DirectTrust Overview

Agenda

Our Goal:

"…develop, promote, and, as necessary, help enforce the rules and best practices necessary to maintain privacy, security, and trust for stakeholders across and beyond healthcare."

"…committed to fostering widespread public confidence in the interoperable exchange of health information while promoting quality service, innovation, cooperation, and open competition in healthcare."

What DirectTrust Does

Four Focus Areas

Accreditation

Standards

Policies
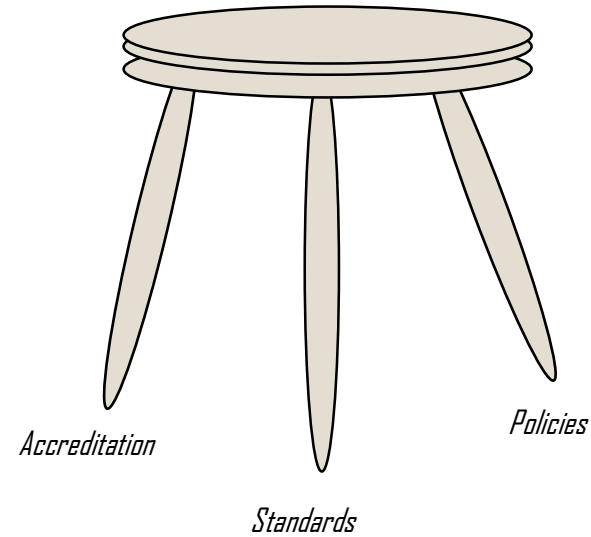
Membership

Gathering health constituents in community to develop policy and best practices, share knowledge, and advance industry efforts

Standards

Developing conformity practices for disparate organizations to trust, communicate, and exchange with each other

Accreditation

Verifying and certifying conformance with established policies and criteria through EHNAC (Electronic Healthcare Network Accreditation Commission)

Trust Services

Supporting industry through trust frameworks, promoting identity proofing/credentials, network facilitation, Directory services, and certificate issuance

Why is `DirectTrust` focused on instilling trust in exchange?

Confidence in identity and certification leads to trusted exchange

Health

Our overarching goal is to improve health in our communities

Care

Improving the care experience can lead to better health, and therefore life experience

Enriched by Interop

The care experience is enriched by interoperability

Ease of Info

Interoperability relies upon standards-based exchange and the tools that instantiate these standards to allow the flow of information with ease

Trust

The flow of information requires trust

Confidence in Identity

Trust requires stakeholders to have confidence in identity of those involved in exchange

Verification and Accreditation

Policy compliance and identity are assured through trustworthy accreditation and platform-agnostic standards

Governance and Accountability

Governance of accreditation and exchange is overseen by an accountable community of diverse stakeholders

Health Insurance Portability
and Accountability Act

DirectTrust – *Instilling Trust in Exchange*

EHNAC History

Timeline (top row): 1993-2000 | 2000-2005 | 2005-2010 | 2011-2012 | 2013-2014 | 2015-2016 | 2017-2018 | 2019 | 2020 | 2021 | 2022 | 2023

1993: Workgroup for Electronic Data Exchanged Standards; AFEHCT and an accreditation workgroup

ONC and the Direct Project Develops Direct Standard

1995: First Accreditation

1996: EHNAC Incorporation

ONC Interoperability

Founder Dr. David Kibbe departs; Scott Stuewe begins TEFCA 2;
ANSI Accreditation;
One billion messages exchanged landmark

... messages exchanged landmark;
Event Notifications Consensus Body;
Direct Standard™ is ANSI approved;
SAFE Identity acquired

Officially merge with EHNAC;
Surpass four billion messages exchanged

Timeline (bottom row): 2010-2011 | 2012-2013 | 2016-2017 | 2018-2019 | 2020 | 2021 | 2022 | 2023

HIPAA Signed into Law

CMS MU 2 Rule
DirectTrust is incorporated;
Cooperative Agreement;
EHNAC Partnership

21st Century Cures;
DirectTrust takes control of HISP accreditation program;
TEFCA 1

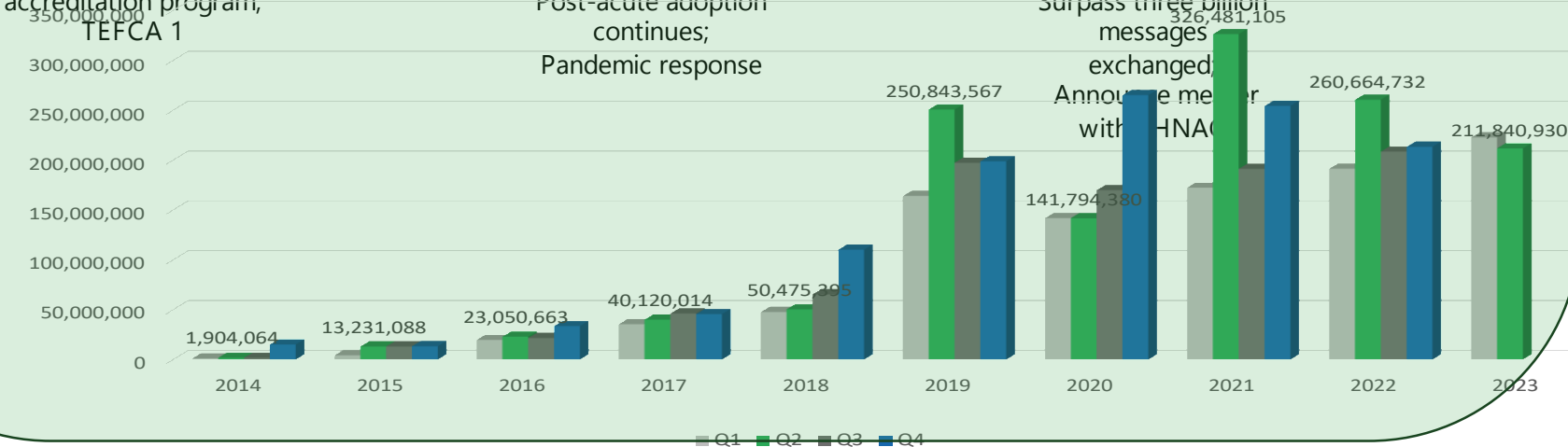DirectTrust owns and operates all three accreditation programs;
Post-acute adoption continues;
Pandemic response

Launch IX4HS and PEHRLS Consensus Bodies;
Surpass three billion messages exchanged;
Announce merger with EHNAC

In History:
2009…
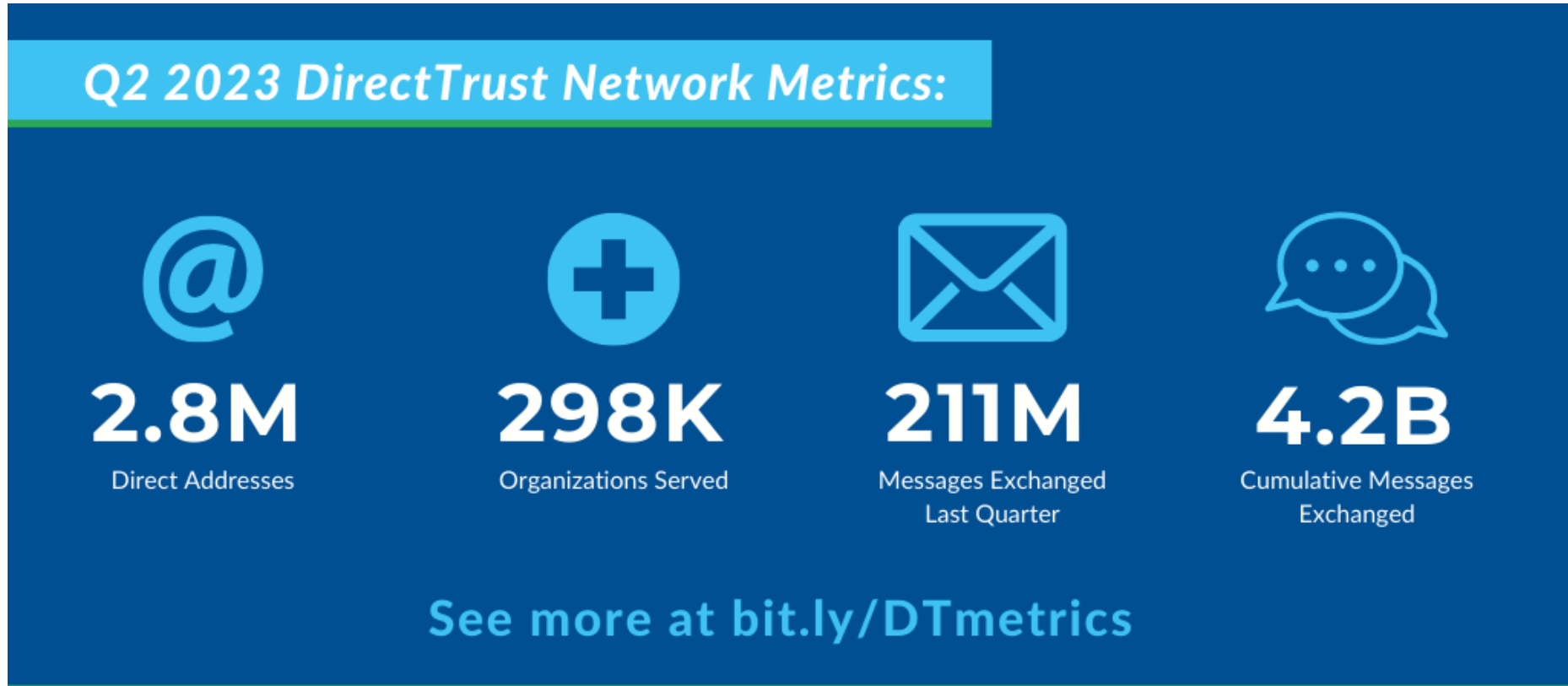and *1993*

Chart (messages exchanged by quarter):

Year	Value
2014	1,904,064
2015	13,231,088
2016	23,050,663
2017	40,120,014
2018	50,475,295
2019	250,843,567
2020	141,794,380
2021	326,481,105
2022	260,664,732
2023	211,840,930

Legend: Q1 Q2 Q3 Q4

eHR INCENTIVE PROGRAM

State of the **DirectTrust** Union

More than four billion messages exchanged

Q2 2023 DirectTrust Network Metrics:

2.8M — Direct Addresses
298K — Organizations Served
211M — Messages Exchanged Last Quarter
4.2B — Cumulative Messages Exchanged

See more at bit.ly/DTmetrics

DirectTrust®   #InteroperabilityImpact

Direct Secure Messaging over the `DirectTrust` Network

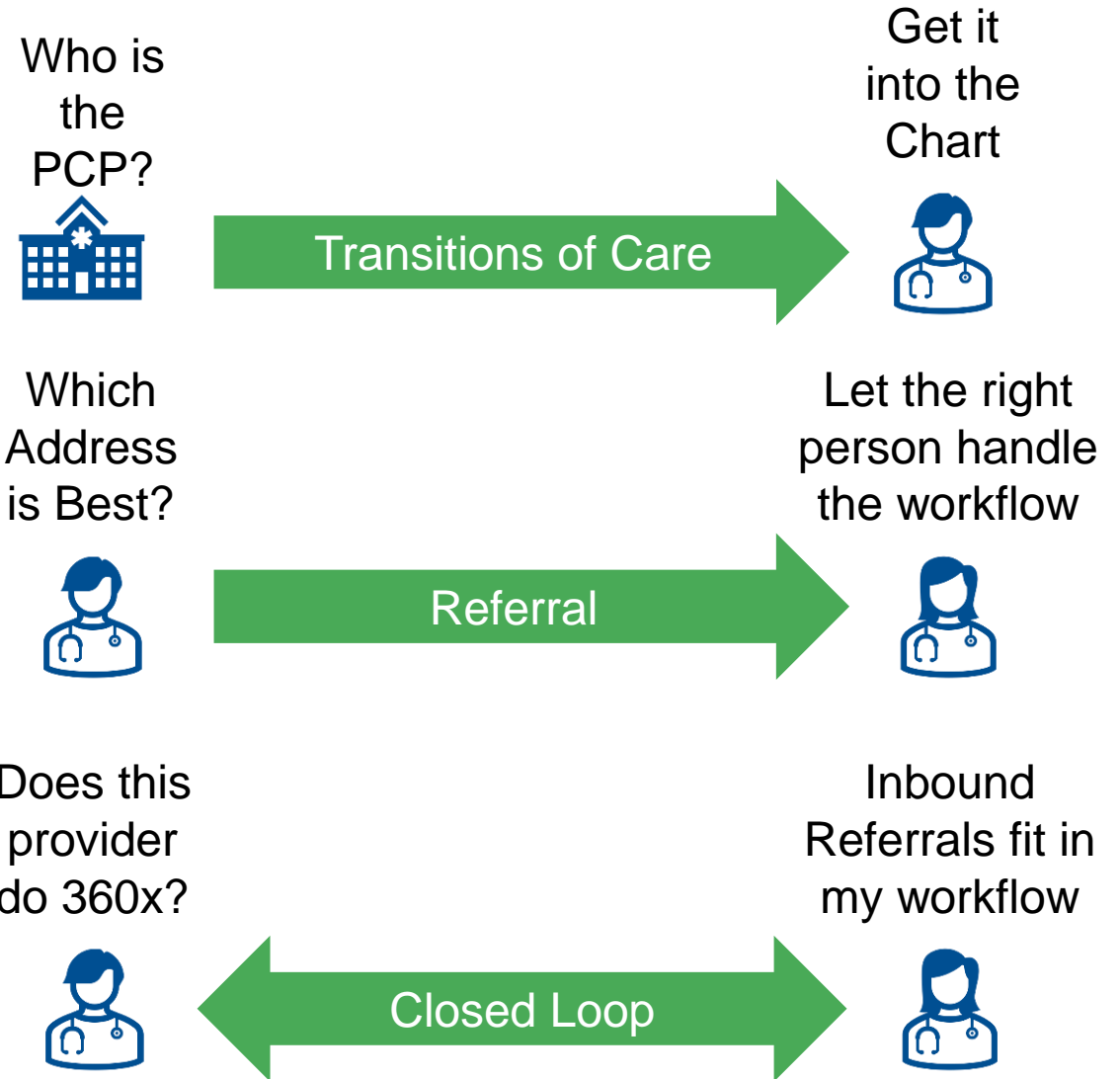Exchange flows directly from and to known trusted recipients over the internet

Understanding Direct

- Direct provides a trusted, secure, and widely deployed mechanism for the exchange of health information that's as easy as email or fax.

- Based on the ANSI approved Direct Standard™

- Simple, secure, scalable

- Payload agnostic – structured and non-structured data

- Authenticated, encrypted

- In practice: Embedded in EHR

The **DirectTrust** Network in Use

- Primary use case – Transitions of Care/Referrals/Consults
  - Provider to Provider
  - Curated

- Public Health Reporting

- Notifications Delivery

- LTPAC

- EMS Transfer to Hospital

- HIE Reporting

- So many more use cases!

Transitions of Care, Referrals and Closed Loop Referrals

- In the early days of Direct, TOCs were triggered automatically and an appropriate address wasn't known - frequently resulting in mis-directed messages

- Our new directory updates can show senders which addresses are preferred by receivers for a given workflow

- New guidance shows new approaches for organization level directory entries
  - Tie them to workflows
  - Leave out all provider demographics

- We look to have 360x utilize our directory to determine if a receiving address supports the standard

Who is the PCP? → **Transitions of Care** → Get it into the Chart

Which Address is Best? → **Referral** → Let the right person handle the workflow

Does this provider do 360x? ← **Closed Loop** → Inbound Referrals fit in my workflow

Value of Direct Secure Messaging - Referrals

In three different studies we found the following:
A paper referral coming into an organization usually follows this process:
- Sending MD see's patient in consult (day 1) and then creates an order which follows the normal system in an office taking 1-2 business days to facilitate (MA prints paper, does their normal stuff then faxes it)
- Then the receiving organization has a system to receive the fax, sort it and put it in a queue to work equaling 1 - 2 days.
- THEN if there is missing information (supporting clinical documentation) add a day to 2 days....

By using Direct, we easily shaved off 4-6 days AND hundreds of keystrokes."

"We went from 10 minutes on an intake of a fax for a referral and didn't even touch medications, to less than five minutes AND the provider gets the complete medication list. Instead of wasting valuable time during the patient appointment to manually enter in medication information, now the provider just has to click a button to verify and reconcile meds. Less time, and more complete information!"

Notifications – Great, Good, Bad and Ugly
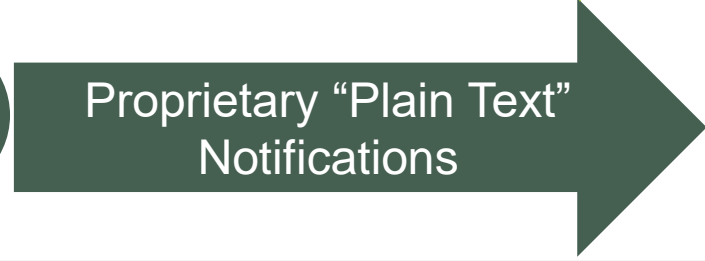
Hospital sends compliant messages

Event Notifications Via the Direct Standard®

Hospital sends to an intermediary
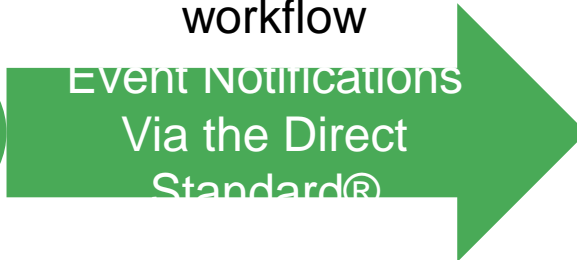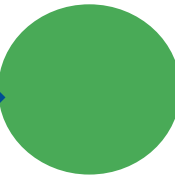
Receivers can route to appropriate individual and workflow

ADT Feed → Event Notifications Via the Direct Standard®

ADT Feed → Proprietary Notifications with metadata

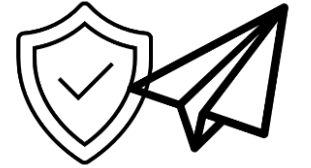ADT Feed → Proprietary "Plain Text" Notifications
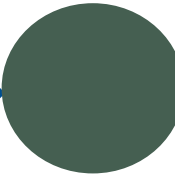
Thinking Outside the EHR Box

From the
Department of health or the
HIE or RDU
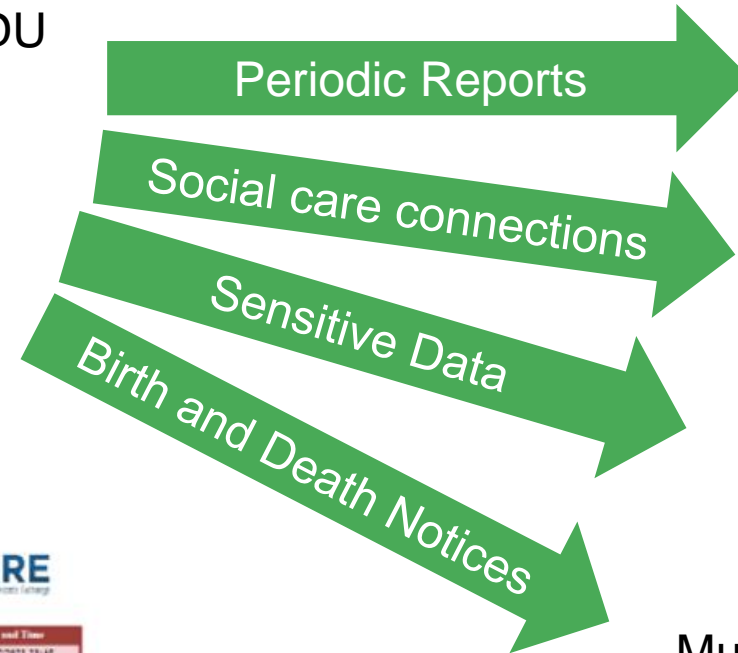
Practice Manager's Web Inbox (outside the EHR)

Periodic Reports

Social care connections

Sensitive Data

Birth and Death Notices

Child protective services

Courts

Schools

Municipalities

24-Hour Daily Hospitalization Report Example

SHARE Hospitalization Report

The following patient(s) has presented with an encounter:

Last Name	First Name	DOB	Patient's Phone	Payer Relationship	Name of Hospital	Attending Provider	Primary Diagnosis	Description of Visit	Type of Visit	Date and Time
Ball	Lucille D	10/24/2008		Medicaid	Drew Memorial	Brian Beaux	Crohn's disease, unspecified, with intpect	Discharge/End Visit	Emergency Room	04/27/2021 23:45
Taylor	Tim F	3/36/1965	(501) 555-6655		Drew Memorial	Charlie Russ	Major depressive disorder, recurrent, un	Discharge/End Visit	Inpatient	04/28/2021 00:45
Smith	John	9/1/2017	(479) 555-5555		Magnolia Hospital	Mary Moen	Type 2 diabetes with ketoacidosis	Outpatient to Inpatient	Outpatient to Inpatient	04/28/2021 02:30
Duck	Donald	2/4/1982			UAMS	John Smith	Back pain	Admission	Emergency Room	04/28/2021 03:17
Mouse	Minnie	3/15/1942	(870) 555-5555	Medicare PCE	UAMS	John Smith	Contact with exposure to covid-19	Discharge/End Visit	Emergency Room	04/28/2021 11:25
Mouse	Mickie	5/18/1942	(870) 123-4567		Drew Memorial	Jane Doe	Str ain of unspecified muscle	Discharge/End Visit	Inpatient	04/28/2021 14:32
Gilmore	Lorelai	4/11/1938	(479) 123-4567		ACH	Ricky Ball	Shortness of Breath	Admission	Emergency Room	04/28/2021 16:45
Glitter	Poppy	9/19/1967			Baptist Health	Bill Silver	Acute viral hepatitis	Discharge/End Visit	Emergency Room	04/28/2021 19:00
VanSwest	Penelope	9/19/1957		Ark Health and Wellness	Drew Memorial	John Taylor	Unspecified pain	Admission	Emergency Room	04/28/2021 22:33
Wreck	Ralph	7/1/1962		Blue Cross	Mercy Health	Steve Ender	COVID 19	Outpatient to Inpatient	Outpatient to Inpatient	04/28/2021 23:01
VanSwest	Penelope	9/19/1957		Ark Health and Wellness	Drew Memorial	John Taylor	abdominal pain	Discharge/End Visit	Emergency Room	04/28/2021 23:40

This report is a summary of your patient encounters who has had an event at a connected hospital in the last 24hrs.
Additional information can be found at SHAREArkansas.com

Through direct secure messaging, we can notify you when patients are hospitalized or visit an emergency department.

Where Does Policy Support Direct?

Promoting Interoperability

Certified EHR Technology (CEHRT) 2014 and forward

Requirement to publish digital endpoint (Direct address) in NPPES

ADT Notifications

Directory Improvement Initiative (DII)

Introduce High Level Overview of the Directory Work to the community

Era 1: Improve Directory Confidence and Accuracy

Develop Administrative Tools and new data validation capabilities

Era 2: Increase Directory Accessibility and Use

Develop FHIR-based Directory Structure and FHIR API Access

Era 3: Enhance Directory Updatability and Sustainability

Develop Directory Update option via FHIR API Access

Work Stream 1: Community Change Management		
Work Steam 2: Validation	Work Steam 3: FHIR-Based Access	Work Steam 4: FHIR-Based Updates

Phase 1A: New Validation Engine	Phase 1B: New FHIR API Query Access and Sync Engine	Phase 2: New FHIR API For Updates and Reverse Sync
Reference Implementation for Directory Access August Debut	Reference Implementation for Directory Update December Debut	

3 Goals

4 Work Streams

2 Technical Phases

2 Reference Implementations

Problems to Address

Challenge: How do we improve access and quality, maintain currency and not increase costs?

- Data Quality and Relevance
  - Contributed data needs to validated against external sources of truth
  - Continued focus on **data governance** required – communicate **best practices** first, tighten up **rules**
  - **Provide new fields that allow for direct addresses to be differentiated in terms of purpose**

- Participation
  - HISP participation has been voluntary
  - Organizational Participation has major gaps

- Demand and Frustration
  - The Promoting Interoperability Measures have provider organizations **scrambling to find the addresses** of partners
  - **Growing demand for access** to the directory outside the system to facilitate measurement and maximize value – this has been blocked by our policies in part

# **DirectTrust** Directory Policy Updates

Addressing one of the top five barriers to successful interoperability
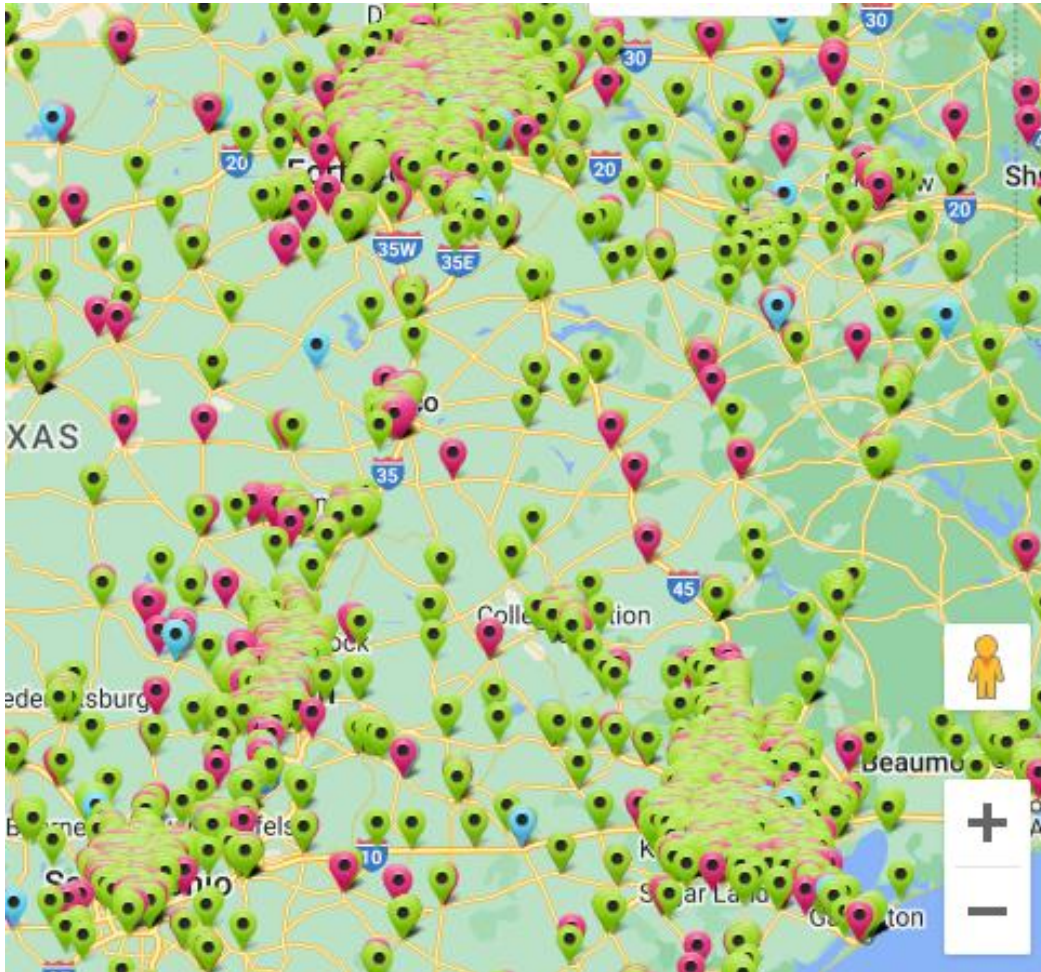
- All HISPs are now required to participate

- All organizations are now required to have a presence in the Directory

- HISPs must upload and download at least every 72 hours and make updates immediately available to customers

- DirectTrust will be able to offer a look up by NPI on our website and collaborate with CMS

- HISP customers can now use the Directory for other use cases besides Direct Secure Messaging

DirectTrust Directory Architecture

*New Directory model can provide a more reliable tool for the ecosystem*
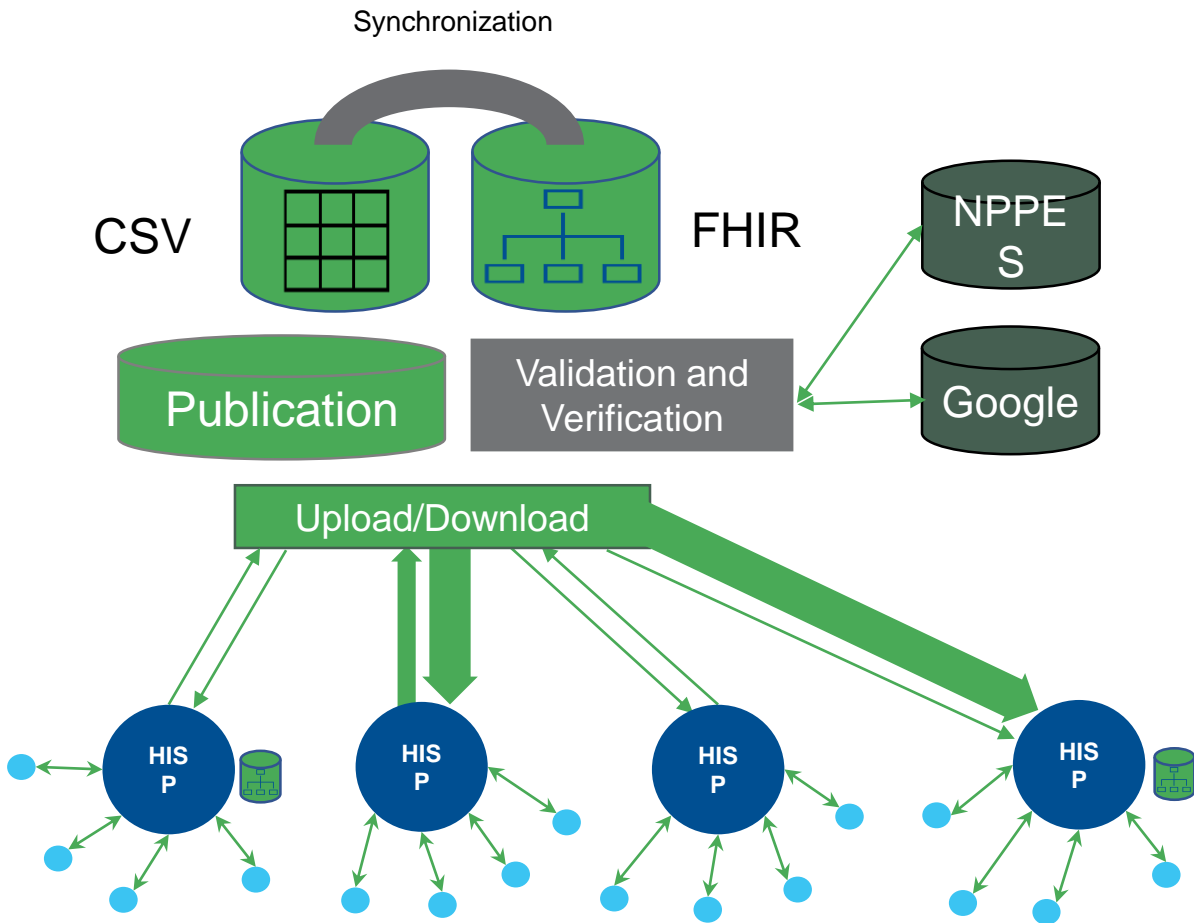
- Each Record is validated against external sources
  - NPPES for provider demographics and NPI validity
  - Google for ensuring the validity of addresses
- Two Data Models supported
  - CSV model based upon the IHE HPD Profile
  - FHIR model based upon new HL7 NDH Standard
  - Either or both model can be downloaded by the HISP
- New model manages differences and "inactivates" rather than "deletes" records
- HISPs can upload and download in a FHIR format or a CSV format, with either full or incremental contributions and subscriptions

What can you do to support Direct?

We need evangelists!

- See THSA's Nine Recommendations for Direct: bit.ly/DirectTHSANine

- See the benefits of Direct: bit.ly/DirectAtAGlance

- Talk about why Direct is replacing fax: bit.ly/DTFax2020

- Find additional success with Direct: bit.ly/DirectStepsForSuccess

- Explain Direct: bit.ly/GetToKnowDirect

- Access our resources: DirectTrust.org/Resources

- Sign up for our newsletter: bit.ly/NewsDT

- Learn about success with interop: bit.ly/InteropHero

- Share your success!
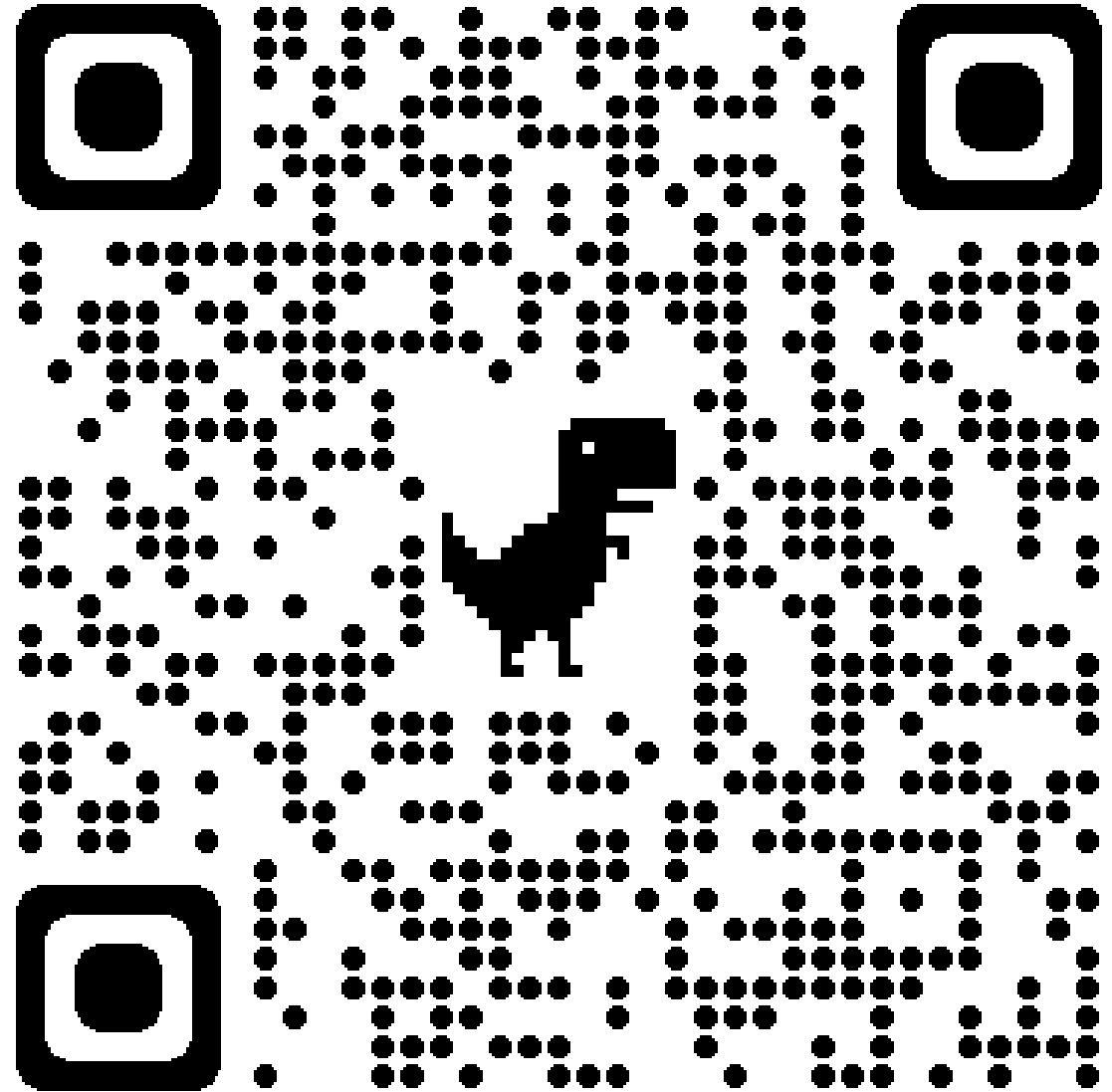
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