



# Kooperation: FH OÖ & SmileCDR

Anna M. Lin, 15.03.2023

# Clinical Reasoning

Figure 1-1: The Quality Improvement Ecosystem Diagram



<https://build.fhir.org/ig/HL7/cqf-measures/>

# (1) Health Quality Measure: Immunisierungs-Status

- Proof-of-concept: HAPI FHIR mit CQL (Clinical Quality Language)



# (1) CQL und \$evaluate-measure

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McKinley, Koby (ImmunizationStatus-grade-7-patient-3)

Patient Details

ID: ImmunizationStatus-grade-7-patient-3

Date of Birth: 2010-09-15 (12y)

Phone:

Gender: male

Fully Immunized (Routine)

No

Fully Immunized (Seasonal)

Yes

Past immunizations

Description	Date (Age)	Dose	Status
meningococcal ACWY vaccine, unspecified formulation	2022-09-15 (12y)	1/1	completed
hepatitis B vaccine, pediatric or pediatric/adolescent dosage	2022-09-15 (12y)	1/1	completed
influenza, high-dose seasonal, quadrivalent, .7mL dose, preservative free	2022-09-15 (12y)	1/1	completed

# (1) CQL und \$evaluate-measure



## Population Immunization Performance

16.09.2022

### Fully Immunized (Routine)

**Overall measure score** 13 % are fully immunized

**Count of initial population** 23 patients in initial population

**Count of denominator** 23 patients qualifying for immunization

**Count of numerator** 3 patients fully immunized

### Fully Immunized (Seasonal)

**Overall measure score** 32 % are fully immunized

**Count of initial population** 19 patients in initial population

**Count of denominator** 19 patients qualifying for immunization

**Count of numerator** 6 patients fully immunized

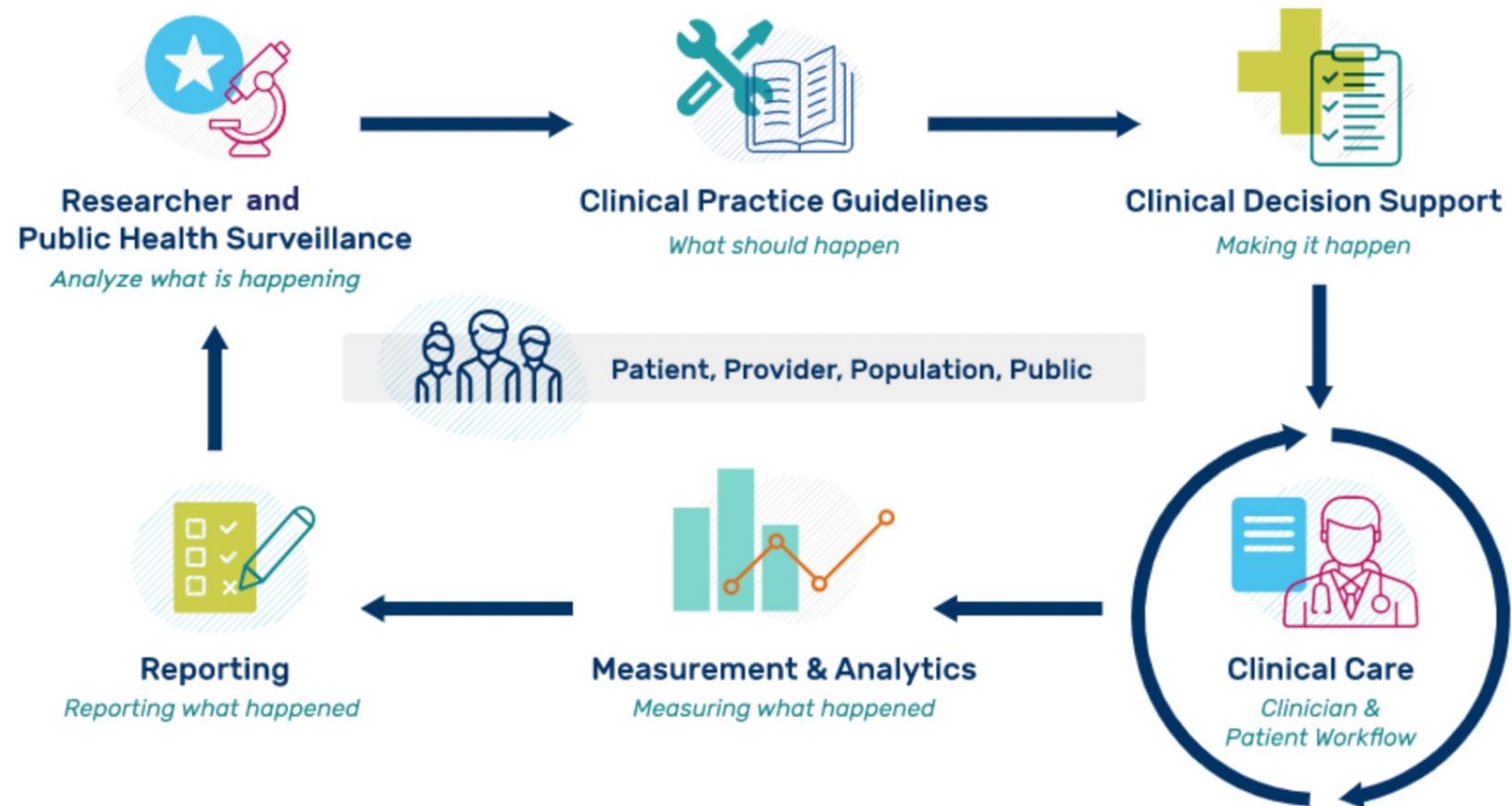
# Erste Erfahrungen: CQL

- Logik zu FHIR → viel Potential für moderne Anwendungen (Measures, Clinical Decision Support)
  - Transparente, nachvollziehbare, lesbare Definitionen
  - On-Demand Datenanalyse für aktuellste Metriken
  - Tooling ändert sich schnell
  - Verbreitung großteils in USA → Erfahrungsaustausch noch träge



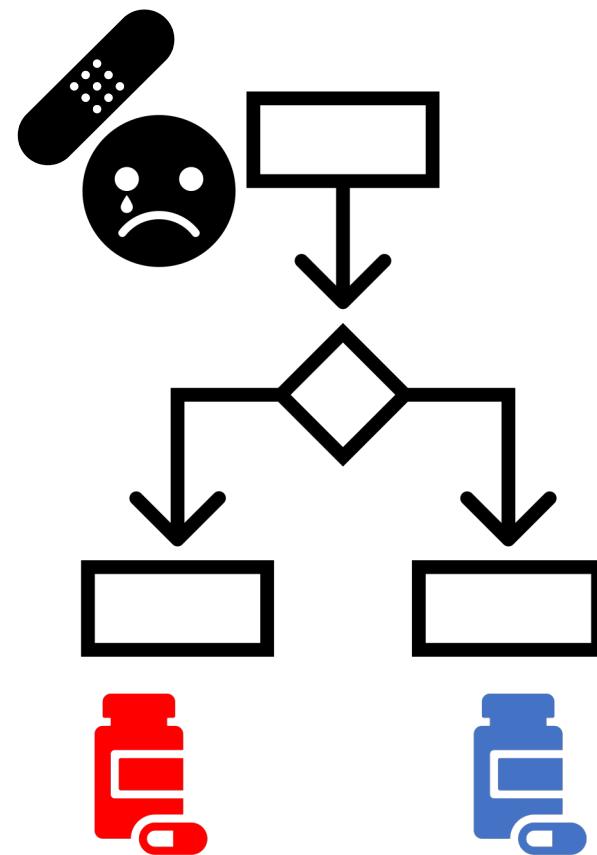
# Clinical Reasoning

Figure 1-1: The Quality Improvement Ecosystem Diagram



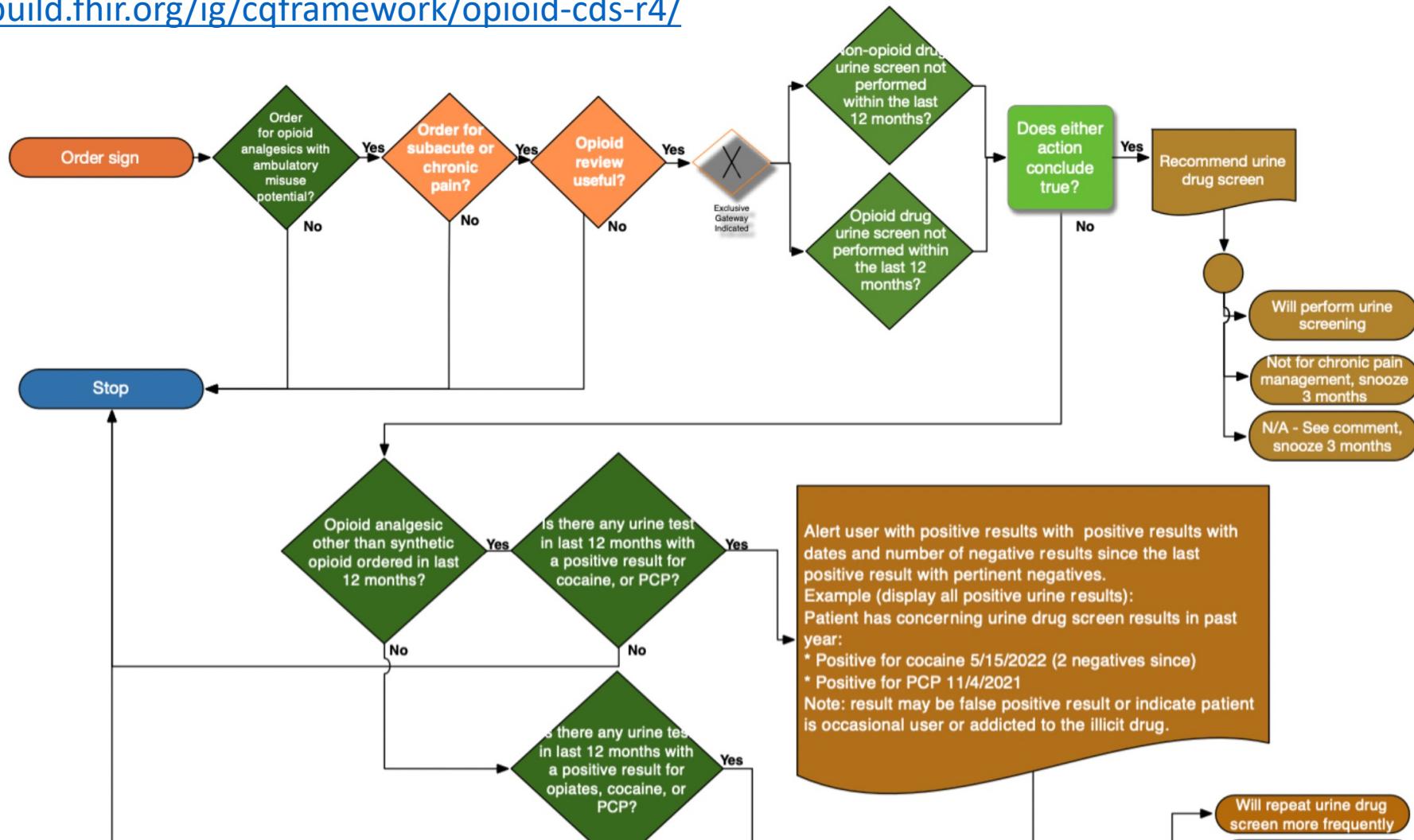
<https://build.fhir.org/ig/HL7/cqf-measures/>

## (2) Clinical Decision Support



# (2) Opioid Prescribing Support IG

<https://build.fhir.org/ig/cqframework/opioid-cds-r4/>



# (3) Observational Research

## OMOP

- Ausgelegt auf Forschung
- Anonymisiert
- Era ist relevant (wie ändert sich Condition über Zeit)
- Beispiel: Biobanks



## FHIR

- Ausgelegt auf Patienten-Versorgung
- Encounter-Basiert



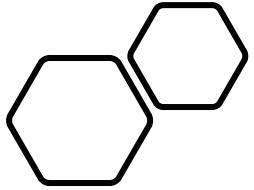
# Observational Research

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## HL7 International and OHDSI Announce Collaboration to Provide Single Common Data Model for Sharing Information in Clinical Care and Observational Research





## Funding

**Digital Square** zur Weiterentwicklung und zum Testen des *Global Good HAPI FHIR*

**Smile Digital Health** als Firmenpartner und Haupt-Entwickler des HAPI FHIR Projekts



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