



# ANNUAL REPORT 2023

CSSINSTITUT

The CSS Institute looks back on a productive and eventful year. In addition to successful publications, the dissemination of our findings in the media, and numerous teaching activities, we celebrated three awards. The first award was won by us – specifically, Alois Stutzer (University of Basel) together with Nicolas and Christian from the CSS Institute. The paper “Transfer Payment Systems and Financial Distress: Insights from Health Insurance Premium Subsidies”, which we introduced in the penultimate annual report, received the Science Award from the German Health Economics Association for the best publication of the year (the picture below shows Christian and Nicolas at the award ceremony). We are extraordinarily pleased that works co-authored by CSS Institute staff are receiving such acclaim from the scientific community.



The second prize was won by Fabienne Töngi (now Lötscher). She is a doctoral candidate at the University of Bern and received the “Best PhD Paper Award” from the Swiss Society of Health Economics for the paper “The effect of potential out-of-pocket payments on drug prices and quantities”, which examines the impact of differentiated copayments for prescription drugs. Alongside her, Michael Gerfin (University of Bern) and Christian from the CSS Institute were involved in this research. We extend our heartfelt congratulations to Fabienne for this tremendous success!

This work is also notable for another reason: it exemplifies our research activity last year, as we focused intensively on the pharmaceutical market. In addition to analyzing differentiated copayments, we examined the effects of patient information and dynamic effects of cost-sharing on medication demand. We will present the results of this exciting research in the following pages.

The third prize was awarded to Véra Zabrodina. She is a postdoctoral researcher at the University of Basel and won the “SSES Young Economist Award” from the Swiss Society of Economics and Statistics for her work on “Timing Moral Hazard under Deductibles in Health Insurance”. Although we were not involved in this research paper, we contributed by providing Véra with the necessary data for her analyses. Providing data for empirical research and the associated advisory services are part of the tasks of the CSS Institute. To illustrate how many projects we support and our contribution to research promotion, we will examine this activity more closely in this report.

Finally, the CSS Institute itself has gained something else: a new staff member! After nearly ten years at the CSS Institute, Lukas decided to take on a new challenge as a teaching and research officer at the University of Lucerne. We were able to recruit Caroline Chuard-Keller as his successor. Previously, she worked as a postdoctoral researcher at the University of St. Gallen, having received her PhD in Economics from the University of Zurich in 2019. We are very happy that Caroline is now researching with us at the CSS Institute, and look forward to reporting on her work in the future.

We wish you an enjoyable read.

Christian P.R. Schmid  
April 2024

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The art on the front and back is based on «A Prescription for Knowledge: Patient Information and Generic Substitution» by Linn Hjalmarsson, Christian P.R. Schmid and Nicolas Schreiner.

April 2024



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# RESEARCH FOCUS

Can healthcare costs be reduced through the use of market mechanisms? The two-tiered coinsurance rate for expensive prescription drugs allows for an analysis of the reactions of both producers and patients to such measures. *By Christian P.R. Schmid*

The purpose of health insurance is to mitigate the financial consequences of illness. Therefore, the fact that patients do not pay themselves for the services they use aligns with the fundamental idea of insurance. However, this could lead to unintended side effects. Since patients pay only a small part of the costs of services, they may have little incentive to seek or use cheaper alternatives. On the other hand, providers and manufacturers of medical goods might know they can charge higher prices because of this. In other words, the high costs in healthcare may also be a result of the lack of price competition. Conversely, regulatory-induced price competition, like in any well-functioning market, should lead patients to choose cheaper alternatives, manufacturers to set lower prices, and overall costs to be lower. We have analyzed this using the two-tiered coinsurance rate for medications, which means that patients pay noticeably different prices for medically equivalent alternatives. This provides an ideal case study to examine the behavior of both patients and drug manufacturers.

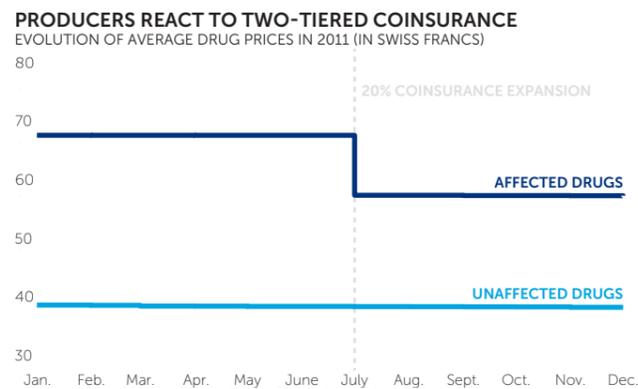
## COINSURANCE OF 20% INSTEAD OF 10%

In Switzerland, cost-sharing primarily consists of two elements: the deductible and the coinsurance. Until reaching the deductible, patients pay the full cost of the services used. Afterward, they generally contribute ten percent towards the costs (coinsurance), until the annual stop-loss amount of currently 700 Swiss francs is reached. However, there is an exception: for multiple drugs with the same active ingredients, the coinsurance rate can be higher than ten percent. This higher coinsurance rate applies when expensive drugs within a group with the same active ingredients are priced above a calculated threshold for that group. The two-tiered coinsurance rate pursues two objectives. On the one hand, it should incentivize patients to switch to cheaper medications. On the other hand, it should

encourage manufacturers to lower their prices. Before the two-tiered coinsurance rate is applied, manufacturers are informed by the Federal Office of Public Health (FOPH) and have the opportunity to adjust their prices. We examine a reform from 2011, which resulted in many more drugs being subject to a higher coinsurance than before.

## MANUFACTURERS LOWER PRICES

When an expensive drug risks falling under the higher coinsurance, its manufacturer must decide. They can either lower the price, likely resulting in lower sales revenue, or maintain the price but risk patients switching to a different drug, which also reduces revenue. Complicating matters is the behavior of other manufacturers, which also influences how many patients might switch drugs. If other manufacturers lower their prices to avoid the higher copayment, their drugs become more attractive to patients. A manufacturer's pricing decision thus depends on how strongly patients react to price changes, but also on the behavior they expect from other manufacturers. Since drug prices are public and we know which drugs were threatened by the higher coinsurance, we can analyze the price reactions of the manufacturers. Since the cheapest drugs were not affected by the higher coinsurance, we also have a comparison group where we expect no price reac-



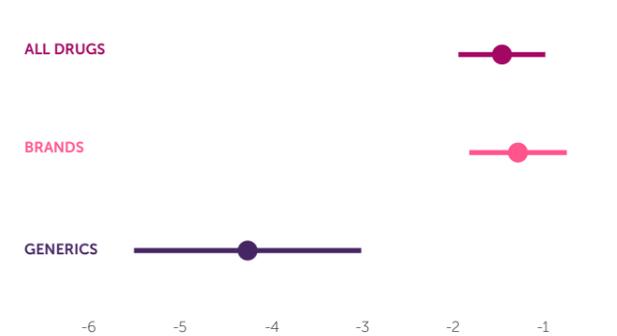
# COINSURANCE

tion. The graph below shows the price trends of both groups, clearly indicating that the expensive drugs became cheaper upon the reform's implementation. Prices dropped by an average of about 12.40 Swiss francs or approximately 9.9 percent. However, not all manufacturers of expensive drugs lowered their prices. While generic manufacturers reduced prices in over four out of five cases, less than half of the brand-name drug manufacturers did so. Overall, there was a significant price adjustment, so the two-tiered coinsurance had the desired effect on manufacturers.

## PATIENTS SWITCH MEDICATIONS

Since not all manufacturers lowered their prices, we can analyze how the two-tiered coinsurance affects patient behavior. Specifically, we wonder whether patients switch from their now noticeably more expensive medications to cheaper ones. To answer this question, we use data from two health insurances, which contain the necessary information about the dispensed drugs and charged copayments. As shown in the graph below, after the reform, the likelihood of an expensive drug being dispensed dropped by about 1.5 percentage points. In other words, patients change their medication when they must pay a higher coinsurance for it. The effect is noticeably smaller for brand-name drugs, at 1.3 percentage points, compared to generics, which see a decline of 4.3 percentage points. This means that patients who get generics react much more strongly to the higher coinsurance rate than those who buy brand-

**COINSURANCE HAS LESS EFFECT ON BRAND BUYERS**  
REDUCTION IN DEMAND (%-POINTS) DUE TO HIGHER COINSURANCE RATE



name drugs—a finding echoed in other studies. It is therefore not surprising that brand-name drug manufacturers have reduced their prices less frequently than generic manufacturers. Considering that the higher coinsurance rate only applies once the deductible has been exceeded but the annual stop-loss amount has not yet been reached, the patient response is still notable. Thus, the two-tiered coinsurance rate also shows the desired effect on patients.

## OVERALL MARKET REACTION IMPORTANT

Extrapolated to Switzerland, nearly 20 million Swiss francs in medication costs were saved in the first year after the reform. The majority of these savings stem from the manufacturers' price reductions. However, it's important to note that these price reductions are intended to preempt patient reactions. Had the manufacturers not adjusted their prices, the patient response would likely have been much stronger. The fact that manufacturers respond to the (anticipated) behavior of patients exemplifies that market mechanisms in healthcare work. While cost-sharing is often a very imprecise tool, it is used here very specifically to create competition and thus make medications cheaper. It would therefore be worth considering not only for medications but also for other services to employ a differentiated approach to cost-sharing.

This paper was written by Michael Gerfin and Fabienne Löttscher from the University of Bern together with Christian P.R. Schmid from the CSS Institute.

# RESEARCH FOCUS

Generics offer the same treatment as branded drugs at a fraction of the cost. Despite financial incentives, many patients continue to buy expensive brand versions. Can targeted patient information foster switches to generics? *By Nicolas Schreiner*

Health policy has so far focused heavily on financial incentives to make generics more attractive. However, it is often overlooked that markets only function properly when both buyers and sellers are well-informed. In the health sector, numerous formal and informal barriers hinder the flow of information to patients. For example, direct-to-consumer advertising for pharmaceuticals is largely prohibited, the vast array of products makes the market opaque, and providers also have a financial incentive not to fully inform about available generics. Patients thus face a significant information disadvantage that impairs their decision-making. Nevertheless, the role of patient information has largely been ignored in the substitution of generics. If patients are unaware of the existence of cheaper generics when purchasing medications, they cannot respond to existing price differences.

## THE CSS GENERICS MAILING

With a campaign, CSS wanted to address the potential information deficit on the patient side. From 2010 to 2022, insured individuals were specifically targeted to alert them to cheaper but medically equivalent alternatives. After purchasing one of about 30 selected original medications, the person automatically received an information letter by mail. The letter listed the names of all generics available for the original and displayed the potential savings in percentage terms. To maximize savings, all patients were always contacted. No randomized experiment was conducted to analyze the effectiveness of the campaign.

## RISK OF OVERESTIMATING EFFECTS

One way to measure effectiveness would be simply to compare the proportion of generics among patients before and after the letter was sent. However, such a before-and-after comparison runs the risk of overestimating the effect of the generic letter. Because a cer-

tain proportion of the contacted patients would likely have switched from the original to a generic even without the letter. On one hand, the shipping system did not check whether a generic purchase had already occurred for the medication since the triggering purchase. On the other hand, we know from research in other areas that with repeated purchases of a good, consumers increasingly gain competence. Thus, with each purchase of the medication, the likelihood also increases that patients will independently seek information about generics. Such "independent" switches should not be attributed to the letter.

## TRANSFORMING INTO A NATURAL EXPERIMENT

To still determine the causal effect of the letter, we had to find a suitable control group afterward. We exploited the fact that the generic campaign was only a small part of customer communication. To protect insured individuals from too many letters in a short time, each communication at CSS is internally prioritized. If several correspondences are pending at the same time, the one with the highest priority is sent first. Moreover, all other letters are withheld for several weeks. Since the generic letter was not time-critical, its dispatch was often temporarily blocked. This led to a quasi-random distribution of the timing when patients received the information by letter. Consequently, we could now

**SHARP INCREASE OF GENERICS AFTER INFORMATION**  
GENERICS SHARE BY DAY AND NTH PURCHASE RELATIVE TO DISPATCH OF THE LETTER



# PATIENT INFORMATION

compare the likelihood of generic use among patients who had already received the letter at a certain point with those who received it later. This comparison allows isolating the causal effect from other factors and thus estimating the actual effectiveness of the letter.

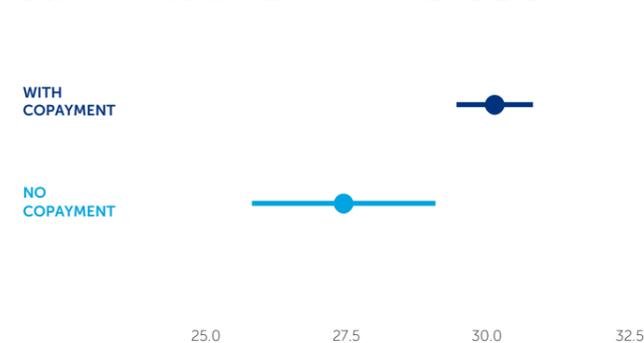
## PATIENT INFORMATION HAS MAJOR IMPACT

In our analysis, we calculated the average effect of the generic letter on 60,000 recipients with a total of 540,000 medication purchases. Looking at only the three purchases before and two purchases after receiving the letter as an "event study", we see how significantly the letter increased the likelihood of a switch to generics. At the first informed purchase, the share of generics immediately jumped by about 28 percentage points. Assuming that the letter also prompted further patients to switch at the second purchase after mailing, we see a total effect of 29 percentage points. Compared to an average generic rate of about 10 percent in purchases before receiving the letter, this almost quadruples the generic rate.

## INFORMATION DOMINATES FINANCIAL INCENTIVES

In our analyses, there are insured individuals who had to pay no copayment for the rest of the year after their first purchase following the letter. On the other hand, there are insured who still had to pay at least part of the purchase price themselves at this point. The following graph compares the two groups and shows that insured without copayments react somewhat less

**COMPARATIVELY SMALL IMPACT OF FINANCIAL INCENTIVES**  
EFFECT (IN %-POINTS) BY COPAYMENT AT FIRST PURCHASE AFTER LETTER



strongly to the letter. Financial incentives do indeed have an effect, but the difference is only about 2.5 percentage points. Even when choosing between a generic and an original makes no financial difference to the insured, the letter still triples the likelihood of switching to a generic. Information thus proves to be a very effective tool. It is particularly interesting that information also works among those who are not subject to financial incentives. These insured thus contribute to cost reduction without deriving any personal benefit from it. Empowering patients through information thus has a much broader impact than financial incentives.

## SOVEREIGN PATIENTS NEED INFORMATION

Market mechanisms, such as cost-sharing, only really work well when all market participants have sufficient information. This highlights the previously neglected role of patient information, especially in the Swiss healthcare system, which expects patients to make decisions similar to those on a regular goods market. At the same time, patients' access to urgently needed information is often made more difficult by regulatory barriers, which do not exist in this form on other product markets. Thus, the CSS generic mailing was banned by a circular from the Federal Office of Public Health (FOPH) and discontinued in 2022. As a result, providers remain the sole source of information, which is not only inefficient in terms of financial costs and time spent but also pushes patients into situations where their only source of information can directly benefit financially from the decision made. Here, policy would need to step in to allow the benefits that digitalization could offer for informing patients to be legally utilized. After all, sovereign patients mean a better functioning healthcare system for everyone.

This paper was written by Linn Hjalmarsson, Christian P.R. Schmid, and Nicolas Schreiner from the CSS Institute.

# RESEARCH FOCUS

Does not only the current amount of cost-sharing but also future expectations influence the demand for healthcare services? Since the utilization load of the healthcare system depends on this answer, the design of cost-sharing should take it into account. *By Linn Hjalmarsson*

How individuals react to price changes is a central question in economics. Classical theory assumes that all market participants act “rationally” and consider all aspects of the price when making a purchase decision. Individuals are thus forward-looking and take into account future price developments in their present decisions. Whether this is actually the case can be examined using the demand for health services. Deductibles and coinsurance lead to a situation where the short-term and long-term ‘price’ can differ, as the paid cost-sharing is reset to zero at the year’s end. If a patient has exceeded their cost-sharing for the current year, the “December price” is significantly lower than the “January price” for the same medical service. Chronically ill patients, who reach the deductible every year, experience this “price jump”, but in the long term, the prices are actually the same. They do not save a single franc by advancing services due to the lower price in December. If we observe such behavior in reality due to not-fully rational actors, it can be concluded that cost-sharing in practice leads to unintended behavioral distortions.

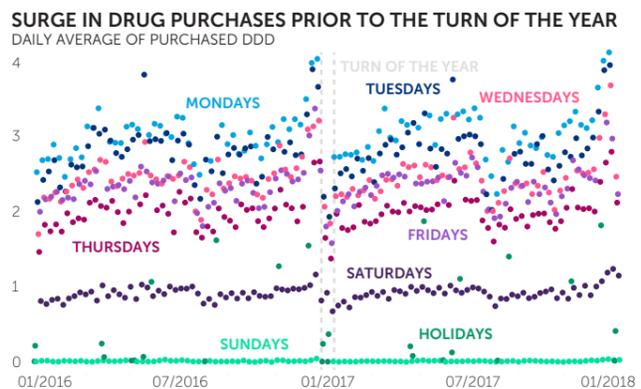
## FOCUS ON CHRONIC MEDICATIONS

To find out whether individuals adjust their health demand due to short-term price changes (irrationally), we focus on patients suffering from one of the following chronic diseases and requiring corresponding medications: depression (antidepressants), type I diabetes (insulin), type II diabetes (antidiabetic drugs), high blood pressure (antihypertensives), or high cholesterol (lipid-lowering drugs). This selection was made because these medications lead to high health costs, and the affected patients often choose the lowest deductible. Due to the high costs, these patients often reach the deductible early in the year. They experience a sharp increase at the beginning of each year when the cost-sharing is reset, but the long-term price remains unchanged at the year’s change. Medications are

particularly suitable for analysis because chronically ill patients have a steady need for medications, yet medications can also be stored. The timing of the purchase is therefore predictable, making a possible price reaction observable.

## PATIENTS DO THEIR CHRISTMAS SHOPPING...

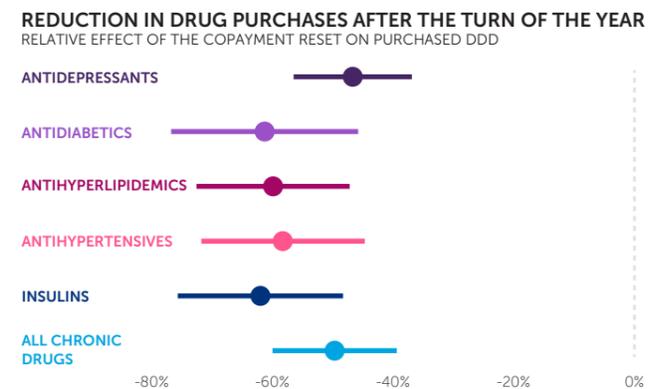
If patients with chronic diseases respond to the price jump at the year’s change, the purchased medication quantity should make a corresponding counter-movement, meaning more is bought before the year’s change than after. We therefore use daily precise data with information on the amount of the daily dose (so-called “defined daily dosage” or DDD), which was bought on a given day. This daily data structure allows us to perform a so-called regression discontinuity analysis, where we estimate the difference between the average number of purchased DDD at the end of a year and at the beginning of the new year. As we observe exactly the same patients before and after the year’s change and nothing changes except the cost-sharing the patients must pay, we can identify the causal effect of the price change on the purchased amount of DDD. Our estimates clearly show that at year’s end, when patients can get their medications (almost) “for free”, significantly more medications (measured in DDD) are purchased than after the year’s change, when patients mostly have to pay for



their medications themselves. The difference varies depending on the medication group and ranges from 0.6 DDD for antidepressants to 1.1 DDD for antidiabetics. These figures represent the daily difference, scaled up to a month the effect averages about 30 DDD, which is just one month’s pack. In other words, an average monthly dose more is purchased in December than in January. On average, 2.2 DDD are purchased per day each year. Our estimated effect of 1.1 DDD represents about 50 percent of this; the reaction to the short-term price change is thus considerable.

## ... BUT ALSO HOLIDAY SHOPPING

During the period between Christmas and New Year’s, access to health institutions is restricted due to the many holidays. This could also lead to patients buying more medications beforehand out of caution, to ensure they have enough during the holidays. This means we might overestimate the effect of the price change at year’s end if we do not consider this “holiday effect”. To get an estimate for this, we apply the above method to the summer months, as we expect a holiday effect there as well. Indeed, such an effect is observed in the summer, but transferred to the year’s change, at least a third of the price effect remains. This means that although the holidays and festive days play a role, the short-term price change at the year’s change remains a relevant factor for the demand for medications in December.



# DEDUCTIBLES

## NO JANUARY SLUMP

Another factor that could play a role is the January slump. It could be that patients buy medications in December so that expenses do not occur in January when money might already be tight. To investigate this, we need to find patients we suspect of having financial difficulties and compare them with patients we do not suspect. One possibility is to compare people with and without premium reductions, as these differ significantly in income. However, patients who receive premium reductions and those who do not show a comparable price reaction at the year’s change. From this, we can conclude that the January slump has no effect on patient behavior.

## DISTORTIONS DUE TO COST-SHARING

Our results show that people tend to react to the resetting of cost-sharing at the beginning of each year. Short-term price changes thus play a role even if this behavior does not save any (self-borne) costs in the long run. While they are foresighted in the short term, they seem not to fully grasp the complexity of the longer term. From the perspective of the health insurer and in terms of overall costs, the Christmas shopping is basically not a problem, as the “saved” cost-sharing simply falls on the patients in the following year. However, our results are further evidence that the design of cost-sharing can lead to irrational and sometimes even health-threatening behavior. One option would therefore be to exempt chronic medications entirely from the deductible and replace it with a constant cost-sharing. Additionally, patients should be informed so that they understand the rules of health insurance and can make sovereign decisions.

This paper was written by Linn Hjalmarsson from the CSS Institute together with Michael Gerfin of the University of Bern.

# RESEARCH SUPPORT

Lack of access to data restricts research in the Swiss healthcare system. Therefore, in addition to its own research, supporting other scientists with data is another important part of the CSS Institute's social mission. *By Christian P.R. Schmid*

The data landscape in the Swiss healthcare system is highly fragmented and decentralized. Health insurers, providers such as hospitals, doctors, and pharmacies, as well as the cantonal and the federal governments, each have their distinct insights into the healthcare system through largely unconnected data sources, but none of these actors has a comprehensive overview. Additionally, health is not only produced within the healthcare system but also in schools, workplaces, and leisure activities. Most of these data are not collected for research purposes, which often significantly hinders access to them. Altogether, these constitute poor conditions for empirical (economic) research in Switzerland.

## RESEARCH AS PART OF SUSTAINABILITY

CSS views research promotion as part of its social responsibility. By establishing the CSS Institute for Empirical Health Economics, it has therefore committed to contributing to the improvement of data availability for research, thereby laying the foundations for evidence-based health policy. Accordingly, the CSS Institute regularly supports research projects with data and consults researchers on how to best utilize the large and complex insurance claims data. Below, we provide a brief overview of this task and, to give the projects a face, we introduce two researchers who have been very successful working with "our" data.

## SIX PROJECTS SUPPORTED PER YEAR

Between 2014 and 2023, the CSS Institute provided CSS data for a total of 60 projects, averaging six projects per year. The data are generally anonymized, so that they cannot be traced back to specific individuals. In a few cases, with the explicit written consent of the insured individuals, data are also provided in non-anonymized form. Typically, these are studies in the medical field. An example of this is the "Swiss Atrial Fibrillation Cohort",

which aims to improve understanding of the cardiac arrhythmia atrial fibrillation. Since 2015, we have regularly provided data for this study to the University of Basel.

### DR. IGOR FRANČETIĆ



Igor is currently an Ambizione Research Fellow at the University of Applied Sciences and Arts of Southern Switzerland (SUPSI). He received his PhD in Public Health with a specialization in Health Economics in 2019 from the Swiss Tropical and Public Health Institute (Swiss TPH) in Basel, after which he was a research associate at the University of Manchester, where he remains affiliated. Ambizione is a funding program of the Swiss National Science Foundation for young researchers who want to independently carry out a project at a Swiss higher education institution. It serves as a launching pad into an academic career, hence the selection criteria and competition for funding are particularly strict. We already provided Igor with advice during the preparation of his funding application and will support him in two sub-projects that analyze primary and emergency care in Switzerland, with data and as co-authors. Overall, his project contributes to a better understanding of healthcare in Switzerland, and a summary of the planned research is available from the Swiss National Science Foundation.

### UNDERSTANDING HEALTHCARE PROVISION BETTER

The vast majority of the data is made available to researchers at Swiss universities who wish to answer their own research questions. An example is the project "Physician retirement, practice closures and discontinuity of care" by Michael Gerfin (University of Bern)

and Wolfram Kägi (B,S,S.), funded by the Swiss National Science Foundation as part of National Research Programme 74. The aim of the project was to understand how patient care changes when a general practitioner retires and closes their practice. The insights allow for a better understanding of future healthcare provision.



### DR. VÉRA ZABRODINA

Véra is currently a postdoctoral researcher at the University of Basel, where she also completed her doctorate in September 2022. Part of her dissertation examines whether insured individuals schedule their health service usage in a way that minimizes their out-of-pocket expenses. The question, therefore, is whether the intended effect of cost-sharing is diminished by patients' anticipatory behaviors. For this project, titled «Timing Moral Hazard under Deductibles in Health Insurance», we had already provided data. For the continuation of her research agenda, Véra will spend two years at the University of California in Berkeley, starting in the fall of 2024, as part of the Swiss National Science Foundation's PostDoc Mobility Program. In her doctorate, she already had the opportunity to further her research during a visit in Berkeley hosted by Nobel Prize laureate in Economic Sciences, David Card. The CSS Institute has assured ongoing support through data provision and collaboration on these projects following the successful SNF project proposal.

### INSIGHTS FOR HEALTH POLICY

Besides independent university research, there are also projects initiated by authorities based on a political question. An example is the final report "Service renunciation and switching behavior of OKP-insured persons in relation to voluntary deductibles" to the Federal Of-

# DATA PROVISION

fice of Public Health. The project was conducted by B,S,S. Economic Consulting and the University of Bern and aimed to improve understanding of the behavior of insured persons in relation to elective deductibles. This provides opportunities for shaping the healthcare system.

## OWN RESEARCH HELPS OTHER RESEARCHERS

The three projects mentioned here exemplify what is already possible with health insurance data today: they can be used in medical research, to analyze healthcare provision, and to answer questions about the structuring of the healthcare system. It simply requires the willingness to make these data available for research. The CSS Institute serves as a bridge to Swiss universities and universities of applied sciences. Thanks to its own research activities, it is well acquainted with the available health insurance data and can optimally advise researchers in implementing their projects. Additionally, its own research activity allows for efficient evaluation of data requests in terms of scientific potential and method quality. We thus contribute to the research landscape in Switzerland, and especially young scientists benefit from rapid access to individual data. That these projects are worthy of support is evidenced not least by the fact that they are often funded by the Swiss National Science Foundation. The use of health insurance data generates insights that are of great importance for the further development of the healthcare system and thus also for society. However, not all health questions can be analyzed solely with data from health insurers. It would therefore be desirable to create the possibility of merging data from various sources for research purposes. Protecting this sensitive data is of the utmost importance, but current use in research shows that it can be handled responsibly. Overcoming the fragmentation and decentralization of the data landscape in the Swiss healthcare system would benefit research, the healthcare system, and society as a whole.

## PEER REVIEWED PUBLICATIONS

- Hempel-Bruder, Christina, Lampirini Syrogiannouli, ..., **Christian P.R. Schmid**, ... and Kevin John Selby. 2023. "Colorectal Cancer Testing Rates after Implementation of an Organised Screening Program in Vaud, Switzerland." *Swiss Medical Weekly*. 153(4):40054.
- Gerbier, Eva, Guillaume Favre, ..., **Christian P. R. Schmid**, ... and Alice Panchaud. 2023. "Antidiabetic Medication Utilization before and during Pregnancy in Switzerland between 2012 and 2019: An Administrative Claim Database from the MAMA Cohort." *Journal of Diabetes Research*. 2023:4105993.
- Douven, Rudy and **Lukas Kauer**. 2023. "Falling Ill Raises the Health Insurer's Administration Bill." *Social Science & Medicine*. 324:115856.

## WORKING PAPERS

- Gerfin, Michael, Fabienne Lötscher and **Christian P.R. Schmid**. "The Effect of potential higher out-of-pocket payments on drug prices and quantities."
- Hochuli, Philip and **Christian P.R. Schmid**. "Insurance Expansion During Pregnancy."
- Hjalmarsson, Linn, Christian P.R. Schmid** and **Nicolas Schreiner**. "A Prescription for Knowledge: Patient Information and Generic Substitution."
- Kauer, Lukas** and **Christian P.R. Schmid**. "Keep Reminding Me to Get My Flu Shot." (R&R, *American Journal of Health Economics*)
- Kauer, Lukas**, Lukas Schmid and Valentina Sontheim. "Perceptions of Economic Conditions and Mental Health."

## ACADEMIC CONFERENCES

- Chuard, Caroline**. "Ethnic Clustering in Schools and Early Career Outcomes." *AME Labour Economics Seminar*. SOFI Swedish Institute for Social Research, June 1, 2023.
- Chuard, Caroline**. "Discussion of To Stay or Not to Stay? The Effects of Vaccination on Social Distancing Behavior by Petra Tschuchnig." *PhD Workshop of the 6th Conference of the Swiss Society of Health Economics*. University of Bern, June 8, 2023.
- Hjalmarsson, Linn**. "Christmas Shopping in the Prescription Drug Market." *15th Annual Conference of the German Society for Health Economics (dggö)*. Hannover, March 13, 2023.
- Hjalmarsson, Linn**. "A Prescription for Knowledge: Patient Information and Generic Substitution." *Brown Bag Seminar*. University of Bern, April 19, 2023.
- Hjalmarsson, Linn**. "Christmas Shopping in the Prescription Drug Market." *PhD Workshop of the 6th Conference of the Swiss Society of Health Economics*. University of Bern, June 8, 2023.
- Hjalmarsson, Linn**. "Christmas Shopping in the Prescription Drug Market." *Applied Micro Seminar*. University of Gothenburg, September 28, 2023.
- Hjalmarsson, Linn**. "Christmas Shopping in the Prescription Drug Market." *Brown Bag Seminar*. University of Bern, October 4, 2023.
- Hjalmarsson, Linn**. "Christmas Shopping in the Prescription Drug Market." *Research Seminar in Health Sciences and Medicine*. University of Lucerne, October 9, 2023.
- Kauer, Lukas**. "Managed Care from the Physician's Perspective." *15th Annual Conference of the German Society for Health Economics (dggö)*. Hannover, March 13, 2023.
- Schmid, Christian P.R.** "The effect of potential out-of-pocket payments on drug prices and quantities." *1st Croatian Health Economics Workshop*. Opatija, June 9, 2023.
- Schmid, Christian P.R.** "Secondary Use aus Sicht der Gesundheitsökonomie." *ehealthsummit*. Aarau, September 14, 2023.
- Schmid, Christian P.R.** "Redistribution and affordability of health plans in Switzerland: The impact of individual subsidies." *DHE 10th Anniversary Symposium*. Vienna, September 25, 2023.

- Schmid, Christian P.R.** "A Prescription for Knowledge: Patient Information and Generic Substitution." *22. Europäischer Gesundheitskongress*. Munich, October 27, 2023.
- Schreiner, Nicolas**. "A Prescription for Knowledge: Patient Information and Generic Substitution." *Winter Meeting of the Health Economics Study Group*. Manchester, January 11, 2023.
- Schreiner, Nicolas**. "A Prescription for Knowledge: Patient Information and Generic Substitution." *15th Annual Conference of the German Society for Health Economics (dggö)*. Hannover, March 13, 2023.
- Schreiner, Nicolas**. "Geld vs Sachtransfers: Prämiensubventionen und finanzielle Probleme." *Science Award of the 15th Annual Conference of the German Society for Health Economics (dggö)*. Hannover, March 13, 2023.
- Schreiner, Nicolas**. "A Prescription for Knowledge: Patient Information and Generic Substitution." *Research Seminar in Health Sciences and Medicine*. University of Lucerne, March 20, 2023.
- Schreiner, Nicolas**. "A Prescription for Knowledge: Patient Information and Generic Substitution." *6th Conference of the Swiss Society of Health Economics*. University of Bern, June 9, 2023.
- Schreiner, Nicolas**. "A Prescription for Knowledge: Patient Information and Generic Substitution." *Annual Congress of the Swiss Society of Economics and Statistics*. University of Neuchâtel, June 29, 2023.
- Schreiner, Nicolas**. "A Prescription for Knowledge: Patient Information and Generic Substitution." *Annual Congress of the European Economic Association*. Barcelona School of Economics, August 30, 2023.

## CSS SEMINARS

- Christian P.R. Schmid**. "Wer finanziert eigentlich das Gesundheitswesen." *Café dialogue*. Lucerne, August 30, 2023.

## TEACHING IN SEMESTER COURSES

- Chuard, Caroline**. "Evaluation of Labour Policy." Bachelor's level. Biweekly lecture. Spring semester 2023. University of St. Gallen.
- Chuard, Caroline**. "Data Analytics II." Bachelor's level. Weekly exercise. Spring semester 2023. University of St. Gallen.
- Chuard, Caroline**. "MIA Morning on Economic Principles." Master's level. Seminar series. Fall semester 2023. University of St. Gallen.
- Chuard, Caroline**. "MIA Morning on Economic Reasoning." Master's level. Seminar series. Fall semester 2023. University of St. Gallen.
- Gerfin, Michael and **Christian P.R. Schmid**. "Topics in Health Economics." Master's level. Weekly lecture. Spring semester 2023. University of Bern.
- Kauer, Lukas**. "Soziale Krankenversicherung." Bachelor's level. Weekly lecture. Spring semester 2023. University of Zürich.
- Schmid, Christian P.R.** "The Economics of Pharmaceutical Markets." Master's level. Weekly lecture. Fall semester 2023. University of Luzern.
- Schreiner, Nicolas**. "Topics in Pharmaceutical Economics." Master's level, Weekly seminar. Spring semester 2023. University of Luzern.

## TEACHING IN BLOCK COURSES

- Kauer, Lukas**. "Gesundheitssysteme zwischen Regulierung and Markt – internationaler Vergleich." CAS Health Economics and Public Health. February 20, 2023. Bern University of Applied Sciences.
- Kauer, Lukas**. "Prämienregulierung." CAS Health Insurance Law. March 31, 2023. University of Lucerne in cooperation with the Centre for Civil Liability, Private and Social Insurance Laws (LIPS).
- Schmid, Christian P.R.** "Kostenbeteiligung and Besondere Versicherungsformen." CAS Health Insurance Law. March 31, 2023. University of Lucerne in cooperation with the Centre for Civil Liability, Private and Social Insurance Laws (LIPS).

# TEAM

**CHRISTIAN P.R. SCHMID**  
Director of the CSS Institute



Christian Schmid has been working at the CSS Institute since 2015, first as a research associate and since October 2020 as the institute's director. He is also a lecturer at the University of Bern, where he also earned his doctorate in Economics in 2014. His research currently focuses on cost-sharing, the pharmaceutical market and health insurance premium subsidies.

**LINN HJALMARSSON**  
External PhD Student



Linn Hjalmarsson joined the CSS Institute as an external PhD student in July 2020. She is completing her PhD in Economics at the University of Bern, where she also works as a research assistant. Her research currently focuses on physician practice handovers, generic substitution and the reaction of individuals to incentives and cost structures in health care.

**NICOLAS SCHREINER**  
Scientific Project  
Manager



Nicolas Schreiner has been working as a scientific project leader at the CSS Institute since 2021. Previously, he was a research assistant at the Chair of Political Economy at the University of Basel, where he also completed his PhD in Economics in 2020. His research currently focuses on the role patient information on decision-making and the consequences of copayments on the demand for health care.

**CAROLINE CHUARD**  
Scientific Project  
Manager



Caroline Chuard has been working as a scientific project leader at the CSS Institute since 2023. Previously, she was a Postdoc at the Swiss Institute for Empirical Economic Research at the University of St. Gallen and received her PhD in Economics from the University of Zurich. Her main research areas are health and family economics with a particular focus on early childhood development and the well-being of mothers.

The CSS Institute for Empirical Health Economics (CSS Institute for short) was established in 2007 by CSS Versicherung AG. The main goal of the CSS Institute is scientific research and teaching in the field of applied health economics. It prepares, discusses, and publishes empirical analyses of the Swiss healthcare market and communicates general as well as acquired knowledge about health economics. Furthermore, it supports university research in the field of health economics and regularly holds courses at universities. The CSS Institute is based in Lucerne.



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