# FHIR it Up!

*Solving the Unique Challenges of Prescribing Specialty Medications*

**Ryan Tarzy**

**Miranda Gill MSN, RN, NEA-BC**

**HiMSS**

**CENTRAL & SOUTHERN OHIO** *Chapter*

# About CoverMyMeds

- Headquarters in Columbus OH

- 600 employees

- Acquired in April 2017 by McKesson

- Mission:  Help patients get the medications they need to live healthy lives



glassdoor
2017 BEST PLACES to work
Employees' Choice

glassdoor
2017 HIGHEST RATED CEOs
Employees' Choice

Inc. 500

TOP WORK PLACES 2016    COLUMBUS CEO

COLUMBUS BUSINESS FIRST
BPtw
2016 BEST PLACES TO WORK

HIMSS
CENTRAL & SOUTHERN OHIO Chapter

# What is SMART on FHIR?

**SMART**: **S**ubstitutable **M**edical **A**pplications, **R**eusable **T**echnologies

- Predecessor to SMART on FHIR funded by ONC

- Uses open standards such as oAUTH2 and OpenID for authentication

**FHIR**:  **F**ast **H**ealthcare **I**nteroperable **R**esources

- HL7 Standard for API-based resources

- Builds on previous HL7 standards such a CDA and CCDA

**SMART on FHIR**:

- Uses SMART authentication and SMART apps built to use FHIR resources

- Moved in 2017 from "Draft" standard to ready for prime time

# Argonaut Project

**WHAT:** Private sector initiative to advance industry adoption of modern, open interoperability standards.

**WHY:** To rapidly develop a first-generation FHIR-based API and Core Data Services specification to enable expanded information sharing for electronic health records

**WHO:** Many EHR, health system, and health technology leaders including Epic, Cerner, athena, drchrono, McKesson, Mayo Clinic, Intermountain Healthcare, and Partners Healthcare of Boston

**SO WHAT:** The Argonaut project created early adopters and propelled the standard forward toward on a path to becoming an "normative" standard

# Why now?

Meaningful Use 2015/MACRA

- Requires all certified EHR vendors to enable API access

- Patients must be able to access their data via an app they choose via API

- Required feature to be in place by early 2018

- FHIR is not explicitly required, but the vendors have generally chosen to use FHIR as the means to meet this requirement

# Who is leading the charge?

- **HHS/ONC:** Continuing to push SMART on FHIR and publishing EHRs and health systems making solutions available

- **Allscripts:** SMART on FHIR apps now live in marketplace

- **Cerner:** SMART on FHIR apps in test environments and to be live soon

- **Epic:** SMART on FHIR apps to be released as part of 2018 bundle in February

- **athenaHealth:** SMART on FHIR apps in testing sandbox to be released in near future

# Why does it matter?

- Enables interoperability to share information and reduce avoidable errors

- Breaking the "Monopoly of the User Interface"

- For provider users, it creates choice an easy substitutability

- For app developers, it means:

    – Lower barriers to entry

    – Single App can run on many systems with different vendors

    – Single App can run in multiple contexts (EHR and portal)

- New entrants are already bringing exciting new capabilities
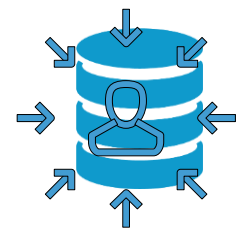
# CDS Hooks

FHIR resource that makes it easy to incorporate external clinical decision intelligence into clinical workflows

- Uses FHIR and SMART-defined api calls ("hooks")

- Epic, Cerner, Allscripts, and athena are all supporting

- Response types ("CDS Cards"):

    – Information (direct display to provider)

    – Suggestion (proposed action to impact workflow)

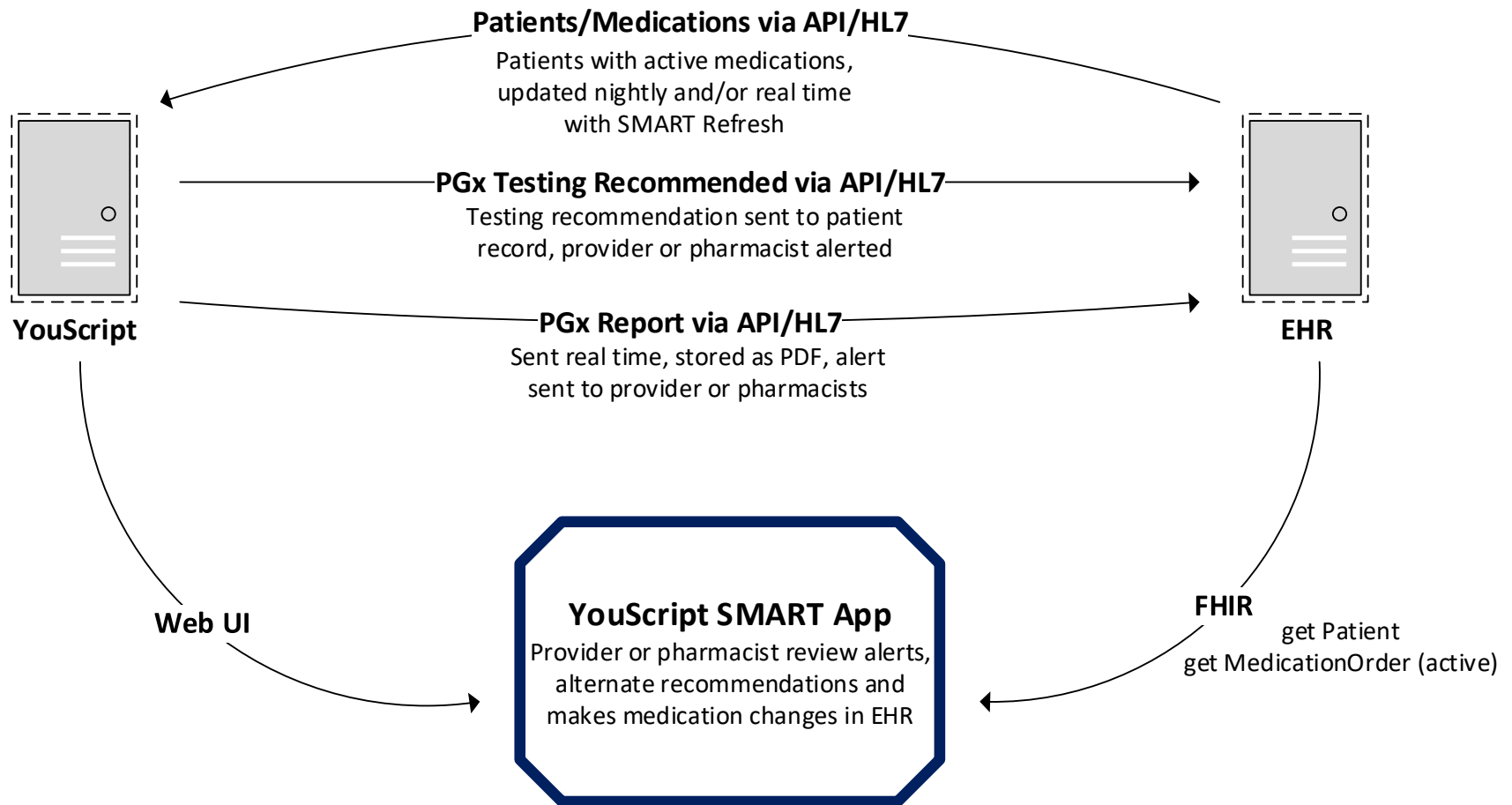    – App link (contextual, "deep" link to SMART app)

# Precision Medication Management

- Identifies patients that may benefit from pharmacogenetic testing

- Enables drug auditioning with safer alternates selection

- Distills complex information into actionable clinical management around drug selection and dosing

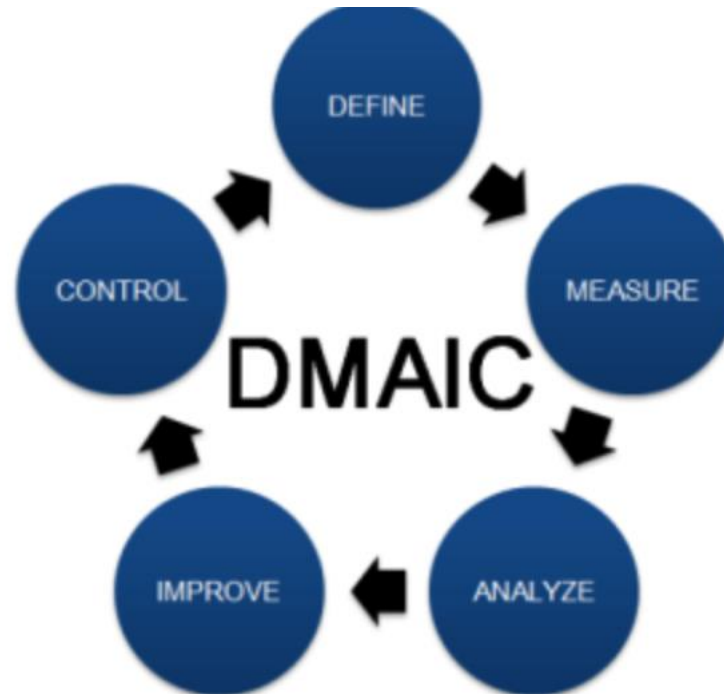- Prevents adverse events from contraindications of drug-gene, drug-drug-drug, etc.

youscript

# YouScript SMART on FHIR App

**Patients/Medications via API/HL7**
Patients with active medications,
updated nightly and/or real time
with SMART Refresh

**PGx Testing Recommended via API/HL7**
Testing recommendation sent to patient
record, provider or pharmacist alerted

**PGx Report via API/HL7**
Sent real time, stored as PDF, alert
sent to provider or pharmacists

**YouScript**

**EHR**

**Web UI**

**YouScript SMART App**
Provider or pharmacist review alerts,
alternate recommendations and
makes medication changes in EHR

**FHIR**
get Patient
get MedicationOrder (active)

# What's next? Big problems & big solutions

# Phase 1: Define

Specialty Medication:

Various definitions across the industry

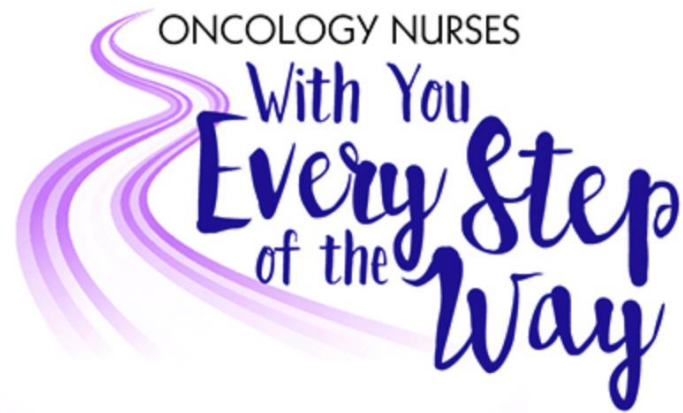1.  Expensive

2.  Difficult to administer

3.  Special handling

4.  Clinical interventions needed

# Phase 2: Measure

Specialty is a wildly complex workflow so we've identified and collected baseline data on the following challenges

- Where does script get filled?

- Are Hub services available?

- Medical or Pharmacy benefit?

- Drug covered or affordable?

Collectively we've learned that the current process results in high rates of **non-adherence** as well as **additional costs and treatments.**
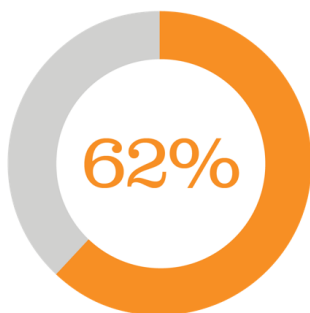
**"The multiple steps it takes for medication coordination, it's tedious. It takes time away from clinic and patient care, and requires constant follow-up."**
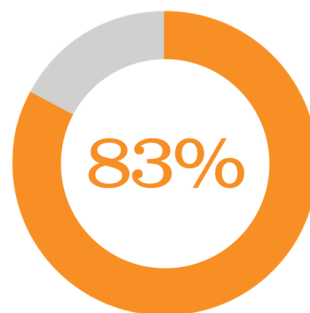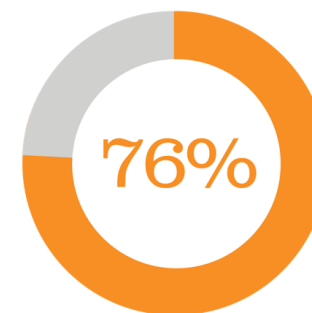
- RN, Oncology Nursing Society

# Phase 2: Measure Cont.

**CoverMyMeds surveyed 1,000+ prescribers representing the top specialties in the U.S.**



**62%** of respondents indicated that determining their patients' insurance coverage was their biggest hurdle in prescribing specialty medication.
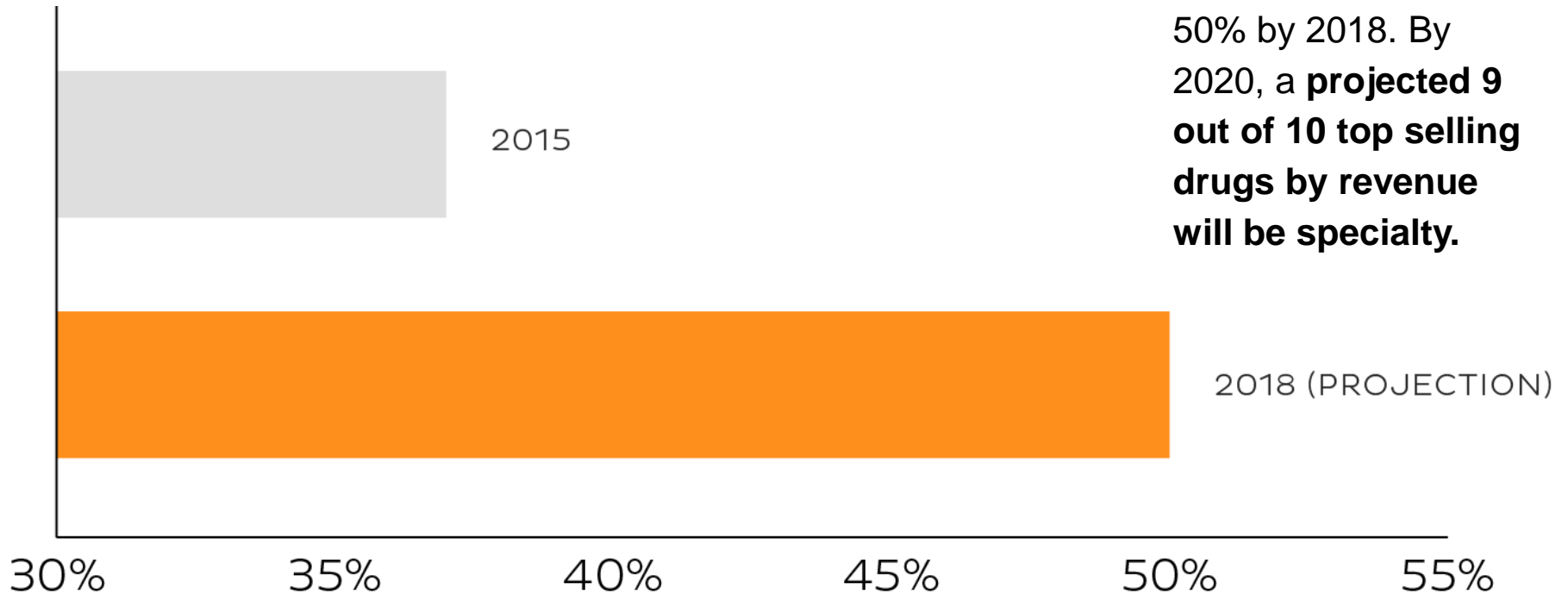
**83%** of respondents found electronic prior authorization to be of value when prescribing specialty medication.

**76%** of respondents agree that electronic prior authorization improves patient care for those requiring specialty medication.
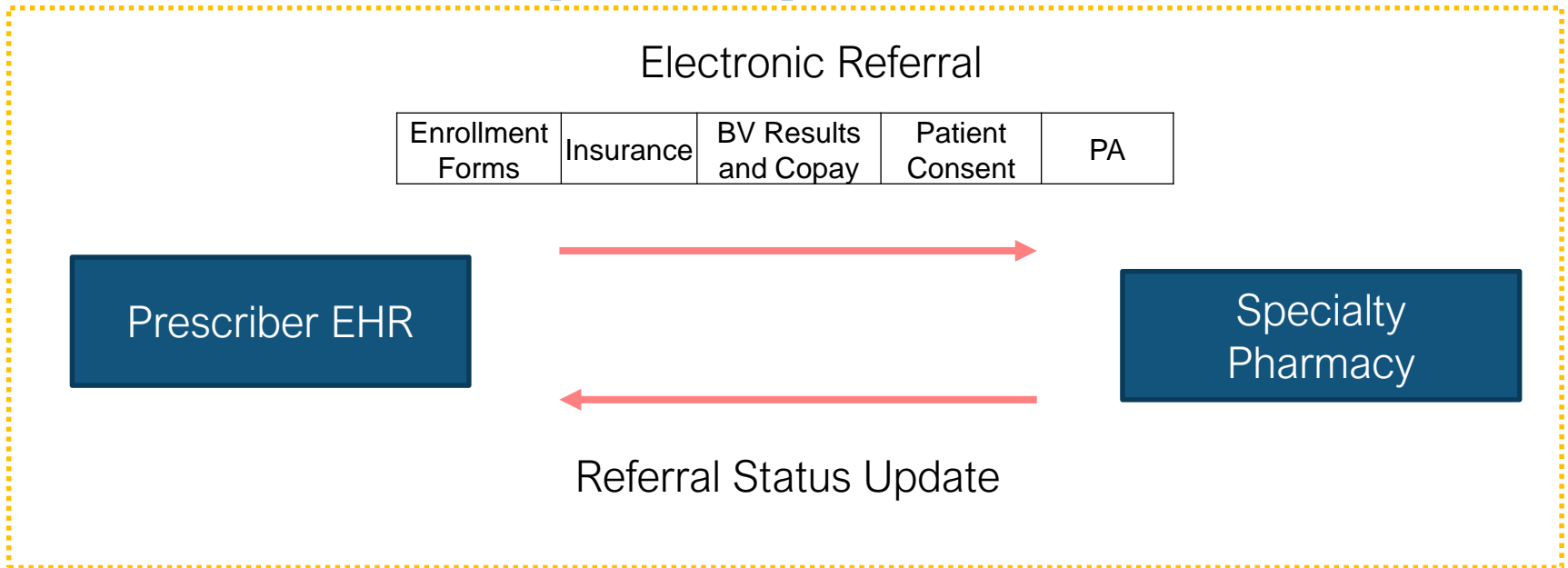
# Phase 3: Analyze the Impact

Specialty medications accounted for 37% of U.S. drug spend in 2015, and are projected to reach 50% by 2018. By 2020, a **projected 9 out of 10 top selling drugs by revenue will be specialty.**
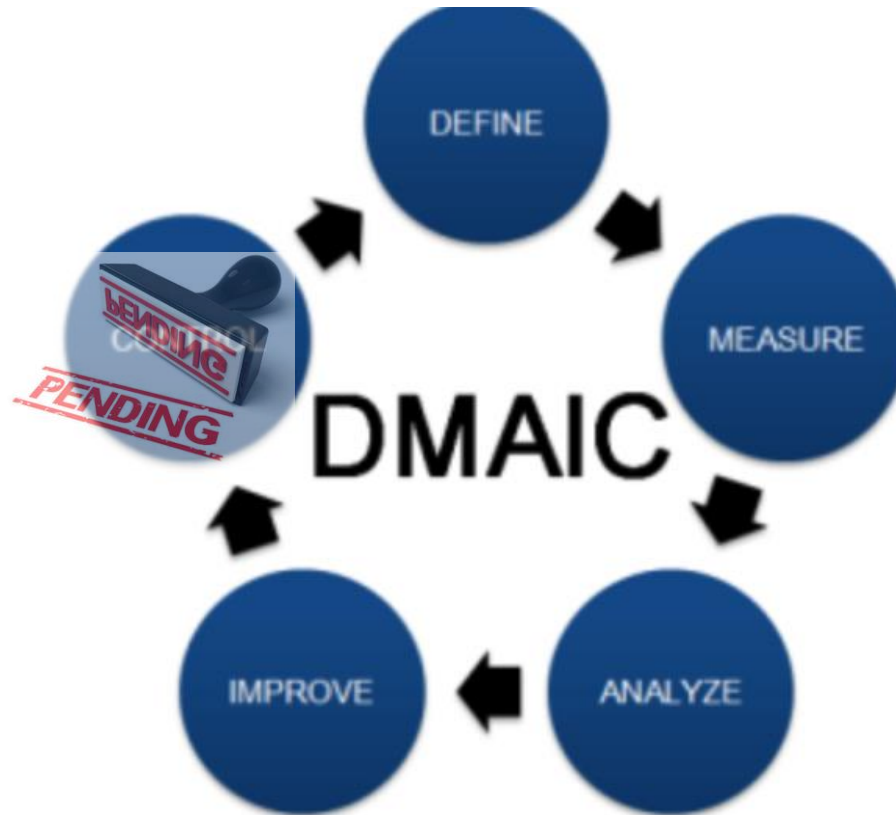


2015

2018 (PROJECTION)

30%   35%   40%   45%   50%   55%

# Phase 4: Improve

# e-Referral for Specialty Medications

Electronic Referral

| Enrollment Forms | Insurance | BV Results and Copay | Patient Consent | PA |
|---|---|---|---|---|

**Prescriber EHR**

**Specialty Pharmacy**

Referral Status Update

- Specialty Pharmacies receive increased volume of clean referrals and line of direct communication with the prescriber

- Prescribers receive workflow efficiencies and gain visibility into the patient's status and adherence to medication

# Phase 5: Control

# Summary: e-Referral built on SMART on FHIR

- Built using SMART on FHIR technology

- Leveraging EHR partners' APIs

- Deployed currently with drchrono and Daw Systems

- To be deployed next with Allscripts, Epic, iKnowMed, athena, Greenway

- Also likely to be utilized to connect with Pharmacies using FHIR Care Plan resource

# Summary

- MACRA and MU17 have forced the industry to finally enable interoperability and we are seeing most to all EHRs adopting SMART on FHIR

- SMART on FHIR is creating new opportunities for innovation in health care

- Prescribing of specialty medications has traditionally been a highly manual, inefficient, and burdensome process for provider, pharmacies, and patients

- CDS Hooks built on SMART on FHIR have potential for dramatic improvement in Specialty prescribing

# Questions?

Ryan Tarzy
rtarzy@covermymeds.com


Miranda Gill MSN, RN, NEA-BC

mgill@covermymeds.com