Public opinion on health care and public health

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ABSTRACT

In the health policy literature, scholars and practitioners distinguish broadly between health care and public health interventions. Both types of policies are indispensable to deal with pressing health problems. Nevertheless, we know very little about how individuals support the principle logic behind these two approaches to health policy. In this paper, we analyze empirically whether individuals prefer either a health care-oriented or a public health-oriented approach to health policy. In addition, we explore political and socio-demographic factors explaining individuals’ choices. To conduct this analysis, we use multivariate regression analysis based on data (N = 5,442) from the 2018 wave of the Swiss Household Panel Survey. The survey contains high-quality data from a representative sample of the population living in Switzerland. Our results demonstrate that a majority of citizens prefers public health policies rather than policies ensuring access to health care. Especially, individuals with higher out-of-pocket payments in their health insurance plan support a public health over health care policy approach. Furthermore, those who prefer environmental protection over economic growth support public health over health care policy.

1. Introduction

Policy-makers have to deal with a variety of policy problems related to health. In budgetary terms, and important part of health policy deals with the regulation, financing, and provision of curative and preventive health care services, as well as the provision of health information (Blank et al., 2017). Nevertheless, a much bigger part of health policy deals with public health issues that extends into many different policy fields. Amongst these policy options are non-medical policy measures, such as tobacco control and obesity prevention, which often intervene at the environmental level and prior to the beginning of a disease (Gollust et al., 2013; Reeve and Gostin, 2019).

One crucial decision for policy-makers in health is about the attention that policies should give to public health policies. Ideally, decision-makers would devote the same attention to public health as they give to curative health care policies, but public budgets are limited and require choices between these different approaches to health policy (Marmot et al., 2008; Trein, 2018). Furthermore, the electoral returns from public health policies are limited as they oftentimes deal with abstract problems (Healy and Malhotra, 2009; Achen and Bartels, 2017). Against this background, an important research question is how the public regards the potential trade off between health care and public health.

In the existing literature, scholars have analyzed whether individuals prefer preventative or curative (reactive) types of health policy interventions. The results point in different directions. One strand of research shows that individuals prefer preventative over curative interventions if they believe that prevention can save some of the expenses for curative health policies (Ubel et al., 1998). Another study showed that citizens prefer preventive over curative interventions against infectious diseases, even if these interventions come along with a considerable reduction of individual freedoms (Cook et al., 2018). Health professionals have also a positive attitude to preventive health policies (Bellas et al., 2000; Yasmeen et al., 2012). To the contrary, other research has demonstrated that citizens are willing to pay considerably more for treatment than for disease prevention (Corso et al., 2002). This finding chimes with insights from political science research, where scholars have demonstrated that politicians benefit electorally from spending public funds for disaster relief but not for disaster prevention (Healy and Malhotra, 2009; Achen and Bartels, 2017). In addition, a recent theoretical paper has argued individuals are unlikely to trust elected officials promising preventative policies, as they mistrust the private interest of politicians, which might lead them to invest into ineffective preventative policies benefiting their own interests (Gallmard and Patty, 2019).

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Descriptive statistics.

Table 1

| Socio-demographic factors | Health status (HS) | Health insurance deductible in CHF (HID) | Political factors |
|---------------------------|-------------------|----------------------------------------|-------------------|
| Age class (AG)            |                   |                                        |                   |
| 19 – 30                   | Yes               |                                        |                   |
| 31 – 50                   | No                |                                        |                   |
| 51 – 65                   | Partner           |                                        |                   |
| Yes living together       |                   |                                        |                   |
| Yes, but not living together |               |                                        |                   |
| Gender (GB)               |                   |                                        |                   |
| Male                      |                   |                                        |                   |
| Female                    |                   |                                        |                   |
| Physical activity (PH)    |                   |                                        |                   |
| Yes                       |                   |                                        |                   |
| No                        |                   |                                        |                   |
| Eating healthy (EH)       |                   |                                        |                   |
| Low                       |                   |                                        |                   |
| Mid                       |                   |                                        |                   |
| High                      |                   |                                        |                   |
| Eating unhealthy (EH)     |                   |                                        |                   |
| Chronically ill (CI)      |                   |                                        |                   |
| Low                       |                   |                                        |                   |
| Mid                       |                   |                                        |                   |
| High                      |                   |                                        |                   |
| Income class in CHF (IC)  |                   |                                        |                   |
| Low                       |                   |                                        |                   |
| Mid                       |                   |                                        |                   |
| High                      |                   |                                        |                   |
| Language (LA)             |                   |                                        |                   |
| Smoker (SM)               |                   |                                        |                   |
| Yes                       |                   |                                        |                   |
| No                        |                   |                                        |                   |
| Political interest (IP)   |                   |                                        |                   |
| Low                       |                   |                                        |                   |
| Mid                       |                   |                                        |                   |
| High                      |                   |                                        |                   |
| Left-right self-placement (LRP) |           |                                        |                   |
| Support for federal government (SGF) | |                                        |                   |
| Left                      |                   |                                        |                   |
| Mid                       |                   |                                        |                   |
| Right                     |                   |                                        |                   |
| Interest in politics (IP) |                   |                                        |                   |
| Low                       |                   |                                        |                   |
| Mid                       |                   |                                        |                   |
| High                      |                   |                                        |                   |
| Satisfaction with democracy (SD) |           |                                        |                   |
| Low                       |                   |                                        |                   |
| Mid                       |                   |                                        |                   |
| High                      |                   |                                        |                   |
| Sponsered by (SP)         |                   |                                        |                   |
| Yes                       |                   |                                        |                   |
| No                        |                   |                                        |                   |
| Environmental more imp. than econ. growth (EG) | |                                        |                   |
| Yes                       |                   |                                        |                   |
| No                        |                   |                                        |                   |
| Federal government more on health (FG) | |                                        |                   |
| Yes                       |                   |                                        |                   |
| No                        |                   |                                        |                   |
| N                         |                   |                                        |                   |

Against this background, we contribute to the literature, in analyzing the preferences of individuals regarding the general policy paradigm (goals and beliefs) (Hall, 1993), which underlies health care and public health. Specifically, we assess whether individuals prefer a health policy approach that focuses on curing sick individuals, or policies that deal with environmental factors. To achieve this aim, we assess the results from a survey (N = 5 442) conducted in Switzerland, in 2018. Our results demonstrate that a majority of respondents prefer a Public Health Scenario rather than a Health Care Scenario for health policy. This implies for policy-makers that there is considerable support for a public health approach to health policy. Furthermore, the results imply that most respondents agree with the broad goals of public health policies and chose them over health care policies. This is especially the case when they are not in need of immediate treatment and in an economically stable condition.

2. Data and measurement

We use data from the 2018 wave of the Swiss Household Panel (SHP). The SHP is a unique longitudinal database for Switzerland. Data has been collected since 1999, starting with a sample of 12 931 household members from 5074 households. Since 2004 a second sample has been added with 6 569 household members from 2 538 households. In 2013, another 9945 individuals from 4093 households complement the SHP sample. All three samples have maintained high response rates (Tillmann et al., 2018).¹

¹ A more detailed description of the data can be obtained on the homepage of the Swiss Centre of Expertise in the Social Sciences: url:www.forscenter.ch/projects/swiss-household-panel/.

² The original questions were asked in German, French and Italian. We provide an English translation here.

In the 2018 wave of survey, we had the opportunity to insert the following question to measure whether citizens prefer the goals of a health care or a public health approach to health policy:²

- Health Care Scenario: Imagine you wake up one morning and live in a world where you always have access to the best doctors, and medication is readily available.
- Public Health Scenario: Imagine you wake up one morning and live in a world where you live in a perfect environment, notably with clean water, clean air and safe employment. In addition, all products contain health warning labels. Nevertheless, you can never go again to the doctor.

- If you had to decide: in which of the two worlds would you want to live in?

We define this question based on the public health literature, notably regarding the distinction of public health and health care (Marmot et al., 2008; Gostin and Wiley, 2016; Baum, 2016; Trein, 2018). We also reviewed research on “Health in All Policies”, which entails the idea to include health in other policies, such as environmental protection and transportation (Kickbusch et al., 2010; Punke and Stähli, 2010; Guggenheim et al., 2018; Hahn, 2019). The Health Care Scenario represents the goals at the top of the public health pyramid, which are mostly interventions needing an individual-oriented effort. The Public Health Scenario represents the bottom of the public health pyramid that entails an increasing population impact (Frieden, 2010). The question constructs health care and public health as two opposite policy paradigms.
(Hall, 1993). It aims at measuring how citizens would decide if they had to choose between a health care-oriented policy paradigm, and a non-medical public health policy paradigm. Possible answers to the question were “Scenario 1 (Health Care Scenario)”, “Scenario 2 (Public Health Scenario)” and “I don’t know”.

To analyze the data, we use descriptive statistics and multivariate regression analysis. We insert co-variates that measure socio-demographic factors, measurements of lifestyle and health-related factors, as well as political variables, in the regression model. The socio-demographic variables are: age, gender, if the individual is born in Switzerland, lives alone, is occupied, the level of education, and the level of personal income. Furthermore, we include language. Switzerland has four national languages, of which our sample contains three (French, German, and Italian) Table 1.

Individual health and lifestyle variables are smoking, physical activity, diet, overall health status, chronic illness, past accident, and overall life satisfaction. Moreover, we include the amount of the individual’s health insurance deductible. In Switzerland, every resident has to sign up for a basic and obligatory health insurance plan with a private provider and needs to choose a yearly deductible on health care costs. This deductible varies between CHF 300 and 2500. In addition, individuals can select complementary insurances on a voluntary basis. Insurers are not allowed to select risks for the basic obligatory health insurance but only for the complementary insurance plans (cf. Table 1, De Pietro et al., 2015).

Politics-related variables include individuals’ interest in politics, self-placement on a left–right scale, satisfaction with democracy, support for the federal government over regional (cantonal) and local government (Kriesi and Trechsel, 2008), preference for environmental protection over economic growth, and whether the federal government should spend more on health policies. In addition, the language background is likely to identify preferences over policy. In Switzerland,

![Fig. 1. Distribution of the responses along the answers. Note: Numbers on the top of the bars indicate the number of respondents for each answer.](image1)

![Fig. 2. Coefficient plot of selected variables explaining support for the public health over the health care approach to health policy. Note: Confidence intervals are given at the 90% (shaded bar) and 95% levels (solid lines). Positive coefficient values indicate higher support for the Public Health Scenario while negative values indicate higher support for the Health Care Scenario.](image2)
Table 2
Prediction and importance (rank) of the statistically significant variables.

| Prediction (in %) | Rank | Prediction (in %) | Rank |
|------------------|------|------------------|------|
| **Baseline**     | 77.84|                  |      |
| Socio-demographic factors |
| Gender (baseline: Male) |      | Swiss born (baseline: No) | 14 |
| Female            | + 4.29*** | Yes              | −3.57* |
| Language (baseline: German) | 3 | Occupation (baseline: Active) | 16 |
| French            | + 8.23*** | Unemployed       | + 2.81 |
| Italian           | + 8.86**  | Not in labor force| −4.47* |
| Education (baseline: University) | 7 |                  |      |
| Incomplete school | + 12.91** |                  |      |
| Compulsory school | −0.04 |                  |      |
| Apprenticeship    | + 5.80*** |                  |      |
| Matura            | + 2.77 |                  |      |
| Lifestyle and health factors |
| Physical activity (baseline: No) | 10 | Health status (baseline: Very well) | 4 |
| Yes              | + 4.72*** | Well             | −7.30*** |
| Chronic illness (baseline: No) | 13 | Average           | −12.27*** |
| Yes              | −3.63** | Not very well     | + 2.22 |
| Accident (baseline: No) | 12 | Not well at all   | + 6.85 |
| Yes              | −4.52** |                  |      |
| Health insurance deductible in CHF (baseline: 300 CHF) | 1 |                  |      |
| 500 CHF          | −0.58 |                  |      |
| 1 000 CHF        | + 11.96*** |                  |      |
| 1 500 CHF        | + 11.44*** |                  |      |
| 2 000 CHF        | + 9.83*** |                  |      |
| 2 500 CHF        | + 11.76*** |                  |      |
| Other            | + 6.77** |                  |      |
| Political factors |
| Interest in politics (baseline: Low) | 5 | Envir. over econ. growth (baseline: Higher envir. prot.) | 6 |
| Mid              | −4.47** | The same          | −4.37*** |
| High             | −8.99*** | Less              | −7.81*** |
| Left-right self-placement (baseline: Left) | 11 | Envir. over econ. growth (baseline: More) | 2 |
| Mid              | −3.24** | The same          | + 5.62** |
| Right            | −5.11** | Less              | + 12.21** |

3. Results

The description of our data (N = 5 442 answers “Scenario 1 (Health Care)” or “Scenario 2 (Public Health)” shows that a majority of the individuals in the sample prefers the Public Health Scenario over the Health Care Scenario. Only a small number of respondents (2.8%) reports that they do not know. This finding suggests that respondents clearly support public health over health care, if the question is formulated so as to oppose both as two opposing policy paradigms (cf. Fig. 1).

In order to deepen the analysis of the data, we perform multivariate regression analysis and use a generalized linear model (GLM) regression. To find the most sensible categorization for age and income classes (variables AG and IC, cf. Table 1), we employ a regression tree analysis (Loh, 2014). We use a complementary log-log (cloglog) specification of the link function, which yields lower error terms compared to logit and probit specifications. Further, we perform a step-wise selection model by AIC for solely retaining the combination of variables leading to the best model. This process results in the exclusion of variables such as, among others, the age class (AG) and the income class (IC).

The regression model reveals a number of interesting results that we illustrate in Fig. 2. French- and Italian-speaking individuals (variable LA) are more likely to support the Public Health Scenario over the Health Care Scenario. The same is true for women (variable GE). Moreover, individuals with an apprenticeship level education tend to support the Public Health Scenario over the Health Care Scenario compared to respondents who completed a university degree (variable ED).

Health status matters as well. Respondents who had a major accident and suffer from chronic illness tend to express less support for the Public Health Scenario over the Health Care Scenario (variable AC). Furthermore, individuals mentioning that their overall health is “well” or “average” prefer the Health Care Scenario over the Public Health Scenario, compared to those replying that their health status is “very well” (variable HS).

Our regression results also indicate that those who eat a more healthy diet and engage in more physical exercise are more likely to support the Public Health Scenario over the Health Care Scenario (variables EH and PH). Furthermore, individuals who choose higher annual out-of-pocket payments in their health insurance plan are more likely to support the public health over the health care model (variable PH).
Finally, the findings show that those who are interested in politics express less support for the Public Health Scenario over the Health Care Scenario and rather prefer a fully functioning health care system (variable IP). In addition, the results indicate that individuals who place their political orientation in the middle or at the right favor also the Health Care Scenario over the Public Health Scenario (variable LR). However, the findings also indicate that respondents with a preference for environmental protection over economic growth are in favor of the Public Health Scenario over the Health Care Scenario (variable BG). Furthermore, individuals who want that the federal government spends less on health care are in favor of the Public Health Scenario over the Health Care Scenario.

What is the relative importance of the various variables discussed in the paper to explain the variance in the dependent variable (choice of scenario)? We calculate the chi-square statistic for each of the categories from the variables included in the regression model (see Table 3). The results show that the variable categorizing the deductibles of the insurance plan explains most of the variance (rank 1). The measure indicating whether an individual prefers environmental policy over economic growth is of second most importance. Language differences (and potentially preferences for types of governance) rank third.

4. Discussion and conclusions

What are the implications of our research for scholarship and practice of health policy? Our results suggest that individuals prefer the Public Health Scenario or the Health Care Scenario. Furthermore, our findings indicate that those favoring the Public Health Scenario might do so for financial reasons. The results indicate that higher out-of-pocket payments for health care significantly correlate with a higher likelihood that respondents chose the Public Health Scenario over the Health Care Scenario. The results suggest also that those who favor environmental protection over economic growth support the Public Health Scenario. Contrariwise, those who experienced health difficulties in the past, such as chronic illness or an accident, preferred the Health Care Scenario.

Therefore, we can interpret this finding as the consequences of what John Haidt has called a social-intuitionist moral judgement (Haidt, 2001). Respondents react to what they feel is socially and morally expected from them and support public health over health care. This effect is especially strong if supporting Scenario 2 fits the individual’s values (support of environmental protection over economic growth), past economic choices (lower health insurance premium), and health care needs (no chronic illness, past accident).

Our findings need to be interpreted carefully. The results clearly reveal the paradox of public health and precautionary policy making. On the one hand, individuals voice a surprisingly strong support for the goals of public health policies. On the other, we need to be aware that it is difficult to disagree with the Public Health Scenario, as it is a rather general question (Cairney and St Denny, 2020). Concrete public health policies are often difficult to legitimize (Boswell et al., 2019) and opponents can easily frame such measures as a restriction of individual freedom (Gostin and Wiley, 2016). This problem does not exist regarding health care. Such policies are easy to legitimize as they respond to tractable problems (Trein, 2018) and create political and financial returns for interest groups in the long run (Hacker, 2004). What is more, our analysis is exploratory and rather descriptive in terms of the link between the two scenarios and the potential explanatory variables. Future research should assess potential moderation and mediation effects between the various explanations. Such analyses could also use a nested design for the different language groups.

Despite these potential limitations, our study contributes to our understanding of the politics of public health. The results indicate that a solid majority of respondents supports public health policies including non-medical health policies, in general. Therefore, decision-makers should continue to put efforts in developing public health policies and in coordinating health policy with other policy fields, such as environmental protection, transport, energy, and food policy. Nevertheless, to obtain political support for such measures might be more difficult than our findings suggest, and future research should explore this problem further.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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