# Connecting Health and Care for the Nation:

# A Shared Nationwide Interoperability Roadmap – DRAFT Version 1.0

## ONC Annual Meeting

*February 2, 2015*

HealthIT.gov

Erica Galvez

Interoperability Portfolio Manager, ONC


Roadmap Overview

# Why does interoperability matter?

- Individuals and providers need access to the right information at the right time in a manner they can use to make decisions that impact their health regardless of geographic or organizational boundaries

- Typical Medicare beneficiary receives care from 2 primary care providers and 5 specialists each year

- Only 10-20% of health outcomes are attributable to health care

- Information needs to flow inside and outside the care delivery system to support health

# DRAFT Shared Nationwide Interoperability Roadmap
## *The Vision*

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**2015 - 2017**

Nationwide ability to send, receive, find, use a common clinical data set

**2018 - 2020**

Expand interoperable data, users, sophistication, scale

**2021 - 2024**

Broad-scale learning health system

Core technical standards and functions

Certification to support adoption and optimization of health IT products & services

Privacy and security protections for health information

Supportive business, clinical, cultural, and regulatory environments

Rules of engagement and governance

# Critical Near Term Actions by Building Block

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## Core technical standards and functions

- Direct the field on best available standards and implementation guidance
- Refine standards for common clinical data set, implementation of CCDA, data provenance, APIs

## Certification to support adoption and optimization of health IT products and services

- Improve rigor of ONC's certification program
- Work with industry on suite of ongoing testing tools

## Privacy and security protections for health information

- Educate stakeholders on current federal laws
- Work with states and organizations to align laws that provide additional protections, without undermining privacy

## Supportive business, clinical, cultural, and regulatory environments

- Evolve and align policy and funding levers to focus on outcomes and incentivize adoption of certified health IT and electronic information sharing according to national standards

## Rules of engagement and governance

- Establish governance framework with principles, rules of the roadmap, and process for recognizing orgs that align
- Call to action for industry to create single coordinated process

# Tracking Progress and Measuring Success

## "Capability to Exchange in an Interoperable Manner"

- Adoption of specific technologies, standards, infrastructure and policies to ensure secure exchange of interoperable data

- Capabilities of providers across care continuum and consumers to securely exchange in an interoperable manner

## "Information Flow and Usage"

- Exchange activity
- Availability of information to inform decision-making
- Usage: rates of accessing available data
- Interoperability of data, EHRs and other systems
- Uses of interoperable data
- Ability to easily integrate data across multiple sources
- Reliability, trustworthiness, and utility of information exchanged
- Barriers to exchange and interoperability

## "Impacts"

### Support Key Processes

- Care delivery and value based payment
- Public health surveillance and response
- Care coordination and transitions of care across settings
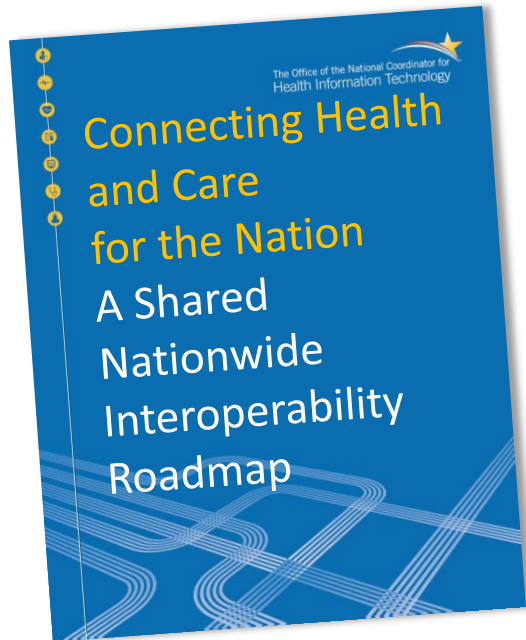- Learning health system and research

### Outcomes

- Individuals' experience with healthcare delivery system
- Reducing costs and increasing efficiency of care
- Improving health of populations

- Please review and comment on the Roadmap – posted on healthit.gov

- Public comment is open now and closes at 5pm ET on Friday, April 3, 2015

Lucia Savage

Chief Privacy Officer, ONC

Overview of Privacy Critical Actions

# Interoperability Roadmap

Connecting Health
and Care
for the Nation
A Shared
Nationwide
Interoperability
Roadmap

The Office of the National Coordinator for
Health Information Technology

- **Interoperability (Roadmap Definition)**
  - The ability of a system to exchange information with and use information from, other systems without special effort on the part of the customer
- **Interoperability 3-year Goal**
  - Majority of providers and individuals securely send, receive, find, and use essential health information
- **Differing Legal Requirements**
  - Though legal requirements differ across the states, nationwide interoperability requires a consistent way to represent an individual's permission to collect, share, and use their individually identifiable health information, including with whom and for what purpose(s).

- States philosophically aligned

- State privacy and consent laws are diverse in content

- Diversity in organizational policies within states

- See roadmap appendix D for ONC Consent Bibliography



Patchwork

Variation in rules about permission to access, use, or disclose makes it difficult to build software systems that accurately capture, maintain, and persist this data.
But we need software systems to capture and persist both written individual directions and what is permitted without a written individual direction.

**Consent Management**

*Evolving to*

**Computable Privacy**

# State Definitions of Mental Health

## Connecticut

(a) "PERSONS WITH PSYCHIATRIC DISABILITIES" means those PERSONS who are suffering from one or more mental disorders as defined in the most recent edition of the American Psychiatric Association's "Diagnostic and Statistical Manual of Mental Disorders"

**1995 Ct. SB 1164 Section 16 (a)**

## NEW YORK

**3.** "Mental disability" means mental illness, mental retardation, developmental disability, alcoholism, substance dependence, or chemical dependence. A mentally disabled person is one who has a mental disability.

**20.** "Mental illness" means an affliction with a mental disease or mental condition which is manifested by a disorder or disturbance in behavior, feeling, thinking, or judgment to such an extent that the person afflicted requires care, treatment and rehabilitation.

**NY CLS Men Hyg § 1.03 Definitions**

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Laws, regulations, and policies for patient consent

Laws, regulations, and policies for sensitive information

Consent models (opt-in, opt-out, with restrictions, etc.)

HIO Architecture

EHR system interoperability

Consent directive (paper or electronic)

Patient provides consent to share sensitive health information and HIPAA Permitted Uses and Disclosures

centralised          decentralised          distributed

or

# What is Computable Privacy?

- Is capturing a patient's consent choice on a piece of paper interoperable?

- To achieve health, an individual's electronic health data needs to be digitally connected to their consent choices.

- Health care providers, and their Health IT systems need to know what to do when the individual does not document a choice.

- Telemedicine, community health supports, and other innovative delivery processes will be stunted if we cannot make privacy computable.



Granular Choice

Basic Choice

Permitted Uses= Background Rules

Steve Posnack

Director of Office of Standards and Technology, ONC

Overview of Interoperability Standards Advisory

# 2015 Interoperability Standards Advisory

HealthIT.gov

- **Why?**
  – To keep it simple and to create common ground
  – To get specific
  – To provide a single, public list of the standards and implementation specifications for specific clinical health information technology interoperability purposes
  – To prompt dialogue, debate, and consensus

- **What (is it)?**
  – Non-regulatory, straight-forward approach with an interactive, predictable process for updates
  – Reflects "best available" standards and implementation specifications as of December 2014

- **How is it supposed to be used?**
  – A widely vetted resource – in one place, done once, done right
  – Enable a "look first" philosophy for government programs, procurements, testing or certification programs, standards development, etc.

- The Advisory has standards and implementation specifications categorized in 4 sections:

  *Vocabulary/code sets/terminology* (i.e., "semantics")

  *Content/structure* (i.e., "syntax")

  *Transport* (w/ security reference)

  *Services*

- What we know: In most cases standards use will need to be cumulative to achieve a desired interoperability outcome

+ + + = **specific interoperability "use case"**

# How's this going to work?
## Interactive Process

### December of Preceding Year

- The new Interoperability Standards Advisory for the next calendar year is published (e.g., December 2015 for the 2016 Advisory) and public comment period is opened.

### April/May

- ONC staff present a summary of received comments to the HIT Standards Committee (or designated Task Force) in order to prepare them to make recommendations on updates for the following year's Interoperability Standards Advisory.

### August

- The HIT Standards Committee submits recommendations to the National Coordinator concerning updates to the following year's Interoperability Standards Advisory and a second round 60-day public comment is opened on the HIT Standards Committee's recommendations.

### October-December

- ONC reviews the HIT Standards Committee recommendations as well as public comments on those recommendations and prepares the next year's Interoperability Standards Advisory for publication.

- Please review and comment on the 2015 Interoperability Standards Advisory
  - posted on healthit.gov

- Public comment is open now and closes at 5pm ET on Friday, May 1, 2015
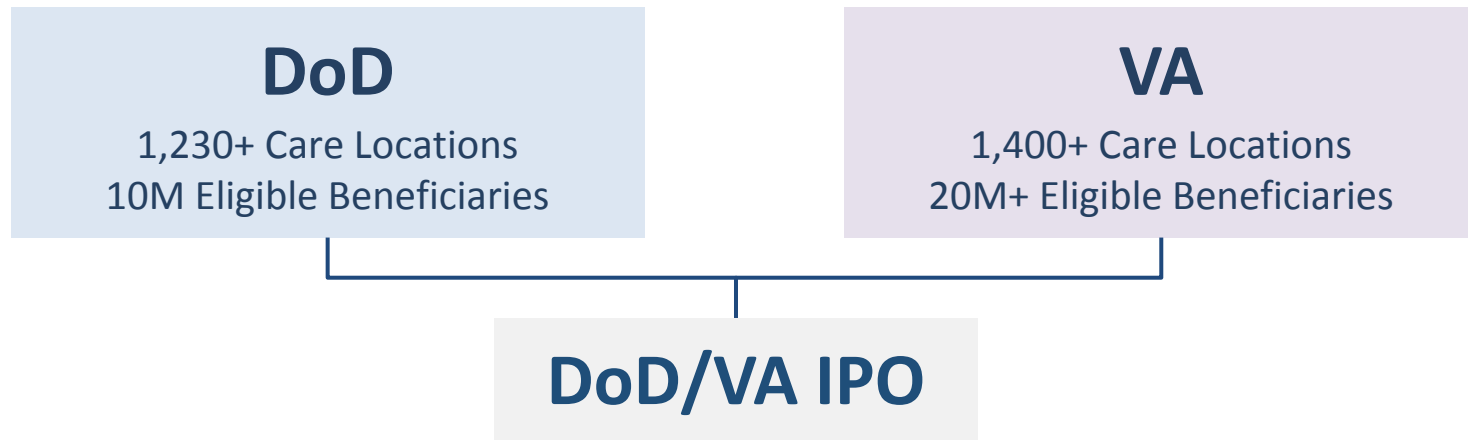
# Interoperability:
# From Vision to Reality

Mr. Christopher A. Miller
February 2, 2015

# DoD/VA Interagency Program Office

The DoD/VA Interagency Program Office (DoD/VA IPO) leads and coordinates the two Departments' adoption of, and contribution to, national health data standards. Ensuring seamless integration of health data among DoD, VA, and private health care providers.

**DoD**
1,230+ Care Locations
10M Eligible Beneficiaries

**VA**
1,400+ Care Locations
20M+ Eligible Beneficiaries

**DoD/VA IPO**

But what does that mean in real life?

As of today, over 20,000 brave men and women of the United States Military have been wounded in action in Operation Enduring Freedom in Afghanistan.

This is the story of one of those heroes.

It was 2010 when Marine Cpl. William Kyle Carpenter was rocked with a grenade blast that left him barely clinging to life in Afghanistan.

The injuries were horrific: He'd sustained catastrophic wounds to his face and arms, and dozens of broken bones.

Getting Carpenter home alive was no small thing. It required dozens of individuals, from his platoon members in Afghanistan to doctors in Maryland, to respond quickly and fearlessly, putting to use training and modern technology that has kept tens of thousands alive who may have died in previous conflicts.

The medical care for Carpenter started within moments of the grenade blast.

The first Marines to respond realized the severity of Carpenter's injuries immediately, and called for Hospital Corpsman 3rd Class Christopher Frend, now 25. He served as the unit's corpsman, trained in all manner of combat medicine.

Carpenter underwent emergency surgery at the military hospital at Camp Bastion in Afghanistan, and was moved afterward to the military's Landstuhl Regional Medical Center in Germany.

Office of the National Coordinator for Health Information Technology
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Somehow, Carpenter made it. He has undergone about 40 surgeries now, improving to the point that he can run marathons, do pull-ups and sky dive.

Lcpl Kyle Carpenter
& his girlfriend —
Jordan Gloxton

MCFAY 2011
ISSA

Carpenter's medical care during those surgeries was provided across DoD and VA care facilities.

An interview at McGuire Veterans Administration hospital, where he was receiving intense physical therapy, captured his fighting spirit and resiliency.

The next day he would check into Walter Reed Medical Center for another procedure.

Nearly four years after the explosion, Carpenter, 24, received the Medal of Honor.
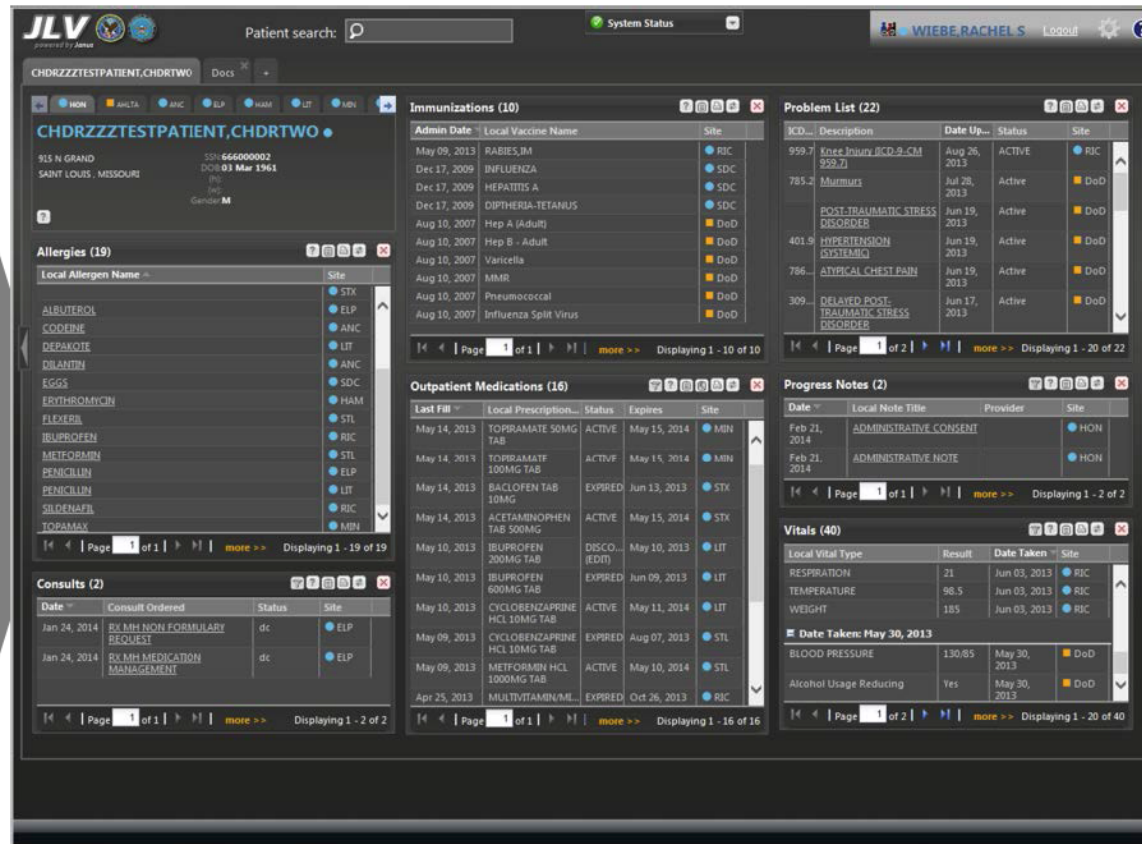
Carpenter is a recognized U.S. Veteran and currently is enrolled in school at the University of South Carolina.

**8.4M**
Patients Records Available

**3.2M**
Patients Records Accessed

**1.5M**
Data Elements Exchanged Daily

*\* Figures as of December 2014*
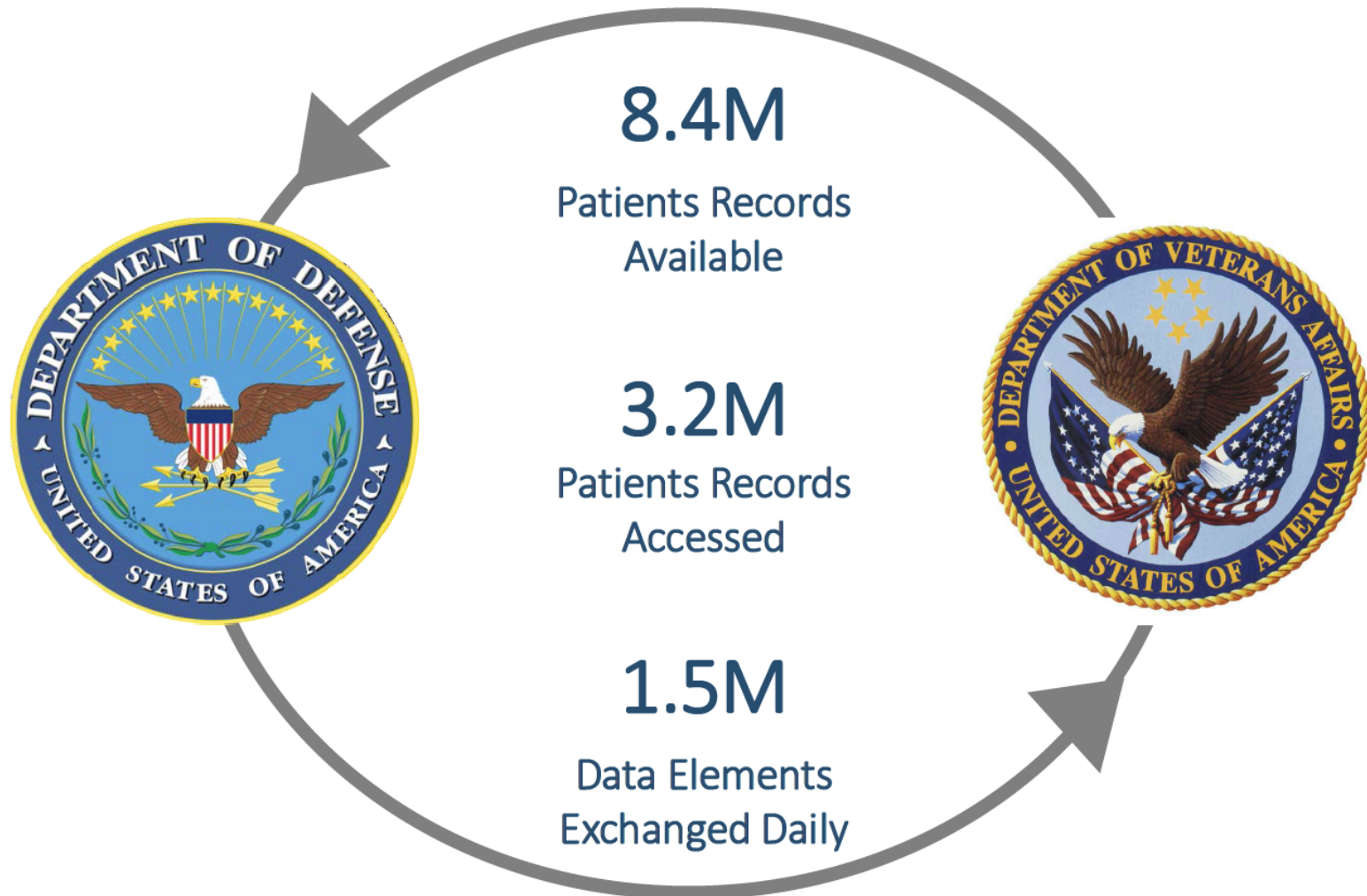
# Health Data Sharing In Action



**DoD electronic health records**

**VA electronic health records**

**Displays:** Patient allergies, medications, immunization, vital signs, lab results, family history, and more

**25 Data Domains | 5.9M Patients**

# User Feedback

*"…has become the system of choice because [we] are able to locate needed documents."*

*"…documentation can be accessed more quickly than from other online sources. For example, one can enter and exit separate pieces of documentation much more quickly than the same documents accessed via AHLTA. Additionally, the fact that information from different sources can be accessed simultaneously saves time." - DoD*

*"…greatly assists with Temporary Disability Retired List (TDRL)
case records."*

*"JLV is working well for me overall and provides info I can't get any other way (especially in a timely fashion). Thanks & Keep up the rollout!" - VA*

How can industry help us serve our Service members and Veterans?

*In attempting to arrive at the truth, I have applied everywhere for information but in scarcely an instance have I been able to obtain hospital records fit for any purpose of comparison.*

*If they could be obtained, they would enable us to decide many other questions besides the one alluded to.*

Florence Nightingale, 1854