

Indian Health Service

2024 Office of Information Technology and Office of Resource Access and Partnership Conference

BOBBY VILLINES, JASON FLATTER, TAMMY CRAZY BULL
INTEROPERABILITY/CENTRALIZED INTEROPERABILITY
SUITE UPDATE
AUGUST 14, 2024



Session Description

This session will provide the participants with an overview of the IHS Interoperability Team, the IHS Centralized Interoperability Suite (CIS) software applications (formerly known as RPMS Network); Direct Secure Messaging, Personal Health Record, and Four Direction Hub (4DH) , available to IHS, Tribal, and Urban facilities to meet interoperability measures. The status of each application will be reviewed, an estimated timeline for 4DH release will be discussed and recent updates to system manuals/guide updates will be presented. Regulatory requirements and applicable initiatives will be reviewed along with policy updates.



Objectives

After participating in this session, attendees should be able to:

- Identify the IHS Interoperability Team.
- Access the current status of each Centralized Interoperability Suite application.
- Identify the release timeline for Four Direction Hub.
- Locate and Utilize System Manuals/Guides Updates
- Identify current initiatives: (TEFCA roadmap, HTI-1, USCDI v3, RWT, DirectTrust Privacy and Security Assessment)
- Acknowledge Interoperability Policies



Federal Interoperability Team

Application	Federal Leads
Personal Health Record (PHR)	LCDR Jessica Graham
Direct Secure Messaging (Direct)	LCDR Jessica Graham
Four Directions Hub (4DH)	Jason Flatter
Legacy Health Information Exchange (HIE)	Jason Flatter
Legacy Master Patient Index (MPI)	James Garcia
Health Information Technology Interoperability and Health Information Exchange Manager	Bobby Villines
Interoperability Project Manager	Meghna Modi
Division of Information Technology (DIT) Health Information Management (HIM) Consultant	Tammy Crazy Bull



Definitions

Master Patient Index (MPI) – tool that assigns a unique identifier (number) to a patient; enables linking a patient from one facility to another.

Health Information Exchange (HIE) – tool that aggregates patient information from one facility to exchange or share with another facility; enables a provider at a facility to see a record for their patient who was cared for at a different facility. HIEs are created among organizations, states, or groups of facilities.

eHealthExchange – connects healthcare providers, regional and state HIEs, and federal agencies to exchange medical data.

Consolidated Clinical Document Architecture (CCDA) – a document that contains portions of a patient’s medical record.

Personal Health Record (PHR) – a tool used by patients to view their health information online.

Direct – a secure email system used to exchange health information.

HISP – Health Information Service Provider



What is Interoperability?

The IHS Centralized Interoperability Suite (CIS) is a group of applications that facilitate the presentation of visit data for patients, the secure messaging between provider and patient or between providers, the matching of patients with their data, and the exchange of visit data within and outside of the Indian Health System. The applications supporting these functions are the Personal Health Record (PHR), Direct Secure Messaging (Direct), the legacy Master Patient Index (MPI), the legacy Health Information Exchange (HIE) Repository, and the Four Directions Hub (4DH) with the new Patient Index and the Clinical Viewer.



Status Update: Direct Secure Messaging

Direct Secure Messaging (Direct) is a secure web-based messaging service, specifically designed to meet Certified Electronic Health Record requirements for transmitting and receiving Protected Health Information/Personally Identifiable Information (PHI/PII) electronically.

Accredited with DirectTrust, meets privacy and security compliance requirements as part of a biennial assessment

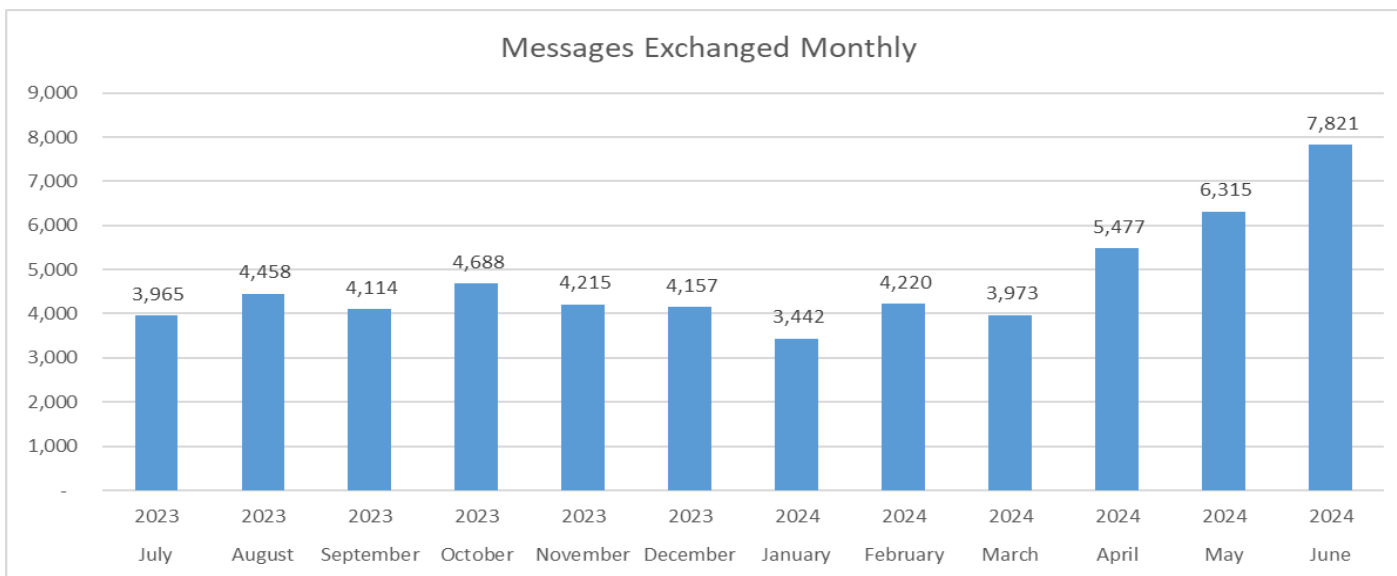
Supports electronic communication among Patients, Healthcare Teams (providers, nurses, message agents, etc...), and External Healthcare Organizations (HCOs) that are members of DirectTrust

Integrated with IHS Electronic Health Record (EHR) for provider ease of access and the Personal Health Record for patient ease of access



Direct Secure Messaging Utilization

Direct contains 156 domains, 36,795 accounts, with over 583,739 messages exchanged



Status Update: Direct Secure Messaging

Recent Improvements:

- Name Change: RPMS Direct Secure Messaging (DIRECT) to Direct Secure Messaging (Direct)
- Prevent Direct Secure Messaging logins for Patients to prevent password sync issues (patients must use PHR to access Direct)
- Implemented Provider Directory Phase 1 & 2 (upload/download with DirectTrust)

V2.0	SERV_DIRECT_ADDR	S PF P PROV_FIRST_NAME	PROV_LAST_NAME	P O C ORG_NAME	O ORG_ADDR_1	ORG_CITY	ORG_STATE	ORG_ZIP	ORG_FAX
DHHSIHS	lisa.nurse@blackhawk.directihs.net	DH# Lisa	Nurse	DHI Black Hawk Clinic	Pi 356 110 E 930 ROAD	STROUD	OK	74079	
DHHSIHS	Amy.Doctor@BEL.DIRECTIHS.NET	DH# Amy	Doctor	DHI Quentin N. Burdick Memorial Health Care Facility	Pi MOONLIGHT DRIVE HIGHWAY 5	BELCOURT	ND	58316	7014778410
DHHSIHS	catawba@catawba.directihs.net	DH# Catawba	Service Unit	DHI Catawba Health Service	Pi 2893 STURGIS ROAD	ROCK HILL	SC	29730	8033669141
DHHSIHS	Message.Agent@fdihb.directihs.net	DH# Message	Agent	DHI Fort Defiance Indian Hospital	Pi CORNER OF ROUTE NAVAJO 12 & N7	FORT DEFIANCE	AZ	86504	9287298019
DHHSIHS	HIM@ihcrc.directihs.net	DH# HIM	IHCRC	DHI Indian Health Care Resource Center of Tulsa	Pi 550 SOUTH PEORIA AVENUE	TULSA	OK	74120	9185826405

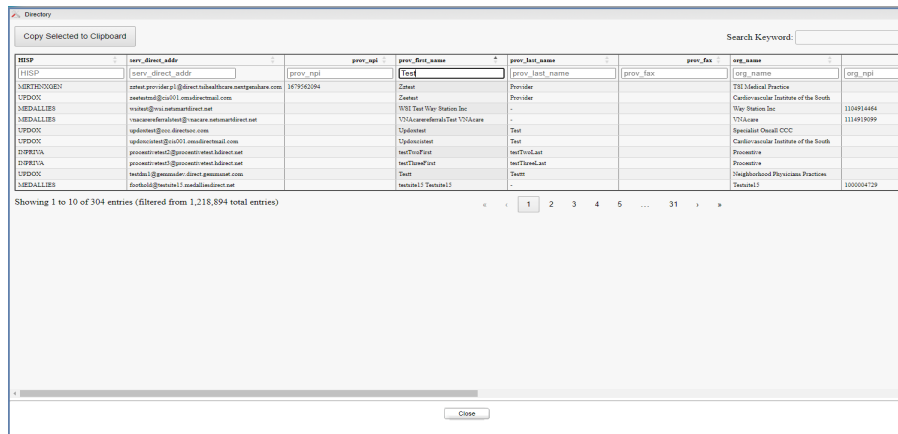
- Resolved Multiple Session Issues
- Updated Notification Email Settings
- Added Unread/Read option to mailboxes
- Added a Search/Filter Option to reports



Status Update: Direct Secure Messaging

Upcoming Initiatives:

- Message Search Functionality
- Update Password Requirements
- Provider Directory Phase 3: User Interface (early design phase image)



The screenshot shows a web-based directory search interface. At the top, there is a search bar labeled "Search Keyword:" and a "Copy Selected to Clipboard" button. Below the search bar is a table with columns for various provider attributes. The table contains several rows of data, including provider names, addresses, phone numbers, and specialties. At the bottom of the table, it indicates "Showing 1 to 10 of 304 entries (filtered from 1,218,894 total entries)".

HSP	serv_direct_addr	prov_npi	prov_bot_name	prov_bot_name	prov_bot	org_name	org_npi
HSHP	serv_direct_addr	prov_npi	Test	prov_bot_name	prov_bot	org_name	org_npi
MEKHONGBN	zestst.providerpl@direct.tubalhcare.netgenbase.com	367962094	Test	Provider		T&B Medical Practice	
SPDOO	zestst.providerpl@direct.tubalhcare.netgenbase.com		Test	Provider		Cardiovascular Institute of the South	
MEDALLIES	zestst.providerpl@direct.tubalhcare.netgenbase.com		1032 Test Way, Station Six			Wp Station Six	1034814444
MEDALLIES	zestst.providerpl@direct.tubalhcare.netgenbase.com		1032 Acorn Federal Trail, 1032 Acorn			1032 Acorn	1034819099
SPDOO	zestst.providerpl@direct.tubalhcare.netgenbase.com		1032 Acorn	Test		Specialist Dental ECC	
SPDOO	zestst.providerpl@direct.tubalhcare.netgenbase.com		1032 Acorn	Test		Cardiovascular Institute of the South	
SPDOO	zestst.providerpl@direct.tubalhcare.netgenbase.com		1032 Acorn	Test		Procedura	
SPDOO	zestst.providerpl@direct.tubalhcare.netgenbase.com		1032 Acorn	Test		Specialist Physician Practice	
MEDALLIES	zestst.providerpl@direct.tubalhcare.netgenbase.com		1032 Acorn	Test		1032 Acorn	1030004729



Directory

Copy Selected to Clipboard Search Keyword:

HISP	serv_direct_addr	prov_npi	prov_first_name	prov_last_name	prov_fax	org_name	org_npi
HISP	<input type="text" value="serv_direct_addr"/>	<input type="text" value="prov_npi"/>	<input type="text" value="Test"/>	<input type="text" value="prov_last_name"/>	<input type="text" value="prov_fax"/>	<input type="text" value="org_name"/>	<input type="text" value="org_npi"/>
MIRTHNXGEN	zztest.provider.p1@direct.tsihealthcare.nextgenshare.com	1679562094	Ztest	Provider		TSI Medical Practice	
UPDOX	zztestmd@cis001.omsdirectmail.com		Zetest	Provider		Cardiovascular Institute of the South	
MEDALLIES	wstest@wsi.netsmartdirect.net		WSI Test Way Station Inc	-		Way Station Inc	1104914464
MEDALLIES	vncarereferralstest@vncare.netsmartdirect.net		VNacarereferralsTest VNAcare	-		VNAcare	1114919099
UPDOX	updoxtest@ccc.directsoc.com		Updoxtest	Test		Specialist Oncall CCC	
UPDOX	updoxcistest@cis001.omsdirectmail.com		Updoxcistest	Test		Cardiovascular Institute of the South	
INPRIVA	procentivetest2@procentivetest.hdirect.net		testTwoFirst	testTwoLast		Procentive	
INPRIVA	procentivetest3@procentivetest.hdirect.net		testThreeFirst	testThreeLast		Procentive	
UPDOX	testdm1@gemmsdev.direct.gemmsnet.com		Testt	Testtt		Neighborhood Physicians Practices	
MEDALLIES	foothold@testsite15.medalliesdirect.net		testsite15 Testsite15	-		Testsite15	1000004729

Showing 1 to 10 of 304 entries (filtered from 1,218,894 total entries)

« < 1 2 3 4 5 ... 31 > »



Direct Secure Messaging: Benefits

- **Improved Communication and better coordination of Care:** It facilitates efficient and reliable communication between healthcare providers, allowing for timely sharing of patient information and test results, leading to better coordinated and integrated patient care.
- **Patient Involvement:** Patients can securely communicate with their healthcare providers, enhancing patient engagement and involvement in their own care.
- **Faster Referrals:** It enables quick and secure referrals to specialists, ensuring that patients receive timely consultations and follow-up care.
- **Enhanced Security:** Direct Secure Messaging ensures that sensitive health information is transmitted securely, reducing the risk of data breaches and unauthorized access.
- **Compliance with Regulations:** By using Direct Secure Messaging, healthcare organizations can comply with legal and regulatory requirements for secure data exchange, such as HIPAA.
- **Reduced Paperwork:** Direct Secure Messaging minimizes the need for paper-based communication, streamlining administrative processes and reducing the risk of lost or misfiled documents.
- **Cost Savings:** By reducing the reliance on traditional mail and fax, Direct Secure Messaging can lower operational costs associated with printing, mailing, and handling physical documents.
- **Audit Trails:** It provides a verifiable record of all communications, which can be useful for auditing purposes and ensuring accountability in patient care.



Status Update: Personal Health Record



<https://phr.ihs.gov>

PHR Login/Registration



What is the Personal Health Record?

The Indian Health Service Personal Health Record (PHR) can help you access your health information. You can track medications and lab results, contact your health care provider, and much more - all from the privacy of your personal computer and mobile device.

Who can use the Personal Health Record?

Any patient within the Indian Health System can register to use the PHR. As part of the registration process, patients must verify their identity at an Indian Health Service, tribal, or urban health care facility.

When should I use the Personal Health Record?

The PHR is a tool that provides you with timely access to your health information. It is not a substitute for meeting with your health provider. If you are experiencing a medical emergency, call 911 or go immediately to the closest emergency room.

[Register to use PHR](#)

PHR Login

* Indicates Required Field.

Username*

Password*

[Login](#) [Forgot Username or Password?](#)

PHR Maintenance

The PHR is updated on Thursdays between 10 pm and 11 pm Eastern Time (9pm-10pm CT, 8pm-9pm MT, 7pm-8pm PT). You may not be able to log into your PHR during this time. We apologize for any problem this may cause. Thank you for your patience. If you have questions, please contact your healthcare facility.

[About PHR](#) | [Privacy Policy](#) | [Terms and Conditions](#) | [Contact Us](#) | [FAQ](#)

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Status Update: Personal Health Record

Personal Health Record is a secure web-based application that enables verified patients to view their clinical information and use this information to interact with their medical team.

PHR Admin Portal – management application utilized for administrative account management, patient management, patient account linking, and reports

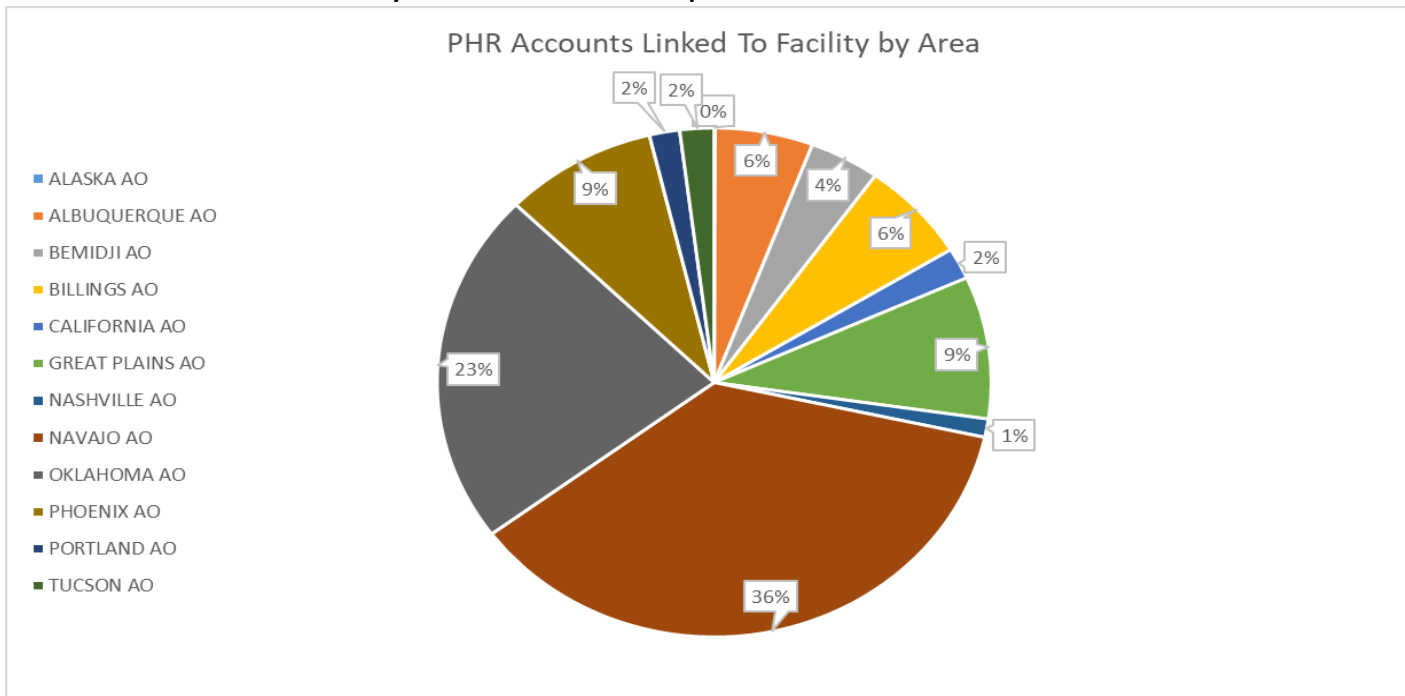
PHR Patient Portal – application utilized by patients

- View medical information (lab results, immunizations, etc...)
- View upcoming appointments
- Request medication refills
- Communicate with their healthcare team via Direct Secure Messaging



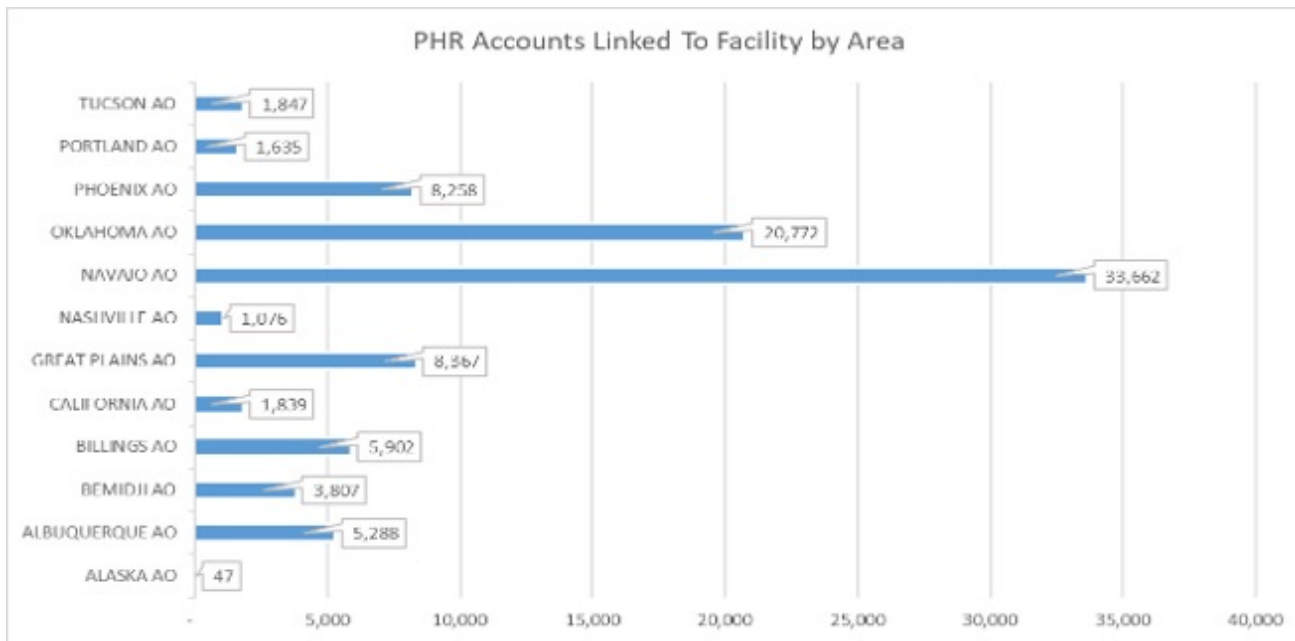
Personal Health Record Utilization

PHR is utilized used by 28,960 verified patients nationwide



Personal Health Record Utilization

PHR is utilized used by 28,960 verified patients nationwide



AO = Area Office



Status Update: Personal Health Record

Data Dependencies

- RPMS BCCD Patch
- RPMS Background Task schedule to send CCDAs every 24 hours

Appointments List	
My Info	
Medications	
Health Issues	
Test Results	
Immunizations	
Vital Signs	
My Messages	
Procedures	
Hospital Admissions	
For More Information	
Download My Data	

Upcoming Tests	
Date	Test
4/8/2015	URINALYSIS- CIT
5/9/2015	LIPID PANEL - CIT [24321-1]
5/9/2015	HbA1c w/eAG
6/8/2015	GLUCOSE [2395-4]
5/29/2015	CSC W/AUTO DIFF- CIT [67021-8]

Upcoming Appointments		
Visit Date and Time	Specialist	Location
5/15/2015	SEVEN HENRY I MD	90001 1ST AVE, WASHINGTON, DISTRICT OF COLUMBIA 20003
4/2/2015	SEVEN HENRY I MD	90001 1ST AVE, WASHINGTON, DISTRICT OF COLUMBIA 20003

Past and Future Referrals		
Date Time	Specialist	Location and Reason for Referral
4/2/2015	2013 DEMO CLINIC	201 Demo Ave NE, Albuquerque, NM 87109, (505)955-5555; Depressive disorder
12/5/2014	JONES, BARNEY	3522 N. 3RD AVENUE, PHOENIX, AZ 85013, 602-263-8463; Hypothyroidism
5/30/2014	ALBUQUERQUE HOSPITAL	501 Vassar Drive NE, Albuquerque, NM 87106, (505)248-4065; Cardiac chest pain



Status Update: Personal Health Record

Medication Refill Dependencies

- RPMS BPHR Patch
- RPMS Background Task schedule to retrieve refills requests from PHR every 4 hours

[Active Medications](#) [Medication History](#)

Click once on a medication from the list below for instructions about how to use that medication (if available). Click again to make the drop box disappear, or click on the more info link for more information, such as possible side effects.

Medication Name	Prescription Number	Dose	Refills Remaining	Medication Status	Refill Status	More Information
ALBUTEROL HFA 90mcg/Puff 8.5G INH	27051_N1	2 ((puff))	[no data]	active	Call Pharmacy	More Info
CETIRIZINE 10MG TAB PREPACK	20047	10 (mg)	1 refill remaining	active	Request Refill	More Info
PANTOPRAZOLE 40MG TAB	19937	40 (mg)	0 refills remaining	active	Call Pharmacy	More Info
RANITIDINE 150MG TAB PREPACK	20156	1	1 refill remaining	active	Request Refill	More Info
SIMVASTATIN 20MG TAB	20157	20 (mg)	1 refill remaining	active	Request Refill	More Info



Status Update: Personal Health Record

Recent Updates PHR Patient Portal:

Minor restrictions in PHR

- Restrict minors from registering for a PHR Account
- Minors who have become adults must visit an IHS facility to verify their identity and gain access to their account

Patients now have 90 days to complete their in-person PHR account registration

Updates to handle information from BCCD Patch 3 & 4

Web Content Accessibility Guidelines (WCAG) Improvements – Button Display, Password Screens, Error Messaging, etc...

Report Updates to the Admin Portal:

- Report format updated to .CSV format for requested reports
- Removal of the display for patient security questions and answers



Status Update: Personal Health Record

Upcoming Initiatives

PHR Admin Portal

- Report Module Redesign

PHR Patient Portal

- Medication Refill Redesign (medicine cabinet concept will provide one location for all medication as opposed to visit specific medication lists)
- WCAG Redesign of Delegated Access page



Personal Health Record: Benefits

- **Enhanced Patient Engagement:** PHR empowers patients to take an active role in their healthcare through easy access to their health information.
- **Improved Health Management:** Patients can track their medical history, medications, immunizations, and test results, leading to better health management and adherence to treatment plans.
- **Convenient Access:** Patients can access their health records anytime and anywhere, making it easier to share information with healthcare providers during visits or emergencies.
- **Cost Savings:** Improved information availability and sharing can reduce duplicate tests and procedures, leading to cost savings for both patients and healthcare systems.
- **Personalized Care:** With comprehensive health information at their fingertips, patients can receive more personalized and tailored healthcare recommendations from their providers.



Status Update: Real World Testing

Direct and PHR participate in Real World Testing as required by ONC 21st Century Cures Act Final Rule to meet Conditional and Maintenance of Certification requirements

- 170.315(b)(1) Transitions of Care - send/receive
- 170.315(b)(7) Security Tags – summary of care - send
- 170.315(b)(8) Security Tags – summary of care - receive
- 170.315(e)(1) View, download, and transmit to 3rd party
- 170.315(h)(1) Direct Project, Edge Protocol, and XDR/XDM

[Real World Testing | HealthIT.gov](#)



CCDA

As part of interoperability, the CCDA documents are shared via the Electronic Health Record, Health Information Exchange, the Personal Health Record, and future initiatives regarding eHealth Exchange.

Future planned updates to the CCDA Document Content include

- Working with the CCDA Technical Advisory Group (TAG) to identify what content sections (not required for Certification) to remove from the default document to address the size concerns raised by the field.

CCDA TAG

- Consisting of the CCDA Technical Team, the CCDA Federal Lead, and Subject Matter Experts (SMEs), the CCDA TAG meets as needed – approximately once or twice per month and focuses on CCDA usability in general. Usability includes, for example, the size of the document, sections, and fields to be included.
- If you qualify as a Subject Matter Expert and wish to join the CCDA TAG, please reach out to James Garcia (james.garcia@ihp.gov) and request inclusion.



Status Update: 4DH

Currently, 4DH is connected to the eHealth Exchange, however, bi-directional exchange is contingent on policy approval. When eHealth Exchange participants query for a patient within IHS, 4DH responds with a custom message stating, "Patient did not consent to share information."

The 4DH team is working with the eHealth Exchange to integrate with the eHealth Exchange Qualified Health Information Network (QHIN) as part of the TEFCA initiative. Integration with the QHIN network is scheduled for September, although data exchange will not commence immediately. 4DH will continue to respond with "Patient did not consent to share information" until the prerequisites are finalized.

The patient consent module is complex, requiring integration with various systems as part of the workflow. Requirements are still being defined, and we anticipate it will take up to a year to develop a fully functional consent management system. Tribal/Urban sites will need to wait until the MPA is finalized before they can be onboarded through the Joinder Agreement and utilize the data exchange capabilities.

Please note that the delay is primarily due to pending policy decisions rather than technological challenges.

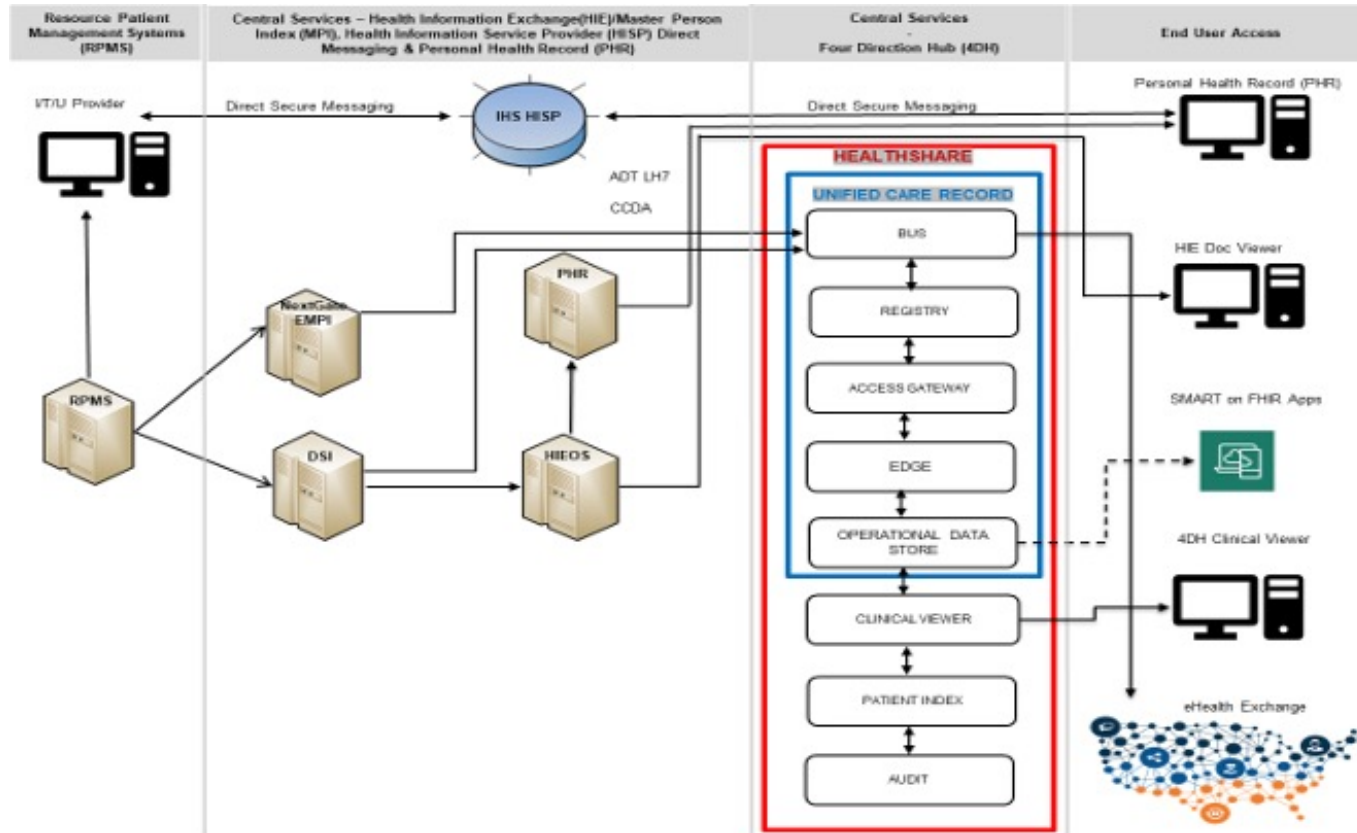


4DH Onboarding Status

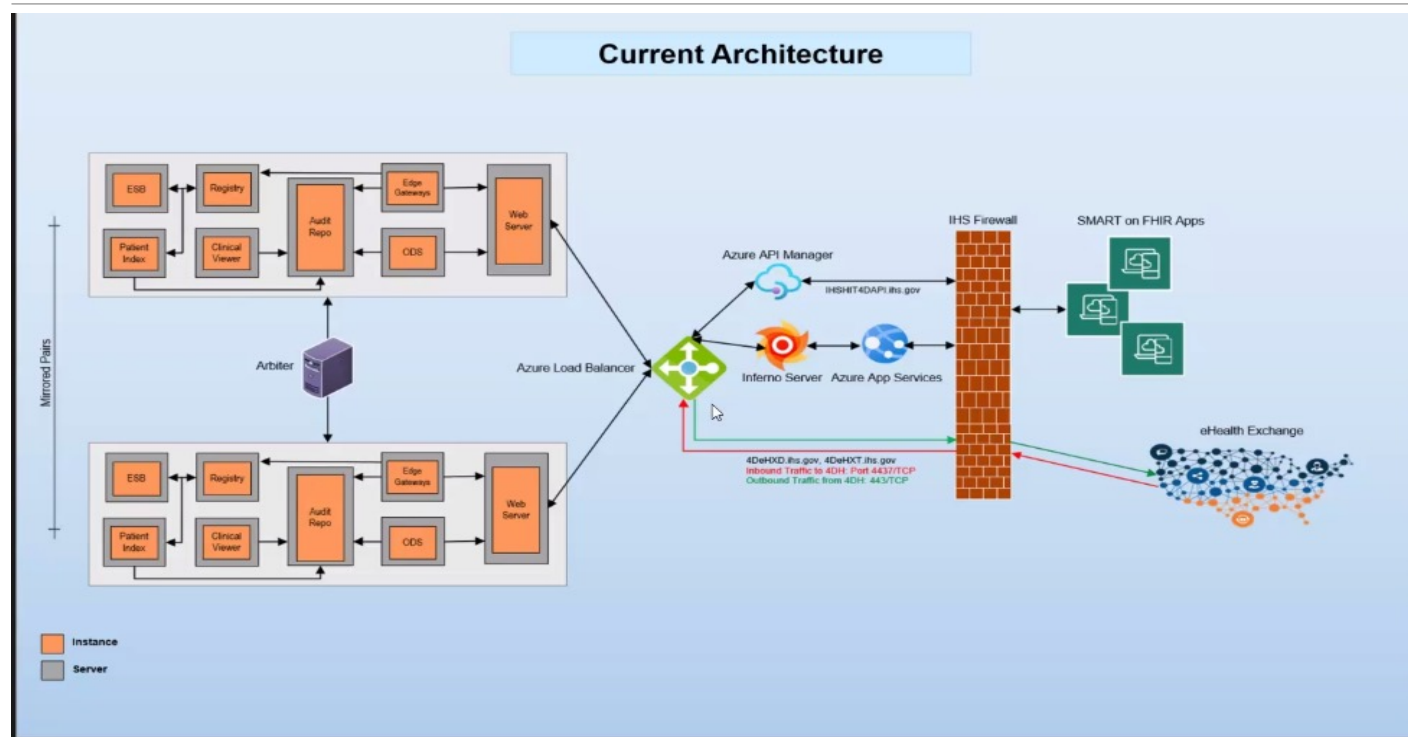
- Data onboarded for all federal sites.
- User onboarding limited to four pilot sites (Chinle, Cass Lake, Hopi, Zuni).



Central Services Infrastructure



4DH Architecture – External Connectivity

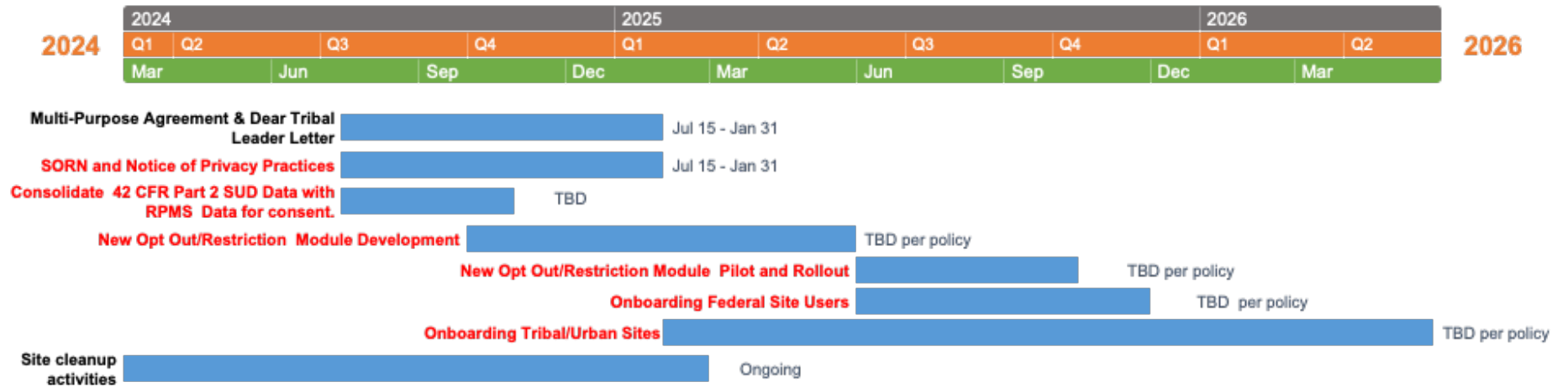


4DH Release Timeline

- Critical prerequisites that need to be finalized before 4DH can go live:
 - Multi-Purpose Agreement (MPA)
 - Tribal & Urban Joinder Agreement
 - System of Record Notice (SORN) & Notice of Privacy Practices (NPP)
 - Consolidating 42 CFR Part 2 Data Identification
 - Opt Out/Restriction Module
- Training and onboarding for remaining federal sites post prerequisites.
- Tribal/Urban site onboarding pending MPA finalization.



4DH Timeline



Policies & Agreements

Multi-Purpose Agreement (MPA)

System of Records Notice and the Notice of Privacy Practices (NPP)

- Revisions submitted to OIT Leadership.
- Public posting at all facilities upon approval.



Opt Out/Restriction Module

- Opt-out model: ePHI shared by default, including SUD data.
- Patient has the right to Opt Out of sharing by completing a form
- Based on the limitations of this system, restriction request will be treated as Opt Out of Sharing.
- Estimated development time: up to one year.



Interoperability Initiatives

- Trusted Exchange Framework & Common Agreement (TEFCA)
- Health Data, Technology, & Interoperability (HTI-1)
- United States Core Data for Interoperability v3 (USCDI v3)
- Real World Testing (RWT)
- HL7 Fast Healthcare Interoperability Resource (FHIR)
- DirectTrust Privacy and Security Assessment
- DirectTrust HISP Accreditation



Interoperability Resources

CIS Webpage - <https://www.ihs.gov/cis/>

- Webpage updated and being updated to provide up to date and additional information. Such as CIS Application documents, related forms and resources, and list of associated authorities and regulations.

ServiceNow Incidents

- For better tracking and response, always use ServiceNow or email to ITSupport@ihs.gov to report an issue and/or ask questions.
- Avoid emailing and message to individual team members.

ServiceNow Request

Use the following requests in the ServiceNow instead of incident for better routing. Non-D1 users can send request to ITSupport@ihs.gov.

- Direct Secure Messaging Password Reset Request
- PHR Password Reset Request
- RPMS Deployment Request

LISTSERV

- Sign up and stay on top of CIS updates and announcements - Central Interoperability Suite (CIS)



Interoperability Resources

- CIS Webpage: <https://www.ihs.gov/cis/centralized interoperability-suite-cis/>
 - Locate CIS User and Admin manuals
 - Review Authorities and Regulations noted in the Multi-purpose
 - Retrieve related Forms and Resources (i.e. Readiness Assessment Form)
 - Navigate to the Training Library to locate past recordings and material

[Centralized Interoperability Suite \(CIS\)](#) / CIS Documents

Centralized Interoperability Suite (CIS)

[Authorities and Regulations](#)

[API Documentation](#)

[CIS Documents](#)

[Forms and Resources](#)

[Training](#)

[Contact Us](#)

Central Interoperability Suite (CIS)

The IHS Central Interoperability Suite (CIS) is a group of applications that facilitate the presentation of visit data for patients, the secure messaging between provider and patient or between providers, the matching of patients with their data, and the exchange of visit data within and outside of the Indian Health System. The applications supporting these functions are the Personal Health Record (PHR), Direct Secure Messaging (Direct), the legacy Master Patient Index (MPI), the legacy Health Information Exchange (HIE) Repository, and the Four Directions Hub (4DH) with the new Patient Index and the Clinical Viewer.

[Direct Secure Messaging \(Direct\)](#)

[Personal Health Record \(PHR\)](#)

[Four Directions Hub \(4DH\)](#)



Please address general Interoperability questions to IHSCISTeam@ihs.gov or refer to [CIS Documents | Centralized Interoperability Suite \(CIS\) \(ihs.gov\)](#) for additional information.

If you have questions regarding CIS policies please contact Tammy Crazy Bull at Tammy.CrazyBull@ihs.gov.

If you have specific questions regarding the individual CIS applications the Federal Leads for each are listed below:

- MPI/CCDA – James Garcia – james.garcia@ihs.gov
- 4DH/HIE – Jason Flatter – jason.flatter@ihs.gov
- PHR/Direct – LCDR Jessica Graham – jessica.graham@ihs.gov

If you have other questions about Interoperability contact Bobby Villines at bobby.villines@ihs.gov



