

# IMPACT Act and Assessment Data Element Standardization and Interoperability



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*Terrence O'Malley, MD*

*August 10, 2016*

# Introduction

- Welcome to the CMS training session on the “IMPACT Act and Assessment Data Element Standardization and Interoperability.”
  - There are two speakers for this session:
    - Jennie Harvell, on detail to CMS/QMVIG/CCSQ/DCPAC; and
    - Dr. Terry O’Malley, an internist/geriatrician at Massachusetts General and national expert on transitions in care and the exchange of information, particularly for persons receiving long-term and post-acute care.
- Policy positions advanced by the private sector experts participating in this session may not reflect CMS policies.

# Objectives

- Review the IMPACT Act and the initial data elements that will be standardized across the post-acute care settings.
- Define interoperability and standardization of clinical data elements as it relates to the Impact Act and to each post-acute care setting.
- Highlight the reuse of standardized clinically important data elements for quality measurement across episodes of care.
- Discuss the confluence of policy, payment and information technology to create new systems of care enabled by standardized and interoperable data.

# Key Notes and Caveats

- To meet the goals of the IMPACT Act, each of the four PAC settings will continue to collect data using their setting specific instrument (i.e., the MDS, OASIS, LCDS, and IRF-PAI).
- CMS anticipates the continuing need for some setting specific data elements (i.e., some unique data elements specific to PAC settings will also persist).
- The CMS Data Element Library (DEL) is
  - Envisioned to be a centralized repository of assessment data elements and their mapped relationships (e.g., to HIT vocabularies and exchange standards, Domains, etc.).
  - Will **not** include any personal health information/personally identifiable information (PHI/PII).

# IMPACT Act of 2014

- **Bi-partisan bill** introduced in March, U.S. House & Senate, passed on September 18, 2014, and signed into law by President Obama October 6, 2014
- **The Act requires:**
  - **the following PAC providers to submit standardized assessment data:**
    - Long-Term Care Hospitals (LTCHs): LCDS
    - Skilled Nursing Facilities (SNFs): MDS
    - Home Health Agencies (HHAs): OASIS
    - Inpatient Rehabilitation Facilities (IRFs): IRF-PAI
  - **PAC providers to report standardized assessment data for certain quality measure domains; and**
  - **that certain PAC data be standardized and interoperable to allow for the exchange of data among PAC and other providers to facilitate coordinated care and improved outcomes**

# Driving Forces of the IMPACT Act

- **Why the attention on Post-Acute Care:**
  - Escalating costs associated with PAC
  - The lack of comparable information across PAC settings undermines the ability to evaluate and differentiate quality and outcomes between care settings for and by individuals/caregivers, providers, and policymakers
  - Desire to:
    - improve beneficiary outcomes, including care coordination
    - compare quality across PAC settings
  - Goal of establishing payment rates according to the individual characteristics of the patient, not the care setting



# Post Acute Care Matters

Annual Medicare PAC Spending ~\$60 Billion for ~6 Million Beneficiaries



## Long-Term Care Hospital (LTCH)

**Services provided:** Inpatient services include rehabilitation, respiratory therapy, pain management, and head trauma treatment.

No. of Facilities: **420**

Average length of stay: **26 days**

No. of Beneficiaries: **124k**

**LTCH CARE** – LTCH Continuity Assessment Record and Evaluation (CARE) Data Set submissions: **76K**

Medicare spending: **\$5.5 billion**

<http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/LTCH-Quality-Reporting/index.html>



## Inpatient Rehabilitation Facility (IRF)

**Services provided:** Intensive rehabilitation therapy including physical, occupational, and speech therapy.

No. of Facilities: **1,166**

Average length of stay: **13 days**

No. of Beneficiaries: **373k**

**IRF-PAI** – IRF-Patient Assessment Instrument (PAI) submissions: **492k**

Medicare spending: **\$6.7 billion**

<http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/IRF-Quality-Reporting/index.html>



## Home Health Agency (HHA)

**Services provided:** Skilled nursing or therapy services provided to Medicare beneficiaries who are homebound.

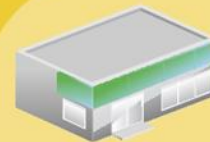
No. of Facilities: **12,311**

No. of Beneficiaries: **3.4 million**

**OASIS:** Outcome and Assessment Information Set (OASIS) submissions: **35 million**

Medicare spending: **\$18 billion**

<http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/index.html>



## Nursing Homes

**Services provided:** Short-term Skilled nursing and rehabilitation services to individuals whose health problems are too severe or complicated for home care or assisted living.

No. of Facilities: **15,000**

Average length of stay: **39 days**

Beneficiaries: **1.7 million**

**MDS** – Minimum Data Set submissions: **20 million**

Medicare spending: **\$28.7 billion**

<http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/index.html>

# IMPACT Act Supports the CMS Quality Strategy



## Foundational Principles

- Enable Innovation
- Foster learning organizations
- Eliminate disparities
- Strengthen infrastructure and data systems

## Goals

- Make care safer
- Strengthen person and family centered care
- Promote effective communications and care coordination
- Promote effective prevention and treatment
- Promote best practices for healthy living
- Make care affordable



# The IMPACT Act:

## Standardized and Interoperable Data

- **Standardized PAC assessment data will allow:**
  - Access to the most appropriate setting of care
  - CMS to compare quality across PAC settings (longitudinal data)
  - Shared understanding of information across providers
  - PAC payment reform (site neutral or bundled payments)
- **Standardized and interoperable PAC assessment data:**
  - Allows shared meaning and efficient information exchange
  - Facilitates care coordination, including improvements in hospital and PAC discharge planning and the transfer of health information across the care continuum
  - Supports service delivery reform

# What is Standardized Assessment Data?

- Standardized data elements are aligned across PAC assessment instruments so that data elements use the same words, and share the same meaning and definitions across instruments.
- Standardizing (i.e., aligning) data elements across assessment instruments allows information to be:
  - shared and understood across PAC (and other) providers, and
  - used for various purposes (e.g., enabling cross setting quality comparisons and facilitating coordinated care).

# What is Interoperability?

- **Interoperability Defined:** The ability of a system to exchange electronic health information with and use electronic health information from other systems without special effort on the part of the user.
- **What it should look like:**
  - All individuals, their families, and health care providers should be able to send, receive, find, and use electronic health information in a manner that is appropriate, secure, timely, and reliable to support the health and wellness of individuals through shared decision-making.

# What are the Benefits of Standardized and Interoperable Data?

## Benefits of data element standardization and interoperability:

- The meaning of data is shared and understood
- Information can be shared between computer systems and efficiently re-used
- Standardized and interoperable data enables the electronic exchange and re-use of information so that individuals, their families, and their health care providers have appropriate and timely access to health information and:
  - allows individuals and caregivers to be active partners and participants in their health and care; and
  - improves the overall health of the nation's population

# Standardized and Interoperable Data

## Data Follows the Person

Long Term and Post Acute Care (LTPAC):  
SNF/NF, IRF, HHA, LTCH

Acute Care/  
Critical Access Hospitals  
(CAH)

Other Providers  
(e.g., pharmacies,  
dentists...)

Emergency  
Medical Services  
(EMS)

Primary Care Provider  
(PCP)

Family Member/Caregiver

Long Term Services and  
Support (LTSS)  
Home and Community  
Care Based Services (HCBS)  
Assisted Living Facilities (ALF)

Person

# **IMPACT Act: Standardize and Make Interoperable Data Elements for Certain Quality Measure Domains and Assessment Categories**

## **IMPACT Act Quality Measure Domains**

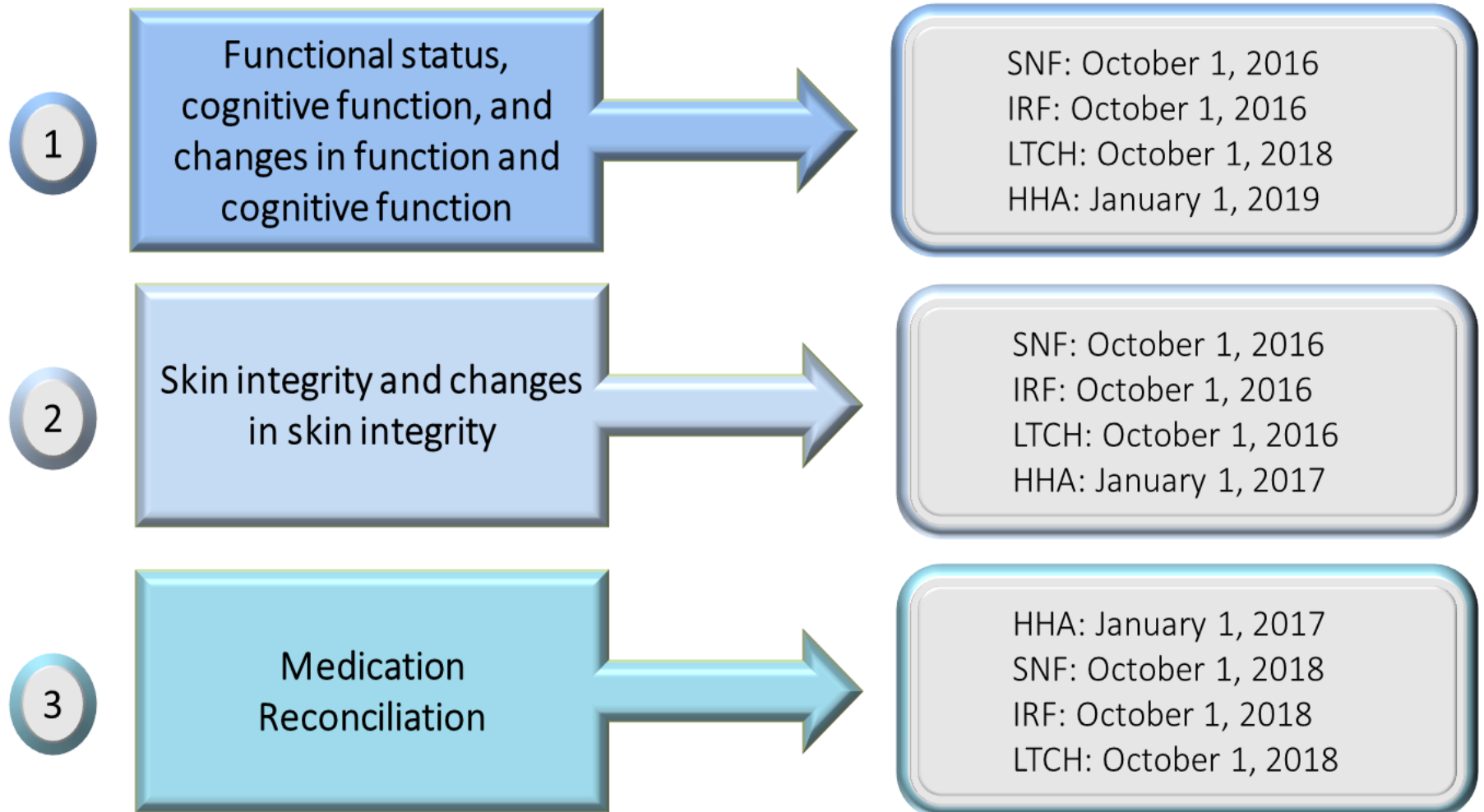
- (A) Functional status, cognitive function, and changes in function and cognitive function.
- (B) Skin integrity and changes in skin integrity.
- (C) Medication reconciliation.
- (D) Incidence of major falls.
- (E) Accurately communicating the existence of and providing for the transfer of health information and care preferences of an individual.

## **IMPACT Act Assessment Categories**

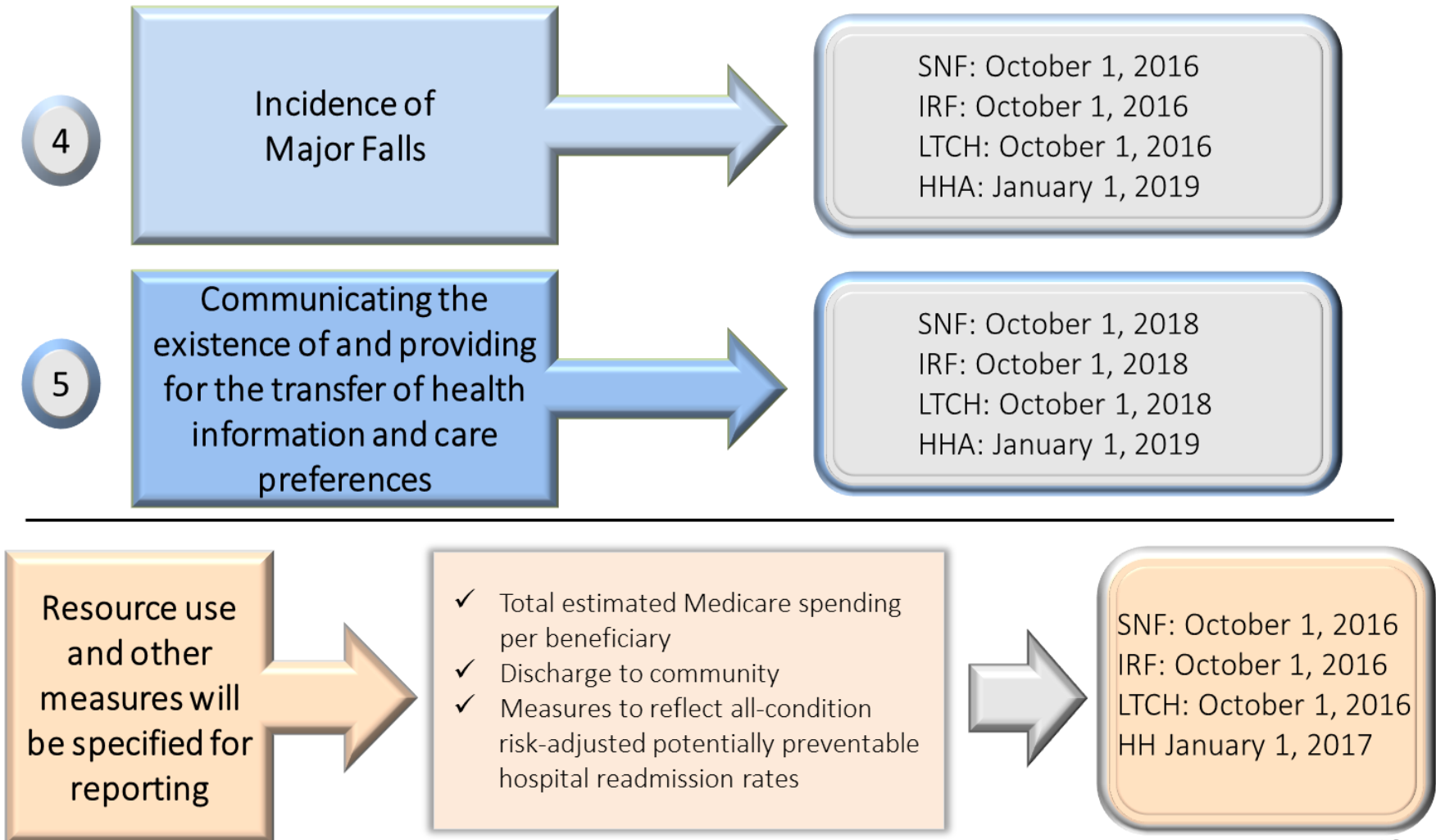
- (i) Functional status, such as mobility and self care at admission to a PAC provider and before discharge from a PAC provider.
- (ii) Cognitive function, such as ability to express ideas and to understand, and mental status, such as depression and dementia.
- (iii) Special services, treatments, and interventions, such as need for ventilator use, dialysis, chemotherapy, central line placement, and total parenteral nutrition.
- (iv) Medical conditions and co-morbidities, such as diabetes, congestive heart failure, and pressure ulcers.
- (v) Impairments, such as incontinence and an impaired ability to hear, see, or swallow.
- (vi) Other categories



# Quality Measure Domains & Timelines



# Quality Measure Domains & Timelines



# Quality Measure: Transfer of Health Information and Care Preferences

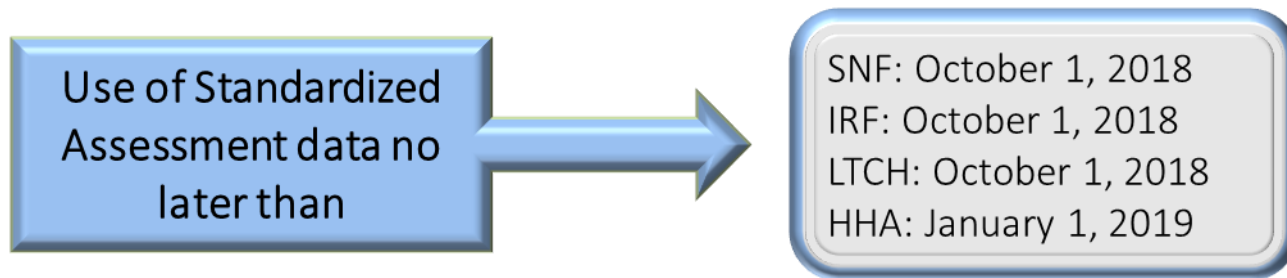
## The IMPACT Act requires a quality measure on:

- The **transfer of individual health information and care preferences** of an individual to the individual, family caregivers, and service providers **when the individual transitions from:**
  - Hospital or critical access hospital (CAH) to another setting including Post Acute Care (PAC) provider or home; or
  - PAC provider to another setting, including a different PAC provider, a hospital or CAH, or home

# Standardized Patient Assessment Data

- **Requirements for reporting assessment data:**

- Providers must submit standardized assessment data through PAC assessment instruments under applicable reporting provisions



- The data must be submitted with respect to admission and discharge for each patient, or more frequently as required

- **Data categories:**

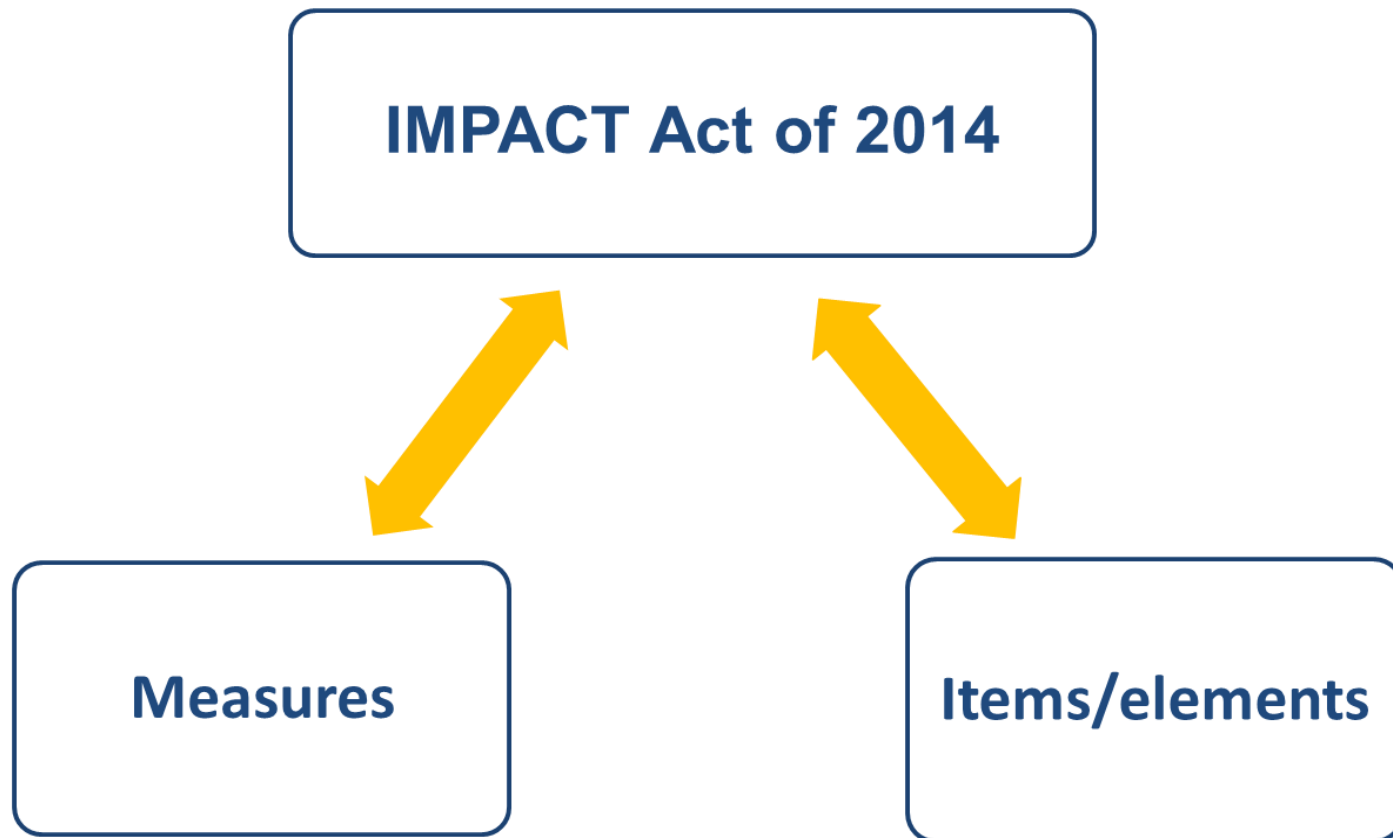
- Functional status •Cognitive function and mental status •Special services, treatments, and interventions •Medical conditions and co-morbidities •Impairments •Other categories required by the Secretary

# Standardized Assessment Data Elements

One Question: Much to Say → One Response: Many Uses

GG0160. Functional Mobility (Complete during the 3-day assessment period.)										
Code the patient's usual performance using the 6-point scale below.										
<b>CODING:</b> <b>Safety and Quality of Performance</b> - If helper assistance is required because patient's performance is unsafe or of poor quality, score according to amount of assistance provided. <i>Activities may be completed with or without assistive devices.</i> 06. <b>Independent</b> - Patient completes the activity by him/herself with no assistance from a helper. 05. <b>Setup or clean-up assistance</b> - Helper SETS UP or CLEANS UP; patient completes activity. Helper assists only prior to or following the activity. 04. <b>Supervision or touching assistance</b> - Helper provides VERBAL CUES or TOUCHING/ STEADYING assistance as patient completes activity. Assistance may be provided throughout the activity or intermittently. 03. <b>Partial/moderate assistance</b> - Helper does LESS THAN HALF the effort. Helper lifts, holds or supports trunk or limbs, but provides less than half the effort. 02. <b>Substantial/maximal assistance</b> - Helper does MORE THAN HALF the effort. Helper lifts or holds trunk or limbs and provides more than half the effort. 01. <b>Dependent</b> - Helper does ALL of the effort. Patient does none of the effort to complete the task.  07. <b>Patient refused</b> 09. <b>Not applicable</b> <b>If activity was not attempted, code:</b> 88. Not attempted due to <b>medical condition or safety concerns</b>	<div style="text-align: center;">↓ Enter Codes in Boxes</div> <table border="1"> <tbody> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td>A. <b>Roll left and right:</b> The ability to roll from lying on back to left and right side, and roll back to back.</td> </tr> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td>B. <b>Sit to lying:</b> The ability to move from sitting on side of bed to lying flat on the bed.</td> </tr> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td>C. <b>Lying to Sitting on Side of Bed:</b> The ability to safely move from lying on the back to sitting on the side of the bed with feet flat on the floor, no back support.</td> </tr> </tbody> </table>	<input type="text"/>	<input type="text"/>	A. <b>Roll left and right:</b> The ability to roll from lying on back to left and right side, and roll back to back.	<input type="text"/>	<input type="text"/>	B. <b>Sit to lying:</b> The ability to move from sitting on side of bed to lying flat on the bed.	<input type="text"/>	<input type="text"/>	C. <b>Lying to Sitting on Side of Bed:</b> The ability to safely move from lying on the back to sitting on the side of the bed with feet flat on the floor, no back support.
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<div style="text-align: center;"> <pre> graph TD     A[Data Element &amp; Response Code] --&gt; B[Care Planning/ Decision Support]     A --&gt; C{QI}     A --&gt; D[Payment]     A --&gt; E[Quality Reporting]     A --&gt; F[Care Transitions]           </pre> </div>										

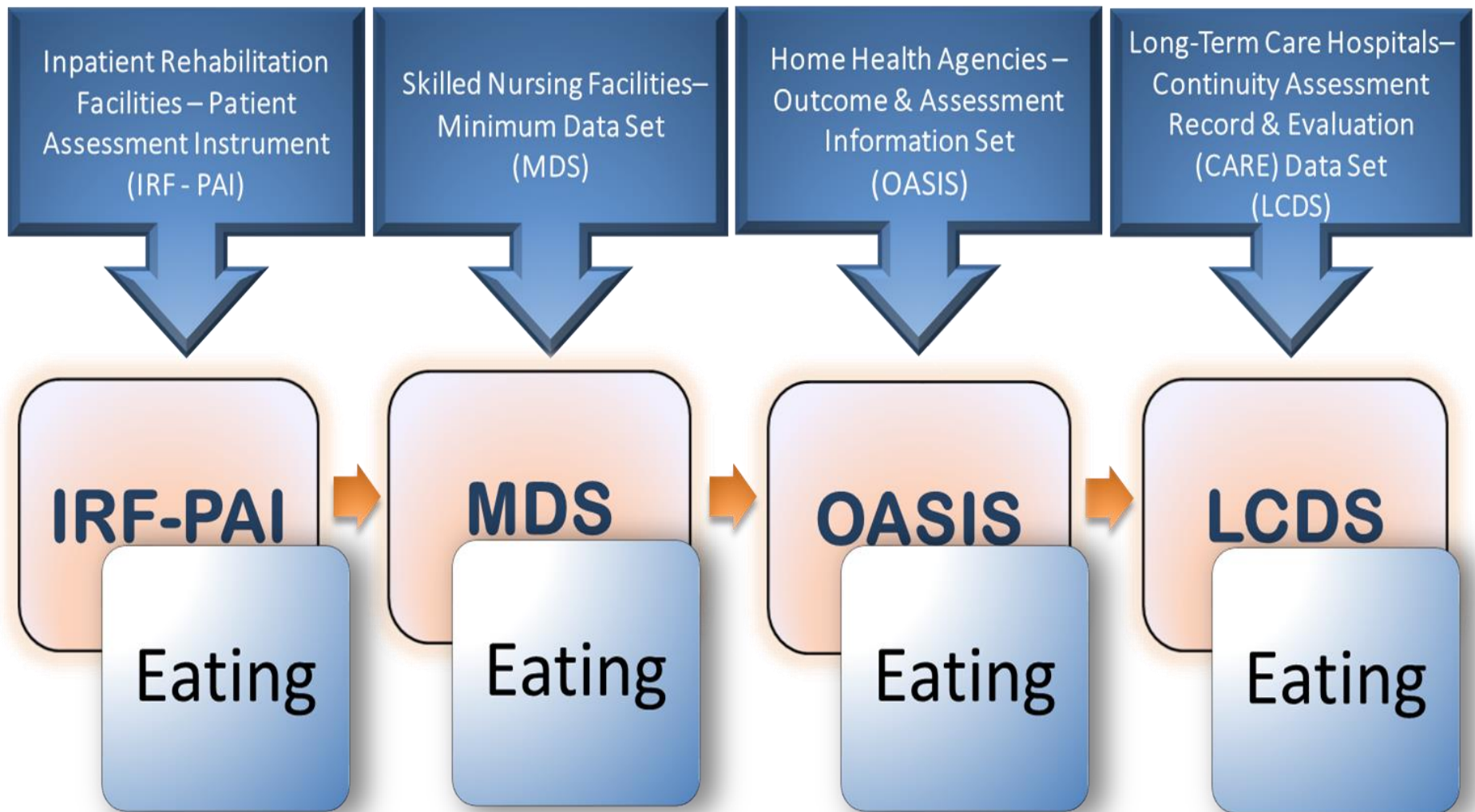
# IMPACT Act and Standardization





# What is Standardization?

## Standardizing Function at the Item Level



# Standardizing Assessments

## Across Settings: Some Examples

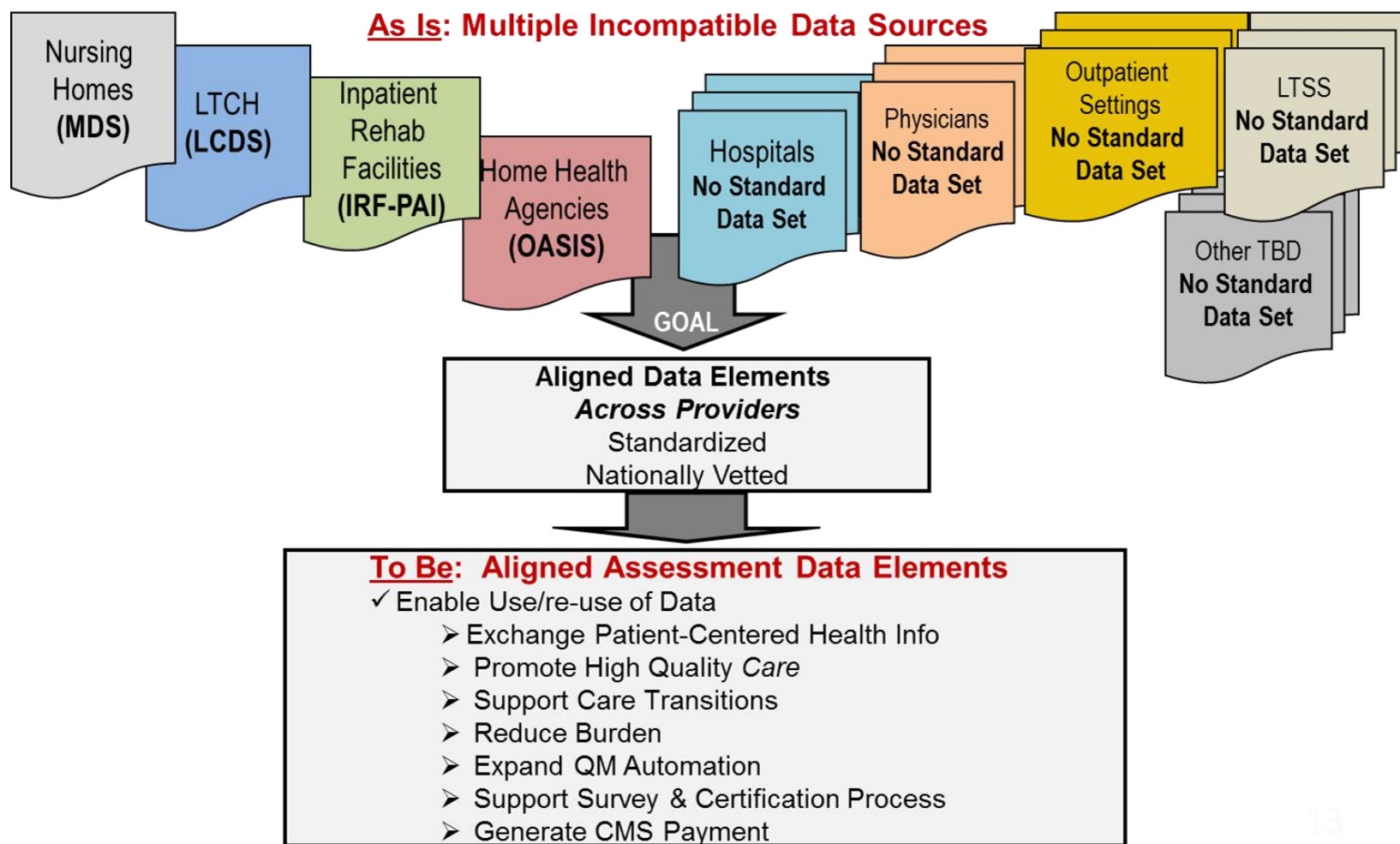
Item	Item Description	Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI) v1.4	Minimum Data Set (MDS) 3.0	Long-Term Care Hospital CARE Data Set v3.00
SELF-CARE GG0130				
A	Eating	✓	✓	✓
B	Oral hygiene	✓	✓	✓
C	Toileting hygiene	✓	✓	✓
D	Wash upper body	—	—	✓
E	Shower/bathe self	✓	—	—
F	Upper body dressing	✓	—	—
G	Lower body dressing	✓	—	—
H	Putting on/taking off footwear	✓	—	—

# Standardizing Assessments

## Across Settings: Some Examples

Items	Item Description	Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI) v1.4	Minimum Data Set (MDS) 3.0	Long-Term Care Hospital CARE Data Set v3.00	Home Health Agency OASIS C2 (1/2017)
<b>Mobility GG0170</b>					
A	Roll left and right	✓	—	✓	
B	Sit to lying	✓	✓	✓	
C	Lying to sitting on side of bed	✓	✓	✓	✓
D	steps	✓	✓	✓	
E	Chair/bed-to--chair transfer	✓	✓	✓	
F	Toilet transfer	✓	✓	✓	
G	Car transfer	✓	—	—	
I	Walk 10 feet	✓	—	✓	
J	Walk 50 feet with two turns	✓	✓	✓	
K	Walk 150 feet	✓	✓	✓	
L	Walking 10 feet on uneven surface	✓	—	—	
M	1 step (curb)	✓	—	—	
N	4 steps	✓	—	—	
O	12 steps	✓	—	—	
P	Picking up object	✓	—	—	
R	Wheel 50 feet with two turns	✓	✓	✓	
S	Wheel 150 feet	✓	✓	✓	

# Standardization: 'As Is' Transitions 'To Be'



# Opportunities to Exchange and Re-Use Standardized and Interoperable Assessment Data Elements

**Leveraging and mapping PAC assessment data elements to nationally accepted Health IT standards (i.e., content and exchange standards) enables a shared understanding of content across the care continuum and will support:**

**Information exchange and re-use with and by:**

- Acute care hospitals
- Primary care providers
- Long-term and post-acute care providers
- Home and community based providers (HCBS)
- Other providers
- Health Information Exchange Organizations
- Public Health Organizations

**Use and re-use of assessment data for various clinical purposes including:**

- Creating documents that can be shared across and used within provider settings:
  - Transfer documents
  - Referral documents
  - Care plans
  - LTPAC Assessment Summary Documents
- Re-using content at the point of care:
  - Establishing goals by re-using information received upon admission
  - Sending messages to the attending physician regarding changes in the individual's status

# Case Study 1.0: Current State



Victoria Baylor  
(fictitious)

- Age 75, ex smoker
- History of stroke, hypertension, obesity
- Discharged from the hospital following hip replacement



# LTC Admission



- Patient is assessed by nurse
- Orders reviewed, clarified with physicians
- Care Plan is initiated
- Evaluated by therapy department
- MDS completed consistent with State and Federal requirements
- 20 days of SNF care
- Discharge planner sets up home health visit
- Discharged to home with home health services

# Case Study 1.0

## Next Day: Home Health Visit



- Home health nursing visit with Nursing assessment
  - Notes slurred speech
  - Unclear if new or old
  - Limited description in transfer data
  - No access to SNF data
- Time spent finding data
- Referred to ED outside of intervention window. Diagnosed with new stroke
- New hospitalization and SNF stay

# How Do We Change This Outcome?

- Four Building Blocks

- Standardized and interoperable data

- New quality measures that enable quality comparisons and support the transfer of data

- Payment models that reward outcomes and not services

- New infrastructure enabling real time electronic information exchange

- Clinically relevant data mapped to standards
    - Quality measures
    - Exchange platforms

# Case Study 1.1 Changing the Outcome with Health Information Exchange:

## An Example Using the Transform Tool

- Current state with next day after SNF discharge, home health visit
  - Time spent finding data
  - Referred to ED outside of intervention window. Diagnosed with new stroke
  - New hospitalization and SNF stay
- New scenario: Accessing information through the Keystone HIE organization is possible and allows a better outcome!


# Case Study 1.1

## Next Day: Home Health Visit



- Home health nursing visit with Nursing assessment
  - Notes slurred speech
  - Unclear if old or new
- RN accesses the HIE organization
  - Comparison to current state
  - Functional status
    - Hearing, speech and vision
    - Activities of Daily Living (ADL)

# MDS 3.0 CCD Assessment Summary

 eHealth Community Desktop

Welcome KeyHIE Provider! [Logout](#) | [Change Password](#) | [Help](#)

[Home](#) [Messages](#) [Patients](#)

**Baylor, Victoria**  
06-21-1935 - 75yr old Female [VIEW MORE](#)

**FILTER BY**  **DATE RANGE**   **PERFORMED AT**

**Documents**  
**VIEW BY:** 

- Radiology Studies
- MDS 3.0 Assessment Summary
- 05/27/2011 08:15 - LTC MDS 3.0 Asse**
- Summarization of Episode Note
- Radiology studies

<b>Patient:</b>	<b>Victoria Baylor ,</b>	<b>Patient No.:</b>	<b>999-99-9999</b>
<b>Contact:</b>	27 Bridge Row 17055 Mechanicsburg, PA : victoria.baylor@patient.com : +1(333)555-1234 () : +1(333)555-5678 ()		
<b>DoB:</b>	June 14, 1960	<b>Gender:</b>	female
<b>Provider:</b>	Mary Tylermoore 25 Oak Street Suite A 54321 Anytown, PA : +1(570)-555-1212 ()	<b>Created on:</b>	May 27, 2011

**LTC MDS 3.0 Assessment Summary**  
**Insurance Providers**

Insurance Provider Name	Insurance Provider Type	Insurance Provider Group Number
Provider Health Plan	Provider Health Plan	11222244



# B0600. Speech Clarity

- Home health nurse notices slurred speech
- CCD MDS 3.0 Assessment Summary reveals that no speech issues were previously reported via MDS
- Call is placed to Victoria's physician

## Functional Status Assessment

Type	Description	Comments
Speech clarity	Clear speech - distinct intelligible words	
Makes self understood	does make self understood (finding)	

# B0600. Speech Clarity

- Victoria's PCP suspects possible stroke
- PCP accesses MDS Assessment Summary via HIE
- Section I4500 in the MDS reveals that patient had a prior history of cerebrovascular disease
- PCP asks the home health nurse to call 911 so Victoria can be transported to the hospital ED

## Conditions or Problems

Problem Name	Problem Type	Problem Date
cerebrovascular disease (disorder)	Condition	

# To the Emergency Department

- Alert sent to ED and PCP when EMS called
- While en route, EMS personnel contact the ED to report the suspected stroke
- ED physician accesses the HIE to see other information about patient's past medical history and the Stroke Team is activated.
- She receives rapid intervention on arrival
- No residual effects, stroke averted



# How Do We Change This Outcome?

- Four Building Blocks
  - Standardized and interoperable data
  - New quality measures that enable quality comparisons and support the transfer of data
  - Payment models that reward outcomes and not services
  - New infrastructure enabling real time electronic information exchange
    - Clinically relevant data mapped to standards
    - Quality measures
    - Exchange platforms

# “Out With the Old, In With the New!”

## **Old: Fee for Service (FFS)**

- More services generate more payments.
- Payment can expand, just add more services.
- Information exchange driven by MU not FFS.

## **New: Payment Based on Outcomes/Quality**

- Responsible for the outcomes of an entire population
- Outcomes = Quality and Cost.
- Payment based on meeting outcomes, not just on providing services.
- Requires attention to individuals with the most complex issues

# HHS Goals for Medicare Value-Based Payments

Better Care, Smarter Spending, Healthier People

- HHS goal: Tie 30 percent of traditional / FFS Medicare payments to quality or value through alternative payment models (e.g., ACOs or bundled payment arrangements) by the end of 2016, and 50 percent of payments to these models by the end of 2018.
- HHS goal: Tie 85 percent of all traditional Medicare payments to quality or value by 2016 and 90 percent by 2018 (through programs such as the Hospital Value Based Purchasing and the Hospital Readmissions Reduction Programs).

<http://www.hhs.gov/about/news/2015/01/26/better-smarter-healthier-in-historic-announcement-hhs-sets-clear-goals-and-timeline-for-shifting-medicare-reimbursements-from-volume-to-value.html#>

# New Payment-New System

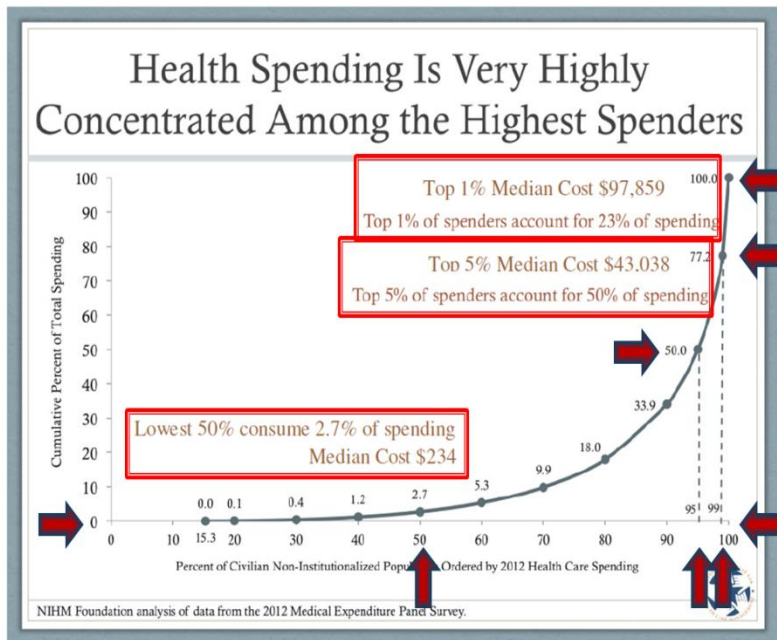
- **Alternative Payment Models include:**
  - Medicare Advantage
  - ACOs
  - Bundles
    - **Elective:** ACH, ACH-LTPAC, LTPAC
    - **Mandatory:** Comprehensive Care for Joint Replacement (CCJR)
      - Hospital responsible for all costs for 90 days
      - Top 75 metropolitan regions
      - Started 4/1/16
- **Outcomes Based FFS Payment include:**
  - Hospital Readmission Reduction Program



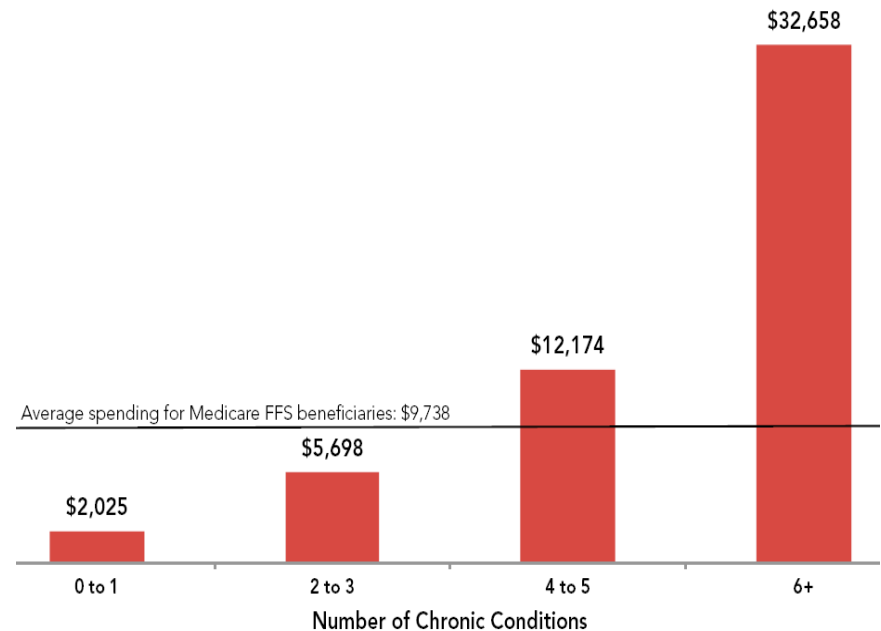
# Population Management

- Responsible for “attributed” population
- Significant change: no longer able to exclude high cost/high risk patients from management
- This shifts the focus of the system to the highest risk, highest cost patients
- More complexity, more sites, bigger teams
- Need a new system of care

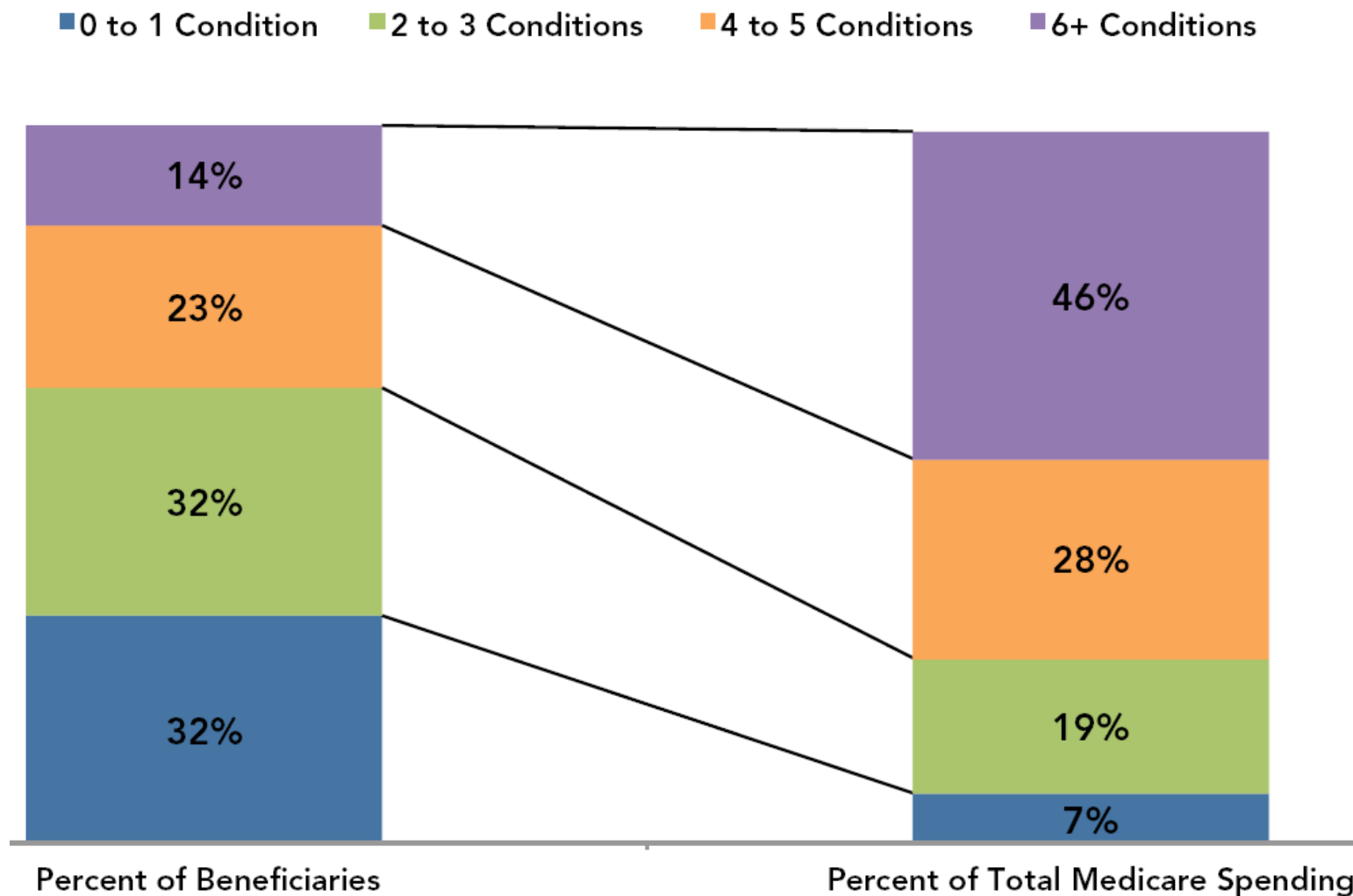
# Focus on the 5% or Pay the Price



<http://www.nihcm.org/concentration-of-health-care-spending-chart-story>



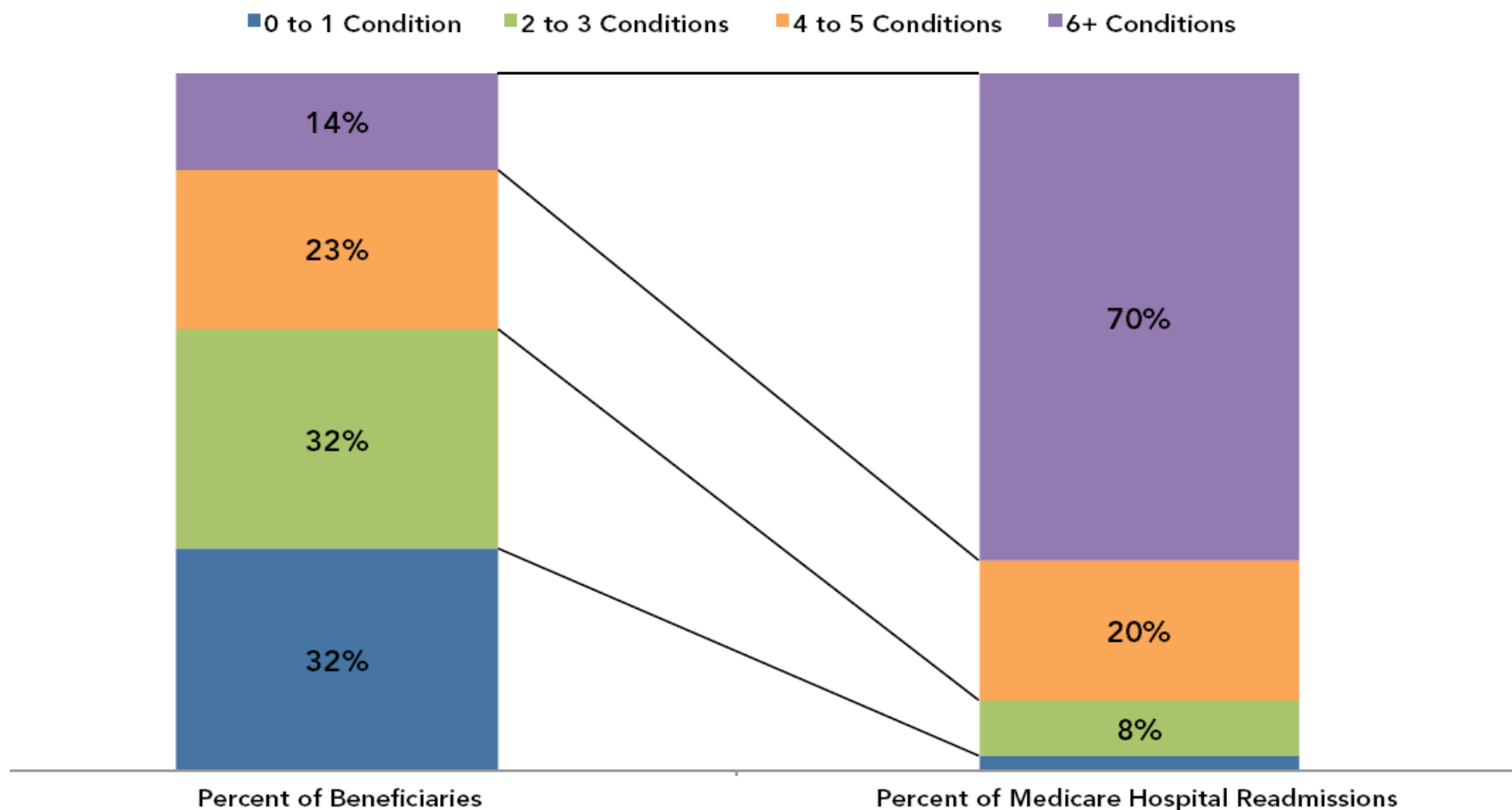
# Proportion of Medicare Spending



Source: 2012 Medicare Chart Book: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/2012ChartBook.html>

# Medicare Readmissions by Number of Chronic Conditions

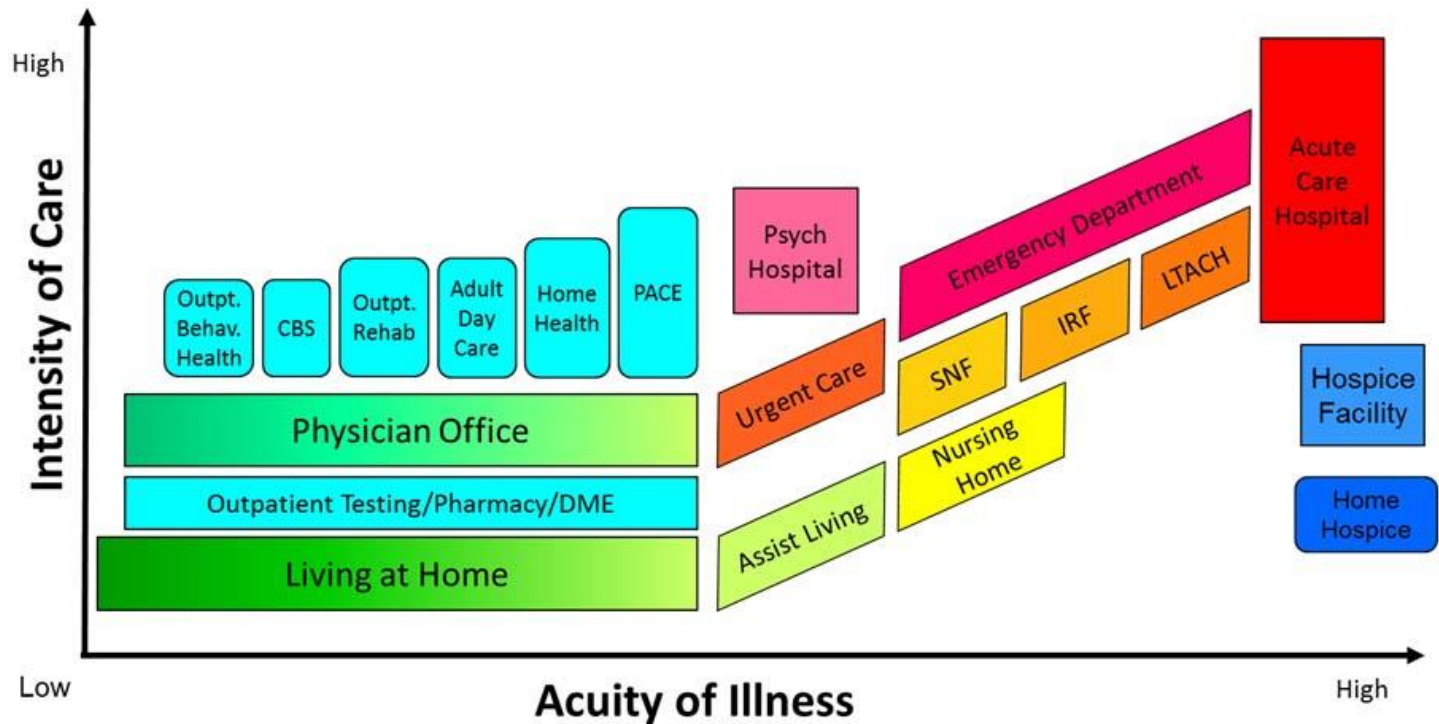
**Figure 2.7** *Distribution of Medicare FFS Beneficiaries by Number of Chronic Conditions and Total Medicare Hospital Readmissions: 2010*



# Responsible for the Top 5%

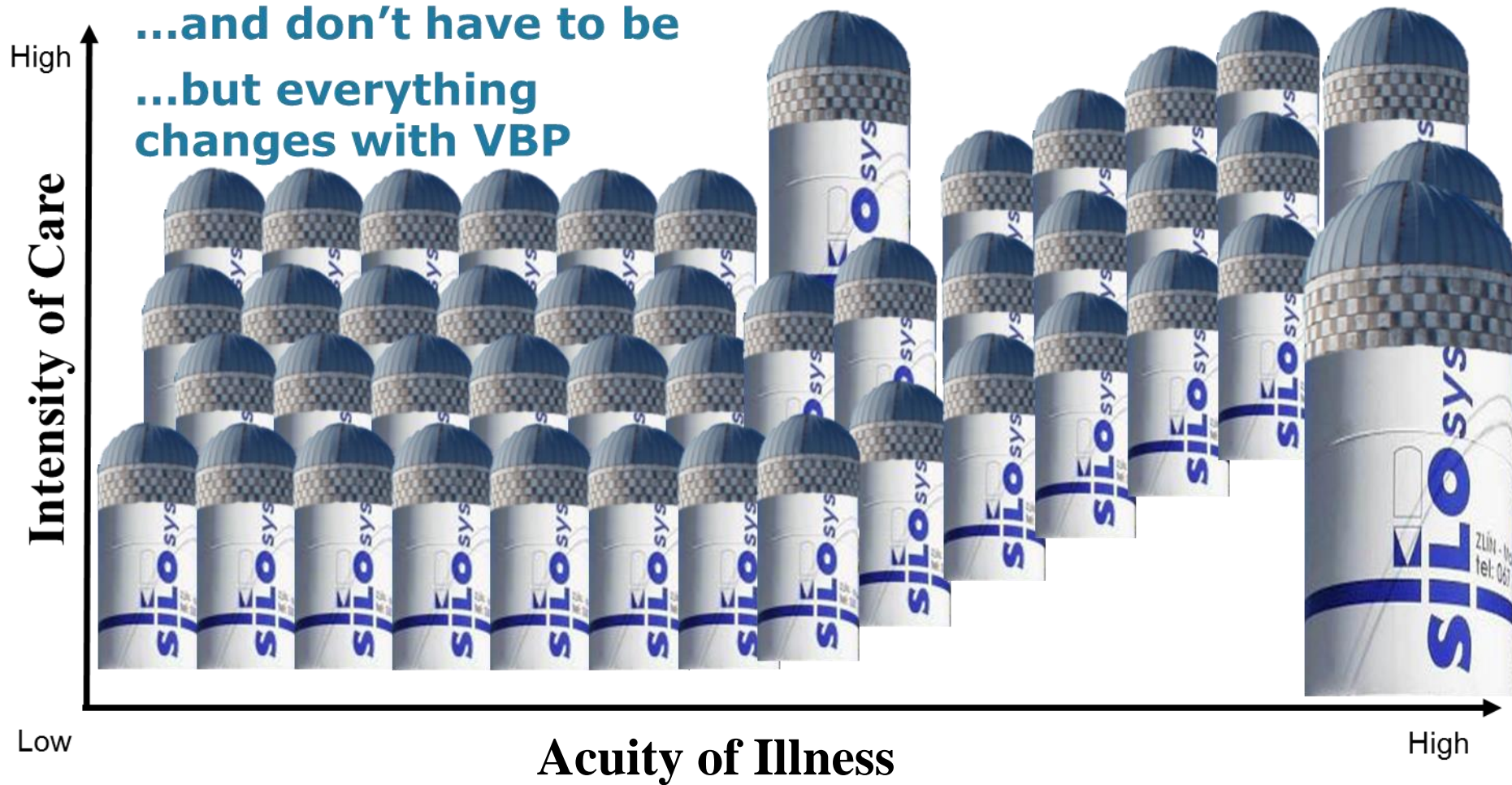
- Complex medical, behavioral, functional and environmental issues including social determinants.
- Care from multiple providers.
- Care in multiple sites.
- High utilization of emergency responders, emergency departments, hospitals, nursing facilities and home based services.
- Experience multiple transitions and need an overall care plan.

# The Spectrum of Care Has Many Parts



\* Adapted from Derr and Wolf, 2012

# ...And Under FFS They Are Not Connected



Adapted from Derr and Wolf, 2012



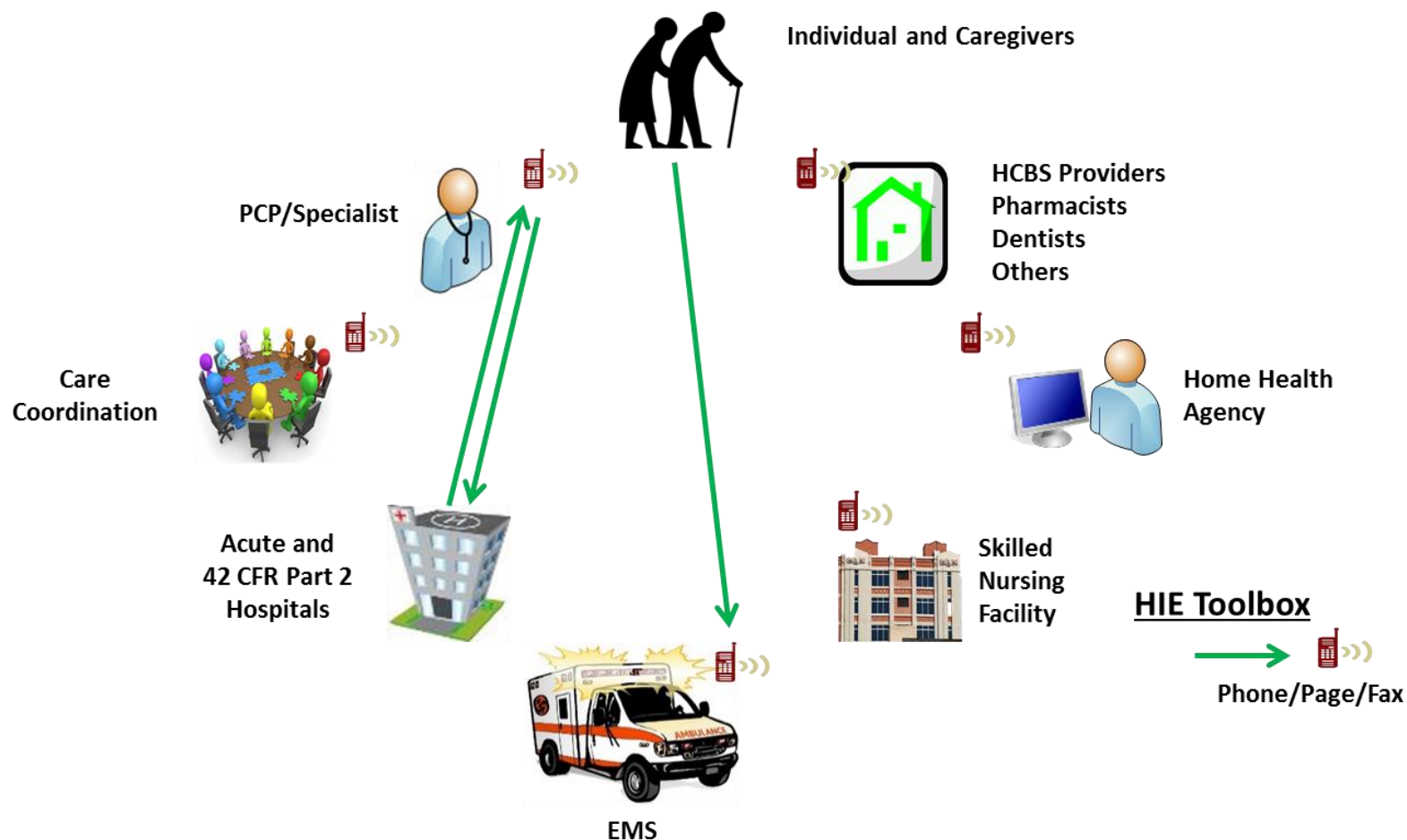
# Bigger Team

- More conditions
  - Medical
  - Functional
  - Behavioral
  - Social determinants
- More sites
  - LTPAC
  - HCBS
- More clinicians

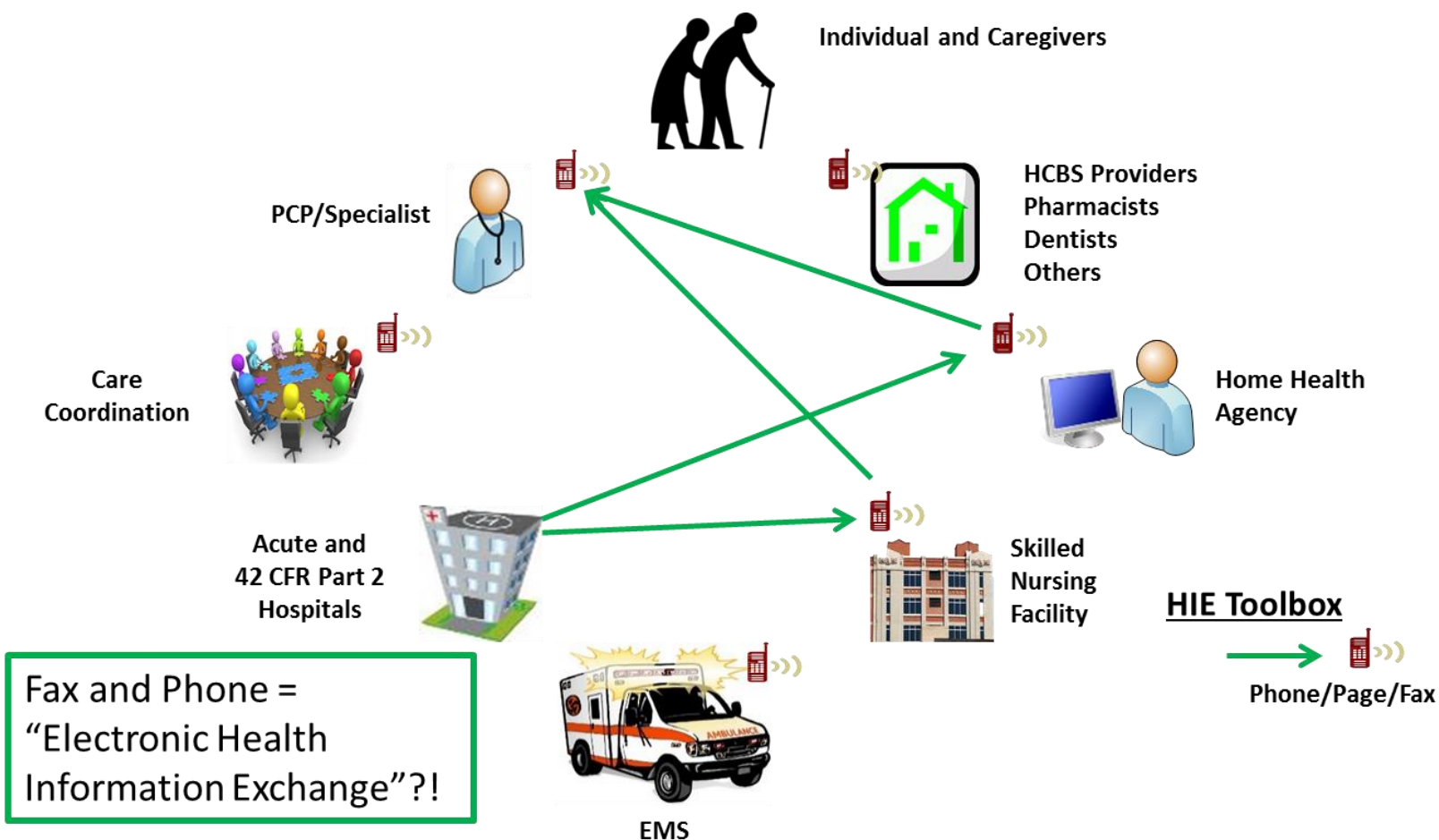


More  
Communication

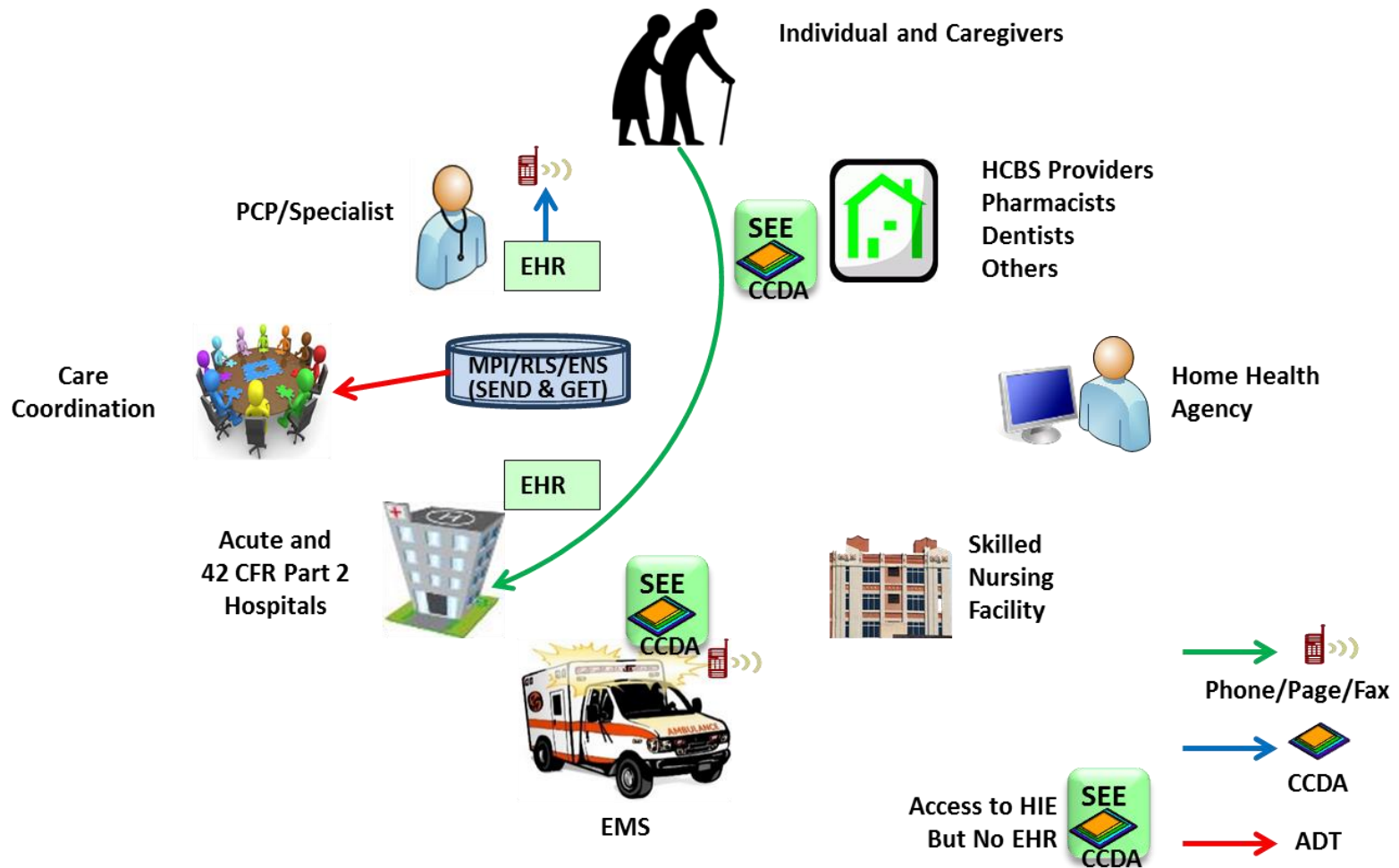
# The Current Care Community



# The Current Care Community



# The Connected Care Community



# The Connected Care Community

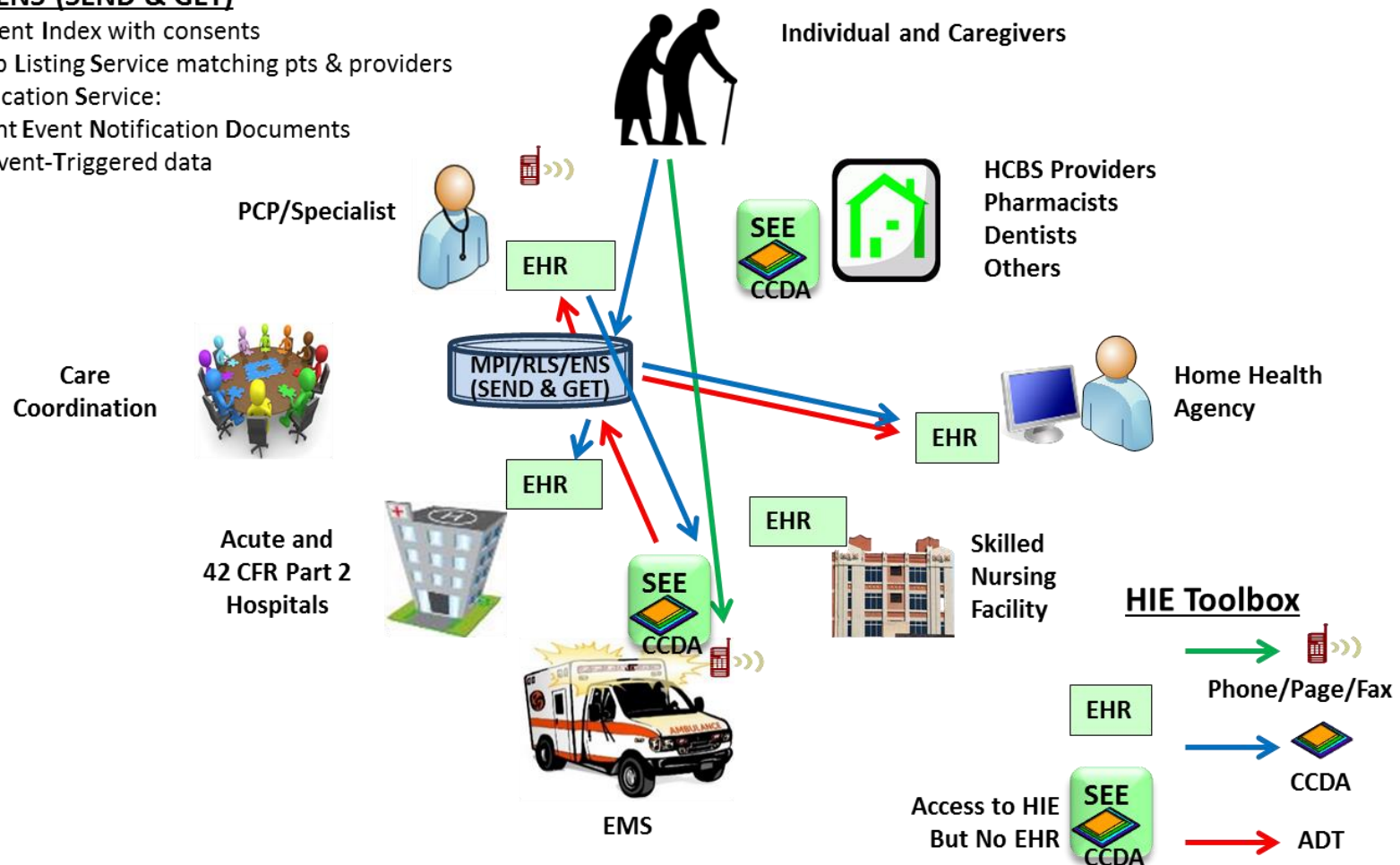
## MPI/RLS/ENS (SEND & GET)

Master Patient Index with consents

Relationship Listing Service matching pts & providers

Event Notification Service:

- Significant Event Notification Documents
- Gather Event-Triggered data



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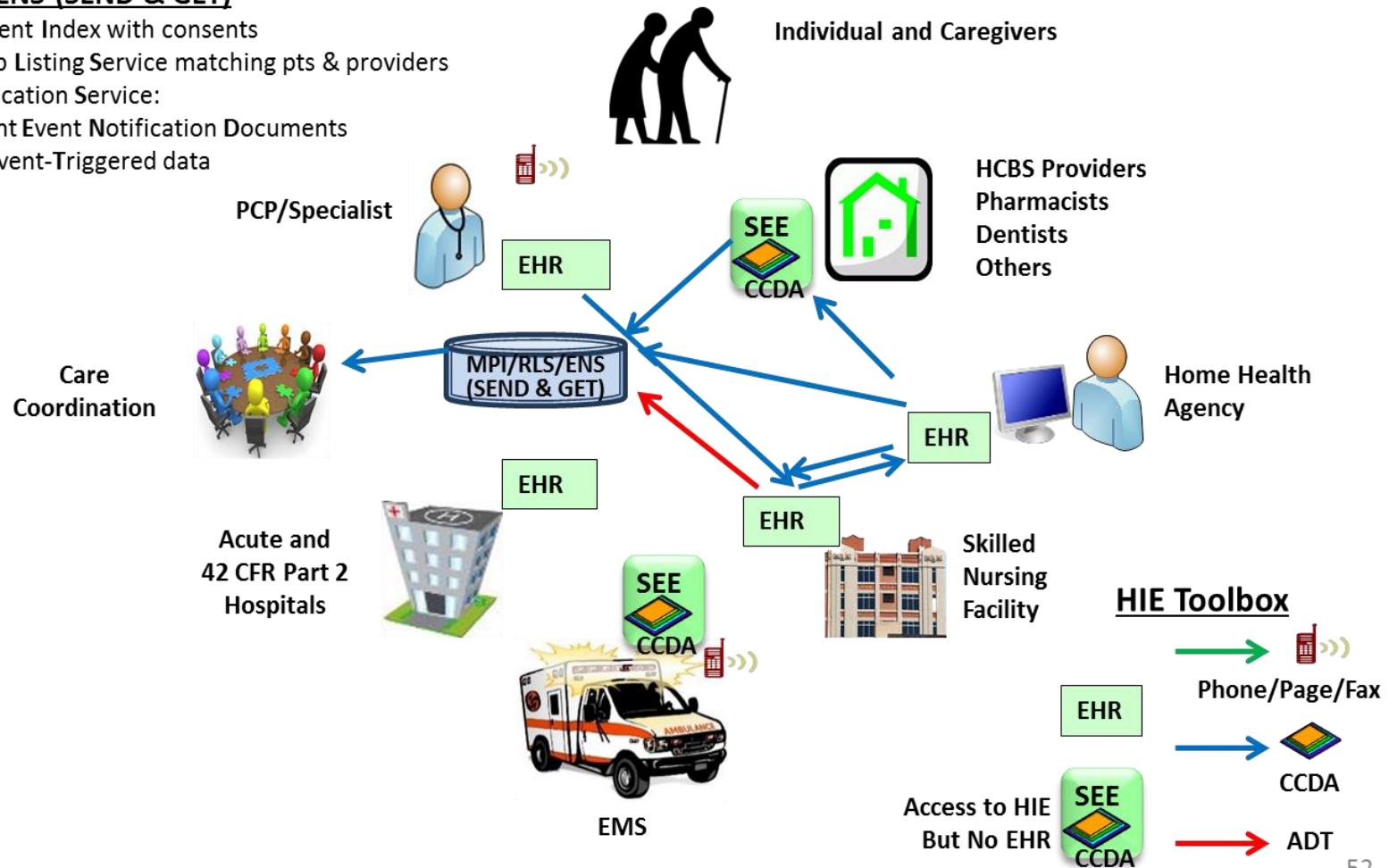
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# Why This Matters

- New payment demands new systems of care.
- Many sites many teams.
- Standardized exchange of Data Elements for Patient care
  - Within, between and across sites and team (e.g., to support care coordination).
- Re-use for Quality Measures
  - Within sites, Transitions between sites, Coordination across entire episodes of care.
- Re-use for Public Health Reporting.
- Re-use to generate system “Intelligence” so the system can learn.



# New Systems will Rest on HIT

- Faster and more reliable communication:
  - Information to EMS responding to a change in status.
  - Transfers to the ED.
  - Transitions to connect bigger teams.
- Better information exchange:
  - Vocabularies that are standardized.
  - Data elements that are interoperable.
  - Messages that enable re-use of data.
  - Platforms that work with other platforms.
  - Re-use clinical data for quality, population analytics.

# How Do We Change This Outcome?

- Four Building Blocks
  - Standardized and interoperable data
  - New quality measures that enable quality comparisons and support the transfer of data
  - Payment models that reward outcomes and not services
  - New infrastructure enabling real time electronic information exchange
    - Clinically relevant data mapped to standards
    - Quality measures
    - Exchange platforms

# ONC Activities

# Interoperability Vision for the Future

## Federal Health IT Strategic Plan Goals

### VISION

High-quality care, lower costs, healthy population, and engaged people

### MISSION

Improve the health and well-being of individuals and communities through the use of technology and health information that is accessible when and where it matters most



### Goal 4 Objective A: Implement the Shared Nationwide Interoperability Roadmap



# National Interoperability Roadmap and DSR: Interdependent Near-Term Goals

- The National Roadmap focuses on actions that will enable a majority of individuals and providers across the care continuum to send, receive, find and use a common set of electronic clinical information at the nationwide level by the end of 2017.
- CMS intends to deliver 50% of Medicare payments through value-based payment models by end of 2018.
- HHS has called on States to support interoperability through a wide range of levers.

## WHEN AND HOW WE GET THERE

The Roadmap identifies critical actions that are necessary to achieve interoperability goals over the next three, six, and ten-year timeframes.



# **ONC Grant Programs that Include a Focus on LTPAC**

- Health Information Exchange
- Advance Interoperable Health Information Exchange Program
- Community Interoperability and HIE

# Funding Amounts & Awards

Award	Funding	Applications	Awards	Performance Period
Health Information Exchange	\$29.6M	37*	12	2 years

**Goal:** Leverage successes from initial State HIE projects to increase the adoption and use of interoperable health IT to improve care coordination.



# Program Awards

## Advance Interoperable HIE Program Awardees

1. Arkansas Office of Health Information Technology\*
2. Colorado Department of Health Care Policy and Financing\*
3. Delaware Health Information Network\*
4. Illinois Health Information Exchange Authority\*
5. Nebraska Department of Administrative Services\*
6. New Hampshire Health Information Organization Corporation\*
7. New Jersey Innovation Institute\*
8. Oregon Health Authority
9. Rhode Island Quality Institute\*
10. South Carolina Health Information Partners, Inc.\*
11. State of California Emergency Medical Services Authority
12. Utah Health Information Network\*

\*Selected Long-Term Post-Acute Care as a Target Population

# Community Interoperability and HIE Program

Grant	Funding	Awards	Performance Period
Community Interoperability and HIE Program	\$1M	10	1 year

**Goal:** Create projects at the community level to increase HIE adoption and use among specific populations, which will help to address interoperability challenges.

## Program Awardees:

1. AltaMed Health Services Corporation (CA)\*
2. Board of Regents of the University of Wisconsin System
3. Community Health Center Network, Inc. (CA)
4. Georgia Health Information Network
5. National Healthy Start Association (SC – based in DC)
6. Nevada Dept. of Health and Human Services (DHHS)
7. Peninsula Community Health Services
8. Rhode Island Quality Institute
9. Utah Department of Health
10. Washtenaw County - Community Support and Treatment Services (MI)

\* Working with skilled nursing facilities and acute rehabilitation facilities

# Current ONC Awardee Activity

- Delaware, Illinois, and Colorado are implementing use of the **KeyHIE Transform Tool** to translate home health and SNF patient assessment data into standardized **assessment summary documents** using the CCD/CCDA template.
- Rhode Island is sending HL7 **ADT alerts** via mobile phone or message to LTPACS, individuals, and family members.
- New Jersey (NJ) is sending **ADT messages** between NJ Transitions of Care Services to LTPACs.
- Several States are increasing adoption of HIE and exchange of **TOC documents** among LTPACs by implementing Direct mailboxes and query-based exchange.
- Utah is developing filters to push out **discharge summaries** from hospital to LTPAC in a timely manner.

# Relevant ONC Policies and Guidance

October 2015 Public Regulations and Public Release of Documents focusing on HIT Interoperability.

- ONC Certification Rules
- “Connecting Health and Care for the Nation: A Shared Nationwide Interoperability Road Map Version 1.0”
- Federal Health IT Strategic Plan

# ONC 2015 Edition Health IT Certification

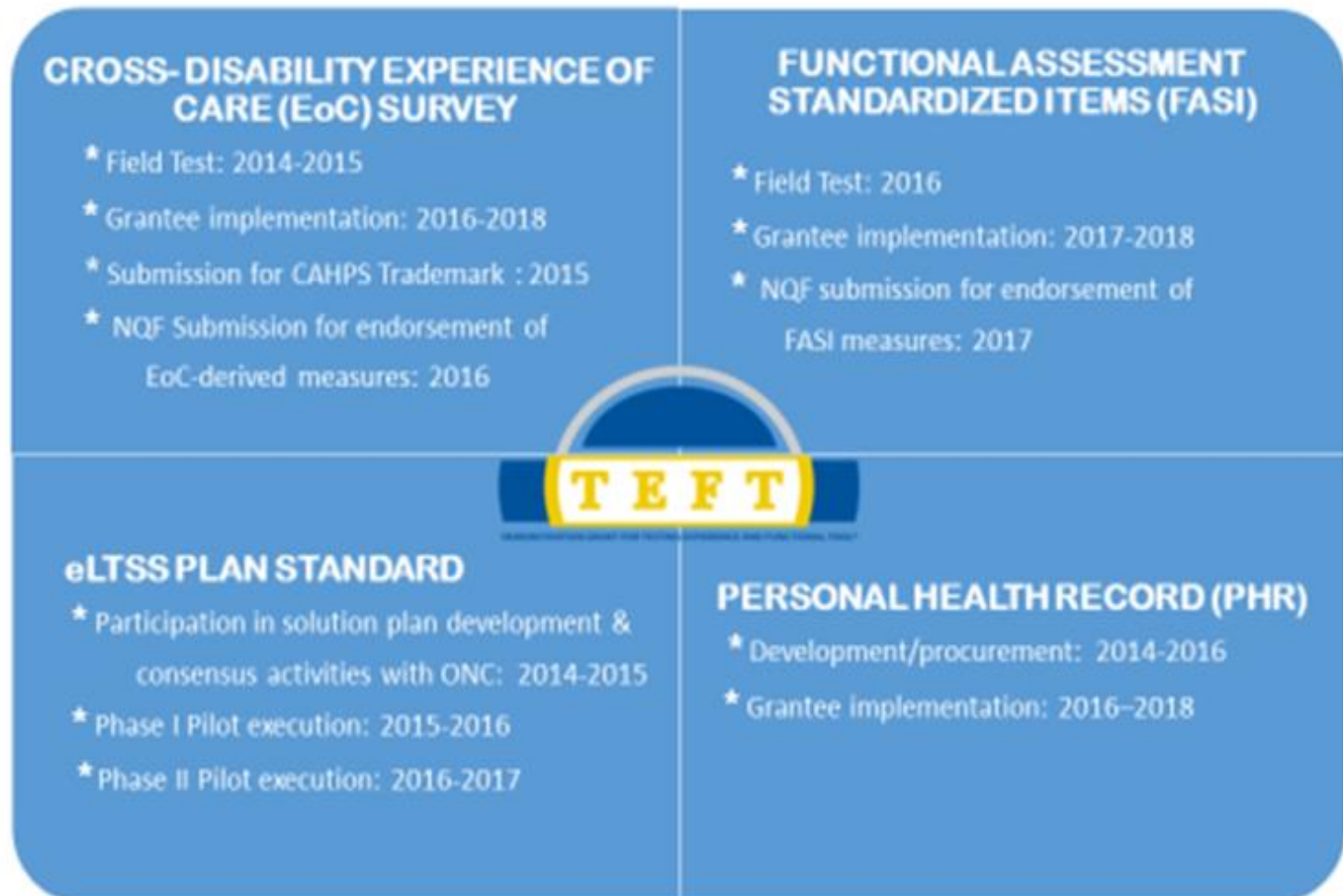
- Contains new and updated vocabulary, content, and transport standards for the structured recording and exchange of health information.
- Establishes a Common Clinical Data Set to encourage the exchange of a core set of data across the care continuum.
- **The ONC Health IT Certification Program is “agnostic” to settings and programs, but can support many different use cases and needs.**
- This allows the ONC Health IT Certification Program to support multiple program and setting needs, such as—
  - EHR Incentive Programs
  - **Long-term and post-acute care**
  - Chronic care management
  - Behavioral health
  - Other public and private programs

# **CMS Activities Including the Data Element Library**

# CMS TEFT Demonstration

## Testing Experience and Functional Tools (TEFT) in Community Based LTSS

The four components of the Medicaid TEFT demonstration are:



# State Medicaid Directors Letter 16-003

- CMS State Medicaid Directors' Letter 2/29/16: 90:10 APD funding.
- CMS updated State guidance on information exchange and interoperable systems for Medicaid providers in attesting to Meaningful Use Stages 2 and 3.
- Allows Medicaid HITECH funds for:
  - All Medicaid providers that Eligible Providers want to coordinate care with.
  - HIE onboarding and systems for: behavioral health providers, **long term care providers**, substance abuse treatment providers, **home health providers**, correctional health providers, social workers, and so on.
  - May also support the HIE on-boarding of laboratory, pharmacy or public health providers.

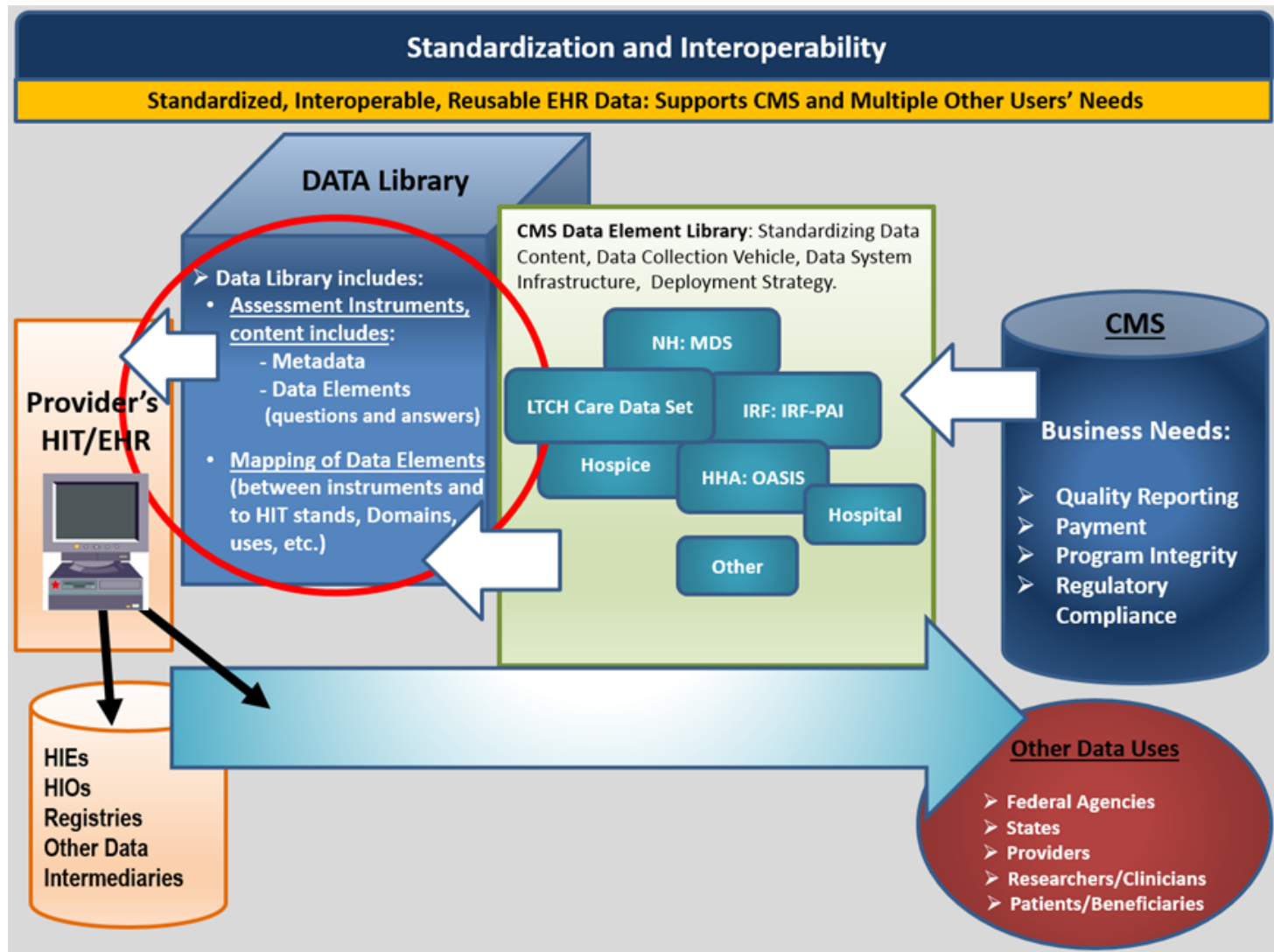


# CMS Data Element Library

## **Content from the CMS Data Element Library (DEL) database will assist:**

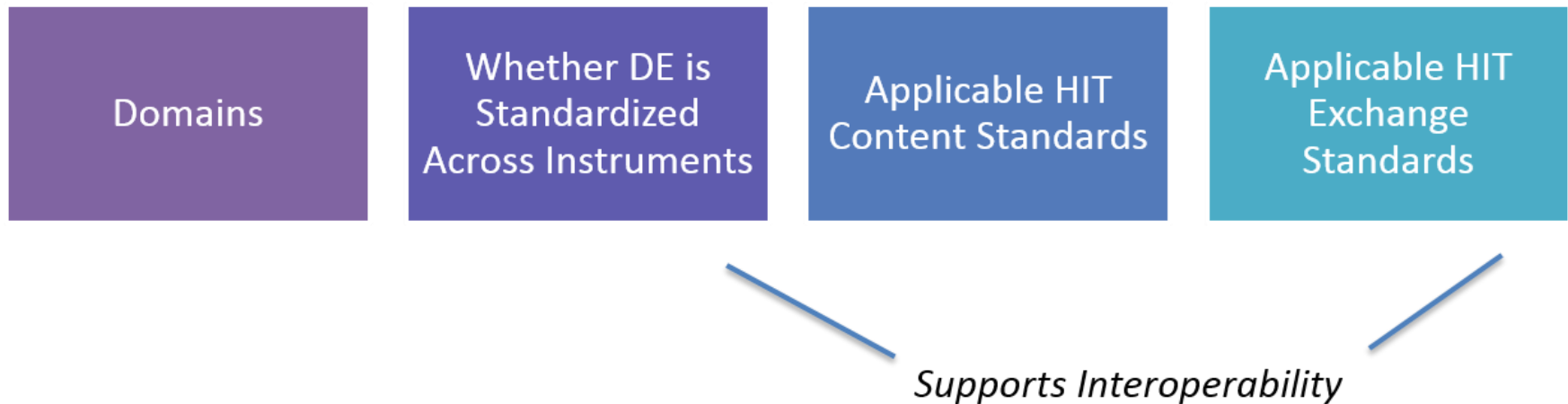
- CMS in managing the standardization of PAC assessment data elements and identifying key relationships for these data elements (e.g., HIT standards, domains, etc.)
- PAC and other providers in accessing content to support interoperable health information exchange (HIE) and the adoption of interoperable HIT products
- HIT vendors in accessing content to support the development of interoperable HIT and HIE solutions for PAC and other providers

# CMS Data Element Library (DEL) Database



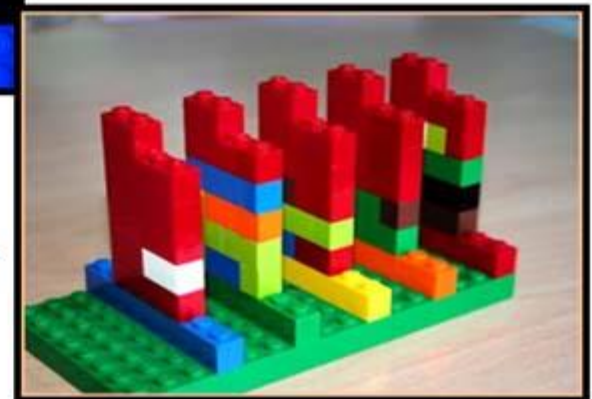
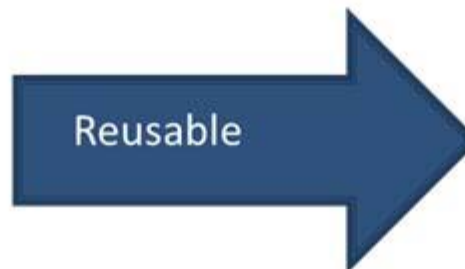
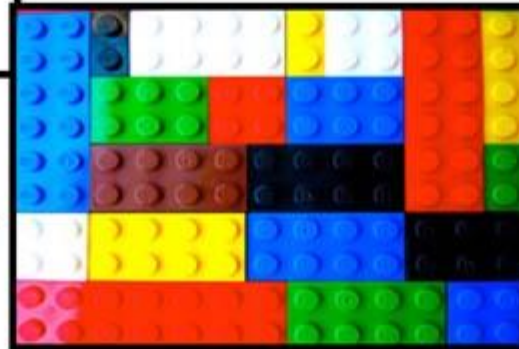
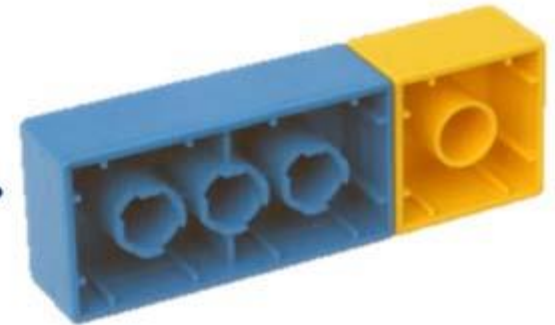
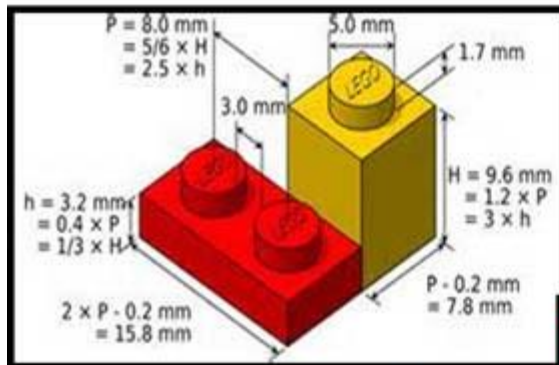
# The Data Element Library Database

- The Data Element Library (DEL) database is in the process of being loaded and will include:
  - PAC assessment data elements and mapped relationships including:



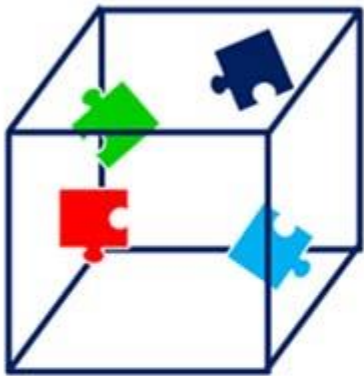
- Content to the Data Element Library database will be updated over time as new and modified standardized data elements, new assessment instrument versions, and new and updated HIT mappings are added.

# Just Like Legos



# Standard Exchange: Consolidated-CDA

Clinical Document Architecture (CDA) is the base standard for building electronic clinical documents



**Templates provide the “building blocks” for clinical documents**

To help simplify implementations, commonly used templates were harmonized from existing CDA implementation guides and “consolidated” into a single implementation guide-the C-CDA Implementation Guide (IC)



# Linking Assessment Data Elements to National HIT Standards

## Supporting Health Information Exchange Across the Care Continuum

### Identifying Data Element Question and Answer Pairs Across Instruments

MDS	OASIS	LCDS	IRF-PAI
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### Mapping Data Elements (Question and Answers Pairs) to Nationally Accepted HIT Standards

Data Elements Mapped to HIT Vocabulary Standards:

LOINC

SNOMED

Data Elements Mapped to Document Exchange Standards:

CCDA (e.g., Care Plan and LTPAC Assessment Summary Document)

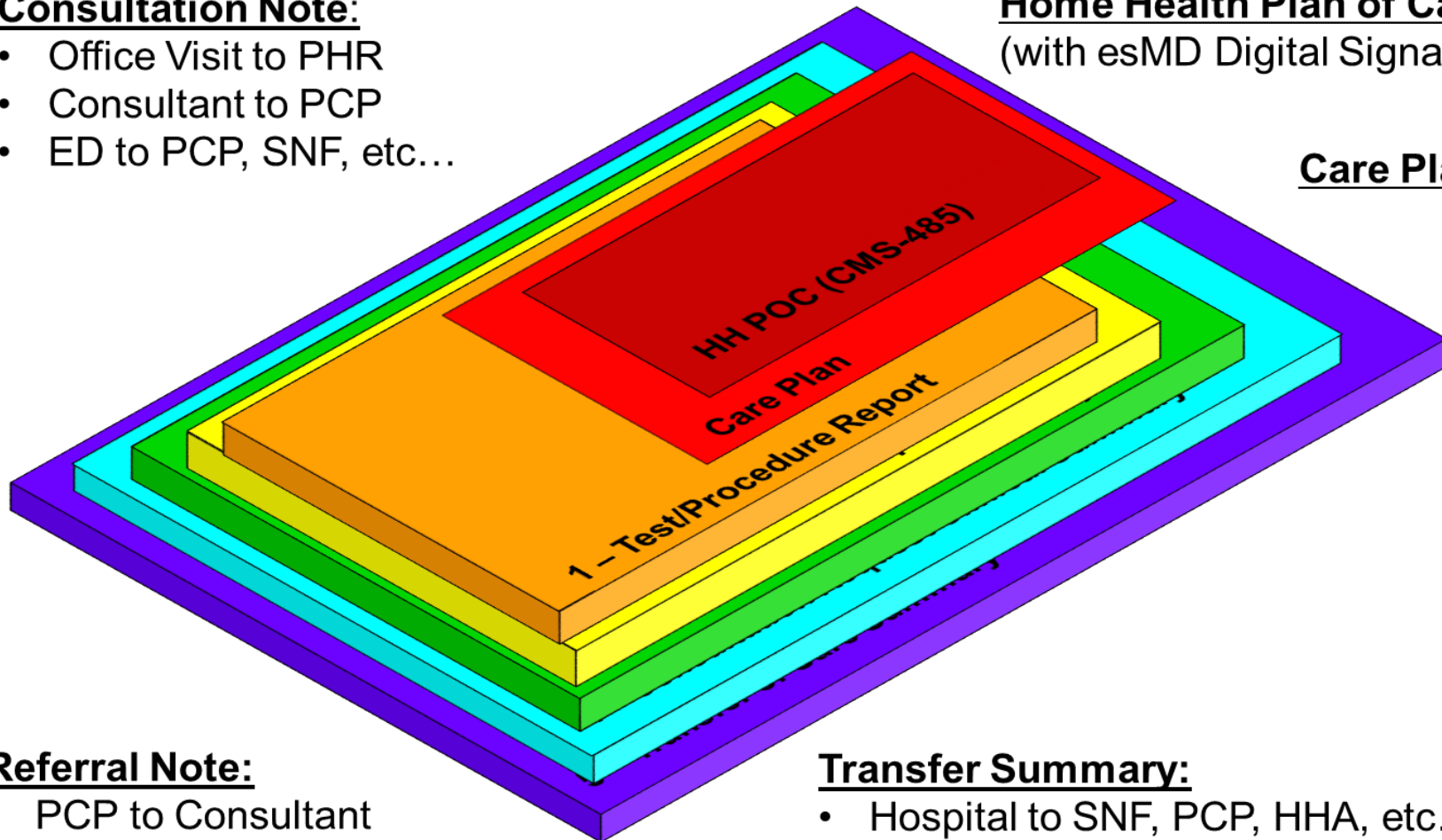
# Useful Datasets and Documents

## Consultation Note:

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

Home Health Plan of Care  
(with esMD Digital Signature)

Care Plan



## Referral Note:

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

## Transfer Summary:

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

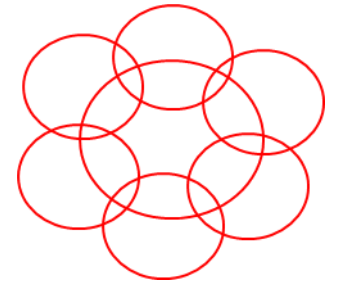
# High Value Exchanges

- ADT Message
- Individual's Goals, Priorities, Preferences
- Consent to share information electronically
- Identification of care and service providers
- Care Summary: Problems, Medications, Responsible Team Members
- Transition of Care
- Care Plan



# Moving Information

- Quality
  - Bounce backs
  - Omissions
- Safety
  - Workarounds
  - Errors
  - Near misses
- Patient satisfaction
  - Low scores on
    - Discharge
    - Readmission
    - Referrals
- Training
  - Standard process
  - Cross training
- Throughput
  - Work flow
  - Patient flow
  - Capacity
- Efficiency
  - Rework
  - Staff assignments
  - Staff satisfaction



# Supporting Interoperable Health Information Exchange in LTPAC: CMS and ONC

CMS Activities	ONC Activities
IMPACT Act: Standardize PAC assessment data elements	Federal Health IT Strategic Plan
IMPACT Act: Make PAC assessment data elements interoperable: <ul style="list-style-type: none"> <li>- Mapping data elements to nationally accepted HIT and HIE standards including:               <ul style="list-style-type: none"> <li>- Vocabulary and document standards</li> </ul> </li> <li>- Publishing those mapped relationships</li> </ul>	Identify national HIT/HIE standards (vocabulary, format, transport, security, and services)  ONC Standards Advisories: 2015: CCDA r2.1 for care plan and summaries of care  ONC HIT Module Certification
Support HIE with LTPAC providers (and others) in Medicaid (SMD Letter)	
Support Payment and Delivery System Reform <ul style="list-style-type: none"> <li>- CMMI Initiatives (e.g., CJR Model)</li> </ul> Goal: By end of 2018, 90% of Medicare FFS payments tied to value-based/quality models	Pilots: Interoperable HIE Programs (include exchange with LTPAC providers)
Pilots: TEFT	

# Supporting Interoperable Health Information Exchange in LTPAC:

## Information from Private Sector Experts

### Benefits of Health Information Exchange

- Faster and more reliable communication to: EMS, the ED, physicians, acute care hospitals, LTPAC providers, other providers, individuals/families
- Real-time access to health information allowing immediate delivery of life saving interventions
- Supporting better, more effective care
- Reducing hospital days and ED visits
- Delivering needed analytics to other providers and payers (e.g., ACOs) in your community

### Drivers of Health Information Exchange

- Out with the Old [FFS Models]. In with the new [Value-Based Models]
- Increasing Alternative Payment Models
- A future driven by: performance reporting, quality measurement/ incentives, and payment reforms
- Reducing unnecessary costs
- Shifting care to less costly settings
- Supporting safer, more effective care

# Presenter Contacts

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# Resource Links

- **IMPACT Act:** <https://www.gpo.gov/fdsys/pkg/BILLS-113hr4994enr/pdf/BILLS-113hr4994enr.pdf>
- **MedPac Report to the Congress - Medicare Payment Policy. March 2014:**  
[http://www.medpac.gov/documents/reports/mar14\\_entirereport.pdf?sfvrsn=0](http://www.medpac.gov/documents/reports/mar14_entirereport.pdf?sfvrsn=0)
- **CMS PAC Quality Initiatives:**
- <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Post-Acute-Care-Quality-Initiatives/PAC-Quality-Initiatives.html>
- **Federal Health IT Strategic Plan 2015-2020:**  
[https://www.healthit.gov/sites/default/files/9-5-federalhealthitstratplanfinal\\_0.pdf](https://www.healthit.gov/sites/default/files/9-5-federalhealthitstratplanfinal_0.pdf)
- **Connecting Health and Care for the Nation: 10 Year Vision to Achieve an Interoperable Health IT Infrastructure:**  
<http://www.healthit.gov/sites/default/files/ONC10yearInteroperabilityConceptPaper.pdf>
- **Shared Nationwide Interoperability Roadmap Final Version 1.0:**  
<https://www.healthit.gov/sites/default/files/hie-interoperability/nationwide-interoperability-roadmap-final-version-1.0.pdf>
- **ONC 2015 Edition Health IT Certification:** <https://www.healthit.gov/policy-researchers-implementers/2015-edition-final-rule>

# Acronyms in this Presentation

- ACCs: Accountable Care Communities
- ACOs: Accountable Care Organizations
- CB-LTSS: Community Based-Long Term Services and Support
- CCJR: Comprehensive Care for Joint Replacement
- CMMI: Center for Medicare & Medicaid Innovation
- CMS: Centers for Medicaid & Medicaid Services
- DEL: Data Element Library
- DE: Data Element
- eLTSS: electronic Long-term Services and Supports
- EHRs: Electronic Health Records
- FASI: Functional Assessment Standardized Items
- HHA: Home Health Agency

# Acronyms in this Presentation

- HCBS: Home and Community-Based Services
- HIT: Health Information Technology
- HIE: Health Information Exchange
- HIOs: Health Information Exchange Organizations
- IMPACT Act: Improving Medicare Post-Acute Care Transformation Act
- IRF: Inpatient Rehabilitation Facilities
- IRF-PAI: Inpatient Rehabilitation Facility – Patient Assessment Instrument
- LCDS: LTCH Continuity Assessment Record and Evaluation (CARE) Data Set
- LOINC: Logical Observation Identifiers Names and Codes
- LTCH: Long-Term Care Hospital
- LTPAC: Long-Term and Post-Acute Care

# Acronyms in this Presentation

- LTSS: Long-Term Services and Supports
- MDS: Minimum Data Set
- OASIS: Outcome and Assessment Information Set
- ONC: Office of the National Coordinator for Health IT
- PAC: Post-Acute Care
- PCPs: Primary Care Providers
- SMD: State Medicaid Director
- SNF: Skilled Nursing Facilities
- SNOMED: Systematized Nomenclature of Medicine
- TEFT: Testing Experience and Functional Tools