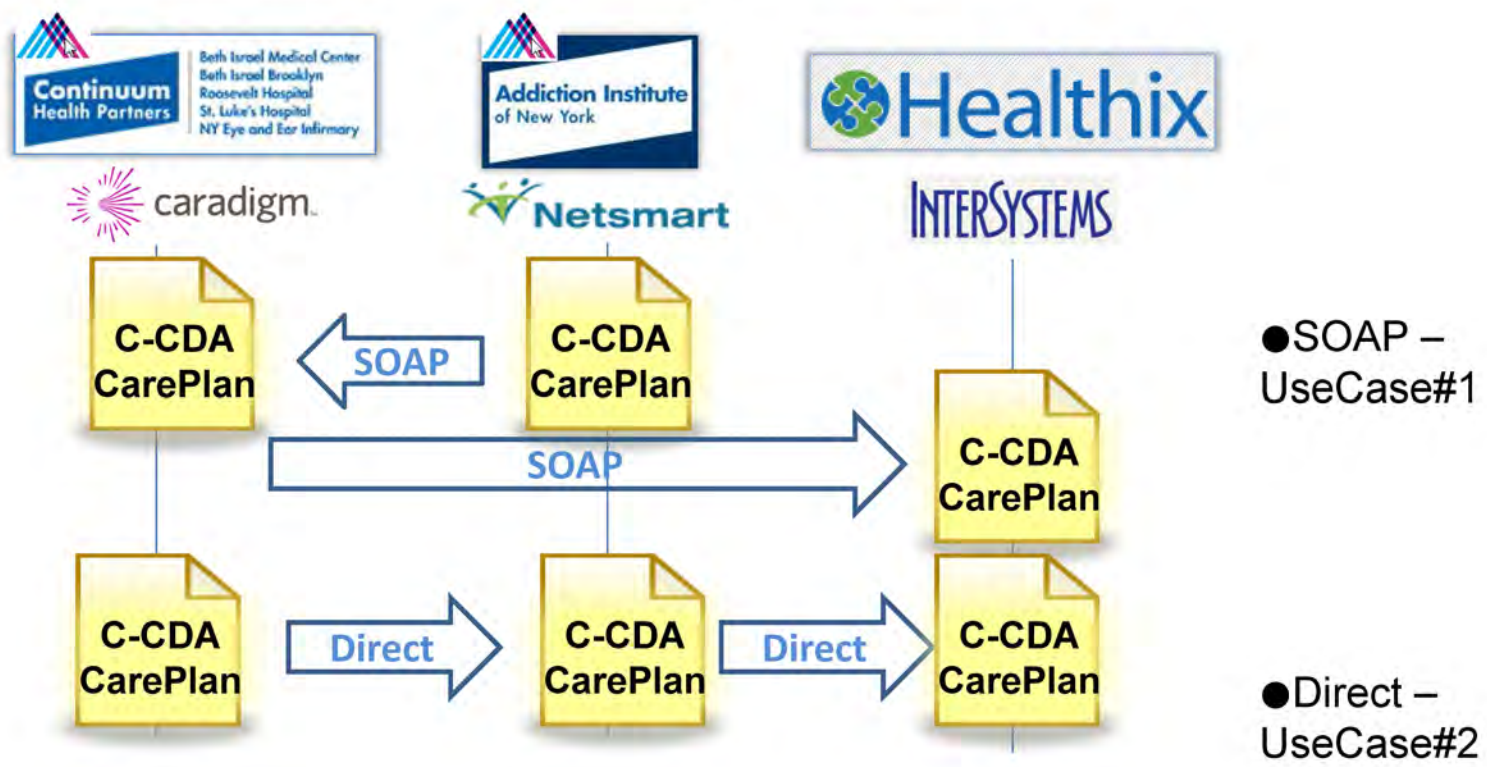
requires that a provider electronically transmit a summary care record for more than 10% of transitions of care and referrals using CEHRT or eHealth Exchange participant

2014 Edition EHR certification criteria170.314(b)(2)

Transitions of care—create and transmit transition of care/referral summaries.

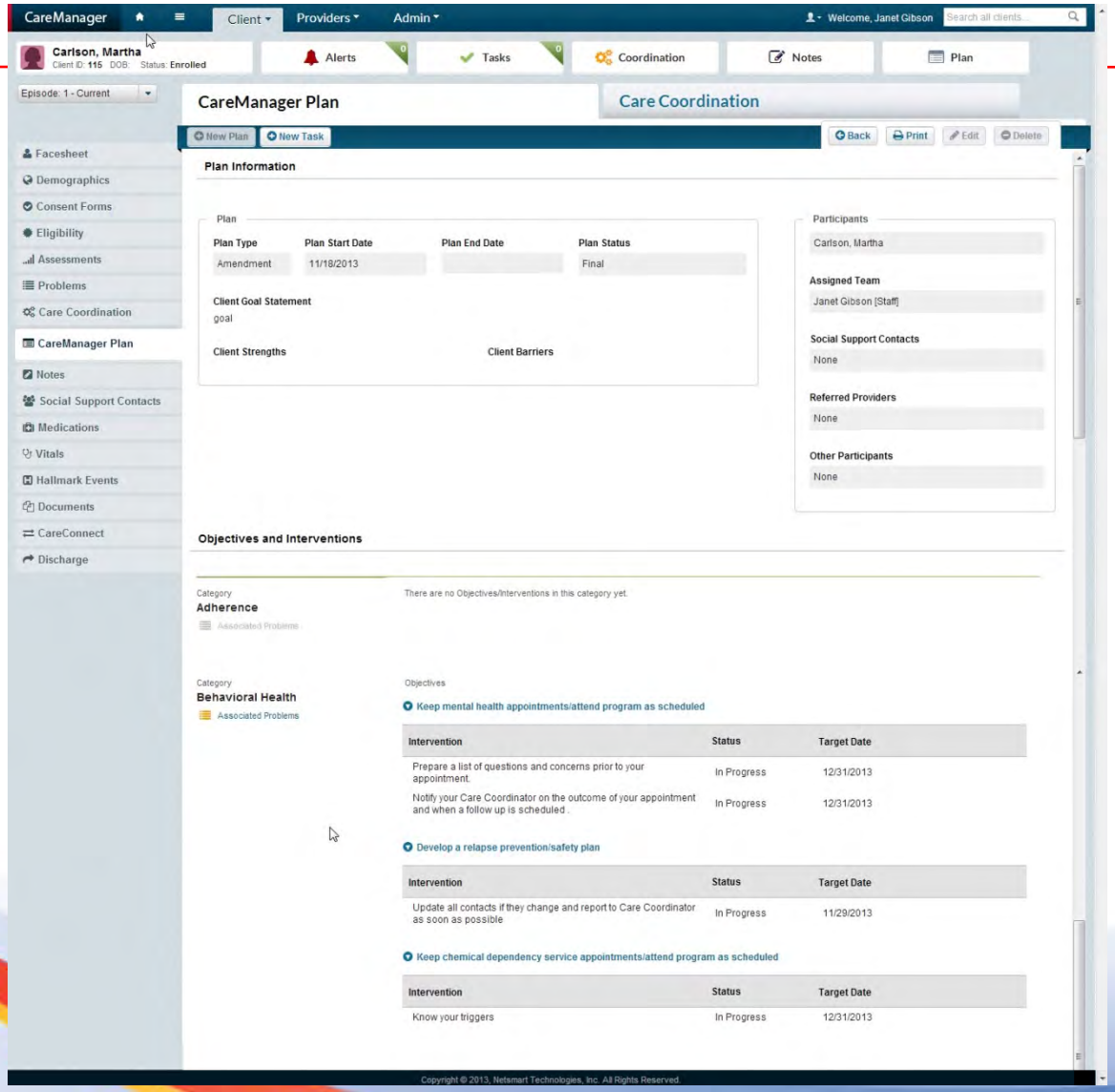
(ii) Enable a user to electronically transmit CCDA in accordance with:

- SOAP (UseCase#1 below)
- Direct (UseCase#2 below)

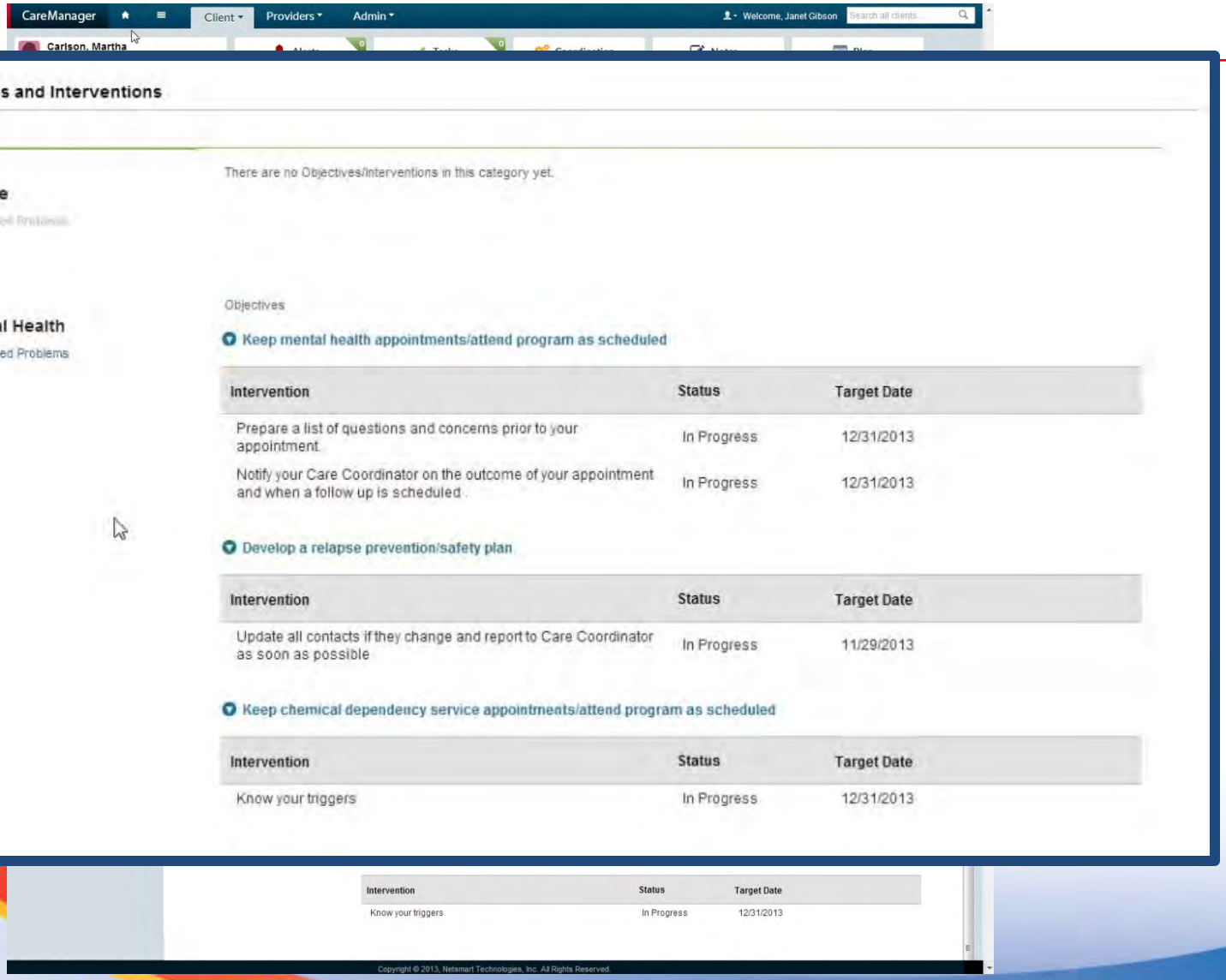


*Adapted from Paul Tuten's Presentation on Meaningful Use Stage 2 Transport Options 5/31/13, to illustrate alignment w/ MU2 ToC

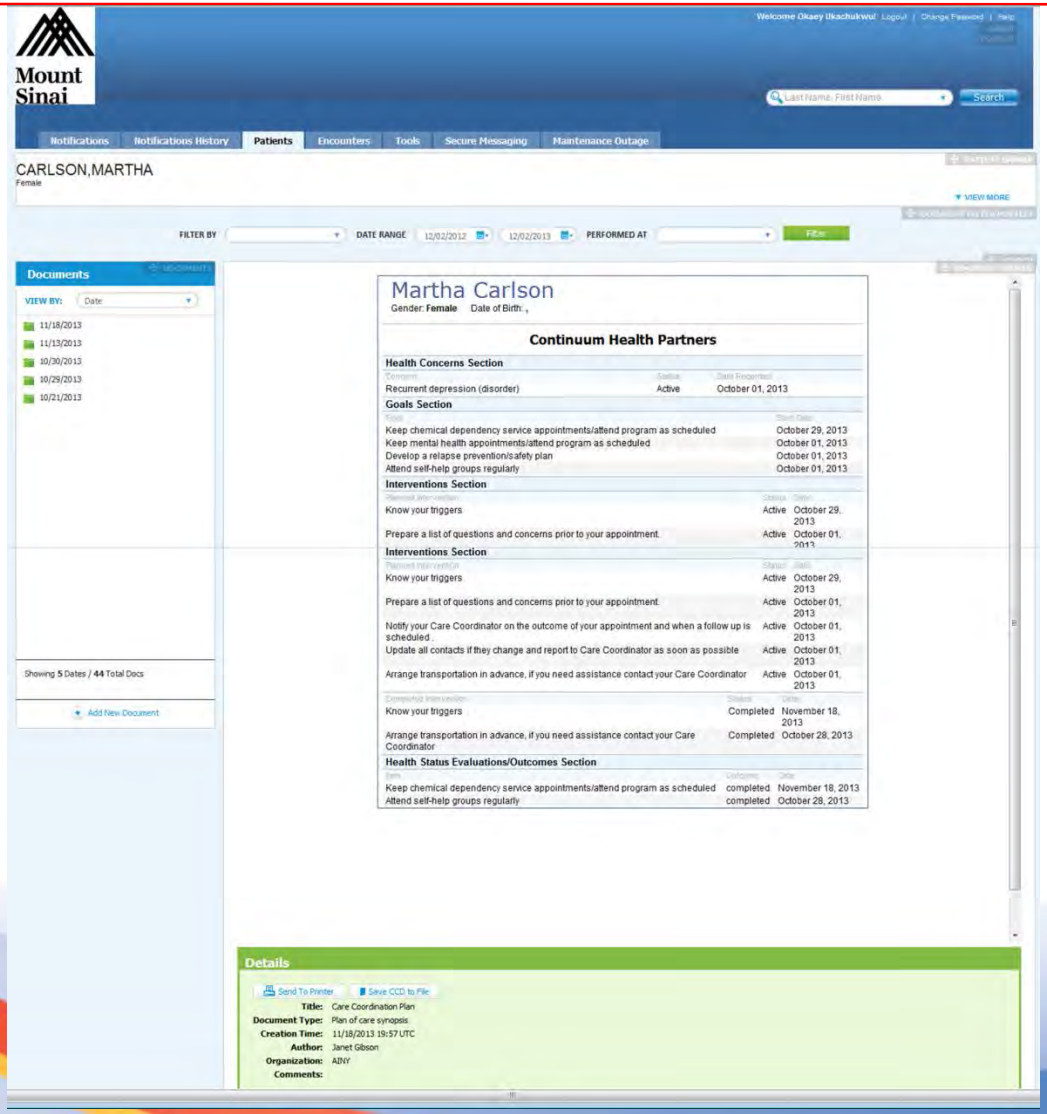
Care Plan Authored in Netsmart



Care Plan Authored in Netsmart



Care Plan Reviewed by Editor using Caradigm



Care Plan Reviewed by Editor using Caradigm

The Office of the National Coordinator for Health Information Technology

Martha Carlson

Gender: **Female** Date of Birth: ,

Continuum Health Partners

Health Concerns Section

Concern	Status	Date Recorded
Recurrent depression (disorder)	Active	October 01, 2013

Goals Section

Goal	Start Date
Keep chemical dependency service appointments/attend program as scheduled	October 29, 2013
Keep mental health appointments/attend program as scheduled	October 01, 2013
Develop a relapse prevention/safety plan	October 01, 2013
Attend self-help groups regularly	October 01, 2013

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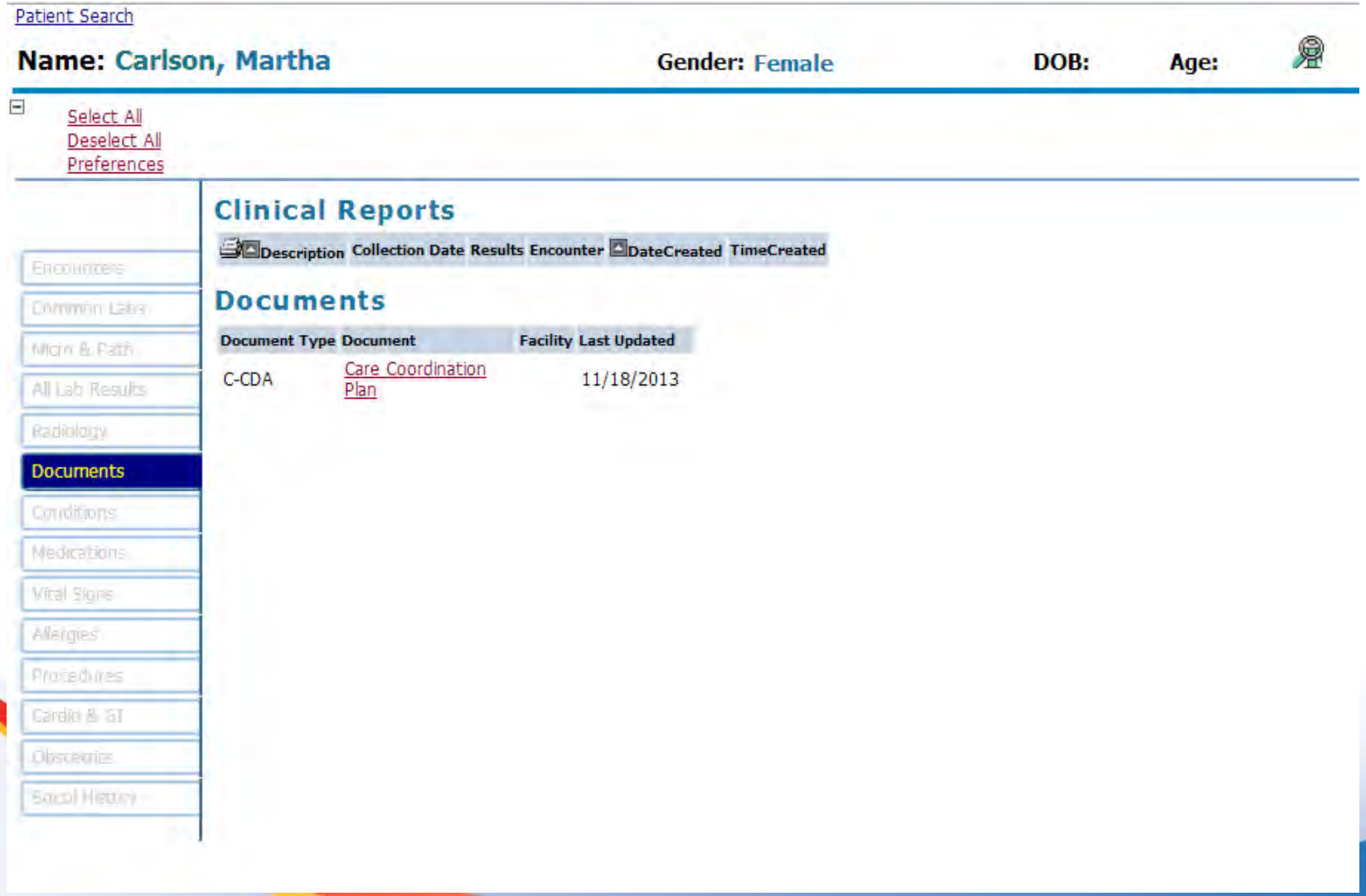
Arrange transportation in advance, if you need assistance contact your Care Coordinator	Active	October 01, 2013

Completed Intervention	Status	Date
Know your triggers	Completed	November 18, 2013
Arrange transportation in advance, if you need assistance contact your Care Coordinator	Completed	October 28, 2013

Health Status Evaluations/Outcomes Section

Item	Outcome	Date
Keep chemical dependency service appointments/attend program as scheduled	completed	November 18, 2013
Attend self-help groups regularly	completed	October 28, 2013

Care Plan Reviewed by Reader in Healthix



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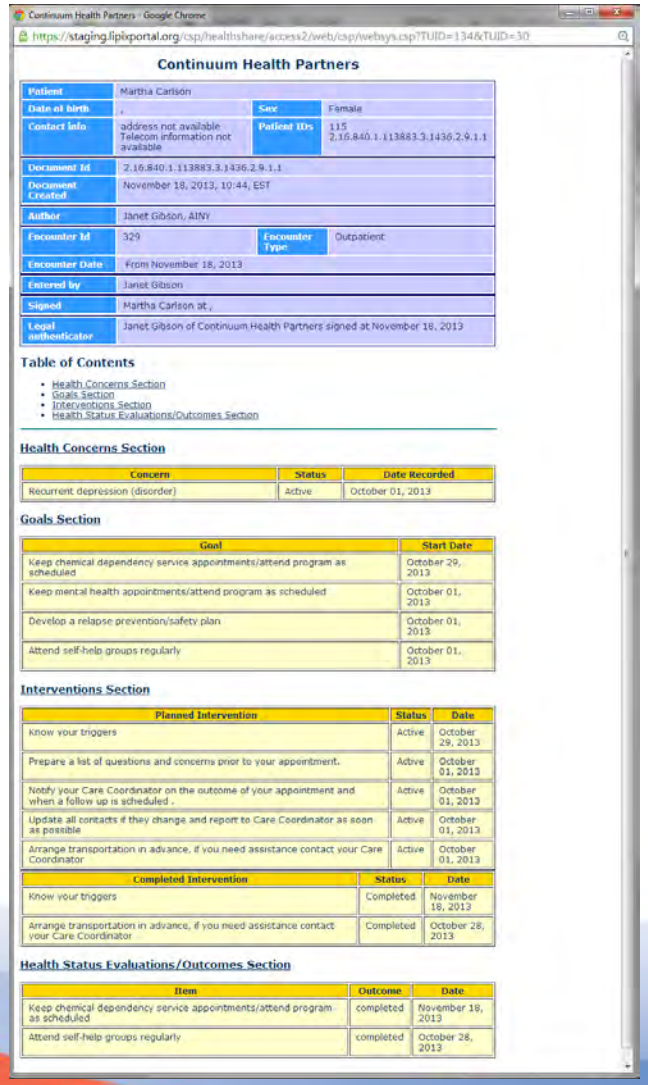

Continuum Health Partners - Google Chrome

https://staging.lipixportal.org/csp/healthshare/access2/web/csp/websys.csp?TUID=134&TUID=30

Continuum Health Partners

Patient	Martha Carlson		
Date of birth	,	Sex	Female
Contact info	address not available Telecom information not available	Patient IDs	115 2.16.840.1.113883.3.1436.2.9.1.1
Document Id	2.16.840.1.113883.3.1436.2.9.1.1		
Document Created	November 18, 2013, 10:44, EST		
Author	Janet Gibson, AINY		
Encounter Id	329	Encounter Type	Outpatient
Encounter Date	From November 18, 2013		
Entered by	Janet Gibson		
Signed	Martha Carlson at ,		
Legal authenticator	Janet Gibson of Continuum Health Partners signed at November 18, 2013		

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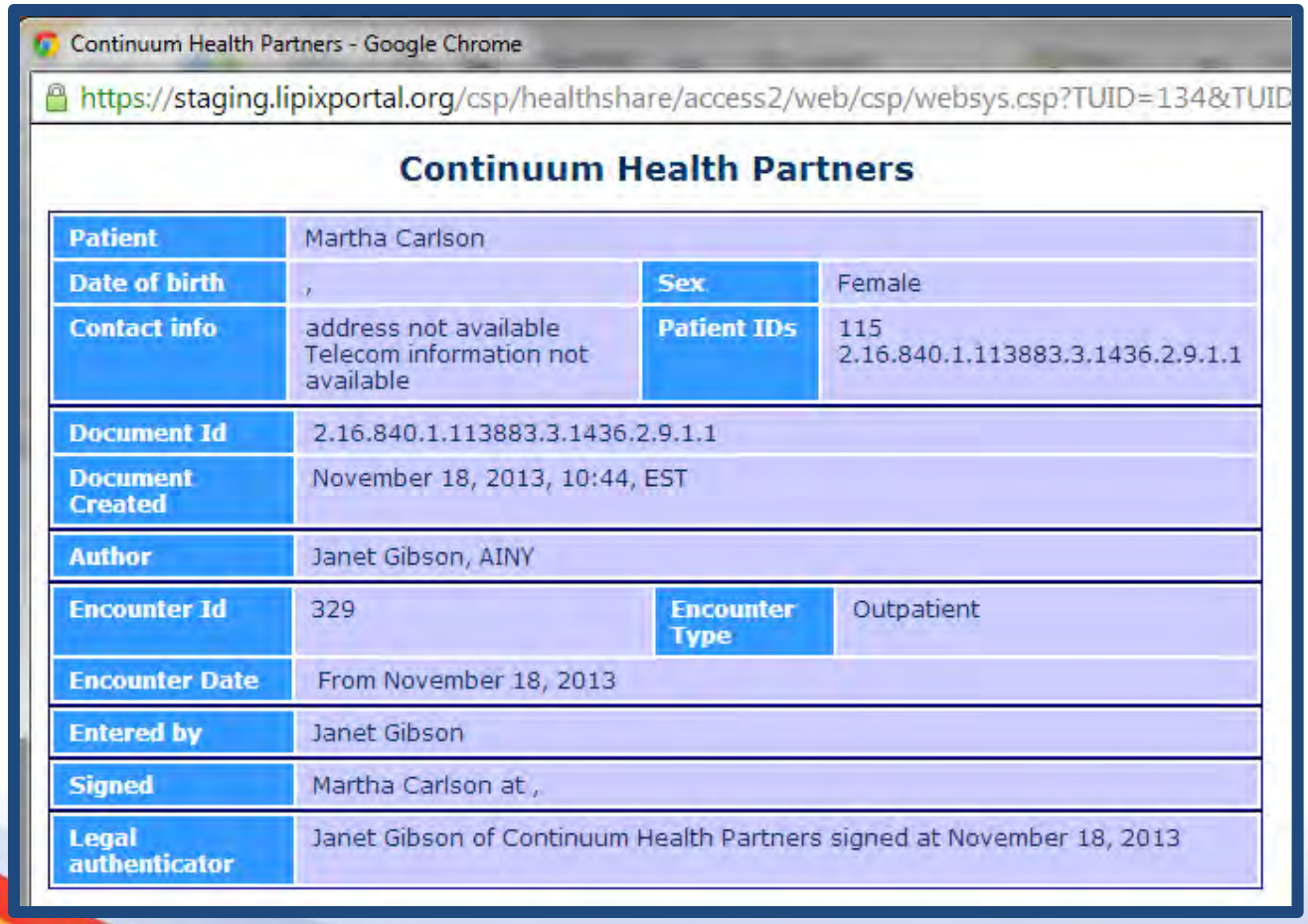

Continuum Health Partners - Google Chrome

https://staging.lipixportal.org/csp/healthshare/access2/web/csp/websys.csp?TUID=134&TUID

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Contact info	address not available Telecom information not available	**Patient IDs**	115 2.16.840.1.113883.3.1436.2.9.1.1
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Pilots Lessons Learned

- Adoption of the standard for Care Plans is taking longer than expected. We were hoping that:
  - The standard would be approved and added to the certification requirements for EHRs
  - EHRs and care management systems would incorporate the standard into their product rapidly
  - A critical mass of providers would be able to exchange care plans regardless of the vendor they chose
- The model for exchanging Care Plans differs from the model for exchanging CCDs
  - CCDs tend to be linear
  - Care Plans tend to be interactive
- Short term goals
  - Publish care plans in human readable format and make available to all qualified providers
  - Encourage limited interoperability where possible – Brooklyn Health Home / GSIH approach

Real World Applications

Lantana

Michael Tushan
Director of Business Development
mike.tushan@lantanagroup.com

Project Goals

- Create transition-of-care documents in long-term care environments – adapted for care plan editing
- Ease of use
  - Laptop
  - Tablet
  - Smartphone
- Integrate with HIEs to display patient information from various data sources
- Conform to
  - Mass HIE transition-of-care summary (source of requirements for LCC summary)
  - Consolidated CDA, Release 2.0 Care Plan

Project Goals

HEALTH STORY PROJECT

- Following the work of LCC, we adapted the tool to address another aspect of work using the LCC Care Plan within the Health Story demonstration
- Health Story Project Goals
  - Lower the threshold for information exchange so that
    - All may participate
    - Approach 100% of the records for 100% of patients
  - Incentivize participation at all levels of interoperability
  - Recognize diversity of applications
  - Respect the clinical voice
  - Provide value back to those who incur the costs

Project Challenges

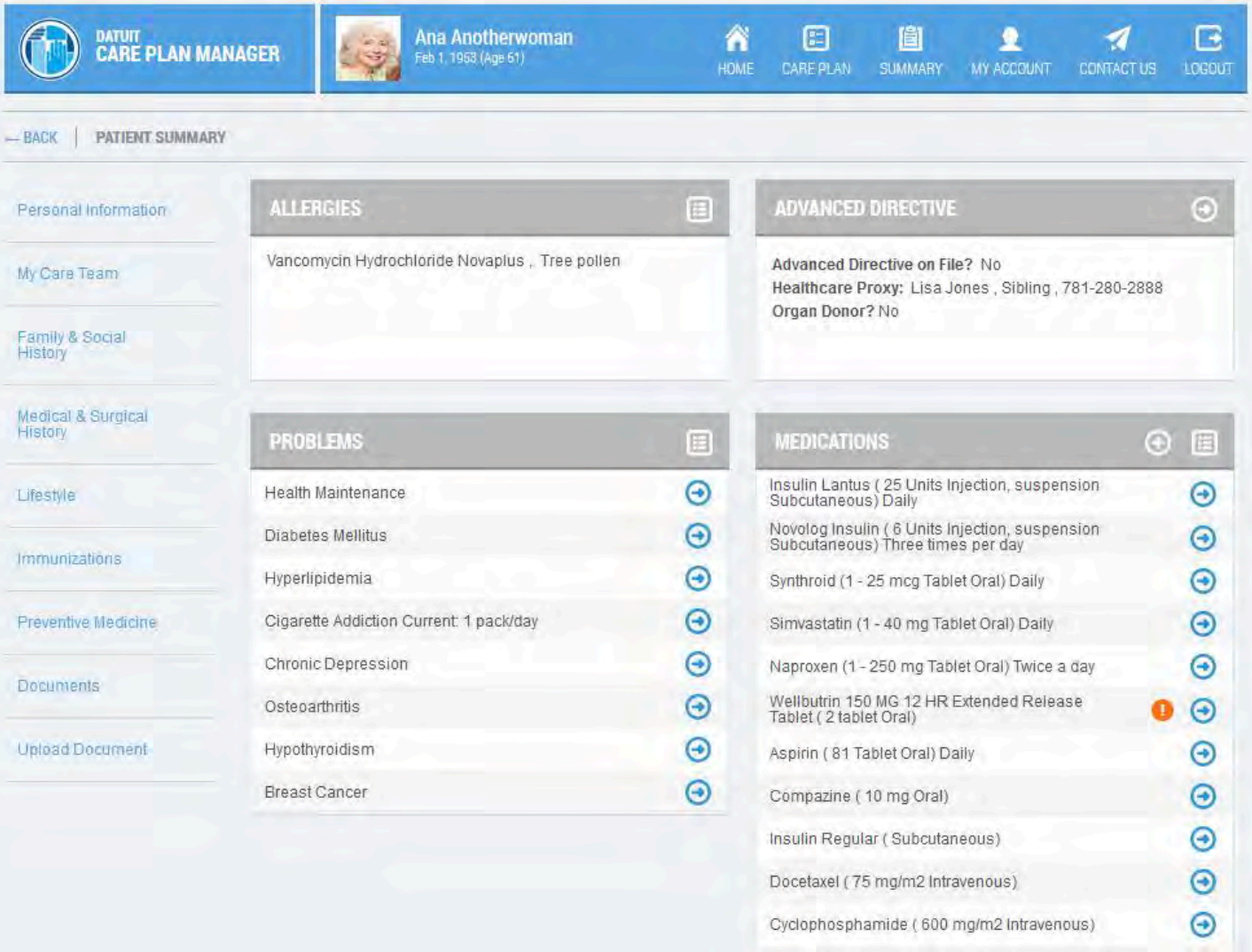
- Overcome misperceptions on electronic health records
  - "During any evaluation, I like to scan the prior notes to remind myself of how the patient has been doing over the last few weeks. …with a paper chart, …it was almost like reading a short story.
  - "Imagine reading a short story and being allowed to view only one paragraph at a time. Imagine needing to open or close multiple windows to move in between paragraphs or needing to search to determine whether there is a prior paragraph to read."
    - Lawrence B. Marks, MD
    - Newsobserver.com, October 4, 2013

Project Overview

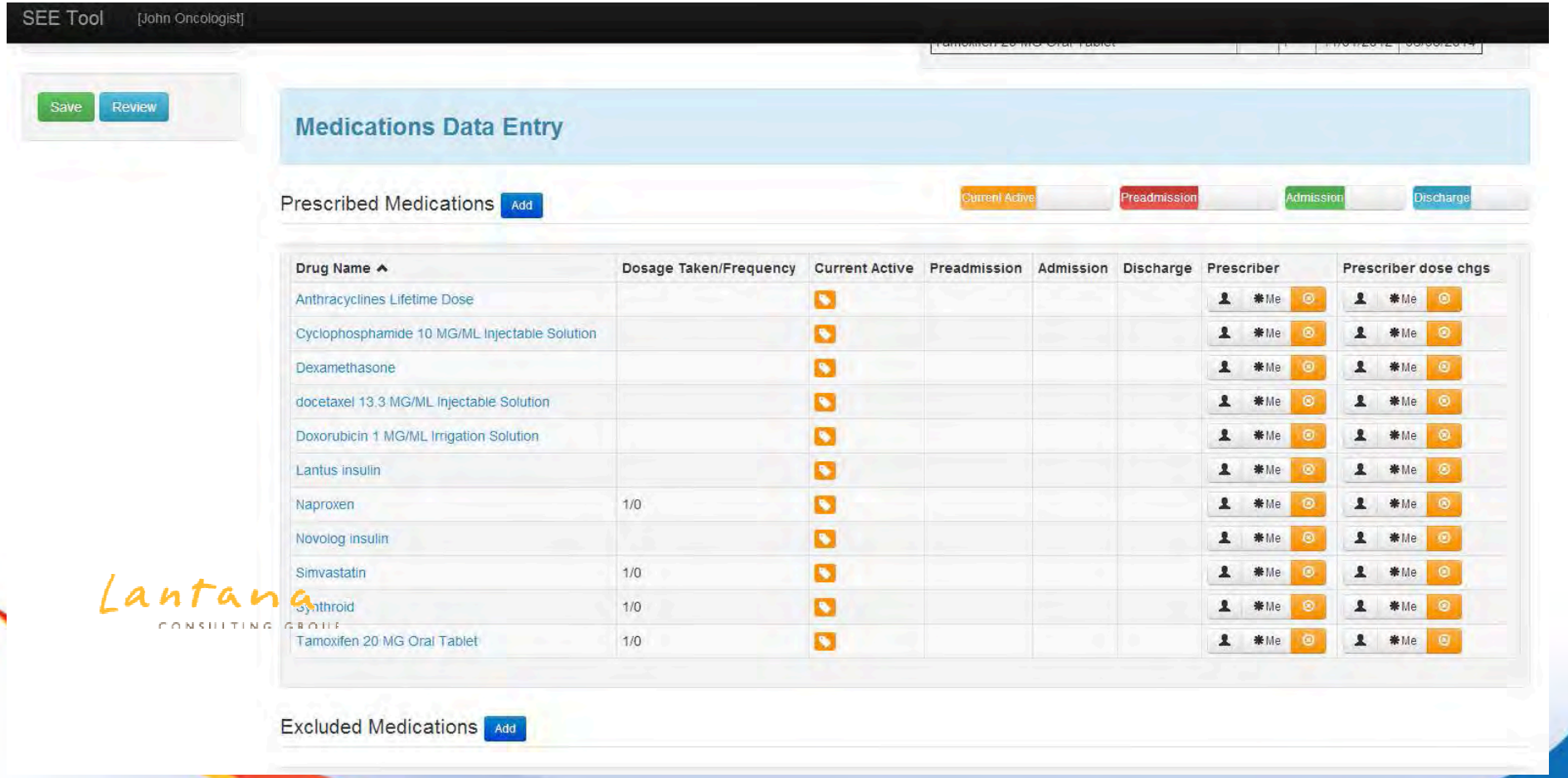
HEALTH STORY PROJECT

- Create an electronic record that ensures value for
  - Care delivery
  - Evidence-based medicine
  - And which endures over time as technology evolves
- Vision
  - Comprehensive electronic records that
  - Tell a patient's complete health story

Project Overview

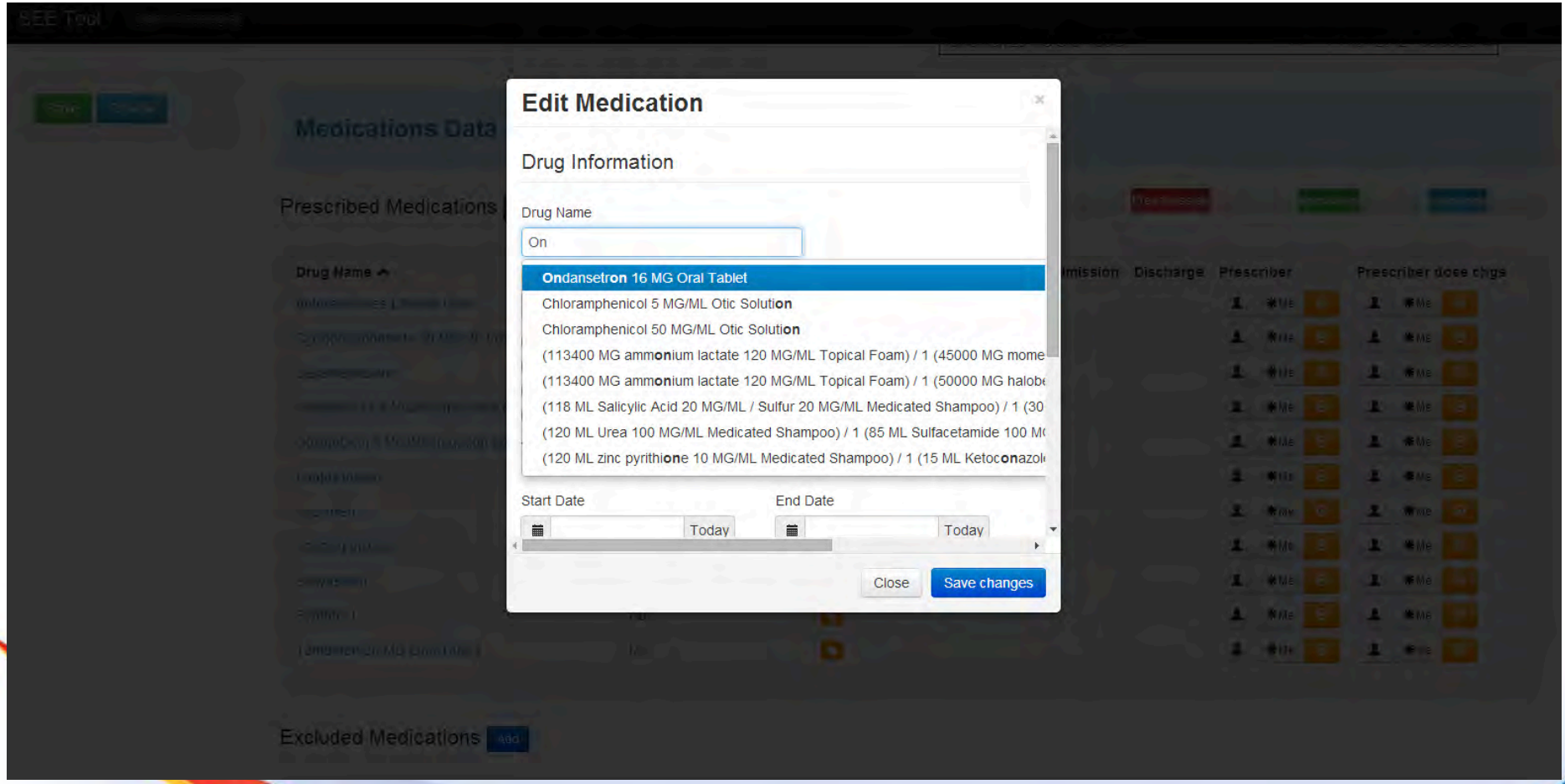


Project Overview



Lantana CONSULTING GROUP

Project Overview



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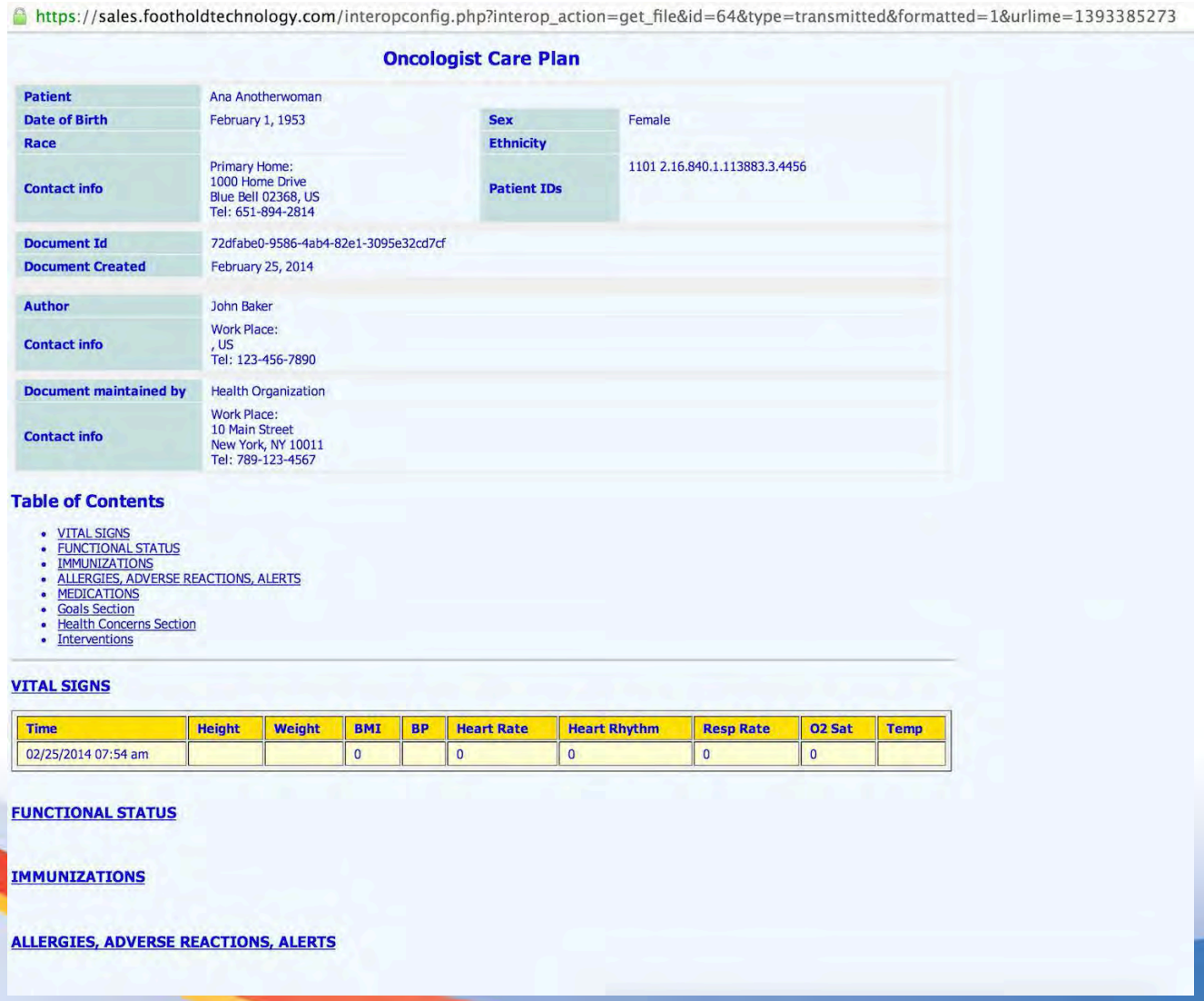


https://sales.footholdtechnology.com/interopconfig.php?interop_action=get_file&id=64&type=transmitted&formatted=1&urlime=1393385273

Oncologist Care Plan

Patient	Ana Anotherwoman		
Date of Birth	February 1, 1953	**Sex**	Female
Race		**Ethnicity**	
Contact info	Primary Home: 1000 Home Drive Blue Bell 02368, US Tel: 651-894-2814	**Patient IDs**	1101 2.16.840.1.113883.3.4456
Document Id	72dfabe0-9586-4ab4-82e1-3095e32cd7cf		
Document Created	February 25, 2014		
Author	John Baker		
Contact info	Work Place: , US Tel: 123-456-7890		
Document maintained by	Health Organization		
Contact info	Work Place: 10 Main Street New York, NY 10011 Tel: 789-123-4567		

Table of Contents

VITAL SIGNS

Time	Height	Weight	BMI	BP	Heart Rate	Heart Rhythm	Resp Rate	O2 Sat	Temp
02/25/2014 07:54 am			0		0	0	0	0	

FUNCTIONAL STATUS

IMMUNIZATIONS

ALLERGIES, ADVERSE REACTIONS, ALERTS

Project Lessons Learned

- It is surprisingly more difficult than it would appear to plug an application into an HIE

Real World Applications

datuit
safe simple sharing

Gordon Raup
CTO
graup@datuit.com

Project Goals

- Integrate information from multiple sources safely and securely to enable better communication among clinicians.
- Integrate a set of tools that can be utilized by all clinicians and caregivers to facilitate working together across organizations and disciplines to coordinate care.
- Allow clinicians, patients, family members and other caregivers to work together to:
  - Optimize quality of life.
  - Avoid complications and the need for unanticipated acute care.
  - Allow family members, caregivers and clinicians to be up-to-date with the care plan and resources available.

Project Challenges

- We have not yet implemented a project, but have received feedback from those who are interested in using our type of tool. Some barriers to implementing the Care Plan Manager:
  - "Medical" emphasis of our tool.
  - Utilization of standards that are just becoming mature.
  - Early stage of interoperability, especially patient-mediated, and questions about how interoperability standards will work.
- We have spent the last several months addressing these issues.
  - Partners developing complementary technology that further enables clinicians, patients and caregivers.
  - Care Plan Manager upgraded to add ways to access more information that clinicians, patients and caregivers need.

Project Overview

Datuit has partnered with Connected Health Resources (CHR) to help patients, family members and caregivers. CHR makes it easier to:

- Find products and services to help stay in their homes.
- Communicate among family members about status and concerns.
- Understand the current Care Plan and ask questions, clarify and update as needed.

Connected Health RESOURCES

Connected Health Resources features a Patient and Caregiver Gateway to provide on-going support for care outside the acute care setting.

Pilot Overview

Datuit is looking for additional provider organizations interested in utilizing technology to communicate problems, goals and interventions among patients, caregivers and clinicians. Datuit will:

- Support care coordinators and patient navigators by allowing patients to ask them to take that role.
- Bring in structured medical information from clinics and hospitals.
- Help reconcile conflicting problem lists, medication lists, allergies, advanced directives by bringing in patients, their caregivers and clinicians into the same Care Plan.
- Offer additional capabilities to enable care at home via Connected Health Resources and other partner apps.
- Allow linking of educational materials in the Care Plan for patients and caregivers to access and other clinicians to view.

Project Lessons Learned

- Bridging the communication gap between patients and family members and medical professionals isn't easy.
  - Blue Button capabilities are new for providers and patients.
  - Patient goals and clinician goals often aren't the same.
  - If patients and clinicians agree on goals, not all on the healthcare team understand the plan to reach those goals.
  - Clinicians aren't always utilizing shared decision-making, which is important to get patients on the same page with them.
- Interoperability is new for provider organizations.
  - Standards are new, and not all EHRs meaningfully support them.
  - Provider organizations do not always have the infrastructure to support interoperability, including V/D/T mandated by Meaningful Use Stage 2.

Real World Applications

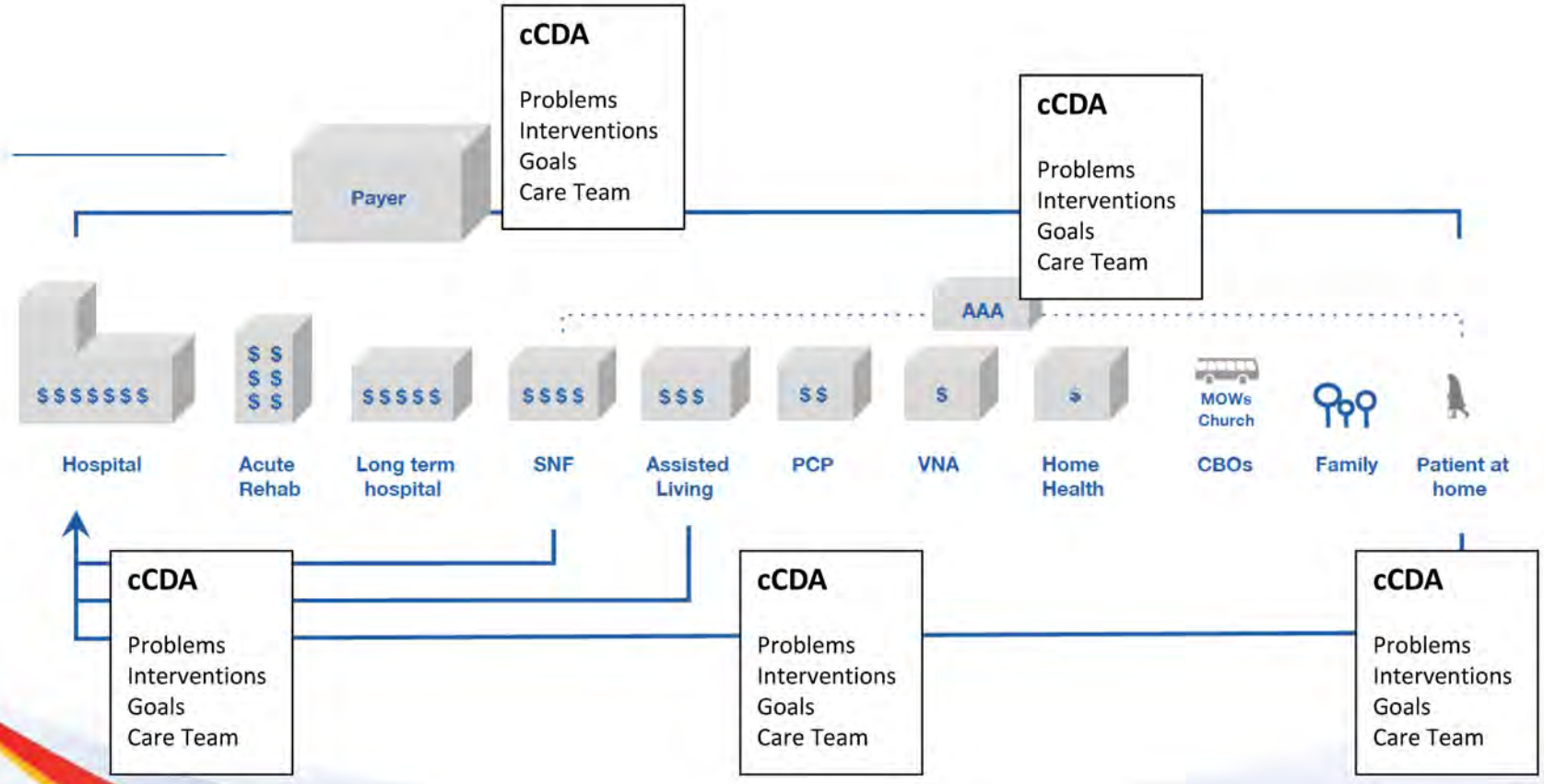
Care at Hand

Andrey Ostrovsky, MD
CEO, Co-Founder

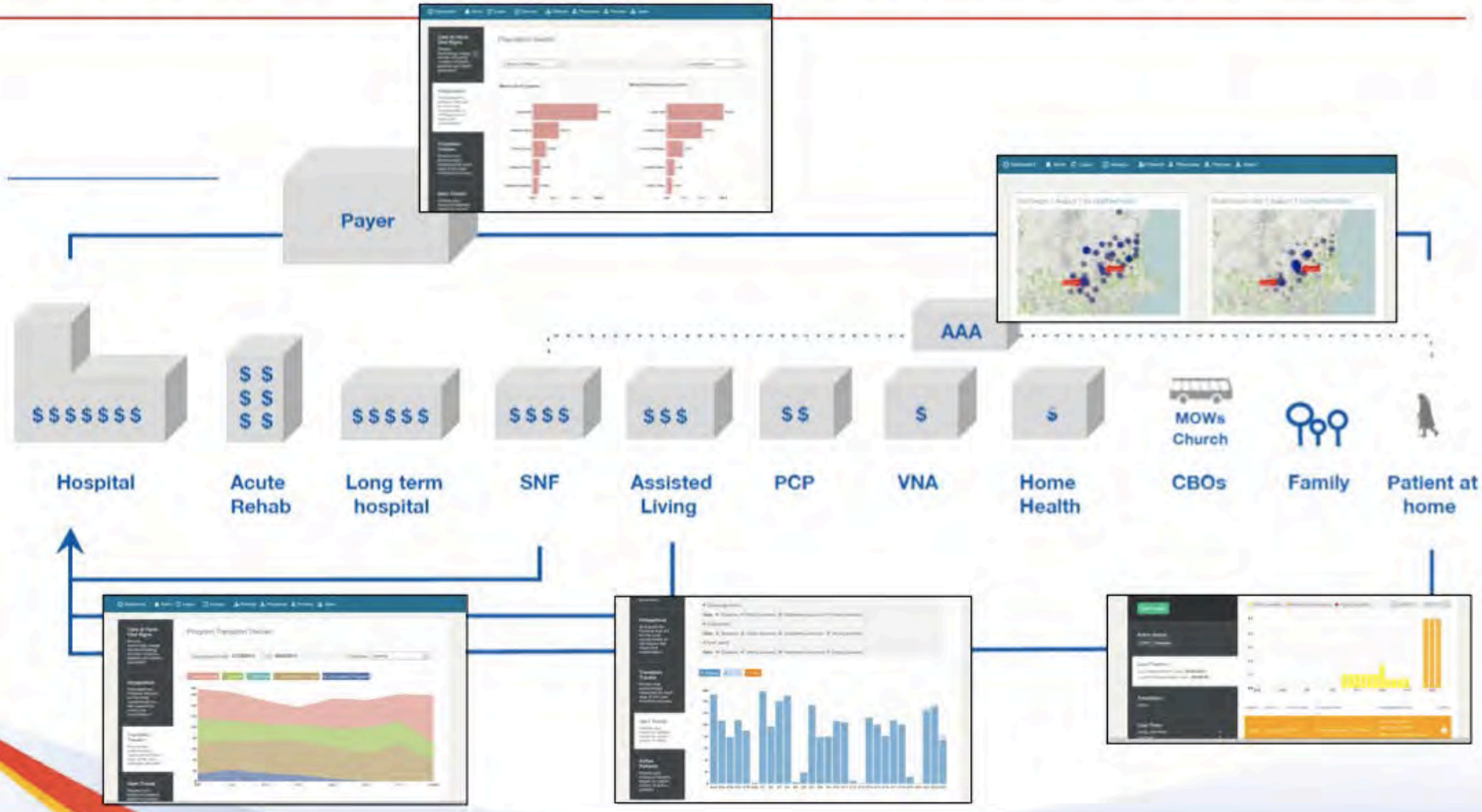
The healthcare data design & user experience gap

Source: @LarryKim

Current Design – data used same way in every setting



User experience – customers can't wait for standards to evolve



S&I LCC Ingredients, Care at Hand Recipe

The Office of the National Coordinator for Health Information Technology

Step 1 | Precise allocation of resources for most at-risk patients to avoid preventable acute care utilization

Step 2 | Building capacity of underutilized, inexpensive workforce

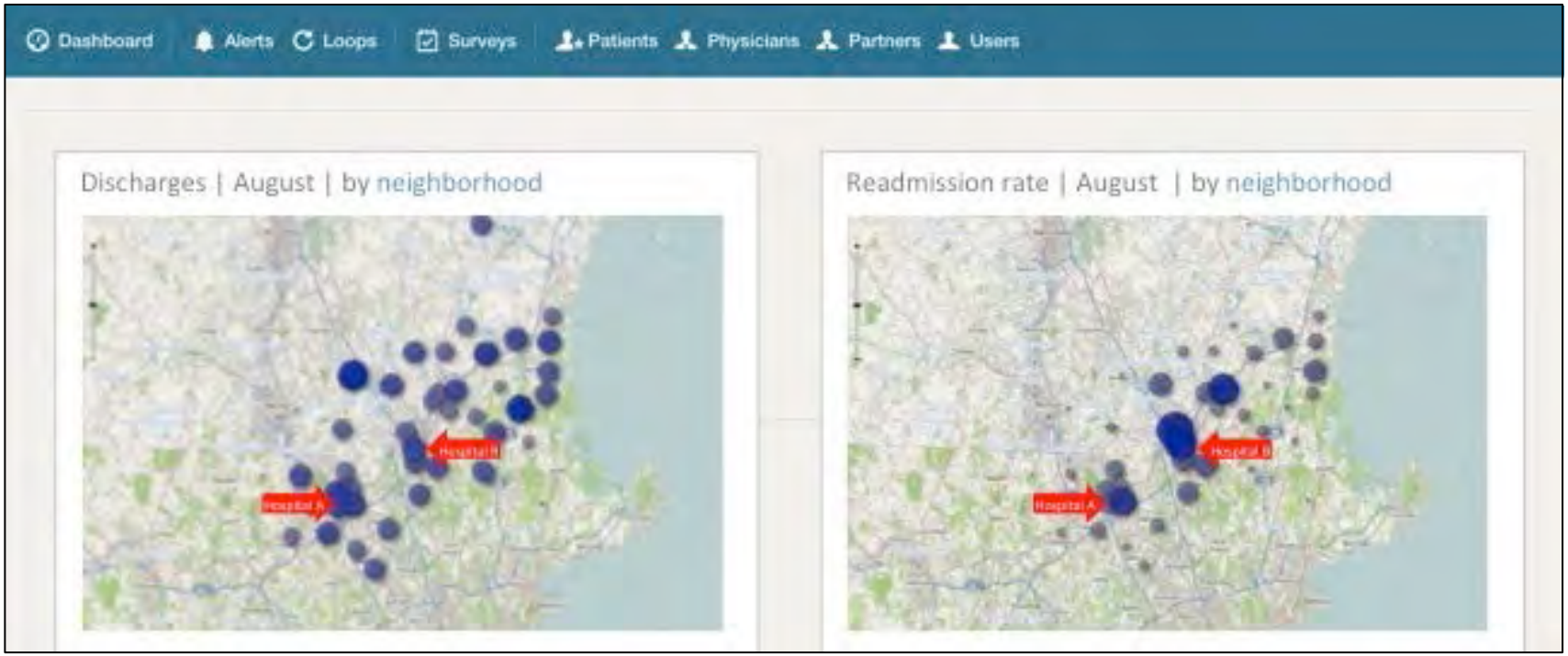
Step 3 | Quick, inexpensive proof of value using rapid cycle approaches

Step 4 | Mix for 3 min

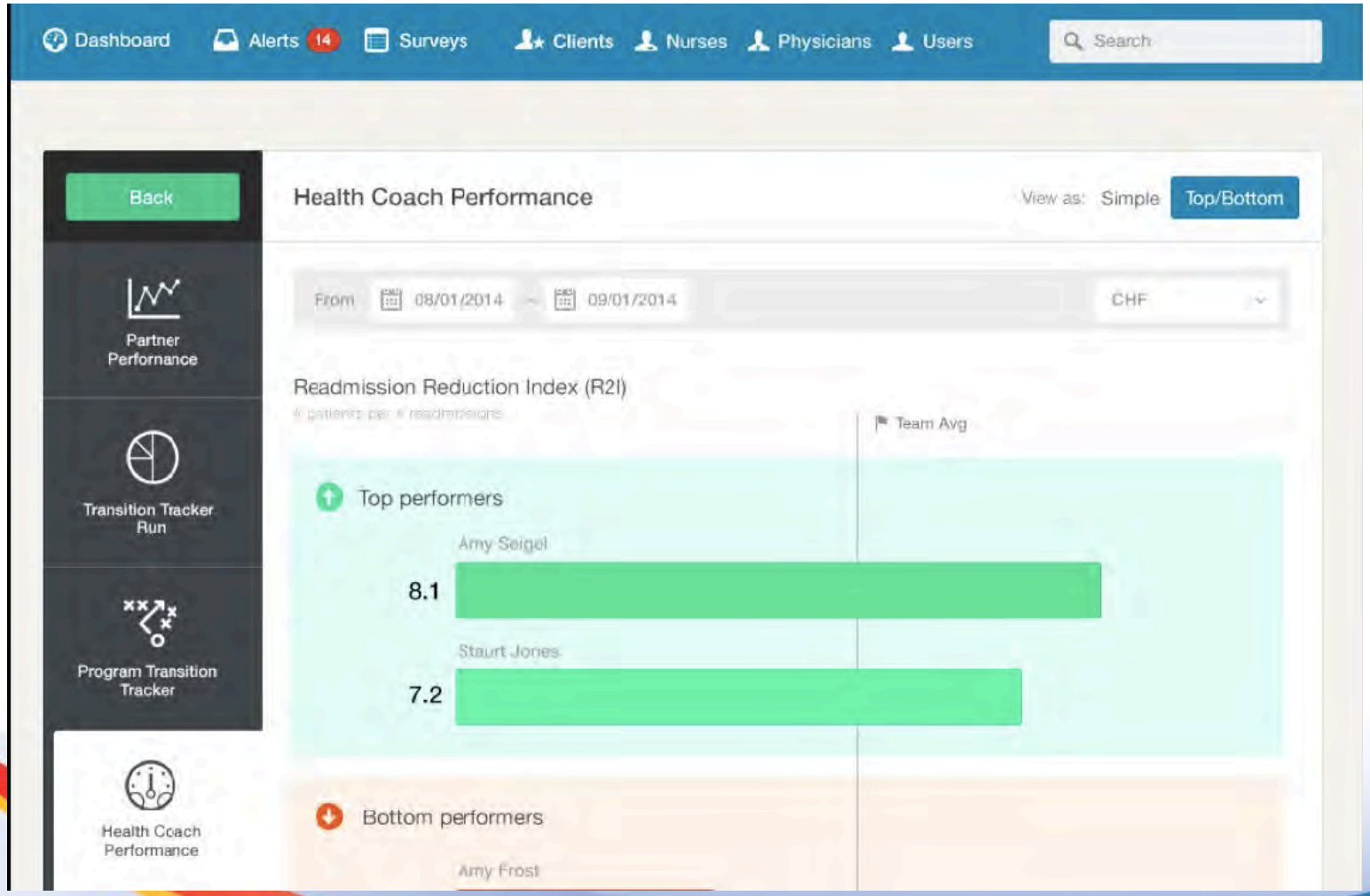
Step 5 | Serve warm with side of Triple Aim

Data drives specific timing and dose of nurse, social worker, and/or community health worker intervention

Data drives specific timing and dose of nurse, social worker, and/or community health worker intervention

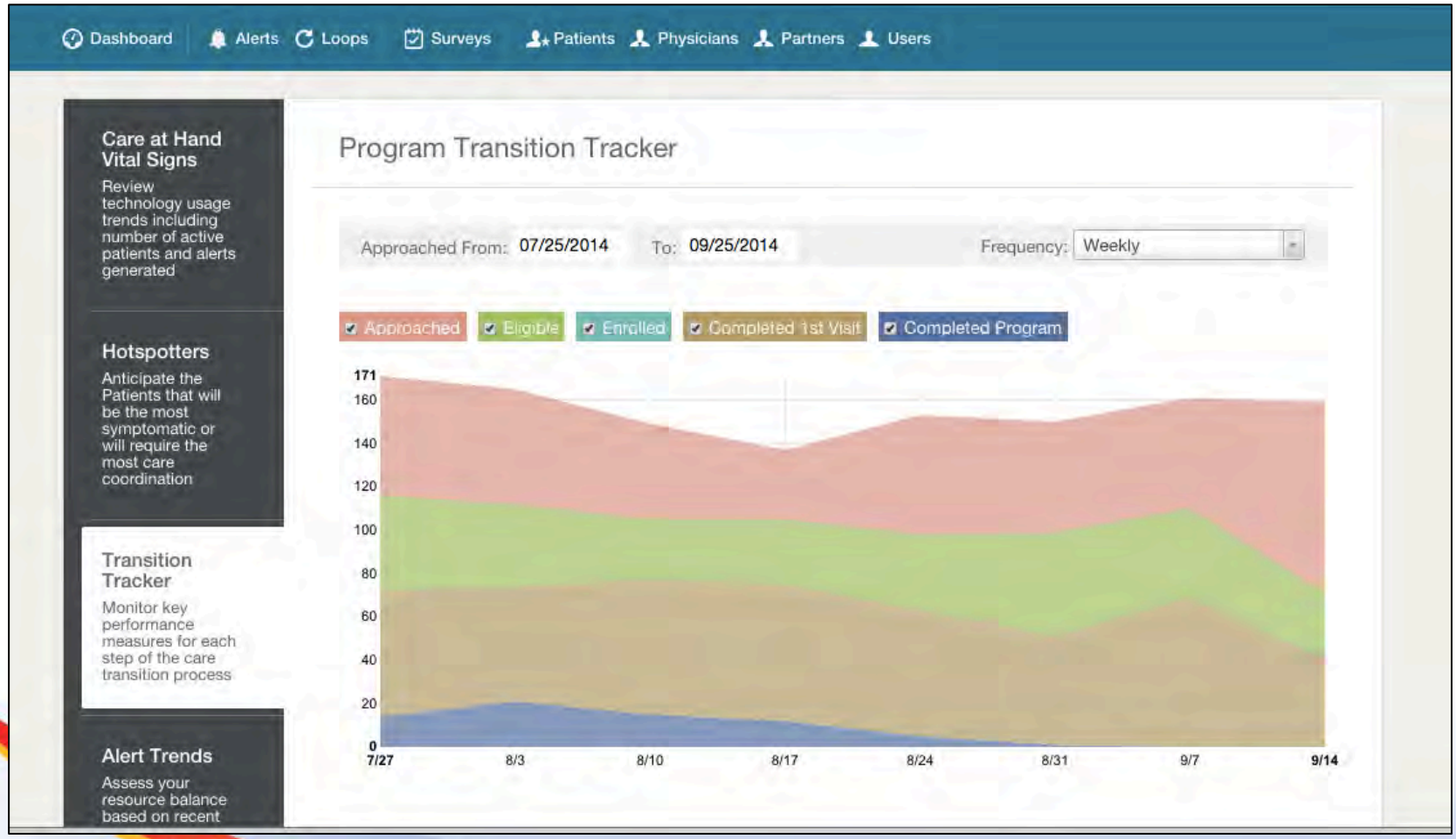


Building capacity of underutilized, inexpensive workforce



Quick, inexpensive proof of value through rapid cycle testing

The Office of the National Coordinator for Health Information Technology



It's not about data standards…

…it's about aging and thriving in place

For more information

http://blog.careathand.com

The Office of the National Coordinator for Health Information Technology

The Path Forward

Evelyn Gallego, MBA, CPHIMS
S&I LCC Initiative Coordinator
ONC Office of Standards & Technology

Path Forward

- The LCC Initiative is at its completion as of today, September 29, 2014
- LCC HL7 Artifacts now fully transitioned to HL7 Workgroups:
  - Structured Documents WG
    - Responsible for C-CDA Standard Revisions
    - Meet every Thursday from 10 to 12pm ET
    - Wiki: http://www.hl7.org/Special/committees/structure/index.cfm
  - Patient Care WG
    - Responsible for Care Plan, Care Coordination and Health Concern Topic
    - Care Plan Project meets every other Weds from 4 to 5:30pm ET
    - Health Concern Topic meets every other Thursday from 4 to 5pm ET
    - Wiki: http://www.hl7.org/Special/committees/patientcare/index.cfm

NEW eLTSS Initiative

- ONC has partnered with CMS to launch new S&I Initiative focused on the identification and harmonization of standards for an electronic Long-term Services and Support (eLTSS) record
- eLTSS record development is one of the four components under the CMS planning and demonstration grant for Testing Experience and Functional Tools (TEFT) in Medicaid community-based LTSS
  - Participating TEFT States: AZ, CO, CT, GA, MD, MN
- Once eLTSS standard is identified, states must test and validate standard with CB-LTSS providers and with beneficiary PHR systems
  - Will be initiated through Pilot Phase of S&I Framework Process
- eLTSS will leverage standards identified by LCC Initiative

Next Steps for eLTSS Initiative

- CMS TEFT grantees are invited to participate in the eLTSS Initiative as part of their grant program requirements
- eLTSS Initiative is open for other stakeholder groups to participate:
  - Other States and State Medicaid Offices
  - LTSS system vendors
  - Other HIT systems
  - LTSS Providers and Facilities
  - Consumer Engagement Organizations
- Timeline: eLTSS Initiative will launch Nov 2014 and will run for duration of CMS TEFT grant program (3 years)

"People who say it can't be done should get out of the way of people who are doing it."

Borrowed from Victor Lee (Zynx Health) and what must have been a fortuitous dinner… his summary of LCC

Celebrating our Community

A gigantic heartfelt and humble

Thank You

We could not have done this incredibly dynamic, effective work without your inspiration, tenacity and expertise.

Useful S&I Wiki Links

Wiki

- http://wiki.siframework.org/Longitudinal+Coordination+of+Care+%28LCC%29

Use Cases

- UC1: http://wiki.siframework.org/LCC+WG+Use+Case+%26+Functional+Requirements
- UC2: http://wiki.siframework.org/LCC+WG+Use+Case+2.0

Pilots

- http://wiki.siframework.org/LCC+Pilots+WG

Harmonization and Standards:

- http://wiki.siframework.org/LCC+Candidate+Standards

Reference Materials

- http://wiki.siframework.org/LCC+WG+Reference+Materials

LCC Initiative: Contact Information

- LCC Leads
  - Dr. Larry Garber (Lawrence.Garber@reliantmedicalgroup.org)
  - Dr. Terry O'Malley (tomalley@partners.org)
  - Dr. Bill Russell (drbruss@gmail.com)
  - Sue Mitchell (suemitchell@hotmail.com)
- LCC/HL7 Coordination Lead
  - Dr. Russ Leftwich (Russell.Leftwich@tn.gov)
- Federal Partner Lead
  - Jennie Harvell (jennie.harvell@hhs.gov)
- Initiative Coordinator
  - Evelyn Gallego (evelyn.gallego@siframework.org)
- Project Management
  - Pilots Lead: Lynette Elliott (lynette.elliott@esacinc.com)
  - Use Case Lead: Becky Angeles (becky.angeles@esacinc.com)

LCC Wiki Site: http://wiki.siframework.org/Longitudinal+Coordination+of+Care