



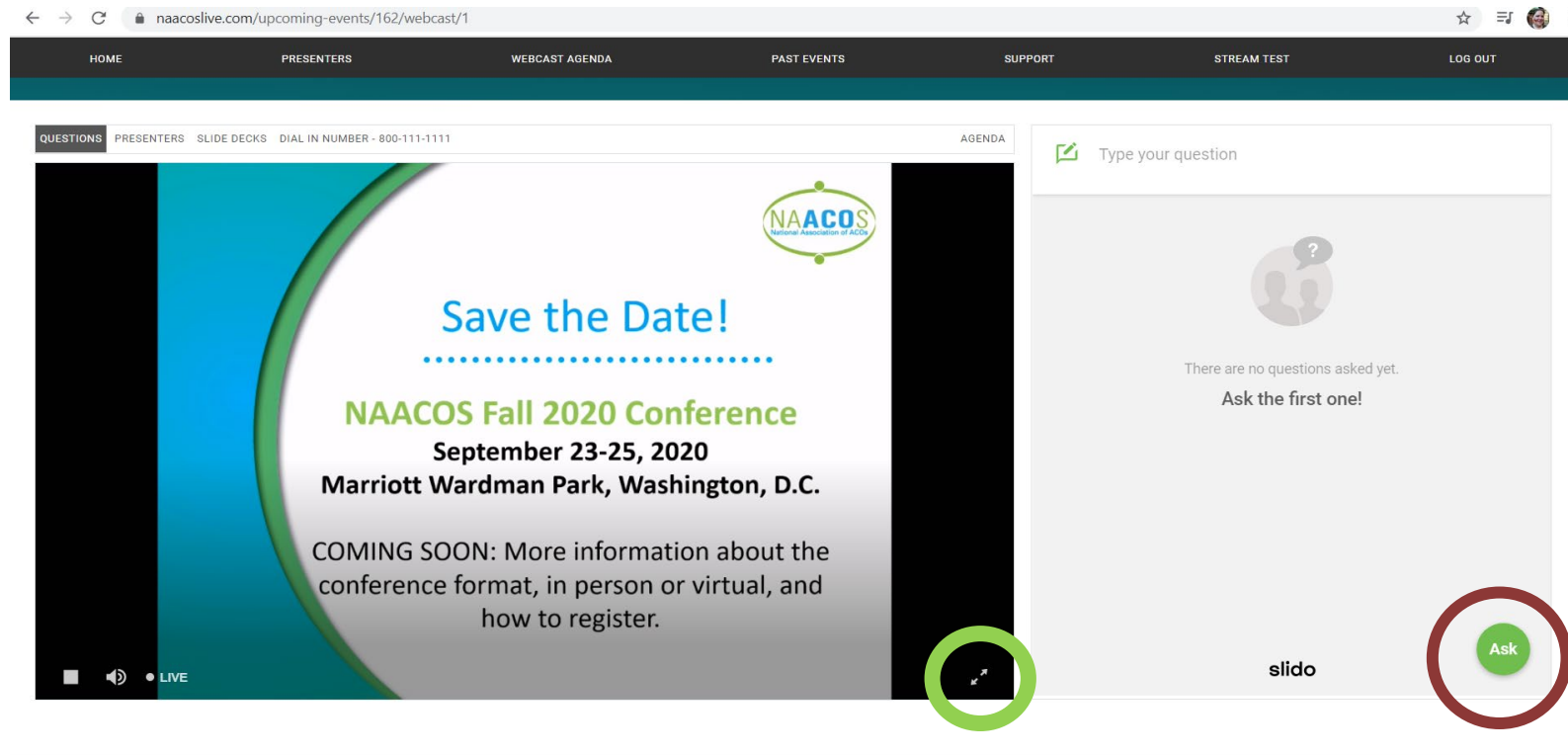
The Future of Population Health Management



Data Sharing Is the Change Agent

Housekeeping.....

1. If you would like to make the presentation full screen on your device, hover over the presentation and hit the double arrow button circled in the screen shot below in green.
2. To ask a question, click on the green “ask” button in the bottom right of the questions box. Please see the red circle in the screen shot below.
 - You can type in a question at any time during the presentation.



Purpose

- Focus on new CMS initiatives to provide data to patients, clinicians and ACOs to improve lead time, formatting structure and ease for data retrieval for action.
- Get the insight on current and expected data releases and how big technologies are providing easy to use apps for various audiences in the healthcare continuum.
- Discuss perspectives on how ACOs need to be engaged with CMS directly in this process versus relying on EHR or population health platforms vendors.

Introductions

Moderator: **Melanie Matthews**, CEO, Physicians of Southwest Washington;
& President MultiCare Connected Care

- **Anna-Noelle Routh**: Product Owner/Manager for the Beneficiary Claims Data API (BCDA) Pilot Product & Data at the Point of Care (DPC) API pilot product, CMS
- **Ann Goldman**: Executive Director of Analytics & Digital Strategy, MultiCare Connect Care
- **Anna Taylor**: Program Director, MultiCare Connected Care
- **Jennifer Perloff**: Director of Research, The Institute for Accountable Care & Senior Scientist, Brandeis University

CMS LAN Announcement

- **Goal Statement:** Accelerate the percentage of US health care payments tied to quality and value in each market segment through the adoption of shared accountability alternative payment models

	Medicaid	Commercial	Medicare Advantage	Traditional Medicare
2020	15%	15%	30%	30%
2022	25%	25%	50%	50%
2025	50%	50%	100%	100%

FHIR Medicare Claims Data APIs from CMS

Anna Routh, Product Manager for the Beneficiary Claims Data API (BCDA)
Pilot Product & Data at the Point of Care (DPC) API Pilot Product

MyHealthEData

- The MyHealthEData initiative aims to unleash data to give patients control of their healthcare information and allow that information to follow them through their healthcare journey
- Government-wide initiative led by the White House Office of American Innovation
- HHS and CMS are key partners in this initiative



Using Industry Standards

- Embracing industry standards for information formats supports CMS' data transparency goals and promotes interoperability
- The HL7 Fast Health Interoperability Resource (FHIR) community has gained significant traction with their API



CMS FHIR Claims Data APIs



- For Medicare beneficiaries
- Single data call

bluebutton.cms.gov



- For Accountable Care Organizations (ACO)
- Bulk data calls

bcda.cms.gov



- For Part D plan (PDP) sponsors
- Bulk data calls

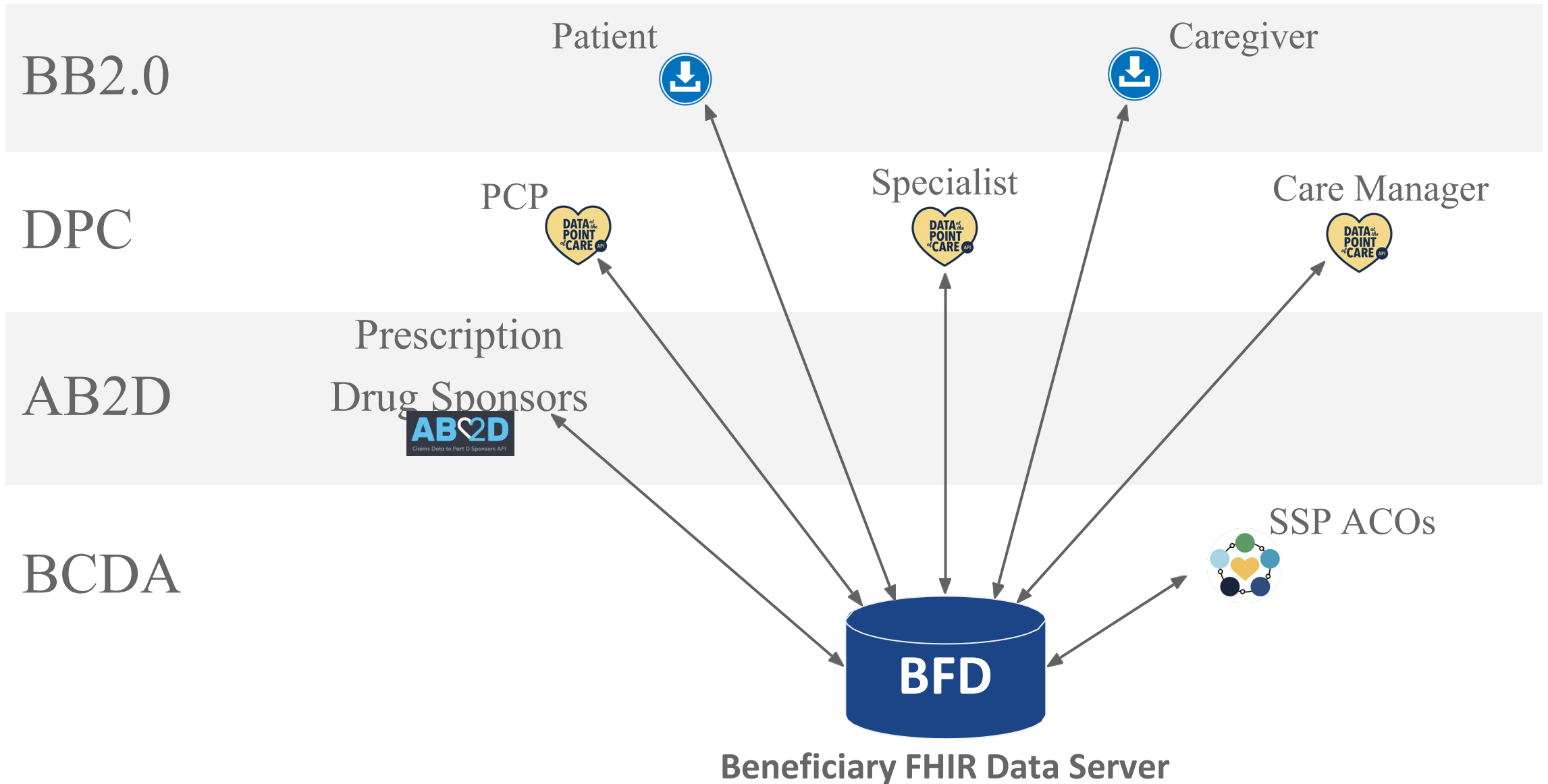
ab2d.cms.gov



- For Providers
- Bulk data calls

dpc.cms.gov

The BFD family



Blue Button 2.0 API (BB2.0)

What is Blue Button 2.0?



Blue Button 2.0 is an OAuth and passthrough API that enables third-party developers to build applications to enable Medicare beneficiaries to connect their claims data to applications, services and research programs they trust



Reference

your health records to be reminded when you had your last shot, or the exact date of a procedure.



Check

the accuracy of your records, monitor changes, and stay aware of your health status.



Share

with your doctor or someone else you trust, when traveling, seeking a second opinion, moving, switching insurance, or in case of emergency.



Use Apps

to help better manage and coordinate your healthcare to achieve your health goals.

A Brief History of Blue Button

2010

May 2010: CMS & VA hold innovation event to increase consumer access to data through PHRs

Aug 2010: VA releases Blue Button download

Sept 2010: CMS releases Blue Button download

2018

March 2018: CMS launches Blue Button 2.0 to add developer-friendly, standards-based API to the existing text and PDF downloads

2019

February 2019: CMS releases Interoperability and Patient Access Proposed Rule



TestApp has asked for some of your data.

Information about your doctor/hospital visits

Information about the prescription medications you take

Personal Information like your name, address, date of birth, race, and gender

Privacy Options



Share all of your data

This app will have access to both your healthcare data and some personal information



Share healthcare data, but not your personal info

Block some of your personal data like name, address, date of birth, race, and gender

Understand how your data is being used

To understand fully how TestApp will use your data, please read the app's [Privacy Policy](#) and [Terms and Conditions](#).

Allow

[Deny](#)

You can revoke this app's access to your data at any time by logging into your [MyMedicare.gov](#) account or calling us at 1-800-633-427.

Developer Dashboard

The Developer Sandbox lets you register applications to get credentials to access our synthetic (or sample) beneficiary data. You can use that data to build and test your application to get it ready for production!

ADD AN APPLICATION →

READ OUR DOCUMENTATION →

My Sandbox Apps

You haven't registered or created any apps yet.

You'll need to register your app to get a sample token and make API calls to our sample data. Let's get started!

+ Add an Application

Blue Button Resources

Delving Into Blue Button Data

Sample Apps to Get Your Started

Beneficiary Claims Data API (BCDA)

Announced HIMSS19

“...today, we are launching a project that uses the FHIR Bulk Spec to share Medicare claims data with Accountable Care Organizations or ACOs. And for those of you non-techies, this means we are sharing claims data for ACO participants in a bulk format. And I am pretty sure we are one of the first to use this!”

- Seema Verma, CMS Administrator, HIMSS19

Beneficiary Claims Data API



The Beneficiary Claims Data API (BCDA) enables Accountable Care Organizations (ACOs) participating in the Shared Savings Program to retrieve Medicare Part A, Part B, and Part D claims data for their prospectively assigned or assignable beneficiaries.



Similar data to Claim and Claim Line Feed (CCLF) files, currently provided monthly to Accountable Care Organizations by CMS.



This includes Medicare claims data for instances in which beneficiaries receive care outside of the ACO, allowing a full picture of patient care.

Why We're Doing It

“ We check [the MFT] mailbox every day knowing that 28 of the 30 days nothing will be there. ”

— *Data Analyst, Track 1 ACO*

“ It takes 2 engineering staff to manage turning it [the files] into useful information. ”

— *VP of Member Services, Vendor*

Why We're Doing It



- Promote interoperability
 - ◆ Utilize Standards: HL7's FHIR Bulk Data Access



- Enable Automation
 - ◆ Remove manual intervention and enable computers to communicate through native APIs



- Security Focused
 - ◆ Utilize synthetic Sandbox Data for testing integrations
 - ◆ Implement encryption on sensitive data at rest and in transit

What We're Doing

Diagram illustrating the mapping of a fixed-width text file to data types. The file is named "fixed_width_patients_subset_perfect.txt" and is shown in a Notepad window. The data is organized into columns with corresponding variable names and widths.

VariableNames	VariableWidths	DataLine	DataType
LastName	10	Smith	'char'
Gender	7	Male	'categorical'
Age	4	38	'double'
Location	26	County General Hospital	'char'
Height	7	71	'double'
Weight	7	176	'double'
Smoker	7	true	'logical'

The data lines shown in the Notepad window are:

```
Smith      Male      38      County General Hospital      71      176      true
Johnson   Male      43      VA Hospital                   69      163      false
Williams  Female   38      St. Mary's Medical Center    64      131      false
Brown     Female   49      County General Hospital      64      119      false
Miller    Female   33      VA Hospital                   64      142      true
Wilson    Male     40      VA Hospital                   68      180      false
Taylor    Female   31      County General Hospital      66      132      false
Thomas    Female   42      St. Mary's Medical Center    66      137      false
Jackson   Male     25      VA Hospital                   71      174      false
Clark     Female   48      VA Hospital                   65      133      false
```

i.e. we are turning  into 



Why We're Doing It

“ More frequent delivery makes staffing and administration easier. ”

— *ACO Production Partner*

“ I'm telling you there will be a Historychannel series about all of you!
Can't wait to be one of the commentators! ”

— *ACO Production Partner*

Getting Started with BCDA in Sandbox

A beginner's guide to learning about APIs by walking through the BCDA Swagger documentation.

Home

Try the API

Learn about Production

Understand BCDA Data

Getting Started with APIs

Setting up your credentials in Swagger

Making your first requests for data

This page is intended for a user who has little to no experience with APIs, and provides a guided walkthrough for working with BCDA using our interactive documentation. More advanced API users may be better served by the [Advanced User Guide](#). If you're not sure where to go, start here!

Getting Started with APIs

- What's an API?
 - An API (Application Programming Interface) is a set of features and rules that exist inside a software program that allows other

Ready for production?



Shared Savings Program (SSP) ACOs that are interested in retrieving their Claims data through BCDA and have already:

1. Joined the BCDA Google Group
2. Tested in the BCDA Sandbox Environment

Should go to

<https://bcda.cms.gov/production/user-guide/> and follow the steps to onboard your SSP ACO.

Join the BCDA Production Onboarding Queue!

Medicare Shared Savings Program ACOs are invited to register to be onboarded to the BCDA Production environment and receive Medicare Part A, B, and D claims data for their prospectively assigned or assignable beneficiaries through the API. MSSP ACOs that sign up will be onboarded in the order in which they apply.

If you represent more than one MSSP ACO, please fill out this form separately for each ACO.

ACO Name *

ACO ID Number *

SSP Track *

Claims Data to Part D
Sponsors API (AB2D)

AB2D



The Claims Data to Part D Sponsors API (AB2D) is a standards-based Application Programming Interface (API) that provides PDP sponsors with Medicare Parts A and B claims data for enrollees

The Centers for Medicare and Medicaid Services (CMS) contracts with private insurance companies, known as Medicare Part D Plan (PDP) sponsors, to provide prescription drug coverage for enrollees.

Consistent with CMS' [Final Rule](#) to implement Section 50354 of the [Bipartisan Budget Act of 2018](#), CMS is providing standalone Medicare Part D plan (PDP) sponsors the opportunity to request access to Medicare claims data. Access to Medicare claims data for their enrollees will help plans promote the appropriate use of medications and improve health outcomes, among other

H.R.1892 - Bipartisan Budget Act of 2018

115th Congress (2017-2018)

LAW

Hide Overview ✕

Sponsor: [Rep. Larson, John B. \[D-CT-1\]](#) (Introduced 04/04/2017)

Committees: House - Judiciary | Senate - Judiciary

Committee Reports: [H. Rept. 115-119](#)

Latest Action: 02/09/2018 Became Public Law No: 115-123. ([TXT](#) | [PDF](#)) ([All Actions](#))

Roll Call Votes: There have been [6 roll call votes](#)

Notes: Continuing appropriations through 3/23/2018.

Tracker:

Introduced

Passed House

Passed Senate

Resolving Differences

To President

Became Law



FEDERAL REGISTER

The Daily Journal of the United States Government



Ⓜ Rule

Medicare and Medicaid Programs; Policy and Technical Changes to the Medicare Advantage, Medicare Prescription Drug Benefit, Programs of All-Inclusive Care for the Elderly (PACE), Medicaid Fee-For-Service, and Medicaid Managed Care Programs for Years 2020 and 2021

A Rule by the Centers for Medicare & Medicaid Services on 04/16/2019



<https://www.federalregister.gov/documents/2019/04/16/2019-06822/medicare-and-medicaid-programs-policy-and-technical-changes-to-the-medicare-advantage-medicare#page-15745>

What is the Sandbox?

The Sandbox is a test environment that enables you to interact with the AB2D API and retrieve synthetic Medicare parts A and B claims data.

The API follows the [FHIR Bulk Data Export](#) pattern to perform data export. This requires an asynchronous call to create a job and provides status updates on that job until it is complete and the generated files can be downloaded.

Retrieving Synthetic Data

We are providing three different examples on how users can interact with the AB2D API and retrieve synthetic claims data.

1. [Postman and Swagger User Guide](#)
2. [Curl User Guide](#)
3. [Advanced User Guide](#)

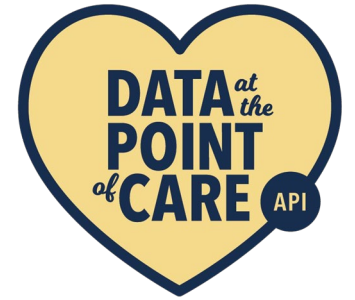
Ready for production?



PDP Sponsors that are interested in retrieving their Claims data through AB2D attest on the AB2D website and retrieved synthetic claims data from our Sandbox environment. Once they have done so, they can send an email with the job ID generated to: PDP-Data@cms.hhs.gov. The AB2D team will verify and follow-up with production credentials.

Data at the Point of Care (DPC) API Pilot

DPC



The Data at the Point of Care pilot was created to enable providers to deliver high quality care directly to Medicare beneficiaries by providing the same Medicare claims data that BB2.0, BCDA, and AB2D provides, directly to the provider at the point of care.

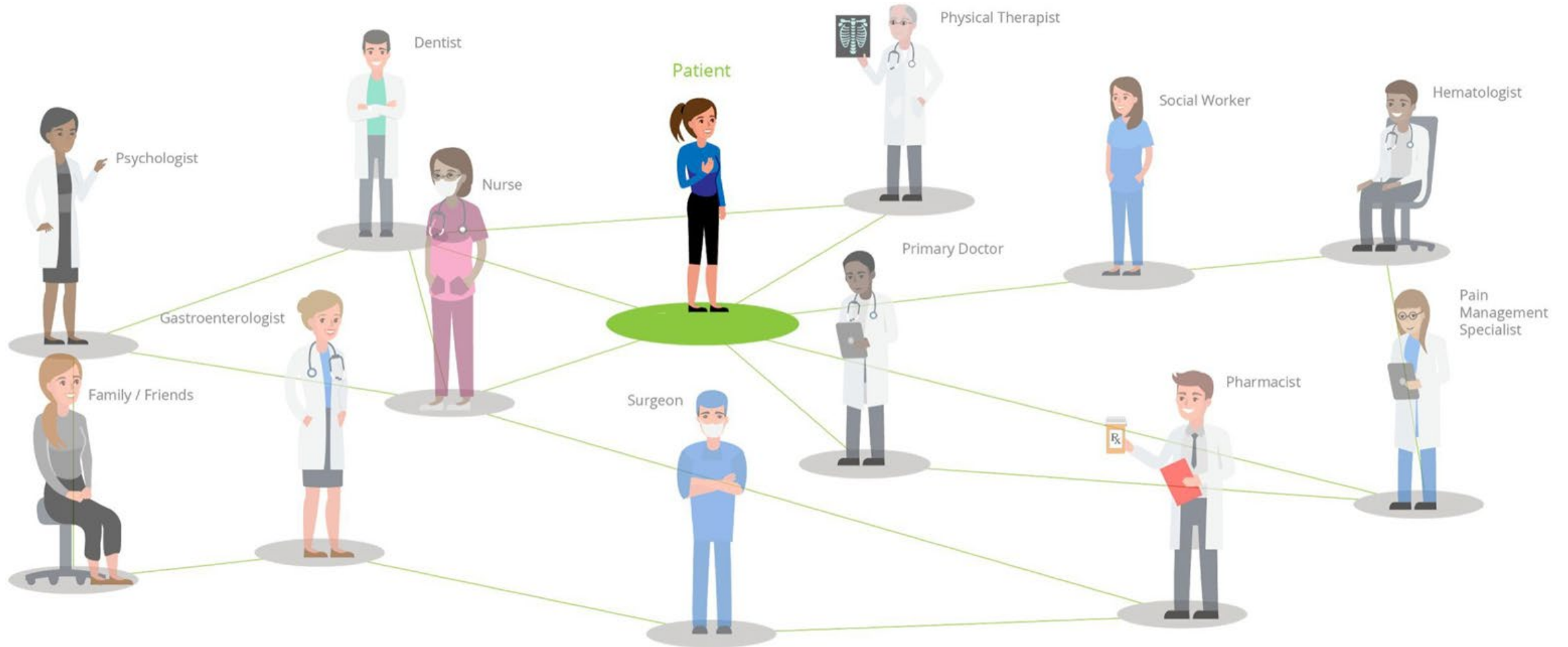
OUTPATIENT CARE

HOSPITAL ADMISSIONS

EMERGENCY ROOM CARE

URGENT CARE

MEDICARE PATIENTS' DATA IS IN SILOS



Patient's History



I only have a **15 minute time slot**, and I often **spend 10 minutes** trying to figure out if they had their shingles vaccine or mammogram.



My patients **show up without records** and rarely remember all of their history. I am often worried that I am **missing important information**.

DPC Use Cases

- **Inform patient history** for providers
- **Provide insight** into what other providers are doing – new diagnoses, medications
- **Provide medication history information** for patients
- **Identify treatments** and preventive needs (e.g. colonoscopy, flu shot, mammogram)
- **Facilitate interventions** by providers and care managers for missed referrals or incomplete orders
- **Set an example.** As the largest payer in the industry, CMS can set an example.

- Summary
- Encounters
- Health Conditions
- Medications
- Procedures
- Preventative Maintenance
- Care Team
- Quality Measures
- Vaccines
- Family History



Jane Doe

GENDER
Female

DATE OF BIRTH
4 / 2 / 1950 | 69 yo

MEDICARE NO.
19990000002901

CMS ROSTER
ADD PATIENT

CMS DATA
REQUEST

Summary

Health Conditions

DESCRIPTION	DATE	SOURCE
No data recorded		

Medications

DESCRIPTION	DATE	SOURCE
No data recorded		

Procedures

DESCRIPTION	PROVIDER	DATE	SOURCE
No data recorded			

Preventive Maintenance

DESCRIPTION	RECEIVED	SOURCE
Flu Shot	NA	
Colonoscopy	NA	
Mammogram	NA	

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MEDICARE NO.

19990000002901

CMS ROSTER

ADD PATIENT

CMS DATA

REQUEST

Encounters

STATUS	DATE	TYPE OF VISIT	PROVIDER	LOCATION	REASON	SOURCE	REQUEST RECORDS

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Female

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Log out

Encounters

STATUS	DATE	TYPE OF VISIT	PROVIDER

CMS ROSTER

ADD PATIENT

CMS DATA

REQUEST

	id	beneficiary_id	first_name	last_name	dob
1	07b407fb-8fde-4764-a078-cabe67c43aa3	19990000002901	Jane	Doe	1950-04-02
2	4bbfb7a9-cd27-46d8-9f6c-8f37bfd43d04	20000000001810	Tester -1092912540	Patient	2019-03-01
3	28dd087a-2777-4091-8c98-c08266e9e0af	20000000001811	Tester 403697323	Patient	2019-03-01
4	e04b2a81-1708-4e23-a07c-4c1dd77cf6cc	20000000001812	Tester -111398150	Patient	2019-03-01
5	b531bf95-27b5-4a7c-b3a7-52dbb7f7ace1	20000000001813	Tester -1690914895	Patient	2019-03-01
6	9bbc0c30-5dd2-4245-9eec-91e58a79cc97	20000000001814	Tester -188976764	Patient	2019-03-01
7	6ae3814f-3134-4ef6-9f8f-4509ace08113	20000000001815	Tester 1178843645	Patient	2019-03-01
8	4f702fa9-0e41-4412-8834-8aebab5fb4db	20000000001816	Tester -1875811144	Patient	2019-03-01
9	f5c4972b-74ad-4621-85eb-744ae02d9d	20000000001817	Tester 1576162756	Patient	2019-03-01
10	8946ce77-3bb4-4868-bbdc-1d7940775c4b	20000000001818	Tester 380558550	Patient	2019-03-01
11	12351f44-20b1-4156-ba9d-cd33ca463153	20000000001819	Tester 1824844814	Patient	2019-03-01
12	04d1a8b9-8798-4719-88f9-571d96e7126a	20000000001820	Tester -877291543	Patient	2019-03-01
13	4aaa0f32-a626-49be-86be-02f4491a1432	20000000001821	Tester -1158541766	Patient	2019-03-01
14	e0067b17-3dde-4064-826e-5e67a9527db0	20000000001822	Tester -815302999	Patient	2019-03-01
15	e4b51908-1825-4105-9c9f-5f66bbb3b3f2	20000000001823	Tester -508311228	Patient	2019-03-01
16	3fb357af-ed9d-4d90-8b63-4625e00ef574	20000000001824	Tester -1279410482	Patient	2019-03-01
17	15db37bc-8468-4fa1-915f-6e17bd7a09bd	20000000001825	Tester -1145214070	Patient	2019-03-01
18	922c4b69-301e-4f21-9afa-5255fde7582c	20000000001826	Tester 782081538	Patient	2019-03-01
19	5de69471-37e1-462e-b130-ea2c8b8a779e	20000000001827	Tester -2133887711	Patient	2019-03-01
20	41872efc-ea05-4086-8c1e-6a1fc042df43	20000000001828	Tester -1040484122	Patient	2019-03-01
21	05771ec7-ab63-4148-8e80-762bf5b31675	20000000001829	Tester -684425726	Patient	2019-03-01
22	07512df8-4e92-487b-afcf-dae93834f648	20000000001830	Tester -1150794819	Patient	2019-03-01
23	afb21078-fff6-4276-9dfe-8c452daf2ffc	20000000001831	Tester -817544559	Patient	2019-03-01
24	4d94002f-966d-4f51-aabe-17321b28c031	20000000001832	Tester 1222491830	Patient	2019-03-01
21	05771ec7-ab63-4148-8e80-762bf5b31675	20000000001829	Tester -684425726	Patient	2019-03-01
22	07512df8-4e92-487b-afcf-dae93834f648	20000000001830	Tester -1150794819	Patient	2019-03-01
23	afb21078-fff6-4276-9dfe-8c452daf2ffc	20000000001831	Tester -817544559	Patient	2019-03-01
24	4d94002f-966d-4f51-aabe-17321b28c031	20000000001832	Tester 1222491830	Patient	2019-03-01

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Jane Doe

GENDER

Female

DATE OF BIRTH

4/2/1950 | 69 yo

Search



Log out

Encounters

STATUS	DATE	TYPE OF VISIT	PROVIDER
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CMS ROSTER

Y, exp. 10/30/19

CMS DATA

REQUEST

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Jane Doe

GENDER

Female

DATE OF BIRTH

4/2/1950 | 69 yo

MEDICARE NO.

19990000002901

CMS ROSTER

Y, exp. 10/30/19

CMS DATA

REQUEST

Last request: 5/13/19

Encounters

STATUS	DATE	TYPE OF VISIT	PROVIDER	LOCATION	REASON	SOURCE	REQUEST RECORDS
Received	4/10/19	Emergency Room	Dr. Lauren Smith, Gleason Medical Center	Wesley Chapel, FL	Chest pain		REQUEST
Received	1/28/19	Urgent Care Facility	Dr. Arlene Lobo, On Demand Urgent Care	Tampa, FL	Dizziness		REQUEST
Received	12/5/18	Urgent Care Facility	Dr. Robert Nickeson, After Hours Urgent Care	Washington, DC	Shortness of breath		REQUEST



Summary



Encounters



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Vaccines



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Jane Doe

GENDER

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DATE OF BIRTH

4 / 2 / 1950 | 69 yo

MEDICARE NO.

19990000002901

CMS ROSTER

Y, exp. 10/30/19

CMS DATA

REQUEST

Last request: 5/13/19

Summary



Health Conditions

DESCRIPTION	DATE	SOURCE
Hypertension	5/15/19	
Chest Pain	5/15/19	
Shortness of Breath	12/5/18	
Dizziness	5/28/19	

VIEW ALL



Medications

DESCRIPTION	DATE	SOURCE
Lovastatin	7/2/19	
Lisinopril	4/2/19	
Hydrocodone Acetaminophen	5/10/19	

VIEW ALL



Procedures

DESCRIPTION	PROVIDER	DATE	SOURCE
-------------	----------	------	--------



Preventative Maintenance

DESCRIPTION	PROVIDER	SOURCE
-------------	----------	--------

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Jane Doe

GENDER: Female | DATE OF BIRTH: 4/2/1950 | 69 yo | MEDICARE NO.: 19990000002901 | CMS ROSTER: Y, exp. 10/30/19 | CMS DATA: REQUEST (Last request: 5/13/19)

Procedures

DESCRIPTION	PROVIDER	DATE	SOURCE
Stress Test	Dr. Rick Hawes	7/12/19	↻\$
EKG	Dr. Pritika Rao	6/15/19	↻\$
EKG	Dr. Nick Robison	5/15/19	↻\$
CT Scan	Dr. Lauren Smith	4/10/19	↻\$
EKG	Dr. Lauren Smith	4/10/19	↻\$
Chest Xray	Dr. Lauren Smith	4/10/19	↻\$

VIEW ALL

Preventive Maintenance

DESCRIPTION	RECEIVED	SOURCE
Flu Shot	✓ 12/5/18	↻\$
Colonoscopy	✓ 4/3/15	↻\$
Mammogram	✓ 2/10/18	↻\$
Shingles Vaccine	✓ 10/2/18	↻\$
Pneumonia Vaccine	✓ 10/2/18	↻\$
Bone Density	NA	

VIEW ALL

PRIMARY CARE NURSE



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Jane Doe

GENDER

Female

DATE OF BIRTH

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MEDICARE NO.

19990000002901

CMS ROSTER

Y, exp. 10/30/19

CMS DATA

REQUEST

Last request: 6/3/19

Encounters

STATUS	DATE	TYPE OF VISIT	PROVIDER	LOCATION	REASON	SOURCE	REQUEST RECORDS
Received	5/15/19	Office Visit	Dr. Nick Robison, Primary Care Associates	Tampa, FL	Chest pain		REQUEST
Received	4/10/19	Emergency Room	Dr. Lauren Smith, Gleason Medical Center	Wesley Chapel, FL	Chest pain		REQUEST
Received	1/28/19	Urgent Care Facility	Dr. Arlene Lobo, On Demand Urgent Care	Tampa, FL	Dizziness		REQUEST
Received	12/5/18	Urgent Care Facility	Dr. Robert Nickeson, After Hours Urgent Care	Washington, DC	Shortness of breath		REQUEST



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MEDICARE NO.

19990000002901

CMS ROSTER

Y, exp. 10/30/19

CMS DATA

REQUEST

Last request: 6/3/19

Encounters

STATUS	DATE	TYPE OF VISIT	PROVIDER	LOCATION	REASON	SOURCE	REQUEST RECORDS
Signed	6/5/19	Office Visit	Dr. Pritika Rao, Cardiology Associates	Brandon, FL	Coronary Artery Disease, Stress test recommended		
Received	5/15/19	Office Visit	Dr. Nick Robison, Primary Care Associates	Tampa, FL	Chest pain		
Received	4/10/19	Emergency Room	Dr. Lauren Smith, Gleason Medical Center	Wesley Chapel, FL	Chest pain		Requested
Received	1/28/19	Urgent Care Facility	Dr. Arlene Lobo, On Demand Urgent Care	Tampa, FL	Dizziness		Requested



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GENDER

Female

DATE OF BIRTH

4/2/19

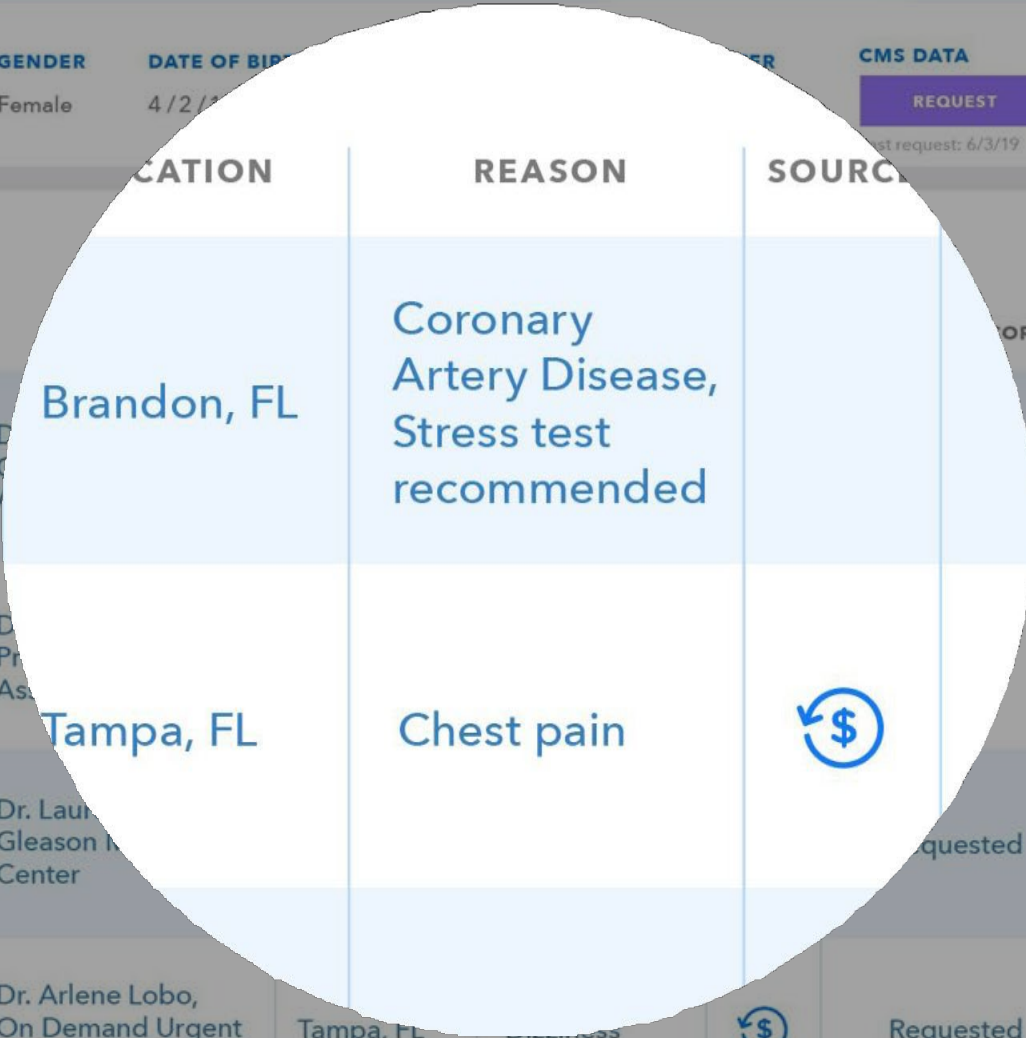
CMS DATA

REQUEST

most request: 6/3/19

Encounters

STATUS	DATE	TYPE OF VISIT	LOCATION	REASON	SOURCE
Signed	6/5/19	Office Visit	Brandon, FL	Coronary Artery Disease, Stress test recommended	
Received	5/15/19	Office Visit	Tampa, FL	Chest pain	
Received	4/10/19	Emergency Room	Dr. Lauren Gleason, Center		Requested
Received	1/28/19	Urgent Care Facility	Dr. Arlene Lobo, On Demand Urgent Care	Tampa, FL	Requested



CARE MANAGER – SALLY

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Jane Doe

GENDER

Female

DATE OF BIRTH

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MEDICARE NO.

19990000002901

CMS ROSTER

Y, exp. 10/30/19

CMS DATA

REQUEST

Last request: 7/14/19

Encounters

STATUS	DATE	TYPE OF VISIT	PROVIDER	LOCATION	REASON	SOURCE	REQUEST RECORDS
Received	7/12/19	Procedure	Dr. Rick Hawes, Radiology Center	Tampa, FL	Stress test		REQUEST
Received	6/5/19	Office Visit	Dr. Pritika Rao, Cardiology Associates	Brandon, FL	Coronary Artery Disease		REQUEST
Signed	5/15/19	Office Visit	Dr. Nick Robison, Primary Care Associates	Tampa, FL	Chest pain		
Received	4/10/19	Emergency Room	Dr. Lauren Smith, Gleason Medical Center	Wesley Chapel, FL	Chest pain		

PRIMARY CARE NURSE

Summary

Encounters

Problem List

Medications

Procedures

Preventative Maintenance

Care Team

Quality Measures

Vaccines

Family History



Jane Doe

GENDER

Female

DATE OF BIRTH

4/2/1950 | 69 yo

MEDICARE NO

1999

CMS DATA

Encounters

STATUS	DATE	TYPE OF VISIT	PROVIDER
Received	7/12/19	Procedure	Dr. Rick Hawes, Radiology Center
Received	6/5/19	Office Visit	Dr. Pritika Rao, Cardiology Associates
Signed	5/15/19	Office Visit	Dr. Nick Robison, Primary Care Associates
Received	4/10/19	Emergency Room	Dr. Lauren Smith, Gleason Medical Center

REASON

SOURCE

REQUEST REC

Stress test



REQUEST

Coronary Artery Disease



REQUEST

PRIMARY CARE NURSE

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Family History



Jane Doe

GENDER

Female

DATE OF BIRTH

4/2/1950 | 69 yo

MEDICARE NO.

19990000002901

CMS ROSTER

Y, exp. 10/30/19

CMS DATA

REQUEST

Last request: 7/30/19

Encounters

STATUS	DATE	TYPE OF VISIT	PROVIDER	LOCATION	REASON	SOURCE	REQUEST RECORDS
Pending Signature	7/12/19	Procedure	Dr. Rick Hawes, Radiology Center	Tampa, FL	Stress test		
Pending Signature	6/5/19	Office Visit	Dr. Pritika Rao, Cardiology Associates	Brandon, FL	Coronary Artery Disease		
Pending Signature	5/15/19	Office Visit	Dr. Nick Robison, Primary Care Associates	Tampa, FL	Chest pain		
Received	4/10/19	Emergency Room	Dr. Lauren Smith, Gleason Medical Center	Wesley Chapel, FL	Chest pain		

PRIMARY CARE - DR. ROBISON

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Family History



Jane Doe

GENDER

Female

DATE OF BIRTH

4/2/1950 | 69 yo

MEDICARE NO.

1999

CMS DATA

Encounters

STATUS	DATE	TYPE OF VISIT	PROVIDER
Pending Signature	7/12/19	Procedure	Dr. Rick Hawes, Radiology Center
Pending Signature	6/5/19	Office Visit	Dr. Pritika Rao, Cardiology Associates
Pending Signature	5/15/19	Office Visit	Dr. Nick Robison, Primary Care Associates
Received	4/10/19	Emergency Room	Dr. Lauren Smith, Gleason Medical Center

REASON	SOURCE	REQUEST RECORD
Stress test		
Coronary Artery Disease		
Chest pain		

PRIMARY CARE - DR. ROBISON

Request access

•• requiredfields

• First name

• Lastname

• Email

• Password (6 characters minimum)

• Password confirmation

Your organization

Reference

Information on accessing and working with the API

Bulk Data

Attribution

Authentication and Authorization

Environment

DPC Metadata

Exporting data

Attributing Patients to Providers

Implementation Guide

Reference

Information on accessing and working with the API

- [Join the Data at the Point of Care Google Group](#)

As patients move throughout the healthcare system, providers often struggle to gain and maintain a complete picture of their medical history. The Data at the Point of Care (DPC) pilot project fills in the gaps with claims data to inform providers with structured patient history, past procedures, medication adherence, and more. This data is made available through a set of [FHIR](#) compliant APIs.

This guide serves as a starting point for users to begin working with the API by introducing the core APIs as well as two key concepts of [Bulk Data](#) and [Patient Attribution](#).

Bulk Data

This project provides an implementation of the FHIR [Bulk Data Access](#) specification, which provides an async interface over the existing Blue Button 2.0 data model. Details on the Blue Button data model can be found on its [project page](#).

This project will closely track changes in the underlying standard and is fully compliant with the

FHIR IMPLEMENTATION GUIDE



[Home](#) [Table of Contents](#) [Profiles](#) [Extensions](#) [Operations](#) [Security](#) [Capability Statements](#) [Other](#) [Downloads](#)

[TOC](#) [Home](#)

Data at the Point of Care

This is the Continuous Integration Build of the Data @ the Point of Care Implementation Guide Implementation Guide, based on FHIR Version 3.0.1. See the Directory of published versions based on [FHIR Version 3.0.1](#).

Contents:

- [Description](#)
- [FHIR Data Model](#)

Description

Data at the Point of Care (DPC) is a pilot API program that enables healthcare providers to deliver high quality care directly to Medicare beneficiaries by making a patient's Medicare claims data available to the provider for treatment needs. The information can be accessed in the existing workflow and without logging into another application or portal. Claims information can be used to confirm information, fill in gaps in care, and improve patient safety.

More information can be found on the Project [website](#).

FHIR Data Model

The primary source of data for the DPC project is the [Blue Button 2.0](#) project. We make the underlying FHIR resources available to providers through an efficient bulk access model that complies with the [FHIR Bulk Data Specification](#).

Information regarding the Blue Button Data Profiles can be found in the corresponding _____

Interoperability

Building Internal Capabilities and Capacities

MultiCare Connected Care

Ann Goldman, Executive Director, Analytics & Digital Strategy

Anna Taylor, Program Director

Our Mission

Partnering for a healing and healthy future.

Our Vision

» ***MultiCare Connected Care will be leading catalyst of patient and population centered value in the Pacific Northwest. We will:***

- collaborate to achieve unparalleled performance in how people experience healthcare by delivering exceptional quality, efficiency and value.
- be the preferred method to align with systems, patients, clinicians, payers and community stakeholders to address health and social needs across the continuum.
- empower, engage and support our clinicians to deliver patient and family-centered care in a model that thrives in value-based agreements.

Our Values

Respect | Integrity | Stewardship | Excellence
Collaboration | Kindness



The why behind interoperability

- » ***The mission:*** Partnering for healing and a healthier future
- » Data and information from partnering entities – disparate systems and operations
- » Foundational data elements: Member, Provider, Claims
 - How do we get these using the least amount of resources and have the highest accuracy rates (timing is important too)



Population Health Digital Ecosystem



Advanced Analytics & Business Intelligence

Predictive Analytics, Productivity Management, Medical Economics Performance, Clinical & Quality Risks Insights

Workflows & Operations

Population Health Platform (Plug & Play)
Accomplishes 80% of Population Health Capabilities & Capacities – the driver

Acquisition & Aggregation

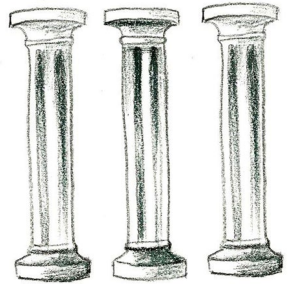
Data Lake & Interoperability

Sources

Foundation

- Provider Data Management
- Member Eligibility
- All Claim Types
- Clinical – EMR Data
- Supplemental Data
- Publicly Reported Data

“Without the foundational base, the additional layers cannot be built”



Strategic
Alignment



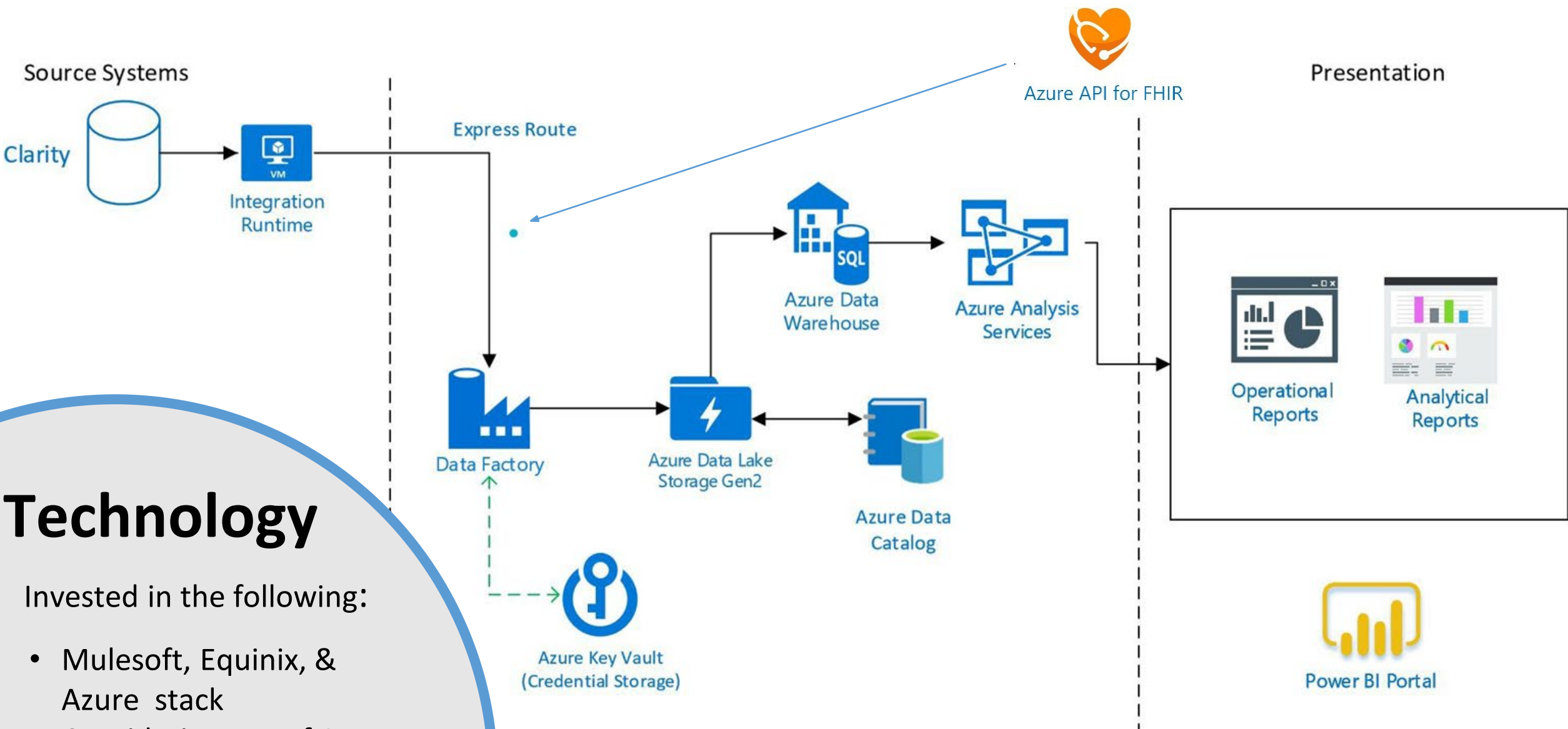
Population
Health
Engine



Use Cases:
Med Rec
Quality
Measures
Membership



Federal
Rulings

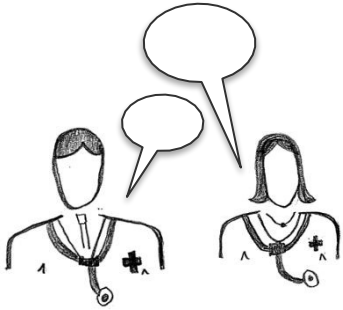


Technology

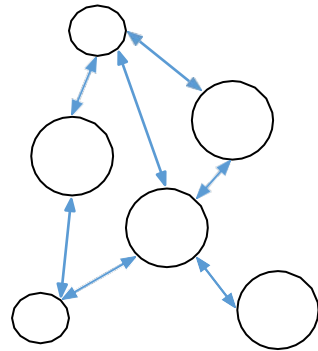
Invested in the following:

- Mulesoft, Equinix, & Azure stack
- Considering use of Azure FHIR service

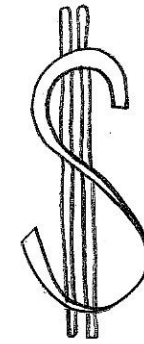
Adoption and Hiccups



Provider Alignment



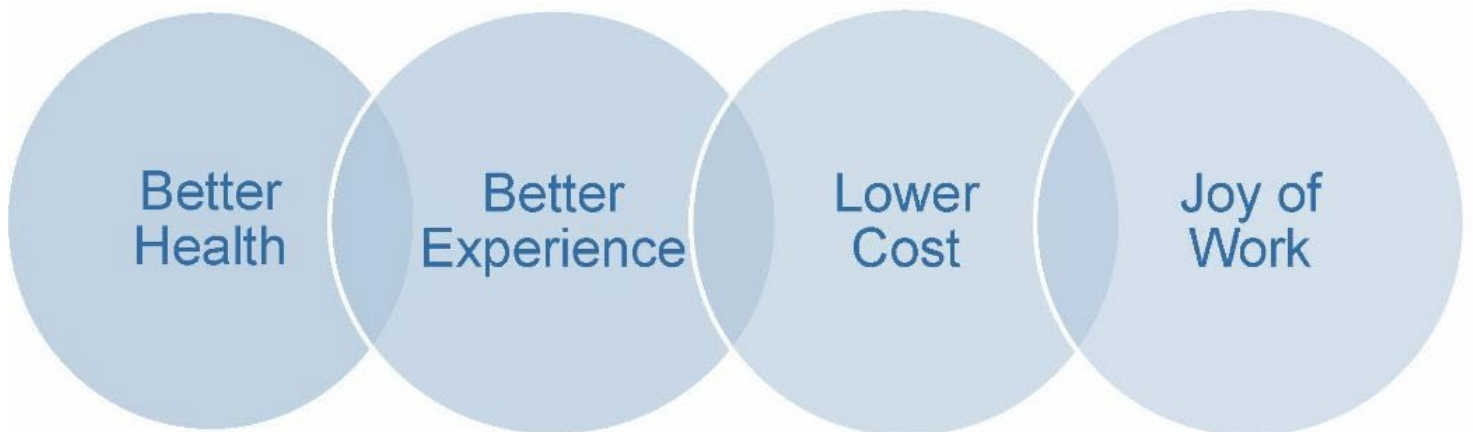
EHR &
Interoperability



Big \$ Investment

Where do we go from here?

- Bulk Capabilities
- Innovative partnerships with payers
 - Analytics as the driver
- Keep in mind quadruple aim



The Institute for Accountable Care (IAC)
and NAACOS/IAC Analytic Support for ACOs.



Institute for
ACCOUNTABLE CARE

Topics

- What is the Institute for Accountable Care (IAC)?
- Benchmarking Comparison and Performance Analysis Reports (BCAPA)
 - Current format
 - Future direction
- Custom analysis and work under development

Resources/Data assets

- 100% of Medicare beneficiaries 2011 - present
 - Inpatient, Outpatient and Provider bills
 - Prescription Drug Event (PDE) claims (Part D)
 - MDS/OASIS assessments
- Comprehensive cost and quality measure set
- ACO survey data
- Now testing attribution models to profile physician group and create “synthetic” ACOs



Benchmarking Comparison and Performance Analysis (BCAPA) Reports

BCAPA at a Glance

Category	Details
Measures	Resource use – Part A (Institutional) Resource use – Part B (Professional) Utilization
Types of Cost	Actual Price Standardized
Break downs by ACO cohort	Aged-non dual, Aged-dual eligible, Disabled, ESRD
Comparison groups	State ACO Peers; National ACO Average; Similar HCC Scores, Custom Peer Group
Years	2017, 2018, Q1– Q4 2019

New Web-based interface

The screenshot displays the NAACOS Reports web interface. On the left is a blue sidebar with navigation options: Home, Beneficiary Profile, Part A / Facility Data, Part B / Professional Data, Methods & Definitions, Custom Reports, and Download Past Reports. The main content area is titled 'BCAPA Report for' and 'Part A Data'. A 'log out' link is in the top right. A red circle highlights the 'Export to Excel' button. Below this is a section for changing data outputs with filters for Year/Quarter (2017, 2018, Q1 2019, Q2 2019), Beneficiary Type (All, Aged Non-Dual, Dual Eligible, Disabled, ESRD), Price Standardization (Yes, No), and Peer Group (US ACO Average, Similar HCC, State, Custom 1). At the bottom, there are tabs for 'Medicare Spending', 'Medicare Utilization', and 'Number of Beneficiaries'.

NAACOS REPORTS BCAPA Report for log out

Part A Data

[Export to Excel](#)

Click on the Buttons Below to Change your Data Outputs

Select Year/Quarter
2017 2018 Q1 2019 Q2 2019

Beneficiary Type
All Aged Non-Dual Dual Eligible Disabled ESRD

Price Standardization
Yes No

Peer Group
US ACO Average Similar HCC State Custom 1

Part A Data

Medicare Spending Medicare Utilization Number of Beneficiaries

Part B Professional Bills

Summary of spending category followed by detail break outs

Summary				
Evaluation and Management				
Procedures				
Imaging				
Tests				
Durable Medical Equipment				
Other				
All Measures				
	Target ACO	US ACO Average	Difference from Peer Group	
Category / Metric	PMPY Spending	PMPY Spending	Dollar Difference	Percent Difference
Evaluation and Management Total (M)	\$909	\$1,158	\$(249)	-27%
Procedures Total (P)	\$686	\$931	\$(245)	-36%
Imaging Total (I)	\$160	\$269	\$(109)	-68%
Tests Total (T)	\$198	\$334	\$(136)	-69%
Durable Medical Equipment Total (D)	\$189	\$229	\$(40)	-21%
Other Total (O)	\$941	\$727	\$214	23%

Part B Service Drill Down

Category / Metric	Target ACO	Regional Comparison Group Average	Difference from Peer Group	
	PMPY Spending	PMPY Spending	Dollar Difference	Percent Difference
Standard Imaging-Nuclear Medicine (I1E)	\$49	\$26	\$23	47%
Standard Imaging-Other (I1F)	\$9	\$14	\$(5)	-56%
Advanced Imaging-CAT: Head (I2A)	\$11	\$10	\$1	9%
Advanced Imaging-CAT: Other (I2B)	\$39	\$36	\$3	8%
Advanced Imaging-MRI: Brain (I2C)	\$11	\$8	\$3	27%
Advanced Imaging-MRI: Other (I2D)	\$46	\$23	\$23	50%
Echography-Eye (I3A)	\$4	\$3	\$1	25%
Echography-Abdomen/Pelvis (I3B)	\$7	\$6	\$1	14%
Echography-Heart (I3C)	\$35	\$25	\$10	29%

Savings Opportunities ?

Download Past Reports

Custom Report Pricing:
 1 ACO: \$1,000
 5 ACOs: \$2,000
 Additional Above 5 \$400 Per ACO

Peer Group

US ACO Average	Similar HCC	State	Custom 1
----------------	-------------	-------	----------

Select Individual ACOs or Group Average from your Custom Report

	Select Comparison ACO
	Custom group average
A9991	West ACO
A9992	North ACO
A9993	South ACO
A9994	East ACO
A9995	Southwest ACO

All Beneficiaries - 2018 (N=52,876)

Summary

Evaluation and Management

Procedures

Imaging

Tests

Durable Medical Equipment

Other

All Measures

	Target ACO	Custom 1	Difference from Peer Group	
Category / Metric	PMPY Spending	PMPY Spending	Dollar Difference	Percent Difference
Evaluation and Management Total (M)	\$909	\$1,397	\$(488)	-54%
Procedures Total (P)	\$686	\$904	\$(218)	-32%

Download Past Reports



Custom Report
Pricing:
1 ACO: \$1,000
5 ACOs: \$2,000
Additional Above 5
\$400 Per ACO

Peer Group

US ACO Average	Similar HCC	State	Custom 1
-------------------	----------------	-------	-------------

Select Individual ACOs or Group Average from
your Custom Report

	Select Comparison ACO
	Custom group average
A9991	West ACO
A9992	North ACO
A9993	South ACO
A9994	East ACO
A9995	Southwest ACO

All Beneficiaries - 2018

Summary

Evaluation and Management

Procedures

Imaging

Tests

Durable Medical Equipment

Other

All Measures

Category / Metric	Target ACO	Custom 1	Difference from Peer Group	
	PMPY Spending	PMPY Spending	Dollar Difference	Percent Difference
Evaluation and Management Total (M)	\$909	\$1,397	\$(488)	-54%
Procedures Total (P)	\$686	\$904	\$(218)	-32%

Drilling down – Part B Drugs (upcoming)

Drug		2016		2017		
Line HCPCS	Brand Name	Claims	Mean Allowed Amount	Claims	Mean Allowed Amount	Percent Change
J0129	Orencia	356	3,193	430	3,702	16%
J0178	Eylea	1,877	1,931	2,044	1,930	0%
J0897	Prolia	856	1,039	1,064	1,074	3%
J1745	Remicade	900	3,606	1,003	3,734	4%
J2505	Neulasta	65	3,804	40	4,255	12%
J2778	Lucentis	831	1,858	1,307	1,798	-3%
J9035	Avastin	326	457	835	199	-57%
J9271	Keytruda	20	4,146	52	6,551	58%



Custom Analysis and Work Under Development

TIN-Level PMPY Performance By Service Type

Aged Non-Dual Beneficiaries: 2017

TIN_LBN	HCC Score	N_Benes	Hospital Inpatient	Hospital Outpatient	SNF	Other Part A	E&M	Procedures	Other Part B	Total PMPY
TIN 1	1.23	5,721	\$2,139	\$1,975	\$549	\$1,063	\$1,186	\$950	\$1,119	\$8,981
TIN 2H	1.18	5,102	\$1,469	\$3,217	\$512	\$691	\$1,097	\$944	\$910	\$8,840
TIN 3	1.13	4,219	\$1,319	\$1,208	\$288	\$670	\$1,235	\$883	\$1,181	\$6,785
TIN 4	1.14	4,325	\$1,380	\$924	\$397	\$614	\$1,175	\$830	\$1,007	\$6,326
TIN 5H	1.50	3,941	\$2,593	\$6,294	\$663	\$1,663	\$1,424	\$1,507	\$1,937	\$16,080
TIN 6	1.13	2,781	\$1,452	\$1,236	\$585	\$917	\$1,263	\$750	\$1,052	\$7,255
TIN 7	1.07	2,936	\$1,287	\$943	\$418	\$696	\$1,171	\$851	\$1,227	\$6,595
TIN 8	1.20	1,667	\$1,621	\$1,288	\$721	\$777	\$1,236	\$709	\$890	\$7,242
ACO Avg.	1.20	30,691	\$1,682	\$2,287	\$500	\$897	\$1,197	\$949	\$1,174	\$8,645
Range	0.44	NA	\$1,306	\$5,369	\$433	\$1,049	\$327	\$798	\$1,028	\$9,485
Range/Avg.	36%	NA	78%	235%	87%	117%	27%	84%	88%	110%

This ACO Would Save \$29 million (\$955 PMPM) if it could change TIN 5H performance to the ACO Average

SNF Market Profile: Facility View

High HCC Score



Name	SNF 1	SNF 2	SNF 3	SNF 4
City	ATCO	AUDUBON	HAVERTOWN	PHILADELPHIA
Medicare Admissions	121	1119	253	111
ACO Admissions	26	507	139	36
Portion ACO/FFS	21%	45%	55%	32%
Functional Status Score	17.78	16.23	20.02	18.44
Average HCC Score	3.04	2.92	5.10	3.82
Portion of SNF Days billed Ultra High Rehab	77%	81%	69%	35%

Observations

- Variation in size and ACO penetration rate
- Large variation in clinical severity leading to variation in billing high-intensity RUGs

SNF Market Profile: Cost of stay and 90-day post-discharge cost

High HCC Score



Name	SNF 1	SNF 2	SNF 3	SNF 4
City	ATCO	AUDUBON	HAVERTOWN	PHILADELPHIA
Medicare Admissions	121	1119	253	111
Average LOS	30.59	24.13	33.92	24.68
Average SNF expenditures	\$10,461	\$10,491	\$14,189	\$8,764
Average ED visits	18%	14%	23%	20%
Average downstream spending per case	\$13,940	\$15,183	\$22,801	\$20,358
Discharged with Home health	20%	30%	9%	12%
Discharged Home	68%	55%	70%	66%

Observations

- \$5,425 dollar difference between SNFs with highest and lowest average expenditures per stay
- Average expenditures do not correlate with discharges to home.

Hospital Profile by Clinical Episode

Similar HCC Score,
different cost profile



Provider Name	Medicare Admissio	ACO Attributed Bene Admissio	Normalized HCC Score	Average LC	Average expenditure	Average downstream spending per case
ROXBOROUGH MEMORIAL HOSPITAL	73	28	2.28	3.47	\$10,459	\$25,769
NAZARETH HOSPITAL	189	65	2.26	4.10	\$7,350	\$19,399
ALBERT EINSTEIN MEDICAL CENTER	442	130	2.17	4.71	\$15,401	\$28,425
TEMPLE UNIVERSITY HOSPITAL	336	87	2.15	6.20	\$19,092	\$22,553
HAHNEMANN UNIVERSITY HOSPITAL	422	126	2.03	5.83	\$13,500	\$19,130
JEANES HOSPITAL	123	26	2.03	3.77	\$9,001	\$19,516
ARIA HEALTH	501	227	1.98	4.40	\$9,353	\$19,949
PENN PRESBYTERIAN MEDICAL CENTER	289	76	1.94	6.21	\$11,712	\$25,471
CHESTNUT HILL HOSPITAL	186	60	1.85	3.78	\$6,460	\$17,715
HOSPITAL OF UNIV OF PENNSYLVANIA	743	201	1.68	5.82	\$18,490	\$28,734
THOMAS JEFFERSON UNIVERSITY HOSPIT	1258	580	1.62	5.57	\$15,212	\$24,435
PENNSYLVANIA HOSPITAL	250	82	1.52	4.94	\$15,280	\$21,353

Under development

- SNF market profiles
 - Cross sectional facility view (100% of Medicare cases)
 - Trends over time within facility
 - ACO vs. all other patients by facility
 - ACO – hospital – SNF mapping
- Hospital market profiles
- QP Status – marginal contribution of each ACO TIN to overall QP
- Referral and leakage analysis

Contact us: analytics@institute4ac.org

Questions?