



# How do guidelines and recommendations influence medical treatment?

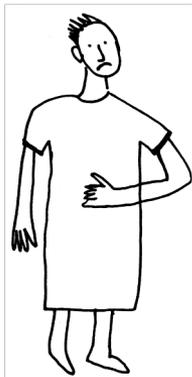
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# How do we know what is happening in health care system?



# Geographic variation in the utilization of health care interventions: what is the role of recommendations and other influences?

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## Possible causes of variation

Availability & quality of evidence and clinical recommendations

Physician expertise, values & preferences

Patient values & preferences

Supply-side factors

Financial incentives

Other health system factors

### Focus

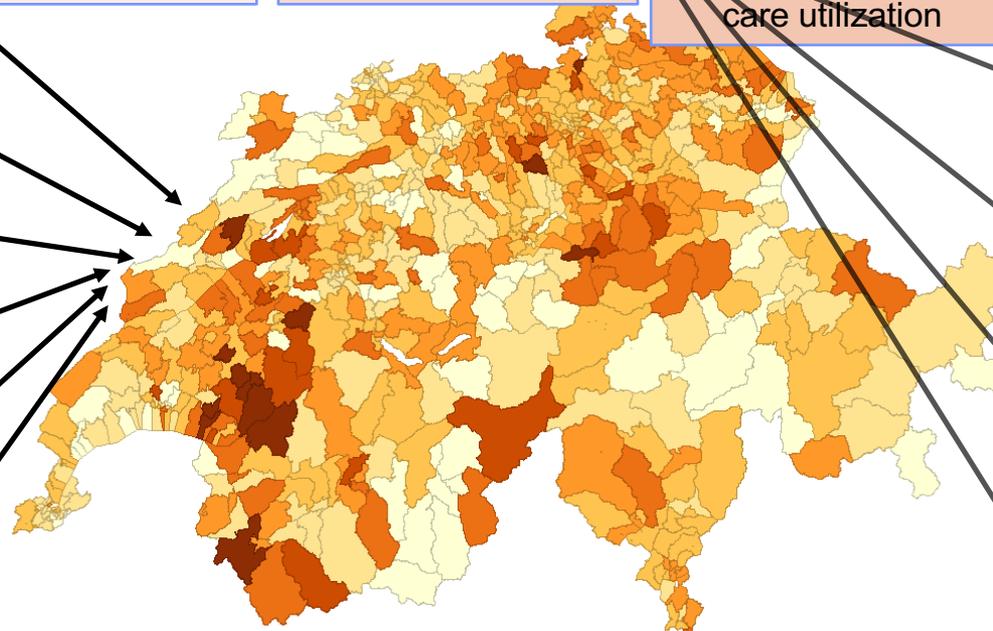
key chronic diseases

### A) Systematic literature review

guidelines, recommendation status

### B) Analysis of health insurance claims data

patterns of health care utilization



## Project impact

Clinical recommendations: what works?

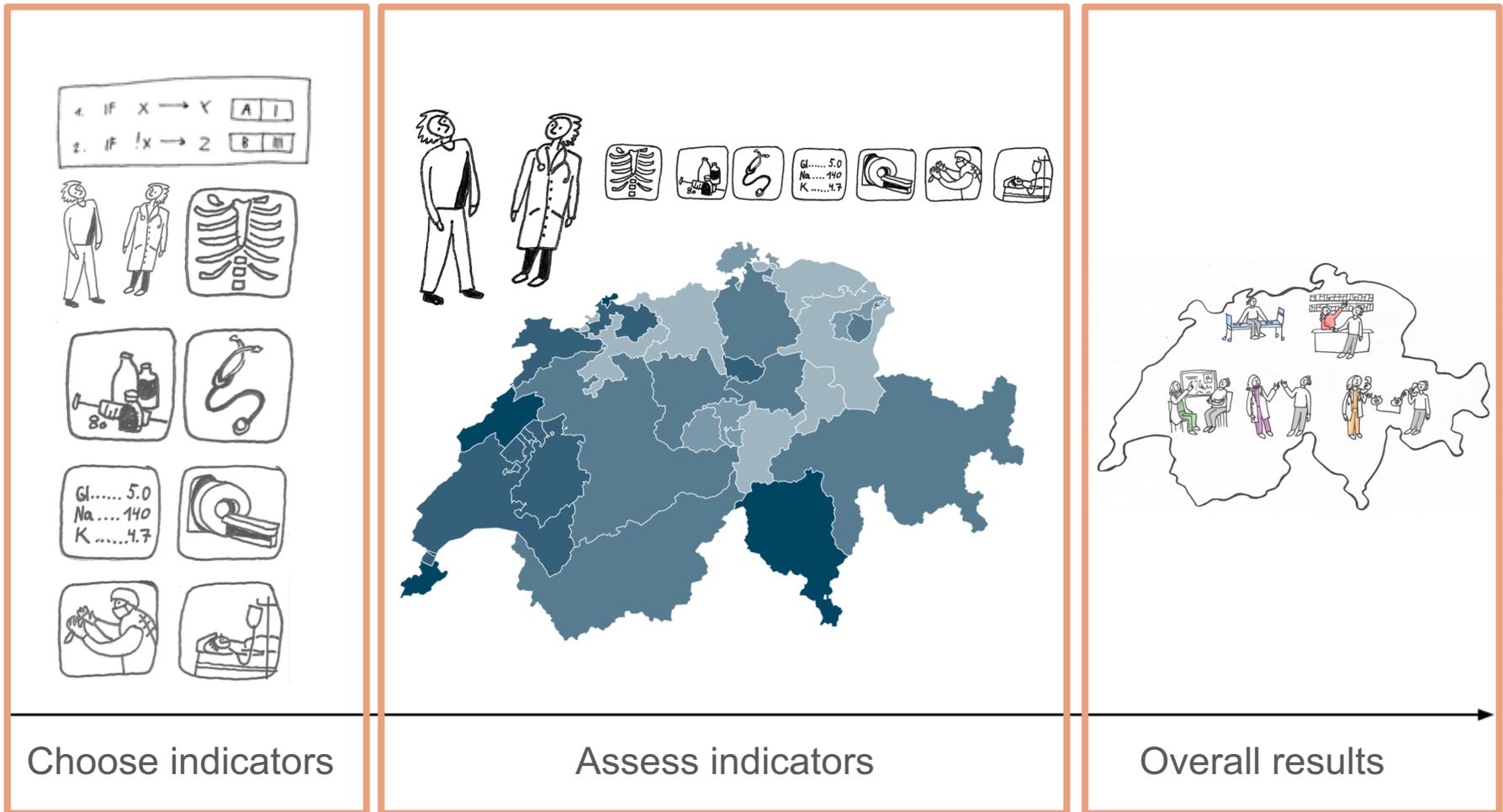
Healthcare interventions: occurrence and drivers of variation? Health policy implications?

Impact of variation: clinical and cost outcomes

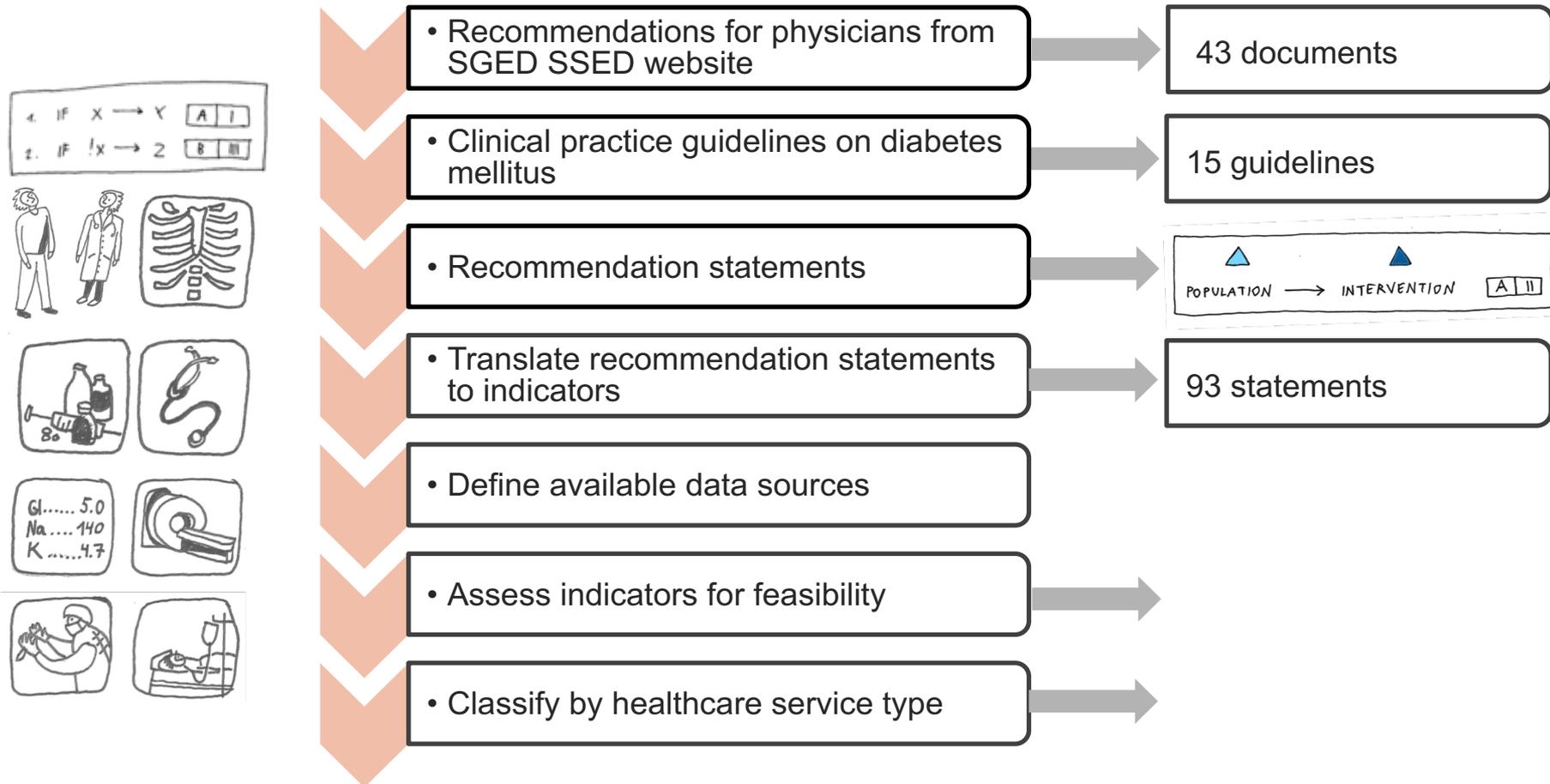
Development of research methods: e.g. indicators across interventions

Information of healthcare system representatives, general public: website et al.

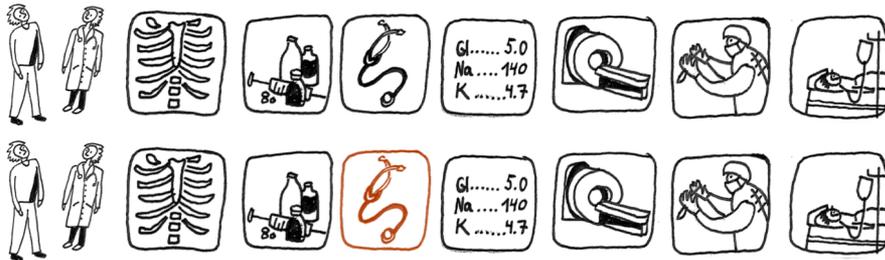
# Project overview



# 1. Choose what to study – case of diabetes



# 1. Choose what to study: results



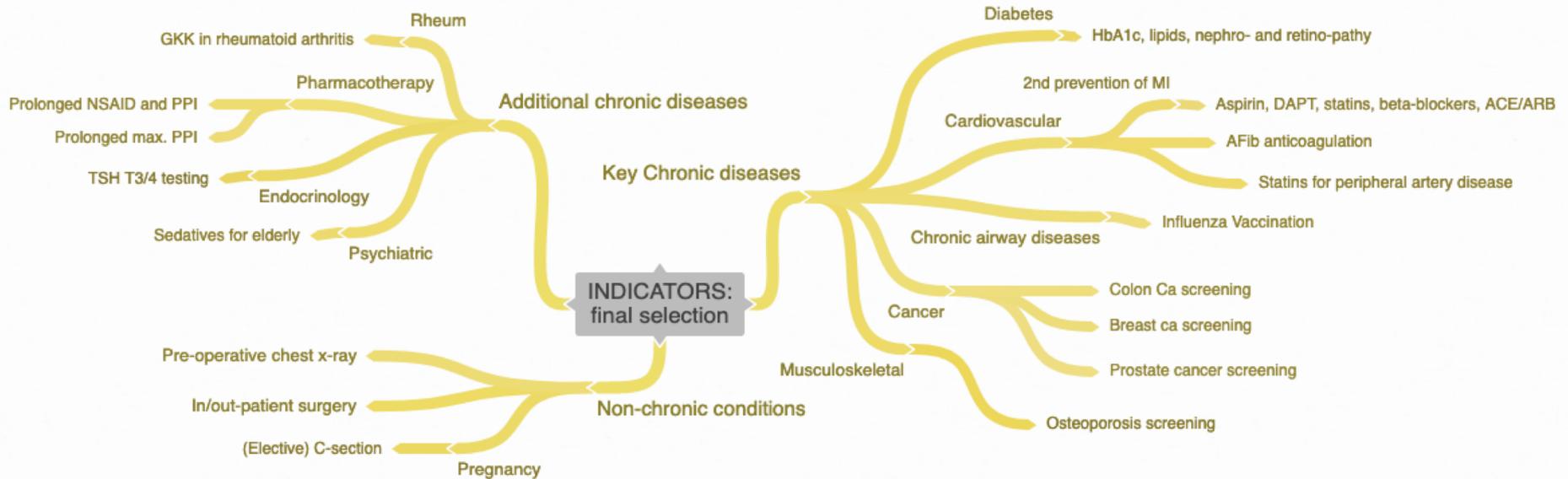
93 potential indicators

9 (10%) feasible for research  
Services represented unequally.

Disease stage	Service type	N of indicators	N of feasible
		93	9 (10%)
Screening	Screening	3	2
Risk factor	Screening, prevention	6	0
Disease	Screening	1	0
	Diagnosis	2	0
	Control	11	5
	Treatment	65	1
	Secondary prevention	5	0

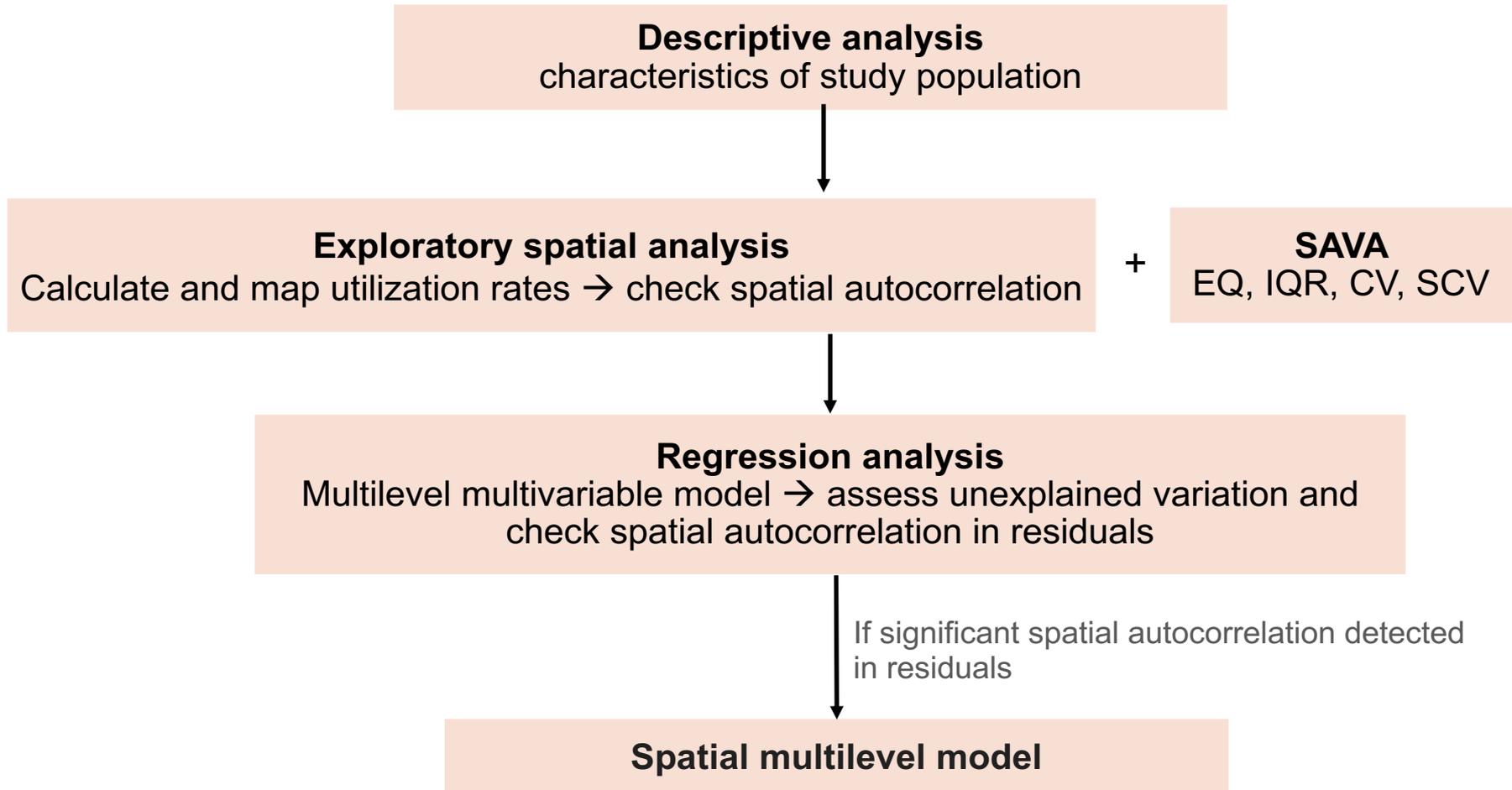


# 1. All indicators



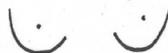


## 2. Investigating variation – analysis approach





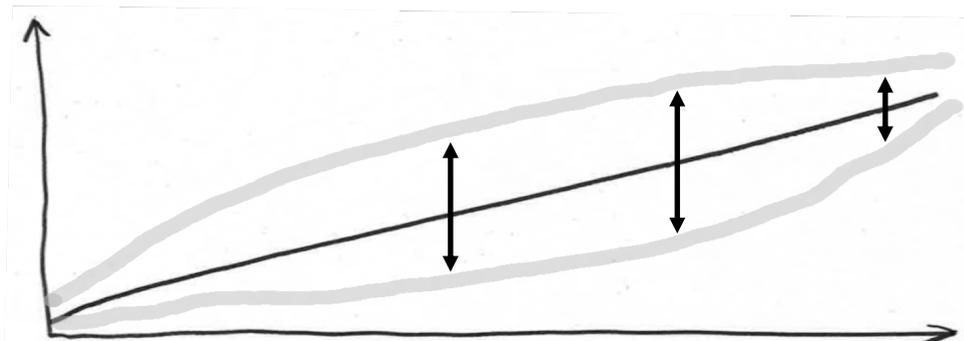
# 2. Case study – prostate, breast and colorectal cancer screening



	Prostate	Breast	Colorectal
Recommended?	No	Debated	Yes



Utilization



Weak: against    Weak: for    Strong: for

Evidence

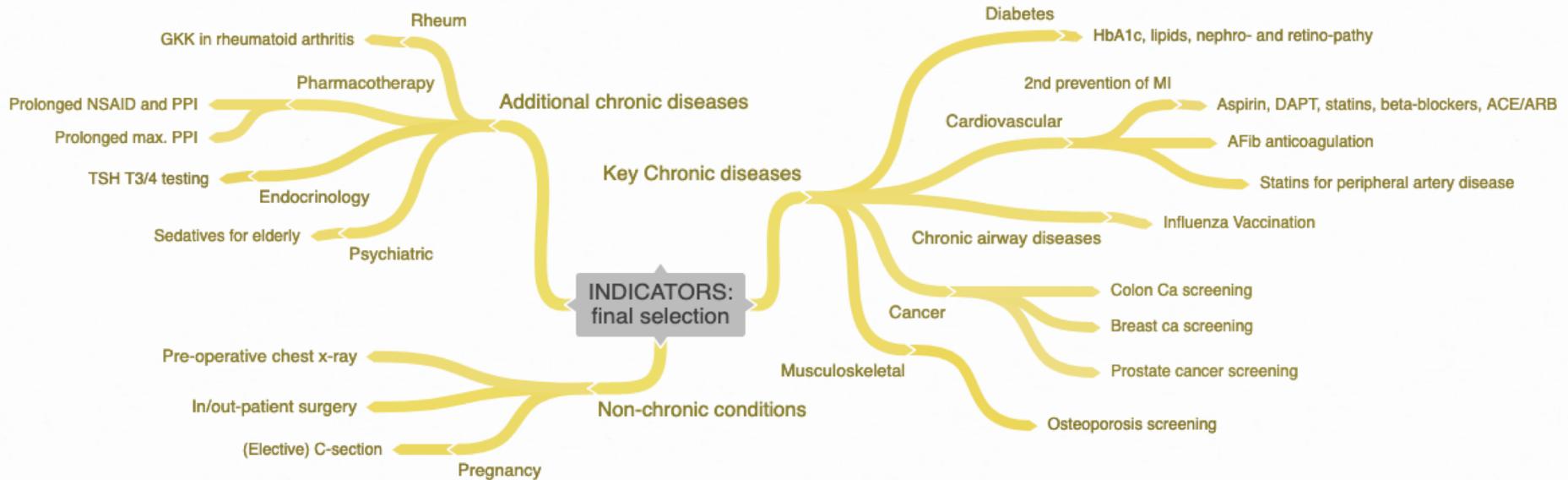


## 2. Case study: results

Publication in progress.



### 3. All indicators





## 3. All indicators: Variation

Publication in progress.



### 3. All indicators: Deductible

Publication in progress.



### 3. All indicators: Supplementary hosp. insurance

Publication in progress.



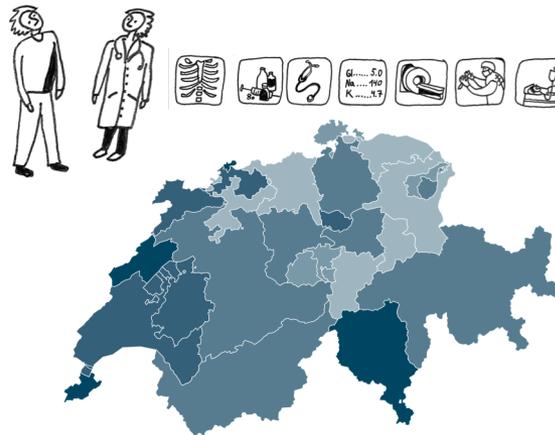
### 3. All indicators: Managed care plan

Publication in progress.

# What have we learned?



Choose indicators



Assess indicators

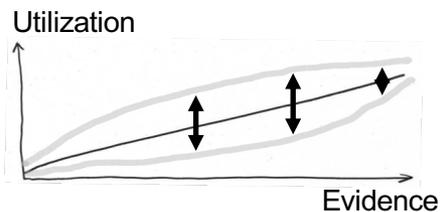


Overall results

# What have we learned?



4. IF X → Y [A] [I]  
5. IF !X → Z [R] [M]



Publication in progress.

Publication in progress.

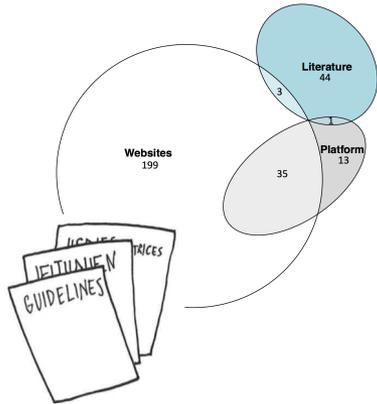
Choose indicators

Assess indicators

Overall results

## What else is there in the project?

### Swiss guidelines review



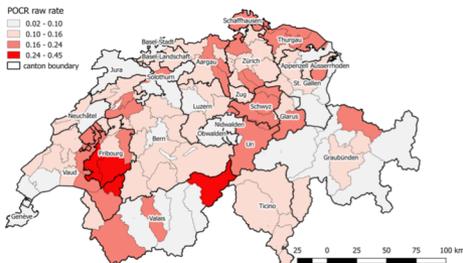
Diabetes complications screening

Publication in progress.

Financial outcomes of  
guideline adherence

Publication in progress.

### Preoperative chest X-ray



Health outcomes  
evaluation with claims data

Publication in progress.



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