increases care needs. We aimed to evaluate the impact of a hypothetical cognitive rehabilitation intervention on PSCI outcomes using the StrokeCog epidemiological model.

Methods We developed a probabilistic Markov model to project and track incidence and prevalence of PSCI in the Irish population aged 40–89 years to 2035. Data sources included official population and hospital episode statistics, and longitudinal cohort studies. Drawing on available systematic review evidence, we hypothesized that cognitive rehabilitation would reduce the risk of cognitive impairment no dementia (CIND) at 1 year post-stroke by 18% (scenario 1, S1, small effect) or by 54% (scenario 2, S2, medium effect) relative to usual care.

Results In usual care, the projected prevalence of post-stroke CIND in Ireland in 2035 was 6.7 per 1000 general population (95% CI 5.6–7.8), or 35% of stroke survivors (95% CI 30.5–38.8) ($n=21026$ prevalent cases). In S1 (small effect) the projected prevalence was reduced to 32.0% (95% CI 28.6–36.4) of stroke survivors ($n=19652$), and in S2 (medium effect) to 29.1% (95% CI 25.2–33.2) of stroke survivors ($n=17672$). The number of years of life lived free of cognitive impairment were increased by 6.3% in S1 (small effect) and 15.1% in S2 (medium effect).

Conclusion The StrokeCog model provides a tool for policy-makers and researchers to evaluate the potential impact of cognitive rehabilitation at different levels of intervention effectiveness. The model was based on conservative assumptions, and a less conservative approach could lead to a greater projected reduction in burden. Our next steps include analysis of quality of life outcomes and costs.

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CHRONIC KIDNEY DISEASE IN CHILE: FINDINGS FROM THE CHILEAN NATIONAL HEALTH SURVEYS 2009–10 AND 2016–17

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Background Chronic kidney disease (CKD) is a leading global public health problem, with a substantial burden on healthcare systems; decreased quality of life, and poor prognosis for patients. In Chile, there is limited data on CKD prevalence and its distribution across population subgroups that impedes effective decision-making in the healthcare sector. The objectives were to estimate the prevalence of CKD among Chilean adults and examine its associations with sociodemographic characteristics, health behaviours, and comorbidities.

Methods Analysis of cross-sectional data from the two most recent large, nationally-representative Chilean Health Surveys (ENS) 2009–10 and 2016–17. The participants were individuals aged 15+ years with serum creatinine data (ENS 2009–10: $n=4777$; ENS 2016–17: $n=5279$). The primary outcome was reduced kidney function (CKD Stages 3a–5) based on estimated glomerular filtration rate ($eGFR < 60$ mL/min/1.73 m²). Increased albuminuria (≥ 30 mg/g), the secondary outcome measure, was determined using the urine albumin-to-creatinine ratio (ACR) ascertained among adults aged 40+ years with diabetes and/or hypertension. Both

outcomes were analysed using logistic regression and the combined two-survey dataset, with results summarised using odds ratios (OR). CKD prevalence (Stages 1–5) among adults aged 40+ years was estimated using an expanded definition including participants with a reduced $eGFR$ or an $eGFR$ of at least 60 mL/min/1.73 m² but increased albuminuria (Stages 1–2). Analyses were adjusted for non-response and complex survey design.

Results Overall, 3.0% (95% CI: 2.4–3.8%) of adults in ENS 2016–17 had reduced kidney function. After full adjustment, participants with hypertension (OR 2.12; 95% CI 1.08–4.16) and those with diabetes (OR 1.66; 1.04–2.65) had significantly higher odds of reduced kidney function. 15.5% (13.5–17.8%) of adults aged 40+ years with diabetes and/or hypertension had increased albuminuria in 2016–17. Being obese versus normal weight (OR 1.66; 1.08–2.54) and having both diabetes and hypertension versus diabetes alone (OR 2.30; 1.34–3.95) were significantly associated with higher odds of increased albuminuria in fully-adjusted analyses. At least 15.4% of all adults aged 40+ in ENS 2016–17 had CKD (Stages 1–5) according to the expanded definition, including 9.6% of adults with CKD Stages 1–2.

Conclusion There is a high prevalence of Chilean adults at CKD Stages 1–2 that should be considered in the prevention strategies and Chilean healthcare guidelines.

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THE PREVALENCE AND CHARACTERISTICS OF ADVERSE DRUG REACTION-RELATED HOSPITAL ADMISSIONS IN OLDER PATIENTS

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Background Older people experience greater morbidity with a corresponding increase in medication use resulting in a potentially higher risk of adverse drug reactions (ADRs). The aim of this study was to determine the prevalence and characteristics of ADR-related hospital admissions among older patients (≥ 65 years).

Methods A cross-sectional study of ADR prevalence in patients aged ≥ 65 years admitted acutely to a large tertiary referral hospital in Ireland over a 7 month period (November 2016–June 2017). A multifaceted review of each hospital admission was undertaken to assess the likelihood of an ADR being a reason for admission (cause of admission or contributing to admission) in the context of the patient's medication, clinical condition, medical history, comorbidities and investigations. A number of decision aids were also applied by two independent reviewers to assess ADR causality (Naranjo criteria, WHO criteria, Liverpool Algorithm). The avoidability (Hallas criteria) and severity (Hartwig severity assessment scale) of the ADR were also assessed. Differences in causality, preventability and severity were reviewed by a third reviewer.

Results In total, 3760 hospital admission episodes (in 3091 patients) were screened and 377 admissions were ADR-related (10.02%, 95% CI 9.06%, 10.98%); 43 admissions were due to ≥ 2 ADRs ($N=424$ ADRs). 360 (11.64% 95% CI 10.51%, 12.77%) patients had at least one ADR with 50 (16.18%) patients experiencing ≥ 1 ADR-related admission. In summary,