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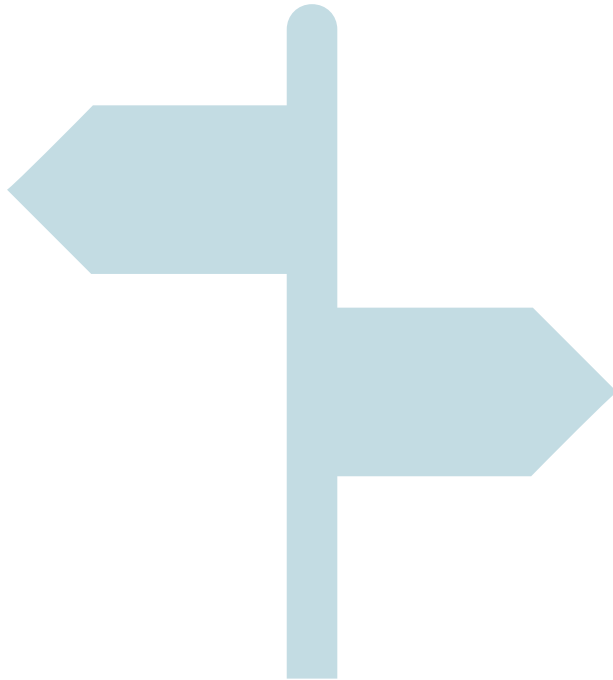


Does eHealth literacy impact patients' opinion on the Electronic Health Record?

Nora Möri, Joshua Drewlow

▶ Healthcare of the Future, 5 April 2019

Outline



▶ Motivation and Background



▶ Methods



▶ Results



▶ Conclusion and Prospects

Motivation



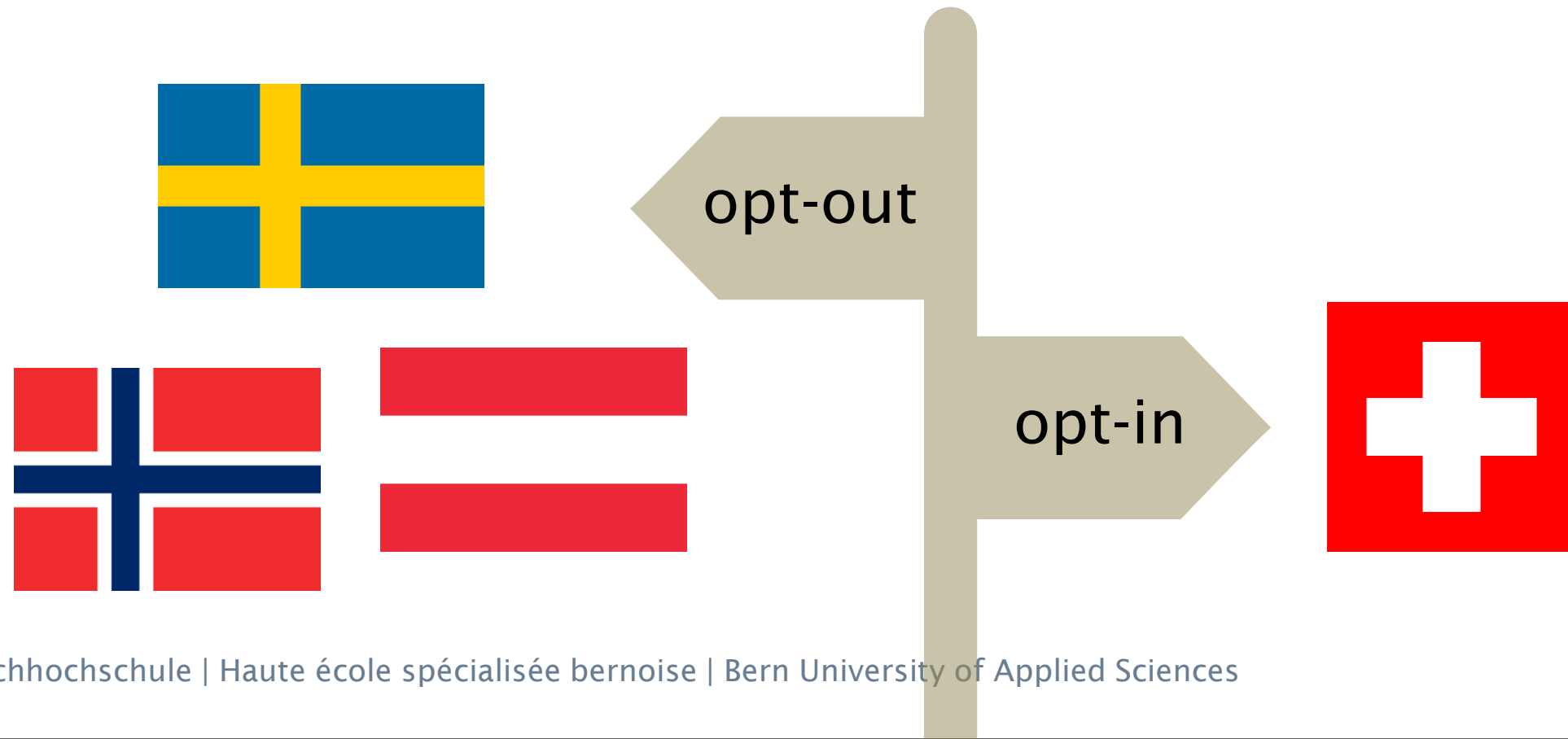
- ▶ learn how to perform a study
- ▶ in our opinion only little publicity on EHR was performed
- ▶ find out what people think and know about EHR



Background

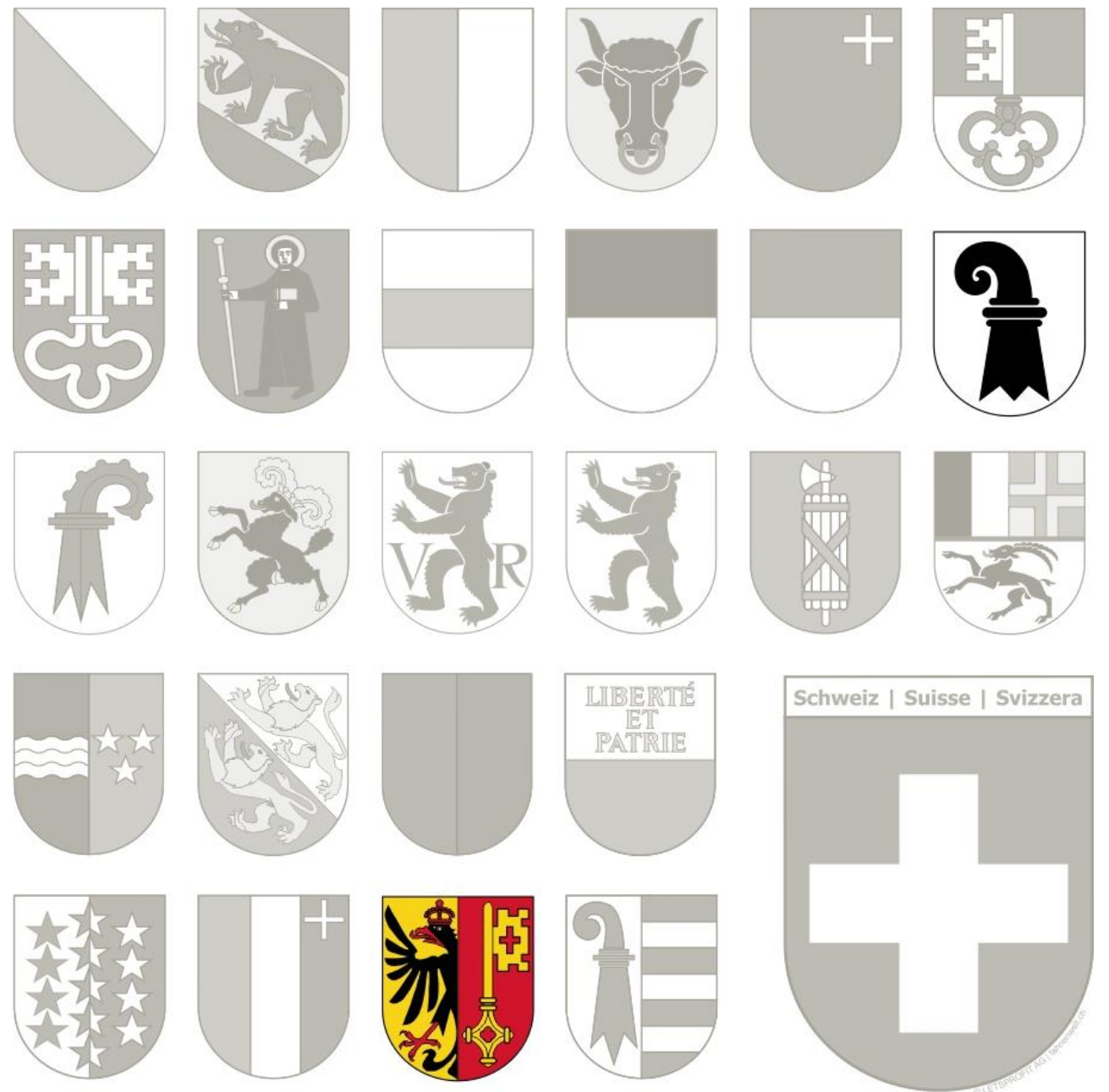


- ▶ opt-in solution: patients and general practitioner



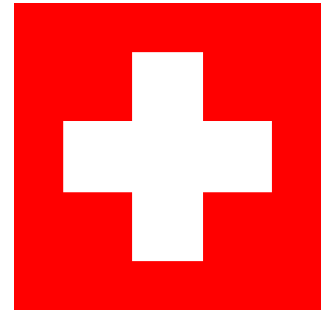
Background

- ▶ nationwide EHR by 2020
- ▶ coordination by eHealth Suisse
- ▶ today
2 of 26 cantons with EHR
Geneva, Basel-City



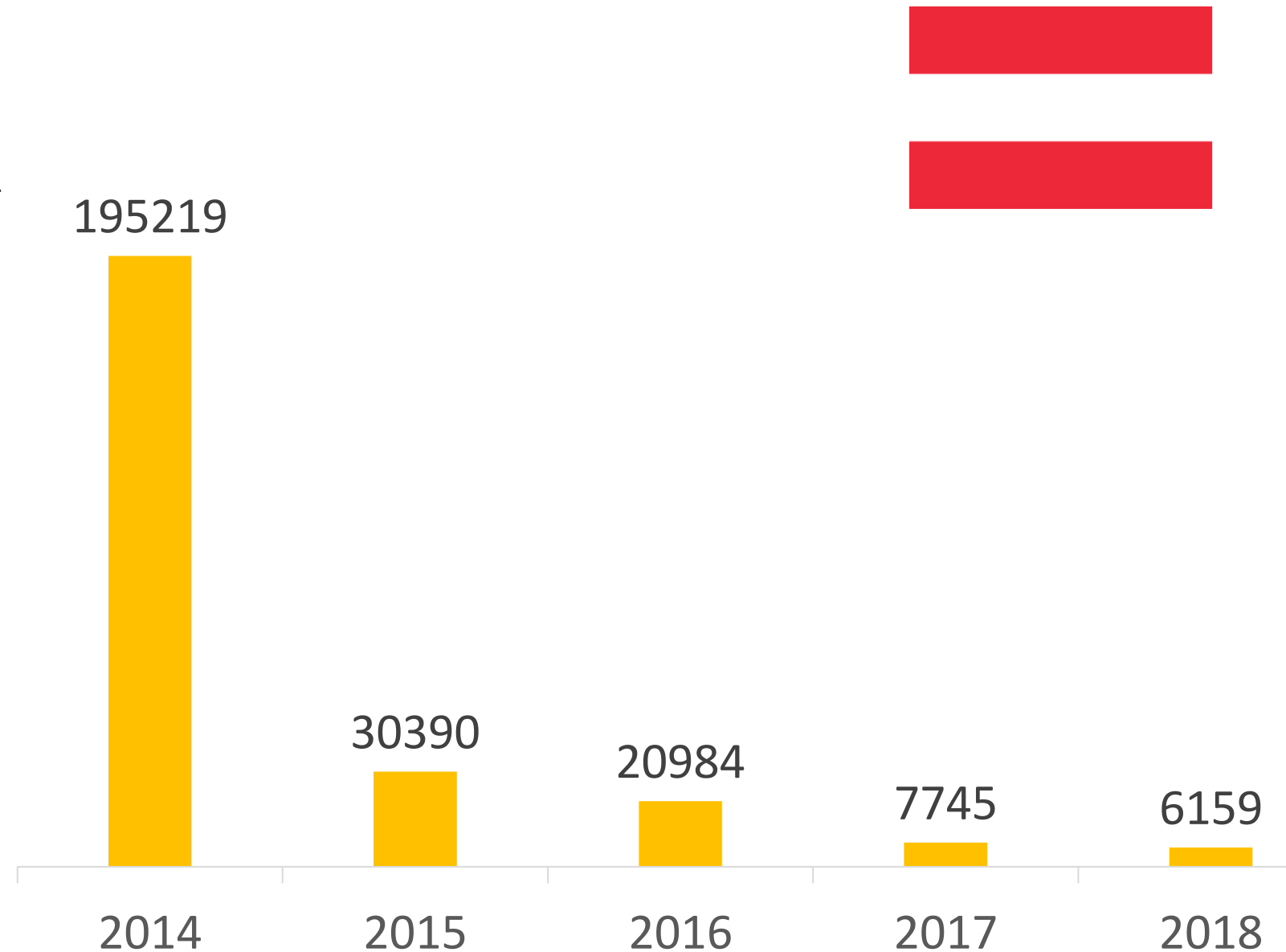
Background

- ▶ EHR in Geneva called MonDossierMedical started 2013
- ▶ 14'000 registered patients (March 2016)
- ▶ 28'000 registered patients (September 2017)
- ▶ 495'249 citizens (2017)
- ▶ Equals 5.7% of people opt-in



Background

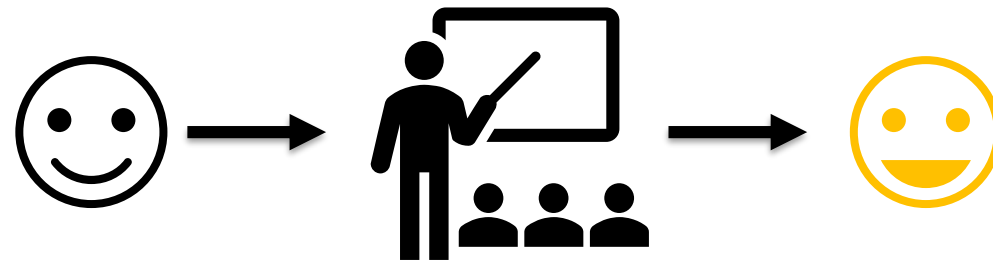
- ▶ EHR in Austria called ELGA started 2014
- ▶ 2014 - 2018:
~260'000 opt-outs
- ▶ 9 million citizens (2018)
- ▶ Only 3% of people against the EHR



Question and Hypotheses



Can the acceptance in the Swiss EHR be increased through comprehensively communicated knowledge?



1. An informational video has a positive effect on people's viewpoint on health data sharing.
2. There is a correlation between lack of trust in electronic health data protection and skepticism about the EHR.

Methods

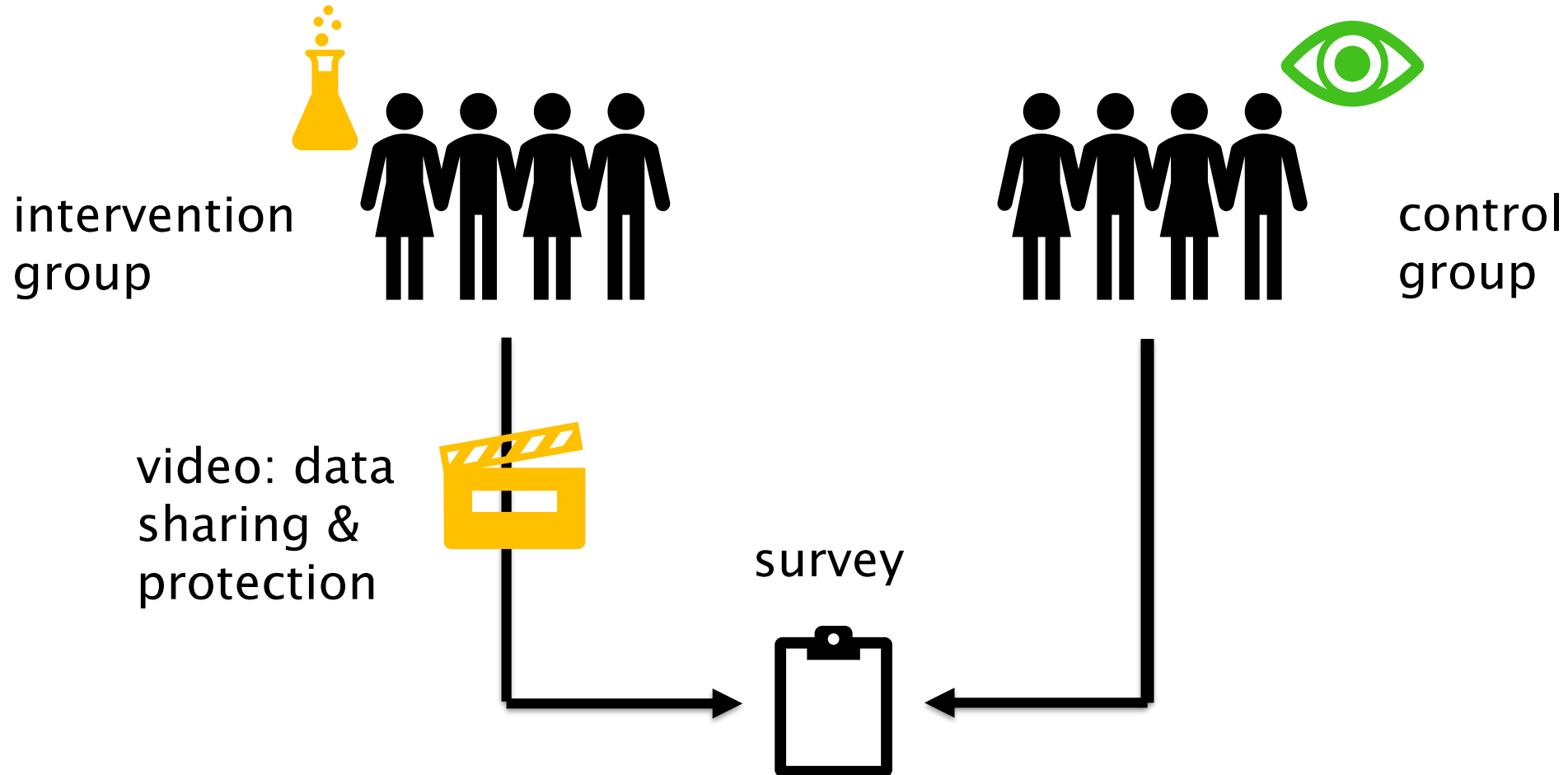
- ▶ practical task of lecture
- ▶ survey distributed through online media channels (no randomization)
- ▶ exchanged results and progress on weekly basis



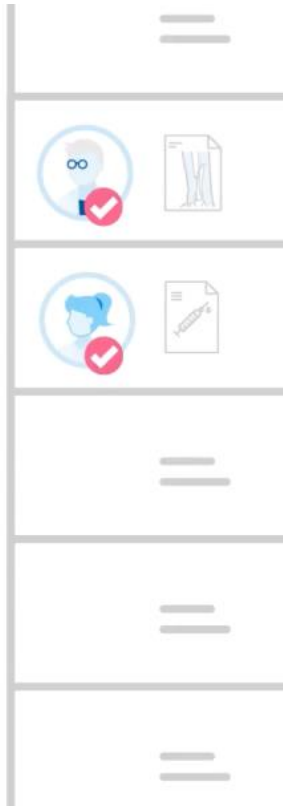
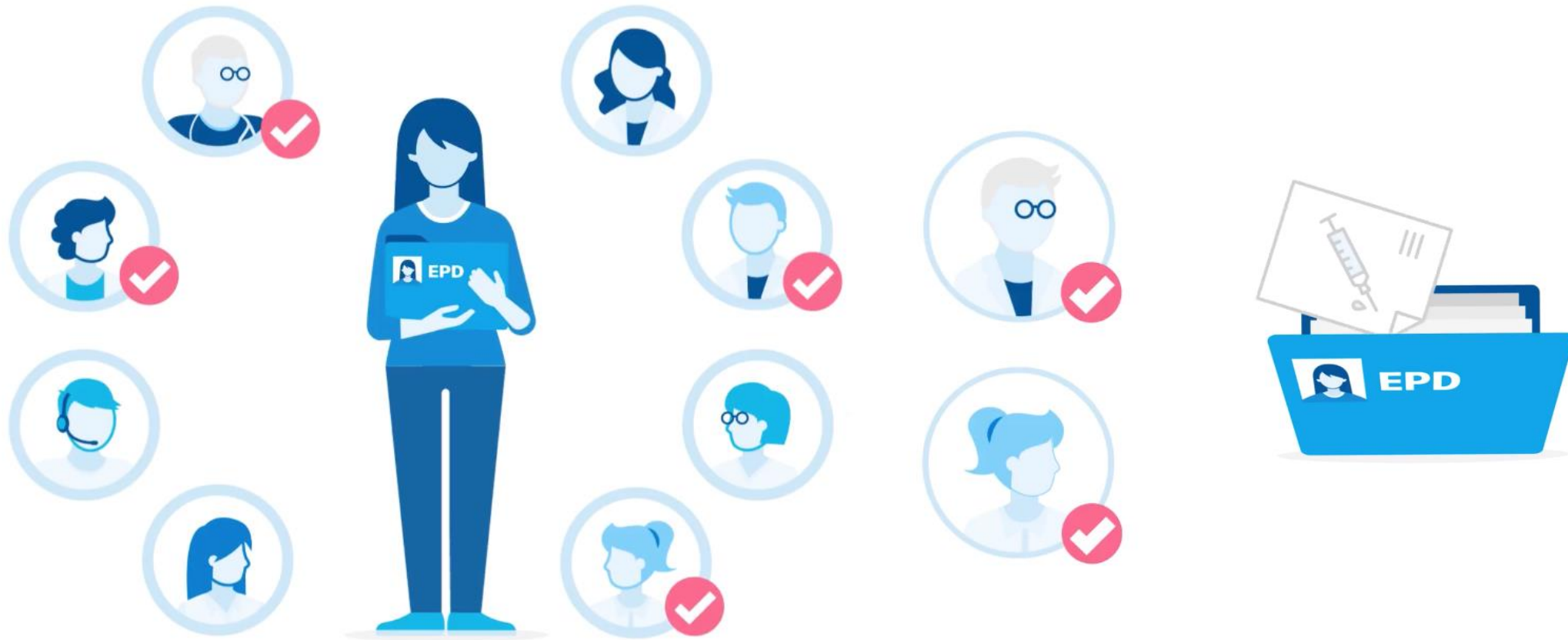
Study design



- ▶ goal: 1200 answers to receive significant results



Intervention Group - Video



Survey

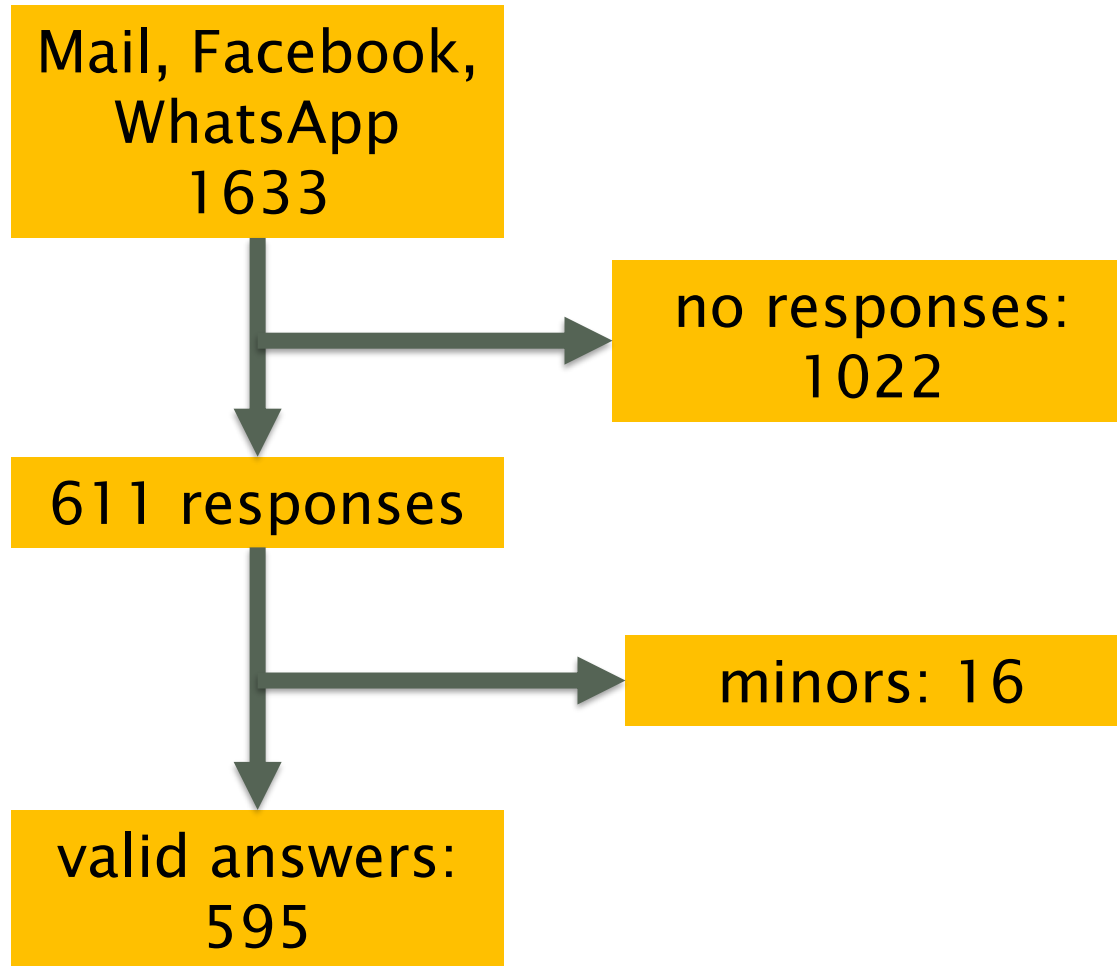


- ▶ 13 questions
- ▶ topics:
 - ▶ general healthcare system
 - ▶ EHR
 - ▶ digital data storage
 - ▶ data sharing
- ▶ Likert scale
- ▶ demographics

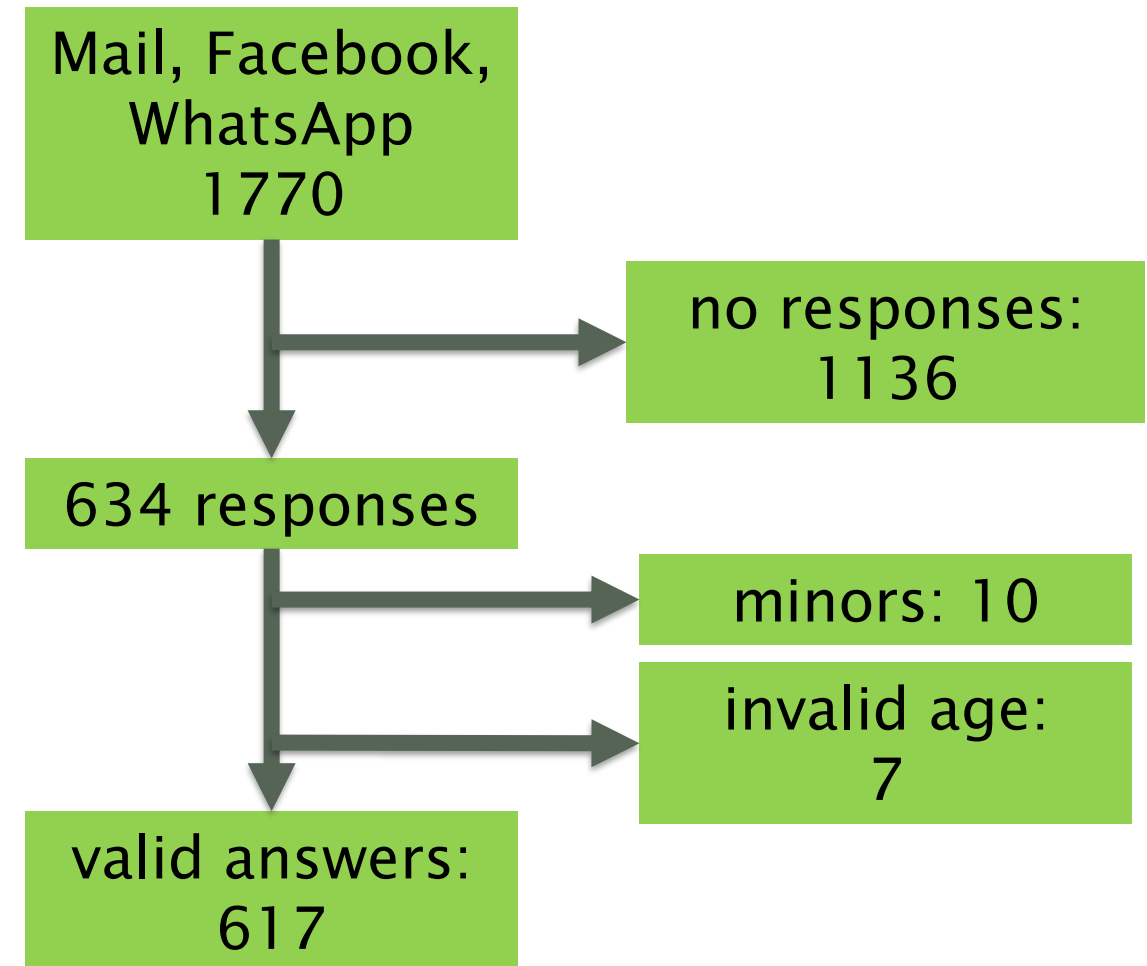
Response rate



intervention group

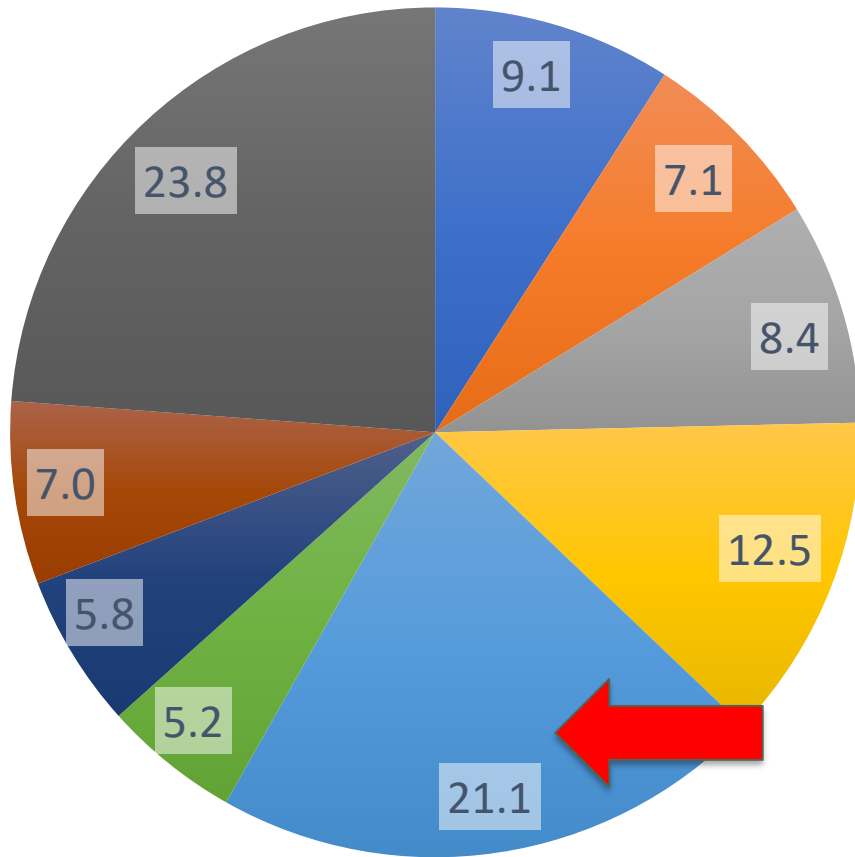


control group



Demographics

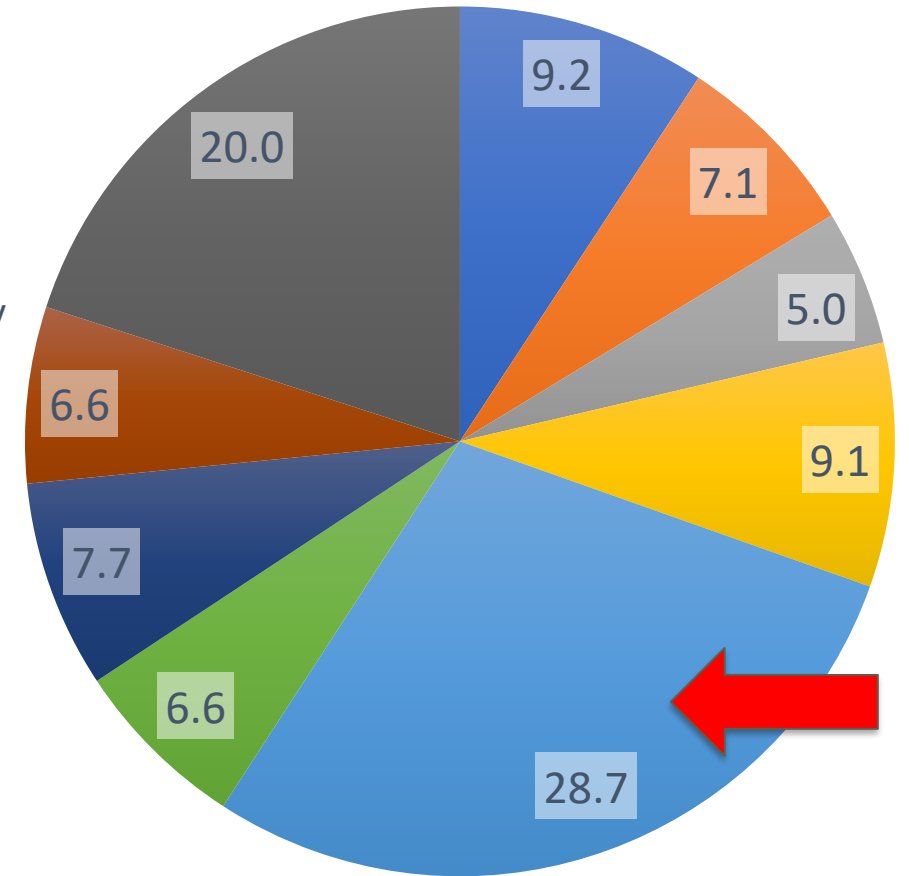
control group



intervention group



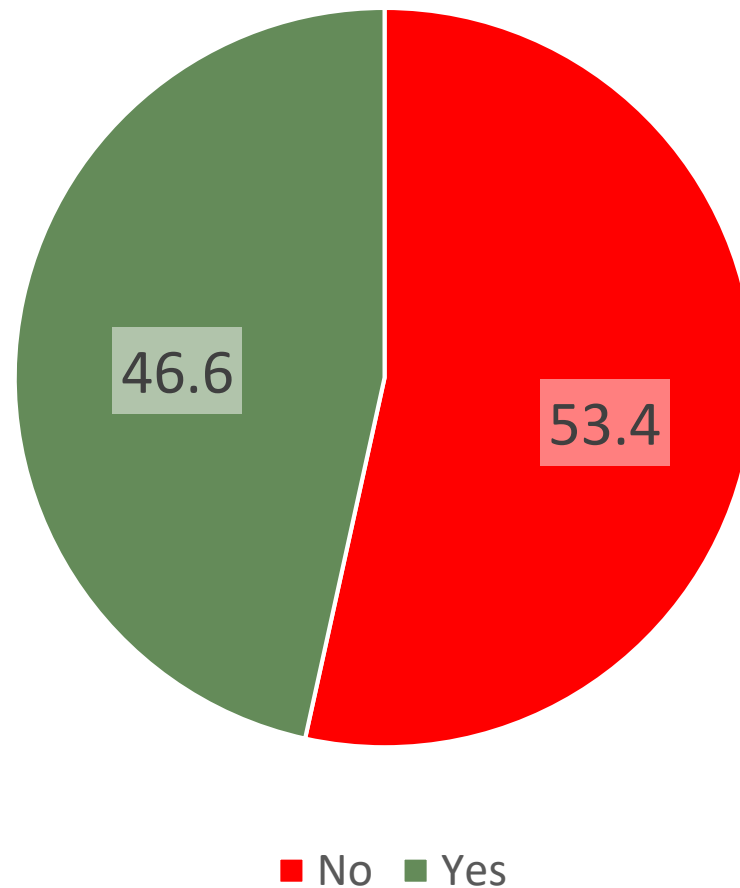
- Administration
- Finance
- Construction and Architecture
- Information Technology
- Healthcare
- Management
- Sales
- Industry and Mechanic
- Other



Results



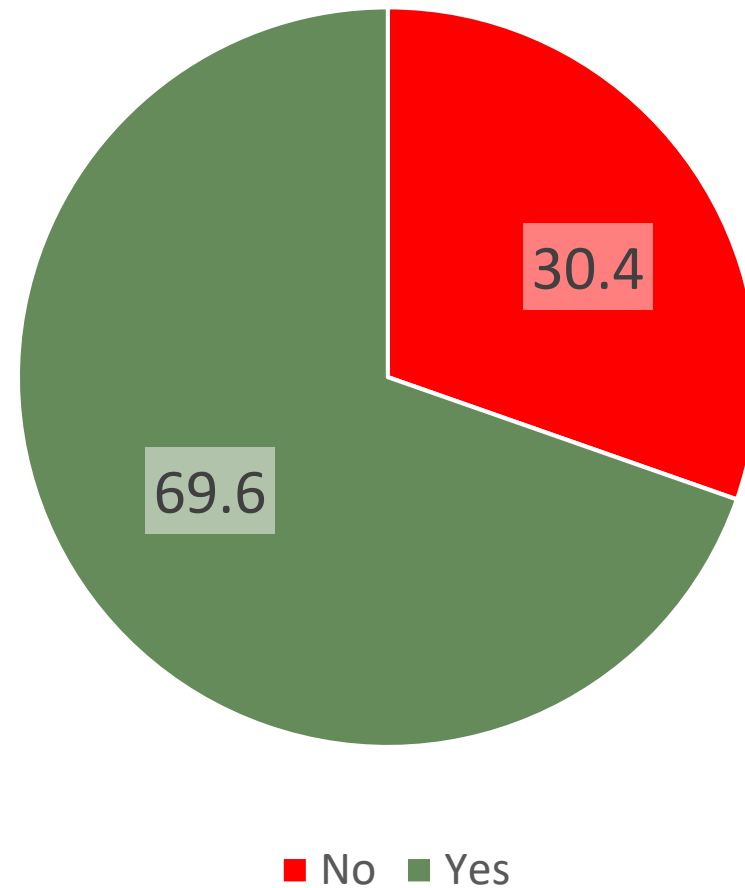
Question 2) Have you ever heard of the EHR?
- without healthcare and IT



Results



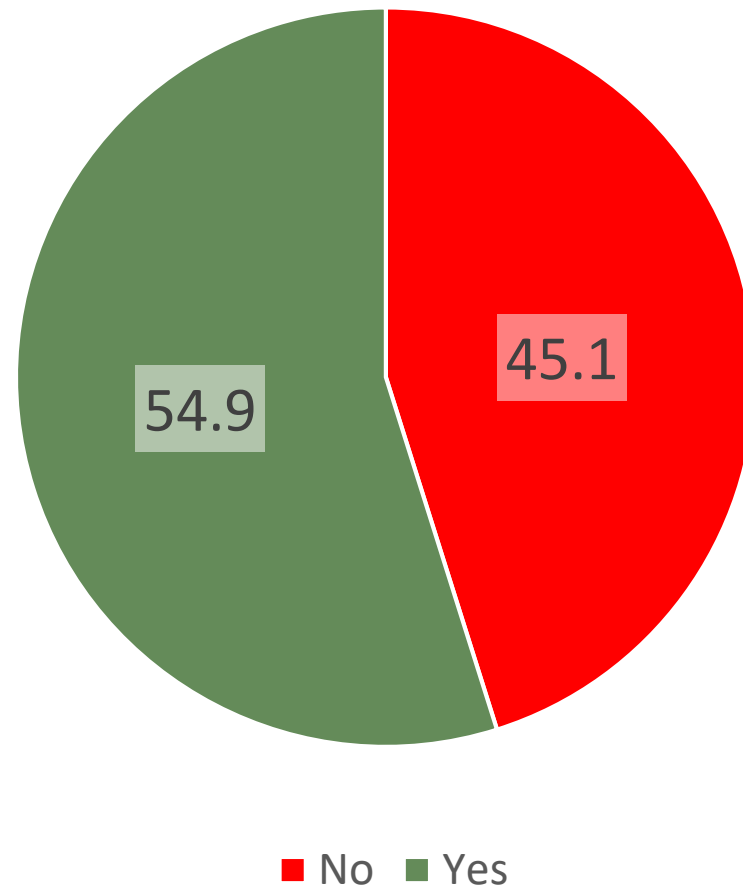
Question 2) Have you ever heard of the EHR?
-only healthcare and IT



Results



Question 2) Have you ever heard of the EHR?
-all people



Results



Questions	Control group (n=617)	t-Test p- value	Intervention group (n=595)
6. I would agree that my health data is stored electronically	3.15 (0.88)	0.034	3.04 (0.93)
9. Health data on paper are well protected against misuse	2.47 (0.93)	0.022	2.35 (0.90)
13. I agree that health professionals can access my treatment data across institutions (e.g. from hospital to family doctor)	3.25 (0.87)	0.0075	3.12 (0.93)

Table 2

Results

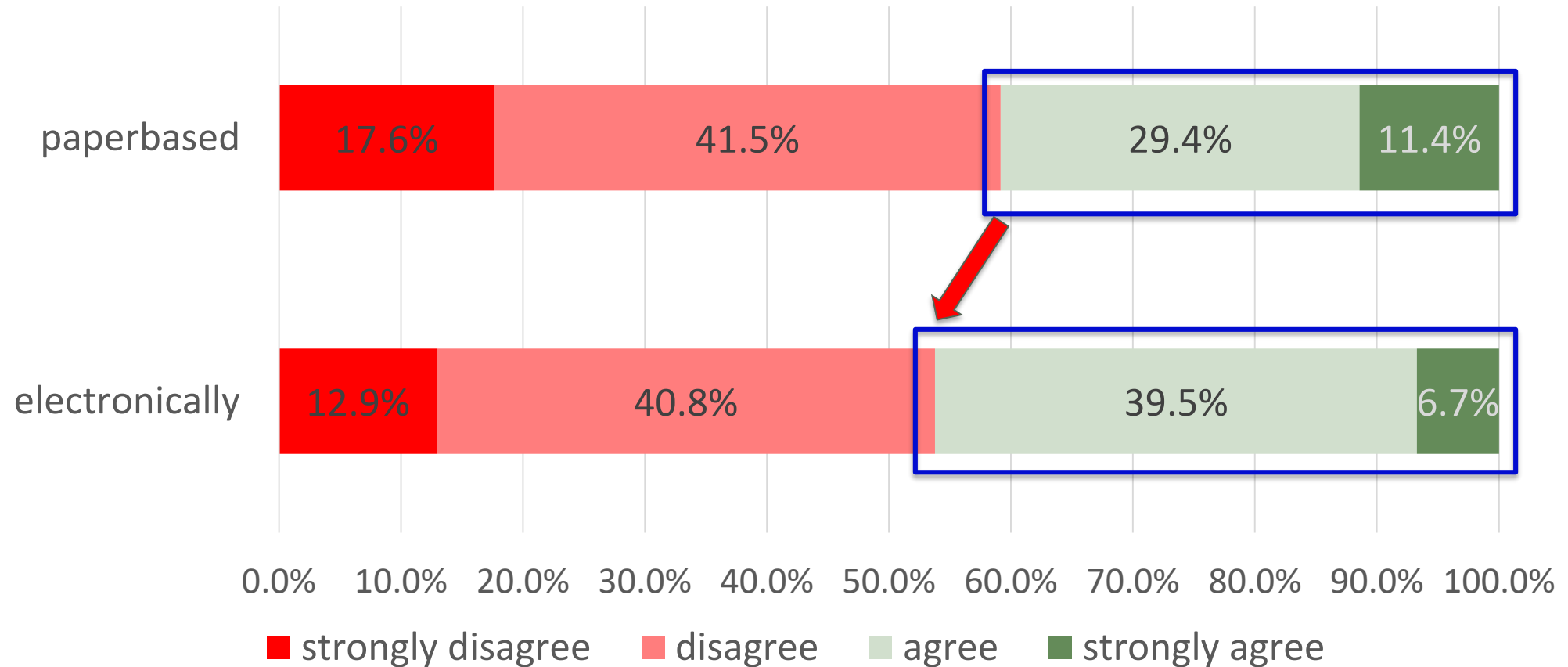


- ▶ significant results from between group analysis
 - ▶ in favour of the control group
- ▶ people of the control group rather agree...
 - ▶ ... that their data is stored electronically
 - ▶ ... that paper based health records are secure against misuse
 - ▶ ... that their health data can be used cross-institutional

Results



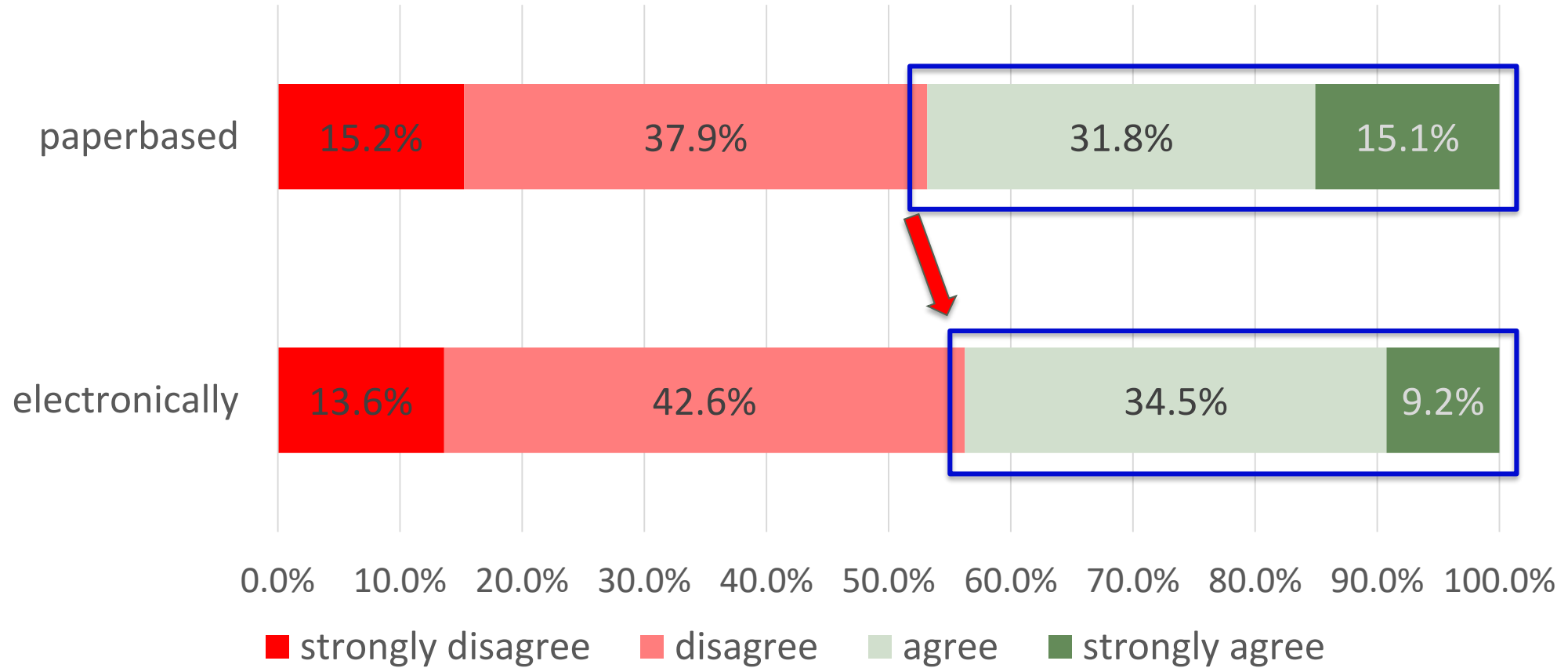
Health data is safe against misuse on following media –
Intervention group



Results



Health data is safe against misuse on following media –
Control group



Results



Figure 2:
correlation in
intervention group

Question	Age	1	3	4	5	6	9	10
Age	1	0.160	0.030	0.020	-0.113	0.007	-0.138	-0.013
1	0.160	1	0.255	0.312	0.057	0.181	-0.064	0.028
3	0.030	0.255	1	0.718	0.172	0.663	-0.152	0.285
4	0.020	0.312	0.718	1	0.229	0.667	-0.125	0.321
5	-0.113	0.057	0.172	0.229	1	0.098	0.145	0.312
6	0.007	0.181	0.663	0.667	0.098	1	-0.146	0.324
9	-0.138	-0.064	-0.152	-0.125	0.145	-0.146	1	0.145
10	-0.013	0.028	0.285	0.321	0.312	0.324	0.145	1

Figure 3:
correlation in control
group

Question	Age	1	3	4	5	6	9	10
Age	1	0.073	-0.032	-0.020	-0.089	-0.081	-0.085	-0.024
1	0.073	1	0.292	0.321	0.156	0.248	-0.057	0.167
3	-0.032	0.292	1	0.743	0.271	0.607	-0.117	0.329
4	-0.020	0.321	0.743	1	0.287	0.580	-0.115	0.305
5	-0.089	0.156	0.271	0.287	1	0.205	0.163	0.446
6	-0.081	0.248	0.607	0.580	0.205	1	-0.135	0.331
9	-0.085	-0.057	-0.117	-0.115	0.163	-0.135	1	0.159
10	-0.024	0.167	0.329	0.305	0.446	0.331	0.159	1

Results



some correlations could be found:

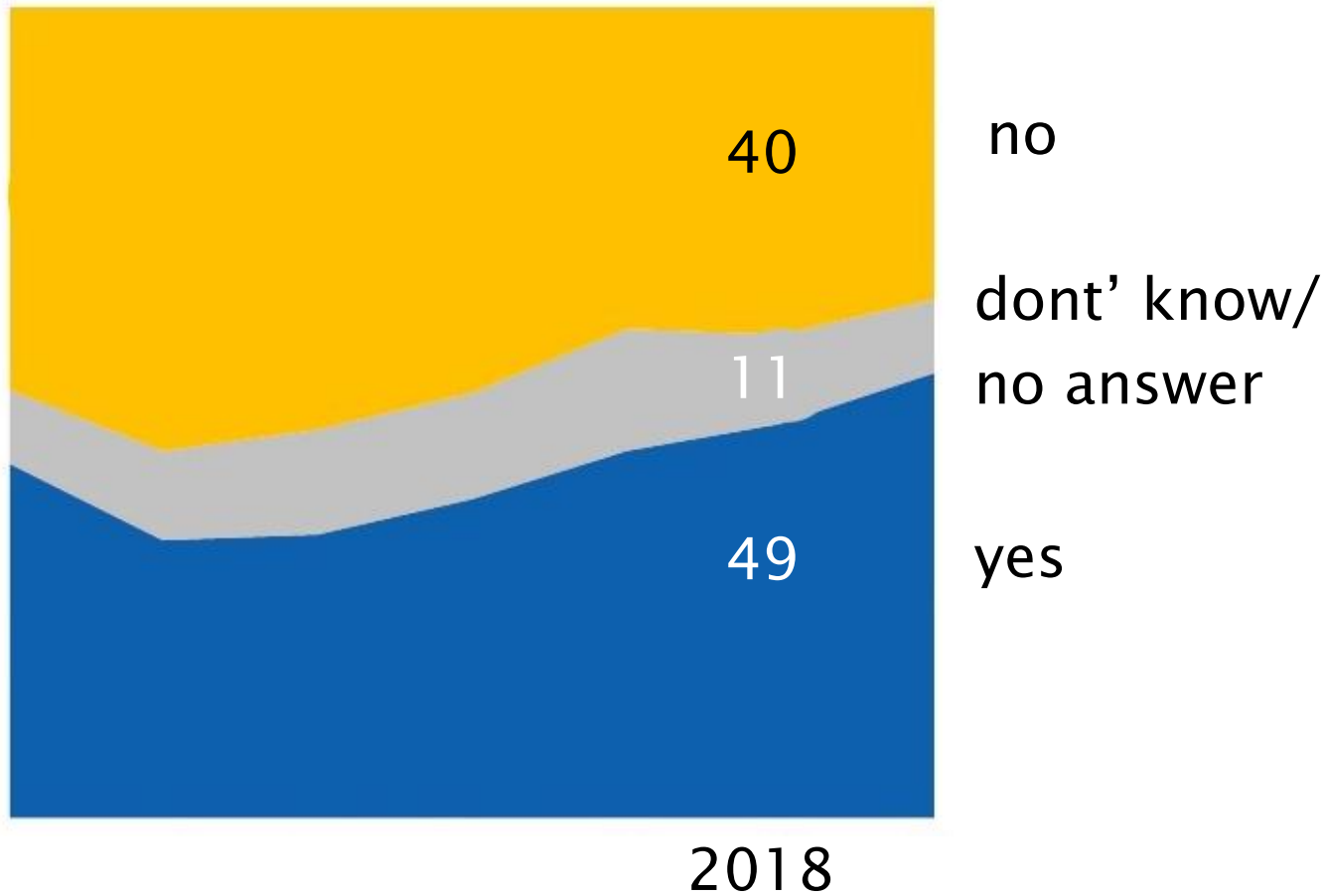
- ▶ people who are in favour of the introduction of the EHR also...
- ▶ ... are likely to open a record for themselves
- ▶ ...rather accept the electronical storage of their health data.

and vice versa

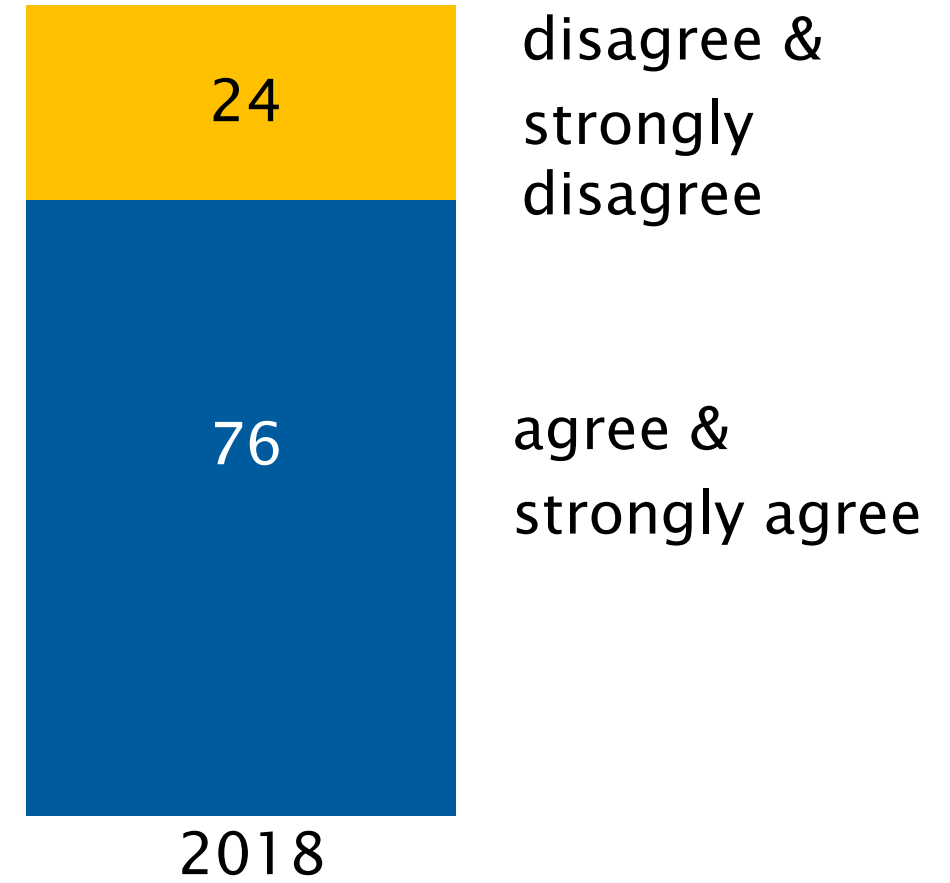
- ▶ I myself would open and use an EHR...



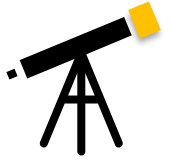
Swiss eHealth Barometer



our survey



Conclusion



- ▶ only 47% of people not working in healthcare or IT know about EHR
- ▶ correlation acceptance of stored data electronically and opening EHR
Hypothesis 2 confirmed
- ▶ intervention group says it's safer to store health data electronically
- ▶ video “worsened” the trust
 - ▶ maybe not right information displayed
 - ▶ maybe a «too strong» control group
Hypothesis 1 not confirmed

Prospects



- ▶ randomization
- ▶ open questions: How do people react to information?
 - ▶ more information -> more critical viewpoint?
- ▶ further investigation proposed:
 - ▶ Which occupational group shows more trust into EHR than others?

Questions

- ▶ Do you have any questions?

