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Book of Abstracts



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„Status Quo and New Directions for Austrian Health Economics“

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Conference Venue

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INSTITUT FÜR
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Institute for Advanced Studies (IHS)

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Title: Employment Histories and Cognition at Older Age in the Context of Different European Welfare Regimes

Authors: Thomas Arnhold^{1,2}, Daniela Weber^{1,2}, Valeria Bordone^{1,3}

¹ International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria

² Vienna University of Economics and Business, Vienna, Austria

³ University of Vienna, Vienna, Austria

Abstract:

Maintaining good cognitive functioning is a key determinant of well-being, which is of particular relevance in older age. Emerging research highlights the protective role of employment throughout the life course in preserving later-life cognition. However, the relationship between (non-)employment and cognition is also influenced by institutional context, which shapes work and family roles during working age.

This study investigates the relationship between employment histories and cognitive functioning, focusing on the moderating role of European welfare regimes. We hypothesize that European welfare regimes (Baltic, Conservative, Central Eastern European, Social Democratic, Southern European) mediate adverse cumulative impact of full-time employment breaks (Part-time employment, homemaking, unemployment, sickness, etc.) on cognitive functioning at older age, by shaping social protection policies as well as work and family roles differently.

Our analysis draws on individual-level retrospective life history data from the Survey of Health, Ageing and Retirement Europe (SHARELIFE), including adults aged 50 to 75 living in 22 European countries (N = 159,631). Using linear random effects growth curve models, with person-year-observations nested in persons, we examine interactions between European welfare regimes and employment histories in relation to cognitive functioning (episodic memory and verbal fluency) in older age.

Preliminary results reveal stronger negative associations between working-age part-time employment spells and later-life cognitive functioning for women in Baltic, Central Eastern European, and Southern European welfare contexts. The negative relationship between female homemaking spells and later-life cognition is most pronounced in Central Eastern European welfare regimes. For both genders, Southern European welfare regimes appear to mitigate the adverse relationship between unemployment spells and cognitive functioning. We find no significant moderating role of the welfare context for male homemaking spells or male part-time employment spells in relation to cognition.

These preliminary results suggest that welfare regimes may substantially alter cognitive outcomes in later life, particularly for women who experienced part-time employment, homemaking, or unemployment spells. The results contribute to a deeper understanding of cognitive functioning in older age, emphasizing the role of institutional and social contexts in shaping later-life cognitive health.

Title: The 'Care Penalty' in the Portuguese Labour Market: Examining Pay Differentials in Long-Term Care

Authors: Viktoria Szenkurök¹, Ricardo Rodrigues²

¹Vienna University of Economics and Business, Vienna, Austria

² University of Lisbon, Lisbon, Portugal

Abstract:

Focusing on long-term care (LTC) and sectoral disparities within caring sectors, we use a multilevel model based on linked employer-employee data covering Portugal's manufacturing and service sectors to analyse wages and earnings in and within these female-dominated sectors. Exploring theories of gender-based devaluation, ageism and compensating wage differentials, our findings provide evidence for the existence of a financial devaluation of care work, with occupational penalties extending to sectoral penalties. This 'care penalty' yet only partially extends to male workers in the field, implying that a gender pay gap persists but remains significantly smaller. Notably, sectoral segregation between the highly gendered LTC and other health and social care sectors exists, with results demonstrating a remunerational premium for LTC. This premium, despite lower average pay, likely reflects financial recognition of the emotional demands associated with caring for older adults. Revealing these pay differentials in LTC provides valuable insights for researchers and policymakers aiming to improve working conditions, which is essential for meeting workforce needs in aging societies.

Title: Lost Productivity Associated with the Excess Physical Disease Burden of Severe Mental Health Disorders in 32 European Countries

Authors: Dennis Wienand¹, Guy M. Goodwin^{2,3}, Judit Simon^{1,2}

¹ Medical University of Vienna, Vienna, Austria

² University of Oxford, Oxford, United Kingdom

³ Compass Pathways, London, United Kingdom

Abstract:

Introduction: Individuals with mental health disorders (MHDs) have lower rates of employment, and show higher rates of absenteeism and presentism when employed. People with MHDs further have increased physical health burden, with additional negative influence on labour force participation. According to the OECD, indirect costs, including productivity losses, are the largest contributor towards the economic burden of MHDs. The extent of productivity losses related to excess physical comorbidities is unknown to date. The aim of present study was to estimate productivity losses associated with the excess physical health burden of serious MHDs in Europe.

Methods: We assessed productivity losses of excess physical health burden of working-age individuals (aged 20-64 years) with alcohol use disorders (AUD), bipolar disorder (BD), depressive disorders (DD), and schizophrenia (SZ) in 32 European countries for the year 2019. Considered countries included the 27 member states of the European Union, and further Iceland, Liechtenstein, Norway, Switzerland, and the United Kingdom. We estimated productivity losses for 2019 based on cases of absenteeism and presentism, and losses linked to premature mortality of the previous year, 2018. European statistical agencies, two recent evidence syntheses, and some additional primary studies were sought to obtain relevant input parameters. We estimated and reported all productivity losses as purchasing power standard Euros (PPS€) for 2019.

Results: Total, annual productivity losses of physical health burden aggregated across the included 32 European countries were estimated at 57.7 billion PPS€ (AUD), 23.3 billion PPS€ (BD), 89.2 billion PPS€ (DD), and 4.3 billion PPS€ (SZ). The proportion of productivity losses associated with excess levels of ill-physical health was the highest at 48% for BD, subsequently followed at 41% for DD, at 40% for AUD, and at 13% for SZ. These correspond to annual average excess costs of 1,098 PPS€, 1,513 PPS€, 1,154 PPS€, and 189 PPS€ at individual diagnoses of AUD, BD, DD, and SZ, respectively.

Conclusion: This study is the first to comprehensively assess productivity losses associated with ill-physical health in people with MHDs across Europe and beyond. The losses we estimated related to excess physical comorbidities correspond to 0.4% of the assessed countries gross domestic product, or alternatively to a third of the lost productivity of all MHDs as reported by the OECD. Our lower individual level excess cost estimates for people with SZ are explained by lower employment rates as well as potential underdiagnosis of ill-physical health and associated underutilisation of health care services in this patient population. Integrated mental and physical healthcare

services and improved prevention efforts may achieve added productivity gains in the future. Moreover, not only health and social, but further also labour market policies should address the issue of excess physical comorbidity in people with MHDs.

Funding: This study was funded by the European College for Neuropsychopharmacology (ECNP).

Title: The Labor and Health Economics of Breast Cancer

Authors: Alexander Ahammer^{1,2}, Gerald J. Pruckner¹, Flora Stiftinger¹

¹ Johannes Kepler University Linz, Linz, Austria

² IZA-Institute of Labor Economics, Bonn, Germany

Abstract:

Breast cancer is the most common cancer in women and the second most common cancer overall (Cancer Today 2024). In the United States, 240,000 new cases of breast cancer were diagnosed in 2020; one in eight women will be diagnosed at some point in her lifetime (CDC 2024). We use linked administrative registers to estimate the labor market and health effects of breast cancer among Austrian women. To construct counterfactuals, we randomly match same-age unaffected women from the general population. This comparison group tracks breast cancer patients well in terms of labor market trajectories and healthcare takeup prior to the diagnosis, suggesting that breast cancer is a health shock that is difficult to anticipate. Using a difference-in-differences design, we document dynamic effects on health and labor market outcomes within a ten-year window around the diagnosis.

We find that after five years, breast cancer patients have 22.8 percent higher healthcare expenditures than similar women without a diagnosis. This is largely due to persistent increases in drug and hospital expenditures. We also test for effects on drugs that are likely to have important implications for patient wellbeing. Antidepressant takeup goes up by 8.3 percent, opioid takeup by 40.5 percent, and benzodiazepine takeup by 36.6 percent. Breast cancer also affects women's livelihoods. We find that employment permanently decreases by about 6.2 percent, while social safety program takeup increases, especially for sick leave and disability insurance. We show that these effects are likely conservative and biased toward zero due to selection into survival.

We then turn our focus to women who remain in the labor market. We find that breast cancer reduces wages, conditional on working, by 15 percent in the five years after diagnosis. This is not because women move to lower-paying jobs: we find that average firm quality (proxied by Abowd et al. 1999 firm fixed effects) actually increases after diagnosis, and even women who do not change jobs experience a statistically similar wage penalty. Also, breast cancer patients in low-quality firms are much more likely to exit the labor market than those in high-quality firms. Instead, we find evidence that breast cancer leads affected women to reduce work hours, as parttime work increases by about 16 percentage points relative to unaffected women.

Finally, we ask why breast cancer patients reduce hours and earn lower wages. We have three hypotheses. First, the disease could lead to an incapacitation effect, meaning that physical or mental strain prohibits women from working more. Second, breast cancer might affect the labor-leisure tradeoff by increasing women's time preference rate, in the sense that they attach higher utility to the present than to the future. Third, employers might discriminate against women with breast cancer, for example because they expect future productivity to decline. We find that incapacitation is unlikely to explain the full wage effect. Instead, we find some evidence consistent

with an increase in the time preference rate: affected women are less likely to make human capital investments, they engage in more risky behavior, and they reduce fertility.

We conclude that (1) breast cancer affects both sides of the government budget constraint, (2) screening needs to be better targeted at high-risk women, and (3) differences in breast cancer therapy shape patient labor market outcomes less than previously thought.

References:

Abowd, J. M., Kramarz, F. & Margolis, D. N. (1999), 'HighWageWorkers and HighWage Firms', *Econometrica* **67**(2), 251–333.

Cancer Today (2024), Age-Standardized Rate (World) per 100 000, Incidence, Males and Females, in 2022, Online database, International Agency for Research on Cancer, accessed February 29, 2024.

CDC (2024), U.S. Cancer Statistics DataVisualizations Tool, based on 2022 submission data (1999- 2020), Online database, U.S. Cancer Statistics Working Group, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute, accessed February 29, 2024.

Title: Causal Effects of Robot-Assisted Surgery on Patient Outcomes in Austria

Authors: Stephanie Lackner¹, Martin Zuba¹, Florian Bachner¹

¹ Gesundheit Österreich GmbH, Vienna, Austria

Abstract:

The use of surgical robots, particularly the Da Vinci robot, has seen a remarkable increase in the last years. According to producer reports, the number of systems has worldwide more than doubled since 2016 and went even up by a factor of four during the same time in Austria. However, the costs associated with these robotic systems are substantial and there is little evidence on the effectiveness of robot-assisted surgery (RAS). Robust evidence for improved patient outcomes compared to conventional surgical methods is scarce and only available for certain procedures, whereas operating times can be much longer and costs per procedure are much larger. While clear evidence exists for certain procedures that RAS can lead to better patient outcomes when they replace open surgeries, the evidence compared to conventional laparoscopy is less clear.

Based on Austrian DRG data for the years 2013-2023, this study investigates the causal effect of the availability of Da Vinci robots within a state (Bundesland) on various patient outcomes. We take advantage of the different timings in robot availability across states to identify the causal impact on patient outcomes by employing a difference-in-differences (DiD) approach for five procedures for which RAS is common (hernia repairs, cholecystectomies, hysterectomies, partial nephrectomies, and radical prostatectomies). To avoid selection bias, the effects of the availability of Da Vinci robots on overall patient outcomes for each procedure are assessed, independent of whether a particular patient was treated with or without a robot. We specifically analyze length of hospital stay and the proportion of minimally invasive surgeries as outcome variables. The model includes a time trend, age, gender and state fixed effects as controls.

The DiD analysis reveals that the availability of Da Vinci robots is associated with a statistically significant reduction in the length of hospital stays for certain procedures. For instance, the introduction of Da Vinci robots led to an average reduction by one day in hospital stays for radical prostatectomies. Additionally, the proportion of minimally invasive surgeries increased with the availability of Da Vinci robots, particularly for radical prostatectomies and partial nephrectomies. Additionally, mortality and readmission rates were considered. The analysis finds a significant reduction in mortality rates for inguinal or femoral hernia repairs and cholecystectomies with the introduction of Da Vinci robots, although these results should be interpreted with caution due to the low incidence of mortality in these procedures. The research design implies the assumption that availability of robots does not alter patient flows across states, which may introduce a bias in the efficiency of RAS. Robots were assumed to be available for all specialties, which may introduce a downward bias in the effectiveness of RAS.

This research provides evidence on the benefits of RAS for certain patient outcomes in Austria. The results of this

study can support decision makers in comparing the benefits of this still relatively new technology with its costs.

Title: „Goldstandard“ randomisiertes Experiment in der Langzeitpflege? Durchführungs- und Auswertungserfahrungen am Beispiel der PflegeApp in Österreich und Luxemburg

Authors: Birgit Trukeschitz¹, Benedikt Gobs¹

¹Vienna University of Economics and Business, Vienna, Austria

Abstract:

Zielsetzungen: Mobile Apps sollen Menschen bei der Verwaltung ihrer eigenen Gesundheits- und Pflegedaten unterstützen. Apps werden als wichtige Bestandteile der zukünftigen Gesundheits- und Pflegeversorgung angesehen. Im Rahmen des europäischen Projekts "Care about Care" wurde gemeinsam mit Nutzer*innen der mobilen Pflege und ihren Angehörigen eine PflegeApp entwickelt, um die Transparenz über anstehende Besuche von Betreuungs- und Pflegepersonen zu erhöhen und Termine besser zu verwalten (diese abzusagen oder zusätzliche Termine zu buchen).

Methode: Es wurden randomisierte Cluster-Stichproben verwendet, um die Dienstleistungseinheiten, die in ihrer Region Pflege und Betreuung anbieten, in Test- oder Kontrollgruppen zuzuordnen. In der Testgruppe hatten die Kundinnen von mobiler Pflege und ihre informellen Pflegepersonen Zugang zur PflegeApp, während die Kontrollgruppe diese Technologie nicht hatte. Die Daten wurden mit Hilfe von Online-Befragungen erhoben, die vor und nach der Intervention an die teilnehmenden Kundinnen und Pflegepersonen geschickt wurden. Es wurden Generalized Linear Mixed Models (GLMM) für Intention-to-Treat-Effekte (ITT) geschätzt.

Ergebnisse: Insgesamt nahmen 46 Kundinnen und 101 Pflegepersonen an der Studie teil. Die PflegeApp wurde in Luxemburg 3,5 Monate lang und in Österreich 6 Monate lang getestet. Erste Ergebnisse zeigten, dass die PflegeApp den Nutzerinnen ermöglichte, jederzeit zu überprüfen, wann die Pflegeorganisation eintreffen wird, einen besseren Überblick über abgesagte/verschobene Termine zu haben und eine schriftliche Bestätigung über Terminabsagen und -verschiebungen zu erhalten.

Schlussfolgerungen: Einerseits sind Mobile Apps zur Unterstützung der Nutzerinnen von Pflegedienstleistungen und ihrer Angehörigen (noch) kaum verfügbar. Eine bessere Transparenz geplanter Pflegebesuche unterstützt sowohl die Kund*innen mobiler Dienste als auch betreuende Angehörige, insbesondere diejenigen, die nicht im selben Haushalt wie die zu Hause gepflegte Person leben. Digitale Tools, die die Verwaltung von Pflegeterminen erleichtern, können sowohl für Pflegedienstleistungseinrichtungen als auch für Pflegebedürftige von Vorteil sein und zeigen neue Wege der Kommunikation in (Gesundheits-)Pflegesettings auf.

Andererseits ist die Durchführung randomisierter Experimente im Pflege- und Betreuungssektor herausfordernd, zeitaufwendig und manchmal auch ethisch diskutabel. Zudem ist die Nutzungsintensität des neu entwickelten Treatments im Vorhinein nicht einschätzbar. Die Analyse als auch die Darstellung eines statistisch-kausalen Effekts der PflegeApp auf nicht-metrische Indikatoren ist zudem komplex und mit schwierigen Entscheidungen verbunden.

Title: Homelessness and Health: Survival Analysis and Health Care Cost Comparison between Homeless and Non-Homeless Lung Cancer Patients

Authors: Daniel Heilig¹, Ákos Szabó², Petra Fadgyas-Freyler², Judit Simon^{1,2}

¹ Medical University of Vienna, Vienna, Austria

² Corvinus University of Budapest, Budapest, Hungary

Abstract:

Objectives: Differences in lifestyle habits and health service seeking behaviour between patients experiencing homelessness (PEH) and non-homeless patients are a well-studied phenomenon. However, a comprehensive estimation of the resulting health care use difference and health outcome impact is not available for most countries. We aim to close this gap by showing these differences in the Hungarian population.

Methods: We analysed the differences between the complete PEH population appearing in the Hungarian national central health insurance register dataset and a matched control population between 2015 and 2021. In this period, 11,857 people were registered as homeless for the majority of at least one year. To capture the effect of homelessness, we created a 'severity' index according to the time an individual experienced homelessness during the investigation period (0%, 1-33%, >33-67%, >67% of time). PEH individuals were matched 1:5 with a non-PEH control sample. We then estimated a Kaplan-Meier survival curve and a Cox proportional hazards regression (CPH) adjusted for age, sex and average health care costs.

Results: In our sample a total of 896 patients were diagnosed with lung cancer. Prevalence in the PEH group was more than three times as high as prevalence in the control group (1.97% vs. 0.69%). Kaplan-Meier survival curves showed a visible difference in average survival times between the PEH and control patient group. When including the homelessness index into a CPH analysis with gender and costs, the results show that the degree of time spent in homelessness has by far the largest effect on the probability of death with an HR of 1.47 (CI:1.08-2.00 & 1.01-2.14) associated with the categories 2&3 in the severity of homelessness index. Costs were also significantly different with an average €3668 cumulative costs per patient between diagnosis and death/censoring in the PEH group compared to €6827 in the control group at 2021 prices. This translates to a 47% lower expenditure per patient in the PEH group compared to the control group.

Discussion: We find that the health burden is substantially higher for the PEH group, with a much higher prevalence of lung cancer and lower survival times. Even though, average health care expenditure is substantially lower for the PEH group, this discrepancy in health outcomes is not fully explained by the difference in healthcare utilisation. This was shown by the higher hazard ratio of the CPH when adjusting for costs. Analyses of the categorical homelessness index also show that even people who temporarily experienced homelessness once already face some of this health penalty but the majority of the health effects exists for people threatened by- or living in chronic homelessness.

These results could unfortunately not be further refined according to lifestyle-related factors (e.g. smoking) due to the data structure.

Title: Economic Impact of Labor Productivity Losses Induced by Heat Stress: An Agent-Based Macroeconomic Approach

Authors: Christian Kimmich¹, Klaus Weyerstraß¹, Thomas Czypionka¹, Norman FRM Fauster¹, Maurice Kinner¹, Elisabeth Laa¹, Liliana Mateeva¹, Kerstin Plank¹, Leonhard Ulrici¹, Hannes Zenz¹, Michael Miess², Sebastian Poledna³

¹ Institute for Advanced Studies, Vienna, Austria

² King Abdullah University of Science and Technology, Kingdom of Saudi Arabia

³ International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria

Abstract:

Against the backdrop of rising temperatures, this paper analyzes how prolonged heat affects labor productivity and the corresponding macroeconomic outcomes, using Austria as a case study. While previous research primarily focused on specific industries or used industry aggregates, this study also considers inter-industrial economic connections. We assess the macroeconomic effects of an increase in heat stress triggered by climate change with an emphasis on (1) industry-specific work intensity and (2) the vulnerability to heat-induced impairments resulting in an industry-specific loss of labor productivity. To account for indirect and non-linear economic relationships, we apply an agent-based model of the Austrian economy, which translates heat-induced productivity losses into economy-wide effects via shocks to industry-related input-output structures on the level of economic agents. The findings highlight how in the scenario with the highest temperature increase, the largest average loss in real GDP amounts to 0.8% in the third year compared to the baseline scenario. The largest aggregate effect is found for investments in dwellings. In line with existing literature, industries most affected directly are those that perform intense work in the sun, such as agriculture and construction. Thus, our unique methodological approach, model, and the corresponding EU data sources can serve as a blueprint for further comparative research.

Title: Unearthing the Divide: Historical Development of Socioeconomic Inequalities in Lifespan in Vorarlberg/Austria

Authors: Susanne Mayer¹, Michael Berger^{1,2}, Pekka T Martikainen^{3,4}, Peter Christen¹, Tanja Corkovic-Mayrhofer¹, Michael Haider¹, Moritz Oberndorfer^{3,5}

¹ Medical University of Vienna, Vienna, Austria

² Institute for Advanced Studies, Vienna, Austria

³ University of Helsinki, Helsinki, Finland

⁴ Max Planck Institute for Demographic Research, Rostock, Germany

⁵ University of Glasgow, Glasgow, Scotland

Abstract:

Objective: A historical perspective on socioeconomic inequalities in lifespan provides insights into their persistence and the scope of realistic reductions. However, administrative data to study the evolution of socioeconomic inequalities in the 20th century are often unavailable, necessitating the use of alternative data sources. To study the historical development of socioeconomic inequalities in lifespan in Austria, we collected data from newspaper obituaries.

Methods: We extracted data from all obituaries published in a monopolist regional newspaper in 5-year intervals between 1946 and 1981 (n=10,254). Lifespan was our outcome and we used four markers for socioeconomic status: obituary size as a proxy for its cost and hence the deceased's (family's) financial ability; tertiary education; blue/white collar occupation; honorary services. We estimated inequalities in lifespan per year by linear and quantile regression models.

Results: The mean lifespan was 52 years in 1946 and 71 years in 1981. While in 1946, individuals with medium-sized obituaries lived 4.90 years (95% CI: 0.78-9.02) longer than individuals with small obituaries, individuals with large obituaries lived 14.69 years (95% CI: 2.64-26.74) longer. By 1981, differences were reduced to 2.50 years (95% CI: 0.83-4.17) for medium and 6.44 years (95% CI: 0.29-12.59) for large obituaries. These trends were confirmed by the analyses using the other socioeconomic markers.

Discussion: Lifespan inequalities in Vorarlberg have narrowed between 1946 and 1981. However, compared with current data, socioeconomic inequalities seem to have been less pronounced four decades ago, and thus may set a realistic goal to achieve again. Comparisons with available registry data illustrate that obituary data effectively capture mortality patterns. In the absence of administrative data, obituary data help improve the understanding of the evolution of health inequalities.

Title: Gender Gap in Unmet Need for Care in Later Life: The Moderating Role of Social Deprivation

Authors: Viktoria Szenkurök¹, Daniela Weber^{1,2}

¹Vienna University of Economics and Business, Vienna, Austria

²International Institute for Applied Systems Analysis (IIASA), Laxenburg, Austria

Abstract:

This study addresses the ongoing and inconclusive discourse on gender-related differences in unmet need for personal care among older adults in Europe by examining the moderating role of social deprivation. While previous research has identified gender disparities in care needs, the influence of social deprivation on these differences remains underexplored. Our research aims to fill this gap by analyzing how social deprivation as well as various dimensions of social deprivation intersect with gender to affect unmet care needs.

Utilizing data from the Survey of Health, Ageing and Retirement in Europe (SHARE) collected in 2015, we constructed a comprehensive index of social deprivation encompassing 12 items: poor living conditions, lack of (digital) literacy, neighborhood deprivation, exclusion from social relations, and limited access to basic healthcare services. This multidimensional approach allows for a nuanced understanding of social deprivation beyond material aspects.

Our analysis reveals that social deprivation, alongside potential material deprivation, is a significant factor associated with an increased risk of unmet care needs among older women. Specifically, women experiencing higher levels of social deprivation are more likely to report unmet personal care needs compared to their male counterparts. This finding underscores the critical role of social factors in shaping care needs and highlights the importance of considering social deprivation in policy and practice.

Furthermore, our results suggest that interventions aimed at reducing social deprivation could be particularly beneficial for older women. Policies that promote social inclusion, enhance digital literacy, and improve access to healthcare services may mitigate the adverse effects of social deprivation on care needs. Such targeted interventions are essential for creating age-friendly environments that support the well-being of older adults, especially women who are disproportionately affected by social deprivation.

In conclusion, this study underscores the importance of addressing social deprivation to reduce gender disparities in unmet care needs among older adults in Europe. By recognizing the complex interplay between gender and social deprivation, policymakers and practitioners can develop more effective strategies to meet the care needs of older adults, thereby promoting equity and enhancing quality of life in later years.

Title: Urban–Rural Disparities in Hospital Admissions for Depression in Austria: A Spatial Panel Data Analysis

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³ University of Oxford and Oxford Health NHS Trust, Oxford, United Kingdom

Abstract:

Objectives: Medical practice variation in mental healthcare is a useful indicator for policymakers aiming to improve the efficiency of healthcare delivery. Previous studies have shown strong regional variation in healthcare utilisation in Austria, which seems to be a by-product of regionalised institutional rules and healthcare service mix rather than epidemiology. In this study, we estimate the extent of regional variation in hospital admissions for severe depression in Austria associated with supply-side factors in healthcare.

Methods: We use a set of routine municipality-level healthcare data on hospital admissions for depressive episodes (ICD-10 F320-F329) of adult Austrian patients from 2009 to 2014 to examine spatial patterns in healthcare utilisation in mental health. Our data contains 93,302 hospital episodes by 65,908 adult patients across 2114 municipalities. We estimate a random-effects spatial autoregressive combined (SARAR/SAC) model to regress log hospital admission rates on hospital supply and urbanicity as proxies for the municipalities' healthcare service mix alongside a set of sociodemographic (sex, age, education, unemployment), fiscal (municipality debt, public expenditure) and hospital characteristics (size, type). We estimate nine model specifications to assert the robustness of our results in terms of choice of control variables, hospital types considered, error term specification and inclusion of district level-fixed effects.

Results: We find strong geographical inequalities in the use of inpatient resources for depression relative to the population size. Admission rates are 9 to 13 percent higher in suburban areas compared to rural areas and 7 to 12 percent higher in municipalities acute care hospitals. The spatial structure suggests positive spatial spillovers between neighbouring municipalities. Our main results are stable across virtually all model specifications used for robustness.

Discussion: Our findings highlight that elevated hospital admission rate in the municipality's population correlate strongly with hospital service supply and that there are indirect spatial effects of hospitals on admission rates for depression in the population of neighbouring municipalities. Our results further suggest that hospitalisations for depression are a seemingly suburban phenomenon, which is likely a consequence of the specific mix of healthcare services and their availability. All things considered, the spatial variation in the hospital admission rates signals a potential mismatch of patient needs and available services, and regional differences in medical practice. Promoting timely access to high-quality primary care and early-stage treatments may reduce the burden of avoidable

depression-related hospitalisations for patients and public budgets, and close a gap of unmet need for care of vulnerable populations.

Title: Cost-Effectiveness of Non-Pharmacological Nicotine Replacement Interventions and Smoking Cessation in Europe: Results from a Systematic Literature Review

Authors: Alexander Braun¹, Eva Krczal¹

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Abstract:

Background: Smoking and other nicotine-related harm is one of the leading lifestyle-related causes of premature death. There is clear evidence that smoking cessation programs can be effective in a variety of settings, and the tools for smoking cessation vary widely. In recent years, digital devices have become more important in reaching smokers, and telephone counselling or hotlines reach a broader population than face-to-face or group-based cessation support. For Europe, health economic literature addressing the cost-effectiveness of smoking cessation is gaining more attention. Still, most studies synthesizing evidence are mostly conducted for specific settings, pharmacological interventions or people with preconditions. Therefore, we aim to fill the research gap of missing evidence on the cost-effectiveness of smoking cessation in outpatient settings by answering the following question: 'What is the evidence for the cost-effectiveness of nicotine cessation programs compared with standard care or no intervention?'

Methods: We conducted a systematic literature review based on the York Centre for Reviews and Dissemination guideline criteria for health economic evaluations and the PRISMA statement. Following the PICO scheme, we developed and applied a PICO-oriented search strategy and defined inclusion and exclusion criteria. We searched Medline (via Pubmed), EMBASE (via CRD), Cochrane Library, and the National Health Service Economic Evaluation database (via CRD). We also conducted an additional hand search. For Critical Appraisal, the CHEERS checklist was applied. The costs of included studies were converted to 2023 purchasing power parities using the CCEMG-EPPI Centre Cost Converter. The research protocol was registered with PROSPERO (CRD42024574630) in August 2024.

Results: Our search identified 9,541 studies that were screened for inclusion based on their abstracts. 71 studies were eligible for full-text screening of which 23 met all inclusion criteria and were used for the evidence synthesis. Most of the studies used cost-utility analyses (CUA) using quality-adjusted life years (QALY), and several studies used cost-effectiveness analyses (CEA) using life years saved (LYS) or epidemiological outcomes such as the relative change in quit rates due to the intervention. The trials reported a wide range of incremental cost-utility ratios (ICURs) between -332,320 EUR/QALY and 80,638 EUR/QALY. Using the incremental net benefit approach, 76.9 % of all ICURs showed dominance over standard care, assuming a willingness-to-pay threshold of 25,000 EUR/QALY. Digital counselling interventions generally have low costs between EUR 109 and EUR 7,099 per participant. Also, awareness-raising measures display low costs between EUR 0.83 and EUR 1,239 per person. Text-based interventions only become (cost) effective when combined with face-to-face counselling. Smoking cessation group

treatment or individual face-to-face counselling showed a moderate ICUR of around 5,000 EUR/QALY and may be cost-effective.

Conclusion: Smoking cessation has relatively moderate incremental costs and may often be more effective than unstructured interventions. Therefore, we see dominance for most interventions, regardless of the time horizon or perspective used in the CUA. It is recommended to offer easily accessible smoking cessation advice and incorporate a personalized element into cessation treatments.

Title: Performance and Cost-Benefit Analysis of Dalbavancin as Anti-Infective Medication in Prosthetic-Joint-Infections: Expert Reporting for Potential Mass Application

Authors: Tibor Spath^{1,2}, Sandra Helmhart¹, Martin Holbik¹, Florian Thalhammer²

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Abstract:

Joint infections are a severe complication following prosthetic surgery, significantly impacting patient recovery and healthcare resource utilization, often necessitating long-term antibiotic therapies that traditionally require multiple daily administrations by registered nurses in Austria.

However, the nursing workforce faces increasing strain due to staffing shortages, amplifying the need for efficient alternatives. Dalbavancin offers a compelling solution due to its extended half-life, requiring only a single infusion on postoperative day one for a two-week treatment course, while demonstrating excellent activity against gram-positive pathogens. This study evaluates the performance and cost-effectiveness of dalbavancin in prosthetic joint infections care, with a focus on its potential for broader implementation.

Methods: An eight-week observational study was conducted at the orthopedic surgery department of the Vienna General Hospital (AKH Wien) between December 2023 and January 2024. A total of 102 post-operative treatments were meticulously documented, including all steps from prescription and preparation to administration and follow-up. Time spent on administration by nursing staff was recorded, and costs of antibiotics were estimated for comparative analysis. Using the Incremental Cost-Effectiveness Ratio (ICER) framework, a cost-performance model was developed to compare conventional multiple-daily antibiotic regimens with two-week, single-dose Dalbavancin.

Results: Dalbavancin was well tolerated by patients and demonstrated a notable trade-off between cost and resource efficiency:

- A two-week Dalbavancin regimen, with 1.5g at day one, incurs an average cost 4.4 times higher than that of conventional antibiotics with similar efficacy.
- However, dalbavancin requires only 6% of the time compared to standard therapies, freeing up approximately 94% of the nursing hours previously dedicated to antibiotic administration (~85 hours per week, or ~170 for every two-week treatment in the observed cohort).

Furthermore, the study presents the cost-benefit as:

- Savings in nursing time in hours per patient generated by substitution with dalbavancin, depending on length of stay and patient volume.
- Patient volume-dependent cost-effectiveness threshold of dalbavancin (Xydalba) compared to other anti-infective therapies commonly used in medical practice.

Discussion: Dalbavancin's higher direct costs present an economic challenge, but its significant reduction in nursing time introduces critical operational efficiencies. Furthermore, with given medical records, patients can be discharged prior to a second dose, potentially reducing the cost component associated with bed occupancy while simultaneously lowering the risk of hospital-acquired complications. These efficiencies can partially offset costs by enabling higher patient turnover and optimized resource allocation. The cost-benefit (ICER) is expected to improve further once the patent expires.

In healthcare systems facing nursing shortages, dalbavancin could offer a valuable solution to balance financial and human resource constraints while maintaining quality care. This study underscores dalbavancin's potential as a strategic alternative to conventional antimicrobial treatment. Despite higher costs, savings in nursing time and enhanced care delivery efficiency support its broader adoption, especially in resource-constrained systems. Future research should evaluate its long-term cost-effectiveness and practical implementation across diverse settings.

Title: eCAN: Health Economic Evaluation of a Multi-National Telemedicine Intervention Applying Cost-Consequence and Cost-Utility Analysis

Authors: Gerald Gredinger¹, Florian Trauner¹

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Abstract:

The rising incidence of diagnosed cancer cases in Europe, coupled with the global shock of the COVID-19 pandemic, has underscored the importance of timely access to cancer diagnosis, treatment, and care. However, disparities in healthcare access, particularly in remote areas, have become more pronounced. Tele-medicine tools such as teleconsultations and remote monitoring can facilitate access to healthcare and may reduce healthcare costs but often require large implementation costs, discouraging decision-makers from investing. Health economic evaluations of eHealth tools and interventions are scarce and lack comparability.

Objective: The study aims to evaluate the economic impact of eHealth interventions in the context of two randomized clinical trials across ten different European countries within the EU-funded eCAN Joint Action.

Methods: A health economic evaluation framework was developed, applying both cost-consequence analysis (CCA) and cost-utility analysis (CUA). In pilots 1a and 1b, patients newly diagnosed with breast cancer or head and neck cancer who had undergone surgery were randomly assigned to an intervention or control group. The intervention group received weekly tele-rehabilitation over eight weeks, while the control group received usual rehab care. Pilot 2 evaluated weekly psycho-oncological teleconsultations over eight weeks versus usual care in patients with advanced cancer at recurrence. Three types of costs were gathered and estimated: a) implementation costs (hospital perspective), b) operational costs (hospital perspective), and c) costs and time spent (patient perspective). Implementation cost estimates were based on focus groups and interviews with healthcare providers at the pilot sites. A questionnaire was designed to measure the costs for equipment, software, and staff training for implementation. This questionnaire was completed by experts within the project and discussed with them.

The operational costs questionnaire included the time needed to train patients during the baseline visit and the average time spent per consultation by each professional group. Results from the sites were double-checked with answers from the patient cost questionnaire, which was filled out by the patients attending the pilots.

Patient costs were based on a questionnaire designed for the eCAN project and covered costs related to time lost and costs incurred by patients due to the intervention. The self-reported outcomes considered for the analysis were:

Pain (pilots 1a and 1b), using the Pain Visual Analog Scale (VAS)

Distress (pilot 2), using the distress thermometer scale

Quality of life (QoL) using EORTC QLQ-C30

Satisfaction of staff

The treatment or standard care group comprised patients receiving some kind of on-site rehabilitation treatment (pilots 1a and 1b) or on-site psychological treatment (pilot 2). The no-treatment group consisted of patients who did not receive any rehabilitation (pilots 1a and 1b) or psychological (pilot 2) treatment. The cost-consequence analysis showed costs and consequences from the societal, healthcare provider (HCP), and patient perspectives, respectively. Cost-utility analysis was performed from a societal perspective.

Results: Pain and distress scores decreased, but not significantly, due to low case numbers. The tele-rehabilitation can be regarded as cost-effective, whereas this is not the case for the tele-psychological support, which could be due to the short observation period.

Title: Public Gaps and Private Bridges: Healthcare Access Barriers and Facilitators to Long COVID-19 Patients in Austria

Authors: Peter Gamillscheg¹, Agata Laszewska¹, Kathryn Hoffmann¹, Judit Simon^{1,2}, Susanne Mayer¹

¹ Medical University of Vienna, Vienna, Austria

² University of Oxford, Oxford, United Kingdom

Abstract:

Background: Long COVID-19 puts economic pressure on health and social systems globally. Although overall unmet healthcare needs are minimal in Austria's two-tier Bismarck healthcare system, the novelty of the chronic post-viral condition continues to pose acute challenges to policy-makers, providers and patients alike. To address these, a living clinical guideline and patient pathway was developed for Austria in 2021 and updated in 2023. However, a reality check on its implementation and other prevailing healthcare access barriers from patients' perspectives has thus far not been conducted. This paper aims to comprehensively assess access barriers and facilitators encountered by long COVID-19 patients in Austria. Building on the 'access to care' framework, conceptualizing healthcare access as a five-step process from health care needs to consequences, we aim to characterize both at which steps barriers and facilitators are most prominent as well as potential socioeconomic differences in the burden.

Methods: and data: Data was collected from long COVID-19 patients 10-12/2024 via online and paper-based survey. The questionnaire assessed 47 barriers and 10 facilitators derived from a previous qualitative study, complemented with demographic, socioeconomic and clinical patient characteristics. The survey was distributed via patient advocacy groups, specialized doctors and primary care centres. Heatmaps were developed to visualize the barrier burden along the access to care process and descriptive statistics to characterize overall barrier burden. Socioeconomic differences were investigated using linear and ordered logistic multivariate regressions.

Results: In total, 433 long COVID-19 patients from all federal states completed the survey, who in line with long COVID-19 prevalence were predominately female (85%) and aged 18-69 (mean 43). The mean number of applicable barriers per person was 40 out of 47 (SD 5.2) and the mean number of barriers perceived as very problematic 20/47 (SD 9.5). The most problematic barriers included too little available information (considered very problematic by 70% of participants), exhausting self-organization of treatment pathway (73%), being coerced into paying for private doctors due to lacking expertise in the public sector (74%), and GPs having difficulties treating long COVID-19 symptoms (74%). Main facilitators were support from friends and family (62% very helpful) and exchanges with other patients (52%), whereas GPs coordinating the treatment was only perceived as very helpful by 16%. Regression analyses show that overall barrier burden was high independently of socioeconomic patient characteristics. However, looking at individual process steps and barriers, for example, being financially well-off or having medical expertise were found to ease the burden.

Discussion: We find a multitude of persistent barriers among long COVID-19 patients in Austria, particularly in the public healthcare system, while facilitators are mainly rooted in informal or private sector care. However, on an aggregated level all patients were equally affected while there were differences by socioeconomic background as to which specific barriers were encountered. In comparison with the existing clinical guideline, the results imply an urgent call for action, particularly as the central coordinating role foreseen to be taken up by GPs appears to be problematic as well as the transfer of knowledge to the public sector.

Title: Projecting Future Care Gaps: The Case of Specialists in Internal Medicine in Austria

Authors: Monika Riedel¹, Clemens Zech¹

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Abstract:

Objective: In Austria, there is no capacity planning for human resources on the macro-level of the health system, though demographic shifts will have significant effects on the supply and demand of health services. The objectives of this study are to assess the current state of care in the field of internal medicine in Austria and to project the future supply and demand for specialists in this field until 2035.

Methods: Internal medicine is defined in a broad sense, including sub-specialties like cardiology, pneumology etc. Separate projections are made for acute hospital care and social health insurance (SHI)-contracted outpatient care using different scenarios. Future supply is projected using stock-flow models, whereas demand projections are based on historical data, existing projections for future hospital cases and population forecasts. For the analyses, data from the Austrian Medical Chamber (ÖÄK), the Federal Ministry of Social Affairs, Health, Care and Consumer Protection (BMSGPK), social health insurance (ÖGK, DV) and Statistics Austria were combined.

Results: Results suggest that overall, the number of specialists in internal medicine per patient/case will decrease by between one and eight percent by the year 2035, depending on the assumptions made. The two settings of care, however, will experience very different developments: There will likely be a severe shortage of contracted doctors, while hospital-based specialist levels are likely to remain stable.

Discussion: Many uncertain developments will influence the future provision of care, including structural changes in the health system accelerated by the COVID pandemic, an ongoing shift to outpatient care, digitalization etc. In addition, regional differences and changing work-related preferences of specialists will affect the landscape of health care provision. A key limitation is that future gaps are based on current incentive structures (e.g. payment system) and benchmarked against current care use levels as opposed to true demand or care needs. Furthermore, the analysis is restricted to quantitative measures and cannot include measures for changes in provision of care due to technical progress, most notably digitalization.

Conclusion: Incentivizing work in contracted outpatient care seems to fit better with expected supply and demand development than increased enrolment in medical schools, due to the long education process and limited capacity for training positions in specialized care.

Title: Health Economics and Services Research in Symbiosis: STREAMLINEing Mental Health Services in Vienna

Authors: Judit Simon^{1,2}, Michael Berger¹, Lazo Ilic¹, Thomas Resch¹, Timea Helter³, Christoph Strohmaier⁵, Florian Bachner³, Mencia Ruiz Gutierrez-Colosia⁴, Florian Trauner³, Ingrid Zechmeister-Koss⁵, Susanne Mayer¹

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Abstract:

Objectives: In Austria, one in five people live with mental ill-health (MIH). Ongoing epidemiological, demographic and societal changes increase the need for accessible and well-integrated cost-effective services. STREAMLINE aims to combine, harmonize and implement the latest methods in human service mapping and economic costing to optimize future service provision and financing for MIH in Vienna.

Methods: We comprehensively assessed the availability and activity of human services targeting MIH in Vienna within the health and social care, education, labour and justice sectors based on a conceptual mind map. We identified services through extensive literature, document and web searches plus expert consultations, and mapped and classified them using the international DESDE taxonomy of human services.

Results: We identified a total of 747 organisations that provide MH related care in Vienna with 93% of these being micro-level organisations. While 88% of these organisations operate in the health and social care, only comparatively few services are available in the employment (7%), justice (3%) and education (2%) sectors. In total, 70% of the identified organisations deliver care to adult patients, and only less than a third target children and adolescents (23%) or support carers (7%). We further extracted and mapped 9,559 MH-related services provided by individual professionals.

Discussion: The findings indicate distributional imbalance between sectors, target groups and districts, and call for better vertically and horizontally integrated care options plus improved support for carers. Current results are undergoing further typology and distributional analyses, validation using a provider survey, and compilation of a comprehensive multi-sectoral service catalogue. The development of Reference Unit Costs using additional primary data collection is forthcoming followed by comprehensive policy-relevant econometric analyses.

Funding: Vienna Science and Technology Fund

Title: Patient Steering in the Austrian Telephone-Based Triage System (1450)

Authors: Martin Zuba¹, Gerald Gredinger¹, Anja Laschkolnig¹, Kathrin Trunner¹

¹ Gesundheit Österreich GmbH, Vienna, Austria

Abstract:

Background: Since 2019, Austria operates a telephone-based triage service (“1450”) that serves to assess urgency and best point of service for medical conditions reported by callers. Health policy expects 1450 to contribute to reduction in unwarranted ambulance trips and presentations at hospital emergency departments. To test this effect of 1450 on patient flows we conducted a web-based survey among callers.

Method: Between 2023–10 and 2024–01, 1450 operators sent, via SMS, a link to a web-based survey to consenting callers a week after the call to 1450. Next to demographic data it asked for (1) satisfaction with various aspects of the service, (2) which urgency level and best point of service was identified, (3) whether that recommendation was acted upon, and (4) what the caller would have done in the absence of 1450. The pseudonymised dataset was weighted with population margins from 1450’s data warehouse. Service providers were classified to seven distinct levels of care, ranging from self-care to ambulance services (“144”) including transportation to a hospital emergency department. The analysis was stratified by sociodemographic variables and highlights the differences between counterfactual (absent 1450), recommended (by 1450) and factual healthcare seeking behaviour of callers.

Results: In contrast to the hypothetical scenario without 1450, callers report lower take-up of ambulance services (12% vs. 19%), hospital emergency departments (21% vs. 35%), and calls to other health service providers (2% vs. 9%) after consultation of 1450, and conversely higher take-up of resident physicians (24% vs. 15%), duty doctors (“141”, 24% vs. 12%), as well as self-care (17% vs. 8%). 45% of callers were shifted to a lower level of care, 34% utilised the same level of care as in the hypothetical scenario without 1450, and 21% of callers report that they would have utilised a lower level of care without 1450 than they actually did.

Stratified analysis reveals that patient steering towards self-care is stronger at weekdays than at weekends. The steering effect towards resident physicians and away from emergency services is stronger at weekends and in urban areas. Stratification of results by callers’ level of education, urgency of the medical condition, and other variables is work in progress.

Discussion: Differences in effectiveness of patient steering reveal that availability and of accessible service providers is a crucial prerequisite for shifting patient care away from the hospital sector. In rural areas and at weekends, 1450 will recommend visits to emergency departments in the absence of other available service providers.

Results of this study need to be interpreted considering its limitations. Callers with strong feelings towards 1450 might be more willing to share their experiences in a survey. Callers' recollection of their health-seeking behaviour as well as their assessment of what they would have done absent 1450 may be skewed. Nevertheless, this study generates evidence for determinants of effectiveness of telephone-based triage systems that cannot be easily reproduced in observational study designs.

Title: Economic Evaluation of Community Nursing in Austria

Authors: Birgit Aigner-Walder¹, Albert Luger¹, Stephanie Putz¹

¹Fachhochschule Kärnten, Villach, Austria

Abstract:

Background: From 2022 to 2024 over 100 pilot projects of Community Nursing (CN) were implemented in Austria, with the aim of providing low-threshold access to health and care services close to home especially for older people (with and without care needs) and caregivers. Based on an economic evaluation the costs and benefits of community nursing in Austria are analyzed. This also appears to be of particular interest in view of the existing study situation with regard to economic effects of primary care by health care and nursing staff.

Method: A cost-benefit analysis in a broader sense was carried out to evaluate the economic effects of community nursing in Austria. After the identification of relevant cost and benefit parameters for the community nursing program, data was collected through the CN-documentation system, a questionnaire survey of community nurses and of participants of CN-interventions, interviews with mayors of participating communities, on costs of CN, as well as secondary data analysed (e.g. PFIF data). In total, 54 indicators in the fields of 'Health and nursing care', 'Health status', 'Financial aspects' and 'Regional economic effects' were analysed. The period under review was the year 2023.

Findings: The main findings are: (1) Regarding the benefits in the health care sector, over 105,000 contacts of community nurses with the target group were recorded in 2023, a short-term reduction in GP visits was reported and gaps in care were identified. However, the increased demand for qualified healthcare and nursing staff must be viewed critically. (2) The health status of both clients and informal caregivers was subjectively improved, and the target group's level of knowledge of the services available in the health and care system was also rated as increased by the interventions of community nursing. (3) The main regional economic benefits were more community activities and additional mobility services for elderly people. Regional demand effects could not be proven. (4) The analysis of the costs shows that approx. 105,000 EUR per year and per CN are required. In addition, a short-term increase in health care costs is expected due to the increased use of care and support services, but also in the area of therapeutic services. A simulation shows the potential of long-term saving, if outpatient care of older people is prolonged compared to inpatient care, with the support of CN.

Discussion: It should be noted critically that there was no control group and that different framework conditions played a role within the nine federal states. Even if costs savings can be expected in the long-term, short-term increases in expenditure will be necessary as a result of higher utilization of various health and care services due to the interventions of community nursing. Nevertheless, the study shows largely congruent results with the

literature, especially with regard to the improvement in health status and increased satisfaction with the healthcare system.

Keywords: community nursing, integrated care, prevention, economic evaluation, cost-benefit analysis

Title: Threshold Values in Health Economic Evaluations and Decision-Making

Authors: Christoph Strohmaier¹, Ingrid Zechmeister-Koss¹

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Abstract:

Background: This study examines the implementation of incremental cost-effectiveness ratio (ICER) thresholds and other relevant criteria in healthcare resource allocation across different countries, focusing on implications for the Austrian healthcare system.

Methods: The study analysed literature (empirical and theoretical), policy documents, health economic guidelines from various countries, and expert knowledge. The research aimed to explain theoretical foundations and implications of thresholds in health economic evaluations, provide an overview of countries utilising such thresholds, and identify complementary factors – so-called modifiers. Furthermore, we descriptively analysed the relation of ICER thresholds, the HLE at birth in years, and the GDP. The intention was to show whether there is a correlation between HLE in years and thresholds on the one hand and between GDP per capita and thresholds on the other.

Results: Among 39 analysed countries, 24 (62%) utilise ICER thresholds, with seven employing explicit and 17 using implicit thresholds. Values range from €4,000 to €50,000 per QALY, averaging approximately €28,500. Methodological approaches include empirical methods, GDP-based approaches, willingness-to-pay methods, and efficiency frontier approach. The analysis revealed a weak, inverse U-shaped relationship between healthy life expectancy and thresholds, while the relationship between thresholds and GDP per capita varied by calculation method. Of the countries studied, 15 (62.5%) employ modifiers that either quantitatively alter the ICER or the ICER threshold or qualitatively affect reimbursement decisions, with disease severity and rare diseases being the most frequently applied criteria. In Austria, whilst health economic evaluations have historically played a minor role, healthcare-related acts suggest the application of efficiency criteria (“Wirtschaftlichkeit”). However, Austria currently lacks concrete operationalisation of efficiency concepts and thresholds.

Discussion and Conclusion: The study recommends several key measures for successful implementation of economic evaluations with or without thresholds, including developing detailed methodological guidelines, creating adequate assessment methods, building capacity, and harmonising legal and scientific terminology. The research acknowledges limitations in country selection and modifier categorisation, emphasising that the descriptive analysis provides initial insights rather than causal relationships. The study concludes that whilst implementing thresholds is complex, it can contribute to greater transparency and efficiency in healthcare systems. The findings suggest that successful implementation requires careful consideration of country-specific contexts, stakeholder engagement, and political support.

Keywords: ICER thresholds, healthcare resource allocation, health economics, Austria, cost-effectiveness analysis

Title: Cost Value vs. Utilities – A New Possibility to Discuss the Values of Health and Wealth?

Authors: Katharina Vizdal¹

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Abstract:

Background: With the progressing economization of healthcare, the topic of resource allocation and the valuing process of wealth and health have gained importance. Health economic evaluations such as the cost-utility analysis deliver information to make informed decisions about resource allocation by capturing cost in monetary form and comparing it to utilities in form of health-related quality of life (QoL), converted into quality-adjusted life years (QALYs). The present study introduces a new conceptual framework to further support and develop this matter, by suggesting and analysing a shift from measuring monetary cost to measuring a weighted wealth value to weigh against health utilities. Consequently, two major topics of resource allocation decisions are supported: Firstly, the qualifying of wealth, meaning the setting of cost into perspective and showing the trade-off of health and wealth in a more transparent way, and secondly, the subsequent discussion on willingness to pay.

Methods: A new conceptual framework, the “cost value”- “utility” – “analysis”, combining validated tools, such as the capability approach and the QALY-approach, is introduced to weigh wealth-related QoL against health-related QoL. The functioning mechanism of the framework is explained via a theoretical COVID-19 use-case.

The framework and use-case are then explored and discussed in semi-structured interviews with experts from health economics (n=5) and health ethics (n=5).

Results: Conceptual Framework: The new framework transforms the cost-side of the cost-utility analysis into a cost value. Instead of monetary costs, cost value measures wealth-related QoL, just as the utility-side measures health-related QoL. While the health-related QoL is measured by the established EQ-5D questionnaire and transformed into Health-QALYs, the wealth-related QoL is measured by a questionnaire mirroring the EQ-5D, but with wealth-related QoL, and transformed into “Wealth-QALYs”. Finally, the two QALY-types are valued against each other in an incremental cost value – utility ratio.

Interviews: The conceptual framework is deemed useful to support the topic of just resource allocation, mostly when it comes to decision science and willingness to pay – discussions, given that it is developed further for the respective use cases.

The interviews have also shown that the framework, as always intended, can only be used as a complimentary tool, it cannot substitute conventional tools, such as the cost-benefit or the cost-utility analysis. The basic need and logic of a framework which enables a quantifiable comparison and individual valuing of subjective wealth-related QoL with subjective health-related QoL within the same units had been confirmed. The practice-readiness however, including the development of validated assessment tools is the task of further research.

Conclusion: With the “cost value-utility analysis”, health economics gains another valuable tool to deal with the rising need for a more differentiated analysis of qualities of life. It provides a unified framework to weigh off the difficult trade-off between wealth and health. The present study has shown that the topic of just resource allocation and everything that comes with it, is as relevant as ever, possibly more than ever before, be it because of Covid, exploding costs of healthcare, or the over-all need for increased transparency in decision making.

Title: Reconfiguring Financing for Health and Climate Goals: A Framework and Evidence Review of Co-Financing Arrangements

Authors: Josephine Borghi¹, Soledad Cuevas, Blanca Anton, Domenico Iaia, Giulia Gasparri, Mark A Hanson, Agnès Soucat, Flavia Bustreo, Etienne V Langlois

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Abstract:

Background: Climate change represents a substantial risk to health systems and financing. Building resilient and sustainable health systems requires intersectoral or co-financing arrangements that support health and climate goals. However, it is unclear what opportunities exist for co-financing, across which financing functions, and at which health system scales. We propose a framework for studying co-financing for health and climate goals which considers the degree of integration between sector funding, and whether arrangements are ‘passive’, when cross-sectoral goals are indirectly affected, or ‘strategic’, when they are pre-emptively supported to build resilience and sustainability. Using this framework, we describe the range of co-financing arrangements that have been used to support climate and health goals based on a rigorous evidence review. We also summarize evidence on enablers and barriers to implementation, and research gaps and future priorities.

Methods: We undertook a rigorous narrative review. We identified key terms pertaining to financing and to health systems and climate goals to guide the review. We then searched the international literature using Pubmed and Web of Science from 2013-2023, the websites of key health and climate agencies for grey literature and consultation with stakeholders. We synthesized evidence according to our co-financing framework describing arrangements together with enablers and barriers to implementation.

Results: A total of 97 studies were included in the review. More than half were from low-and middle-income countries, with 36 focusing on health financing for climate goals and 39 on climate finance for health goals (promotive). Studies mostly addressed passive co-financing, assessing the consequences of climate inaction, including the impact on government health expenditure, health insurance and out of pocket payments. There was limited evidence of strategic co-financing or integrative co-financing. Several lessons emerged for designing effective co-financing mechanisms for health and climate needs including: 1) involving staff with climate and health sector knowledge in the design and implementation of co-financing arrangements; 2) the alignment and/or linkage of information systems across sectors; 3) clear communication and consistency of entitlements, and facilitating access to climate finance, to ensure funds target needs; and 4) flexibility in the use and allocation of funds to meet emerging needs.

Conclusion: Co-financing is critical to filling the financing gap for health sector mitigation and adaptation and achieving recent COP29 funding pledges. Our study highlights issues to consider in the design and implementation of these schemes to maximise their benefit for health systems; and draws attention to some of the limitations of specific arrangements, identifying areas for further health economics research.

Title: Barriers and Facilitators in Biosimilar Policies: Insights from Literature Review, Exploratory Interviews, and Workshop

Authors: Timea Helter¹, Verena Knoll¹, Katharina Habimama¹, Sabine Vogler^{1,2}

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Abstract:

Background: Biosimilars offer a cost-effective alternative to originator biologics, potentially enhancing patient access to essential treatments. Despite their benefits, the uptake of biosimilars varies significantly across countries, influenced by diverse barriers and facilitators. The AUGMENT Biosimilars project seeks to enhance the uptake of biosimilars through a multistakeholder approach, focusing on improving patient access to cost-effective biologic treatments and ensuring the sustainability of healthcare systems. The project is funded by the European Health and Digital Executive Agency (HaDEA) and spans from 2024 to 2027.

Aims: As part of the AUGMENT Biosimilars project, the aim of this study was to identify and analyse the barriers and facilitators impacting the implementation and uptake of biosimilar policies, providing insights for policymakers to enhance biosimilar adoption.

Methods: The study comprised three components: a systematic literature review supplemented by a narrative literature review, exploratory interviews, and a workshop. The literature review included peer-reviewed publications focusing on biosimilar policies' impact, barriers, and facilitators. The narrative review also included grey literature and expert validation. Exploratory interviews were conducted with stakeholders from various sectors, including health professionals, regulators, and patient representatives. The workshop involved interactive sessions with stakeholders to discuss and validate findings from the literature and interviews, but also to gain further insights.

Results: The literature review included 82 publications, the narrative review resulted in 32 country factsheets, the exploratory interviews were conducted with 9 stakeholders, and the workshop was held as part of the 8th Biosimilar Multistakeholder Event, involving interactive polls, breakout sessions, and discussions.

The study identified several barriers to biosimilar uptake. Legal barriers include unclear regulations and limited competence for policy implementation in specific health sectors. Organisational barriers involve fragmented health systems, differing competences and funding responsibilities, and varying policy frameworks for private and public settings. Additionally, off-patent medicines often lack political focus, there are no implementation plans, accountability among stakeholders is lacking, and issues such as small markets and parallel exports further complicate the situation. Financial barriers encompass limited staff capacity, lack of incentives for health professionals, procurers, or patients to engage with biosimilars, and biosimilar prices being perceived as too low or static by suppliers, risking market exit. Evidence and communication-related barriers include a lack of evaluation studies on biosimilar policies, limited dissemination of switching studies, ineffective communication outreach, insufficient

follow-up monitoring, and a lack of guidance from national regulatory authorities, procurers, or payers on biosimilar use. Policy-related barriers involve the prohibition of certain demand-side measures such as biosimilar substitution, the application or design of specific policies, and the lack of enforcement of anti-trust measures. Finally, stakeholder-related barriers include limited knowledge and mistrust of biosimilars among health professionals and patients, limited collaboration between doctors and pharmacists, illegal practices by originator companies, and increased workload due to the improved use of biosimilars. Conversely, several factors can facilitate biosimilar uptake. Effective strategies to enhance biosimilar uptake include comprehensive national policies, targeted educational efforts, and robust stakeholder engagement.

Conclusions: The study highlighted the multifaceted nature of barriers and facilitators affecting biosimilar policies. Addressing these factors can lead to improved access to cost-effective biological treatments and significant healthcare savings.

Title: Made in Europe - Assessing the Feasibility of Reshoring Active Pharmaceutical Ingredient Production to Europe

Authors: Verena Knoll¹, Caroline Steigenberger^{1,2}, Stefan Fischer¹, Sabine Vogler^{1,3}

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Abstract:

Some active pharmaceutical ingredients (APIs) are mainly produced in Asian countries where manufacturing costs are lower compared to European countries. Thus, global reliance on Asian production of APIs has been continuously growing over the past decades. The relocation of API production to Europe (reshoring) has recently been discussed as a potential solution to decrease dependency on Asia and potentially prevent future medicine shortages. However, it is not yet well understood whether its implementation would be feasible, and under which conditions. This study aims to explore expert and stakeholder assessment of the feasibility of reshoring API production to Europe based on identified enablers, barriers, and prerequisites for encouraging and implementing this measure. A literature review of peer-reviewed articles and grey literature was complemented by focus group interviews with stakeholders from Austria, France, and Spain, representing policy-makers, industry, and researchers. Our findings suggest that reshoring is considered feasible if certain conditions are met, such as financial incentives and committed stakeholder support. A coordinated European policy approach and advancements in production technologies are perceived as further enabling factors. However, challenges such as higher

production costs, smaller economies of scale, and perceived lower profits in Europe compared to Asian markets may impede the reshoring of API production. The stakeholders' assessment also varied across countries: French and Spanish stakeholders considered reshoring as realistic, whereas Austrian stakeholders tended to be more hesitant. Stakeholders of all studied countries stressed the importance of strengthening existing local API production. For fostering API production, similar enablers, including European policy coordination and stakeholder collaboration, were proposed as for reshoring. While reshoring may increase the resilience of the supply chain, it is, however, rather a supportive measure for supply chain stability than a standalone solution to prevent medicine shortages.

Title: Community Pharmacy in Austria: Status-Quo and Developments Regarding the Services in an International Comparison

Authors: Sabine Vogler¹, Maximilian Salcher-Konrad¹, Verena Knoll¹

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Abstract:

Background and objectives: Community pharmacies are key health care providers in primary health care. Over the decades, including in recent years during the COVID-19 pandemic, the role of community pharmacy has changed, and community pharmacies have been offering new additional services to patients in several countries. The aim of this research was to take stock of the pharmacy services provided by community pharmacies in Austria, to compare the range of services to other European countries, and to study developments and potential drivers for change.

Methods: First, a framework of potential community pharmacy services was developed. Based on a literature review, including search of grey literature such as legal documents, we investigated which pharmacy services were provided in Austria and in further European countries in 2023. Additionally, we performed an online survey among pharmacists who worked in community pharmacies in Austria to obtain data on the frequency of different services provided and the time taken to provide these. Lastly, we conducted semi-structured interviews with a community pharmacist in Austria and in three further countries (England, Estonia, and Portugal) to identify potential supportive and hindering factors for change in the community pharmacy.

Results: Core services which are provided in community pharmacies in Austria include the medicines-related services of dispensing, counselling, compounding and quality control, and they were reported to account for 81% of the time spent on all services documented by the participating pharmacists. The remaining time is spent on non-medicines-related services, such as testing, referring patients to other health care providers and health promotion. The scope of community pharmacy services offered in Austria is more restricted compared to other European countries, where vaccinations by pharmacists and generic substitution are permitted and pharmacists are more involved in disease-management programmes. Across included countries, the community pharmacy sector is dynamic, with community pharmacists aiming to be acknowledged for their provision of patient-centered pharmaceutical care and expressing an appetite for offering new services. The COVID-19 pandemic accelerated the provision of new services, such as antigen testing and COVID-19 vaccinations in pharmacies in some countries. In Austria, developments in the community pharmacy were also observed in recent years; for instance, a new Pharmacy Law passed in 2024 provided the legal basis for medication use review, which was piloted in earlier years.

Conclusions: The study points to a more traditional role of the community pharmacy in Austria compared to other countries. However, some changes are ongoing, with amendments in the legal framework which define the role that community pharmacies can take in the Austrian health system. There appears to be an interest of at least parts of the pharmacy community to further develop their role and to extend the services they provide.

Funding source: Austrian Chamber of Pharmacists

Title: The Role of Beliefs in the Supply of Health Screenings

Authors: Silvia Angerer¹, Magdalena Flatscher-Thöni¹, Claudia Schusterschitz¹

¹UMIT TIROL – Private University for Health Sciences and Health Technology, Hall in Tirol, Austria

Abstract:

Introduction: Despite promoting early detection as lifesaving, evidence regarding cancer screening is mixed. A meta-analysis found that only colorectal cancer screening significantly increased life expectancy, while mammography and PSA tests did not. Significant advances in breast cancer treatment and the unclear benefit-harm ratio of screenings call for re-evaluation of this program. European guidelines recommend mammograms every two years for women aged 50 to 69 years. Clinical guidelines for prostate cancer have changed, and the PSA test for early detection is no longer recommended. Comprehensive consultation with medical professionals is advised for both types of screenings to discuss benefits and harms of the respective diagnostic tests. Thus, it is crucial to explore to what extent doctors, especially referring general practitioners (GPs) are aware of the clinical guidelines and the benefits and harms of these screenings.

Methods: To investigate GPs' beliefs regarding the benefit-harm ratio of mammography screening and PSA-test screening and the effect of information provision on their recommendations for three hypothetical patient age groups (<50y., 50-69y., >69y.) an online survey experiment with more than 200 GPs was conducted in Austria. GPs were randomly assigned to four experimental groups with three types of information treatments (T1-T3) and one control treatment (T0). The information treatments included a stepwise increase of information. In T1 guideline information is provided, in T2 additional information on evidence uncertainty regarding the benefit-harm ratio of mammography screening is given and in T3 additional information on the evidence for screening-effectiveness to reduce all-cause mortality is provided.

Results: Preliminary analyses show that 80% (76%) of GPs believe that the benefits clearly outweigh the risks for mammography screening (PSA screening) and 62% (55%) of GPs believe that mammography (PSA) effectively reduces all-cause mortality. In the control treatment, out of the three age groups investigated, GPs recommend mammography (PSA) to 2.35 (2.12) age groups on average. When informing GPs about the clinical guidelines, this number reduces to 1.99 (1.59) age groups for mammography (PSA) ($pp < 0.05$, Mann-Whitney U-Tests). Additional information on all-cause mortality or the uncertainty in evidence on benefit-harm ratio has no effect on screening recommendations.

Conclusion: The findings highlight the importance of aligning GP recommendations with clinical guidelines through information provision and to further investigate the reasons for not updating their prior beliefs regarding the benefit-harm ratio following evidence-based information.

Financing: Tyrolean Science Fund (TWF)

Title: Willingness to Share Patient-Reported Measures in Austria: A Mixed-Methods Study

Authors: Susanne Drexler¹

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Abstract:

Objectives: Routine collection of health data is essential for creating sustainable, efficient, and equitable health systems. While administrative health data are collected automatically, successful routine collection of patient-reported outcome measures (PROMs) and patient reported experience measures (PREMs) depends on voluntary participation. The aim of this study is to investigate how to increase participation in routine patient-reported data collection.

Methods: This mixed methods study used representative survey data from the Austrian population aged 18-70 (N=1260) and 15 problem-centered interviews with citizens, providers, and health data experts collected in 2024. Survey respondents were shown examples of PREMs and PROMs and indicated their willingness to share them, depending on the recipient and purpose. Interviewees answered the same questions while providing insight into their decision-making process, which was analyzed using the Framework Method. Wilcoxon rank sum tests were used to assess differences in willingness to share across recipients and data collection purposes.

Results: People were most willing to share PROMs with their GP for improving their own care (81%) and least willing to share PROMs with private companies to use their products (7%). Facilitators for sharing were personal benefits such as improving personal care and societal benefits such as improving the health system, while barriers were use for profit generation, lack of perceived usefulness, and fear of negative consequences for the person sharing. Furthermore, the willingness to share PROMs (median of “rather no”) was significantly lower compared to PREMs (median of “rather yes”) for universities ($W = 80133$, $p\text{-value} = <0.001$, $ES = 0.95$) and social health insurances ($W = 108730$, $p\text{-value} = <0.001$, $ES = 0.93$), although the purpose for data collection and the recipient remained unchanged. One explanation given in the interviews is that PROMs are more personal and convey sensitive information.

Conclusions: The results suggest handling the collection of PROMs demands greater caution compared to PREMs. Furthermore, clearly communicating personal and societal benefits arising from the collection and analysis of self-reported health data may increase participation in routine self-reported health data collection.

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