

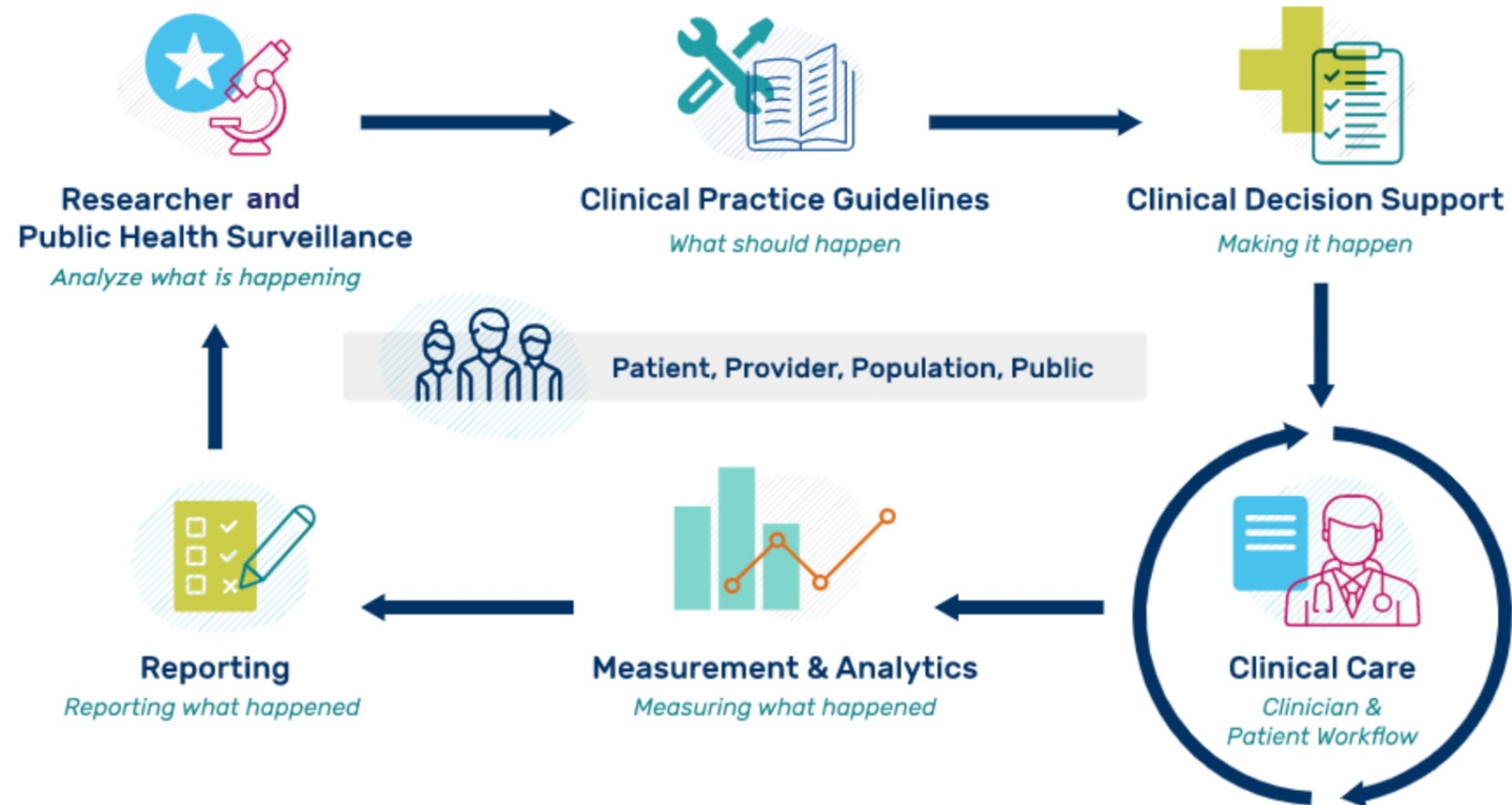


# Kooperation: FH OÖ & SmileCDR

Anna M. Lin

# 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



Patient Search

## Population Immunization Performance

16.09.2022

### Fully Immunized (Routine)

<b>Overall measure score</b>	13 % are fully immunized
<b>Count of initial population</b>	23 patients in initial population
<b>Count of denominator</b>	23 patients qualifying for immunization
<b>Count of numerator</b>	3 patients fully immunized

### Fully Immunized (Seasonal)

<b>Overall measure score</b>	32 % are fully immunized
<b>Count of initial population</b>	19 patients in initial population
<b>Count of denominator</b>	19 patients qualifying for immunization
<b>Count of numerator</b>	6 patients fully immunized

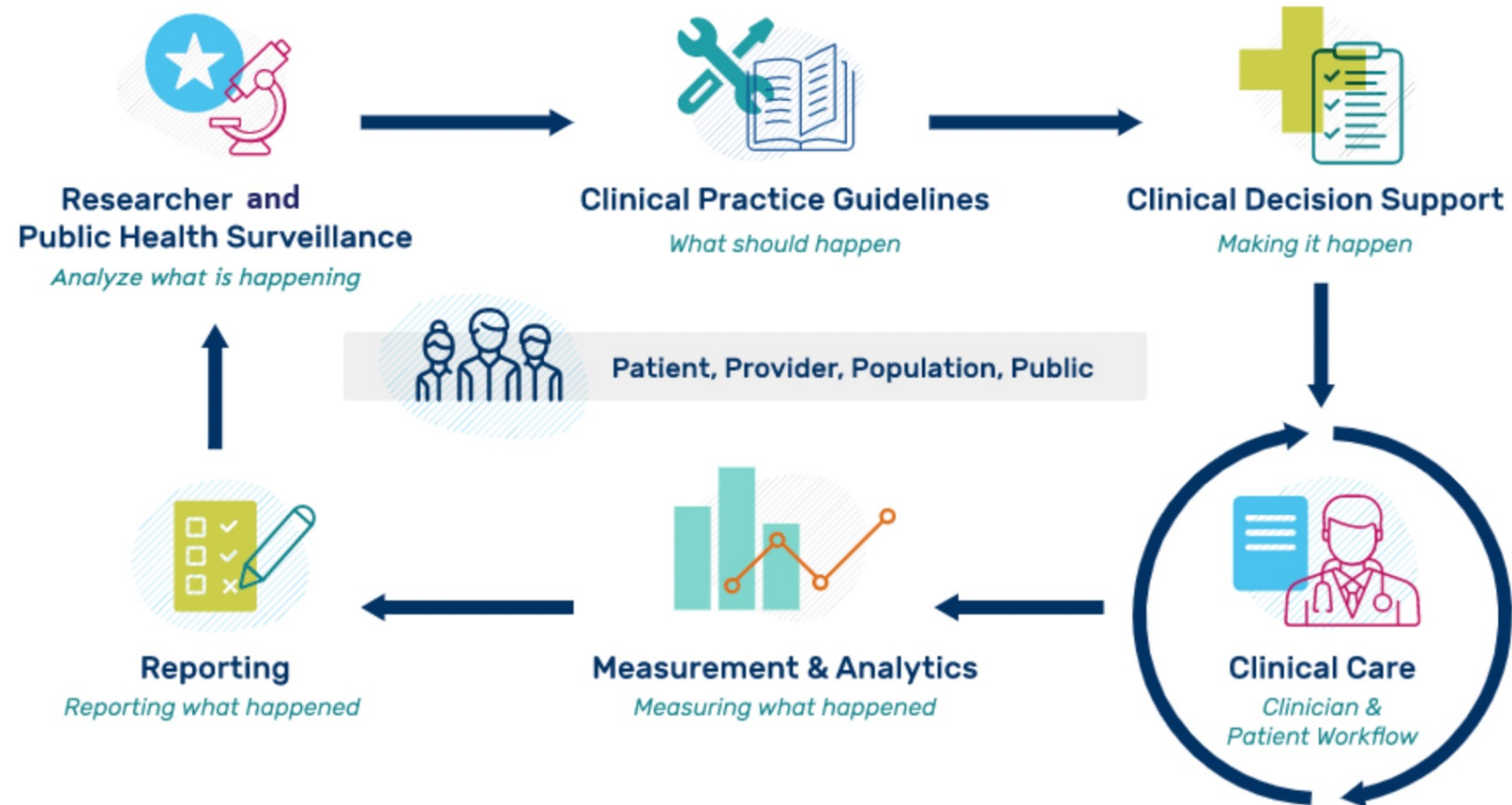
# Erste Erfahrungen: CQL

- 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 ins USA → Erfahrungsaustausch noch träge



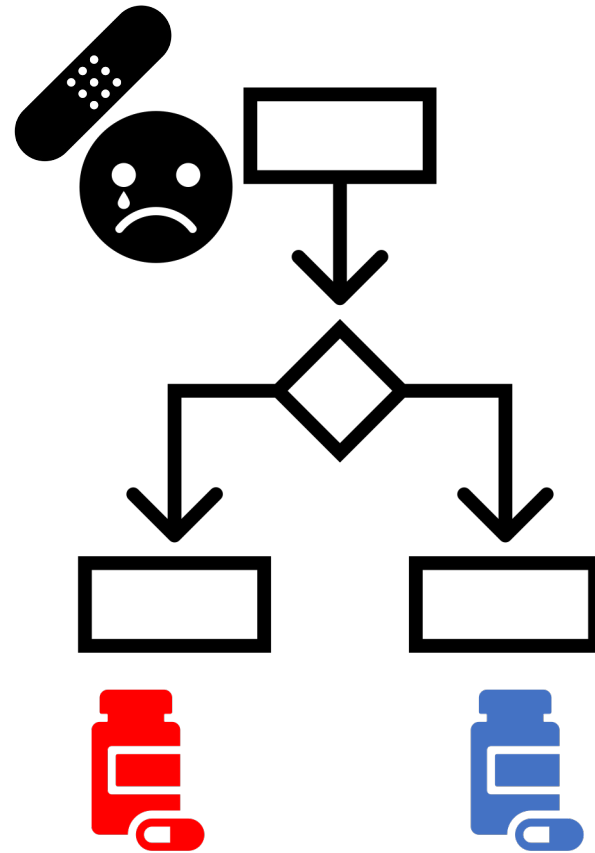
# Clinical Reasoning

Figure 1-1: The Quality Improvement Ecosystem Diagram



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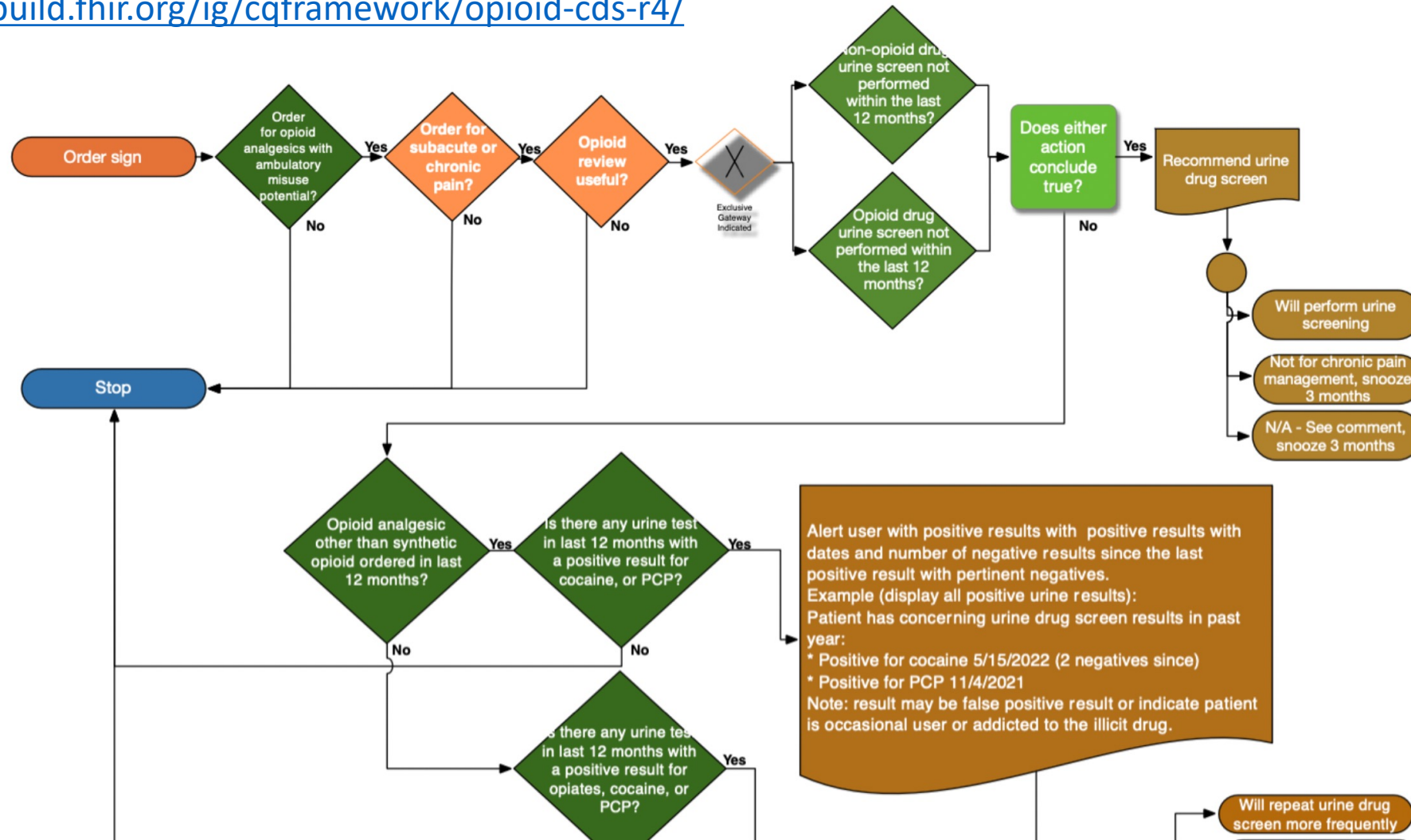
## (2) Clinical Decision Support





# (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



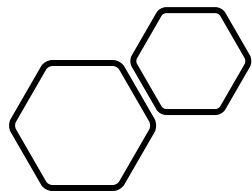
## FHIR

- Ausgelegt auf Patienten-Versorgung
- Encounter-Basiert



# Observational Research





## 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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