Interoperability and Patient Centred Care Coordination

Russell Leftwich, MD

Agenda

The data of care coordination

Interoperability

Clinical information models and FHIR profiles

The path ahead

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Coordination of care for a single individual

The same information and plan shared between, health professionals, social and support services, and the family and patient

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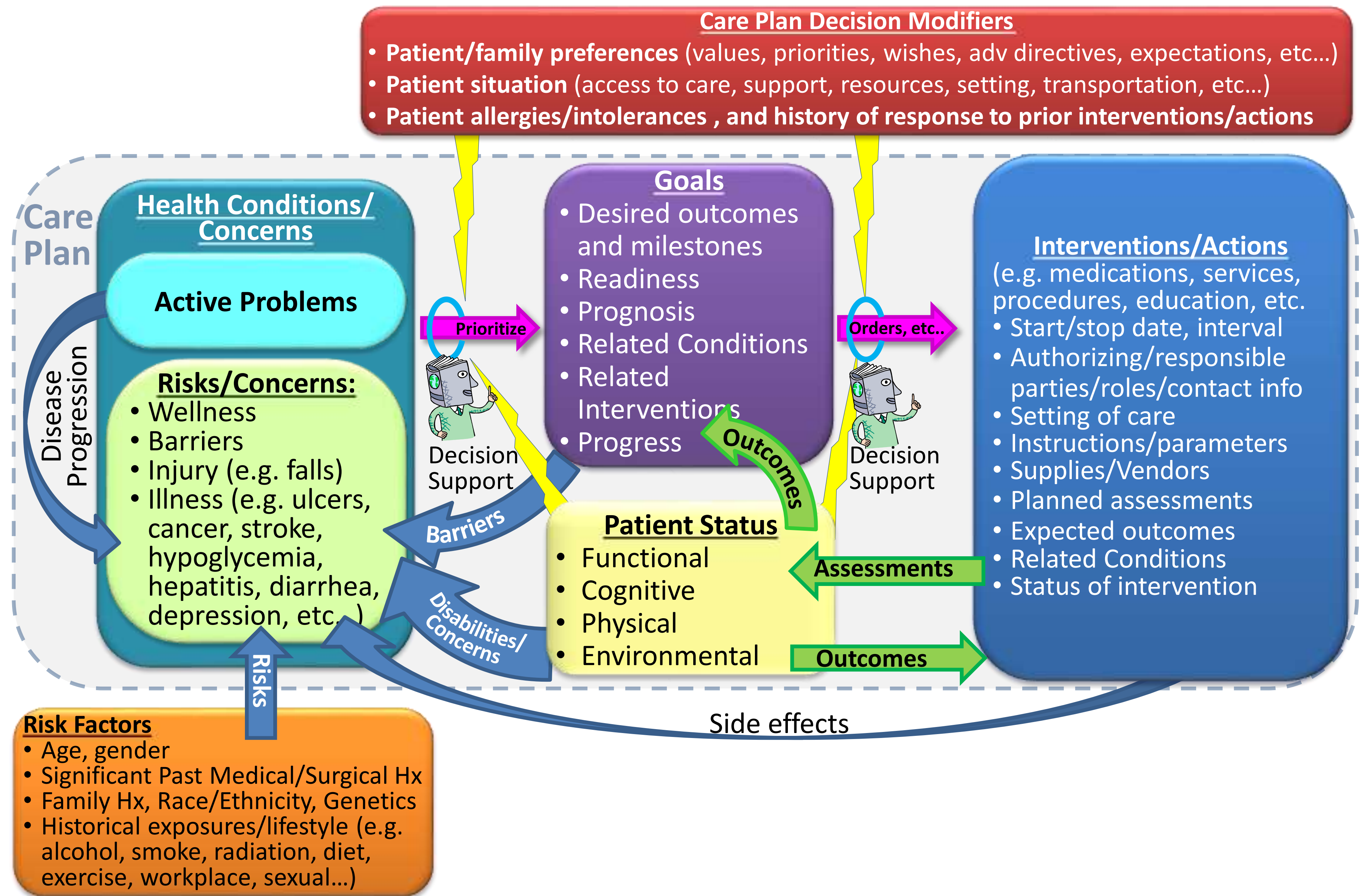
What's in a Care Plan: S&I framework Care Plan model



Source: ONC S&I Framework Longitudinal Coordination of Care Initiative, 2012

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IMPACT: Improving Massachusetts Post Acute Care Transfers

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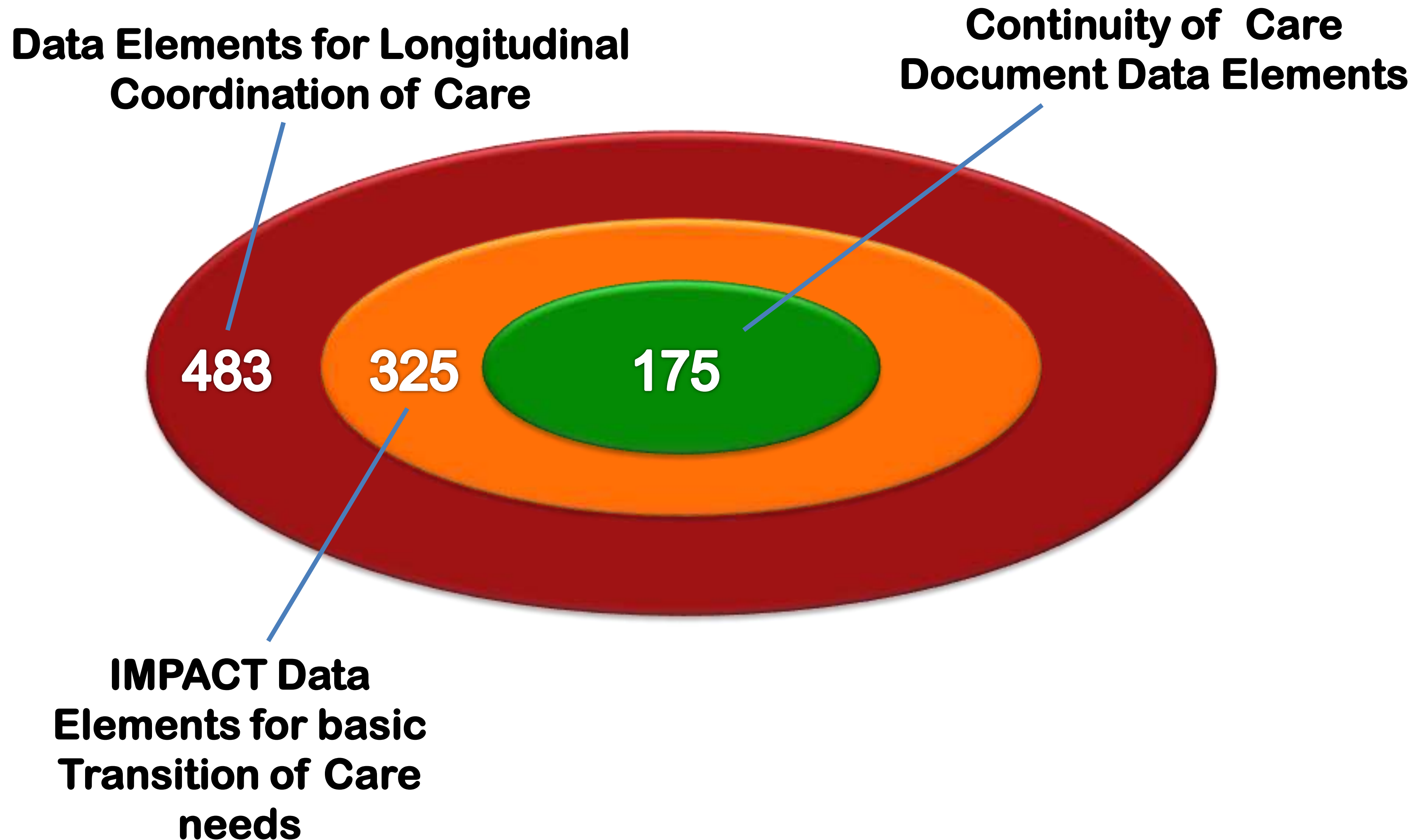
IMPACT Project: "Receiver" data needs survey

- Survey of Receivers' needs
- 46 Organizations completing evaluation
- 11 Types of healthcare organizations
- 12 Different types of user roles
- 1135 Transition surveys completed

6		From Acute Care Hospital	From Emergency Department	From Skilled Nursing Facility
72	Chief Complaint	Required	Required	Required
73	Reason Patient is being referred	Required	Required	Required
74	Reason for Transfer	Not needed/No	Not needed/No	Not needed/No
75	Sequence of events proceeding patient's disease/condition	Optional	Optional	Required
76	History of Present Illness	Required	Required	Required

Contact Information | HomeHealth Nurse

Continuity of Care Document data element gaps



Massachusetts IMPACT Project, 2012.

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HL7 Patient Care WG initiatives around patient-centred care planning

Care Plan Domain Analysis Model

Care Coordination Services Functional Model

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Interoperability

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Interoperability is the baton pass in an Olympic relay race

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A zoology professor and a zookeeper

may both describe a zebra

it's the same zebra

but different descriptions

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The ideal future state

Each individual has a dynamic care plan

in one location,

accessible to all care team members,

creating a collaborative care community

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Clinical Information Modeling Initiative - CIMI

building reference model for clinical models

translate reference models to other formats

FHIR profiles to conform to clinical models

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FHIR profiles

Profiles are FHIR implementation guides

A profile specifies an entire use case

Profile is extensions, Resources, value sets

A detailed clinical model is a profile

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What’s the path from where we are?

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Reality: Even for individuals with complex needs, care plan fragments exist in different settings where they receive care. Care plan fragments isolated in proprietary systems or on paper and lack interoperability. Care providers and caregivers are often not aware of details of these multiple care plans.

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The ideal future state

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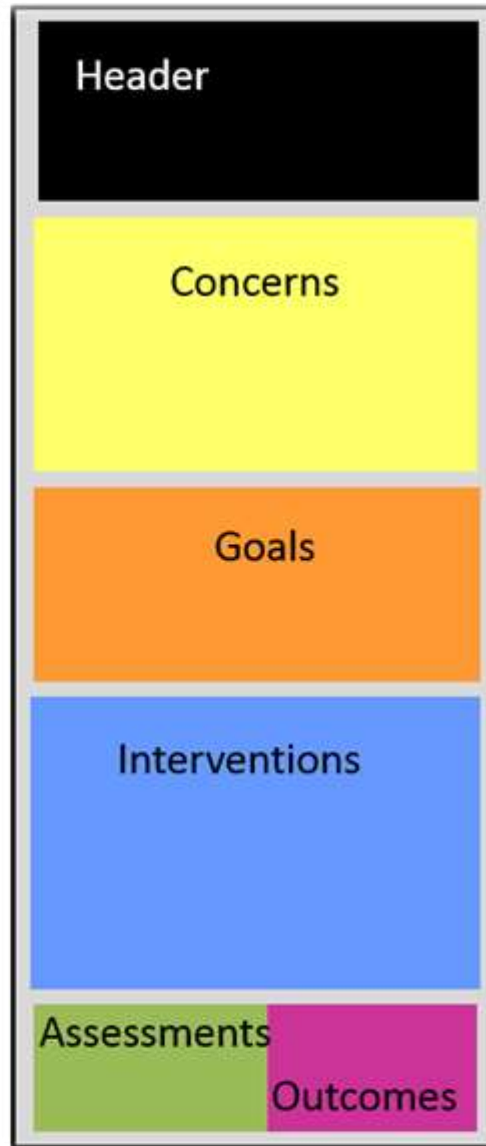
Structured care plan based on encoded data



Has Component

Has Component

Concerns:
- Impaired mobility
- Skin integrity risk

Refers to

Goal: Intact skin

Evaluations/Outcomes

Has Reason

Refers to

Has Reason

Evaluate

Progress toward goal: Met

- Quadriplegia
- Hx pressure ulcer
- Diabetes mellitus
- Bradn scale = 13

Interventions

Requested:
- Turn Q4 hours
- Assess skin Q8 hours

Performed:
- Turned 0600, 0800, 1200, 1600
- Assesed 0600, 1600

Supports

Has Reason

Outcome observation: Intact skin

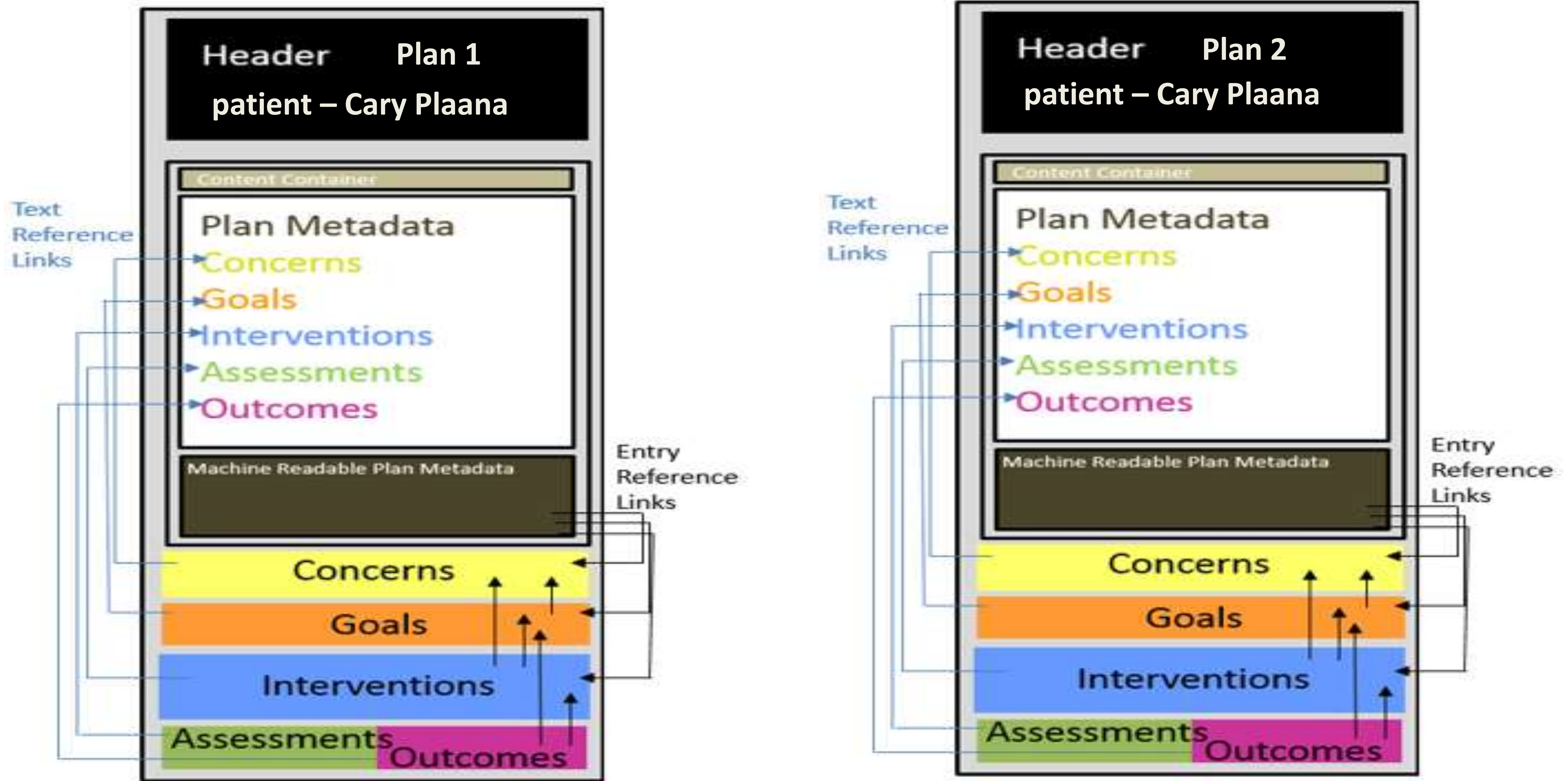
Lisa Nelson, Lantana Consulting, for Blue Cross Blue Shield Association, 2015

Social
and
Support
services

Patient
portal

Provider electronic systems

In a RESTful environment multiple plans become interoperable

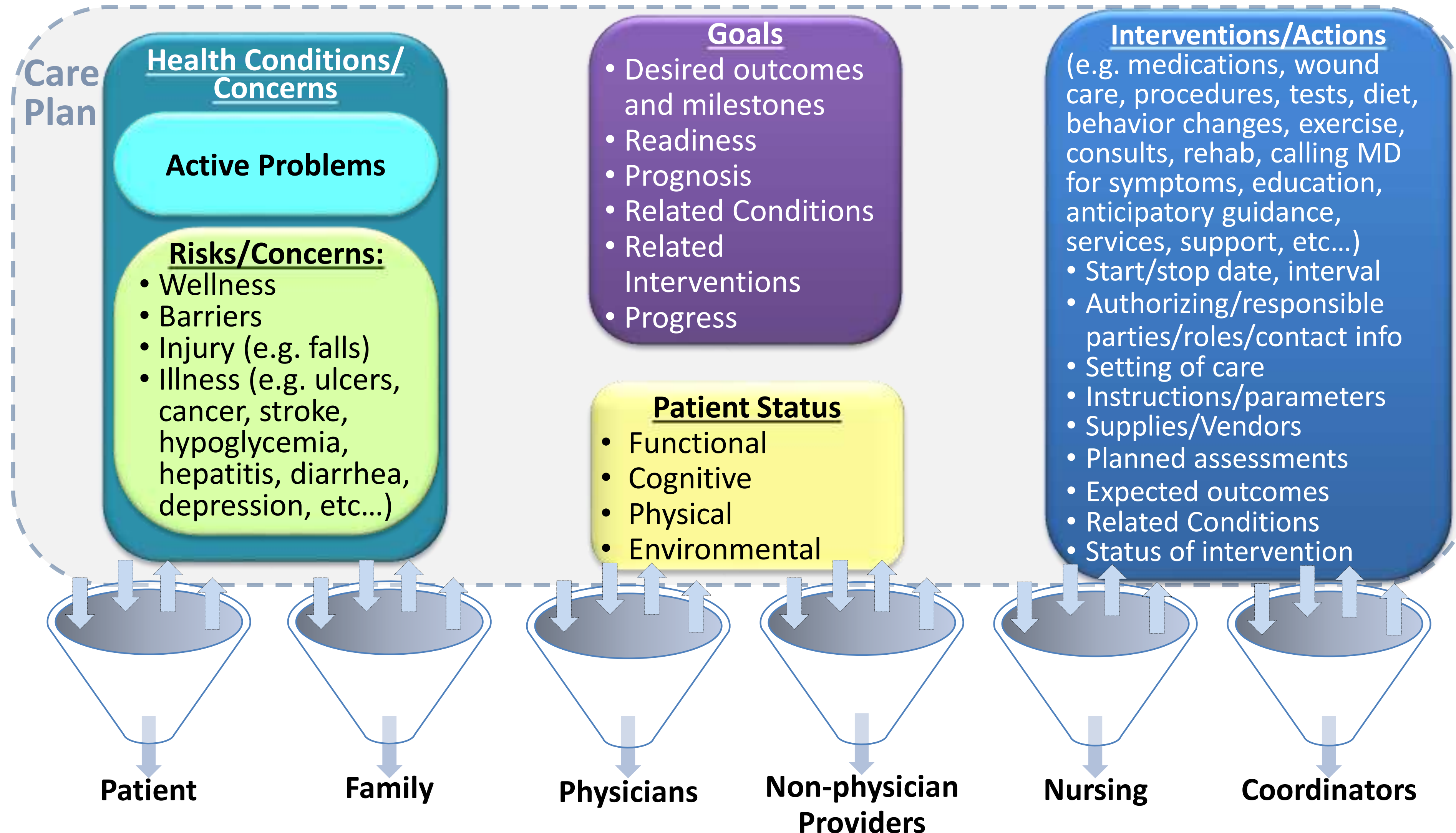


Lisa Nelson, Lantana Consulting, for Blue Cross Blue Shield Association, 2015

Care Plan synchronizing and viewing with FHIR apps

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 , and history of response to prior interventions/actions**



The Care Plan is filtered, translated and transported to meet the needs of each participant/setting in the patient's care

Source: ONC S&I Framework
Longitudinal Coordination of Care Initiative, 2012

Questions?

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Collaborative Care Plans:
Engaging patients & the entire care team