Institut de recherche et documentation en économie de la santé
Institute for Research and Information in Health Economics

Veille scientifique
en économie de la santé

Watch on Health Economics Literature

Juin 2026 / June 2026

Assurance maladie	*Health Insurance*
E-Santé – Technologies médicales	*E-health – Medical Technologies*
Économie de la santé	*Health Economics*
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Vieillissement	*Ageing*

Présentation

Cette publication mensuelle, réalisée par les documentalistes de l'Irdes, rassemble de façon thématique les résultats de la veille documentaire sur les systèmes et les politiques de santé ainsi que sur l'économie de la santé : articles, littérature grise, ouvrages, rapports...

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Produced by the IRDES Information Centre, this publication presents each month a theme-sorted selection of recently published peer-reviewed journal articles, grey literature, books and reports related to Health Policy, Health Systems and Health Economics.

Some documents are available online for free. Paid documents can be consulted at the IRDES Information centre or be ordered from their respective publishers. Copies of journal articles can also be obtained from university libraries (see Sudoc) or the British Library.

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www.irdes.fr/english/documentation/watch-on-health-economics-literature.html

Veille scientifique en économie de la santé

Watch on Health Economics Literature

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Assurance maladie

Health Insurance

Sequence Analysis of U.S. Insurance Coverage Trajectories From Ages 25 to 37

FRECH, A., *et al.*

2026

Medical Care Research and Review 83(3): 207–214.

https://doi.org/10.1177/10775587251401723

Coverage gaps and periods of uninsurance are associated with decreased health care utilization, treatment nonadherence, and health-related work limitations. Yet little is known about long-term trajectories of insurance coverage. We used sequence analysis and a nationally representative cohort study to identify and describe three trajectories of health insurance coverage from ages 25 to 37: stable private coverage (40%); stabilizing public coverage (16%); and recurrent uninsurance (44%). Estimated time exposed to uninsurance for each group was 0.2, 1.7, and 5.2 years, respectively. Those with recurrent uninsurance were more likely to be male, Black or Hispanic, working part-time, in poorer health, or living in the U.S. South or West. Prolonged and cyclical uninsurance is common in the years following the transition to adulthood, with disadvantaged adults more likely to experience recurrent uninsurance. Furthermore, examining insurance status cross-sectionally underestimates long-term exposure to coverage instability and may impede effective interventions aimed at securing long-term access to coverage.

Trends in Selection Into Medicare Advantage

GANGOPADHYAYA, A. ET GARRETT, B.

2026

Health Economics 35(6): 978-994.

https://doi.org/10.1002/hec.70091

ABSTRACT Medicare Advantage (MA) enrollment more than doubled from 2013 to 2023, raising concerns about risk selection, spending, and the continued use of traditional Medicare (TM) spending as a benchmark for MA payment. This study examines trends in selection into MA from 2009 to 2020 using administrative and survey data from the Medicare Current Beneficiary Survey. For each survey year, we estimate a regression model of Part A and B spending among TM enrollees based on demographic characteristics, self-reported health status, limitations in activities of daily living, and enrollee group type (e.g., dual eligible, institutionalized, disabled). We apply this model to MA enrollees to estimate their predicted TM spending. We find that since 2017, MA enrollees have had higher predicted costs than TM enrollees—5–6% higher from 2017 to 2020—driven largely by the growing share of dual eligibles in MA. Within enrollee group type, however, we observe little evidence of differential selection. We further use the model results from just our baseline year, 2009, to predict both MA and TM spending in each subsequent year. We find that although MA enrollee characteristics did not trend observably healthier or sicker over this period, TM enrollees' characteristics appear to have shifted in ways associated with lower predicted spending over time. These findings suggest that the nature of selection into MA has qualitatively shifted over recent years and raises further questions about how well the current risk adjustment system reflects appropriate differences in risk as the enrollee characteristics in these groups continue to diverge.

Competition in Health Insurance Markets

GAYNOR, M. ET STARC, A.

2026

NBER Working Paper 34928. N.B.E.R.

https://www.nber.org/papers/w34928

The United States relies primarily on private health insurance markets, yet these markets are highly concentrated and becoming more so over time. We document concentration across commercial, Medicare Advantage, and Medicaid markets. We then examine how asymmetric information—particularly adverse selection—interacts with market power to shape premiums, plan design, and consumer welfare. Empirical evidence confirms that insurer consolidation raises premiums. We discuss how antitrust enforcement, risk adjustment, regulation, and informational interventions shape competition and consumer welfare in these markets.

Variation In Medicaid And Medicare Payment Rates To Community Health Centers, 2023

MARKOWSKI, J. H., *et al.*

2026

Health Affairs 45(4): 413-422.

https://doi.org/10.1377/hlthaff.2025.00949

In recent years, community health centers (CHCs) have struggled to meet the needs of underserved communities because of limited resources and growing demand. Medicaid and Medicare use prospective payment systems (PPSs) to reimburse CHCs at enhanced rates to safeguard their financial stability by providing consistent and predictable payments. However, whether and how these rates vary across centers is unknown. In this study, we conducted the first known analysis of Medicaid and Medicare PPS rates across CHCs by compiling a novel data set from forty-two states and Washington, D.C. We found that Medicaid PPS rates were 23 percent higher, on average, than Medicare PPS rates in 2023. Concerningly, centers that served more patients who identified as non-Hispanic Black, were uninsured, or had more chronic conditions received lower PPS rates. Overall, we observed that payment rates were generally insufficient to offset the average per visit cost of care delivered in CHCs. Standardized policies concerning how public insurance payers reimburse CHCs are needed to promote equity and sustainability in the health care safety net.

Somebody get me a doctor: Voluntary health insurance, social background and subjective health in Europe, 2002-2022

MARTINUSSEN, P. E. ET NORDHEIM, O.

2026

Health Policy 168: 105596.

https://doi.org/10.1016/j.healthpol.2026.105596

BACKGROUND: The last couple of decades have seen a steady increase in the uptake of voluntary health insurance (VHI) across Europe. So far, very little is known about the impact of VHI on the health of the population and the possible inequalities in health. OBJECTIVE: We examined the relationship between VHI in European countries and the subjective health of its citizens in the period 2002-22, and whether this is contingent upon a person's social background METHODS: We combined the most recent data available on VHI with individual data on subjective health and socio-economic background from the European Social Survey RESULTS: Within-country increases in VHI was associated with poorer health in the population in the long term. Furthermore, individuals with low education had a higher probability of reporting poor health if they live in a country where VHI increased during the period. Our results thus lend no support to the so-called 'substitution argument', which hypothesises that VHI may redistribute resources from the better-off and ease the burden of the public healthcare system. Instead, the results indicate a 'crowding out'-effect, whereby VHI crowd out resources from the public system, resulting in poorer quality of public health services and thereby negative health effects for those remaining in the public sector. CONCLUSION: European health policy makers should develop strategies to minimize the potential adjacent side effects of VHI.

E-santé – Technologies médicales

E-Health – Medical Technologies

Megatrends and equity gaps in global digital health: A bibliometric review (2010–2025)

BORROMEO, A. S., *et al.*

2026

Health Policy 169: 105621.

https://doi.org/10.1016/j.healthpol.2026.105621

Background Digital health has become increasingly prominent in health systems and policy discourse, yet published evidence remains fragmented across technologies, regions, and equity dimensions. Objective To descriptively map the evolution of global digital health

research from 2010 to October 2025 and identify its intellectual foundations, thematic fronts, and equity gaps using bibliometric methods. Methods A bibliometric review of Scopus-indexed English-language journal articles was conducted and analyzed in VOSviewer (v1.6.20). Co-citation mapping used association-strength normalization with a minimum citation threshold of 15 cited references, resolution 0.50, and minimum cluster size 5. Co-word analysis of author keywords used a minimum occurrence threshold of 462, resolution 1.03, and minimum cluster size 6. Descriptive indicators summarized annual output and citation impact. Results The dataset comprised 8210 articles with 140,459 citations (mean=17.1). Output surged after 2020, with 82.9% of publications appearing from 2020 to 2025 and peaking in 2025 (n = 1705). Co-citation analysis revealed four clusters: systems-strengthening in LMICs, digital epidemiology and algorithmic equity, digital-health literacy and evidence-based eHealth, and virtual-care transformation during COVID-19. Co-word analysis identified four thematic fronts: adult care and health disparities, digital health systems and workforce access, youth health literacy and digital inclusion, and pandemic-era virtual care. Cross-cutting gaps included interoperability, sustainability, digital literacy, responsible AI governance, equity-by-design, and LMIC-led evaluation. Conclusions Global digital health research has expanded rapidly into an interdisciplinary field. This review maps major themes and gaps but does not establish causal evidence of policy impact. Findings highlight priorities for interoperability, responsible AI, digital inclusion, sustainability, and LMIC-led evaluation.

Governing the rise of AI in healthcare: A comparative governance document and implementation implications across five jurisdictions

CHEN, J., *et al.*

2026

Social Science & Medicine 400: 119270.
https://doi.org/10.1016/j.socscimed.2026.119270

Background As AI increasingly reshapes healthcare delivery and innovation, global health systems face urgent imperatives to govern its development, deployment. Objective Drawing on 43 regulatory and strategic documents in five jurisdictions, the study systematically assessed convergences and divergences in national AI strategies, risk classification schemes, software-as-a-medical-device (SaMD) frameworks, ethical oversight, and cross-border data policies. Methods Policy and regulatory documents on AI in health (2017–2025) were collected from health authorities, regulatory agencies, and multilateral platforms. A structured 20-item framework covering six domains was applied to enable systematic cross-jurisdictional comparison of strategic vision, regulatory rigor, ethics, implementation support, global alignment, and medical device governance. Results Increasing convergence around core principles such as transparency, accountability, and human-centric AI, particularly through the influence of international norms. However, significant divergence remained in regulatory maturity, enforcement mechanisms, reimbursement pathways and implementation capabilities. While jurisdictions like Singapore and China exhibited centralized, state-led coordination, others like the US reflected pluralistic, agency-driven models. Economic incentives, workforce readiness programs, and post-market surveillance systems also varied widely. Conclusion The study concluded with five recommendations for advancing AI governance: strengthening interagency coordination, harmonizing regulatory frameworks, embedding equity and transparency in data infrastructure, supporting institutional readiness and fostering international collaboration.

The Geography of Disconnection: Rural and Urban Gaps in Post-Pandemic Telehealth Use

ONAL, S. O. ET ONAL, C.

2026

Health Services Research 61(3): e70126.
https://doi.org/10.1111/1475-6773.70126

ABSTRACT Objective To examine rural–urban disparities in telehealth utilization during the post-pandemic period and assess whether these disparities persist after adjusting for individual-level characteristics. Study Setting and Design We used multivariable logistic regression and propensity score matching to estimate differences in telehealth use by rurality and examined self-reported reasons for non-use. Data Sources and Analytic Sample We analyzed 2022 and 2024 Health Information National Trends Survey (HINTS) data, a nationally representative survey of noninstitutionalized US adults. The analytic sample included 11,106 respondents after excluding missing observations. Principal Findings Overall, 38.7% of adults reported telehealth use in the past 12 months. After adjusting for covariates, rural residents were significantly less likely to use telehealth than urban core residents; remote

rural residence was associated with a 10–percentage point lower probability (95% CI, –16.2 to –2.8; p < 0.01). Propensity score analyses yielded similar results (–7.7% points; 95% CI, –16.2 to –2.8; p < 0.01). Among non-users, rural respondents were more likely to report not being offered telehealth. Conclusions We observed significant rural–urban disparities in telehealth use in the post-pandemic period. Rural non-users were more likely to report not being offered telehealth, indicating delivery-side barriers.

▶ How representative are electronic health records? A record linkage study using individual-level census data

UDALOVA, V., *et al.*

2026

Social Science & Medicine 398: 119151.

https://doi.org/10.1016/j.socscimed.2026.119151

Electronic health records (EHRs) may be a promising alternative to traditional health surveys for population health surveillance due to their detailed health and patient information, low cost, and minimal respondent burden. However, concerns about the population representativeness of EHRs raise questions about their validity for public health monitoring and tracking social determinants of health. This study addresses these concerns by evaluating the representativeness of EHRs from UNC Health, a large integrated health delivery system in North Carolina, by linking individual-level EHRs (2018-2022; n = 2.12 million unique patients) with individual-level microdata from the nationally representative American Community Survey (ACS, 2018-2022). Specifically, we evaluate how demographic factors (age, sex, race/ethnicity), socioeconomic factors (education, employment, poverty, food stamps, public assistance), and health insurance impact the likelihood that a North Carolina ACS respondent will appear in the UNC Health EHRs. Linear probability models indicate that although UNC Health patients are not fully representative of the state population, selection biases are small and align with known patterns of healthcare utilization (e.g., overrepresentation among females, older adults, and individuals with health insurance). Moderate selection is observed by race/ethnicity and socioeconomic status, with overrepresentation at both the high and low ends of the socioeconomic spectrum. These findings provide cautious reassurance for the use of appropriately weighted EHR data in population health monitoring while demonstrating the value of evaluating and improving the utility of EHRs in public health research through linkages with individual-level nationally representative data.

Economie de la santé

Health Economics

▶ Regional Price Level Estimates for Medical Services in the United States

ACKLEY, C. A.

2026

Health Services Research 61(2): e70036.

https://doi.org/10.1111/1475-6773.70036

ABSTRACT Objective To estimate regional price levels for medical services in the United States by type of service and in aggregate. To compare medical and non-medical price variation, examine the relationship between prices and spending, and develop a deflator-based utilization measure. Study Setting and Design I measure state-level medical price variation using hedonic regression models that control for differences in service mix and patient characteristics. I estimate separate models for inpatient, outpatient, and professional services, and compute expenditure-weighted aggregate price levels. The results are used to construct new utilization measures, quantify the share of spending variation explained by price levels, and examine the relationship between medical and non-medical price levels using price parity estimates from the BEA. Data Sources and Analytic Sample I use commercial health care claims from the Health Care Cost Institute (HCCI) database and the Merative MarketScan database from 2018 to 2022. Principal Findings Medical prices are 70%?80% higher in the most expensive states than in the least expensive states. Alaska, Wyoming, Wisconsin, Oregon, and California tend to have the highest medical prices, while Alabama, Arkansas, Kentucky, Michigan, and Louisiana tend to have the lowest, although there

is considerable heterogeneity across service categories. Medical prices are significantly more disperse than non-medical prices, and the correlation between the two is weak across states (0.27). Price variation explains about one-half of the variation in health care spending per beneficiary. The MarketScan and HCCI databases yield similar estimates. Conclusions Commercial medical prices vary considerably across states, and this variation is not strongly correlated with non-medical price levels. This suggests that market forces governing health care prices are only weakly related to those affecting non-medical goods and services prices. Additionally, price variation is a significant driver of spending variation, implying that policies to reduce prices in expensive states could significantly reduce spending.

Health financing and population ageing: evidence on the links between financial sustainability and financial hardship from the PASH simulator

CYLUS, J., *et al.*

2026

Health Policy 169: 105617.

https://doi.org/10.1016/j.healthpol.2026.105617

Background Countries around the world worry about the financial sustainability of their health systems as populations age; however, few have considered the consequences of future gaps in health financing on the risk of financial hardship due to out-of-pocket payments. If countries are unable to raise sufficient revenues to meet health needs, people will pay more out-of-pocket to use health services and risk experiencing catastrophic or impoverishing health spending. Objective We aim to simulate the effect of health financing gaps due to changes in the population age-mix on the risk of financial hardship from out-of-pocket payments and to identify relevant policy mechanisms. Methods Using the Population Ageing financial Sustainability gap for Health systems (PASH) simulator and the WHO Europe approach to measure catastrophic and impoverishing out-of-pocket expenditure, we simulate the effects of ageing-related health financing gaps on financial hardship in Bulgaria, Italy, Slovakia, Slovenia, and Spain through 2060. Results Our results indicate that all five countries will face significant health financing gaps due to population ageing. These gaps are expected to lead to increased out-of-pocket spending, resulting in higher incidences of catastrophic and impoverishing health expenditures to varying extents depending largely on each country's current approach to revenue raising and co-payment policies. Conclusion We argue that countries should adopt diverse and sustainable health financing mechanisms and implement strong coverage policies to protect households from financial hardship as their populations age. This study underscores the importance of addressing health system financial sustainability to ensure progress towards universal health coverage.

A Systematic Review of the Economic Burden of Prostate Cancer: Direct and Indirect Cost Perspectives

DARBÀ, J., *et al.*

2026

PharmacoEconomics 44(5): 559-583.

https://doi.org/10.1007/s40273-026-01594-4

Prostate cancer (PC) is the second most common cancer in men. Although many studies have assessed its economic burden, no recent reviews have focused on studies conducted under current clinical guidelines. This study systematically reviews recent cost-of-illness studies evaluating direct and indirect costs associated with PC.

80 ans de la Sécurité sociale : mouvements sociaux, pacte solidaire et reconnaissance du travail social

FOUDA-ESSOMBA, V. S.

2026

Santé Publique 38(1): 117-121.

À l'occasion du 80e anniversaire de la Sécurité sociale, cet article propose une lecture critique de son évolution à travers les mouvements sociaux qui l'ont défendue, les mutations contemporaines qui la traversent, et le rôle essentiel des assistants de service social dans sa mise en œuvre quotidienne. Il s'agit de réinterroger les fondements du pacte solidaire français et de valoriser les métiers du lien comme acteurs de transformation sociale.

Understanding public opposition to negative reimbursement decisions in healthcare: A systematic review

RECKERS-DROOG, V., *et al.*

2026

Social Science & Medicine 401: 119324.

https://doi.org/10.1016/j.socscimed.2026.119324

The pressure on publicly financed healthcare systems may necessitate decisions to not (or no longer) reimburse health technologies. Such decisions remain politically sensitive and often evoke public opposition, pressuring decision-makers to revoke or revise them. However, the elements that constitute public opposition remain unclear. This study addresses this gap by systematically reviewing the scientific literature. We searched Embase, Google Scholar, Google, and Startpage, and supplemented these with a hand search in 2021, updated in 2022 and 2024. Based on 81 articles, we developed a thematic framework of 21 categories grouped under the Five Ws—'Who, What, When, Where, and Why'—of public opposition to negative reimbursement decisions. Citizens, patients (and representatives), physicians, pharmaceutical companies, and politicians emerged as key actors. Opposition typically targets the outcomes and justifications of decisions, driven by high expectations, claims about effectiveness, or perceptions that decision-makers prioritize cost containment. Distrust in decision-makers and evidence-based decision-making may leave some actors—particularly citizens and patients—vulnerable to commercial driven information and misinformation. Other actors—including pharmaceutical companies, patient representatives, and politicians—may strategically use the media to shape opinion and amplify opposition. Public opposition is multifaceted. Understanding its dynamics may help align decision-making with public values and support efforts to address misconceptions and counter misinformation, thereby enhancing the acceptability of such decisions in healthcare.

▶ Paying for Health Gains Using Patient Reported Outcome Measures

SICILIANI, L., *et al.*

2026

Health Economics 35(5): 831-847.

https://doi.org/10.1002/hec.70086

ABSTRACT Payments to healthcare providers are often based on the number of patients with a particular diagnosis or treatment with well-known limitations. Payment based on health outcomes, a form of pay-for-performance, has long been advocated as a possible solution. We use a contract theory approach and illustrate how it can inform practical implementation of pay-for-performance schemes that reward health outcomes. The pricing rule suggests that the bonus should be set to reflect the difference between the provider's marginal cost of a health improvement before the policy intervention and the provider's marginal cost evaluated at the target health set by the purchaser. We provide estimates of the optimal bonus for hip and knee replacement under a range of assumptions about provider cost functions and the value of health improvements.

Environnement et santé

Environmental Health

▶ Counting costs and carbon: A decision model for greener healthcare policy

BRUNN, M., *et al.*

2026

Health Policy 168: 105607.

https://doi.org/10.1016/j.healthpol.2026.105607

Background Healthcare systems contribute approximately 5–8% of national greenhouse gas emissions in high-income countries, yet current evaluation frameworks seldom include environmental externalities. While many nations have committed to decarbonizing healthcare, operational tools that integrate environmental impacts into decision-making remain scarce. Objective To test the feasibility and implications of a "health-economic-climate" model that incorporates monetized carbon emissions into conventional cost-utility analysis (CUA), using depression care in France as a case study. Methods A semi-Markov model compared three first-line treatments for depression—antidepressants (AD), psychotherapy (PT), and combination therapy (COMB)—from the French healthcare system perspective over five years. Direct medical costs and carbon emissions were estimated using life-cycle data and monetized via a sector-adjusted social cost of carbon (SCC) of €90/tCO_2e. Incremental cost-effectiveness

ratios (ICERs) and sensitivity analyses were conducted. Results Annual carbon footprints were 104 $kgCO_2e$ (AD), 177 $kgCO_2e$ (PT), and 225 $kgCO_2e$ (COMB). Over five years, PT was the least costly and equally effective compared with AD, while COMB was more effective but more expensive (ICER ≈ €35,000/QALY). Incorporating carbon costs modestly altered results but improved visibility of environmental impacts. Conclusions Integrating monetized carbon emissions within CUA is feasible, methodologically transparent, and compatible with existing HTA structures. This minimal adaptation supports gradual adoption of climate-aligned decision tools without institutional redesign. Future applications should expand to a societal perspective and explore multicriteria frameworks that make trade-offs between health, cost, and environmental goals explicit.

The 2026 Europe report of the Lancet Countdown on health and climate change: narrowing window for decisive health action

KRIIT, H. K., *et al.*

2026

The Lancet Public Health : 0

https://doi.org/10.1016/S2468-2667(26)00025-3

This third iteration of the Lancet Countdown on health and climate change in Europe report systematically tracks the health effects of climate change adaptation and mitigation action, economics and finance, and the engagement of various societal actors with the climate change and health nexus, drawing on data up to 2025. The report features seven new indicators, methodological updates, extended time series for existing indicators, and highlights inequalities in health risks and impacts where possible.

Does urban environment at birth and adolescence affect cardiometabolic morbidity in adolescents? Results from the PARIS birth cohort study

LEFEBVRE, L., *et al.*

2026

Health & Place 98: 103622.

https://doi.org/10.1016/j.healthplace.2026.103622

This study aims to examine the association between urban environment characteristics at birth and at adolescence and cardiometabolic health in adolescents from the PARIS birth cohort. Body mass index z-scores (BMIz) trajectories from birth to adolescence, weight status and two cardiometabolic profiles at adolescence were determined. Traffic-related air pollution (TRAP) exposure was estimated by a nitrogen oxides air dispersion model. The French Deprivation Index, walkability percentage, and the use of green spaces were considered. Built environment typologies were identified by a cluster analysis. Associations were assessed using multivariable (multinomial) logistic regression models and potential modifier effects were examined. Among 617 adolescents who participated in the health checkup, around one in ten were living with overweight/obesity. Five BMIz trajectories were identified. After adjustment, walkability and the use of green spaces at adolescence were negatively associated with overweight/obesity. Early TRAP exposure showed a positive association with overweight/obesity and with each BMIz trajectory compared to the low stable trajectory, with a higher level of association observed for the two ascending trajectories. TRAP exposure, parental overweight, use of green spaces, and sedentary behavior modified the associations between the urban environment and overweight. These findings show the beneficial effects of neighborhood walkability and using green spaces on overweight/obesity in adolescents. They also demonstrate that early TRAP exposure increases the risk of overweight. These results highlight the necessity of effective urban planning to contribute to a healthy environment.

The Increasing Value of Environmental Sustainability Assessments in Healthcare Policy and Technology Evaluation

NICHOLSON, L., *et al.*

2026

Applied Health Economics and Health Policy 24(3): 443-447.

https://doi.org/10.1007/s40258-026-01034-6

This editorial explores global momentum for sustainable healthcare and the emerging role of pathway-based environmental sustainability assessments (ESAs). It outlines key methodological challenges that currently limit its integration into healthcare policy and HTA, particularly the primary limiting factor of availability of healthcare-specific environmental data. Despite these challenges, we demonstrate how ESAs can be applied to generate actionable insights using a real-world case study, IMPACT CKD, and highlight the crucial next steps for embedding environmental value in healthcare evaluation.

Air quality and suicide

PERSICO, C. ET MARCOTTE, D. E.

2026

Journal of Health Economics 107: 103135.

https://doi.org/10.1016/j.jhealeco.2026.103135

We study the relationship between air pollution and suicide using detailed daily cause of death data from all death certificates in the U.S. over eight years. Using a two-stage residual inclusion estimator with wind direction as an instrument for daily pollution exposure, we estimated that a 1 µg/m3 increase in daily PM2.5 is associated with a 0.39% increase in daily suicides and a 50.5% increase in monthly suicide-related hospitalizations. We find relatively large effects for men, young persons, and in counties where the mean level of pollution is above the median. Our event study estimates show the relationship between pollution and suicide exposure is contemporaneous.

État de santé

Health Status

Paths to multimorbidity: a longitudinal perspective on disease accumulation in Catalonia, Spain

AHMED, S. M. A., *et al.*

2026

European Journal of Public Health 36(2) : ckag029

https://doi.org/10.1093/eurpub/ckag029

With increasing life expectancy, multimorbidity represents a growing global challenge, affecting quality of life. We analyzed electronic health records of individuals aged 45–74 from Catalonia, Spain (2007–2021), who were healthy at the end of 2007. We use sequence and cluster analysis to describe and categorize monthly disease accumulation patterns, from healthy to one or multiple conditions or death, involving four disease groups with the highest global morbidity and mortality burdens. We further investigate the association between identified clusters and sociodemographic factors and the association of cluster membership with healthcare utilization. Approximately 36% of individuals remained healthy throughout the study, while the remainder transitioned to single or multiple morbidity and/or died. A higher number of conditions in a given month increased transition probability, with metabolic and hypertensive conditions being the most common entry points. We identified nine disease accumulation trajectories linked to sociodemographic characteristics: Women were more likely to be in clusters involving neurodegenerative conditions and men in those involving cardiovascular and cancer conditions. Higher-income individuals were more likely to be in lower morbidity clusters, except the cancer multimorbidity cluster. Healthcare utilization was elevated in all clusters relative to the healthy group, with notably higher emergency use in cardiovascular clusters and more hospital admissions in cancer-related clusters. The study shows that disease accumulation follows identifiable patterns linked to sociodemographic factors and underscores the propagative nature of multimorbidity. Further, healthcare utilization is shaped more by condition type than by the number, highlighting the need for targeted health services.

Impact de la COVID-19 sur les personnes en obésité : enquête dans les CSO (centres spécialisés obésité) de Nouvelle-Aquitaine

ALESSANDRIN, A., *et al.*

2026

Santé Publique 38(1): 95-101.

Objectif : Dans un contexte de sur-hospitalisation des personnes en situation d'obésité et en surpoids lors de l'épidémie de COVID-19, une équipe pluridisciplinaire a tenté de comprendre quels étaient les impacts des confinements et des couvre-feux sur les patient·es pris en charge dans les centres spécialisés obésité (CSO) en Nouvelle-Aquitaine (France). Méthode : Cette étude épouse une méthodologie mixte (qualitative et quantitative). Résultats : Elle démontre des ruptures dans les trajectoires de santé des patient·es et traduit statistiquement les expériences spécifiques à cette population. Conclusion : Elle offre un regard analytique sur les soins en bariatrie ainsi que sur l'instant COVID.

Nationwide implementation of Watch-and-Wait in rectal cancer patients in the Netherlands: Encountered barriers and lessons learned in 20 years

CEUPPENS, C., *et al.*

2026

Health Policy 169: 105622.
https://doi.org/10.1016/j.healthpol.2026.105622

Background The Watch-and-Wait (W&W) approach for rectal cancer aims to improve quality of life by avoiding total mesorectal excision in patients with a clinical complete response after neoadjuvant treatment. Over the past two decades, W&W has gained increasing acceptance and is now incorporated into several national guidelines. However, successful and safe implementation outside highly specialised centres encounters barriers at multiple levels. Objective To describe the nationwide implementation of the W&W strategy for rectal cancer in the Netherlands and to identify key barriers at policy, institutional, and patient levels. Methods This article outlines the nationwide implementation of the W&W strategy in the Netherlands, highlighting the encountered barriers at policy, institutional and patient levels. Results W&W evolved from an innovative approach in specialised 'expert' centres to a nationally recognised treatment offered across 18 high-volume hospitals. This was achieved by systematically addressing barriers at each level. Policy-level barriers, such as the absence of standardised criteria for response assessment and follow-up, were addressed by developing MRI and endoscopy guidelines and structured surveillance protocols. Institutional-level barriers, including logistical challenges and financial incentives favouring surgery, were overcome through intensive multidisciplinary collaboration. At patient level, shared decision-making was key to align patient preferences with oncological safety, while careful patient selection supported optimal outcomes. Conclusion The Dutch experience demonstrates that implementation of W&W is feasible and sustainable when guided by expert centres and supported by national protocols, collaboration, and quality assurance. These lessons may support other countries in integrating organ-preserving strategies into standard rectal cancer care.

Measuring patient experience of integrated care in multiple sclerosis: development and validation of the Integrated Care Experience Scale (ICES-MS)

MANACORDA, T., *et al.*

2026

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People with multiple sclerosis (MS) need to receive health and social care services from a diverse range of provider organizations, which carries risks such as disjointed care, discontinuities, and duplication. Many innovation programmes aim to provide better integrated and person-centred care (IPCC) for people with chronic conditions, including MS. Measuring patient experience is essential to evaluate interventions meant to shift the service model towards coordinated and personalized care. These transformations are central to global strategies for addressing the needs of ageing populations. AISM-Italian MS Association adapted an 8-item questionnaire, ICES-MS, from a set of questions originally designed for chronic patients in general. A total of 1602 persons with MS living in Italy completed the ICES-MS as a part of a broader survey that included other validated questionnaires on disability (Self-EDSS) and quality of life (EQ-5D-3L and EQ-VAS). Participants' responses were also linked with data from a previous AISM survey on 169 Italian Clinical Centres. Structural, construct, criterion, and known-groups validity of ICES-MS were evaluated. The ICES-MS scale is a robust unidimensional measure of patient experience of IPCC in MS, with strong internal consistency and appropriate convergent validity with EQ-5D-3L and EQ-VAS. ICES-MS scores varied as expected by participants' age and disability level. ICES-MS is a valid, succinct scale to measure patient experience of IPCC care in MS in Italy, and its original design suggests value in exploring its use in other chronic conditions and different countries.

Towards more effective, efficient, and person-centered care for patients with chronic conditions in Spain through the CARABELA initiative

MEDIAVILLA, I., *et al.*

2026

Journal of Healthcare Quality Research 41(3): 101211.
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Introduction Chronic multimorbidity, aging and care fragmentation challenge health systems. In Spain, strengthening coordination between primary and hospital care may support more effective chronic disease management. Objective The CARABELA PC-HC initiative proposes an integrated, patient-centered approach to strengthen chronic care continuity across levels. Methods This cross-sectional analysis included five CARABELA initiatives (from May 2019 to October 2024) supported by ten Spanish scientific societies and AstraZeneca. Centers were selected for territorial representativeness, structural diversity, and population size. The CARABELA methodology included: design of the ideal care process based on clinical guidelines and real-world practice; identification of improvement areas (IAs) and solutions; validation of proposals and quality indicators (QIs) through a national Delphi consensus; and development of a Whitebook incorporating patient input and dissemination via the CARABELA Playbook platform. Results Chronic care delivery was mapped across 124 Spanish health areas, covering 1337 centers and 10,696 professionals. Globally, 82 IAs, 282 solutions, and 121 QIs were identified. Prioritized IAs included poor care continuity, lack of shared protocols, limited patient education, and uneven digital integration. Professionals emphasized coordination, training, and clinical protocols; patients prioritized autonomy, information, and emotional support. A core set of 54 cross-cutting solutions (including shared electronic health records and multidisciplinary pathways) and 46 transversal indicators was defined to guide implementation and evaluation. Conclusions CARABELA PC-HC provides a scalable framework to optimize chronic care integration. By aligning processes and patient-centered professional collaboration, it supports coordinated care models that enhance clinical outcomes, efficiency and equity, with potential applicability to other health systems.

▶ Exploring Population Heterogeneities in Health Dynamics

PALMISANO, F.

2026

Health Economics 35(5): 691-711.

https://doi.org/10.1002/hec.70076

ABSTRACT How does individuals' health status evolve over time? Is this evolution characterized by any socio-economic gradient? To answer these questions, this paper proposes a new intuitive and normatively grounded criterion to assess and compare health dynamics over time accounting for population heterogeneities. Implementing this criterion to European data, this paper provides the first pan-European evidence on health dynamics and related heterogeneities from 2005 to 2019. It shows that socio-economic gradients have played an important role in shaping the health dynamics experienced by the European population. These dynamics appear progressive with respect to the pure economic status of individuals determined by their level of income. This feature is reverted when the economic conditions of individuals are widened to include non-pure monetary aspects such as professional condition and parental background.

▶ Are Health Gains to Children and Adolescents More Important Than Health Gains to Adults? A Person Trade-Off Study

PEASGOOD, T., *et al.*

2026

PharmacoEconomics 44(5): 599-613.

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Healthcare decision-making often assumes equal value for quality-adjusted life years (QALYs) across patient groups, yet societal preferences suggest that the value of a QALY may vary with characteristics such as age. Evidence indicates some willingness to prioritise child health gains, though findings are inconsistent. This study used person trade-off (PTO) to estimate the relative social value of different types of health gains for children and adolescents (aged 0–24 years) compared with adults.

▶ Cognitive health and protective factors: from a life expectancy approach

RUEDA-SALAZAR, S., *et al.*

2026

Social Science & Medicine 399: 119153.

https://doi.org/10.1016/j.socscimed.2026.119153

Objective This study aimed to quantify the impact of gender and key proxies of cognitive reserve in later life, such as education and physical activity, on cognitive impairment-free life expectancy (CIFLE), and measure the significant regional disparities in cognitive health within Chile. Study design: A panel dataset was employed to track the cognitive states of 1,959 Chilean individuals aged 60 years and over, who were interviewed in private households between 2017 and

2019. Methods Multistate modelling was applied to calculate CIFLE, total life expectancy, and the impact of protective factors on the lifespan and by geographical macrozone. Results Higher education was associated with an average increase of 4.7 years in CIFLE and 4.5-year gain for women. Notably, physical activity demonstrated a powerful compensatory effect, adding 5.5 years of CIFLE for women with lower educational attainment, thus acting as a key mechanism to reduce gender gaps. The study's primary contribution is the quantification of profound territorial inequalities: older adults in regions outside the metropolitan area faced an up to 30% higher risk of cognitive impairment at older ages. National averages were found to mask these divergent local realities Geographic differences suggest a more advantageous situation in cognitive health for women in the metropolitan region than in other macrozones. Conclusion This study provides the first subnational quantification of years with better cognitive health in Chile, revealing that territorial disparities are a critical dimension of health inequality. The findings offer a direct evidence base for National Plan of Dementia in Chile and the National System of support and Care, demonstrating the urgent need to move beyond a top-down approach and implement targeted, region-specific public health interventions to promote equitable cognitive aging.

▶ Disrupting the path to cardiovascular disease: Stress-related coping and onset of hypertension and obesity

TRUDEL-FITZGERALD, C., *et al.*

2026

Social Science & Medicine 399: 119213.
https://doi.org/10.1016/j.socscimed.2026.119213

Objective Accumulating research suggests stress-related coping contributes to cardiovascular disease risk, but its association with upstream cardiometabolic conditions remains unexplored. We examined whether coping strategies generally deemed adaptive (e.g., acceptance) and maladaptive (e.g., self-blame), as well as variability in their use (reflecting attempts to find the best strategies for managing stressors) predict risk of developing hypertension and obesity. Methods Women (N = 26,126) from the Nurses' Health Study II cohort reported use of eight coping strategies in 2001. Coping variability was operationalized using a standard deviation-based algorithm and considered categorically (i.e., lower, moderate, greater levels) to assess non-linear effects. Until 2019, hypertension status was self-reported and obesity was derived from height and updated weight information. Cox regression models, controlling for baseline demographic, health-related, and behavioral factors, estimated hazard ratios (HR) and 95% confidence intervals (CI). Potential effect modification by age, menopausal status, and neighborhood socio-economic status (SES) was evaluated. Results In the overall sample, many coping strategies were associated with increased risk of new onset obesity (e.g., per 1-SD increase in behavioral disengagement adjusting for demographic and health-related covariates: HR = 1.08, 95CI% = 1.05-1.11), but not hypertension. Greater versus lower variability levels were related to 8-10% lower risk of developing obesity and hypertension, respectively. Associations were generally comparable across age, menopausal status, and neighborhood SES subgroups. Conclusions Stress-related coping strategies and variability in their use were associated with risk of developing obesity and hypertension among women. Future intervention research may consider how women manage stressors to lower risk of conditions that affect lifelong cardiovascular health.

Géographie de la santé

Geography of Health

▶ Synergies of participatory mapping and health geography: A scoping review

BHATTACHARYA, S., *et al.*

2026

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Participatory mapping (PM) offers unique opportunities to advance health research by integrating community perspectives into spatial health data. Currently there is

lack of clarity on what meaningful participation entails in PM and what it does for social inclusion in health geography. In this paper, using the PRISMA-ScR guidelines, we identified 39 English-language, peer-reviewed empirical studies in seven electronic databases from an initial pool of 2240 to do a scoping review on the interplay between PM approaches and health geography. We found that common PM approaches include participatory/community mapping, public participation GIS (PPGIS), participatory GIS (PGIS), Volunteered Geographic Information (VGI), photomapping, activity space, body/x-ray mapping, and sketch mapping. These studies addressed diverse topics in health geography, such as behavioral health, environmental health, determinants of health, health outcomes, access, and health inequalities/inequity/disparity. Findings show that while PM's applications in health geography have grown since the 2010s, 'participation' standards and taxonomy remain unclear. To understand how PM approaches foster community agency, we develop a comprehensive framework for advancing PM utilization in health geography consisting of: (1) a harmonized PM framework for health research, (2) a checklist of PM components for health research, and (3) reporting standards for broader impacts (e.g. community-level health effects). This framework may promote wider adoption of PM in health research while upholding ethical and participatory principles. By emphasizing transparency and impact reporting, the framework can support PM in advancing health outcomes and equity through inclusive, community-driven research.

Assessing equity of access: a needs index for digital health stations in Queensland, Australia

FLITCROFT, L., CHEN, W. S., TIRLEA, L., *et al.*

2026

Health & Place 99: 103671

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Digital health stations provide free health checks for users in public settings such as retail environments, enabling self-service measurement of cardiometabolic health risk factors including blood pressure, body mass index (BMI) and Type 2 diabetes risk. This study aimed to develop a method of quantifying need for health stations, and to measure equity of access to stations across geographical areas in Queensland, Australia. Using Bradshaw's Taxonomy of Need, variables representing multiple dimensions of need were identified and combined using Principal Components Analysis to derive a Health Station Needs Index. This index was used to assess equity of access to stations in Queensland, using equity ratios, logistic regression, Gini Coefficients and concentration curves. The Gini coefficients for number of health stations (0.599), per capita health stations (0.695), distance to the closest health station (0.788), and number of health checks per capita (0.395) across needs index deciles highlight inequitable distribution of health stations in Queensland. When considering distance to the closest health station, inequity disadvantaging higher need regions was supported by a high equity ratio (20.82), a positive significant relationship between need and distance (= 0.529) and a concentration index with a high negative value (–0.690). By adopting a systematic data-driven approach, this research reveals a clear gap in geographic access based on distance to health stations in areas with the greatest health need. It underscores the importance of considering need as a major criterion in future planning for health station locations and provides a measure of need for this purpose.

Life-course neighborhood contexts, social engagement, and cognitive health in later adulthood

HAN, C. ET ZHOU, N.

2026

Social Science & Medicine 398: 119103.

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Objective This study examined the effects of early- and later-life neighborhood contexts on social engagement and cognitive function in later life. Methods Data were drawn from the China Health and Retirement Longitudinal Study (CHARLS) from 2011 to 2020. The analytical sample included 6082 participants aged 60 years and older. A longitudinal growth curve model (LCGM) was employed to estimate the direct and indirect effects of early- and later-life neighborhood contexts on cognitive function through social engagement over the study period. All analyses were stratified by urban and rural neighborhoods. Results Urban neighborhoods had more facilities than rural villages, and urban residents had higher levels of social engagement. Social engagement had significant impacts on cognitive function at baseline and was associated with steeper cognitive decline over time for both urban and rural residents. Better neighborhood contexts in childhood (= 0.110, p < .001) and more neighborhood facilities in later life (= 0.086, p < .01) were associated with higher levels of social engagement at baseline for rural villages (ßneighborhood facilities = 0.085,

p < .01; neighborhood contexts in childhood = 0.126, p < .001). Neither neighborhood contexts in childhood nor neighborhood facilities in later life have direct impacts on cognitive function after adjusting for covariates. Conclusion Social engagement in later life is significantly influenced by neighborhood contexts in early life and neighborhood facilities in later life. These findings highlight the importance of improving neighborhood contexts to encourage social engagement and support cognitive function especially for rural residents.

Effects of neighborhood amenities, services, and built infrastructure on cognitive health: A longitudinal study of older Chinese immigrants in Chicago, United States

JIANG, Y., *et al.*

2026

Social Science & Medicine 399: 119223.

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Neighborhoods play a critical role in cognitive health risk and resilience, particularly as most older adults prefer to age in place. Research on this topic has largely focused on neighborhood socioeconomic indicators and a limited set of physical features such as green space and walkability. Broader neighborhood amenities, services, and built infrastructure that can support cognitive stimulation, exercise, and social engagement have received less attention, particularly among older immigrant populations. To fill this important scientific gap, this study examined the effects of various neighborhood contextual features in 2,763 Chinese immigrants aged 60 years and older living in Greater Chicago, United States. We derived an overall Census tract-level Cognability Neighborhood Index (CNI) using item response theory to capture the availability of neighborhood amenities, services, and built infrastructure (e.g., museums, senior services, healthcare services, transit stops) that can support cognitive health through social and behavioral pathways. Results from the mixed-effects models show that CNI was not associated with cognitive function at baseline. However, participants who lived in neighborhoods with higher CNI scores exhibited slower cognitive decline over time. Novel study results indicate long-term cognitive health benefits of living in cognitively supportive neighborhoods in a sample of older immigrants, highlighting the potential of targeted community-based interventions and urban planning efforts to reduce dementia risk.

Measuring maternal healthcare accessibility in Florida by a data-driven extension of V2SFCA

LI, H., *et al.*

2026

Health Place 98: 103608.

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Maternal healthcare accessibility is a key determinant of maternal and newborn outcomes, yet the United States continues to experience disproportionately high maternal mortality rates compared with other high-income countries. Efforts to address this problem are hampered by substantial spatial disparities, especially in large states like Florida. Existing methodologies for evaluating healthcare access, such as the widely used Generalized Two-Step Floating Catchment Area (G2SFCA) method, may not accurately capture real-world circumstances because they often rely on assumed, uniform parameters that overlook contextual heterogeneity in travel behavior. However, maternal patients in different geographies experience drastically different transportation barriers and varying tolerance for distance and travel times, underscoring the need for more granular, area-specific modeling. This study proposes a data-driven Variable Catchment 2SFCA (V2SFCA) framework to estimate maternal healthcare accessibility across Florida. Leveraging observed patient flow data, we employed gravity models to empirically calibrate distance decay functions and separately defined catchment thresholds specific to each area type. These data-driven, area-specific parameters enable the framework to more accurately reflect behavioral heterogeneity in maternal healthcare utilization. Applied to Florida, the model reveals substantial accessibility disparities across the four area types, including metropolitan, micropolitan, small town, and rural. It also demonstrates improved behavioral realism compared with conventional approaches, offering actionable insights for equitable maternal care planning and resource allocation.

Temporal influences on accessibility to healthcare, using the example of pediatricians in Bavaria, Germany

RAUCH, S. ET BUTSCH, C.

2026

Health & Place 98: 103642.
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Accessibility to healthcare is shaped by spatial and temporal dynamics. This paper develops a framework that explicitly considers temporal variability across micro- (daily routines), meso- (seasonal fluctuations), and macro-scales (demographic and structural changes). Using pediatric outpatient care in Southern Germany as a case, we examine how these temporal factors interact with regional disparities in service provision. A mixed-methods research design combined telephone surveys of pediatric practices, GIS modeling, and a household survey. Results reveal marked meso-scale fluctuations: average practice utilization increased from 98 % in summer to 115 % in winter, with up to one third of practices being temporarily unable to admit new patients. Correspondingly, travel times increased during winter, particularly in peripheral areas where the loss of a single provider substantially reduced accessibility. On the macro-scale, the number of pediatricians has grown only modestly despite a rising population at risk. At the same time the proportion of providers aged 55 and older increased significantly in less urbanized areas, signaling future long-term shortages. From the family perspective, around 20 % of the respondents reported being unable to consult their preferred pediatrician, most often due to admission stops. Younger cohorts' parents are more affected. We thus conclude that accessibility is highly sensitive to temporal variability. Static planning approaches thus risk underestimating barriers to care. Integrating time scales into healthcare planning is essential to ensure equitable and sustainable access to outpatient services. Addressing these temporal dynamics in policy and planning helps reduce regional inequalities and strengthen resilience in healthcare provision.

▶ Neighborhood factors and incident stroke: reproducibility of associations across two nationwide cohorts

SIMS, K. D., *et al.*
2026

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https://doi.org/10.1016/j.healthplace.2026.103611

Research linking adverse neighborhood context with disparities in incident stroke may reflect publication bias for chance associations. We compared results from the REasons for Geographic and Racial Differences in Stroke (REGARDS, n = 25,126, aged >/=45 years, 41 % Non-Hispanic Black, 12 % < high school degree, 2003-2022) study to the Health and Retirement Study (HRS, n = 12,969, aged >50 years, 15 % Non-Hispanic Black, 20 % < high school degree, 2004-2022). We estimated Cox models predicting stroke for 44 census tract variables representing demographic, socioeconomic, labor force, and housing conditions, evaluating inter-cohort consistency of main and race-stratified estimates. Follow-up in REGARDS (median = 12.1 years; IQR: 6.5, 14.9) was similar to HRS (median = 12.6; IQR: 7.0, 17.7). Cumulative stroke incidence was lower in REGARDS (6.6 %, adjudicated) than HRS (15.4 %, reported). Census tract-level household income, median rent, and home values were higher in HRS. Thirty-two of the 44 census tract variables evaluated had associations with incident stroke that differed between cohorts by less than log(0.05). For example, the proportion of housing units built 1980-1999 was associated with stroke incidence in both REGARDS (HR per SD = 0.94 [95 % CI: 0.88, 0.99)] and HRS (HR per SD = 0.92 [95 % CI: 0.87, 0.99) after adjustment for individual-level confounders and state of residence. Five predictors had significant ($p < 0.05$) interactions with race in HRS, but none of these interactions replicated in REGARDS. Strengthening the evidence base linking neighborhood disadvantage with stroke disparities is essential. Systematic exploration of how heterogeneity in sample composition and outcome ascertainment contributes to diverging findings across studies is needed.

▶ Cross-linking geotagged social media data with public health registries for spatial health research

YIN, P.
2026

Health & Place 98: 103621.
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Geotagged social media data have increasingly been used for investigating the impacts of both physical and digital environments on human health and behaviors. However, their applications are often constrained by the lack of precise information on individuals' home locations, demographic characteristics, and health conditions. Previous studies typically spatially aggregate geotagged social media data to link census data or health statistics, limiting the ability to draw inferences about individual behaviors and health outcomes. This study, for the first time, explores the feasibility and applicability of cross-linking geotagged birth announcements from Twitter with public birth registry

records. The aim is to provide more detailed and comprehensive profiles of individuals to study maternal risk exposures, behaviors, and birth outcomes. Specifically, 101 true births announced by parent Twitter users in the state of Georgia from 2012 to 2016 were identified, with 96 successfully matched to birth registry records based on common spatial, temporal, and attributive information. Using this cross-linked birth dataset, including the information from both users' geotagged tweets and birth registry, we conducted three individual-level spatial health case studies: (1) assessing spatial accuracy of frequency-based home location detection from geotagged tweets, (2) exploring parental mobility before and during pregnancy, and (3) conducting sentiment analysis on tweets to assess maternal mental health before and during pregnancy. This paper also discusses geoprivacy risks associated with using cross-linked birth data.

Handicap

Disability

Heterogeneous disability shocks and the dynamics of income, employment, and partial insurance

MILLARD, R.

2026

Journal of Health Economics 107: 103137.

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This study examines the long-run economic consequences of disability, distinguishing conditions by the activities they impair. Using linked Canadian survey and administrative tax data, I estimate the effects of disability onset on detailed income components over a ten-year horizon and assess gaps in partial income insurance across disability types. Mental–cognitive disabilities lead to larger and more persistent losses in market income than physical disabilities. Despite this, both groups experience similar levels of partial insurance and comparable declines in after-tax income. Importantly, substantial heterogeneity exists within these broad categories. Disaggregating physical and mental–cognitive disabilities into mutually exclusive activity-based subtypes reveals pronounced differences in income trajectories and access to insurance that are masked by aggregate classifications. While the tax–transfer system provides partial income protection overall, its effectiveness varies markedly across subtypes, offering especially limited support for mental health-related disabilities, particularly among younger and less-educated individuals.

Hôpital

Hospital

Description and nomenclature of 'outpatient' in medicine: A scoping review

BORY, O., *et al.*

2026

Health Policy 168: 105613.

https://doi.org/10.1016/j.healthpol.2026.105613

Background The term "outpatient" refers to a patient attending hospital without overnight admission. Despite its importance in health service delivery, the term seems to be used inconsistently in the literature, hindering analysis and comparability. Objective To describe the use of outpatient in scientific and grey literature, identify patterns of incorrect usage, and propose an exploratory nomenclature. Methods We conducted a scoping review of scientific (Medline, 1952–2025) and grey literature (>2019). Eligible references included the term "outpatient" or described outpatient pathways within a hospital. The primary outcome was

correct use of the formal definition. Multivariable regression explored patterns of incorrect use. A qualitative analysis informed the development of a proposed nomenclature. Results Of 1624 scientific references, 984 were included; incorrect use occurred in 47%, as misuse, non-use, or mixed-use. Pattern of incorrect use were observed in relation to articles published before 2013, and without manual tags/MeSH terms. Grey literature showed similar patterns across countries and institutions. Inductive analysis yielded a four-category nomenclature: unscheduled, scheduled, coordinated, and supervised. Conclusion This study highlights the widespread incorrect use of the term "outpatient" across countries, journals, and institutions. Greater conceptual clarity and the use of a shared nomenclature may support more reliable descriptions of hospital activity, improve cross-country comparability, and inform evidence-based health policy analysis.

▶ High inflation rates can induce significant disparities in Dutch hospital margins: a mixed methods study

DEN BESTEN, M. J., *et al.*

2026

Health Policy 168: 105609.
https://doi.org/10.1016/j.healthpol.2026.105609

Background Hospital inflation reflects changes in prices of labour, materials, energy, and capital. Depending on actual cost structures and contracts, individual hospitals may experience different price pressures on their budgets. If hospitals are compensated uniformly for inflation, high inflation can induce significant disparities in profitability. Objective To analyse the differential impact of inflation on hospitals in the Netherlands. Methods We test the hypothesis that differences in hospital-specific inflationary pressures were reflected in hospital compensation for inflation. Under this hypothesis, hospital-specific inflation rates correlate with overall budget growth. Using hospital financial data, we calculated hospital-specific inflation rates by combining cost categories with corresponding inflation rates for 2006-2023. Using linear regression analysis, we tested whether hospital-specific inflation rates correlated with reimbursements between 2006-2021. Next, we simulated differential impact for hospitals of high inflation in 2022-2023. Five stakeholder interviews validated results and explored inflation compensation mechanisms in practice. Results We found that inflation causes significant variance in individual hospital inflation rates, magnified after 2021 by high overall inflation. Linear regression showed no significant correlation between variation in observed hospital reimbursement and variation in hospital specific inflation rates, indicating that historically no differential inflation adjustments occurred. Interviewees stated that insurers do not explicitly take into account differential inflation impact between hospitals, and that hospitals were only partly compensated for general inflation. Conclusions Dutch hospitals are not fully compensated for cost inflation and health insurers do not differentiate for differences in hospital-specific inflation rates. High inflation rates could thus induce significant disparities in hospital profitability.

▶ Trends In Patient Cost Sharing For Hospital Care And Implications For Urban And Rural Hospital Revenue

DUFFY, E., *et al.*

2026

Health Affairs 45(4): 372-377.
https://doi.org/10.1377/hlthaff.2025.01340

Understanding the evolving composition of cost sharing and its interaction with shifts in inpatient and outpatient care delivery is essential for anticipating financial pressures on both patients and health care providers. This study leveraged eleven years of commercial insurance claims from the Health Care Cost Institute to investigate changes in the distribution of magnitudes of cost sharing owed and the share of allowed amounts anticipated as cost-sharing collections by hospitals. We found that despite declining or stable utilization rates during the period 2012–22, mean per enrollee spending and patient cost-sharing burdens grew substantially in more recent years. Cost sharing has notably shifted in composition toward both high-cost and zero-cost encounters, consistent with the adoption of high-deductible health plans on the one hand and out-of-pocket maximums and preventive or other services covered in full on the other. These trends may disproportionately affect rural hospitals, which face a higher share of patient-responsible revenue and likely greater challenges in collection.

▶ Do social skills improve healthcare data quality? A cross-sectional study in eight referral hospitals

PHINIAS, R., *et al.*

2026

Journal of Healthcare Quality Research 41(3): 101192.
https://doi.org/10.1016/j.jhqr.2026.101192

Background Reliable healthcare data is fundamental to patient safety, clinical decision-making, and health system efficiency. However, human error in monitoring and evaluation (M&E) systems remains a key barrier to data quality. This study investigated how healthcare workers' social skills, specifically communication, teamwork, and change catalyst abilities, influence four core dimensions of data quality: accuracy, completeness, timeliness, and consistency. Methods A cross-sectional study was conducted between August and October 2024 in eight Tanzanian regional referral hospitals. From a sampling frame of 2650 healthcare professionals involved in routine data entry, 336 were randomly selected to complete a validated self-administered questionnaire (Cronbach's=0.94). Data were analyzed using descriptive statistics and multiple linear regression (SPSS v27) to determine associations between social skills and data quality indicators. Results Communication was positively associated with accuracy (=.247, p<.001), consistency (=.366, p<.001), and timeliness (=.509, p<.001), but not with completeness. Change catalyst skills significantly improved accuracy (=.580), consistency (=.520), and timeliness (=.370), all p<.001, but showed no effect on completeness. Teamwork positively influenced consistency (=.184, p<.001) and completeness (=.282, p=.002), but was unrelated to accuracy and negatively associated with timeliness (=–.223, p<.001). Conclusion Strengthening communication and change catalyst abilities among healthcare workers can improve key aspects of data quality. Tailored training in these areas, along with process-mapping to streamline teamwork, may support more accurate and timely health data management.

▶ Germany's 2024 Hospital Transparency Act: A step towards enhanced accountability and quality in healthcare?

SULE, U., *et al.*

2026

Health Policy 168: 105611.
https://doi.org/10.1016/j.healthpol.2026.105611

Background Germany's 2024 Hospital Transparency Act (Krankenhaustransparenzgesetz) represents a foundational step in a four-pillar hospital reform strategy to enhance hospital planning, optimize financial incentives, and strengthen rescue and emergency care services. The Act responds to longstanding calls for greater transparency in hospital performance and quality, aiming to empower patients and referring doctors with accessible, independent and reliable information. Reform Content Central to the Act is the establishment of the Bundes-Klinik-Atlas, a national, publicly accessible digital platform designed to present hospital performance data in an interactive, patient-oriented, and user-friendly format. Drawing on existing statutory quality assurance and hospital remuneration datasets, the Atlas provides information on service-specific case numbers, staffing levels, minimum volume requirements, and relevant certifications, with additional indicators integrated over time. Expected Results The reform is expected to improve patient empowerment, foster quality improvements through competition, and align Germany with international best practices in healthcare transparency. By making complex data accessible and comprehensible, the Act aims to reduce information asymmetries and support more equitable access to high-quality care. Early implementation shows strong initial public interest and iterative platform refinement, alongside data-quality challenges and political contestation. Conclusions The Act illustrates both the potential and the limits of hospital public performance reporting, serving as both a model and a cautionary tale. While transparency can support patient choice and accountability, meaningful improvements in care quality depend on user-centred design, continuous updates, robust evaluation, complementary policies, and sustained stakeholder and political support within a clear regulatory framework.

Inégalités de santé

Health Inequalities

Dividing lives: The impacts of delayed school tracking on inequalities in cognitive aging in Europe

DA RE, F., *et al.*

2026

Social Science & Medicine 399: 119236.

https://doi.org/10.1016/j.socscimed.2026.119236

We examine whether delaying selection into secondary school streams can reduce socioeconomic inequality in cognitive aging. We link data on individuals aged 50+ from 14 European countries in the Survey of Health, Ageing and Retirement in Europe (SHARE) to a newly compiled database on reforms that postponed the age of first tracking. Exploiting within-country, within-cohort variation in tracking age, we find that later tracking significantly reduces socioeconomic status (SES)-related disparities in late-life cognition. A one-year increase in tracking age relative to the sample median reduces the SES gradient in word recall by around 8%. Furthermore, our analysis shows that delayed tracking narrows SES gaps in completed years of education and in completion of at least vocational upper-secondary school. It also improves access to white-collar, high-prestige and less physically demanding first jobs. These findings suggest that education policy should be incorporated into broader strategies aimed at reducing health disparities throughout the lifespan.

"A gendered family affair"? Examining the role of partners', parents', and parents-in-law's education in preventive healthcare use among older men and women

DELARUELLE, K., *et al.*

2026

Social Science & Medicine 400: 119261.

https://doi.org/10.1016/j.socscimed.2026.119261

This study aims to extend the body of research on educational inequalities in preventive healthcare practices among older adults, and their intergenerational reproduction, by investigating the role of family spillovers. Beyond the influence of individuals' own education, we examine how partner's, parents', and parents-in-law's educational attainment relate to participation in colorectal cancer screening and flu vaccination, with particular attention to potential gender differences. Using data from Wave 9 of the Survey of Health, Ageing and Retirement in Europe (SHARE), and leveraging its within-household design (N colorectal men = 12,646, N colorectal women = 14,021, N flu men = 14,771, N flu women = 13,110; age range colorectal = 50-75, age range flu = 50-99), we particularly observe robust family spillover effects for flu vaccination. Having a higher-educated partner is associated with a higher likelihood of vaccination for both men and women. Additionally, for women, having middle- or higher-educated parents is linked to higher flu vaccination uptake, whereas for men, having middle-educated parents-in-law shows the strongest association with participation in seasonal flu vaccination. Overall, these findings provide a foundation for future research on family spillover effects, highlighting the role of the female lineage in shaping intergenerational patterns of flu vaccination, a preventive healthcare practice with collective benefits, including at the family level.

Freins d'accès aux services de santé en Polynésie française : approche qualitative

DOS SANTOS, L. ET SERVY, A.

2026

Santé Publique 38(1): 157-166.

Introduction : L'accessibilité des services biomédicaux constitue un défi complexe en Polynésie française (PF). La configuration territoriale en de multiples îles dispersées et la centralisation des filières spécialisées à Tahiti, voire en dehors du territoire, impliquent des mobilités parfois contraignantes pour les usagers et propices aux inégalités d'accès. But de l'étude : Dans ce contexte, l'article vise à identifier les différents types de contraintes auxquelles les usagers font face au cours de leur parcours de soin en PF, à partir d'une approche qualitative et inductive centrée sur l'expérience ordinaire de ces derniers. Résultats : L'approche méthodologique adoptée a permis d'analyser l'expérience des usagers en matière d'accessibilité des services de santé et d'identifier une pluralité de contraintes, à la fois structurelles et relationnelles, influençant l'accès aux soins biomédicaux. L'éloignement (parfois pro-

longé ou répété) du domicile à des fins thérapeutiques implique des coûts et des contraintes variables pour les usagers résidant en dehors de l'agglomération de Papeete. Ces derniers sont amenés à mobiliser différentes ressources privées (relations familiales, capital économique) pour pallier ces contraintes et couvrir les besoins non pris en charge par le système de protection sociale, notamment pour accéder aux services des filières spécialisées. Les personnes les moins dotées en ressources économiques et sociales peuvent renoncer aux soins biomédicaux en raison de l'absence de solutions d'hébergement sur le lieu de prise en charge ou des coûts trop élevés impliqués par leur séjour. Les relations familiales apparaissent comme une condition importante du recours et du non-recours aux services de santé en PF, mais leur rôle est ambivalent, tantôt facilitateur tantôt empêchant. Conclusions : Les ressources économiques et les relations familiales constituent des déterminants sociaux de l'accès aux services biomédicaux en PF, pouvant conduire les usagers à renoncer à une prise en charge.

Health Care Use and Health Care-Amenable Mortality Among US Adults With and Without a Bachelor's Degree, 1996-2023

GAFFNEY, A., *et al.*

2026

American Journal of Public Health 116(5): 692-701.

https://doi.org/10.2105/ajph.2025.308373

Objectives. To describe health care-related educational divides in 2 dimensions—outpatient care utilization and medically preventable deaths—over the past 25 years. Methods. We examined education-based disparities in ambulatory care utilization by analyzing data on 476 277 respondents aged 25 years or older to the 1996–2022 US Medical Expenditure Panel Survey, and in deaths potentially preventable by medical care (defined by International Classification of Diseases, 10th Revision, code) from 26 092 720 death certificates of individuals aged 25 to 74 years in the United States from 2001 to 2023. Results. In 1996, the share of adults with zero provider visits was higher among those without (26.4%; 95% confidence interval [CI] = 25.3, 27.5) than with (20.2%; 95% CI = 18.5, 22.0) a bachelor's degree, a gap that widened to a nearly 2-fold difference by 2022; the gap in the proportion with no doctor visit also widened. Disparities in health care use were larger after adjustment for health factors. Separately, we observed large and growing education-based gaps in age-adjusted health care-amenable mortality. Conclusions. Education-based disparities in ambulatory health care utilization have grown since 1996, as have medically preventable deaths. Public Health Implications. Improved health care access for less-educated Americans might help address widening disparities in ambulatory health care use and, potentially, health outcomes. (Am J Public Health. 2026;116(5):692–701. https://doi.org/10.2105/AJPH.2025.308373)

Experiences of discrimination in health services in Finland: An observational cross-sectional survey study among migrant and general populations

GARCÍA-VELÁZQUEZ, R., *et al.*

2026

Social Science & Medicine 399: 119211.

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Background People with a migrant background report higher levels of discrimination compared to the general population. Discrimination is a complex issue with profound effects on individual well-being and public health. The aim was to study the associations between socio-demographic, health service and migration-related covariates and experiences of discrimination in health services among migrant and general population health service users in Finland. Methods We used two cross-sectional national survey studies, MoniSuomi (n = 6 882, response rate 44%) and Healthy Finland (n = 16 830, response rate 46%) collected in 2022 including adults who had used health services over the past 12 months. Logistic regression was used to examine the associations between covariates and experiences of discrimination in health services. Average Marginal Estimates (AME), Risk Differences (RD), and estimators of Area Under the Curve (AUC) were computed. Results Migrant health service users consistently showed higher likelihood of reporting discrimination across all covariates. Other conditional associations revealed that females, persons with insufficient income, persons with poorer mental and physical health, and users of public healthcare showed higher conditional likelihood of experiencing discrimination in health services. An array of migration-related covariates were associated with increased discrimination experiences. Conclusions Beyond sociodemographic disparities, difference from the majority population may manifest through both direct and indirect forms of discrimination. Migration-related barriers may further restrict access to health services, deepening ine-

qualities. Our findings highlight consistent disparities among health service users and underscore the need for equity driven initiatives, including anti-racism training, improved monitoring of discrimination, and the development of more responsive and culturally competent health care services.

Decomposing educational inequalities in cancer mortality: The roles of incidence and survival in Belgium, 2004–2013

GOTINK, J., *et al.*

2026

Social Science & Medicine 398: 119152.

https://doi.org/10.1016/j.socscimed.2026.119152

Background Cancer remains a leading cause of death in Belgium. Socioeconomic inequalities in cancer mortality are insufficiently understood, partially due to the interplay of incidence and survival. Understanding whether mortality inequalities are driven by differences in cancer occurrence or post-diagnosis outcomes is essential for targeted interventions. Methods In this nationwide observational cohort study, we linked full-population data at the individual level from the 2001 Belgian Census with cancer incidence data (2004–2013) and mortality records. Our study population included all adults aged 30–79 years. Educational attainment served as the primary socioeconomic indicator. Inequalities in cancer incidence and mortality were assessed using Poisson regression, mortality inequalities were decomposed into incidence- and survival-driven components. Analyses were stratified by sex and age group (30–49, 50–79). Results Lower-educated individuals generally experienced higher cancer incidence and mortality, consistent with a traditional social gradient, except for melanoma and female breast cancer, which were more frequent among the highly educated. In younger age groups, inequalities in mortality were predominantly incidence-driven, particularly for lung, stomach, and cervical cancer. Instead, for older adults, survival differences became more prominent, notably for colorectal cancer. Lung cancer was a striking outlier, with mortality inequalities almost entirely incidence-driven across all groups. Conclusions Socioeconomic inequalities in cancer outcomes differ substantially by cancer type, sex, and age. While prevention remains essential, survival disparities highlight the need for improved access to timely diagnosis and high-quality treatment. Decomposing socioeconomic differences in mortality in incidence and survival yields important insights for targeted policy interventions.

Community engagement and empowerment to address health inequalities: A rapid evidence review

MACDONALD, H., *et al.*

2026

Public Health in Practice 11: 100773.

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The policy challenge Health inequalities in high income countries persist despite decades of policy intervention, with traditional approaches often reinforcing rather than reducing disparities. Community-led strategies offer a more effective alternative, yet they remain underused in public health policy. Here we explore evidence on what works to empower communities and reduce health inequalities. Key evidence to inform policy This rapid evidence review explores the effectiveness of community engagement approaches. There is strong evidence supporting the use of community health workers (CHWs) to reduce health inequalities in cardiovascular disease prevention and cancer screening and care, particularly when roles and training are tailored to specific needs. There is also good evidence for partnerships with faith-based organisations, which yield modest but significant improvements in cardiovascular health, healthy weight, and cancer screening outcomes. However, evidence remains mixed or limited for partnerships with other community venues and peer support programmes. The specific health effects of co-design and empowerment approaches remain inconclusive due to few studies in this area. Cross-cutting themes highlight the importance of cultural tailoring and alignment in community engagement strategies. Further considerations and implications Community-centred approaches, especially those targeting upstream determinants of health, remain critically understudied with most studies focusing on the US context. This review highlights an urgent need for further research to strengthen the evidence base and refine community engagement strategies for advancing health equity. Policy makers should consider CHW programmes, partnership with faith-based organisations, and cultural tailoring and congruence in advancing health equity.

How does the integration of health and justice systems impact on health and care inequalities in marginalised populations? A mixed methods systematic review

MCGRATH, J., *et al.*

2026

Social Science & Medicine 400: 119224.
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Purpose People experiencing marginalisation are over-represented in the criminal justice system (CJS) worldwide. CJS involvement exacerbates health and care inequalities, with poorer outcomes amongst people released from prison. Fragmented care and support persist upon release, but little is known about how health and justice systems intersect. The aim of this systematic review was to synthesise global evidence on: 1) integration of health and justice systems focused on people's experiences of returning to their community after prison; 2) the impact of CJS involvement on health, and care inequalities. Methods Six databases (MEDLINE, EMBASE, PsycINFO, CINHAL, ASSIA and Scopus) were searched for primary studies, of any design, conducted from 2013 onwards. Using a mixture of controlled search vocabulary (e.g. MeSH) and free text, search terms were derived using the SPIDER framework. All empirical studies were included which contained data relating to system links between CJS settings and the community which impacted on health in OECD countries. Thematic analysis was used to identify common themes across extracted data. Results 20,104 studies were initially identified and screened for inclusion, with 43 included in the review. Our synthesis of the literature demonstrates that the CJS can have a considerable detrimental impact on health. We identified five themes: 1. (In)equivalence of healthcare in prison; 2. Public health interventions which bridge the gap from prison to the community; 3. Discontinuities in care and system-level precarity; 4. Social determinants of health impeding resettlement; 5. Elements of successful resettlement after prison: bridging the gap. Conclusions The identified themes show how marginalised, justice-involved populations are at a greater risk of experiencing detrimental health and care where health and justice systems fail to connect. We highlight the need for system level data sharing; cultural competency; and clarity in the role of "resettlement hubs"in bridging the gap.

"We are already naked": An ethnographic study of migrant sex-workers' marginalisation under medical surveillance in Singapore

MU, R., *et al.*

2026

Social Science & Medicine 398: 119146.
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Singapore's pragmatic governance of sex work, combining criminalisation and toleration, is exemplified by the Medical Surveillance Scheme (MSS) introduced in 1976 to manage sexually transmitted infections (STIs)/HIV among registered sex-workers. While the MSS provides conditional healthcare access, it excludes undocumented migrant sex-workers, leaving them vulnerable to health inequalities, precarity, and state violence. Drawing on an ethnographically-informed study conducted between March 2022 and July 2023 in collaboration with Singapore's sex-worker community, this study examines how migrant sex-worker bodies are regulated and marginalised under entangled logics of biopolitical inclusion (via medical surveillance) and sovereign exclusion (via consistent policing and moralisation). We argue that public health governance of migrant sex-workers functions not only for disease control but also as a mechanism of social ordering, sustaining the structure of violence tied to sexuality, mobility, and nation-building. By centring migrant sex-workers' lived experiences, we challenge dominant epidemiological framings that reduce them to «risk categories,» instead unpacking how state interventions enact coercion, fear and danger. The study calls for a reorientation of public health policy from punitive regulation towards grounding in dignity, equality and justice.

Childhood socioeconomic status and changes in biological aging across mid-to-later life

REED, R. G., *et al.*

2026

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Lower childhood socioeconomic status (SES) has been associated with markers of advanced biological aging. Much of this work, however, is cross-sectional or focuses on single markers of biological aging. The current study examined whether childhood SES is associated with change in a multisystem composite of blood-based biomarkers of aging across a 14-year period from

mid-to-later life. Participants in the longitudinal Adult Health and Behavior (AHAB) project (N = 674, 45.4% female, mean age at Wave 1 = 45.5 years) retrospectively reported at Wave 1 parental education and occupation, which were combined to calculate childhood SES using the Hollingshead Index. They also provided blood at Wave 1 and Wave 2, which was assayed for eight markers of biological aging and combined into a single composite, informed by the work of Justice and colleagues (Justice et al., 2018): insulin, IGF-1, GDF15, NT-proBNP, cystatin C, IL-6, TNF-, and CRP. Regression models tested the association between childhood SES and residualized change in the biological aging composite, adjusting for Wave 1 age, sex, and time between waves. Lower childhood SES was associated with a larger increase in the biological aging composite across a 14-year period (= –0.13, p = .001), and in sensitivity analyses, this association remained when further controlling for adult SES (= –0.11, p = .006) and childhood trauma (= –0.11, p = .008). These findings suggest that relative disadvantage in childhood may accelerate the rate of biological aging in mid-to-later life, providing a possible pathway to increased risk for poorer late life health.

▶ Socioeconomic position and type 2 diabetes: The mediating role of physical work environment - the Maastricht study

SEZER, B., *et al.*

2026

Social Science & Medicine 400: 119240.

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Low socioeconomic position (SEP) is a risk factor for type 2 diabetes (T2D) creating socioeconomic health disparities. These inequalities might arise from differences in environmental conditions across SEP groups. People with a lower SEP might have more adverse work conditions compromising their health. We explore the mediating role of the physical work environment in socioeconomic inequalities in T2D. Cross-sectional and longitudinal data from 9009 participants of The Maastricht Study who reside in Southern Netherlands were used. SEP indicators (education, occupation, income) and physical work environment (e.g., noisy work environment) were self-reported at baseline which took place between September 2010 and October 2020. T2D defined based on an oral glucose tolerance test at baseline and self-reported in annual surveys up to 12.8 years (median = 8.2; IQR = 4.9). Occupations were matched with a job exposure matrix to indicate physical and environmental demands. Multiple linear, multinomial logistic regression, and counterfactual mediation analyses were conducted. 21.8% of the study sample had prevalent T2D, and 3.7% reported incident T2D. Lower SEP (e.g., education: HR = 2.04, 95%CI: 1.52,2.75) and adverse physical work environments (e.g., noisy work environment: HR = 1.25, 95%CI: 1.08,1.45) were associated with incident T2D. Education had the most robust associations with T2D. The relationship between SEP and T2D was explained up to 18.2% by self-reported physical work environment and up to 24.4% by physical and environmental demands. Socioeconomic inequalities in T2D persist and can be partially attributed to negative physical work environments. Improving the physical work environment of those with low SEP can help decrease inequalities.

Médicaments

Pharmaceuticals

▶ Age and sex disparities in drug shortage impacts: a 10-year nationwide study in France

BELGODÈRE, L., *et al.*

2026

European Journal of Public Health 36(2). ckag045

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Drug shortages are a growing public health issue, unevenly impacting therapeutic classes. Despite variations in drug consumption across populations, the consequences of these shortages on different patient groups remain insufficiently characterized. This study investigated age and sex profiles of patients consuming the therapeutic classes most commonly affected by drug shortages in France. The age and sex risk of

shortage exposure were estimated in a nationwide retrospective study of French patients between 2014 and 2023, using data from the French drug shortage notification system and the national health insurance for the entire French population. Over 10 years, 17 505 drug shortage reports were recorded, 60.8% involving cardiovascular, nervous system, and anti-infective agents. Significantly higher mean percentages of consumers for drugs concerned by shortage reports per 1000 were observed in ≥60-year-old patients for 12 of the 14 therapeutic classes, compared to 20–59-year-old patients (P = .002). Younger population was more significantly concerned by anti-infective agents (11.2 vs 9.2, P = .002), respiratory system (1.8 vs 1.5, P = .002), and sensory organ (0.7 vs 0.6, P = .002) classes. Significantly higher mean percentages of consumers for drugs concerned by shortage reports per 1000 were observed for all Anatomical Therapeutic Chemical 1st level classes in women (P = .002), but agents acting on the renin–angiotensin system were higher for men (2.32 vs 2.02; P = .002). Our exploratory results suggest that a population-level approach is essential to understand how shortages affect different groups and exacerbate health inequalities.

The Financial and Behavioral Effects of Free Prescription Drugs: Evidence From a Policy Discontinuity in Poland

MAJEWSKA, G. ET ZAREMBA, K.

2026

Health Economics 35(5): 796-830.

https://doi.org/10.1002/hec.70083

ABSTRACT We examine whether a universal drug subsidy for seniors in Poland provided effective financial protection and whether it induced ex ante moral hazard. The policy eliminated out-of-pocket costs for prescription medications while leaving all other healthcare coverage unchanged. Using detailed household expenditure data and a sharp age-based eligibility threshold, we implement a difference-in-discontinuities design to estimate causal effects. The reform reduced average medication spending and lowered the incidence of catastrophic drug expenditures by 62%, with gains concentrated in the upper tail of the spending distribution—consistent with insurance against large health shocks. On the non-medical margin, we find suggestive evidence of a modest increase in spending on a category of unhealthy goods—consistent with reduced precautionary behavior at the household level. These results highlight that while public subsidies can meaningfully reduce financial risk, they may also induce behavioral responses that partially offset intended health benefits.

Méthodologie- Statistique

Methodology - Statistics

Guidance or Misdirection? Unpacking the Role of Feedback in Health Preference Assessments

GENIE, M. G., *et al.*

2026

Health Economics 35(6): 910-928.

https://doi.org/10.1002/hec.70093

ABSTRACT This study investigated the impact of providing feedback to respondents on a dominance-structured choice task on subsequent choice behavior in a discrete choice experiment (DCE). The DCE was conducted among 626 patients with heart failure. Respondents were given a dominance-structured choice task in which two devices (Device A and Device B) offered no benefits but carried risks compared to a "No Device" option. Among those who selected a device option (N = 340), half received feedback and an opportunity to revise their choice, while the other half did not. The effect of feedback on preference for the "No Device" option and choice consistency was examined using multinomial, heteroscedastic multinomial logit, and heteroscedastic latent-class logit models. Among those who received feedback (N = 170), 71% continued to choose the device options. Feedback recipients were more likely to choose the "No Device" option in subsequent questions ($p < 0.01$). Feedback led to a 25% reduction in choice consistency

($p < 0.01$) and an increased likelihood of choosing the "No Device" option. Impact on consistency varied across latent classes: feedback decreased consistency in the risk-sensitive class but increased consistency in the anti-device class, highlighting potential unintended consequences. Further research is needed to understand its effects in different contexts and samples.

Evaluating quality of care and patient safety with ICD-11: Opportunities for the French National Health Data System (SNDS)

BOUSSAT, B., *et al.*

2026

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https://doi.org/10.1016/j.jeph.2026.203372

Administrative health databases are widely used to evaluate healthcare quality and patient safety at the population level. In France, the French National Health Data System (SNDS) integrates hospital discharge data coded using the 10th revision of the International Classification of Diseases (ICD-10), enabling large-scale analyses of care pathways, outcomes, and health system performance. The transition to the 11th revision of the International Classification of Diseases (ICD-11) introduces structural and digital features that may modify how routinely collected data can be analyzed for quality and safety purposes. This article describes how selected characteristics of ICD-11 could influence the use of SNDS for evaluating quality of care and patient safety. Four dimensions are examined: clinical representation through postcoordination and extension codes; the three-part model for describing healthcare-related adverse events; coding of diagnosis timing in relation to hospital admission and procedures; and risk adjustment using comorbidities, severity, and sequelae. For each dimension, practical coding examples are used to illustrate potential analytical implications for population-based indicators. The analysis suggests that ICD-11 enables more explicit representation of clinical context, healthcare-related events, and temporal information within administrative data. These features may support more precise construction and interpretation of quality and safety indicators derived from the SNDS. The extent to which these possibilities translate into measurable improvements will depend on implementation conditions, including coding practices, training, and the integration of ICD-11 into existing information systems and analytical frameworks.

The steps of constructing and validating an algorithm to identify chronic kidney disease patients in medical administrative databases

COUCHOUD, C., *et al.*

2026

Journal of Epidemiology and Population Health 74(2): 203370.
https://doi.org/10.1016/j.jeph.2026.203370

Chronic kidney disease (CKD) represents a heavy global health burden associated with increased mortality and morbidity and high economic impact. Chronic kidney disease, which is largely asymptomatic and is diagnosed based on laboratory tests, is particularly difficult to identify in medical-administrative databases in the absence of laboratory results and no specific medications or procedures. The aim of this paper is to describe the progressive stages of constructing and validating an algorithm for targeting chronic kidney disease in the French medical administrative databases SNDS . A consortium of experts in nephrology, kidney epidemiology and healthcare claims databases, referred to as group "REDSIAM Kidney Disease", collaborated to design a practical algorithm for assessing the probability of chronic kidney disease cases likelihood through a combination of items associated with the CKD care pathway. The performance of the RENALGO-EXPERT algorithm differs significantly depending on the population and the databases used. Sensitivity tends to improve in more at-risk populations. However, at this stage, the results are not very satisfactory. To improve case detection performance and in the hope of capturing weak signals overlooked by experts, a project using machine learning methods was devised, RENALGO-IA.

Identifying cancer in the French National Health Data System (SNDS): An updated scoping review of algorithms, validation and applications

HYLEBOS, A., *et al.*

2026

Journal of Epidemiology and Population Health 74(2): 203364.
https://doi.org/10.1016/j.jeph.2026.203364

Background Identifying cancer cases in the French National Health Data System (SNDS) is essential for real-world oncology research, yet operational definitions remain heterogeneous and few algorithms have been validated. An initial ReDSiam review in 2017

mapped early practices. Since then, the use of SNDS data in oncology has expanded considerably, warranting an updated synthesis. Methods We conducted a scoping review following the PRISMA-ScR guidelines. A comprehensive MEDLINE search identified peer-reviewed studies using SNDS-based algorithms to detect cancer cases up to November 2024. A structured extraction grid captured algorithm characteristics, study applications and validation procedures. Results Among 233 included studies, publication volume increased sharply over time. Algorithms showed substantial heterogeneity in operational definition. Most studies focused on incident cancer detection using hospital data, while outpatient and long-term illness data were increasingly incorporated. Only 6% of studies reported validation against a gold standard, and validated algorithms remained limited to a few cancer sites. More recent publications more frequently provided code lists and supplementary materials, improving transparency. Conclusions The use of the SNDS in oncology has expanded substantially, but validated and standardised case-identification algorithms remain scarce. Strengthening validation efforts, improving access to reference data, ensuring regular algorithm updates and fostering collaboration between data producers, methodologists and clinicians are critical to enhance methodological consistency and reproducibility.

Survey-French national health data system (SNDS) linkage: A win-win methodology for longitudinal studies, algorithm validation, and real-world evidence

KAB, S. ET GOLDBERG, M.

2026

J Epidemiol Popul Health 74(2): 203391.

https://doi.org/10.1016/j.jeph.2026.203391

BACKGROUND: Integrating granular personal and clinical data with large-scale administrative records is a frontier in modern public health. In France, linking national epidemiological surveys with the National Health Data System (SNDS)-one of the world's most exhaustive administrative databases-offers a transformative «win-win» methodology to overcome self-reporting biases and loss to follow-up. METHODS: This paper analyzes the architectural and methodological frameworks of data linkage to SNDS in France, distinguishing between deterministic linkage (via the National Identification Number) and probabilistic approaches. We examine major national integrations, including the prospective Constances cohort, cross-sectional surveys or clinical cohorts, and administrative cohorts like EDP-Sante. RESULTS: Linkage significantly enhances data utility by cross-referencing objective healthcare consumption with socio-economic, environmental, and behavioral health determinants. Beyond data enrichment, this synergy provides a robust methodological platform for the validation of identification algorithms, allowing researchers to calculate sensitivity and specificity against clinical «Gold Standards.» We highlight how these linked datasets facilitate complex longitudinal studies on social health inequalities and care pathways that are unattainable through isolated sources. CONCLUSION: Survey-SNDS linkage is a «win-win» process that has become the foundational standard for high-impact research in France. By maximizing the utility of national data assets, this methodology provides a replicable model for global real-world evidence (RWE) generation and public health policy evaluation.

Beyond the States: Developing a Discrete Event Simulation Model Using R

LIN, Z. ET BRIGGS, A.

2026

PharmacoEconomics 44(4): 389-408.

https://doi.org/10.1007/s40273-025-01560-6

This illustration uses the Scottish Cardiovascular Disease (CVD) Policy Model as a case study to provide a comprehensive, step-by-step guide to building a discrete event simulation (DES) model in R. It is specifically designed for practitioners who are familiar with constructing Markov models in R and wish to transition their theoretical knowledge of DES into practical implementation. The Scottish CVD Policy Model was originally developed as an Excel-based Markov model with a sophisticated structure: a primary Markov model for first events and nested sub-Markov models for subsequent events. Later replicated in R by Xin, Yiqiao et al., the model's source code was made publicly available on GitHub, underscoring its potential as a teaching tool. The intricate structure of this model presents several challenges in health economic modeling, making it an ideal candidate for demonstrating how DES techniques can address such complexities effectively. In this illustration, we deliberately avoid using R packages developed specifically for DES to enhance transparency. Instead, we rely on base R functions, and the tidy verse package for tidy data wrangling. This approach ensures that every step of the DES implementation is clear and reproducible. In

addition to covering fundamental topics such as how to simulate a time to event according to an assumed distribution, and continuous discounting, the illustration also provides solutions to more advanced modeling challenges, such as handling piecewise-modeled cost and utility. By discussing both general principles and complex scenarios, this paper equips readers with the practical tools needed to transition from Markov to DES frameworks, enhancing the accuracy and flexibility of health economic evaluations.

Use of the 'historical' National Health Data System to study infectious diseases

LOREAU, J. M., *et al.*

2026

Journal of Epidemiology and Population Health 74(2): 203393.

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Introduction Identifying infectious diseases through French National Health Data System (SNDS), a medico-administrative database, presents specific challenges due to their intrinsic characteristics, such as curability or highly variable prevalence. This study assesses the capacity of the SNDS to accurately identify pathologies and to ensure follow-up of affected individuals. Methods The study focuses on «Certain infectious and parasitic diseases» (ICD-10 Chapters A and B). Eligible conditions were required to correspond to a three-character ICD-10 sub-chapter accounting for fewer than 10,000 discharge summaries (MCO) within the Programme for Medicalisation of Information Systems (PMSI) between 2006 and 2024. It evaluates the influence of different indicators, such as the extraction sources, the quality of record linkage using the national registration number (NIR) and the follow-up of subjects. Results A total of 155,419 individuals across 77 selected ICD-10 sub-chapters were included. On average, 6% of individuals were non-linkable. Subjects identification was primarily achieved through the beneficiary registry (87%). By sub-chapter, the PMSI was the main source of identification, with an average of 95%. The average proportion of individuals still present in the SNDS five years after the initial occurrence was 58%. Discussion These findings are closely linked to the core concept of the SNDS, which relies on health insurance data collection. Data linkage is fundamentally tied to insurance affiliation; consequently, while high-prevalence tropical or sub-tropical diseases are identifiable, longitudinal tracking is more challenging to achieve.

Validation of an Electronic Health Record Algorithm for Identifying Housing-Related Needs in a Safety-Net Health System

MCCANN, N. C., *et al.*

2026

Health Serv Res 61(2): 1-9.

https://doi.org/10.1111/1475-6773.70076

OBJECTIVE: Accurate, efficient identification of housing-related needs, including homelessness or housing instability, is crucial for health systems addressing health-related social needs (HRSN). We developed and validated a novel, pragmatic electronic health record (EHR)-based algorithm to identify patients with housing-related needs. STUDY DESIGN AND SETTING: We retrospectively evaluated sensitivity and specificity of the housing-related needs algorithm within our safety-net hospital, Boston Medical Center (BMC). DATA SOURCES AND ANALYTIC SAMPLE: The algorithm included six EHR structured data elements tailored to BMC operations, including HRSN screening results. We assessed each element's performance, alone and combined, using 12 months of BMC EHR data among two reference groups: (1) 433 patients with verified housing-related needs at housing program enrollment (2019-2023), and (2) a stratified random sample of 400 patients (200 adult, 200 pediatric) with >/= 1 primary care medical visit (2022), whose charts we manually reviewed to verify housing status. We calculated algorithm sensitivity in both groups and specificity in the primary care group. PRINCIPAL FINDINGS: With all data elements included, algorithm sensitivity was 62% (95% CI: 57%-66%) among housing program enrollees and 81% (95% CI: 68%-91%) among primary care patients. Among primary care patients (13% with chart review-verified housing-related needs), specificity was 97% (95% CI: 95%-98%). HRSN screening yielded the highest single-element sensitivity, but screening alone remained limited: 57%-62% of those with verified housing-related needs were detected via screening. Patient address information and diagnostic codes had low single-element sensitivities. CONCLUSION: Pragmatic EHR algorithms leveraging structured data elements tailored to local context present an accessible, efficient method for health systems to identify patients with housing-related needs. This is the first study to validate such an algorithm in a safety-net setting; we found it had moderate sensitivity and high specificity. The algorithm identified more housing-related needs than diagnostic codes alone, demonstrating the value of integrated clinical and administrative data. Further algorithm improvements require changes to HRSN

screening and EHR documentation.

Discrete-Event Simulation Modeling Framework for Cancer Interventions and Population Health in R (DESCIPHR): An Open-Source Pipeline

PI, S., *et al.*

2026

PharmacoEconomics 44(4): 409-427.

https://doi.org/10.1007/s40273-025-01571-3

Simulation models inform health policy decisions by integrating data from multiple sources and forecasting outcomes when there is a lack of comprehensive evidence from empirical studies. Such models have long supported health policy for cancer, the first or second leading cause of death in over 100 countries. Discrete-event simulation (DES) and Bayesian calibration have gained traction in the field of decision science because they enable flexible modeling of complex health conditions and produce estimates of model parameters that reflect real-world disease epidemiology and data uncertainty given model constraints. This uncertainty is then propagated to model-generated outputs, enabling decision-makers to assess confidence in recommendations and estimate the value of collecting additional information. However, there is limited end-to-end guidance on structuring a DES model for cancer progression, estimating its parameters using Bayesian calibration, and applying the calibration outputs to policy evaluation. To fill this gap, we introduce the DES Modeling Framework for Cancer Interventions and Population Health in R (DESCIPHR), an open-source codebase integrating a flexible DES model for the natural history of cancer, Bayesian calibration for parameter estimation, and an example application of screening strategy evaluation. To illustrate the framework, we apply DESCIPHR to calibrate bladder and colorectal cancer models to real-world cancer registry targets. We also introduce an automated method for generating data-informed parameter prior distributions and increase the functionality of a neural network emulator-based Bayesian calibration algorithm. We anticipate that the adaptable DESCIPHR modeling template will facilitate the construction of future decision models evaluating the risks and benefits of health interventions.

Comparing the Influence of Heterogeneity on Model Outcomes in Individual-Level and Cohort Simulations: An Exploratory Simulation Study

VAN WELL, E. B., *et al.*

2026

PharmacoEconomics 44(4): 429-437.

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When developing health economic simulation models, individual-level and cohort state-transition model types are commonly used. However, heterogeneity and the extent to which it is taken into account is thought to affect simulation outcomes differently in individual-level and cohort simulations, even when model structures are identical.

Understanding how adults and adolescents value children's health states: a qualitative exploration using Discrete Choice Experiments (DCEs) with and without duration

YU, A., *et al.*

2026

Social Science & Medicine 398: 119193.

https://doi.org/10.1016/j.socscimed.2026.119193

Background Discrete choice experiment (DCE) methods are increasingly used to generate value sets for paediatric health-related quality of life (HRQoL) instruments, typically relying on latent scale DCE choice tasks and external data anchoring. This study used qualitative methods to: 1) examine how adults and adolescents (12–17) complete both latent scale DCE and DCE with duration; 2) explore the use of different perspectives ('self' or '10-year-old'); and 3) assess DCE valuation of three paediatric HRQoL instruments (CHU9D, EQ-5D-Y-5L, HUI3). Methods Ninety-four participants (47 adolescents and 47 adults) were interviewed via Zoom in six iterative rounds (10–20 interviews per round), incorporating think-aloud and structured elements. Findings informed subsequent interview rounds. DCE choice tasks varied by inclusion of a duration attribute, perspective, and HRQoL instrument. Thematic analysis was used for interview data. Results DCE tasks with duration were feasible for adolescents aged 12–17, and duration helped participants clarify priorities. The CHU9D and HUI3 were found to be more comprehensive in covering the aspects of quality of life. The EQ-5D-Y-5L was favoured in DCE choice tasks for its brevity. Choice tasks involving HUI3 states were found

to be difficult to understand. Quality of life, length of life, perspective and non-health considerations influenced decision-making. Conclusions These results can inform the development of valuation protocols in healthcare decision-making. Notably, adolescents as young as 12 can value health using DCE with duration, supporting the creation of adolescent-specific value sets when required.

Politique de santé

Health Policy

▶ Trust and the impact of state interventions on healthcare utilization during the COVID-19 pandemic in Germany: An instrumental variables approach

BAYINDIR, E. E. ET SCHREYÖGG, J.

2026

Health Policy 168: 105598.

https://doi.org/10.1016/j.healthpol.2026.105598

Background Non-pharmaceutical interventions were enacted to minimize COVID-19-related mortality and morbidity during the pandemic. Objective To examine the causal effect of state interventions, implemented to limit COVID-19 mortality and morbidity, on non-COVID-19 hospital utilization, and whether this effect varied by the level of trust in the healthcare system. Methods The causal effect of state interventions on non-COVID-19 hospital utilization is estimated using an instrumental variables framework, exploiting the variation in the timing of municipal and state elections, and by level of trust in the healthcare system. Main data source is all hospital admissions from 2016-2021 in Germany. All non-respiratory hospital admissions, admissions for emergency conditions, elective surgeries, and chronic conditions are examined. Results On average, non-respiratory hospital admissions declined by 19.2 admissions per 10,000 population per four-weeks (-12.5%, p-value<0.001) throughout the pandemic while four-weeks of contact restrictions caused a decline of 2.7 non-respiratory hospital admissions per 10,000 population (-1.8%, p-value:0.05). Among emergency admissions, contact restrictions led to declines only in acute myocardial infarction admissions (-0.3 per 10,000 population, -12.6%, p-value<0.001). Effects varied markedly by trust in the healthcare system. Counties with low trust experienced the largest declines in non-COVID-19 hospital utilization; during a four-week contact restriction, non-respiratory hospital utilization rate was 45.8, 24.6, and 8.1 per 10,000 population lower than the pre-pandemic levels in low, medium, and high trust counties corresponding to declines of 30%, 16%, and 5% (p-values:<0.001), respectively. Conclusions Our findings highlight the importance of patient trust in the healthcare system, even within a universal healthcare setting.

▶ Organisation des soins périnataux en France métropolitaine 2016–2021 : état des lieux, évolution, cartographie

DUMEIL, S., *et al.*

2026

Gynécologie Obstétrique Fertilité & Sénologie 54(5): 249-256.

https://doi.org/10.1016/j.gofs.2026.01.016

Résumé Introduction La hausse de la mortalité infantile en France, portée par l'augmentation de la mortalité néonatale, interroge l'organisation des soins périnataux. Certains facteurs d'amélioration sont évoqués, mais les données sur leur application et leur efficacité restent limitées. Méthodes Cette étude décrit l'organisation des soins périnataux en France métropolitaine en 2016 et 2021, aux échelles nationale et régionale, à partir des Enquêtes Nationales Périnatales et de la Statistique Annuelle des Établissements. Six indicateurs sont étudiés : taille des maternités (nombre annuel d'accouchements), type d'autorisation, triple permanence des soins (présence continue de médecins obstétricien, anesthésiste et pédiatre), équipes en tension (effectif d'obstétriciens<7 Équivalents temps plein), charge de travail des sages-femmes (ratio sage-femme/accouchement) et recours aux intérimaires. Résultats Entre 2016 et 2021, le nombre de maternités a diminué de 8 %, et celui des accouchements de 9 %. En 2021, 42,5 % des maternités pratiquaient moins de 1 000 accouchements/an, 55,4 % n'assuraient pas la triple permanence des soins, 65,9 % des équipes

obstétricales étaient en tension, 21,1 % des équipes de sages-femmes avaient une charge de travail très élevée, et 68,0 % des établissements recouraient aux intérimaires au moins une fois par mois. Ces problématiques variaient fortement selon les régions et le type d'établissement. Conclusion Une grande partie de l'offre de soins était concernée par des enjeux organisationnels, dont l'impact sur la santé périnatale reste à évaluer, afin de guider la révision attendue des décrets de périnatalité de 1998. Les fortes différences régionales appellent également des réponses adaptées aux spécificités territoriales.

Global definitions of political determinants of health: A systematic review

DURIC, P., *et al.*

2026

Social Science & Medicine 400: 119191.

https://doi.org/10.1016/j.socscimed.2026.119191

Objectives Political Determinants of Health (PDoH) are increasingly recognised as crucial influences on health inequities, yet their definitions and conceptual frameworks remain inconsistent and underdeveloped. This systematic review aims to clarify the scope and thematic composition of PDoH and explore their relationship with other determinants of health. Methods A systematic search of peer-reviewed English-language literature was conducted across multiple databases. Studies explicitly or implicitly defining or conceptualising PDoH, their components, or relationships with other determinants were included. Data from 108 publications meeting inclusion criteria were analysed thematically to synthesize key dimensions and conceptualisations. Results A total of 108 publications were included. Forty-eight provided explicit definitions of PDoH, yielding 51 distinct definitions. Analysis revealed substantial conceptual fragmentation, with definitions emphasising structural and procedural elements—particularly governance arrangements, decision-making processes, and power relations—were most consistently emphasised, while policy content, equity, political ideology, and mechanisms of protection were less consistently represented. Components of PDoH were reported in 101 publications. Initial coding extracted all components, which were grouped into 15 themes and aggregated into higher-order domains. The most commonly reported themes included democratic status, governance, political discourse, and power. Relationships with other determinants were discussed in 27 publications, showing PDoH as embedded within, upstream from, or interacting with social, commercial, legal, digital, and structural determinants. The majority of included publications originated from the USA and other major anglophone countries, indicating potential geographic and political bias in the literature. Conclusions This review highlights the conceptual fragmentation of PDoH in the literature, underscoring the need for clearer, more critical conceptualisations of PDoH that incorporate power dynamics and political contexts. It also highlights the importance of broadening research beyond Western-centric perspectives to encompass diverse political systems. Clarifying PDoH definitions and integrating them with other health determinants is vital to advance research and inform policies addressing the root causes of health inequities globally.

COVID-19 vaccination policies around the world: How democracy influenced prioritisation strategies

VACCARO, A., *et al.*

2026

Social Science & Medicine 399: 119230.

https://doi.org/10.1016/j.socscimed.2026.119230

The rapid development of COVID-19 vaccines had a crucial role in facilitating the global recovery from the pandemic. Countries around the world adopted different vaccine prioritisation strategies, but this variation and its underlying causes are poorly understood. Drawing on Oxford COVID-19 Government Response Tracker's data on vaccine prioritisation plans and eligibility, we describe which population groups were prioritised, when, and in which order across countries. We create a new measure of vaccination plan granularity, which captures the degree to which vaccination strategies targeted specific groups. We use correlations and regressions to examine the relationship between granularity and country-level factors—in particular, democracy and state capacity. In simple correlations, more granular vaccination strategies are associated with higher vaccine uptake, and both democracy and state capacity go hand-in-hand with greater granularity. Once potential confounding factors are controlled for, however, of the two, only democracy emerges as a key predictor. We also find that, in line with the World Health Organization's recommendations, older age groups, healthcare workers, and clinically vulnerable people were highly prioritised in vaccination campaigns. The link between granular vaccination plans

and democracy highlights the importance of institutional factors in shaping policy design during public health crises like COVID-19.

Prévention

Prevention

Health Care as Social Investment? Public Opinion on Trade-Offs Between Curative and Preventive Care in Four OECD Countries

JACQUES, O., *et al.*

2026

Journal of Health Politics, Policy and Law 51(3): 379-405.
https://doi.org/10.1215/03616878-12317985

Context: The COVID-19 pandemic highlighted the importance of public health programs in preventing diseases and providing health security for entire populations. Yet, governments invest very little in preventive health care. While it is generally assumed that this lack of public investment reflects individuals' lack of interest in public health, few studies have actually examined the public's preferences on this issue. Drawing on the literature on social investments, this article brings politics into the study of individuals' preferences for public health and curative care. Methods: The authors rely on an original survey conducted in four OECD countries among 8,000 respondents to assess how citizens trade off preventive and curative care. Findings: The authors show that higher trust and liberal social values are associated with support for preventive health care, as both variables correlate with support for policies whose benefits unfold in the long term. By contrast, individuals with poor self-rated health and low satisfaction with health care services prioritize expenditures in curative care that are beneficial to them in the short term. Conclusions: These findings advance previous research by identifying the groups that demand additional investments in public health and those who prefer to allocate more resources toward curative care.

Towards a Multi-sectoral Approach to Population Health: A Scoping Review of Cross-sectoral Evaluations of Health Interventions

KOLEVA-KOLAROVA, R., *et al.*

2026

Applied Health Economics and Health Policy 24(3): 479-497.
https://doi.org/10.1007/s40258-025-01023-1

Health interventions, particularly those targeted at health promotion and disease prevention, often have a range of impacts that span beyond the healthcare sector. Making the case for investment in these interventions may require an inventory of costs and outcomes across multiple sectors beyond the health sector.

Compensate at your own risk: heterogeneity in compliance with preventive behaviors through the lens of economic and social preferences

LACOMBE, A. ET GUILLON, M.

2026

International Journal of Health Economics and Management 26(1): 6.
https://doi.org/10.1007/s10754-026-09409-x

Preventive behaviors are crucial for controlling the spread of infectious diseases. Until now, most of the literature on the understanding of the willingness to comply with preventive behaviors at the individual level has focused on either one of those behaviors or studied several behaviors but independently. However, preventive behaviors might not be independent of each other's and the question of the relationship between these various behaviors deserves to be further investigated. The COVID-19 pandemic represents an interesting setting to study compliance with preventive behaviors when several prophylactic measures aiming to reduce the same infection risk are available.

The aim of this study is to investigate how economic and social preferences may shape the relationship between three types of COVID-19 preventive behaviors among a representative sample of the French population: (1) compliance with restrictions on movement, (2) adherence to barrier gestures and (3) COVID-19 testing. Using a Latent Class Analysis, we identify four groups of individuals with diverging patterns of compliance with preventive behaviors, differing both in terms of intensity and types of prophylactic measures followed: individuals who apply all preventive behaviors, those who reject them all, individuals that do not respect restrictions on movement but still protect themselves and others by applying barrier gestures, and those who do not use barrier gestures but comply with restrictions on movement. Our results support the existence of a risk compensation process leading some individuals to tailor their menu of preventive behaviors until they reach the risk threshold they are willing to handle. The composition of the menu of preventive behaviors appears to be linked with individuals' economic and social preferences including risk and time preferences, prosociality, and interpersonal trust. Exploring heterogeneity in preventive behaviors may inform the design of targeted prevention and communication campaigns that are better tailored to achieve public health goals.

▶ Health prevention research in France: Increasing investment is a priority, rethinking targets is equally crucial

POTVIN, L., *et al.*

2026

Canadian Journal of Public Health 117(1): 5-9.

https://doi.org/10.17269/s41997-026-01164-3

Psychiatrie

Psychiatry

▶ Calibrating diagnostic practices: The role of psychiatric diagnoses for mental health professionals' everyday practice

BACH, J. M. ET BRUUN, H.

2026

Social Science & Medicine 399: 119250.

https://doi.org/10.1016/j.socscimed.2026.119250

Psychiatric diagnoses play an increasingly important role in contemporary societies, with more people meeting the criteria for receiving one, and a growing number of actors holding an interest in them. However, there is little empirical research on how this development influences clinical practice. The aim of this study is to explore the role of diagnosis and diagnostic manuals in everyday clinical psychiatric practice and to examine how these practices are influenced by those of other diagnostic actors. Drawing on a multimethod qualitative inquiry based on four months participant observations and interviews with 13 mental health professionals from a psychiatric inpatient and an outpatient clinic in Denmark conducted between 2023 and 2024, we find that mental health practitioners habitually engage in what we term expansive practices. That is, they employ a broad range of alternative classifications to grasp the complexity of patients' problems and calibrate their practice accordingly - a task to which manuals and clinical guidelines are often perceived as inadequate. Unlike previous theoretical suggestions, we find that mental health practitioners do not uncritically adopt standardized checklist approaches to diagnosis. Rather, they relate to other diagnostic actors' interests and use of diagnosis, which subsequently influence their clinical practice.

▶ Mental health peer support workers' experiences and management of interpersonal boundaries: A scoping review and integrative framework

CHREIM, S., *et al.*

2026

Social Science & Medicine 399: 119117.

https://doi.org/10.1016/j.socscimed.2026.119117

Peer support workers (PSWs) have been integrated in mental health services at an increasing rate, indicating strong recognition of the value they provide. Research has consistently shown that PSWs experience significant interpersonal boundary challenges in the course of their work, and that these boundaries manifest with service users and interprofessional

mental health teams in which PSWs are embedded. The literature, however, is fragmented; it lacks clear definition of boundaries, does not clearly outline types of boundaries, and falls short of delineating boundary management approaches and tactics in a systematic way. Our review overcomes these limitations by categorizing, integrating and synthesizing research on interpersonal boundaries in PSW work. A scoping review was conducted in accordance with PRISMA-ScR reporting guidelines and JBI Manual for Evidence Synthesis methods. Studies focusing on formally employed mental health PSWs were retrieved by searching 5 scholarly databases. After screening, a total of 52 studies were identified that specifically address the issue of interpersonal boundaries. These studies were qualitatively synthesized using a thematic approach. We find that PSWs experience liminality in their relationships with service users and interprofessional mental health team members, that boundary challenges are often experienced as persistent tensions, and that managing these tensions has various consequences that depend on specific contextual factors. Our review presents an integrative framework that brings together boundary types, overarching boundary management approaches, and specific boundary management tactics to inform and guide future research. It also offers a foundation for deeper reflection on practices surrounding peer support work.

▶ Should the Spanish National Health System Invest in Psychotherapy for Depression? A Microsimulation Cost-Utility Study to Estimate the Economically Justifiable Price of Cognitive Behavioral Therapy Versus Anti-depressant Medication

DE LA CUADRA-GRANDE, A., *et al.*

2026

Applied Health Economics and Health Policy 24(3): 499-516.

https://doi.org/10.1007/s40258-025-01022-2

BACKGROUND: Cognitive behavioral therapy (CBT) represents an effective psychotherapeutic intervention for patients with depression compared with anti-depressant medications (ADM). OBJECTIVE: The aim of this study was to determine the economically justifiable price (EJP), consisting of an average cost of CBT per patient-year for which the intervention is cost effective versus ADM for the treatment of adults with depression in Spain. METHODS: A patient-level microsimulation model was developed to conduct a cost-utility analysis over the patients' lifetime horizon. Patient demographics, epidemiology of depression, health resources consumption and health utilities feeding the model were sourced from the Spanish national health survey. Additional longitudinal inputs were derived from previously published economic analyses in depression. In the base case, the EJP was estimated for several willingness-to-pay (WTP) thresholds, including euro0/QALY (dominancy) and euro 22,000/QALY. Two scenarios were considered presenting CBT as a substitute of ADM and both CBT and ADM combined (CBT/ADM). The robustness of the model and its results were tested using both deterministic and probabilistic sensitivity analyses. RESULTS: For the scenario of CBT versus ADM, the EJP was estimated at euro5236 for a WTP threshold of euro 22,000/QALY. At an EJP of euro 549, CBT was a dominant intervention compared with ADM. In the scenario considering CBT/ADM versus ADM, the EJP was euro 5449, CBT/ADM being dominant at an EJP of euro255. Sensitivity analyses demonstrated that the base-case results were robust. CONCLUSION: CBT and CBT/ADM achieved incremental health benefits compared with ADM. Under the estimated EJPs, CBT and CBT/ADM could represent a cost effective or dominant intervention for adult patients with depression in Spain.

▶ Mental health in a digitally fragmented world: Exploring negative and positive associations across spatial contexts and gender

GAL, N. J., *et al.*

2026

Social Science & Medicine 401: 119337.

https://doi.org/10.1016/j.socscimed.2026.119337

The increasing ubiquity of information and communication technologies has integrated digital environments into everyday physical spaces, enabling high-frequency shifts between digital and physical contexts, with potential implications for health. To investigate the emerging pattern of rapid shifts between environments and activities, digital and spatial behavioral patterns were analyzed using concepts from time-geography—particularly fragmentation—and normalized entropy measures from the digital phenotyping literature. This exploratory study used a standardized, pooled dataset, comprising two studies that collected objective smartphone logs of digital activity, GPS-based spatial context data, and daily self-reports of anxiety and mood. Associations were found between increases

in fragmentation levels and mental health outcomes, with the direction of these associations often varying by gender and spatial context. Increased fragmentation of digital activities and digital activities within mobility episodes correlated with heightened anxiety in females but lower anxiety in males. This trend was reversed in the home context, where males with high fragmentation of digital activity reported more negative affect, while females did not. These findings point to complex associations between digital activity patterns and mental health, warranting further investigation.

Les formations en psychiatrie

ODIER, B., *et al.*

2026

Information Psychiatrique (L')102(4): 263-304

https://stm.cairn.info/revue-l-information-psychiatrique-2026-4

Dossier consacré aux formations en psychiatrie pour les aide-soignants, les infirmières, les médiateurs de santé pairs, ainsi qu'une réflexion sur l'attractivité de la psychiatrie. Le dernier article est consacré à l'examen européen de psychiatrie.

Understanding the role of psychological factors in long COVID: a network analysis approach

OEHLKE, S. M., *et al.*

2026

European Journal of Public Health 36(2) : ckag038

https://doi.org/10.1093/eurpub/ckag038

Long COVID (LC) is a heterogeneous, multisystem condition that persists beyond the acute phase of SARS-CoV-2 infection. Psychological symptoms are highly prevalent and may influence the course and severity of LC. However, their specific role within the broader symptom structure remains insufficiently understood. This study applied a psychological network approach to examine how psychological factors contribute to the overall symptom structure of LC and to identify central and bridging variables that may serve as promising targets for intervention. A sample of 283 individuals with LC (n female = 235, n male = 47, n diverse = 1; age: M = 39.48, SD = 13.29) completed an online survey assessing post-viral physical symptoms and psychological factors, including depression, anxiety, COVID-19-related traumatic stress, and lack of self-efficacy. A regularized partial correlation network was estimated based on ten variables. The network revealed a dense degree of connectivity, with psychological factors integrated into the broader symptom structure. Depression emerged as the most central variable. Cardiovascular and respiratory symptoms, neurological symptoms, and depression served as key bridge variables. Lack of self-efficacy showed moderate associations with COVID-19-related traumatic stress and anxiety. Female gender was linked to greater gastrointestinal symptom burden, while older age was associated with more pronounced cardiovascular and respiratory symptoms. This study underscores the central role of psychological factors—particularly depression—as key targets for intervention in LC. By advancing the understanding of factors shaping health outcomes in LC, our findings support the integration of psychological approaches into the clinical management of affected individuals.

Nationally representative surveys of experiences of discrimination and positive treatment in people with mental health problems in Australia: Changes over 10 years

REAVLEY, N. J., *et al.*

2026

Social Science & Medicine 400: 119215.

10.1016/j.socscimed.2026.119215

Reducing stigma and discrimination has been a priority in many national mental health policies for decades. The aim of this study was to explore population-level changes in experiences of discrimination and positive treatment between 2014 and 2024. Large nationally representative surveys of Australian adults were conducted in 2014 and 2024. For each, those who reported a mental health problem or scored high on a screening questionnaire (n = 1381 in 2014, n = 2613 in 2024) were asked about experiences of discrimination and positive treatment in multiple settings. Regression analyses were used to explore whether changes between survey years were significant at p<.01, adjusting for sociodemographic variables of age, gender, education level, country of birth, type of mental health problem and receipt of a diagnosis or treatment. In 2024, participants were more likely than in 2014 to report experiencing discrimination (OR = 1.77 [99%CI 1.38,2.26], p < 0.001) and in family, friends, partners, health professionals, workplace and neighbourhood settings. In 2024, any positive treatment was less common (OR = 0.67 [99%CI 0.52,0.88], p < 0.001), but more common in friends, family, workplace and health professional settings.

Increases in discrimination were generally greater than those for positive treatment, and were largest in family, neighbourhood, finding work and health professionals. Study findings highlight the need for sustained and targeted efforts to tackle discrimination and improve support. Any interventions should be carefully developed and disseminated based on their ability to bring about tangible behaviour change in their target audiences, without inadvertently heightening sensitivity to perceived threats.

▶ The Mental Health Impact of the COVID-19 Pandemic on Health and Social Care Workers

SERRA-SASTRE, V., *et al.*

2026

Health Economics 35(6): 960-977.

https://doi.org/10.1002/hec.70090

ABSTRACT The COVID-19 pandemic placed exceptional strain on essential services, raising urgent concerns about the mental well-being of workers in critical sectors. This study examines the short- and medium-term effects of the COVID-19 pandemic on the mental health of health and social care (HSC) workers in the UK relative to other occupational groups. Using data from the UK Household Longitudinal Study and measuring mental health via the General Health Questionnaire (GHQ), we apply a difference-in-differences strategy, where both groups could be treated only in the second period (a pre-post design), to investigate whether HSC workers experienced distinct mental health trajectories compared to other key workers (KWs) and workers in non-essential sectors (non-KWs). The results for the immediate post-pandemic period (April–November 2020) show no significant differences in mental health for HSC workers compared with either comparator worker groups. Medium-term outcomes remained statistically insignificant across occupational comparisons. Additional analyses of individual GHQ items and potential mechanisms (financial stability and social isolation) suggest limited heterogeneous effects for each worker group using yearly data. While all studied groups exhibited some deterioration in mental health after 2020, HSC workers' trajectories largely mirrored those of other KWs and non-KWs, suggesting that factors such as stable employment and financial security may have cushioned the psychological impact for this sector.

Sociologie de la santé

Sociology of Health

▶ Presence and procedure: Experiencing relationality between patients, relatives and healthcare professionals in Dutch euthanasia requests

ANTONIDES, M. F., *et al.*

2026

Social Science & Medicine 400: 119297.

https://doi.org/10.1016/j.socscimed.2026.119297

Background In Dutch euthanasia practice, the relationship between healthcare professionals, patients, and, when present, the patient's close circle plays an important role. However, neither the Dutch Euthanasia Act nor current guidelines or empirical studies provide detailed insight into how these actors navigate the process or experience decision-making. Therefore, we aim to explore how these relationships are experienced throughout the euthanasia process. Methods We conducted a phenomenologically inspired, multiperspective and longitudinal study. Nine groups consisting of a patient, relative and one or two healthcare professionals were included (n = 31). A total of 43 interviews and 18 observations of the assessment of the euthanasia request were conducted. Analysis was done using a phenomenological guide for multiperspective and longitudinal research. Results Participants experienced the emerging relationship in diverse ways, reflecting an ongoing process of relational enactment rather than fixed outcomes. They reported experiences of feeling support, care, empowerment, instrumentalization, guidance, and legal or procedural framing. These experiences varied in intensity and could shift over time, differing between participants and across groups. Discussion Participants' experiences were shaped by how the euthanasia request was assessed, rather than by what was assessed. Euthanasia practice

should thus not solely be understood in terms of compliance with legal criteria, but shaped by how these criteria are enacted and experienced within relational encounters. This highlights that the euthanasia process unfolds within a relational field in which legal, professional, and interpersonal dimensions are inextricably intertwined, and is best understood as a triadic configuration involving patients, their close circle, and healthcare professionals.

Former pour collaborer : panorama des formations à la collaboration et à la recherche participative en santé

DESJARDIN, R. ET PRÉAU, M.

2026

Santé Publique 38(1): 35-45.

Introduction : Dans un contexte d'essor des démarches participatives en santé, les formations se multiplient pour accompagner ces pratiques (Tourette-Turgis *et al.*, 2019). Ces initiatives sont toutefois marquées par une hétérogénéité de formats, d'objectifs et de publics, témoignant d'un manque de consensus concernant les démarches participatives en place (Paulo *et al.*, 2023). But de l'étude : Cette étude vise à explorer les dispositifs de formation francophones qui soutiennent les collaborations entre chercheurs, professionnels de santé et citoyens. Elle interroge en particulier les logiques d'acculturation sous-jacentes, surtout au sujet de l'acculturation des citoyens aux normes de la recherche et au fonctionnement du système de santé. En s'appuyant sur une revue de littérature grise et d'études scientifiques sur le sujet, une diversité de formations a été identifiée, conçue pour favoriser l'implication de publics variés dans les projets de recherche en santé. Résultats : Ces dispositifs visent le plus souvent à doter les citoyens et patients de compétences leur permettant d'intégrer des projets collaboratifs. Ils varient selon le type de partenariat (clinique, recherche, formation) et le niveau d'implication attendu, allant de modules en ligne à des diplômes professionnalisants. Peu intègrent une formation des professionnels. Conclusions : La formation constitue un levier essentiel pour soutenir ces collaborations, en favorisant compréhension, ajustement et reconnaissance mutuelle. Toutefois le déséquilibre des trajectoires de formation questionne les rapports de pouvoir, la professionnalisation des patients et les limites épistémologiques de certaines démarches, soulevant des enjeux cruciaux pour la co-construction des savoirs en santé.

The Making of Vulnerability. An ethnographic study exploring vulnerability in specialized outpatient care for pregnant persons with diabetes in Denmark

SCHLÜTTER, M. M., *et al.*

2026

Social Science & Medicine 400: 119315.

https://doi.org/10.1016/j.socscimed.2026.119315

This article examines how vulnerability is enacted in specialized outpatient care for pregnant persons with diabetes in Denmark. The analysis draws on ten months of ethnographic fieldwork, including observations of 79 consultations with 33 pregnant persons and around 20 health professionals. Rather than treating vulnerability as a stable trait or individual circumstance, we approach it as something done through administrative classifications, psychiatric histories, insulin thresholds, anticipatory reasoning, and cross-sectoral coordination. We trace how institutional formats shape which concerns become legible, actionable, or stalled, with uneven consequences for care, including intensified surveillance, delayed transfer, early induction, and fragmented follow-up. By shifting attention from who is vulnerable to how vulnerability is made actionable, the study contributes to debates in medical anthropology and critical public health on inequity, arguing that equity depends on sustaining adaptable, revisable institutional practices rather than fixed solutions.

Soins de santé primaires

Primary Health Care

State Expansions in Medicaid Financial Assistance for Low-Income Medicare Beneficiaries: Changes in Enrollment and Use

FUNG, V., CHENG, D., PRICE, M., *et al.*

2026

Health Services Research 61(3): e70116.

https://doi.org/10.1111/1475-6773.70116

ABSTRACT Objective To examine the association between state increases in income or asset eligibility limits for Medicare Savings Programs (MSP), which provide assistance with Medicare cost-sharing and/or premiums, and MSP enrollment and health care use. Study Setting and Design We used interrupted time series analysis to evaluate changes in MSP enrollment rates before and after expansion. We estimated associations between post-expansion enrollment in MSPs with outpatient visits, prescription drug fills, emergency department (ED) visits, and hospitalizations using a matched difference-in-differences approach. Matching variables included individual and area-level sociodemographic characteristics, comorbidity scores, and MSP eligibility group. Data Sources and Analytic Sample We used Medicare data from four states that met the inclusion criteria of having at least 24 months of data before and after their expansion between 2006 and 2019: Connecticut (income and assets), Indiana (income), New York (assets), and Oregon (assets). Principal Findings Relative to predicted enrollment in the absence of MSP expansion, actual enrollment over 24 months increased by varying degrees: 65.3% in Connecticut and 34.1% in Indiana, but only 3.9% and 3.7% in New York and Oregon, respectively. In Connecticut and Indiana, the two states that raised income limits, post-expansion enrollment in MSPs was associated with increased prescription drug use overall (e.g., 380 fills per 1000 beneficiaries per month in Connecticut, 95% CI: 333, 427) and in three chronic drug classes, and decreased hospitalizations (e.g., –4 hospitalizations per 1000 beneficiaries per month in Indiana, 95% CI: –7, –2). Conclusions MSP eligibility expansions had positive but variable impacts on enrollment across states, with larger increases in states that expanded eligibility by raising income limits versus those that only eliminated asset tests. In the states that raised income limits, post-expansion enrollment in MSPs was associated with increased use of chronic drugs, underscoring the potential clinical value of financial assistance for low-income beneficiaries.

How to value the full cost of medical consultations in France? Results from MOVIE project

CASTELLI, C., *et al.*

2026

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In France, the lack of standardized unit cost data is a major barrier to high-quality, easily comparable health economic evaluations. The objective of the MOVIE project was to standardize costing methods and provide accurate estimates of unit costs for French healthcare services. More than 200 million general practitioner (GP) consultations were recorded in France in 2021, at a total billed cost of €10.5 billion – approximately 80% of which was covered by the state health insurance system. In the same year, there were 125 million consultations with specialist physicians, for a total billed cost of €13.9 billion. The baseline per-consultation tariff was €25 for a GP and €31.5–€58.5 for a specialist; however, these figures excluded additional costs and thus were potentially underestimated. The MOVIE project took account of consultation fees, procedure fees, the patient's out-of-pocket payments, and annual physician incentives linked to quality, prevention, and public health activities. In an analysis of a representative 2% sample (the *Échantillon du Système National des Données de Santé*) of the French National Health Database, the mean GP consultation cost was €39.8 but could amount to as much as €75.1 when additional medical procedures were included. The cost of a consultation with a specialist was €66.1 on average but ranged from €40.2 (for an oncologist) to €104.3 (for a neurologist). Cost variability was driven by the type of consultation, additional procedures, the medical specialty, the practice setting, the patient's age, and the geographic region. By capturing all the relevant cost components, this MOVIE study (i) provides the first comprehensive, validated assessment of medical consultation costs in France (enabling more accurate, more

easily comparable economic evaluations) (ii) supports healthcare policy, budget impact analyses, and clinical trial modeling, and (iii) highlights key cost drivers and regional differences.

A Scoping Review of Certified Nurse-Midwife and Certified Midwife Care in the United States: Assessing Outcomes Across Six Patient Care Domains

CLARK, E. V., *et al.*

2026

Milbank Q 104(1): 220-291.

https://doi.org/10.1111/1468-0009.70069

Policy Points Certified nurse-midwife (CNM)/certified midwife (CM) care is associated with outcomes that are comparable or improved compared to physician care across multiple domains of health care quality, especially safety and effectiveness. CNM/CM care is consistently associated with lower rates of intrapartum interventions and improved birth outcomes and patient satisfaction. Integration of CNM/CM care remains limited across many US health systems due to scope of practice restrictions and institutional policies. Growing, diversifying, and integrating CNM/CM care offers a critical pathway to advancing health care quality, equity, and efficiency in the United States and addressing the alarming rise in adverse perinatal and sexual and reproductive health outcomes. CONTEXT: The alarming rise in US maternal mortality and disparities in perinatal, sexual, and reproductive health outcomes underscores the urgent need for effective, equitable, and evidence-based models of care. Care provided by certified nurse-midwives (CNMs) and certified midwives (CMs) has played a critical role in addressing these disparities, yet a comprehensive synthesis of its impact across health care quality domains is lacking. METHODS: A scoping review methodology following PRISMA-ScR guidelines was used to assess the association of CNM/CM care and perinatal, sexual, and reproductive health outcomes through the lens of the Institute of Medicine's six domains of health care quality: safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity. This review included United States-based studies published since 2012 identified via PubMed and CINAHL. Studies were screened for relevance to the six domains and CNM/CM care. Data were extracted into a spreadsheet, grouped by domains, and analyzed using narrative synthesis. FINDINGS: A total of 66 studies met inclusion criteria. Within the safety, effectiveness, and patient-centeredness domains, CNM/CM care was associated with similar or improved perinatal, sexual, and reproductive health outcomes compared to physician care, including lower rates of cesarean birth, fewer interventions, improved neonatal outcomes, greater patient satisfaction, and reduced health care costs. CNM/CM care also demonstrated potential in mitigating racial and geographic maternal health disparities, though scope of practice restrictions and institutional policies limited CNM/CM integration. Despite this evidence, gaps remain in understanding the influence of CNM/CM care on health care quality as it relates to efficiency, timeliness, and equity. CONCLUSIONS: These findings highlight the importance of expanding CNM/CM integration within the United States' health care system to improve care delivery and associated health outcomes, reduce health disparities, and advance health equity. Future studies should incorporate standardized outcome measures and explore the role of CNM/CM care within collaborative models to enhance perinatal care quality and accessibility.

Physician practice preferences and healthcare expenditures: Evidence from commercial payers

CLEMENS, J., *et al.*

2026

Journal of Health Economics 107: 103134.

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We examine the relationship between physician preferences and both the intensity and cost of care delivered to commercially insured heart attack patients. We find that the survey-based preference measures collected by Cutler et al. (2019) (CSSW) predict variations in utilization that are same-signed, though substantially muted, relative to the strong relationships CSSW uncovered for both treatment and expenditure for Medicare beneficiaries. Additionally, regions with aggressive practice styles receive sufficiently lower reimbursements from commercial insurers that variations in practice preferences have weak correlations with expenditures in the commercial market. We present a parsimonious model of commercial insurers' pricing that can rationalize this fact pattern.

État des lieux, en Fédération Wallonie-Bruxelles, de l'implication des patients dans les dispositifs pédagogiques infirmiers

DANS, C., *et al.*

2026

Santé Publique 38(1): 147-156.
https://stm.cairn.info/revue-sante-publique-2026-1-page-147

Introduction : Si la nécessité de l'implication des patients à différents échelons des systèmes de soins de santé est de plus en plus reconnue, leur implication dans la formation des professionnels de la santé, en particulier les infirmiers, est moins documentée. But de l'étude : Cette recherche vise à documenter l'implication des patients dans la formation des infirmiers en Fédération Wallonie-Bruxelles (Belgique). Elle a pour objectif de (i) décrire le type d'implication des patients dans les dispositifs rencontrés et (ii) comprendre quelles sont les conditions qui influencent cette implication. Méthodologie : Il s'agit d'une recherche qualitative, exploratoire et descriptive, par entretiens semi-dirigés auprès d'enseignants impliquant des patients dans leur dispositif pédagogique. Résultats : Dix des onze instituts d'enseignement de la Fédération Wallonie-Bruxelles dispensant une formation en soins infirmiers intègrent des patients dans 21 dispositifs pédagogiques. Les entretiens menés auprès de 24 enseignants impliqués dans ces 21 dispositifs ont montré que, dans la majorité des cas, l'implication des patients demeure limitée. Les modalités de collaboration ainsi que la formation des patients peuvent dépendre de l'intervention d'une tierce personne. Malgré un soutien institutionnel majoritairement présent, peu de moyens financiers sont alloués à ce type d'enseignement. Le statut des patients et la préparation des patients et des enseignants à collaborer sont peu formalisés. Conclusion : L'implication des patients dans la formation des infirmiers reste majoritairement dépendante d'un engagement personnel des enseignants. Une réflexion sur les moyens et les formations pour préparer les patients et les enseignants à collaborer s'impose.

The long-term effects of early life exposure to primary healthcare expansion: Evidence from the Barefoot Doctor Program

HUANG, F., *et al.*

2026

Social Science & Medicine 399: 119244.
https://doi.org/10.1016/j.socscimed.2026.119244

This paper examines the long-term effects of China's Barefoot Doctors Program (BDP), a large-scale expansion of primary healthcare implemented between 1965 and 1978. Combining newly digitized county-level data with a cohort-based difference-in-differences design, we identify the impact of early-childhood exposure to the program (ages 0–5) on adult outcomes. We find that exposure to the BDP leads to economically meaningful improvements in adult health and educational attainment, with effects concentrated among females. Exploring potential mechanisms, we present evidence consistent with the hypothesis that improvements in nutritional knowledge and dietary practices are key channels. Overall, the results document substantial long-term returns to a low-cost, workforce-based primary healthcare intervention.

Patient Perspectives of Care Integration During Early Implementation of a Care Coordination Initiative

HYNES, D. M., *et al.*

2026

Medical Care Research and Review 83(3): 183–194.
https://doi.org/10.1177/10775587251413444

Research shows care coordination contributes to integrated care experiences. Yet evidence from system-level initiatives is lacking. Using a survey of Veterans Health Administration (VHA) patients linked with clinical records, this nonrandomized, cross-...

General practitioners' incentives and practice style: A descriptive registry study of earnings variation in Norway

KRAFT, K. B., GRØSLAND, M., HOFF, E. H., *et al.*

2026

Health Policy 170: 105639.
https://doi.org/10.1016/j.healthpol.2026.105639

Background In Norway, 80% of general practitioners (GPs) are self-employed, remunerated through a mix of fee-for-service and capitation (FFS/CAP) payments, while the remaining 20% are salaried. Objective To examine which types of practice styles are most likely to be incentivised under the FFS/CAP system. Methods Using nationwide registry data from 2021 (N = 2546 GPs), we compare GPs' practice styles, such as consul-

tation frequency, consultation duration, and procedure fee utilisation, across different earning levels. Results Among self-employed GPs, high-earning GPs earn 40% more from FFS per patient compared to their low-earning counterparts (€178 versus €127). Consultation frequency explains nearly half (48%) of this difference, as high-earning GPs conduct more consultations per patient (3.43 versus 2.53). However, despite the higher frequency, patients of high-earning GPs spend less time in consultations yearly (35 versus 38 min) due to shorter average consultation duration (15 versus 20 min). The remaining earning difference is attributed to greater utilisation of procedure fees by high-earning GPs (5.6 versus 3.9 procedures per patient), with fees for prolonged consultation, medication review, and talking therapy contributing most. The practice style of low-earning GPs resembles salaried GPs. Conclusions Our interpretation is that high-earning GPs appear to respond more strongly to financial incentives in the FFS/CAP system compared to low-earning GPs. This suggests that the FFS/CAP system incentivises high consultation frequency, short consultation duration and high procedure fee utilisation. Policymakers should balance the use of financial incentives to increase capacity and efficiency against side-effects of overprovision or gatekeeping conditions.

First Year Of ACO Realizing Equity, Access, And Community Health Program Yields Good Quality, Savings Results

LIN, S. C., *et al.*

2026

Health Affairs 45(4): 404-412.

https://doi.org/10.1377/hlthaff.2025.01143

The Accountable Care Organization Realizing Equity, Access, and Community Health (ACO REACH) program is a Medicare Alternative Payment Model that launched in January 2023, based on the Global and Professional Direct Contracting Model that preceded it. The transition from that program to ACO REACH was unique in the Medicare portfolio in its focus on health equity and emphasis on capitated payments. We found that in the first year of ACO REACH, 132 participating ACOs cared for more than two million Medicare beneficiaries. Nearly nine in ten ACOs met quality cutoffs for Continuous Improvement/Sustained Exceptional Performance bonuses. The average Medicare spending benchmark was approximately $16,000 per beneficiary, and nearly three-quarters of participants had spending that was lower than their benchmark. ACOs with more experience and those with a higher proportion of medically complex beneficiaries (and thus higher benchmarks) had greater savings than newer ACOs and those with lower benchmarks.

Patients' Perceptions of Their Physicians' Interpersonal Manner and Technical Competence: A Qualitative Study of Online Written Reviews

MADANAY, F., *et al.*

2026

Medical Care Research and Review 83(3): 195–206.

https://doi.org/10.1177/10775587251400544

Patients increasingly use online rating and review websites to share their clinical experiences, yet few studies have taxonomized how patients perceive their physicians. We developed a theoretical framework identifying the factors comprising patients' ...

Information Shocks, Legal Liability and Physician Decisions

MUSHINSKI, D. ET ZAHRAN, S.

2026

Health Economics 35(6): 896-909.

https://doi.org/10.1002/hec.70096

ABSTRACT Physician adoption of new information about a medical procedure can affect patient outcomes. Medical malpractice law may influence physician use of such information. We analyze how physician reactions to information shocks regarding vaginal births after cesarean sections (VBACs) in the 1990s were mediated by tort reform and the standard used in malpractice claims to determine a physician's duty of care to patients. Differentiating states according to whether they capped non-economic damages in malpractice claims (Caps) and whether they defined the duty of care using a national or a local reference point, we analyze how physicians under the four legal regimes reacted to a series of adverse information shocks regarding VBACs over the period. Our results suggest that physicians whose duty of care is determined by standard practices nationwide are less likely to adopt innovations which have not yet been incorporated into those practices and more likely to adopt innovations once they are incorporated into those practices. Caps may moderate these effects. Our results also suggest intuitive heterogeneity in the effects of legal regime on physician decisions.

What motivates (un)satisfied physicians?

OXHOLM, A. S., *et al.*

2026

Social Science & Medicine 400: 119263.
https://doi.org/10.1016/j.socscimed.2026.119263

Policymakers across countries are struggling to retain and attract physicians. The design of policies to retain and attract physicians requires knowledge about their motivations to ensure that physicians are satisfied with their work. Based on the agency literature, we set up a theoretical framework outlining physicians' satisfaction (a proxy of utility) as a function of different sources of motivation (profits, patient benefits, societal benefits, and reputation). We then provide novel empirical evidence of how these motivations link to physicians' work satisfaction. This evidence is based on unique survey data on Danish general practitioners (GPs) which measures different dimensions of motivations and work satisfaction in 2019, combined with detailed register data on their working conditions. Using ordinary least square regressions, we estimate the association between GPs' work satisfaction and different sources of motivations, while controlling for a rich set of demand and supply factors. We find that one standard deviation (SD) increase in altruism towards society and in reputational motivation is associated with an increase of 8.4% and 8.7% of one SD in GP satisfaction, respectively. In contrast, one SD increase in profit orientation is associated with a 8.0% reduction of one SD in GP satisfaction. These results are robust to accounting for demand and supply factors. Overall, we predict theoretically and demonstrate empirically that different sources of motivation relate differently to physicians' work satisfaction. This knowledge may be useful for policymakers to design policies that can attract and retain more individuals to the profession.

Who benefits, who is left behind? Intersectional inequities in unmet health care needs before and after the 2010 Swedish choice in primary health care reform using decision trees

PEDRÓS BARNILS, N., *et al.*

2026

Social Science & Medicine 401: 119339.
https://doi.org/10.1016/j.socscimed.2026.119339

In 2010, Sweden implemented the Choice in Primary Health Care reform, allowing private healthcare providers to establish themselves at self-selected locations. While intended to improve efficiency and responsiveness through increased competition, concerns were also raised about its potential to reinforce inequities in healthcare access across different population groups. This study examines intersectional inequities in unmet healthcare needs (UHCN) in relation to the reform's implementation. Using data from the Health on Equal Terms survey (2007–2014, N = 69,644), we applied a decision tree-based analytical method (Model-Based Recursive Partitioning) combined with a post-hoc selection approach based on the Area Under the Receiver Operating Characteristic Curve to identify intersectional subgroups and assess reform-related effects. Although UHCN prevalence decreased by 11% after the reform, this overall improvement did not result in a narrowing of the equity gap across intersectional groups. Those born outside the Nordic countries, intersecting with low income, low education, and middle age, remained at the highest risk of experiencing UHCN both before (PR = 6.67, $p < 0.001$) and after (PR = 5.14, $p < 0.001$) the reform's implementation, indicating that, while absolute levels of UHCN decreased, the relative positioning of disadvantaged groups remained largely unchanged. These findings illustrate that overall improvements in healthcare access following market-oriented reforms do not necessarily address pre-existing structural inequities, and suggest that complementary equity-targeted measures will be required to ensure equitable access across diverse populations in Sweden. The decision tree-based approach proved valuable for evaluating health policies by uncovering heterogeneous effects across complex, intersectional patterns of healthcare outcomes.

Do all respond alike? A difference-in-differences analysis of how GPs' financial motivation impacted contacts when the COVID-19 pandemic hit Denmark

YORDANOV, D., *et al.*

2026

Health Policy 168: 105612.
https://doi.org/10.1016/j.healthpol.2026.105612

Background The onset of the COVID-19 pandemic raised an immediate need for remote access to health care. Danish policymakers therefore introduced fees for remote contacts in general practice. The GPs could charge a fee for video consultations and for a regular consultation performed over the telephone, which was a higher fee than for a standard telephone consultation. Objective To assess whether GPs' financial

motivation impacted changes in contacts in general practice when the pandemic hit. Methods We combine unique survey data on GPs' financial motivation from 2019 (before the pandemic) with rich register data on their practices' reimbursed contacts and other characteristics from 2015 to 2020 (the first year of the pandemic). Using a difference-in-differences framework, we estimate whether practices with more financially motivated GPs responded differently to the pandemic. Results We find that practices with more financially motivated GPs tend to provide relatively more contacts per patient in response to the pandemic. In some months, an increase in financial motivation of 0.1 (on the motivation scale from 0 to 1) yields 2.9 to 5.6 additional contacts per 1000 enlisted patients. This is driven by a more frequent use of the new fees for remote contacts. We also find indication of some substitution from low- to high-fee telephone contacts. Conclusion Our findings suggest that using remote fees to appeal to GPs' financial motivation may have created inequity in access to care when the pandemic hit. Policymakers should therefore also consider other ways to motivate GPs to ensure equitable care delivery.

Systèmes de santé

Health Systems

▶ Policies and initiatives to facilitate timely discharge from hospitals: a comparison of six European countries

ERIKSEN, A., *et al.*

2026

Health Policy 168: 105595.

https://doi.org/10.1016/j.healthpol.2026.105595

Background Timely discharge of patients who are clinically ready to be discharged from hospitals to the next point of care is a common health system challenge. Ensuring safe and effective discharge holds new urgency, given the backlogs and increased waiting times for inpatient services in many countries after the COVID-19 pandemic. Objective The study aimed to identify policy options for addressing delayed discharges in six European countries (Denmark, France, Germany, the Netherlands, Norway, and Sweden), and to summarise available evidence on their effectiveness. Methods Experts from the Health Systems and Policy Monitor (HSPM) network of the European Observatory on Health Systems and Policies and additional country experts identified relevant policies and initiatives up to November 2023. When evaluations were available, the experts also provided information on their findings. The data collection was followed by a qualitative, cross-country comparative analysis. Results A total of 17 policies or initiatives were identified in the study countries. Hospital-based initiatives included discharge planning and transitional care. Community and home care initiatives included municipal emergency beds, intensive home rehabilitation, and assisted discharge. Cross-sectoral initiatives ranged from coordination efforts at the regional and municipal levels to decision support systems and financial incentives. Conclusion Several common factors or principles underpin many of the identified policies and initiatives. These include clarity of responsibility, effective planning and communication, resourcing of community-based capacity, possible unintended consequences of financial penalties, and the need to adopt a systemic approach.

▶ Quality of care in an era of global challenges: a transformational vision for WHO European Region and beyond

FONSECA, V. R., *et al.*

2026

European Journal of Public Health 36(Supplement_3): iii11-iii16.

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Health systems today face overlapping pressures—from demographic shifts, workforce shortages, climate change, and geopolitical and economic instability. This strains their ability to deliver effective and equitable care and erodes public trust. Traditional approaches to quality of care, often focused on service volumes or process compliance, are proving insufficient to address these system-wide challenges. In response, this paper proposes a transformational vision for quality of care that moves beyond traditional models. This vision is

rooted in two interconnected pillars. First, a focus on outcomes that truly matter to people and populations, prioritizing health and well-being over service volume. The second pillar is a whole-systems perspective that embeds quality across all levels of governance, policy, and financing. This transformation is made possible through three key enablers. First, an empowered workforce and accountable leadership are needed to drive change. Second, data must be used transparently to build trust and guide results-focused work. Finally, innovative solutions and tools must enhance quality and be aligned with equity. Drawing on practical implementation examples, this paper outlines a roadmap for system-wide alignment of health systems—to rebuild trust, improve resource use, and advance health equity. This makes quality a lasting foundation for resilient, sustainable, and equitable healthcare.

Waiting times and admissions policies in England and Scotland before and after privatisation of services for NHS elective hip and knee replacement surgery in England between 2008 and 2019

KIRKWOOD, G. ET POLLOCK, A. M.

2026

Health Policy 168: 105605.

https://doi.org/10.1016/j.healthpol.2026.105605

BACKGROUND: In the UK, where healthcare is a devolved matter, England and Scotland have different policies to reduce waiting lists for elective surgery. England is redirecting NHS funding to the private sector using commercial contracts, Scotland is expanding in-house capacity. OBJECTIVE: To compare trends in admissions, waiting times and inequalities in England and Scotland for hip and knee replacement surgery between April 1997 and March 2019. METHODS: An ecological study of NHS funded elective primary hip and knee replacement comparing admission rates, slope index of inequality for admissions and trend gradients for waiting time inequality using interrupted time series. RESULTS: Between 1997/98 and 2018/19, the admission rate for hip and knee replacements increased by 110 % to 137.9 per 100,000 and 185 % to 145.4 per 100,000 respectively for England and by 90 % to 144.8 per 100,000 and 163 % to 137.5 per 100,000 respectively for Scotland. Between 2008 and 2019, Scotland increased in-house NHS provision by 18 % for both hip and knee surgeries. In contrast in England NHS in-house capacity for hip and knee replacements fell by 8 % and 18 % respectively, with the private sector substituting for direct NHS provision; NHS funded private providers increased seven-fold to 155. Waiting times fell in both countries and trends were pro-rich in both countries after 2008. Inequality in admissions increased in England at two and a half times the rate of Scotland. CONCLUSIONS: Contracting out NHS funded elective surgery to the private sector in England is associated with the creation of a two-tier system within the NHS.

The second Trump presidency: Health care themes, policies, and impacts in his first year back in office

RICE, T., UNRUH, L. Y., BARNES, A. J., *et al.*

2026

Health Policy 170: 105648.

https://doi.org/10.1016/j.healthpol.2026.105648

Background President Trump came into office with an agenda to rein in government programs and regulations. The Trump administration has focused on making government smaller and nearly eliminating humanitarian foreign health aid, while eschewing conclusions drawn by the mainstream scientific community, particularly regarding vaccination policy. Reform Content Specific actions have included cuts to both health personnel and budgets, efforts to remove vaccine mandates, attempts to end diversity efforts, and the essentially shuttering of the United States Agency for International Development program. Reforms also include allowing the expiration of enhanced federal premium subsidies for the individual insurance marketplaces beginning in 2026 and a substantial reduction in federal payments to state Medicaid programs beginning in 2027. Expected Results Downstream impacts will include collecting less health data, moving away from research on communicable diseases, promoting vaccine hesitancy, and reducing access to, and possibly the quality of, care. Cutting humanitarian foreign health aid may have an even larger impact, as access to vaccinations and medications has already been curtailed, especially in Africa. Cuts to global health have endangered lives in many of the world's poorest countries, while the destabilization of global trade has limited the scope for European countries to fill the gap. Conclusions Millions of Americans will lose their health insurance coverage, while people in many countries – especially Africa – will have their lives endangered. Vaccination rates, particularly among young children, will decline, exposing more Americans to communicable diseases. Scientific research output is likely to decline as universities face increasing financial pressures.

Public health quality indicators as a prioritization and leadership tool: a scoping review of their role in health system transformation

TRIANTAFYLLOU, C., *et al.*

2026

European Journal of Public Health 36(Supplement_3): iii5-iii10.
https://doi.org/10.1093/eurpub/ckaf174

Public health indicators serve as vital monitoring tools of population's health while assisting policy makers in their leadership role while guiding policy decisions. Standardized indicator development continues to face substantial obstacles regarding their conceptual definition, methodological precision, and national compatibility. The aim of this review was to combine academic and institutional literature to assess the application of quality indicators in public health settings. A scoping review of the existing literature on public health quality indicators was conducted. The search was performed in PubMed, EMBASE, and CINAHL databases. Eleven publications were included, and the extracted data were organized in a structured table. Research findings showed that indicators must retain a balance between usefulness, national context adaptability and standardized frameworks. The ECHI, EUHPID, and PAHO's frameworks established systematic methods to organize indicators and create measurement systems. Subnational programs highlighted that data quality and coverage remained insufficient. Public health indicators serve as essential tools for tracking population health status while assisting in policy decisions. The practical application of indicators depends on their methodological soundness, ethical approach and their practical implementation possibilities. Research demonstrates that public health indicators require continuous investment regarding their technical infrastructure and conceptual frameworks. Future research should include indicator policy impact assessment, framework improvement and real-time public health system assessment.

A method for testing health system resilience: Development, application and lessons learned

ZIMMERMANN, J., *et al.*

2026

Health Policy 168: 105618.
https://doi.org/10.1016/j.healthpol.2026.105618

BACKGROUND: Recent adverse events, such as the COVID-19 pandemic, economic crises, conflict, migration and extreme weather have demonstrated how a wide range of shocks can challenge health systems. While emergency preparedness and planning is a well-established component of health system governance in many countries, no methodology has existed to systematically test the resilience of a health system to a broad range of shocks. OBJECTIVE: To share lessons learned from conducing resilience testing exercises. METHODS: The resilience testing methodology is a mixed-method country-led exercise designed for policy making. We developed this method to test the resilience of a health system. A specific shock scenario is chosen from a broad range of possible shocks to hypothetically challenge a given health system to its limits. The impact of the shock is assessed using the global HSPA framework and the shock cycle framework. The process culminates in a semi-structured resilience testing workshop that brings together policy makers, civil servants and other relevant stakeholders. The workshop is designed to identify key structural strengths and weaknesses of the health system, which then can be improved through remedial policy action. In this paper we use the RE-AIM framework to present findings from our mixed-methods formative evaluation. RESULTS: Successful approaches involved carefully selected facilitators, a diverse range of participants performing different health system functions and support from the Ministry of Health. CONCLUSIONS: Resilience testing can identify health system strengths, weaknesses and opportunities for remedial policy action.

Travail et santé

Occupational Health

Emotional labor demands, stratification, and mental health pathways in Europe: Evidence from the European working conditions survey

ANTONAKAKIS, N.

2026

Social Science & Medicine 399: 119202.
https://doi.org/10.1016/j.socscimed.2026.119202

This study examines the distribution of emotional labor demands across occupations, genders, and employment arrangements in Europe, and investigates the mechanisms through which emotional labor demands are associated with mental health outcomes. Using data from the 2015 European Working Conditions Survey (N = 43,850), we construct an Emotional Labor Demands Index and test hypotheses derived from Hochschild's emotional labor theory and the Job Demands-Resources model. Results reveal that women face significantly higher emotional labor demands than men, even within the same occupational categories. Mediation analysis provides evidence that work stress is the primary pathway linking emotional labor demands to mental health: the indirect association through stress fully accounts for the overall relationship (indirect effect = −7.35, bootstrap 95% CI [−7.74, −6.97]). A supplementary analysis confirms that end-of-day exhaustion constitutes a second significant mediating pathway. Consistent with the JD-R model, job resources, particularly social support, are associated with weaker links between emotional labor demands and poor mental health. However, job control alone does not significantly moderate the emotional labor demands–wellbeing relationship, and precarious employment is not associated with stronger links between emotional labor demands and mental health. These findings contribute to understanding emotional labor demands as a gendered occupational health risk and highlight the importance of social support in mitigating their negative consequences.

Job loss and mental health: The role of anticipation and re-employment in recovery patterns

BARGAIN, O., *et al.*

2026

Social Science & Medicine 399: 119247.
https://doi.org/10.1016/j.socscimed.2026.119247

Job loss is known to adversely affect mental health, but the time course of recovery and the role of anticipation remain unclear. Using 22 annual waves (2001-2022) of the Household, Income and Labour Dynamics in Australia (HILDA) survey, we estimate fixed-effects models to examine the relationship between redundancy and mental health (SF-36), incorporating subjective probability of job loss to refine anticipation measures. The final sample consists of 14,195 individuals and 4251 redundancy events. Three key findings emerge. First, we document a generalized decline in mental health prior to job loss that is not confined to individuals who anticipate redundancy, suggesting psychological costs of impending job loss due to factors other than anticipation. Second, we document complete recovery among those who are re-employed, revealing that psychological restoration can occur relatively quickly upon securing new employment. Third, perceived anticipation of job loss does not appear to meaningfully alter these post-redundancy recovery trajectories. These findings call for greater emphasis on employment trajectories in both research and policy aimed at understanding and mitigating the mental health impacts of job loss.

Organizational Interventions to Address Primary Care Provider Burnout: A Systematic Review

JI, X., *et al.*

2026

Med Care Res Rev 83(3): 167-182.
https://doi.org/10.1177/10775587251391520

Primary care providers (PCPs) in the United States experience burnout more frequently than clinicians in other care settings. Interventions addressing PCP burnout are urgently needed. Organizational-level interventions implemented in the workplace may help address

burnout, as poor organizational conditions are primary contributors to burnout. This review synthesized existing evidence on organizational-level interventions' effects on PCP burnout in the United States. A comprehensive search was conducted in four databases and selected journals. Thirteen studies were included, and four overarching categories of interventions emerged. Interventions that addressed the workload, control, and community areas of worklife resulted in notable burnout reduction. Organizations considering using workload interventions to reduce PCP burnout should incorporate both human and time resources. PCP engagement in intervention design and implementation is crucial and may affect burnout. More studies are needed on interventions that target nurse practitioners and physician assistants who increasingly serve as PCPs.

Occupational exposure to cancer risk factors among health and social care workers in Europe: results from the Workers' Exposure Survey

KHAN, M. W., *et al.*

2026

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Occupational exposure to cancer risk factors is an important avoidable cause of cancer. The European Agency for Safety and Health at Work (EU-OSHA) conducted a Workers' Exposure Survey (WES) on cancer risk factors to increase knowledge on the prevalence and circumstances of exposure to 24 known cancer risk factors and on workplace prevention strategies in Europe. This manuscript focusses on the human health and social care work activities (HeSCare) sector, one of the largest occupational sectors in Europe. WES includes 24 402 telephone interviews from 2022 to 2023 on workers in Finland, France, Germany, Hungary, Ireland, and Spain. WES uses the Occupational Integrated Database Exposure Assessment System (OccIDEAS) where probable exposure to selected cancer risk factors during the last working week was automatically estimated based on workers' answers to detailed sets of questions adapted to the EU context. There were 3041 workers affiliated with the HeSCare sector and almost two-thirds (65.3%) were female. A total of 29.5% of workers were probably exposed to one or more of the included cancer risk factors and 7.8% to two or more. The most common exposures among those considered were to ionizing radiation (7.4%), diesel engine exhaust emissions (6.2%), solar ultraviolet radiation (6.1%), formaldehyde (5.2%), and benzene (4.8%). The most frequent exposures estimated to occur at a high level in HeSCare were formaldehyde (2.3%) and ethylene oxide (2.0%). WES provides valuable sector-specific data about exposure to the most common cancer risk factors in occupational settings in Europe.

Excess work incapacity during and after the COVID-19 pandemic in Poland: evidence from population-level social insurance data

LYSZCZARZ, B. ET WOJTASIK, J.

2026

Health Policy 168: 105614.

https://doi.org/10.1016/j.healthpol.2026.105614

Background COVID-19 disrupted occupational health and social protection systems; but, evidence on its medium- and long-term effects on work incapacity remains limited. Objective To quantify excess temporary and permanent work incapacity in Poland during and after the COVID-19 pandemic using population-level social insurance data. Methods This observational study used quarterly Social Insurance Institution administrative data (2015–2024) on rehabilitation benefits and disability pensions, by sex and ICD-10 chapter. Expected pre-pandemic trends (2015–2019) were modelled using log-linear regression. Excess incapacity for 2020–2024 was identified by comparing expected to observed incapacity rates. Results Temporary work incapacity increased substantially and remained elevated, resulting in 104,392 more rehabilitation benefits than expected, mostly after the acute pandemic phase. The largest increases occurred for mental disorders (over-80% above expected levels by late 2024) and musculoskeletal diseases, particularly among men (over-30% in some periods). In contrast, permanent work incapacity declined below expected levels, with 49,281 fewer disability pensions awarded, predominantly among men. The largest reductions were observed for circulatory diseases (up to 27% below expected levels) and neoplasms (19%), while musculoskeletal conditions were the only group with excess permanent incapacity, primarily affecting women. Conclusions Our findings reveal a divergence between excess temporary work incapacity and reduced permanent disability, likely reflecting the combined effects of health system disruption, delays in benefit adjudication, and pandemic-related mortality displacement. These results have implications for social insurance

and rehabilitation policies, underscoring the need to strengthen mental health care, return-to-work pathways and monitoring of disability adjudication.

Causal effect of diabetes duration on productivity by socio-economic position in Germany between 2009 and 2021

MACKOWIAK, M. M., *et al.*

2026

European Journal of Public Health 36(2). ckag041
https://doi.org/10.1093/eurpub/ckag041

Diabetes negatively impacts productivity, but the extent to which socio-economic factors influence this effect is unknown. This study examines how diabetes duration affects labour force participation and sick leave in Germany, focusing on socio-economic differences. We used self-reported data collected between 2009 and 2021 from the German Socio-Economic Panel Study, a longitudinal household survey. People with prevalent diabetes at baseline were excluded. To estimate the causal effect of diabetes duration on the outcomes, we employed marginal structural regression models for repeated measures, using stabilized inverse-probability-of-treatment-and-censoring weights to adjust for informative censoring, time-fixed (sex, age, socio-economic position, migration background) and time-varying confounding (body mass index, physical activity frequency, smoking status, previous outcome). We included interaction terms to assess diabetes-related productivity losses by subgroups of socio-economic position, sex, age and migration background. The analysis consisted of 35 906 observations from 18 456 individuals for the outcome labour force participation and 12 469 observations from 7244 individuals for the outcome sick leave days. A five-year increase in diabetes duration was associated with a labour force participation shortfall of 13.8% (95% confidence interval: 5.8; 21.1) and an increase of 6.8 sick leave days (-5.4; 19.0). Effects were more pronounced among individuals in lower socio-economic position and diminished with increasing socio-economic position. Diabetes-associated productivity losses predominantly affect people in low socio-economic position, reflecting a dual burden of higher diabetes prevalence and larger productivity losses.

Psychosocial work factors and subsequent mental health service use: a prospective study using the national ESPS survey in France

NIEDHAMMER, I., *et al.*

2026

European Journal of Public Health 36(2).
https://doi.org/10.1093/eurpub/ckag012

The objective was to study the prospective associations between psychosocial work factors and mental health service use. The study used data from the national French periodical ESPS survey collected in 2010, 2012, and 2014 and linked to the national health insurance database. Psychosocial work factors included quantitative demands, tensions with the public, low freedom at work, low possibilities for learning new things, low colleague support, low recognition at work, low salary satisfaction, job insecurity, temporary contract, and redundancy plan. The number of exposures to these factors was calculated. Mental health service use from the national health insurance database was measured by visits to office- and hospital-based psychiatrists within the 2-year period following each survey wave. The prospective associations between psychosocial work factors and the 2-year incidence of mental health service use were studied using mixed effects Cox proportional hazards models with adjustment for covariates. The study sample included 8576 working men and women without mental health service use within the 6 months preceding survey wave. High quantitative demands, low freedom at work, and low colleague support were predictive of mental health service use. The higher the number of exposures, the higher the incidence of mental health service use. There was no gender-related interaction. The study brought support for the prospective associations between psychosocial work factors and mental health service use. Preventive measures towards psychosocial work factors, including multiple exposure, may help to reduce mental health service use and improve mental health among the working population.

Emotional demands at work measured via a job exposure matrix and sickness absence from common mental disorders: a population-based study of sex differences

STERUD, T. ET ØSTHUS, S.

2026

Social Science & Medicine 399: 119231.

https://doi.org/10.1016/j.socscimed.2026.119231

Emotional demands in relational work are increasingly recognized as risk factors for common mental disorders (CMDs), yet evidence on the sex-specific population burden for long-term sickness absence (LTSA) with CMD diagnoses remains limited. We conducted a nationwide cohort study of 1.84 million employed individuals in Norway aged 17–74, excluding those with CMD-related LTSA in 2017. Exposure to emotional demands in 2018 was assigned using an occupation-based job exposure matrix (JEM) we developed for this study from nationally representative survey data (n = 40,700). CMD-related LTSA (>16 days) was ascertained from administrative registers with follow-up from January 1 to December 31, 2019. Cox proportional hazards models estimated hazard ratios (HRs), population attributable fractions (PAFs), and population attributable cases (PACs), stratified by sex, and adjusted for age, education level, immigration background, tenure, working hours, job demands and job control. Higher emotional demands were associated with CMD-related LTSA in an exposure–response pattern for both sexes. Among women, adjusted HRs increased from 1.24 (Q2) to 1.77 (Q4), with a PAF of 29.7% corresponding to 10,757 cases. Among men, adjusted HRs increased from 1.20 (Q2) to 2.61 (Q4), yielding a PAF of 23.3% corresponding to 4116 cases. Women accumulated more person-years in higher emotional-demand quartiles than men (64% vs 33%), and differential exposure accounted for 23.4% (95% CI: 15.8–34.2) of women's excess risk. Occupations characterized by high emotional demands are associated with increased risk of CMD-related LTSA, with women bearing a greater population burden due to higher exposure levels and baseline risk.

▶ Assessing the return-to-work mode of precarious workers with mental health issues: reliability, validity, and usability of the REMODE-tool

SUIJKERBUIJK, Y. B., *et al.*

2026

European Journal of Public Health 36(2).
https://doi.org/10.1093/eurpub/ckag014

Mental health issues are highly prevalent among precarious workers, often leading to prolonged sickness absence and unemployment. A worker's perceptions and attitudes about return-to-work are important determinants of work resumption and can be categorized into three modes: an expectant, an ambivalent-uncertain, and an active return-to-work mode. To support professionals in identifying these modes, we developed the REturn-to-work MODe Evaluation (REMODE) tool. This study evaluated REMODE's inter-rater agreement, inter-item consistency, content validity, and usability. In a vignette study, 71 occupational health professionals from a Dutch social security institute viewed six videos of consultations between insurance physicians and precarious workers. They then used REMODE to assess the worker's return-to-work mode and need for occupational support. Participants also rated REMODE's validity and usability with 5-point Likert scale questions based on the Content Validity Index and System Usability Scale. We used a generalized linear mixed model to analyse inter-rater agreement and inter-item consistency. The professionals highly agreed on the REMODE-score [ICC 0.87 (95% CI 0.63–0.97)] and corresponding return-to-work mode [ICC 0.83 (0.54–0.95), - 0.75 (0.74–0.75)]. Their agreement on need for occupational support was moderate [ICC 0.65 (0.30–0.89), - 0.57 (0.56–0.57)]. REMODE's internal consistency demonstrated excellence (Cronbach's alpha 0.92), and the content validity index (0.83) and system usability scale (76) were acceptable. REMODE is a promising tool for occupational health professionals as it supports identification of the return-to-work mode of precarious workers with mental health issues. We propose a refined version of RE-MODE for use in occupational healthcare and research.

Vieillissement

Ageing

Cost-Effectiveness of the Support and Services at Home (SASH) Program for Cardiovascular Risk Factors: A Community-Based Approach to Healthy Aging in Place

ATHERLY, A., *et al.*

2026

Health Services Research 61(2): e70100.
https://doi.org/10.1111/1475-6773.70100

ABSTRACT Objective To estimate the cost effectiveness of the Support and Services at Home (SASH) program for health improvements associated with cardiovascular risk factors. Located in affordable housing units, SASH uses wellness approaches to prevent illness, manage chronic conditions and coordinate care delivery by connecting older adults and individuals with disabilities with community-based services. Study Setting and Design We calculated total quality-adjusted life years (QALYs) gained from cardiovascular risk reduction and program costs using a Markov model. Data Sources and Analytic Sample Data on changes in health status, health outcomes, and programmatic costs were drawn from SASH (primary) data sources from the statewide enrolled population in the original (Vermont) program. Data were collected from 2017 to 2023. Principal Findings SASH reduced total cardiovascular risk factors including increases in appropriate medication use and reductions in systolic blood pressure. The cost per QALY gained ranged from $8344 to $4013 depending on gender and diabetes. Conclusions SASH is a cost-effective approach to improving the health of older adults and individuals with disabilities through a housing-based community partnership. SASH is emblematic of the "wrong pocket" problem, so replication and funding of the model are challenging. For greater system efficiency and equity, finding ways to incorporate programs outside the healthcare system will be required.

Misperception, self-reported probabilities and long-term care insurance take-up in the United States

BLAVET, T., *et al.*

2026

International Journal of Health Economics and Management 26(1): 3.
https://doi.org/10.1007/s10754-025-09408-4

In the United States as in other developed countries, the take-up of Long-Term Care (LTC) insurance remains very low, suggesting that many individuals underestimate their future needs for professional LTC services. This paper examines the relationship between subjective expectations and LTC insurance demand, with a particular focus on miscalibration of survival beliefs. Using 12 waves of the Health and Retirement Study (1996–2018), we estimate various random effects linear probability models of LTC insurance take-up among individuals aged 50–75 years. We rely on two self-reported expectation measures: the probability of survival and the probability of nursing home entry. We then classify individuals into three groups – consistent, positive deviation, and negative deviation – based on the difference between subjective survival beliefs and life-table benchmarks. Robustness analyses are carried using alternative miscalibration measures, age groups and control variables. Our findings reveal strong heterogeneity. Individuals whose beliefs are consistent with life-table probabilities purchase more LTC insurance when they expect to live longer, in line with higher anticipated old-age expenditures. By contrast, individuals who substantially overestimate survival ("positive deviation" group) display no systematic response to either type of expectation, which could be related to cognitive difficulties in projecting future needs. Those who underestimate survival ("negative deviation" group) are responsive to nursing home expectations but less so to survival, indicating that they may anticipate short-term care needs but not long-term expenditures. Taken together, these results suggest that miscalibration of survival beliefs is an important determinant of insurance demand. They highlight that underestimation and overestimation reflect different mechanisms – potential private health information in the former case and cognitive limitations in the latter – ultimately contributing to the persistently low take-up of LTC insurance in the U.S.

The design of insurance contracts for home versus nursing home long-term care

BORSENBERGER, C., *et al.*

2026

International Journal of Health Economics and Management 26(1): 1.
https://doi.org/10.1007/s10754-025-09406-6

We study the design of optimal (private and/or social) insurance schemes for formal home care and institutional care. We consider a three period model. Individuals are either in good health, lightly dependent or heavily dependent. Lightly dependent individuals can buy formal home care which reduces the severity of dependency and reduces the probability to become severely dependent in the next period. Severely dependent individuals pay for nursing home care. In both states of dependency individuals can receive a (private or public) insurance benefit (transfers). These benefits can be flat or depend on the formal care consumed (or a combination of the two). These benefits are financed by a premium (or a tax). Individuals may be alive until the end of the last period or die at the beginning of one of the last two periods with a certain probability, which may depend on their state of health. The laissez faire is inefficient because individuals consume a too low level of formal home care and are not insured. The first-best insurance scheme requires a transfer to lightly dependent individuals that, (under some conditions) increases with the amount of formal home care consumed. Severely dependent individuals, on the other hand, must receive a flat transfer (from private or social insurance). The theoretical analysis is illustrated by a calibrated numerical example which show that the expressions have the expected signs under plausible conditions.

Advance care planning of U.S. older adults with limited family ties: Evaluating the impacts of partnership trajectories and parental statuses

CARR, D. ET CHOI, S. L.

2026

Social Science & Medicine 400: 119251.
https://doi.org/10.1016/j.socscimed.2026.119251

Planning for end-of-life health care decisions is critical for dying persons and their families. Advance care planning (ACP), which encompasses a living will, durable power of attorney for health care (DPAHC), and conversations about end-of-life preferences, is inherently relational, where older adults rely on family and consider their concerns while carrying out ACP. However, it is unclear how unmarried persons, those who recently lost a partner through death or union dissolution, childless, and kinless persons prepare for end-of-life. We use data from the 2006-2022 waves of the Health and Retirement Study (N = 10,817) to explore how complex romantic partnership histories, parental status, and the intersection of the two affect four subtypes of ACP (advance directives only [formal], informal discussions only [informal], both, or neither), and their distinctive components (living wills, DPAHCs, and discussions). We examine whether these patterns differ by gender, after adjusting for sociodemographic and health covariates. Multivariable analyses show that both recently and long-term widowed persons are most likely to do ACP. Never-married persons are least likely to have living wills. Cohabiting persons resemble married persons. Women are more likely than men to do ACP following divorce or a cohabitation dissolution. Parents are more likely to have informal discussions whereas childless persons are more likely to have living wills. We found limited evidence that relationship trajectory differences were moderated by gender or parental status. Our results reveal the complex ways that family statuses affect end-of-life preparations and can inform end-of-life policies and practices.

Mapping social health and dementia risk: A register-based study of older adults in Finland

CISOTTO, E., *et al.*

2026

Social Science & Medicine 398: 119154.
https://doi.org/10.1016/j.socscimed.2026.119154

This study investigates the role of individual and area-level social health factors in shaping geographic variation in dementia incidence among older adults in Finland. Using nationwide register data on all individuals born between 1935 and 1939 and residing in Finland in 2015 (N = 185,712), we estimate cumulative dementia incidence over a four-year follow-up period (2016-2019). To reduce compositional bias in geographical comparison, we applied Matching on poset-based Average Rank for Multiple Treatments (MARMoT), a non-parametric matching approach that balances observed individual level characteristics across municipalities. Spatial scan statistics were then used to identify geographic clusters of excess demen-

tia incidence considering municipality-level contextual measures after adjustment for individual-level characteristics. Before MARMoT adjustment, several contiguous clusters of elevated dementia incidence were identified, particularly in eastern and southern Finland, with the highest risk cluster exhibiting a 36% higher incidence than the rest of the country. After balancing individual-level characteristics, some clusters attenuated, whereas others persisted or newly emerged, suggesting a confounding role of individual characteristics in the relationship between dementia incidence and place of residence. Excess incidence remained in parts of eastern Finland (21% - 51% excess risk) and emerged in west-central municipalities (27% excess risk). The inclusion of municipality-level indicators did not substantially alter these patterns. These findings underscore the importance of accounting for social health and socio-demographic composition in spatial analysis of dementia and demonstrate the value of integrating matching-based and spatial methods to distinguish compositional from contextual disparities in ageing societies.

▶ Paying family carers requires a fit-for-purpose instrument: Lessons from Switzerland

GEMPERLI, A.

2026

Health Policy 170: 105647.

https://doi.org/10.1016/j.healthpol.2026.105647

Switzerland has recently expanded financial support for family caregiving not through a dedicated carer allowance, but by routing payments through professional home care reimbursement. Following Federal Supreme Court rulings, relatives without nursing qualifications can be paid for reimbursable nursing tasks when contracted through an authorised home care provider. Market entry by for-profit agencies, combined with fee-for-service billing and substantial municipal residual cost financing, has contributed to rapid growth in billed home care hours and has exposed monitoring and accountability gaps. The first implementation package of the Nursing Care Initiative further reduced administrative barriers by allowing nurses to initiate and bill selected services without a physician order, shifting authorisation closer to the billing entity. The Swiss case highlights a design risk relevant beyond Switzerland: using unmodified professional reimbursement mechanisms to remunerate family carers imports volume incentives and can enable rent extraction unless task definitions, tariffs, transparency, and oversight are adapted. Policy options include a distinct reimbursement pathway for lay family carers, tighter operational definitions, claim identifiers to enable monitoring, and financing levers that protect carer pay while limiting agency margins.

▶ Longing for continuity: A systematic review and thematic synthesis of qualitative research on the experience of older people living with chronic illness towards the end of life

GOBIET, E., *et al.*

2026

Social Science & Medicine 401: 119220.

https://doi.org/10.1016/j.socscimed.2026.119220

Many older people spend years living with chronic illness before death. However, we lack a comprehensive understanding of how they experience and make sense of this phase of life, as knowledge about this is fragmented across diagnoses, settings, and aspects of the illness experience. This systematic review thematically synthesises qualitative research on self-reported experiences of older people living with chronic illness towards the end of life. We included 31 articles based on primary qualitative research, or mixed-methods research with separate reporting of qualitative data, describing the illness experiences of 464 older people (aged ≥65 or mean age ≥70) living with any chronic illness and nearing the end of life. We developed nine themes spread over personal, relational, and behavioural dimensions of the experience of chronic illness. Older people long to preserve a continuous sense of self, seeking ways to connect their present reality with their past sense of self and the future they envisage. Three themes closely relate to this central notion of longing for continuity: longing for a continuous sense of self, needing familiarity in care, and striving for normalcy in daily activities. Six other themes capture experiences more distantly related to continuity: navigating losses, changing views of the future, feeling isolated, longing for independence while relying on others, preserving hope, and minimising the impact of illness. We conclude that sustaining continuity of self is central to older people's experience of illness at the end of life, emphasising the importance of a comprehensive understanding of their realities and needs.

The Spanish long-term care system reaches majority of age: A narrative review of evidence and lessons obtained

HERNÁNDEZ-PIZARRO, H. M. ET PRADES-COLOMÉ, A.

2026

Health Policy 169: 105620.
https://doi.org/10.1016/j.healthpol.2026.105620

Background Spain has one of the highest life expectancies at 65-years-old among OECD countries, yet only half of these years are expected to be in good health. Thus, many older people require support for carrying out activities of daily living. In response, the Spanish government established the Spanish long-term care (LTC) system in 2007. Objective To review the published evidence from the analysis of the first 18 years of existence of the system. Methods This study adopts a narrative literature review approach, drawing from academic and policy-oriented research on the Spanish LTC system. Results The LTC system has improved the wellbeing of its beneficiaries -particularly in terms of health- and has reduced healthcare costs by lowering hospital admissions and primary care visits. However, it suffers from chronic underfunding and design flaws. Financial sustainability remains a challenge, especially due to low central Spanish government contributions and regional disparities. Nonetheless, the LTC system has yielded significant economic returns through job creation and increased female labour participation. LTC benefits have also influenced family decisions: reducing savings, increasing the supply of informal caregivers and delaying early retirement. The COVID-19 pandemic exposed structural vulnerabilities, particularly in residential care. Moreover, while the navigation across the LTC system ensures horizontal equity, inequity is documented in the form of providing the benefits. Conclusions After almost two decades of the Spanish LTC system, evidence calls for adequate and stable financing mechanisms to achieve sustainability. It should also expand towards service-based care, integrate with healthcare, and systematically measure quality-of-life outcomes.

Trends in cost-related forgone care among older adults in Switzerland: a repeated cross-sectional study

JENDLY, M., *et al.*

2026

European Journal of Public Health 36(2). ckag010
https://doi.org/10.1093/eurpub/ckag010

Background: Ensuring equitable healthcare provision is key in ageing societies, yet it may be hindered by financial barriers. We assessed trends and socioeconomic disparities in cost-related forgone medical care among Swiss adults aged 65 years and older between 2017 and 2024. Methods: We used data from the 2017, 2021, and 2024 waves of the 'International Health Policy Survey', a population-based study of randomly sampled adults aged 65 or older (n = 2570, 1888, and 1948, respectively). Participants reported whether they had forgone medical prescriptions, consultations, medical tests, treatments or follow-up consultations, and dental visits due to cost. Weighted prevalence estimates were computed for services covered by the basic insurance and for dental care. Disparities by education and income were assessed using stratified analyses and the index of disparity. Results: Participants' characteristics were stable across all waves (mean age 75; 54% women). In 2024, 20% reported forgoing at least one service due to cost (13% forgoing dental care, 13% insurance-covered services). Forgone care was similar in 2017 (21%) and lower in 2021 (16%). Forgone care was more frequent among men and participants aged 65–79 years. The index of disparity showed widening income-related disparities over time, while disparities by education remained stable. Dental care consistently showed the largest disparities. Conclusion: Despite Switzerland's compulsory health insurance, one in five older adults still forgo care for financial reasons. Rates of forgone care remained stable, but income disparities have widened since 2017.

Identifying Dual-Eligible Beneficiaries With Long-Term Services and Supports Use in Medicare Enrollment Data

KEOHANE, L. M., *et al.*

2026

Medical Care Research and Review 83(3): 227–235.
https://doi.org/01010.1177/10775587251394772

Identifying dual-eligible beneficiaries who use Medicaid-funded long-term services and supports (LTSS) is difficult, hindering efforts to monitor use and improve quality. We demonstrate a strategy that uses only Medicare data to identify nursing home (NH) ...

Social disparities in associations between informal caregiving intensity and mental health: Evidence from the Canadian Longitudinal Study on Aging

LI, Z., *et al.*

2026

Soc Sci Med 398: 119188.

https://doi.org/10.1016/j.socscimed.2026.119188

While prior research has highlighted social disparities in health associated with informal caregiving, the findings are inconsistent, often based on non-representative samples, and overlook variations in caregiving situations (e.g., caregiving intensity). This study integrates the Stress Process Model and the intersectionality perspective to examine how informal caregiving intensity interacts with various social determinants of health (SDOHs), guided by the PROGRESS-Plus framework, which includes factors such as socioeconomic status, gender, and social support, in shaping mental health, as measured by life satisfaction and depressive symptoms. We used three waves of nationally representative data from the Canadian Longitudinal Study on Aging for the analysis. We applied linear mixed models to assess the association between informal caregiving and mental health, accounting for repeated measures within individuals and unobserved, time-invariant characteristics. Interaction effects were examined to explore whether SDOHs condition the association between informal caregiving intensity and mental health. Results show that intensive caregiving is associated with poorer mental health, whereas moderate-intensity caregiving is not significantly detrimental, and low-intensity caregiving is associated with higher life satisfaction. Social support mitigates the negative effects of caregiving on life satisfaction among moderate-intensity and intensive caregivers and on depressive symptoms among intensive caregivers. Other PROGRESS-Plus dimensions show limited evidence of moderating this association.

Predicting All-Cause Mortality Using Two Claims-Based Measures in Medicare Beneficiaries With Dementia

LIU, J., *et al.*

2026

Medical Care Research and Review 83(3): 215–226.

https://doi.org/10.1177/10775587251396723

To compare the performance of the Chronic Conditions Warehouse (CCW) and the 38-condition Elixhauser Comorbidity Index in predicting all-cause mortality among Medicare beneficiaries with dementia, we used a national sample of 1,566,359 community-dwelling ...

Social support and hospitalization in the elderly: investigating the role of frailty trajectories

SCARCELLA, P., *et al.*

2026

European Journal of Public Health 36(2). Ckag011

https://doi.org/10.1093/eurpub/ckag011

Biopsychosocial frailty, integrating physical, psychological, and social dimensions, significantly affects health outcomes in older adults. Hospitalization, a major contributor to healthcare burden, is strongly associated with frailty. However, the role of socioeconomic determinants within frailty trajectories remains insufficiently explored. This study aimed to evaluate the association between biopsychosocial frailty trajectories and hospitalization rates, with a focus on social determinants. We conducted a retrospective cohort study involving 6086 individuals (mean age 83.6 ± 4.9 years; 65.9% women). They underwent serial frailty assessments between 2016 and 2024 using the Short Functional Geriatric Evaluation (SFGE). Frailty trajectories were categorized as improved, stable, or worsened. Hospitalization rates were analyzed through parametric/non-parametric tests and negative binomial regression models adjusted for age, baseline frailty, and psycho-physical status. Hospitalization rates increased with frailty severity: 84‰ in robust, 97‰ in pre-frail, 149‰ in frail, and 136‰ in very frail individuals (P < 0.001). Improved or stable financial conditions significantly reduced hospitalization risk (rate ratio [RR] 0.24 and 0.41, respectively), as did stable or restored informal support networks (RR 0.45 and 0.79, respectively). Improved living arrangements were also associated with reduced hospital admissions. Robust and pre-frail individuals accounted for -50% of all admissions. Social and economic stability are key protective factors against hospitalization in older adults, independent of physical frailty. Community-based interventions addressing social isolation and financial vulnerability could substantially reduce hospital admissions, particularly among robust and pre-frail individuals. A holistic approach integrating social, economic, and physical frailty dimensions is recommended to optimize public health strategies for aging populations.

External validation of the Electronic Screening Index of Frailty (e-SIF) in a population of 1.4 million inhabitants aged 65 years and older

SERRA-PRAT, M., *et al.*

2026

European Journal of Public Health 36(2). ckag025
https://doi.org/10.1093/eurpub/ckag025

The Electronic Screening Index of Frailty (e-SIF) was first validated in 2022 in a sample of 9315 people, but further studies in larger populations were recommended to corroborate those findings. The objective was to evaluate e-SIF construct validity, in a large and independent sample from that used for its initial validation, by analysing score associations with age, sex, hospitalizations, institutionalizations, mortality, and health resource use. An observational 2-year longitudinal study (2018–2019) was conducted of the Catalan population aged ≥65 years (1.4 million people) using retrospectively collected data. Frailty was established according to e-SIF score. Study variables included sociodemographic characteristics, mortality, hospitalizations, institutionalizations, primary care visits, emergency visits, and day hospital sessions during the study period. The study included 1 465 312 people (mean age 75.8 years, 57.2% women). Frailty prevalence was 14.0% in women and 9.1% in men (P < .001)) and progressively increased with age from 2.2% in the 65–69 age group to 38.9% in ≥95 age group. As frailty status increased, mortality, hospitalizations, institutionalizations, and health resource use also increased. Hospitalization-free survival and institutionalization-free survival worsened as frailty increased. Multivariate logistic regression models based on all 42 e-SIF items showed areas under the curve of 0.85, 0.75, and 0.82 in predicting 1-year mortality, hospitalizations, and institutionalizations, respectively. This large study corroborates the findings of the initial e-SIF validation study and reaffirms its good construct validity.

Do Caregiving Arrangements Influence Hospital Use Among Older Adults With Functional Limitations?

SHEHU, E. ET ARORA, K.

2026

Health Services Research 61(3): e70130.
https://doi.org/10.1111/1475-6773.70130

ABSTRACT Objective To examine whether different caregiving arrangements influence hospitalization risk and frequency among older adults with functional limitations. Study Setting and Design This longitudinal study used linear probability and Poisson regression models with individual and wave fixed effects, lagged predictors, and household-clustered standard errors to assess associations between different caregiving arrangements and hospitalization outcomes among community-dwelling older adults in the United States. Caregiving was categorized as no help, family help, formal help, or combined help. Outcomes included any hospitalization and the number of hospital stays over a two-year period. Data Sources and Analytic Sample Data came from eight waves of the Health and Retirement Study (2004–2018). The samples included adults aged 65 and older who reported difficulty with at least one activity of daily living and participated in at least two survey waves. The final analytic sample comprised 2926 individuals contributing 5595 person-wave observations. Principal Findings While the overall hospitalization risk did not differ significantly by caregiving type, receiving combined support was associated with a reduced number of hospital stays among those hospitalized (IRR = 0.712, p < 0.01), compared to receiving no support. Cognitive functioning modified these relationships, with formal help linked to fewer hospitalizations among those with impairment but more among those without. Differences also emerged across racial and ethnic groups, where formal help was linked to lower hospitalization rates for Black individuals, and combined help was associated with increased hospitalizations among Hispanic older adults. Conclusions Policies that expand access to both formal and family caregiving support may help reduce hospitalizations among older adults with functional limitations, particularly when tailored to care recipient characteristics.

Economic Hardship; Coronavirus Aid, Relief, and Economic Security (CARES) Act Payments; and Self-Rated Health: A Longitudinal Analysis From the Health and Retirement Study, United States, 2020–2022

SWIFT, S. L., *et al.*

2026

American Journal of Public Health 116(5): 702-710.
https://doi.org/10.2105/ajph.2025.308414

Objectives. To determine the longitudinal relationships between economic hardship in 2020 and self-rated health (SRH) in 2022, and whether monetary stimulus

payments offset negative health consequences of economic hardship among older adults living in the United States. Methods. We used data from 7549 adults aged 50 years or older from all US states in the longitudinal Health and Retirement Study cohort. Using Poisson regression models, we evaluated the relationship between economic hardship in 2020 and "fair or poor" SRH in 2022, and whether receipt of stimulus payments modified this relationship, controlling for covariates. Results. In stratified analysis, among persons who did not receive a stimulus payment, economic hardship was associated with higher risk of "fair or poor" SRH (risk ratio [RR] = 1.50; 95% confidence interval [CI] = 1.22, 1.85). Among persons who received a stimulus payment, the relationship between economic hardship and "fair or poor" SRH was nonsignificant (RR = 1.06; 95% CI = 0.96, 1.17). Conclusions. Receipt of a stimulus payment may have offset the negative consequences of economic hardship on SRH among persons aged 50 years and older. Public Health Implications. Monetary payments may be an effective health intervention for persons experiencing economic hardship. (Am J Public Health. 2026;116(5):702–710. https://doi.org/10.2105/AJPH.2025.308414)

Ageing in which place? Spatial analytical framework for evaluating ageing-in-place practices

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Over the past decade, governments around the world have made significant investments in creating elderly-friendly urban environments within local neighborhoods. However, the lack of a standardized evaluation framework for Ageing-in-Place (AIP) practices makes it challenging to generalize these experiences. First, we compare the AIP models of the U.S.-San Francisco, Japan-Tokyo, and Singapore using a cost-benefit analysis, demonstrating the comparative advantage of the Singapore model in terms of low cost and high accessibility for the independent ageing population. Second, we propose a spatial analytics framework to visualize and quantify the degree of alignment between a basket of ageing facilities and the active ageing population, enabling a data-driven, timely evaluation of the effectiveness of Singapore's AIP policies. Singapore's AIP model, either in its entirety or as a hybrid with other models, can be generalized to other global cities, providing valuable insights for optimal elderly-friendly urban planning.

Neighborhood environments for older adults with dementia: A systematic review and meta-synthesis of walking interviews

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Most older adults with dementia in the U.S. reside within their communities, where the immediate neighborhood environment plays a crucial role. Walking interview is an in-situ, participatory method that serves as an important means to capture how persons with dementia (PwDs) interact with their surrounding environments. This study provides a comprehensive synthesis of prior work that involved walking interviews to understand PwDs' experiences with their neighborhood environments. A systematic database search identified 18 studies meeting the eligibility criteria of being empirical studies using walking interviews with community-dwelling PwDs. Guided by the Contexts for Development and Aging framework, a systematic review and meta-synthesis were conducted. The syntheses revealed three major themes around walking interviews and situated neighborhood experiences: 1) Walking interview studies inherently selected for mobile PwDs and predominantly employed mixed-methods designs (N = 15), yet uniquely captured situated experiences; 2) PwDs experienced vulnerabilities in neighborhood, while physical features such as street layouts and environmental cues presented both facilitators and barriers to outdoor mobility, prompting the need for diverse adaptive strategies; and 3) Neighborhood environments anchored PwDs' social lives encompassing both challenges and coping strategies, while technology generally played a supporting role for outdoor mobility alongside potential limitations. Collective findings suggest that interconnected physical, social, and technological environments both enable and constrain PwDs' neighborhood participation and demonstrated the effectiveness of walking interviews in capturing these experiences. Future research should consider walking interviews as valuable methods to understand PwDs' daily realities in their neighborhoods and identify practical and participatory frameworks for promoting dementia-friendly communities.

Medicaid HCBS Caregiver Payment Policy and Post-Discharge Visits Among Dual-Eligible Older Adults With ADRD

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2026

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ABSTRACT Objective To examine the association between state Home- and Community-Based Services (HCBS) caregiver payment policies and timely follow-up visits (in-person and telehealth) within 14 days of hospital discharge among Medicare-Medicaid dual-eligible older adults with dementia. Study Setting and Design We categorized state HCBS caregiver payment policies into three groups: no caregiver payment, payment eligible for other friends/family, and payment eligible for two caregiver types (legally responsible relatives or other friends/family). The primary outcome was the mode of follow-up visit within 14days post-hospital discharge (in-person, telehealth, or no visit). We used multinomial logistic regression with hospital random effects, adjusting for individual- and area-level and HCBS factors. Marginal effects were estimated. Data Sources and Analytic Sample We analyzed 2021 Medicare claims data linked with publicly available datasets. The analytic cohort comprised 51,633 dual-eligible Medicare beneficiaries with dementia who were hospitalized and discharged to the community in 2021. Principal Findings State HCBS caregiver payment policies were significantly associated with the mode of timely follow-up visits. Compared to states without providing caregiver payments, states providing payments to two caregiver types had a 6.8 percentage point higher probability (p?<?0.01) of timely in-person visits but a 3.2 percentage point lower probability (p<0.01) of timely telehealth visits. Similar, though smaller, significant differences were observed between states that provided payments to only other family or friends and those with no caregiver payments. Other HCBS generosity measures, as well as racial, ethnic, and geographic locations, were also associated with the mode of post-discharge visits. Conclusion Providing financial support to family caregivers through state HCBS policies may increase the rate of timely post-discharge visits, primarily driven by an increase in in-person visits. The effects were particularly prominent among states that allow payments to both types of caregivers.

Formal long-term care expansions and their ripple effects on family care, health, and work

ZAI, X.

2026

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Populations worldwide are aging, intensifying the challenge of meeting long-term care (LTC) needs. While formal LTC programs aim to address this demand, less is known about how they interact with informal caregiving and affect caregiver health and labor outcomes. This paper exploits the staggered expansion of Medicaid Home and Community-Based Services (HCBS) waivers across U.S. states to examine these effects. Using data from 1998 to 2018 with approximately 20,600 observations, our sample consists of individuals aged 40–70 who are initially healthy and report no activities of daily living (ADL) limitations, allowing us to assess their responses to expanded formal care availability for their parents. We implement a two-way fixed effects difference-in-differences (TWFE DiD) framework to estimate causal effects. We find that HCBS expansions increase the likelihood of providing any informal care by 5 percentage points (14% relative to the mean), personal care by 2 percentage points (20%), and errands by 5 percentage points (14%). These increases are temporary, vanishing within two to three years. Short-run health declines and small labor force reductions follow the same pattern, with no persistent adverse effects. Our findings challenge the view that formal and informal care are solely substitutes. HCBS can complement certain non-intensive caregiving activities without long-term harm, highlighting the need for LTC policies that account for the dynamic relationship between formal services and family care.

From expansion to optimization: Government health expenditure and chronic disease burden among older adults in China

ZHANG, Y. ET SHI, Y. C.

2026

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Population ageing and rising chronic diseases have coincided with rapid growth in public health spending in China, but health returns may depend on spending composition. This study evaluates associations of

spending scale and the demand-side share of government health expenditure with older adults' chronic disease burden. Data come from six waves (2002–2018) of the Chinese Longitudinal Healthy Longevity Survey, pooled as repeated cross-sections of adults aged 65 years and older (79,103 person-wave observations) and linked to one-year-lagged national spending indicators. Outcomes included chronic disease counts and limitation severity for instrumental activities of daily living (IADL; higher-order daily tasks) and activities of daily living (ADL; basic self-care). Results of mixed-effect count models imply that higher health spending as a share of gross domestic product was associated with higher recorded chronic disease counts and more IADL limitations. In contrast, a higher demand-side share was associated with fewer IADL limitations, while associations with chronic disease counts and ADL disability were weaker. Mediation analyses suggested that demand-side allocation related to better function mainly through deeper financial protection (insurance as the primary payer of recent medical costs) and timely access to care; insurance enrollment alone was more consistent with increased detection of chronic diseases. These findings underscore the policy relevance of shifting toward demand-side financing that improves effective coverage and continuity of care, particularly for earlier, more modifiable functional decline.

▶ Long-Term Care Insurance and Catastrophic Health Spending at the End of Life Among Older Adults: Evidence From China

ZHU, Z. ET BAI, C.

2026

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ABSTRACT End-of-life (EOL) health spending imposes catastrophic financial burdens on elderly households, pushing them into poverty without corresponding improvements in health outcomes. Leveraging the quasi-experiment of China's public long-term care insurance (LTCI) pilot program, this study employs data from the China Longitudinal Healthy Longevity Survey to examine the impact of LTCI on catastrophic health spending (CHS) at the end of life. The findings indicate that over the 5-year EOL period, LTCI significantly decreases the probability of CHS by approximately 36.1–52.3 percentage points and reduces out-of-pocket health spending. Furthermore, the study demonstrates that LTCI reduces CHS without compromising EOL health by substituting aggressive medical interventions with sustained long-term care support, which leads to fewer severe-illness episodes, shorter hospital stays, and reduced dependency. These findings provide empirical evidence for the role of LTCI in facilitating value-based healthcare at the end of life, with significant implications for establishing universal LTCI systems in China and other countries.

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