

Untitled

2020-05-27

What are the positive and negative effects of the treatment protocol related to access and delivery of Diabetes care?

- ▶ First, establish a definition of access and delivery of health care
- ▶ Second, formulation of possible hypotheses
- ▶ Third, use the provided data set to analyze and try to evaluate the proposed hypotheses

Access to Diabetes care

We used the five dimensions of health care that were proposed in the lecture where:

- ▶ **Availability:** is the relationship between supply and demand for health care services
- ▶ **Accessibility:** is the geographical proximity to health care providers
- ▶ **Accommodation:** is the relationship between how health care services are organized and the client's ability to accommodate these factors.
- ▶ **Affordability:** is the costs of health care services and the ability of a patient to cover
- ▶ **Acceptability:** is the patient's attitude towards the perceived characteristics of an intervention

Delivery of Diabetes care

We used adherence to treatment guidelines as the definition to delivery of Diabetes care. In this example the NRP used an overall guideline score, which consists of the accrual of the following parameters:

- ▶ **HBA1C level <53 mmol/mol:** 12 points
- ▶ **HBA1C level <64 mmol/mol:** 8 points
- ▶ **HBA1C level <75 mmol/mol:** 5 points
- ▶ **three GP visits per year:** 10 points
- ▶ **physical activity:** 5 points
- ▶ **stop smoking:** 5 points

Formulation of hypotheses - Access to Diabetes care

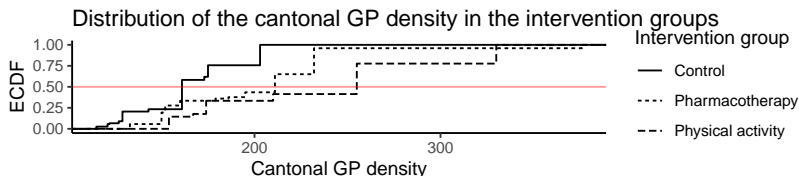
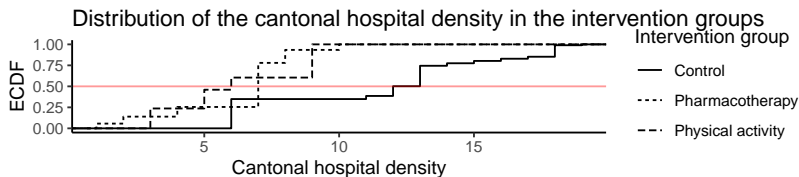
- ▶ The provided data only allowed for the analysis of the dimension of accessibility and affordability
- ▶ There was no data to analyze the development of the accessibility
 - ▶ Assumption: number of hospitals and GPs stayed relatively constant (short follow-up period)
- ▶ As there is intensified use of Metformin in the pharmacotherapy group we could expect that the affordability of Diabetes care is decreased as the costs increase
- ▶ Further, we thought that as the treatment groups receive additional recommendations regarding their health, we could expect that patients in the intervention groups are more health literate compared to control

Formulation of hypotheses - Delivery of Diabetes care

- ▶ We expect the overall adherence to guidelines score to be increased in the intervention groups compared to control as the additional, specialized treatment should increase their overall well-being

Analysis and results - Accessibility

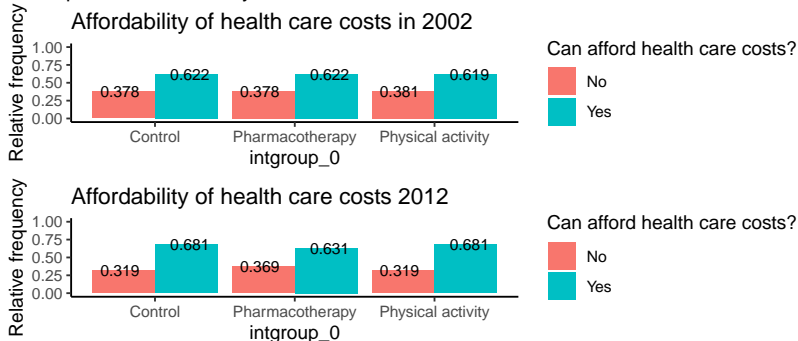
- ▶ The following figure shows that the accessibility to hospitals was larger in the control group than in the intervention groups
- ▶ However, the accessibility to GPs is larger in the intervention groups than in the control group
- ▶ We assume that the intervention groups were chosen in that manner to observe a strong effect in the intervention groups



Analysis and results - Affordability

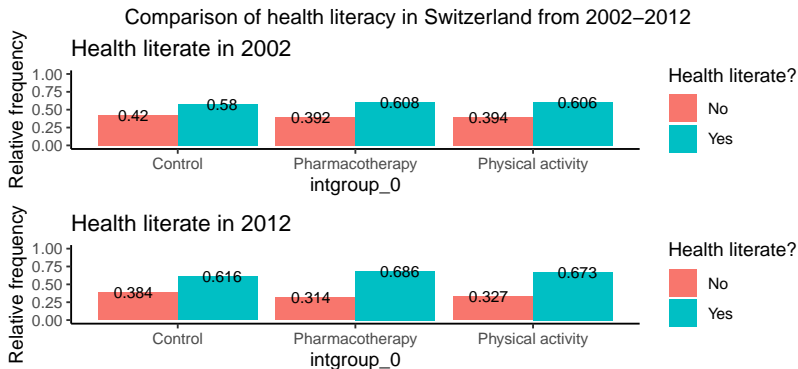
- ▶ We can see that the overall affordability of health care costs has increased from 2002 to 2012 in all three treatment groups
- ▶ Further, the proportional increase in the pharmacotherapy group is not as large as in the other two treatment groups
- ▶ As the affordability has also increased in the control group, we cannot conclude that the treatment protocol had a positive effect on the affordability of health care costs

Comparison of the ability to afford health care costs in Switzerland from 2002–2012



Analysis and results - Health literacy A

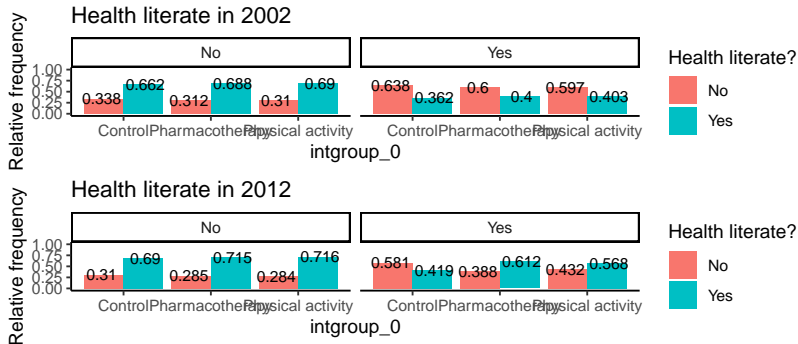
- ▶ We can see that the overall health literacy has improved in all three treatment groups
- ▶ However, the proportional growth is not as large in the control group as was to be expected



Analysis and results - Health literacy B

- ▶ Further analysis shows that the treatment protocol was especially efficacious in persons with migration background
- ▶ We assume that they were not able to get proper treatment and that the additional recommendations have really helped those to improve their well-being who were not aware of additional treatment

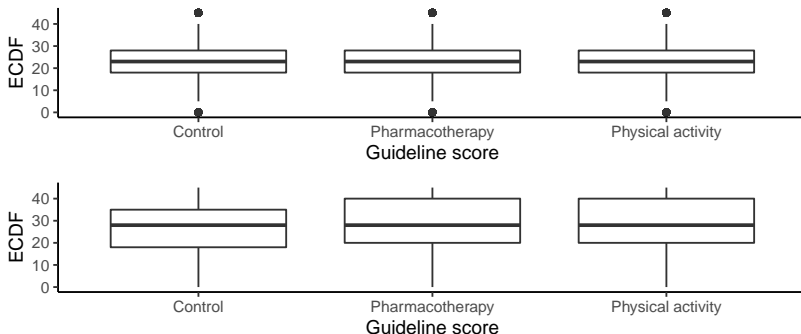
Comparison of health literacy in Switzerland from 2002–2012



Analysis and results - Delivery

- ▶ The figure shows that the overall adherence has increased for all three treatment groups
- ▶ The assumed difference between the treatment group however is not substantial
- ▶ We assume that because of the information era that we are living in now, people live generally healthier now than in 2002

Comparison of adherence treatment guidelines in Switzerland from 2002–2012



Conclusion

- ▶ We found it difficult to assess if the treatment protocol had a positive or negative influence on the access and delivery of Diabetes care
- ▶ We also think that it is probably difficult in general to measure variables that really contribute to the subject, especially in only 10 year-follow up period