# 

#### **Interoperability: APIs and FHIR Heat Up**

INTEROPATHON | 2020 | Hosted by:



PRESENTED BY





# Provol sponsor of INTEROPATHON



President and Chief Strategy Officer

May 21, 2020

**Diameter** Health

# **APIs Empower Incredible Apps**





#### Lyft and Uber work using GPS APIs

- Allows data to reliably be retrieved from driver and the rider
- Consistent, clean data format
- Machine algorithms work superbly on clean data
- Allows developers to focus on innovation (not normalizing data)

DiameterHealth.com

# **FHIR Depends on Standard Data Inputs**

```
{
    "location": {
        "lat": 51.0,
        "lng": -0.1
    },
    "accuracy": 1200.4
}
```

This is what Google APIs return for location data

The power of APIs is that this is incredibly simple, even for a developer who doesn't know much about geolocation:

- location.lat = latitude in degrees
- location.lng = longitude in degrees
- accuracy = radius in meters of accuracy

Simplicity = easy implementation

Can't customize data format and only 2 vendors!

Sample API call from <u>https://www.googleapis.com/geolocation/v1/geolocate</u> Source: <u>https://developers.google.com/maps/documentation/geolocation/intro</u>



DiameterHealth.com

# **FHIR Example**

<pre>{     "resourceType" : "Medication     "id" : "uscore-ms1",     "meta" : {         "profile" : [         "http://hl7.org/fhir/us/core     ]     },     "text" : {         "status" : "generated",         "div" : "<div ms1<="" p="" xmlns='\"http://'></div></pre>	Statement", */StructureDefinition/us-core-medicationstatement" */StructureDefinition/us-core-medicationstatement" */StructureDefinition/us-core-medicationstatement" */StructureDefinition/us-core-medicationstatement" */StructureDefinition/us-core-medicationstatement" */StructureDefinition/us-core-medicationstatement" */StructureDefinition/us-core-medicationstatement" */StructureDefinition/us-core-medicationstatement" */StructureDefinition/us-core-medicationstatement" */StructureDefinition/us-core-medicationstatement" */StructureDefinition/us-core-medicationstatement" */StructureDefinition/us-core-medicationstatement" */StructureDefinition/us-core-medicationstatement"	t coded right?
<pre>-example.html("&gt; -example.html("&gt; -example.html("&gt; S555(HOME) amy &gt; (ongoing)</pre>	ing":[ "system":"http://www.nlm.nih.gov/research/umls/rxnorm", "code":"206765", "display":"Lisinopril 10 MG Oral Tablet [Prinivil]"	What if text and coding don't align?
"display" : "Amy Shaw" }, "effectivePeriod" : { "start" : "2010-05-01" }, "dateAsserted" : "2016-05-011	What happens when the sig	is unstructured?
Diameter Health	Sample API call from hapi.fhir.org adapted to US CORE Example http://hl7.org/fhir/us/core/2019Jan/MedicationStatement-uscore-ms1.json.html	DiameterHealth.com

# FHIR Won't Ignite Without Clean Data



#### How can we improve healthcare when

- 80% of allergies aren't coded appropriately (30% no code at all)
- 70% of lab results don't use right vocabulary or units (45% = no LOINC)
- Nearly 40% of medications don't have right coding for quality measures<sup>1</sup>



1. D'Amore et al. Using Clinical Data Standards to Measure Quality: A New Approach. Applied Clinical Informatics. 2018

DiameterHealth.com

# **The Need For Data Refinement**



**The Pipes** 

Transports crude clinical data from source to where needed



Refinery

Create high-octane fuel from unrefined data resources



The Car

Uses the fuel to drive improvements in healthcare



DiameterHealth.com

# **FHIR Patient Access Demo**

- https://www.youtube.com/watch?v=zfcX8DJwAus
- 1:53 running time



DiameterHealth.com

confidential



Let's connect:

<u>www.DiameterHealth.com</u> jdamore@diameterhealth.com



#### **WALYNIATE**

### Integration Redux (map & reduce)



Sean Zitello Director, Co-Creation Lab





**WLYNIATE** 





**WLYNIATE** 

#### Semantic Interoperability



Jeffery T. Pollock, and Ralph Hodgson, Adaptive Information. Improving Business Through Semantic Interoperability, Grid Computing, and Enterprise Integration. Wiley-InterScience, 2004, pg. 138

**WLYNIATE** 

A Short History of Interoperability http://www.mdpnp.org/uploads/1\_Robkin\_26Jan.pdf

**WLYNIATE** 



17

# Golden Age of Healthcare IT



**X LYNIATE** 

Issa Arts Artwork — Identity Crisis. Personal illustrations series

#### **W**LYNIATE

### Integration Redux (map & reduce)



Sean Zitello Director, Co-Creation Lab



### Standards Array (Map)



Interoperability Personas (Reduce)



# Integration Redux



# Augusto Health IT

We have the technical expertise, knowledge, and experience to help you execute your vision in healthcare and interoperability.

augustohealthit.com

### Who are we?

- We are a custom software design and development consultancy.
- Based in Grand Rapids, MI & Greensboro, NC.
- Founded in 2016.
- We focus on cloud native web, mobile and SaaS solutions.







### Proud sponsors for the second time!



The Augusto team is splitting up to join other teams at the Interopathon. We are looking forward to meeting you and working together.



**Paul Warner** MiHIN Engagement Lead/ Agile Coach



Justin Wolgamot MiHIN Technical Lead



**Anand Nathan** IOL Developer



Sean Wcisel IOL Developer



**Calvin Chopp** UX and Front End Developer



**Jim Becher** Technical Lead



**Brian Anderson** CEO





#### Augusto Health IT

# **Clients We've Served**













	C	CANDEL	$\Lambda$
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MITSUBISHI CATERPILLAR FORKLIFT AMERICA INC.



MEMBER **ADVANTAGE** MORTGAGE







Augusto Health IT

# What We Do

#### App Development

- Web
- Mobile
- SaaS

#### Staff Augmentation

- Project Managers
- Cloud Solution Engineers
- Application Developers
- Remote & Integrated Development Teams

#### E-commerce Solutions

- B2C, B2B, B2B2C
- Payment API Integrations

#### Cloud Engineering

- Serverless
- Database Services
- Mobile Services
- Data and Analytics
- DevOps
- Infrastructure as Code
- Containers
- Security



Augusto Health IT

# Partner Highlight



We have partnered with MiHIN from vision, development and support of multiple products including:

- Interoperability Land
- Advanced ACRs
- eConsent Management

# "

Augusto's agile, product focused approach has delivered fantastic results for us in a short amount of time. If you're looking for a digital partner that makes your business, stakeholders, goals, constraints, and users an integral part of their software development process, give Augusto a call."

Matt E Michigan Health Information Network (MiHIN)





# Do you need helpingaccelerating interoperability work?



We offer free consultations. Contact us today!General Contactwww.augustohealthit.com/contact-usBrian Andersonbrian@augustoheathit.com

Paul Warner | paul@augustohealthit.com



# Augusto Health

HELPING YOU EXECUTE YOUR VISION

# CMS Patient Access Rule Requirements for Health Plans

# **1**upHealth

• <u>https://1up.health/products/cms-rule</u>

# Contents

- About 1upHealth
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- Who is being regulated
- Requirements for Health Plans
- Product and Architecture Overview
  - Deployment Options
  - Patient Access API
  - Provider Directory API
  - Payer-to-Payer Data Exchange
- Why 1upHealth

https://1up.health

# About 1upHealth

Connected <u>Health</u> <u>Centers</u>

IOK

Healthcare Companies on 1up APIs

**650** 

Transactions processed / second

7000

Government <u>Awards</u>in Healthcare

#### lup workswith



TOP 4 NATIONAL HEALTH PLAN

#### .... MassMutual

Google













MassChallenge HealthTech Winner (Best Co) 2019 \$1MLEAP Award for FHIR Bulk Data ONC Winner 2018 Secure FHIR Server Challenge HHS 1stplace 2018 Privacy Policy Snapshot Challenge HHS 2017 HealthCare Data Provenance Winner ONC 2018 Consumer Health Data Aggregator Award HHS 2017

https://lup.health

# Data sharing via patients is happening

#### Carin Alliance Health App Gallery

**1upHealth** built the **CARIN** Alliance Healthcare App Gallery showcasing FHIR Apps

#### MassMutual Using 1up for Life Insurance Clients

"1upHealth are working with MassMutual to make sure we can all get our life insurance even though we cant be close to each other"





#### Partners Healthcare Online Second Opinions

Partners Healthcare Online Second Opinions using
1upHealth to get clinical data for provider second opinions



https://lup.health

# **21st Century Cures Act Overview**

#### **21st Century Cures Act (Cures Act)**

Signed into law in December 2016, defined interoperability and prohibited information blocking. The Cures Act gave HHS further ability to propose and enactregulations.



#### **ONC Final Cures Act**

Final Rule released March 2020, covering Health IT Certification requirements and defining exceptions to information blocking



#### **CMS Patient Access Rule**

CMS Final Rule released March 2020 including requirements for CMS-regulated health plans, Providers, and Hospitals

(Focus of presentation)

https://1up.health

# Who is Being Regulated: CMS plans

- 1. Medicare Advantage (MA) organizations,
- 2. Medicaid Fee-for-Service (FFS) programs,
- 3. Medicaid managed care plans,
- 4. CHIP FFS programs,
- 5. CHIP managed care entities,
- 6. QHP issuers on the FFEs\*

https://1up.health

\*excluding issuers offering only Stand-alone dental plans (SADPs) and QHP issuers offering coverage in the Federally-facilitated Small Business Health Options Program (FF-SHOP)
# **Requirements for Health Plans**

### 1. Patient Access API - by July 12021

Patients must be able to share claims, encounter, clinical & formulary data data via FHIR APIs & developers must be able toaccess

### 2. Provider Directory API - by July 12021

Public API provider directory for in-network doctors & pharmacies

### 3. Payer-to-Payer Data Exchange - by Jan 12022

Ability for health plans to share health information with another health plan to which the member transitions

https://1up.health

## **Product Overview**

Health plans can utilize one module or a fully integrated solution to cover all CMS requirements



https://1up.health

# **Architectural Overview**



https://lup.health

# **Deployment Options**

SaaS Multi tenant	<ul> <li>Deployed on 1up's Serverless stack</li> <li>Data is logically isolated from customers</li> <li>Fully managed by and hosted by 1upHealth</li> </ul>
SaaS Single Tenant	<ul> <li>Deployed on 1up's Serverless stack</li> <li>Only your data in this environment</li> <li>Fully managed by and hosted by 1upHealth</li> </ul>
PaaS Managed Deploy	<ul> <li>Deployed on your serverless public cloud</li> <li>Runs within your own VPC</li> <li>Managed by 1up externally</li> </ul>

https://lup.health

# Patient Access API - by July 2021

CMS-regulated health plans are required to implement a HL7 FHIR R4 API that allows patients to access their claims, encounter and a subset of their clinical info through 3rd party apps of their choice

**1**upHealth



https://1up.health

# 3-Legged OAuth2 Flow (1of2)

#### **3rd-Party Health App** (requesting a connection with a health plan)



### CMS Rule 3-Legged OAuth2 I upHealth Auth Flow

- User taps a "connect" button or link in 3rd-Party App
- 2 3rd-Party application redirects → the user to a Health Plan (1upHealth) Authentication webpage
- 3. User logs into the Health Plan's(1upHealth's) ConsentApp
- 4. 1upHealth redirects the user back to
- the 3rd-Party app using the app's
   redirect\_uri with an auth code

#### Health Plan Member ConsentApp (white-labeled 1upHealth)



#### Authorize Health History?

Health History will be able to





# **Provider Directory API** - by July 2021

CMS-regulated health plans (except QHP issuers on the FFEs) are required to make provider directory information publicly available via a standards-based API.

### **让**1upHealth



- Convert data to FHIR
- Expose via Public API Endpoint

Provider names, addresses, phone numbers, and specialties Info

- No authorization required as will be publicly available data
- Public-facing digital endpoint on the health plan's website to ensure public discovery and access

#### All 3rd Parties

• Consume Directory API data

**\*** 

https://1up.health

# **Payer to Payer Data Exchange** - Jan '22

CMS-regulated health plans are required to exchange certain patient clinical data (specifically the U.S. Core Data for Interoperability (USCDI) (this is a spec on top of FHIR) at the patient's request



Laboratory Tests, Medications, Patient Demographics, Problems, Procedures, Provenance, Vital Signs

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# **3rd-Party Application Vetting / Gallery**

Terms of Service /Privacy Policy Review Do you notify members in the event of a breach? Allow members "to be forgotten" Security Review - External vulnerability scanning tool like Rapid 7 or Veracode Staffing - This needs some human oversight on an ongoing basis. 1up has to do it for all the apps that we authorize for CMS, VA, Epic, Cerner, etc.

	Discov	er Health Apps
Affiliations All Apps CARIN Code of Conduct TupHealth CMS Medicare Blue Button 2.0 Commonwell Carequality Veterans Health	11pHealth	Medicare         Veterans Health Administration           At lupHealth         Medicare         Veterans Health Administration           At lupHealth, we believe that you should be in control of your health information. You choose how much data to share and where you wan to share it. Looking for a second opinion? No more calling and waiting for faxed records. Need help managing your conditions?
Administration COVID-19 Support Platforms ios Android Web	b.	b.well Connected Health Medicare EHRs covid19 b.well is a middleware for interoperability and aggregation that consolidates real-time data and point solutions to deliver value to
	ciitızen	consumers.  Cititzen Citizen UpHealth Cititzen is an online platform for patients - beginning with cancer natients - to collect and share their records dividally free of charae

# Why 1upHealth

- 1. Fully integrated, award-winning FHIR platform already in production at health plans with millions of members
- 2. Technology and support to meet the CMS regs
- 3. 1up offers the largest FHIR native connectivity across the US with 10,000 health systems
- 4. Support additional payer use cases like Da Vinci

### Questions?

ricky@1up.health kyle@1up.health

### **3rd-Party Dev Console API Logging**

E API Usage	Select a Month: 02/2020		
Payment & Pricing	API calis	API Usage by FHIR resource	
V API Status			
FHIR Analytics	AllergyIntolerance	199	
	✿ Appointment		
	Ø Binary	1 1000	
	& Condition	205 6.7%	
	& Coverage	197	
	DiagnosticReport	4 6.8%	
	DianosticReport	7	
	CocumentReference	11 6.8%	
	C Encounter	195 7.0%	
	C ExplanationOfBenefit	196	
	Immunization	T 6.8% 6.8%	
	MedicationDispense	197	
	MedicationOrder	AlergyIntolerance Appointment Binary Condition Coverage DiagnosticReport DiagnosticReport	nosticReport MedicationOrder
	MedicationStatement	MedicationStatement Cosenation Patient Pracedure ReternaRe 198	uest Subscription
	Observation	201	
	Corganization	90	
	Patient	538	
	Practitioner	8	
	Procedure	1	
	ContralRequest	197	
	Subscription	18	
	✿ undefined	55	
	Total Count: 2912		

https://1uj

# **API Tests Logged in Dev Console**

04-24 13:35	api - Test-user should have no associated FHIR Resources (Preauthorization): Quick-Connect [stu3]	0.007	×
04-24 13:35	api - Test-user should have no associated FHIR Resources (Preauthorization): Normal-Connect [stu3]	0.007	×
04-24 13:35	api - Test-user should have no associated FHIR Resources (Preauthorization): Quick-Connect [dstu2]	0.136	×
04-24 13:35	api - Test-user should have no associated FHIR Resources (Preauthorization): Normal-Connect [dstu2]	0.179	×
04-24 13:35	api - Should generate access token: Quick-Connect test user	0.044	×
04-24 13:35	api - Should generate access token: Normal-Connect test user	0.045	×
04-24 13:35	api - Should create test user: Quick-Connect	0.079	×
04-24 13:35	api - Should create test user: Normal-Connect	0.138	×
04-24 13:28	api - Test-users should have associated FHIR Resources (Post-authorization) Quick Connect [stu3] (0 resourceTypes)	0.106	×
04-24 13:28	api - Test-users should have associated FHIR Resources (Post-authorization) Quick-Connect [dstu2] (15 resourceTypes)	45.257	×
04-24 13:28	api - Test-users should have associated FHIR Resources (Post-authorization) Normal-Connect [stu3] (0 resourceTypes)	0.108	×
04-24 13:28	api - Test-users should have associated FHIR Resources (Post-authorization) Normal-Connect [dstu2] (15 resourceTypes)	9.858	-
04-24 13:28	api - Quick-Connect authorization: should authorize access on Cerner	136.853	~
04-24 13:28	api - Quick-Connect authorization: should authorize access on EPIC	47.286	×

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# **Implementation Overview**

Initial Design	Development and testing	Long term support &
(3 to 4 weeks)	(4 to 6 weeks)	maintenance
<ul> <li>Determine available resources (personnel, cloud space, etc.)</li> <li>Convene a team to scope, build, test, and maintain the API</li> <li>Perform a data availability scan to determine any gaps between internal data models and the data required for the necessary FHIR resources</li> <li>Mitigate any gaps discovered in the available data</li> <li>Map existing data to FHIR (bulk of the work required for implementation)</li> </ul>	<ul> <li>Allocate hardware for the necessary environments (dev, testing, prod)</li> <li>Build a new FHIR server or leverage existing FHIR servers</li> <li>Determine the frequency and method by which internal data is populated on the FHIR server</li> <li>Build connections between the databases and FHIR server</li> <li>Perform capability and security testing</li> <li>Vet third-party applications - which includes potentially asking third-party applications to attest to certain privacy provisions</li> </ul>	<ul> <li>Allocate resources to maintain the FHIR server</li> <li>Perform capability and security testing</li> </ul>



### Boston Children's Hospital Application

<b>PopHealth</b> App			MEASUR	RES		REPO	ORT					Q	LOGOL	т
DATA SOURCES BCH Epic BCH Cerner	Payer Mas	sHealth ▼	Org	anizatio Il Orga	on nizatio	ons •	Clin	ic None S	Selecte	d ₹		U	pdate	
Aetna Claims MassHealth Claims				Imm	uniza Bos	ations ston Chi	<b>s for A</b> ildren's F	<b>dole</b>	scen	ts				
	25 % Patients	Jan Feb	<b>r</b>	Ар	r I	Мау	Jun	Oc • ( • ! Jul	t Current Ye Previous Y Aug	ear: <b>82.77</b> ′ear: <b>73.0</b> Sep	7 % 2 % Oct		lov	Dec
	Bostor	n Children	's Hos	pital									High	:harts.com
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Childhood Status	Immunization	1%	1%	12%	22%	34%	34%	39%	40%	45%	55%	53%	56%
	Immunizat Adolescen	ions for ts	11%	17%	18%	29%	37%	49%	60%	71%	77%	83%		
	Depression Follow-up	n Screening and Plan	5%	13%	14%	22%	32%	32%	34%	36%	36%	47%	71%	72%
	Depression Response	n Remission or	9%	20%	32%	33%	41%	42%	49%	59%	65%	69%	68%	77%
nHealth														

### **Old Way**

- 10 person team
- Manual data extraction every 3 months
- Custom queries and reports
- No visibility across clinical +claims data
- Retrospective only

1upHealth

### **Provider - Top 4 Payer Integration**

Aggregating clinical member population data from 5 joint venture health systems across multiple markets / EHRs Payer analyzes data and generate insights to embed directly into the provider workflow

MR	ADAM IN 1288992 DRESS	S, Dai	niel X.		DOI	3 12/22/192	5 (93 yrs)						
hor	ne 1 Hill Ave/ Tulsa, OK USA	Apt 14 74117			ema	ail daniel.a	dams@exa	mple.com					
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<ul> <li>Condition</li> <li>Encounter ambulatory</li> </ul>	9 <sup>0</sup>			90 							°		•••
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<ul> <li>Condition</li> <li>Encounter ambulatory</li> <li>AllergyIntolerance sulfonamide antiba</li> </ul>	cterial			0					•		8		•••

### Old Way

- Flat file exchange
- Separate reporting on lagged claims vs clinical data
- One-off point integrations



# Interoperability and APIs in the Age of COVID-19

Ali Zaman, VP of Marketing



# Our APIs enable developers to access data seamlessly, powering fundamental clinical workflows for end-users

Developers choose HG to solve multiple data access needs without having to work with multiple vendors



Patient360 API

Retrieve medical records from EHR systems



CPOE API

Place lab orders & receive test results

NLP API

Structure clinical data from text and images



#### eFax API

Send and receive fax documents to any provider



#### FHIR Store API

Store all FHIR resources with read/write capabilities



#### ID Verification API

Authenticate provider & patient identity


#### Provider Lookup API

Search an enriched national database of providers and labs



Leaders in digital health use our FHIR APIs to retrieve high quality patient data from thousands of vendors



Health Gorilla's diagnostic network enables developers and providers to place orders & receive test results from 100+ labs





### Processed over 7,000 COVID-19 test results through our API

#### 8.7% positivity rate

8.7% of patients who were tested by our provider users tested positive for COVID-19

#### 3 day turnaround time

On average, it took 3 days to get results back after the initial order was placed

#### Test volume starting to slow

Testing volume spiked in April and is now beginning to decelerate.







Virta Health uses our APIs to track lab values for their patients, enabling revenue recognition from payers

### () virta



Virta places ~8000 calls to our API every week.

PROPRIETARY AND CONFIDENTIAL. Copyright © 2020 Health Gorilla.

#### Virta uses our API to automatically trigger lab orders for any patient enrolling in or receiving treatment in their program.

"Tapping into Health Gorilla's vast network of diagnostic vendors via a single API based on modern standards enables the successful delivery of chronic disease care at scale, while freeing up engineers to spend time solving technical problems unique to Virta."



Sam Reider Senior Software Engineer



### Health Gorilla is a certified connector of CommonWell and Carequality



Together, this enables clinical record retrieval from over 65,000 care sites.

90% of acute EHRs 60% of ambulatory EHRs



# Health policy leaders are encouraging public health agencies to streamline COVID-19 clinical data retrieval efforts

Authored by former ONC head and former CMS admin on 5/1/2020

2. Supplement Case Investigations with Clinical Data

State and local health officials should use their existing public health legal authority to define the minimum data necessary for the COVID-19 containment "use case" as a routine part of onboarding into widely-used clinical data exchanges

The trust framework governance entities that oversee secure data exchange should adopt policies necessary for universal responses to authorized public health queries, in a manner that is fully transparent to all participants and fully auditable.

State and local public health officials should evaluate and choose a portal-based connector as an "on-ramp" to access data, ensuring they meet key functional and security criteria.



Source: Duke University Interoperability Report published 5/1/2020.



# Health Gorilla has been recommended as only clinical exchange portal that met functional and security criteria for public health depts

- The current process to retrieve medical records is a highly manual & burdensome process
- Today, this involves calling practices and requesting records over fax, or asking providers for their EHR credentials
- Health Gorilla's Patient360 solution allows public health departments to do 1 mass query, and retrieve all data on a particular patient from most major EMR systems in the US

Where there are pre-existing relationships between public health and state/ local HIEs that have broad coverage, the public health agency may choose to use those entities either directly, or as "on-ramps" to other trusted exchanges. Where that option is not available, or coverage is inconsistent, and matching is inadequate, public health jurisdictions should consider portalbased connectors. After a review of current options, our current recommendations are for state/local public health departments to consider and evaluate two intermediaries that offer the greatest chance of meeting public health utility based on our key selection criteria (see Appendix on page 12).

1. <u>Health Gorilla</u>, which is both a Member of CommonWell and an Implementer on Carequality, currently provides query access to all acute-care sites on both networks, and maintains its own set of services (MPI and RLS) and capabilities (event notifications) that could increase utility for public health.

Source: Duke University Interoperability Report published 5/1/2020.



# In addition to minimum dataset required for COVID-19 cases, public health departments will have access to comprehensive set of clinical data

Labs	ADTs
Imaging	Progress notes
Vitals	Social history
Allergies	Encounters
mmunizations	Family history
Medications	Medical equipment

5. Netheve doc	ument meta	Jala
API method that allows Request 'search' request should	to read medical do	ocuments for the specified CareQuality patient.
HTTP		
https://api.healthgo ?patient.identifier=	orilla.com/fhir/D https://www.heal	DocumentReference/\$cq-search thgorilla.com/cq/CQ_PATIENT_IDENTIFIER
Parameters		
Name	Value	Description
patient.identifier	IDENTIFIER	CareQuality patient identifier. System: https://www.healthgorilla.com/cq Mandatory.
Example	ments for the given	



### Available via API and web-based app

### Technical documentation is accessible at developer.healthgorilla.com

Request	d bo mado to <b>Doo</b> u	mentPeference opdopint
search request shoul	la pe made lo <b>pocu</b>	menthelerence enapoint.
НТТР		
nttps://api.healthg ?patient.identifier	orilla.com/fhir/[ r=https://www.heal	DocumentReference/\$cq-search Lthgorilla.com/cqlCQ_PATIENT_IDENTIFIER
Parameters		
Name	Value	Description
Name patient.identifier	Value	Description CareQuality patient identifier.
Name patient.identifier	Value	Description CareQuality patient identifier. System: https://www.healthgorilla.com/cq Mandatory.

### Receive an account on healthgorilla.com to place lab orders and retrieve records

#### **Request Patient Records Records Found: 50** Add Records to Chart adds all records found to the patient chart and enrolls the patient in Patient360. New records will be retrieved automatically. Maria Gomez (35/female) D0B: 12/31/1983 • Santa Anna, CA 95050 # NETWORK DOCUMENT DATE DOCUMENT TITLE ⊗ 07/18/2019 Continuity of Care Document 30 Stanford Hospital & Clinics 07/18/2019 All Clinical Document Clinics and University Healthcare 10 07/18/2019 All Clinical Summary Alliance 07/18/2019 Continuity of Care Document 5 UCSF 07/18/2019 All Clinical Summary 5 El Camino 07/18/2019 Continuity of Care Document 07/18/2019 Continuity of Care Document 07/18/2019 All Clinical Summary 07/18/2019 All Clinical Summary





#### Documentation is available at

http://developer.healthgorilla.com

azaman@healthgorilla.com

# Social Determinants of Health Track

Housing Instability Screeners from the HSLynk Homeless Management Information System (HMIS) with FHIR Resources



#### 5/21/2020

### summary

Overview

The Track Mission

HSLynk

FHIR Resources

### **Overview**

This InterOpathon track was conceived as a subproject of the National Interoperability Collaborative's Project Unify, which seeks to improve communication between human services and health care systems.

Project Unify has four initial use case scenarios; one references the problem of homelessness and the use of Social Determinants of Health (SDoH). For this track, we focus on this SDoH scenario.



### Your mission, should you choose to accept it...



Find Housing Instability screeners based on the draft Project Gravity master screener list.

Get available similar HMIS screener information from HSLynk, an open source human services system to incorporate into your app. HSLynk contains the generated persona. Incorporate FHIR resource information for the matching generated persona into your app.

Document SDoH

interoperability insights, and possible workflows. Workflows can originate in the FHIR resource, or in the HMIS data.



### open source PaaS

HSLynk is a human services data centric platform.

#### **Resources:**

APIs: https://docs.hslynk.com

Wiki: <u>https://github.com/servinglynk/hslynk-open-</u> source-docs/wiki

Track Guide: <u>https://bit.ly/3cL8yFi</u>





### **FHIR Resources**

- see Track Guide for details on calling HAPI FHIR resources: https://bit.ly/3cL8yFi
- patient match with HSLynk only on the single generated Persona
- generated persona household members are only in HSLynk

# See you at the InterOpathon!
## **Questions?**



This concludes our webinar series!

We look forward to "seeing" you next week at the event.

Thursday, May 28<sup>th</sup> – 29<sup>th</sup> 9AM EST kickoff on the 28<sup>th</sup>

For help please contact events@interoperabilityinstitute.org