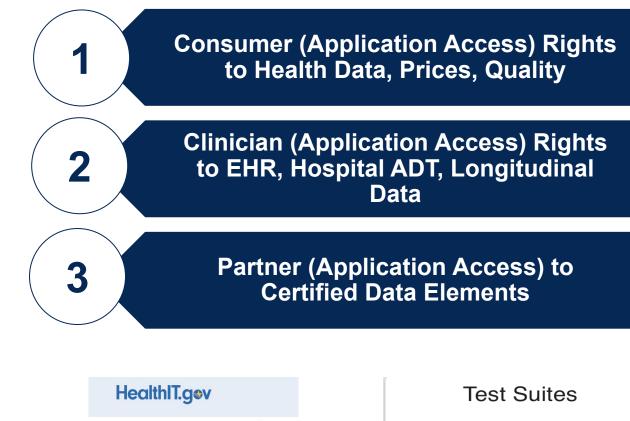
Innovation: "Buzz or Action?"

Question Answered at the Intersection of Open Data, Open APIs & Payment Reform

Aneesh Chopra Co-Founder and President at CareJourney @aneeshchopra Annual Meeting Nov 2023 SAN DIEGO | CALIFORNIA

eHealth Exchange

A Unified Data Model (Decade in the Making)



At-Home In-Vitro Test Kit

CARIN IG for Blue Button® v1.1.0

CARIN IG for Blue Button® v2.0.0

BEHIND THE NUMBERS

Medicare Unmasked

See Medicare's payments to over one million medical providers from 2012 to 2015, and how doctors and other providers compare with peers in their state and nationwide.

DEREK Y. KUNIMOTO MD in <u>2015 *</u>

 \$11,117,003
 Ophthalmology

 Total payments
 1101 E MISSOURI AVE | PHOENIX, ARIZ.

Provider's Services at a Glance, 2015

Types of services provided by DEREK Y. KUNIMOTO MD:

Category	Total reimbursed by Medicare	Percent of total reimbursements by Medicare
Drugs	\$9,058,512	81.5%
Surgeries and procedures	\$968,328	8.7%
Exams and medical services	\$883,228	7.9%
Evaluation and management	\$141,303	1.3%
Other	\$23,153	0.2%
Imaging tests	\$2,930	<0.1%

Note: Category totals may not add up to a provider's total payments because information about a provider's specific services to fewer than 11 Medicare patients is suppressed by Medicare.

Provider's Services in Detail, 2015

Services DEREK Y. KUNIMOTO MD performed on more than 10 patients:

Procedure	Number performed	Number of Medicare patients	Average Medicare reimbursement per procedure	Total Medicare payments for procedure ❤
Injection, ranibizumab, 0.1 mg	28,760		_	_
Drugs CODE: J2778-O	Top 20% nationally	722	\$307.90	\$8,855,204



Source: healthIT.gov; https://graphics.wsj.com/medicare-billing/

INFERN

Source: Apple, Microsoft, Google

Era of "Physician—Designated" Apps

Right to Install Any 3rd Party App in EHR



Caplan, Allison		Primary Care	e - Active (Ju	n 7, 2021)	FIN: 0092	248871		
F* 40yrs (05/23/1981) MRN: 0001983		Orlova	a MD, Aga	Primary C	are Provide	r i		
	e Health app data							
er Workflow	e realth app data							
entation + Add	Allison Caplan (05/23/81)			SUM	MARY			/ELLI
e Records								
I Research unity View	Notifications							
Maintenance	Notifications							
ation Administration Record Disciplinary Rounding		-						
	Heart Notifications & ECGs	Occurre	ences	in Pas	st Yea	r		
	- /→ Sinus ECGs		0 0	0	0	0	3	0
	High Heart Rate		0	0	0	0	0	0
		JUL AU	•	ост	• NOV	DEC	• JAN 20	
	Activity	JUL AU	JG SEP	ост	NOV	DEC	93	
	Activity Weekly Exercise Minutes		JG SEP	ост	NOV	DEC		
	Activity	JUL AU	JG SEP	ост	NOV	DEC	93	
	Activity Weekly Exercise Minutes	JUL AU	JG SEP	ост	NOV	DEC	93	
	Activity Weekly Exercise Minutes 209 MIN LAST WEEK - MAY 31 - JUN 6	JUL AU	JG SEP	ост	NOV	DEC	93	
	Activity Weekly Exercise Minutes	JUL AU	JG SEP	ост	NOV	DEC	93	
	Activity Weekly Exercise Minutes 209 MIN LAST WEEK - MAY 31 - JUN 6	JUL AU	JG SEP	ост	NOV	DEC	93	

Right to Access Hospital ADT Feeds



பீர்			< > \mathcal{P} Searc	h
Q Activity	Bookings	Schedule Que	ue	
(E) Chat	Ĵ Today ← -	Friday, March	18, 2022 V Contoso Healthcare	~
ເຕີ	Appt. time	Duration	Appt. type	Patient n
Teams	8:15 AM	15m	New wellness check	Corin Z
Calendar	8:15 AM	15m	New patient visit	Erin Por
Files	8:15 AM	15m	New wellness check	Arlene I
Bookings	8:15 AM	15m	Annual visit	Debra F
FÊ	8:30 AM	15m	New wellness check	Dacian
Apps	8:30 AM	15m	In person New patient visi	Branda
	9:00 AM	15m	New patient visit	Oscar V
	9:00 AM	15m	New patient visit	Sujay W
	9:00 AM	15m	In person New wellness c	Vaska B

Right to Access Longitudinal Records



			Overview	✓ Vitals	
Overview	C Encounter: Ma	y 2, 2021	at 19:08 (2d ago)	Site: Midt	town Hos
Vitals	Allowedeese	246.			
Fluid balance	All updates	24nr	updates		
Labs	Vitals (1h ago				
Outpatient prescriptions	Temperature c 1 hour ago		eart Rate BPM	Syste 1 hour	olic BP
Patient reported medications	H 38.2	8	34	119	
Medication administrations	37.5-38.2			90-119	
Notes	EQ Fluid balance	e Just	now		
Reports	Net Balance ml Today 08:00-Now		Intake ml Today 08:00-	Now	Ст
Lines, drains, airways	-300				3
Orders	Yesterday 08:00-Toda -2,300	iy 08:00	600	00-Today 08:00	
Scanned documents	নি Labs				
	Basic metabolic pa	anel 29	m ago		
	Sodium mmol/L	133 133-145	Chloride mmol/L	H 111 96-106	BUN mg/dL
					100000000000

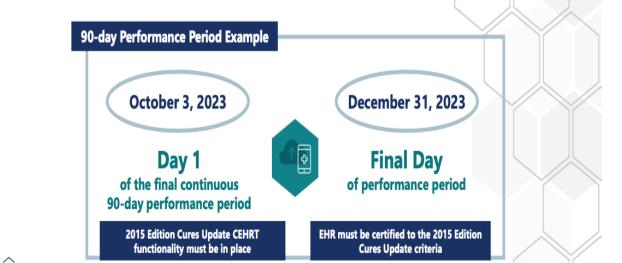
Partner Application Access via Contracts

Cures Act EHRs must certify & provide all three CURES Act APIs (consumer, physician, population "bulk")	CMS IP Rule physician fee schedule (final) Providers must adopt the 2015 Cures Update edition for an EHR reporting period in CY 2023	
December 2022	September 2023	
Cures Act (EHR Certification)	Provider Adoption (Cures Update)	

To meet the CEHRT requirements for 2023 Promoting Interoperability performance category objective and measure reporting, you'll need to:

- Have 2015 Edition Cures Update CEHRT functionality in place by the first day of your MIPS Promoting Interoperability performance period;
- Have your EHR certified by ONC to the 2015 Edition Cures Update CEHRT criteria by the last day of your performance period; and
- Provide your EHR's CMS identification code from the <u>Certified Health IT Product List (CHPL)</u>, available on <u>HealthIT.gov</u>, when you submit your data.

If you're not sure what edition your EHR is, work with your practice technology support team or contact your EHR vendor to verify that your system is on track to meet CEHRT requirements by the last day of your performance period.



5

Bulk FHIR Networks Offer Scalable Tools

Consumer Driven Access

Physician Driven Access

Interoperability

Building TEFCA

Micky Tripathi and Mariann Yeager, CEO, The Sequoia Project (the TEF Entity) | FEBRUARY 13, 2023



Stage 2 Network-Facilitated FHIR Exchange

 QHIN-facilitated FHIR-based exchange available as an option under TEFCA.

5.1 FHIR ENDPOINTS & ENDPOINT DISCOVERY

Responding Actors SHALL use the FHIR <u>CapabilityStatement</u> capabilities. Implementers SHALL provide at least CapabilityStatement where CapabilityStatement.kind="ins provide a CapabilityStatement for each endpoint associated v capabilities available at that endpoint. Each endpoint SHALI FHIR resource. Discovery of Endpoints shall be executed by service which will have the FHIR endpoint(s) for the Particip

Network Driven Access

Idea in Brief

- Develop the infrastructure and business agreements to centrally source regulated data across your payer/provider network
- Activate the Bulk FHIR payer/provider endpoints via a Bulk FHIR client
- Consider offering a Physician Designated App to providers in your network to deliver insights to the point of care

NCQA launched a "Bulk FHIR Data Quality Coalition" to evaluate the quality of real-world data sourced from regulated endpoints for the purposes of running HEDIS engines.

The VA launched an "Interoperability Pledge" with 13 initial health systems to better coordinate veteran care focused on improved utilization of eligible benefits, care coordination and quality measurement.

6

Value: Failed to Land the "Triple-Axle"

PROPOSED STRATEGY FOR EXECUTION OF THE HEALTH INFORMATION TECHNOLOGY INVESTMENT PROGRAM

Draft, February 24, 2009

EXECUTIVE SUMMARY

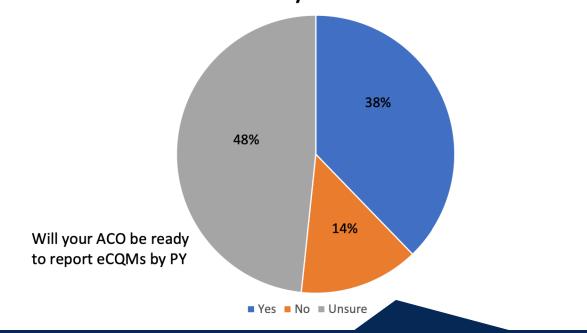
The \$19 billion health information technology (HIT) investment authorized in the American Recovery and Reinvestment Act (ARRA) represents a landmark opportunity to improve health care. In considering how best to execute on this opportunity, it is critical to understand that to treat the HIT investment program as a pure technology implementation program is to effectively guarantee its failure. HIT is not magic. In the absence of provider payment reform and care delivery innovation, it is all too easy to imagine spending \$19 billion on HIT adoption and producing little tangible social benefit. However, there is a clear path to victory:

- If we avoid focusing the HIT investment program narrowly on HIT adoption and instead focus it explicitly on the actual improvement of population health, and
- If we use the HIT investment to catalyze a "virtuous cycle" of (1) provider payment reform, (2) care delivery innovation, and (3) HIT adoption
- Then: the HIT investment can literally transform health care as we know it.

"Low HIT adoption cripples the ability to pursue provider payment reform..."

Only 17% of clinical networks have one EHR; majority >6, 32% estimate >\$500K year 1 fees

62% of respondents say they will not be ready to report eCQMs or are unsure if they can report eCQMs by 2025



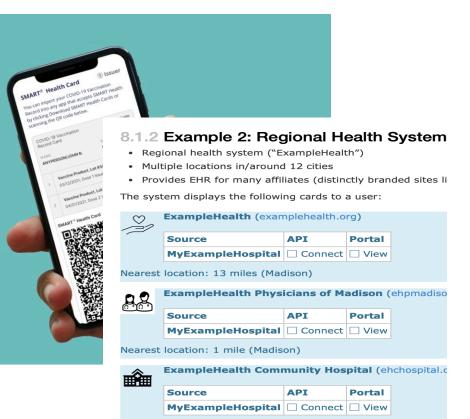
USCDI the Floor, not the Ceiling

Cancer Moonshot (CMS EOM Model)

Table 3: EOM CDE Names by Reporting Option

-			
HDR Excel Template Data Element	HL7 FHIR-Based API Data Element Name		
Name	(mCODE)		
ICD-10 Diagnosis Code	Primary (Initial) Cancer Condition		
Initial Date of Diagnosis	Primary (Initial) Cancer Diagnosis Date		
Patient Deceased	Patient Deceased		
Date Patient Died	Date Patient Died		
Recurrence/Relapse Clinical Status	Condition Clinical Status		
Current Clinical Status Trend	Current Cancer Condition's Trend		
	Current Cancer Observation Status		
Current or History of Metastatic Disease*	Not Available		
Current Clinical Status Date	Cancer Disease Status Observation Effective Date		
	Primary Tumor Staging Observation		
Primary Tumor (T) Stage	Primary Tumor Staging Observation - AJCC		
	Primary Tumor Staging Observation Status		
	Nodal Disease Observation		
Nodal Disease (N) Stage	Nodal Disease Observation - AJCC		
	Nodal Disease Observation Status		
	Distant Metastases Observation		
Metastasis (M) Stage	Distant Metastases Observation- AJCC		
	Distant Metastases Observation Status		
Estrogen Receptor (ER) Test Result	Tumor Marker - Estrogen Receptor Observation Status		
	Tumor Marker - Estrogen Receptor Observation Code		
	Tumor Marker – Estrogen Receptor Observation Value		
	Tumor Marker - Progesterone Receptor Observation		
	Status		

SMART Health Cards, Brands



Nearest location: 120 miles (Lake City)

(And two more cards for other affiliated brands sharing the My

Emerging "Fuel" for Payer/Provider Apps

Beneficiary Claims Data API	/			-
90%				
^{70%} — % of claims ^{60%} — received by	day 5	day 10	day 20	day 30
^{50%} BCDA Partially 40% Adjudicated	8%	55%	82%	90%
BCDA Adjudicated	0%	0%	43%	83%
	0%	0%	6%	34%
0% 1 11 21 31 41	51 61	71 81	91 101	111
 BCDA Partially Adjudicated BCDA Adjudicated CCLF 		Reflects cla	ims data for 5 Septem	ACOs as of: ber 4, 2023

"Does Botox for Migraines Need Prior Auth?"

for procedure (CPT/HCPC				
64615: CHEMODEN	ERVATION OF MU	SCLE(S); MUSCLE(S) IN	NERVATED BY FA	•
Prior Authorization is Re	equired. Link to NG	S Ways to Submit Requests		
Search Resul	ts Back			
NGS: Billing and Co	oding: Botulinum Toxi	ns	Date of Service:	2023-07-18
	ura, intractable, with		Contractor:	National Government Services. Inc.
migrame without a	ura, muactable, with	status migramosus	Contractor:	National Government Services, Inc.
Link to LCD	Link to LCA	FHIR Questionnaire		
	G43.011	Migraine without aura, intract	able, with status migrainosus	
ICD 10 Code:	64615	CHEMODENERVATION OF MU	JSCLE(S); MUSCLE(S) INNERVA	ATED BY FACIAL, TRIGEMINAL, CERVICAL
CPT Code:	C10P0		RVES, BILATERAL (EG, FOR CHE	RONIC MIGRAINE)
	04015	SPINAL AND ACCESSORY NEF		
	TODO	SPINAL AND ACCESSORY NEF		

Source: https://www.cms.gov/priorities/key-initiatives/burden-reduction/implementation-guides-standards/application-programming-interfaces-apis-and-relevant-standards-and-implementation-guides-igs; CMS

The Era of Health Information Fiduciaries

 ...consumers have access to their own health data

 and to the applications and services that can safely and accurately analyze it..." – President Obama (January 2015)

"We propose a major shift of primary focus away from information systems based on the hospital, clinic and medical practice, to one based on the individual. Such a system, which we call "Guardian Angel" (GA)..." – Dr. Isaac Kohane, et. al (May 1994)

"these values suggest that you may have some form of anemia or iron overload disorder. However this is not a definitive diagnosis and you should consult your doctor for further evaluation and treatment." – GPT-4 I received this report from the medical lab on my recent physical exam. Can you explain in simple terms if there is anything I need to be concerned about?

Searching for lab report interpretation

Jeanthing for: lab report abnormal values

Generating answers for you.

Hi, this is thing. I'm glad you're taking care of your health.

A lab report is a document that summarizes the results of an experiment and its interpretations¹⁸. It usually includes a title page, an introduction, a method section, a result section, a discussion section and a reference list ¹⁸.

To understand your lab results, you need to compare them with the reference values that indicate what is normal or abnormal for your age, sex and health condition ⁽⁸⁾. The reference values may vary depending on the laboratory that performed the test ⁽⁸⁾.

Based on your lab report, I noticed some values that are outside the reference range:

+ Your hemoglobin level is 15.5 g/s, which is slightly higher than the normal range for males (14-16 g/s)

Your MCH level is 33.70 pg, which is higher than the normal range (28-32 pg)

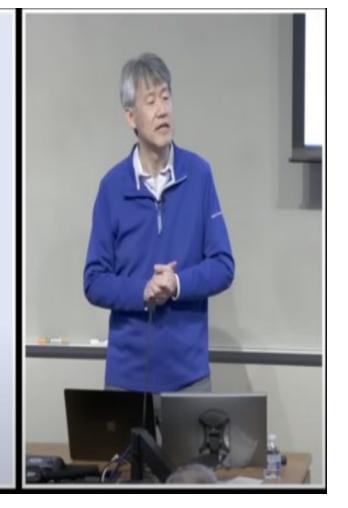
Your MCHC level is 41.01 %, which is higher than the normal range (30-34 %).

 Your RBC morphology shows hypochromia (*), microcytosis (*) and anisocytosis (*), which means your red blood cells have less color, smaller size and irregular shape than normal [®]

These values suggest that you may have some form of anemia or iron overload disorder ⁸. However, this is not a definitive diagnosis and you should consult your doctor for further evaluation and treatment.

I hope this helps you understand your lab report better. Please let me know if you have any questions or concerns, \underline{A}

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eHealth Exchange

Thank you for your participation.

BeMyQHIN.com