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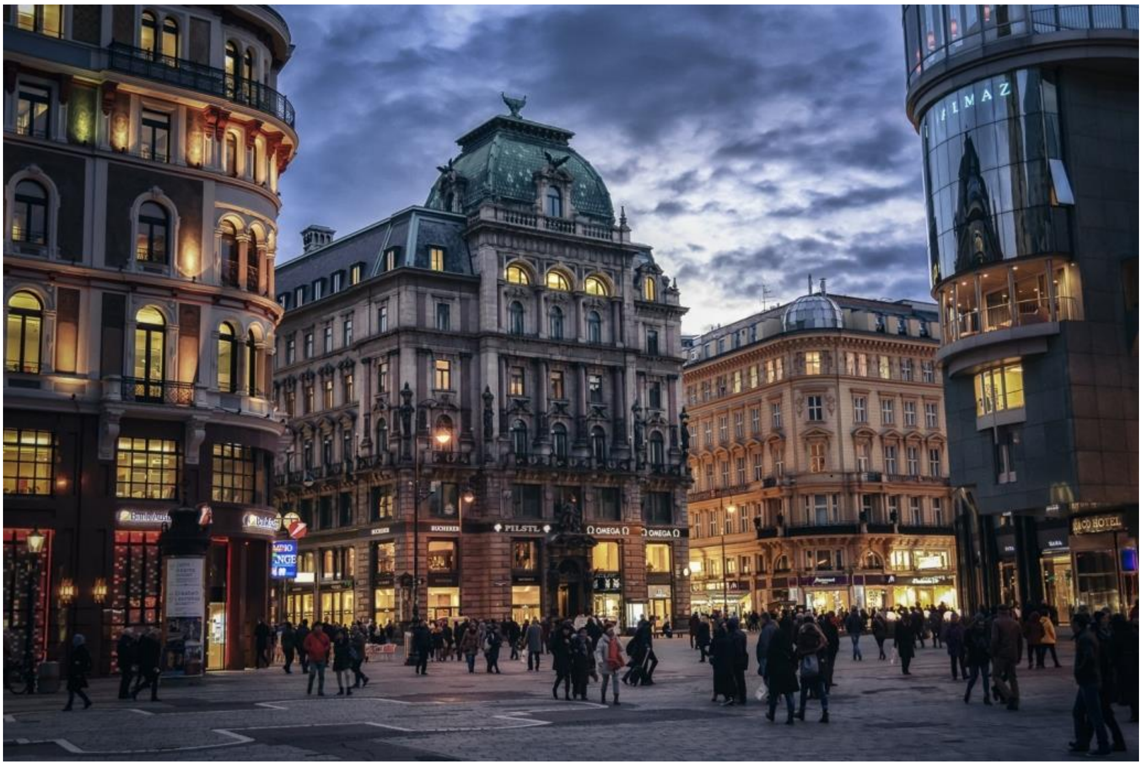

6th ATHEA Conference

„Covid-19 and Beyond“

Vienna, 23rd and 24th September 2021

Conference venue

Address:

INSTITUT FÜR HÖHERE STUDIEN
INSTITUTE FOR ADVANCED STUDIES
Vienna

Institute for Advanced Studies (IHS)
Josefstädter Straße 39
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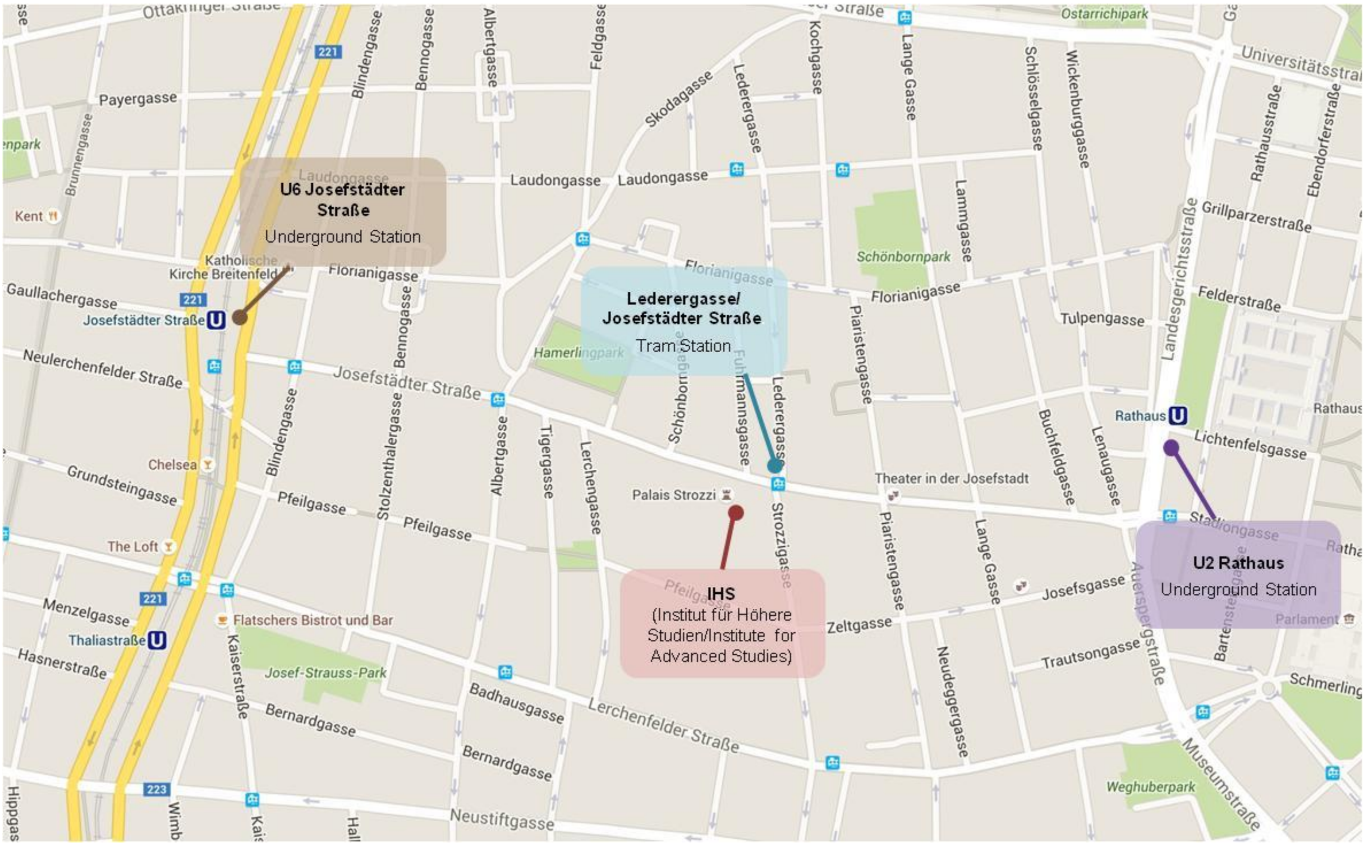

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Long-Term Care utilization in Europe: examining socioeconomic inequalities and societal differences using a two-part multilevel regression model

Title: Care in times of COVID-19: the impact of the pandemic on informal caregiving in Austria

Authors: Ricardo Rodrigues[1], Cassandra Simmons[1], Andrea E. Schmidt[2], Nadia Steiber[3,4]

[1] Austrian National Public Health Institute (Gesundheit Österreich GmbH), Vienna, Austria,

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Abstract:

Much attention has been paid to the effects of the COVID-19 pandemic on long-term care but the impact on informal caregivers has remained speculative. In Austria, like in other European countries, informal care is carried out overwhelmingly by (non-cohabiting) relatives. Limited care services available during the pandemic, social-distancing, increased unemployment and competing care needs within households (e.g. due to school closures) may have changed the prevalence and intensity of informal caregiving. Moreover, these changes may have increased the psychological strain experienced by caregivers. Focusing on Austria, this study aims to empirically analyse the following research questions: how have the prevalence and intensity of informal care changed due to the pandemic? How has the psychological well-being of informal caregivers been affected? We use a pre- and post-onset of the pandemic research design based on a representative survey carried out in Austria in June 2020 (N = 2000) in combination with comparable 2015 data from the European Social Survey. Findings suggest that neither prevalence nor intensity of informal care changed significantly due to the pandemic. However, the psychological well-being gap between carers and non-carers increased with the start of the pandemic, especially among men. Findings are discussed in relation to the policy measures implemented and possible policy implications for the future.

Title: A crisis like no other? Subjective unmet needs in health care during the first wave of the COVID-19 crisis in Austria

Authors: Andrea E. Schmidt[1], Ricardo Rodrigues[2], Cassandra Simmons[2], Nadia Steiber[3,4]

[1] Austrian National Public Health Institute (Gesundheit Österreich GmbH), Vienna, Austria,

[2] European Centre for Social Welfare Policy and Research, Vienna, Austria

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Abstract:

The ongoing pandemic, already in its early stages, represented a direct and sudden supply shock to health care systems in developed countries. People with health care needs experienced a deprioritisation of essential health care services as many countries across Europe saw postponements and cancellations of standard health care services throughout the pandemic in 2020, both in inpatient and ambulatory care settings. This novel study is the first in Austria (and many other European countries) to go beyond aggregate-level analyses in providing systematic evidence on how subjective unmet needs (SUN)— the gap between services judged necessary to deal with one's health problems during the COVID-19 crisis, and services actually received— have affected different population (or patient) groups. We use novel data from a representative survey (AKCOVID) carried out in Austria in June 2020 with 2,000 respondents (quota sample based on gender, age, education, household size and regions) aged 20-64, where questions on SUN allowed respondents to report pandemic-related reasons (fear of infection, provider closed, treatment postponed) as well as other reasons for SUN (financial barriers, knowledge, waiting times, reachability, time). In a first step, we compare levels of SUN between 2020 and 2015 using the European Social Survey. A multinomial logistic regression model is then applied to identify the most important risk factors (determinants) for SUN in 2020 using 2 models: the first adjusting for age, gender and SES (education level, employment status, making ends meet and self-rated health status), and the second employed separately for men and women. Finally, interaction models are calculated to account for the added vulnerability of people with poor self-rated health during the pandemic.

We find that excess unmet needs compared to 2015 is attributable only to reasons related to the pandemic, while there was no change in other unmet needs. The most important reasons for SUN were postponed treatments and closed providers, while fear of infection played a minor role as a reason for SUN. The multinomial model shows that people in older age groups (50-64 years), people inactive on the labour market (of working age) or retired and people with difficulties in making ends meet were most likely to report higher SUN related to the pandemic. Poor self-rated health status associates significantly with higher pandemic-related SUN in all models, and poor health compounds SUN for older age groups and people who are inactive or retired, while no income effect is found. Our analysis provides evidence that the COVID-19 crisis - unlike the financial and economic crisis – has represented primarily a supply-side shock in de-prioritising essential health care services. New vulnerable groups have emerged

that are likely to have been most affected by the crisis with regard to SUN: namely older people, people with poor health and/or people no longer active on the labour market. These findings have implications for the potential mid-term or long-term effects on population health as well as for the management of health services during future pandemics.

Title: Exploring the longitudinal characteristics of the AKCOVID survey to analyse the impact of informal care and subjective unmet needs on self-reported health and wellbeing

Authors: Andrea E. Schmidt[1], Ricardo Rodrigues[2], Cassandra Simmons[2], Nadia Steiber[3,4]

[1] Austrian National Public Health Institute (Gesundheit Österreich GmbH), Vienna, Austria,

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Abstract:

The COVID-19 pandemic in Austria had a second wave or peak at the end of 2020. This second wave, besides its greater intensity and longer duration, compounded on the ongoing health and wellbeing impact observed from the start of the pandemic. The second wave of the AKCOVID was collected between 11 Jan and 1 Feb 20201 and included 1417 observations. With this second wave, the AKCOVID is now a longitudinal survey that allows us to anlyse the impact of the pandemic and associated policies on the health and wellbeing of different population groups.

The objective of this presentation is twofold: i) to provide an overview of the evolution of informal caregiving in later stages of the pandemic and its effect on health and psychological wellbeing; and ii) to analyse how subjective unmet needs for healthcare have evolved and whether these have had any impact on the health status. To this end we take advantage of longitudinal characteristics of the AKCOVID survey and employ multilevel regression models to account for individual unobserved heterogeneity.

Regarding informal caregiving, we hypothesize that as the duration of the pandemic lengthened, the adverse impact of caregiving on the psychological wellbeing observed in the first wave of the pandemic (cf. Rodrigues et al 2021) will be heightened.

Our earlier analysis of subjective unmet needs for healthcare (cf. presentation ‘A crisis like no other? Subjective unmet needs in health care during the first wave of the COVID 19 crisis in Austria’) showed that these were concentrated on people with higher health needs. We thus hypothesize that subjective unmet needs will thus have an adverse impact already in the short run on the self-reported health status of individuals.

Title: Volkswirtschaftliche Kosten der Hypercholesterinämie in Österreich

Authors: Thomas Czypionka[1,2], Miriam Reiss[1], Stephanie Reitzinger[1]

[1] Institute for Advanced Studies, Vienna, Austria

[2] London School of Economics and Political Science, London, United Kingdom

Abstract:

Hypercholesterinämie ist ein bedeutender Risikofaktor für kardiovaskuläre Erkrankungen und verursacht somit in weiterer Folge erhebliche Kosten sowohl innerhalb als auch außerhalb des Gesundheitssystems. Das Ziel unserer Studie besteht darin, die vermeidbaren Kosten der Hypercholesterinämie für Österreich abzuschätzen.

Zu diesem Zweck wird ein Lebenszyklusmodell angewandt, welches die Berücksichtigung sowohl von Morbiditäts- als auch von Mortalitätseffekten ermöglicht. Im Rahmen des Modells werden die realen Aufwendungen im Status quo mit den hypothetischen Aufwendungen einer Gesellschaft (i) ohne Hypercholesterinämie bzw. (ii) ohne Hypercholesterinämie der Hochrisikopersonen verglichen. Als Basisjahr dient das Jahr 2019. Prävalenzen und relative Risiken werden aus epidemiologischen Studien hergeleitet, während zahlreiche weitere Daten aus unterschiedlichen Quellen in das Modell einfließen.

In der Analyse werden die medizinischen Kosten der Hypercholesterinämie geschätzt, sowie die nicht- medizinischen Kosten, welche Ausgaben für Pflege und Krankengelder sowie Invaliditätspensionen umfassen, und die indirekten oder ökonomischen Kosten, die sich durch Produktivitätsausfälle aufgrund häufigerer Krankenstände, Invalidität und vorzeitige Sterblichkeit ergeben.

Die erwarteten Ergebnisse dieser Studie sollen aufzeigen, dass die Kosten der Hypercholesterinämie deutlich reduziert werden könnten, wenn ein höherer Anteil der Bevölkerung mit Hypercholesterinämie und insbesondere der Hochrisikopersonen ihre LDL-C Zielwerte erreichen.

Title: Krankheitskosten von Demenz in Österreich

Authors: Thomas Czypionka[1,2], Miriam Reiss[1], Stephanie Reitzinger[1], Monika Riedel[1]

[1] Institute for Advanced Studies, Vienna, Austria

[2] London School of Economics and Political Science, London, United Kingdom

Abstract:

Hintergrund

Demenz gehört zu jenen drei Erkrankungen, welche die höchste Anzahl an verlorenen gesunden Lebensjahren verursachen. Aufgrund der Alterung der Bevölkerung stellt diese Krankheitsgruppe auch in Österreich eine zunehmende Belastung für das Gesundheits- und Pflegesystem dar. Nichtsdestotrotz gibt es bisher nur wenig Evidenz zu dieser Thematik. Als Grundlage für die Planung und Bewertung von Interventionen ist es jedoch wichtig zu wissen, in welchen Bereichen welche Kosten durch Demenz entstehen. Hierzu führen wir eine cost-of-illness Studie durch, die sowohl direkte als auch indirekte Kosten erfasst.

Methode

Die Krankheitskosten der Demenz werden neben einer Querschnittsbetrachtung auch in einem Lebenszyklusmodell abgebildet. Dieses eigens entwickelte Modell zieht als Basis die Bevölkerung des Jahres 2019 heran und lässt sie rechnerisch zu Ende leben. Dabei werden die Aufwendungen je Kostenkategorie der Status-quo-Bevölkerung mit jenen einer hypothetischen Bevölkerung ohne Demenz verglichen. Die im Lebenszyklusmodell über die Zeit anfallenden Kosten werden diskontiert und in Form von Annuitäten als jahresbezogene Größe dargestellt. Die Schätzung der Kosten erfolgt auf Basis von alters- und geschlechtsspezifischen attributablen Risiken für mit Demenz assoziierte Gesundheitsprobleme sowie für Inanspruchnahme von diversen Leistungen. Ein spezieller Fokus liegt auf den Kosten, die durch Pflege und Betreuung anfallen. Auch die Pflegeleistungen informell Pflegender finden dabei Berücksichtigung. Für die Berechnungen wird ein breites Spektrum an Datenquellen herangezogen, u.a. epidemiologische Daten zur Prävalenz von Demenz, Abrechnungsdaten der Sozialversicherung, diverse administrative Daten (z.B. Gesundheitsausgaben, Todesursachenstatistik, Lohnstatistik, Pensionsstatistik), Pflegedokumentationen von Anbietern sozialer Dienste, demenzspezifische Datenbanken sowie nationale und internationale Literatur.

Ergebnisse

Ergebnisse der Kostenanalyse werden für Juli 2021 erwartet. In der Darstellung der Ergebnisse wird zwischen direkten medizinischen Kosten (intra-/extramurale Behandlung, Medikamente, Rehabilitation etc.), direkten nicht-medizinischen Kosten (Ausgaben für mobile und stationäre Pflege, Invaliditätspension) sowie indirekten/intangiblen Kosten (Bewertung der Pflegeleistung informell Pflegender) unterschieden. Die Kosten werden sowohl als Querschnittswert aus dem einperiodigen Modell als auch als Annuität aus dem Lebenszyklusmodell dargestellt

.

Title: Devil in the details: How urgency and costs influence the effects of cost-sharing on healthcare service consumption patterns

Authors: Michael Berger[1], Eva Six[2], Thomas Czypionka[3,4]

[1] Department of Health Economics, Center for Public Health, Medical University of Vienna, Vienna, Austria

[2] Research Institute Economics of Inequality, Vienna University of Economics and Business, Vienna, Austria

[3] Institute for Advanced Studies, Vienna, Austria

[4] London School of Economics and Political Science, London, United Kingdom

Abstract:

Objectives

Decision makers frequently use cost-sharing to alleviate pressure on public healthcare budgets. Apart from generating revenue directly, cost-sharing is a means to influence and steer the behaviour of patients to control demand for healthcare services and thereby address moral hazard. The effect of cost-sharing on demand for healthcare services has been heavily studied in the literature, but researchers often apply a macro-perspective on these issues, opening the door for the fallacy of assuming uniform demand reactions across a spectrum of different healthcare services. The aim of this article is to provide an intuitive framework to better understand the impact of changes to a cost- sharing regime with respect to its efficacy in steering patient behaviour and raising revenue.

Methods

We utilise a dataset of pseudonymised longitudinal patient-level data on healthcare service consumption between Q2-2015 and Q2-2017 of three different sickness funds in Austria covering 1,035,177 patients. We estimate the price elasticity of a set of 11 healthcare services differing in urgency and price. We combine matching via entropy balancing and difference-in-differences estimation in a two-stage study design following a reduction in the co-insurance rate by one of the sickness funds from 20% to 10% in Q2-2016. We further test the robustness of our result using different frequencies on the dependent variable and placebo regression.

Results

The reduction of the co-insurance rate led to a small increase in demand for routine ECGs (+1.5%) and a negligible increase for electromyography (+0.1%) over the whole post-treatment period. Only the effect for routine ECG is statistically significant and robust to our sensitivity analyses. For the nine other healthcare services, pre-trends are not well-behaved and therefore not suitable for a difference-in-differences framework.

Discussion

Our results show that price elasticities of different healthcare services depend on their urgency and costs and cast a new light on previous empirical evidence on price elasticity of healthcare services derived without differentiation between services. Routine ECGs and electromyography are two comparatively expensive healthcare services in the outpatient sector. But whereas routine ECGs are often performed during a health check-up and can easily be postponed by patients, electromyography is more urgent, and patients do not have discretion over the timing of the

healthcare service consumption. For healthcare services that are urgent, low cost or both, we do not find evidence that a change in co-insurance rate affects demand. A limitation to our study is that some of the healthcare services are not frequently consumed and may be prone to distortions by regional or seasonal fluctuations which may cause deviations in pre-trends. In combination with a small effect size, this likely contributes to the comparatively low statistical significance of the findings.

Title: Trust and the role of vaccine approval processes

Authors: Silvia Angerer[1], Daniela Glätzle-Rützler[2], Philipp Lergetporer[3], Thomas Rittmansberger[2]

[1] Private University for Health Sciences, Medical Informatics and Technology GmbH, Hall in Tirol, Austria

[2] University of Innsbruck, Innsbruck, Austria

[3] ifo Institute – Leibniz Institute for Economic Research at the University of Munich, Munich, Germany

Abstract:

Background

Vaccinating is the most promising exit strategy out of the COVID-19 pandemic (WHO, 2020). While global vaccination supply accelerated in the first half of 2021, many countries have been struggling with refusal of COVID-19 vaccination in sizeable shares of their populations. For instance, in April 2021, only 6 in 10 people in the US stated that they would get a COVID-19 vaccination if it was made available to them (Jones, n.d.). A major public-health concern with vaccinate refusal is that it undermines efforts to achieve herd immunity to suppress the virus, and to protect vulnerable groups who cannot be vaccinated. An important determinant of vaccination readiness is trust in the efficacy and safety of the vaccine (Ozawa & Stack, 2013; WHO, 2017), as well as trust in public health authorities (Holroyd et al., 2021). Unfortunately, trust-eroding events are more visible and carry greater weight than trust-building events (Slovic, 2013). Hence, when deciding about the approval of certain medicines or vaccines, public health authorities need to be very careful when weighing short- term benefits (through emergency use authorizations) against possible longer-term losses (e.g., low levels of trust in vaccine and/or public health authorities). Although, the relationship between vaccine approval processes and trust has been established anecdotal, to date, there exists no work establishing a causal link between them.

Method

We conducted a representative survey in Germany with 2.030 participants in March 2021. Using a vignette experiment describing a hypothetical vaccine, we investigate the effect of different aspects of the approval process on trust and the intention to vaccinate. In a 2x2 factorial design, we vary the time span between the application and the authorization (admission duration: 5, 20, and 150 days) and the type of the approval process applied (emergency use authorization vs. fast-track authorization).

Results & Conclusion

We find that the type of admission affects trust in the vaccine substantially, while different admission duration do not, as long as a certain threshold has been surpassed. Our results indicate that public health authorities should be careful when deciding about approval processes — for vaccines — especially when the overarching goal is to reach herd immunity.

Title: Antibiotic dispensing patterns and financial incentives: Evidence from dispensing physicians in general practice

Authors: Barbara Stacherl[1], Anna-Theresa Renner[2], Daniela Weber[3]

[1] DIW (Deutsches Institut für Wirtschaftsforschung), Berlin, Germany

[2] Technical University of Vienna, Vienna, Austria

[3] Department of Health Economics, Center for Public Health, Medical University of Vienna, Vienna, Austria

Abstract:

Background

Over-prescribing of antibiotics is a public health concern as it increases the probability of antimicrobial resistance in the population, leading to an increased number of untreatable infections caused by bacteria. Despite the availability of medical guidelines on antibiotic prescribing it is often observed that antibiotics are prescribed for non-antibiotic appropriate diagnoses. Identifying factors determining prescribing behaviour is therefore key in avoiding an over-utilization of antibiotics.

Objective

We investigate drivers of practice variation in antibiotic prescribing of general practitioners (GPs), focusing on the role of financial incentives. To ensure access to medication, GPs in Austria are allowed to operate an on-site pharmacy if no public pharmacy is within reach. Self-dispensing physicians thus face a financial incentive to prescribe generously. We aim to explore the effects of this financial incentive on antibiotic dispensing in Austria's primary care sector.

Methods

We exploit an administrative dataset containing data on all antibiotic prescriptions that were issued by a contracted GP and dispensed in a public or on-site pharmacy between 2016 and 2019. In order to mitigate a potential selection bias, we use a difference-in-differences approach with GPs who had a right to dispense over the entire observed time period as the control group and those who either lost or gained the right to dispense throughout the same period as the treatment group. This approach yielded a sample size of 2,793 observations by 799 GPs who ever had the right to dispense.

Results

We find a significant negative effect for the treatment of not operating an on-site pharmacy. In our sample of GPs who ever had the right to dispense, not currently operating an on-site pharmacy was associated with a 9.5% lower prescribing rate (number of antibiotics prescribed per 1,000 yearly consultations). This holds true when controlling for a number of patient population, physician and practice characteristics as well as regional and time trends.

Conclusion

The right to dispense medications on-site seems to be connected to higher antibiotic dispensing rates in the Austrian primary care sector. However, more research is needed to determine whether this captures an actual prescribing effect (self-dispensing GPs prescribe more antibiotics) or a dispensing effect (a higher share of prescriptions by self-dispensing GPs is filled).

Title: Centralised procurement of medicines and vaccines – European comparative analysis and success factors

Authors: Sabine Vogler[1], Katharina Habimana[1], Manuel Alexander Haasis[1], Peter Schneider[1]

[1] WHO Collaborating Centre for Pharmaceutical Pricing and Reimbursement Policies, Pharmaco- economics Department, Austrian National Public Health Institute (Gesundheit Österreich GmbH), Vienna, Austria

Abstract:

Background

Pooled procurement (e.g., regional, centralised or cross-country purchasing) is a policy that has proven to contribute to more affordable access to health technologies. Some European countries established centralised procurement for medicines and/or vaccines at national level.

The aim of this study is to comparatively analyse centralised procurement systems for medicines (including vaccines) in selected countries, with a view to identifying prerequisites for successful implementation of this policy.

Methods

Six European countries were selected: Cyprus, Denmark, Estonia, Italy, Norway and Portugal. While all of them apply centralised procurement for an important share of their medicines and/or vaccines, they differ in terms of income, market size and geography. In a first step, information on the design of the centralised procurement systems was surveyed in a literature review. As a follow-up, at least one interview with a procurement expert in each country was conducted to learn about experiences (mainly in May / June 2020; in Portugal in January / February 2020; for Estonia a written analysis was provided instead).

Results

The studied centralised procurement systems vary regarding their duration of implementation, scope and design. The Cypriot Ministry of Health has been centrally procuring all outpatient and inpatient medicines for the public sector for over 30 years, while Estonia started to conduct centralised procurements of defined medicines, in particular vaccines, in the 1990s, with international technical support in the beginning. Also in the 1990s, Denmark and Norway set up a centralised procurement agency whose use is mandatory for all public hospitals. In Portugal, centralised procurement for public hospitals and regional health units has been established and further developed over the years until it became fully operational in 2016, with mandatory use for defined medicines. For a decade, Italy's national procurement agency has been offering technical support (e.g., an e-procurement_platform) to public hospitals and local health units but it leaves parts of the operations (e.g., needs assessment) to the regional levels.

Despite the differences across the countries, some key prerequisites for effective centralised procurement were unanimously identified: They include a patient-centred procurement strategy, which should specify the objectives of centralised procurement, acknowledge the specificities of medicines (they are no normal commodities) and incorporate a life-cycle approach (e.g., different methods for on-patent monopoly medicines and off-patent

medicines with competitors). The strategy requires political backing. Good governance structures are essential, and a dedicated entity (e.g., procurement agency) with a clear and strong mandate constitutes a major prerequisite. At operational levels, attention should be paid to transparent and efficient processes, handled by qualified staff and supported by e-solutions. Market consultation and good preparations, dialogue with users and suppliers as well as monitoring are important success factors.

Conclusions

The findings of the study are relevant to other health systems if they aim to move forward to implement pooled procurement mechanisms for medicines and vaccines at national or cross-national levels, e.g. in response to a health crisis.

Title: High-risk individuals in health insurance markets: The elephant in the room? - Voluntary versus compulsory health insurance markets: an argumentation in pictures

Authors: Florian Buchner[1], Erik Schut[2]

[1] FH Kärnten, Klagenfurt, Austria

[2] Erasmus University, Rotterdam, Netherlands

Abstract:

Introduction

Einav and Finkelstein (EF) present an influential model of insurance often used in the context of health insurance (Einav, L., & Finkelstein, A. (2011). Selection in insurance markets: theory and empirics in pictures. J Econ Perspect, 25(1), 115-138). We identify several limitations of this approach and focus on the extremely skewed distribution of predictable healthcare expenses across individuals (problem of high-risk cases) in combination with the problem of ability-to-pay for health insurance.

Data and Method

Data from the Dutch health insurance market are used to rebuild the text-book model of Einav/Finkelstein.

Results

The linear EF model does not adequately incorporate the relevant issue of high-risk cases in health insurance markets. As a consequence, the equilibrium price for health insurance may exceed the ability-to-pay for many individuals, which is disregarded in the EF model. In addition, the model leads to a focus on negative welfare effects for low-risk individuals, while ignoring the negative welfare effects of the non-existence of affordable health insurance for high-risk individuals.

Discussion

Different conceptual approaches to handle the problem are discussed.

Conclusion

Ignoring the elephant in the room of high-risk individuals has resulted in an overestimation of the societal benefits (social welfare effects) of private (voluntary) relative to social (mandatory) health insurance markets. A system of compulsory health insurance combined with managed competition is a convincing approach with respect to solving the problem of high-risk cases and keeping major market elements in the system. It may also help to cover other problems as insuring against the risk of reclassification, the fragmented insurance (and provider) markets or the issue of those unwilling to subscribe to health insurance even at a zero premium.

Title: Leave duration after childbirth and smoking behaviour

Authors: Anna-Theresa Renner[1], Mujaheed Shaikh[2], Sonja Spitzer[3]

[1] Technical University of Vienna, Austria

[2] Hertie School, Berlin, Germany

[3] University of Vienna, Vienna, Austria

Abstract:

How length of parental leave duration affects children's outcomes has long been of interest for both health and labour economists. Little is known, however, regarding the implications of leave duration for mothers' wellbeing. In this paper, we first investigate the (causal) effect of maternal leave duration on smoking cessation in the short-term. Second, we elicit whether potential behavioural changes persist in the long-term. To account for likely endogeneity, we use detailed contemporaneous as well as retrospective data from the Survey of Health, Ageing and Retirement (SHARE) in Europe and exploit exogenous variation in maternal leave policies as an instrumental variable. Our paper contributes to the broad literature on the determinants of risky health behaviours, and, more importantly, to the long-standing and heavily debated literature in labour economics that assesses the impact of parental leave policies on outcomes of women.

Title: Estimating value weights for the OxCAP-MH capability domains across multiple population cohorts in Austria

Authors: Timea Mariann Helter[1], Alexander Kaltenboeck[2], Josef Baumgartner[2], Franz Mayrhofer[3], Georg Heinze[5], Andreas Sönnichsen[4], Johannes Wancata[2], Judit Simon[1,6,7]

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Abstract:

Purpose

The Oxford Capability questionnaire-Mental Health (OxCAP-MH) instrument relies on a scoring system based on level sum scores, which assumes equal weights between the different domains. However, some capability domains may be more important than others in determining someone's well-being. The paper aims to determine what relative weights may be assigned to the 16 domains of the German language version of the OxCAP-MH instrument across population cohorts with different levels of mental ill-health experience.

Methods

A Best-Worst-Scaling (BWS) survey was conducted in Austria among 1) psychiatric patients, 2) (mental) healthcare experts, and 3) proxy for the general population. Relative importance scores for each domain of the OxCAP-MH instrument were calculated using Hierarchical Bayes estimation. Rank analysis and multivariable linear regression analysis with robust standard errors were used to explore the relative importance of the OxCAP-MH domains across the three population cohorts. The final value set presented in this paper is based on a 0-1 scale, with 0 indicating no capability and 1 indicating full capabilities. Weights applied for the different levels of a single domain were proportionally distributed.

Discussion

The study included 158 participants with complete cases and acceptable fit statistic. Findings of the BWS experiment indicated that the domains Freedom of deciding for yourself and Limit daily activities are regarded as the most important, independent of gender or population cohort. Freedom of expression carries significantly less weight for psychiatric patients than for the other two population cohorts, whilst Suitable flat situation appears significantly less important for (mental) healthcare experts.

Conclusion

The proposed Austrian value set for the OxCAP-MH represents balanced values of patient, expert and general population proxies. It enables researchers to conduct cost-effectiveness analyses including a capability-based outcome measure in the area of mental health with a value set in a German speaking setting.

Title: The self-reported PECUNIA resource use measurement instrument going global: an update

Authors: Michael Berger[1], Claudia Fischer[1], Susanne Mayer[1], Nataša Perić[1], Alexander Konnopka, Valentin Brodszky, Silvia MMA Evers, Irina Pokhilenko, Luca Janssen, Leona Hakkaart-van Roijen, Luis Salvador-Carulla, A-La Park, Joanna Thorn, Judit Simon[1] on behalf of the PECUNIA Group

[1] Medical University of Vienna, Department of Health Economics, Center for Public Health, Medical University of Vienna, Vienna, Austria

Abstract:

Background

Multi-national economic evaluations for evidence-based decision making depend crucially on the availability of valid and comparable resource utilization measures. In absence of an established methodological framework, different resource use measurement (RUM) instruments apply a variety of methods leading to incomparable cost estimates. Therefore, a key objective of the PECUNIA project was to develop a modular, internationally standardised and validated, generic, self-reported multi-sectoral and multi-national RUM instrument consistent with a harmonised costing concept and unit costing approach. The inherent tension between availability in multiple translations while maintaining structural comparability posed a critical challenge. This paper presents the final PECUNIA RUM instrument in its English and German translation and describes the critical stages in the development of an internationally valid RUM instrument.

Methods

The development of the PECUNIA RUM instrument included four main steps: in the first step, 'Identification', a comprehensive list of relevant resource use items was identified in six European countries. These items were linked to the Description and evaluation of services and directories in Europe (DESDE) PECUNIA coding system in the second step, `Description´. The third step, 'Measurement', guided the development process of the RUM module. Lastly, the fourth step, 'Valuation', linked the RUM instrument with the PECUNIA costing tools. The PECUNIA RUM instrument was subjected to a rigorous validation process: a first external validation by a health economic expert focus group, a wording review, professional language editing, piloting with end- users (mental health care) using think-aloud interviews to elicit relevant changes, and a professional translatability assessment for six languages (French, Polish, Hebrew, Brazilian Portuguese, Russian and Spanish) to facilitate global uptake through the identification of linguistic and cultural barriers. The development process further took into account the changes to (healthcare) service provision imposed by the COVID-19 pandemic. In total, the first draft underwent 27 revisions before resulting in the final PECUNIA RUM instrument suitable for translation into multiple languages.

Results

The PECUNIA RUM instrument is a comprehensive harmonized generic RUM instrument optimized for translation, covering resource use in all relevant sectors for costing from a societal perspective: health and social care, education, (criminal) justice, productivity losses, and informal care. Cross-country comparability of the RUM instrument is achieved by defining the measurement unit for resource use in all domains via the PECUNIA harmonised costing

concept, accounting for the specific requirements of each resource use type. All items are unambiguously linked to the other PECUNIA costing tools via DESDE PECUNIA codes, allowing valid comparisons and costing across countries by referring to content rather than linguistic equivalence. Finally, the wording was fine-tuned as to fully resonate culturally and linguistically on a global scale.

Discussion

The PECUNIA RUM instrument has a strong focus on the methodologically sound, valid and transparent measurement of resource use data, presenting a comprehensive evidence-based tool for national and multinational economic evaluations. The planned availability of translations into multiple languages further fosters the diffusion of comparable economic evaluations around the globe.

Funding sources: The PECUNIA project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 779292.

Title: In search for comparability: the PECUNIA reference unit costs for health and social care in Europe

Authors: Susanne Mayer[1], Michael Berger[1], Alexander Konnopka, Valentin Brodszky, Silvia M.M.A. Evers, Leona Hakkaart-van Roijen, Mencia R. Guitérrez Colosia, Luis Salvador-Carulla, A-La Park, William Hollingworth, Judit Simon[1], on behalf of the PECUNIA Group

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Abstract:

Background

Previous research has shown that conceptual and methodological differences in the calculation of unit costs inevitably lead to staggering differences in the valuation of healthcare services. The absence of a harmonized valuation approach allowing for valid cross-country comparisons is a critical challenge for researchers and policy makers alike trying to learn from international experience. A major aim of the PECUNIA project was hence to establish harmonized unit costing methodology and practical tools for its implementation to calculate and provide standardized reference unit costs (RUCs) across sectors and countries. This study presents the harmonized PECUNIA RUCs developed for core health and social care services six European countries, including Austria.

Methods

Using the PECUNIA RUC Templates for services, standardized RUCs for five health and social care services in Austria, England, Germany, Hungary, The Netherlands and Spain were calculated including contacts with general practitioners, dentists and helplines, health-related day-care centres and hospital stays. International comparability of RUCs is achieved using unambiguous service definitions based on the extended DESDE PECUNIA framework. The RUCs are reported in Euro for year 2019, but do not account for differences in purchasing power to retain national validity. All RUCs further underwent an external validation including the comparative evaluation against existing unit cost estimates, expert or data provider feedback to ensure the validity of the RUCs.

Results

A total of 36 RUCs were developed in the PECUNIA project. Overall, unit costs were found to be largely homogenous across countries, with differences by and large reflecting differences in purchasing power, though sometimes exacerbated by differences in the scope of services (e.g., a country-specific mental health focus of day care). Any data-related divergence from key costing harmonization parameters are documented and reported in the PECUNIA RUC compendium, i.e., a systematic collection of all RUCs, to maximize transparency. The PECUNIA RUCs indicate that regardless of the specific service, costs for health and social care services in Austria rank among the highest of the European PECUNIA partner countries. The cost for health-related day care stand out in this regard, with the RUC estimate for Austria (EUR 79) being almost double of the next highest RUC estimate for the UK (EUR 43), though the transparently documented data suggest that this comparison must be treated with caution.

Discussion

This is the first research to present a validated set of harmonized RUC estimates for selected health and social care core services in Austria and other European countries optimized for international comparison using the PECUNIA RUC Templates. These templates adopt a harmonized and transparent costing methodology with DESDE PECUNIA codes assigned for increased comparability of service unit costs, both filling gaps in the international health economics toolbox. The PECUNIA RUCs are developed to be compatible with the PECUNIA resource-use measurement (RUM) questionnaire for joint use in economic evaluations. The PECUNIA RUCs are available free of charge for non-profit research activities and aim to significantly improve the quality and feasibility of future economic evaluations and their transferability across countries.

Funding statement: The PECUNIA project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 779292.

Title: Excess resource use and costs of physical comorbidities in patients with mental health disorders: A systematic literature review and meta-analysis

Authors: Judit Simon[1,3], Dennis Wienand[1], A-La Park[2], Christoph Wippel[1], Susanne Mayer[1], Daniel Heilig[1], Agata Laszewska[1], Ines Stelzer[3], Guy M. Goodwin[4], David McDaid[2]

[1] Department of Health Economics, Centre of Public Health, Medical University of Vienna, Vienna, Austria

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Abstract:

Introduction

Previous literature indicates that people with severe mental health problems have worse physical health than the general population. As poor mental health exacerbates the impacts of physical health problems and vice versa, affected patients very likely utilise more health care resources and incur higher costs. An overview of the additional economic burden of physical comorbidities in patients with mental health disorders (MHD) is not yet available. Present review aims to provide a comprehensive overview of the mental health economic literature on physical comorbidities. This entails summarising frequently researched MHDs and physical comorbidities, and synthesising evidence on excess resource use and costs.

Methods

This systematic literature review and meta-analysis with focus on MHDs is part of broader, non-disease specific comorbidity review (PROSPERO: CRD42017075319). MEDLINE, PsycInfo, CINAHL, Econlit, EconPapers, and NHS EED are searched for longitudinal, cross-sectional, model-based, or cost-of-illness studies published since 2007. Focus is on all aspects of healthcare resource use and costs in patients with a MHD and physical comorbidities compared to individuals with single disorder only or matched controls. Estimates of resource use and costs are extracted by health care sector.

Random-effects meta-analyses are conducted per care sector, with sub-group analyses by primary MHDs. To enable comparison across continuous outcomes of different units in heterogeneous settings (e.g., currencies, visits, length of stay), the ratio of means (RoM) approach is employed.

Results

Initial broader review identified 10,545 records, out of which 1848 are comorbidity and health economic relevant. Overall, 87 mental health studies meet full inclusion criteria, of which 40 studies are suitable for meta-analysis. The majority of included studies are from the United States (n=50). Most investigated MHDs are depressive disorder (n=28), schizophrenia (n=14), substance use, and bipolar disorder (both n=7). Out of in total 428 identified physical comorbidities, most are diseases of the circulatory system (n=114), followed by endocrine and metabolic diseases

(n=93) and musculoskeletal diseases (n=40). Costs are mostly reported for inpatient care (n=35) and for medication (n=30). Resource use is frequently reported for inpatient (n=35) and outpatient care (n=26).

Preliminary results from meta-analyses show that patients with MHDs and physical comorbidities incur higher costs across all care sectors when comparing to patients without comorbidities. For patients with multiple MHDs, a RoM of 1.64 (1.08-2.48) is identified in the inpatient and a RoM of 1.44 (1.07-1.95) in the outpatient sector. Medication related costs are found more than four-fold increased (RoM 4.43, (1.34-14.61)). Concerning resource use, a RoM of 1.4 (0.87-2.26) is identified for patients with depressive disorder and physical comorbidities in the inpatient sector versus without comorbidities. For outpatient and emergency care, RoMs of 1.6 (1.45-1.76) and 1.57 (1.26-1.97) are identified, respectively.

Conclusion

Our study shows that the prevalence of physical comorbidities in patients with MHDs appears to be a driver for excess resource and costs across all health care sectors. More integrated approaches may enable earlier identification, management and treatment to accomplish health gains on an individual level and cost savings from a health care and societal perspective.

Funding: European College for Neuropsychopharmacology (ECNP)

Title: The health externalities of downsizing

Authors: Alexander Ahammer[1,2], Dominik Grübl[1,2], Rudolf Winter-Ebmer[1,2,3,4,5]

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Abstract:

We show that downsizing has substantial externalities on the health of workers who remain in the firm. To this end, we study mass layoff (ML) survivors in Austria, using workers who survive a ML themselves, but a few years in the future, as a control group. Based on high- quality administrative data, we find evidence that downsizing has persistent effects on mental and physical health, and that these effects can be explained by workers fearing for their own jobs. We also show that health externalities due to downsizing imply non-negligible cost for firms, and that wage cuts may have similar effects.

Title: Parental Health Shocks and Mental Health of Children

Authors: Felix Glaser[1,2], Gerald J. Pruckner[1,2]

[1] Johannes Kepler University Linz, Austria

[2] Christian Doppler Laboratory on Aging, Health and the Labor Market, Linz, Austria

Abstract:

Mental health issues during childhood are associated with poor educational and labor market outcomes in adulthood. Adverse childhood experiences such as mental health problems of parents, parental separation, or violence and substance abuse in the family can be expected to have a negative effect on the cognitive and emotional development of children. A sudden serious illness of a parent is another potential source of a traumatic childhood experience with long-term consequences.

Based on comprehensive administrative health record data from Upper Austria, this paper studies how children's mental health responds to a severe parental health shock. To account for the endogeneity of a serious parental illness, we restrict our sample to children who experience the health shock of a parent at some point in time. We construct counterfactuals for children who are affected by the same health shock τ years later. This setting allows identification of the treatment effect in a dynamic difference-in-differences estimation. The underlying parallel trend assumption holds as long as the year of the health shock within the observed time frame τ is random.

We find a negative causal effect of parental health shocks on mental health of children. Following the shock, affected children are more likely to have psychotherapy, be prescribed medication for the nervous system, and be hospitalized with severe stress and adjustment disorders. The results are mainly driven by fatal parental health shocks and the effects tend to be larger for young children and children from low socio-economic backgrounds. Our findings suggest that all efforts devoted to health-promoting measures are not exclusively beneficial to adults at high risk of adverse health shocks but also to their children.

Title: THE COMIX STUDY: The COVID-19 pandemic and its impact on social contacts

Authors: Gerald Gredinger[1], Andrea E. Schmidt[1], Sophie Stumpfl[1]

[1] Austrian Public Health Institute (Gesundheit Österreich GmbH), Vienna, Austria

Abstract:

Background

'CoMix' is a study that follows households across Europe in real-time over the course of the COVID-19 pandemic. Due to its major impact on the health care system the COVID-19 pandemic also influences social relationships. Vice versa, social attitudes and behaviours condition the success of health policies. Since the beginning of the pandemic the Austrian authorities have responded with various decisions regarding social distancing. The central issue of the presentation deals with the question about the relation between measures concerning social distancing and actual contact behaviour.

Methods

In a representative panel survey from December 2020 to April 2021 participants are asked in 7 waves about their awareness, attitudes and behaviours in response to COVID-19. Participants record face-to- face contacts made on the previous day, specifying certain characteristics for each contact including the age and sex of the contact, whether contact was physical (skin-to-skin contact), and where contact occurred (e.g. at home, work, while undertaking leisure activities, etc). The study design allows to measure changes in behaviour and attitudes over time.

Results

During the first wave, 1554 participants took part in the survey, divided among 798 males (51.4%) and 753 females (48.5%). The number of participants has decreased to 586 in the last wave (wave 7). The average number of contacts in the respective waves showed a marked reduction compared with pre- pandemic data. During the entire research-period the average number of contacts per person decreased from 4.59 in December 2020 to 2.72 in April 2021. The largest number of contacts took place within the respective own age cohort. In terms of adherence only 3 % of the participants reported that they do not apply to the COVID-19 measures. For participants who are 70 years or older the main reason to adhere to the COVID-19 measures is to protect themselves (69 %), whereas in the group of participants who are 18-29 years old the strongest motive is to protect their social environment (53 %).

Conclusion

The results of the study indicate that people in Austria support the COVID-19 measures as they are aware that a COVID-19 infection can lead to a serious illness. It reveals intergenerational differences in the motivations to adhere to health policy measures during the pandemic. The interplay of social and health-related dynamics need to be taken into account for successful crisis management.

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Title: Fighting SARS-CoV-2 through swarm behaviour: promotion of self-initiated notification of recent contacts is hitting the Achilles heel of Covid-19

Authors: Stefan Mathis-Edenhofer[1], Peter Schneider[1], Andrea Schmidt[1], Caroline Czasch[1]

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Abstract:

Background

The containment of SARS-CoV-2 infections is still insufficient. During the COVID-19 pandemic digital and conventional contact tracing are widely used as containment strategies to interrupt transmissions chains. However, these techniques struggle with problems like low diffusion and low acceptance, critical delays in the flow of information, non-scalability and other obstacles. Failure of containment is particularly aggravated in the case of SARS-Covid-19, where asymptomatic or pre-symptomatic infections (spreaders are not aware of their infectiousness) account for a large proportion of infections. We analyse the potential benefits of giving warning responsibility directly to the early infected to stop further spread.

Methods

Using published reports on contact chains, we model the impact of self-initiated notification of close contacts by infected and test-positive individuals on the daily case incidence rate and the effective reproduction number.

Results

Self-initiated notification of close contacts aims to stop the 'silent' spread in the pre-symptomatic contagion phase (2-3 days prior symptom onset). Notably, the rate of pre-symptomatic spread increases with the success of the control (decrease) of symptomatic transmissions in a population and is therefore relevant for advanced phases of anti-pandemic action. Pre-symptomatic transmission patterns are difficult for officials to record and therefore hard to investigate. From models on digital contact tracing, it can be inferred that the effective reproduction number Reff (i.e., the average number of new secondary cases per infectious case) of SARS-CoV2 can be reduced by half, but this assumption depends on various model parameters like recall/detection rate, time delay towards quarantine, but also the relative rate of pre-symptomatic transmission that is often described with accounting for 50% or more of new cases. Our analyses show that a reduction by 50% of Reff is also achievable by self-initiated notifying close contacts. Higher reduction rates are possible in private contact networks, where contacts are long and close and, especially, where local statistics on transmission chains indicate higher rates of pre-symptomatic transmissions.

Conclusions

The COVID-19 pandemic has shown that already established measures for contact tracing may not work efficiently in order to address the transmission characteristics of SARS-CoV-2. Self-initiated notification ("my test result could be yours") targets the relevant subpopulation and is associated with low cost, low risks, and low

technical/organizational effort. When notified, close contacts become aware that they are at higher risk - and may better carry out well-known preventive measures, testing, quarantine, or isolation. Our analyses show that this measure can reduce the daily case incidence and is effective to bust clusters.

Title: Comorbidities and COVID-19 Hospitalisation, ICU Admission and Hospital Mortality in Austria

Authors: Lukas Rainer[1], Florian Bachner[1], Karin Eglau[1], Herwig Ostermann[1,2], Uwe Siebert[2], Martin Zuba[1]

[1] Austrian Public Health Institute (Gesundheit Österreich GmbH), Vienna, Austria

[2] Private University for Health Sciences, Medical Informatics and Technology GmbH, Hall in Tirol, Austria

Abstract:

The protection of vulnerable populations is a central task in managing the COVID-19 pandemic to avoid severe courses of COVID-19 and an overload of the health system capacities. To identify the vulnerable population in Austria, we analyse the impact of comorbidities on COVID-19 hospitalisation, intensive care unit (ICU) admission, and hospital mortality.

Methods

We performed a retrospective cohort study including all COVID-19 patients in the period February 2020 to April 2021 with an inpatient stay in the period 2015-2019 in Austria (N = 34,649). We matched all COVID-19 patients to population controls on age, gender, and health care region to estimate the impact of comorbidities on COVID-19 outcomes employing logistic regression. The main data source is hospital billing data related to the Austrian DRG-like system includes patient-level information on principal and secondary diagnoses (ICD10) for all inpatient stays. Comorbidities of the five-year period 2015-2019 are clustered according to the comorbidities of the Charlson comorbidity index and results are presented as odds ratios (OR) and 95% confidence intervals (CIs).

Results

In the period February 2020 to April 2021 approx. 615,000 COVID-19 cases were identified in Austria which accounts for 6.9% of the population. Thereof about 10,000 died (CFR: 1.6%), 49,900 were hospitalised (8.1%), and 7,400 were admitted to Intensive Care Units (1.2%), respectively. Diabetes constitutes the highest risk factor for ICU admission (OR 1.67, 95% CI 1.52-1.82 for diabetes without complications), followed by renal disease (1.60, 1.44-1.78) and COPD (1.58, 1.43-1.74). Tentative sex differences exist for renal disease, where women have a 31% higher risk (1.89, 1.59-2.24) compared to men (1.44, 1.25-1.65).

Discussion

In general, our results are consistent with literature and the Austrian Risk Group Regulation, however we did not find a significant association of cancer and COVID-19 hospitalisation, ICU admission or mortality, respectively. Limitations of our study include missing information on socio-economic status leading to residual confounding. This means that our results should be interpreted with caution, particularly with respect to a causal interpretation of our comorbidity factors, which hinders the isolation of comorbidities which are typically associated with socio-economic status such as obesity or diabetes mellitus. Our results contribute to sharpening the risk group definition and can be used for administration and communication of the vaccination programme to achieve high vaccination coverage in vulnerable populations.

Title: COVID-19 ICU Occupancy: Forecasts and Outcomes

Authors: Martin Zuba[1], Lukas Rainer[1], Karin Eglau[1], Florian Bachner[1]

[1] Austrian Public Health Institute (Gesundheit Österreich GmbH), Vienna, Austria

Abstract:

Background

Since the beginning of the COVID-19 pandemic in Austria, occupancy of ICU beds has been a key performance indicator for proxying the burden of the Austrian health care system. Subsequently, the risk of hospital overburdening has been cited as justification for lockdowns in the epidemic law, and ICU occupation and projected ICU occupation have been implemented as indicators for risk assessment by the Austrian Corona Commission. This paper describes the methods used for quantifying ICU occupancy and overburdening and analyses consequences of high ICU occupancy rates.

Methods

The number of ICU beds available for treatment of COVID-19 patients was extrapolated in March 2020 from 2018 DRG data; and again in Summer 2020 from occupancy figures during the first lockdown. Normal wards and ICU occupancy forecasts were based on the case number projections of the COVID forecasting consortium as well as published numbers on admission rates and length of stay from international literature. Subsequently, length of stay and admission rates were updated with real world data from Austria. Consequences of ICU occupancy were analysed by regressing in-hospital mortality and admission to ICU on CU occupancy at time of hospital admission and a set of control variables.

Results

Various estimation methods approximately agree in determining the number of ICU beds available for COVID-19 patients at about 33% of total capacity or 800 beds, which was subsequently used as threshold for high risk by the Corona Commission and validated by ÖGARI. 14-day ahead forecasts of hospital and ICU occupancy were calculated and published weekly. Output of the ICU model also allows to track age-standardized hospitalisation and ICU rates over time. Preliminary analyses show that ICU occupancy in excess of the 33% threshold is associated with lower ICU admission rates and higher in-hospital mortality in COVID-19 patients.

Discussion

Hospital and ICU capacity and occupancy are critical figures that measure burden of the COVID-19 pandemic and inform decision makers. The analysis of errors in previous forecasts allows specification of a credibility interval, which can serve a guideline for hospital planning. In late October 2020, bed occupancy forecasts in excess of the 33% threshold contributed to the decision to implement a national lockdown. In summary, our findings underline the importance of ICU capacity management in the strategic response to the COVID 19 pandemic.

Title: Die Schnittstelle zwischen hausärztlicher Versorgung und häuslicher Pflege

Authors: Monika Riedel[1], Markus Kraus[1]

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Abstract:

Vielfach benötigen ältere und mehrfach chronisch kranke Personen sowohl medizinische Behandlung als auch Pflege. Dadurch entsteht vielfacher Koordinationsbedarf der einzelnen Versorgungsleistungen innerhalb der Gesundheits- und Pflegesysteme und zwischen den beiden Systemen. Das vorliegende Paper greift hierbei die Schnittstelle zwischen hausärztlicher Versorgung und häuslicher Pflege in Österreich heraus. Da über die konkreten Probleme an dieser Schnittstelle nur begrenzte Auswertungen vorliegen, wurde ein explorativer Ansatz gewählt, indem Vertreter*innen beider Versorgungsbereiche interviewt wurden. Hierzu wurden insgesamt sieben je rund einstündige Leitfaden-gestützten Interviews mit Personen geführt, die als Hausärzt*innen (Einzelpraxis mit Kassenvertrag oder PVE) tätig oder in Einrichtungen von mobilen Diensten, insbesondere in Leitungsfunktionen, beschäftigt sind. Die Auswertung der Interviews erfolgte nach Mayring (2010).

Bei der Auswertung der Interviews kristallisierten sich drei große Problemfelder heraus, nämlich bürokratische Hürden im Versorgungsprozess, fehlende oder unzugängliche Versorgungsleistungen sowie Schwierigkeiten bei der post-stationären Versorgung, insbesondere wenn die Entlassung aus dem Krankenhaus und somit die häusliche Versorgung unzureichend vorbereitet wurden. All dies erschwert nicht nur die Arbeit der Beschäftigten von mobilen Diensten, sondern führt auch zu einer verzögerten Versorgung der Betroffenen, die dadurch wiederum häufig mit höheren Kosten als notwendig konfrontiert sind. Zudem ergibt sich daraus ein inadäquater Einsatz der Beschäftigten, u.a. durch das Einholen von Weiterverordnungen, das Vervollständigen ärztlicher Anordnungen, anderer „Zettelwirtschaft“ und fehlenden digitalen Lösungen, der sich negativ auf die Arbeitszufriedenheit der Beschäftigten auswirkt.

Für die identifizierten Problemfelder können folgende Lösungsansätze skizziert werden: In einigen Bereichen erfordert ein Abbau bestehender Versorgungshemmnisse an den Schnittstellen neue Angebote, wie eine einheitliche Kontaktstelle für sämtliche Bedarfe mehrfach chronisch kranker und pflegebedürftiger Personen, die nicht nur Informationen vermittelt, sondern auch direkt beim Zugang zu den Leistungen hilft. In anderen Bereichen hingegen bestehen Versorgungslücken, die schon durch eine stärkere Nutzung bestehender Instrumente und Regelungen entschärft oder sogar behoben werden könnten, wie ärztliche Anordnungen für Pflegekräfte und Hausbesuche. Die Knackpunkte liegen hier nicht allein in der Finanzierung. Es wird vielmehr notwendig sein, das bestehende Fachpersonal finanziell und organisatorisch darin zu bestärken, die eigenen Kernkompetenzen auszuüben, und auf Augenhöhe mit den Angehörigen anderer Berufsgruppen zu kooperieren, wobei hier neben Medizin und Pflege auch andere Gesundheitsberufe sowie Sozialarbeit einzubinden sind. Je besser die Abläufe durch digitale Lösungen unterstützt werden, desto mehr ihrer Zeit können die Beschäftigten im Gesundheits- und Pflegesektor dem widmen, was

für die meisten das Hauptmotiv für ihre Berufswahl gewesen sein dürfte: der Arbeit mit den Personen, die ihre medizinisch- pflegerische Fachkompetenz benötigen.

Title: From each according to means, to each according to needs? Distributional effects of abolishing asset-based payments for residential care in Austria

Authors: Ricardo Rodrigues[1], Cassandra Simmons[1], Tamara Premrov[1], Christian Böhler[1], Kai Leichsenring[1]

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Abstract:

Most countries in Europe require out-of-pocket payments (OPPs) for residential care based on users' income and often assets. This was also the case in Austria until 2018 when asset-based contributions to residential care — denoted the 'Pflegeregress' – were abolished, leaving a shortfall in revenue. As the result of limited data on actual payers of the Pflegeregress prior to the abolishment, the distributional impact of this policy remains unknown. This paper therefore aims to determine how the Pflegeregress was distributed across different groups in Austria prior to 2018, what the distributional consequences of its abolishment were, and what the distributional impact of different financing alternatives would be. Circumventing data availability issues, we construct a micro-simulation model to estimate the expected duration of residential care and OPPs under the Pflegeregress of a representa-tive sample of community dwelling older people in Austria using a matched administrative dataset on users of the Austrian care allowance and survey data (SHARE). We also estimate OPPs under budgetary neutral financing alternatives to the abolished asset-based contribution, namely an increase in income tax, an inheritance tax and a social insurance scheme. The distributional impact of abolishing the Pflegeregress and these alternative scenar-ios is assessed through a number of measures, such as ability to pay, Concentration Indices (CI) and a needs-standardized measure. We find that lower income individuals and homeowners disproportionately contributed to asset-based OPPs for residential care prior to 2018 due in large part to their higher use of residential care, and were therefore the largest beneficiaries of its abolishment. All of the alternative financing scenarios tested would result in a more progressive distribution of payments (i.e., concentrated on more affluent individuals), particularly the increased income tax scenario. Our findings indicate the limited ability of asset-based OPPs to target those with higher assets, thus questioning the fairness of these instruments for financing residential facilities for older people in Austria, and making the case for either setting higher asset exemption thresholds or decoupling financing from care use.

Title: Long-Term Care Utilization in Europe: Examining Socioeconomic Inequalities and Societal Differences using a Two-Part Multilevel Regression Model

Authors: Viktoria Szenkurök[1], Daniela Weber[1,2], Marcel Bilger[1]

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Abstract:

The growing need for care as a result of an ageing population will challenge families to meet this need and further increase the pressure on the state to organize the care system in the long term. Our overarching goal is to deepen our understanding of a socioeconomic gradient in the use of home care and determine whether this gradient differs across more than 20 European countries with different societal and institutional characteristics.

We apply a decomposition technique based on individual-level data from the eighth wave from the Survey of Health, Ageing and Retirement in Europe (SHARE), which was collected in 26 countries during 2019. By adding a wide range of macro-level indicators drawn from the OECD database, we aim to explain socioeconomic inequalities as an interaction of individual social, financial and educational resources and country-specific features of the legal and institutional framework, the labor market and organization of the care system. The first part examines the probability of being in need of personal care given individual and societal characteristics for community-dwelling older adults. In the second part, we use a multinomial multilevel framework to examine the probability of receiving care given individual and societal characteristics for the subsample of older adults with care needs. By combining both parts, we calculate average marginal effects that aim to describe the effect of socioeconomic and country-specific characteristics on the probability of using long-term care for the whole sample.

Preliminary findings from a multinomial multilevel logit regression based on the sixth wave of SHARE suggest that having a partner or children is positively associated with the exclusive use of informal care. In reference to the exclusive use of informal care, financial and material resources are associated with the use of formal care in combination with informal care. Among individuals with care needs, a higher educational degree is associated with no care utilization and a combination of informal and formal care.

Statistics further reveal that there is geographical heterogeneity in older adult's utilization of informal care with a higher share of informal care in the Southern European countries and of no care and formal care utilization in the Northern European countries. Exemplary regression results suggest that labor market characteristics and long-term care supply constraints play an important role in explaining these geographical differences. Indeed, the probability of receiving informal care is lower in countries with a high female labor force participation and effective retirement age. On the contrary, the availability of care beds and workers is associated with higher demand for formal care. In conclusion, we contribute to research by using the most recent data and select indicators for socioeconomic status

such that they do not solely reflect the financial and material dimension of socioeconomic status, but also the availability of social resources and education. Moreover, taking into account a broad range of societal characteristics provides the foundation for deriving relevant policy recommendation.

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