Background Valid and reliable estimates for the incremental costs attributable to diabetes at country-level are required to provide more precise estimates of the global cost of diabetes and to encourage and inform national responses to the diabetes epidemic. The most recent estimates for Ireland come from the CODEIRE study which uses data from the years 1999/2000 and employs a sum-all medical approach for a hospital-based sample of people with diabetes. Indirect costs are not estimated. We estimate the total costs, direct and indirect, attributable to diabetes in older Irish adults.

Methods Adopting a societal perspective and using a prevalence-based approach, we estimate the direct costs (healthcare utilisation and medications) and indirect costs (participation in the labour force and premature mortality) attributable to diabetes in 2013. A human capital approach was used to estimate indirect costs. Where possible, incremental costing methodology was employed. Data sources include a nationally representative cohort study, a national pharmacy claims database and national vitals statistics.

Results The estimated total cost of diabetes was €356,668,060 (95% CI: 360,172,044–751,720,140); €238,155,072 (95% CI: 192,023,954–278,959,992) in direct costs and €298,512,988 (95% CI: 168,148,090–472,760,148) in indirect costs. People with diabetes were 41% less likely to be employed than those without diabetes (p<0.001), with the loss in productivity estimated at €190,864,409 (95% CI: 104,107,859–294,972,268) or 36% of total costs. Prescription costs were the next largest contributor, calculated at €156,429,999. The total costs of premature mortality were estimated at €107,648,579 (95% CI: 64,040,231–177,787,880).

Conclusion We establish the societal costs attributable to diabetes in older adults in Ireland and therefore identify costs that can be directly targeted by prevention and treatment strategies. Primary, secondary and tertiary prevention of diabetes can result in significant cost savings, not only in terms of direct healthcare costs but also indirect costs.

WHAT IS THE EVIDENCE BASE FOR INTEGRATING HEALTH AND ENVIRONMENTAL AGENDAS IN THE SCHOOL CONTEXT TO IMPROVE HEALTHY AND ENVIRONMENTALLY AWARE BEHAVIOURS? A SYSTEMATIC SCOPING REVIEW OF GLOBAL EVIDENCE

Background Society is experiencing increasing rates of non-communicable diseases (NCDs) and environmental degradation related to climate change. Links between behaviours that exacerbate both poor health and carbon emissions such as food and transport choices are related to individual and collective behaviours. As many behaviours are shaped in early life, schools might be important settings in which to address these issues. To explore this further, we examined the global evidence base for integrated strategies for promoting healthy and environmentally aware behaviours within the school context.

Methods A systematic scoping review was undertaken to identify literature on integrated health and environmental agendas in schools over the last 20 years. Search strings were applied across 10 databases covering relevant disciplines. In total, 3051 titles and abstracts were screened and 228 papers underwent a full-text screen by two independent reviewers, verified by a third. Two texts were found via additional citation searches. 87 texts were eligible, 75 journal articles and 12 additional sources including books and grey literature. Texts were included if they explicitly explored combined health and environmental agendas in any school context. No restrictions in terms of study design, aspect of health or population within the school context were applied.

Results Evidence of whether integrating health and environmental agendas in the school context could improve behaviours related to NCDs and climate change has grown since 2004, particularly in the North American, Australasian and Scandinavian context. Out of the 87 included texts, 55 were based on empirical data: primary qualitative (21), quantitative research (6), mixed method (16) or secondary analysis (12), such as systematic reviews (3). A range of disciplinary fields, most notably Education, Public Health and Geography were found to have explored integration. Only 2/55 studies were found to have follow up longitudinal data. Thirteen of the included texts focused on theories or frameworks associated with integration. A further 8 texts presented logic models to explain the components involved in integration. Predominant theories and concepts included: participation pedagogies, action competencies and socio-ecological frameworks.

Conclusion This review found little consistent evidence to support the implementation of integrated strategies; there seems to be a need for developing an interdisciplinary theoretical framework to guide future research, and strengthening the evidence base could translate research and guide future-focused policy and practice. To inform this, a follow up in-depth evidence synthesis will focus on the subset of conceptual texts.

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BIRTHWEIGHT, LIFETIME OBESITY AND PHYSICAL FUNCTIONING IN MID-ADULTHOOD: A NATIONWIDE BIRTH COHORT STUDY

Background Physical functioning from mid-adulthood is important for maintaining independence and is linked to better health outcomes. Evidence is scant on long-term implications of childhood obesity and body mass index (BMI) gains over the life-course for poor physical functioning (PF) in midlife.