Skills for Care & Development
Sgiliau Gofal a Datblygu

alma economics

Economic and social value of the UK adult social care sector: Northern Ireland

Independent research by Alma Economics

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About the authors

Alma Economics combines unparalleled analytical expertise with the ability to communicate complex ideas clearly.

www.almaeconomics.com

About the commissioning organisation

Skills for Care and Development is an Alliance of seven organisations in the UK and Republic of Ireland, that focuses on regulation and workforce development in social care, social work, and early years. The Alliance consists of Skills for Care; Northern Ireland Social Care Council; Scottish Social Services Council; Social Care Wales; CORU; Early Years Alliance and Social Work England.
See: www.skillsforcareanddevelopment.org.uk

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Northern Ireland Social Care Council (Social Care Council) is the regulator for the social work and social care workforce in Northern Ireland. It is a public body established by the Department of Health (DoH) to support high quality standards of social work and social care. The Social Care Council helps raise standards in the social care workforce in Northern Ireland.

See: www.niscc.info

Scottish Social Services Council (SSSC) is the regulator for the social work, social care and children and young people workforce in Scotland. Their work means the people of Scotland can count on social work, social care and children and young people services being provided by a trusted, skilled, confident and valued workforce.

See: www.sssc.uk.com.

Skills for Care is the strategic workforce development and planning body for adult social care in England. They work with employers, Government and partners to ensure social care has the right people, skills and support required to deliver the highest quality care and support now and in the future.

See: www.skillsforcare.org.uk.

Social Care Wales is the regulator for the social care workforce in Wales, as well as supporting service improvement in social care.

See: www.socialcare.wales

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Abbreviations

List of acronyms

Acronym	Definition
A&E	Accidents and Emergencies
ASCOF	Adult Social Care Outcomes Framework
ASCS	Adult Social Care Survey
ASC-WDS	Adult Social Care Workforce Dataset
ASHE	Annual Survey of Hours and Earnings
BCR	Benefit-Cost Ratio
DALY	Disability-Adjusted Life Year
EBITDAR	Earnings Before Interest Taxes Depreciation Amortisation and Restructuring or Rents
FTE	Full-Time Equivalent
GOS	Gross Operating Surplus
GVA	Gross Value Added
INA	Immediate Needs Annuities
PAYE	Pay as You Earn
PSSRU	Personal Social Services Research Unit
QALY	Quality-Adjusted Life Year
SCRQoL	Social Care-Related Quality of Life

List of definitions

Key term	Definition
Adult Social Care Survey	The Personal Social Services Adult Social Care Survey is an annual survey of all service users aged 18 and over who have received long-term support services in England. The aim of the survey is to understand how effective adult social care services are in supporting their users (NHS Digital, 2023).
Benefit-Cost Ratio (BCR)	The ratio of the estimated value of benefits compared to costs. If the BCR exceeds 1, this indicates that £1 of expenditure returns more than £1 of benefit.
Day care	Care provided for service users in a day care centre (non-residential) or the provision of activities outside the home.
Direct effects	The economic effects created by the operation of the adult social care sector itself. These include the earnings of employees in the sector, the gross operating surplus of independent care providers, and the number of jobs created.
Direct payment recipient	An individual who receives payment from the Government or local authority to pay for their own care, rather than having prescribed care provided to them.

Disability-Adjusted Life Year (DALY)	DALYs measure years lost and years lived adversely due to illness, disability, or injury. One DALY is equal to losing one year of healthy life due to premature death.
Domiciliary/Home care	Care provided in a service user's own or family home.
Earnings Before Interest, Taxes, Depreciation, Amortisation, and Restructuring or Rents (EBITDAR)	EBITDAR is a standard measure of operating profitability for the private sector. EBITDAR focuses on a company's main operations, excluding expenses such as taxes, rent, and non-cash expenses. This facilitates comparison across companies as it minimises differences arising from factors not related to the core operations of a company.
Formal carer	Someone employed to provide paid help to adults with disabilities and or physical or mental illnesses.
Full Time Equivalent (FTE)	An FTE is equal to the hours a person employed full-time would work in a week. While this varies across countries, in Northern Ireland it is equal to 37 hours. As a result, a person working 0.5 FTEs, works half as many hours as a person employed full-time would (i.e. 18.5 hours per week).
Gross Operating Surplus (GOS)	The GOS is defined as income minus operating costs. It captures the income generated through profits and rents by independent providers of adult social care after subtracting, for instance, staff costs, costs associated with day-to-day services, and transportation costs.
Gross Value Added (GVA)	The amount of goods and services that have been produced, minus the cost of all inputs and raw materials that are directly attributable to that production.
Independent care	Private and voluntary sector providers of adult social care.
Indirect effects	Indirect are the effects created by the demand for intermediate goods and services by adult social care to provide its services.
Induced effects	Induced are the effects created by changes in the purchasing behaviour of individuals directly and indirectly employed in the adult social care.
Informal carer	Someone who provides unpaid help to a friend or family member needing support, perhaps due to illness, older age, disability, a mental health condition or an addiction (Department of Health & Social Care 2018).
Loss ratio	The loss ratio is a term used in the insurance sector, defined as the losses an insurer incurs from paying claims as a percentage of premiums earned. It represents the proportion of the income an insurer gains that is then claimed by insurance customers.
Macroeconomic impact	The macroeconomic impact includes the contribution of the adult social care sector to the economy, including wages of carers and operational profits of providers (direct impact), as well as the demand and income generated in other sectors because of adult social care (indirect and induced impacts).
Non-regulated care	Employers in the adult social care sector which are not subject to inspections or regulation.
Nursing care	Support provided to individuals with a higher level of needs. This support is delivered by specially trained carer and overseen by nurses.

Personal assistants (PAs)	Personal assistants are people hired directly by someone who requires support. They can also be employed by a family member or representative when the person they are supporting does not have the physical or mental capacity to be the employer. A PA works directly with the individual they are supporting in a person-centred way to enable them to live their life according to their wishes and interests.
Private care	Employers in the adult social care sector owned by for-profit private enterprises.
Public care	Employers in the adult social care sector owned and operated by local authorities and the NHS.
Quality-Adjusted Life Year (QALY)	A measure of the state of health of a person or group in which the benefits, in terms of length of life, are adjusted to reflect the quality of life. One quality-adjusted life year (QALY) is equal to 1 year of life in perfect health.
Regulated care sector	Employers in the adult social care sector which are inspected and regulated by the national social care inspectors.
Residential care	Care provided in a residential setting rather than in a service user's own or family home.
Social Care-Related Quality of Life (SCRQoL)	SCRQoL is part of the Adult Social Care Outcomes Framework (ASCOF) and Adult Social Care Survey (ASCS) captured in metric "1A: Quality of life of people who use services". This measures the care users' reported experience in eight outcome domains covering control, dignity, personal care, food and nutrition, safety, social participation and accommodation.
Socioeconomic impact	The socioeconomic impact includes wider benefits to the society, not captured in the macroeconomic models, such as wellbeing of adults receiving care.
Voluntary care sector	Service providers in the adult social care sector run by not-for-profit organisations.

Executive summary

As of 2021, around 37,000 people worked in the adult social care sector in Northern Ireland (Dodsworth and Oung, 2023). The Northern Ireland Social Care Council (Social Care Council) is the workforce regulator for social work and social care across both adult and children's services.[1]

The adult social care sector encompasses a diverse range of services tailored to support adults with care and support needs, spanning across public, private, and voluntary sectors. The demand for adult social care is expected to grow in the United Kingdom (UK) overall, as the number of people aged over 85 is projected to grow by 62% by 2037 (Office for National Statistics, 2024). Similarly, the population of people over 65 years old in Northern Ireland is expected to grow by 33% in the same period (Office for National Statistics, 2024).

Recognising the importance of the adult social care sector, Skills for Care and Development (herein referred to as "the Alliance") commissioned Alma Economics to analyse the economic and social value of the adult social care sector in the UK and each of the four nations. The findings of this project will be used by the Alliance to inform public policy and improve public understanding, as well as reframe social care as an essential social and economic investment. This report focuses on the adult social care sector in Northern Ireland; the research team has produced separate reports discussing the findings for each of the four nations and the UK overall.

For this research, our team developed two types of models: one focusing on macroeconomic impacts and the other on socioeconomic impacts. Both models consider a wide range of care settings (e.g., residential care homes) and types of service provision (e.g. Health and Social Care Trusts), including informal care, across regulated and non-regulated sectors.

The macroeconomic models estimate the contribution of the adult social care sector to the economy. We estimated the macroeconomic impact by accounting for wages and earnings of employees in the sector, as well as the operating profits of independent care providers (direct impact). **Our estimates suggest that the adult social care sector creates over £730.8 million in Gross Value Added (GVA) and supports 27,400 full-time equivalent (FTE) jobs, with a labour productivity of approximately £26,700 per FTE. When informal care is included, the direct GVA is estimated at nearly £4.3 billion, and the number of FTEs increases to almost 211,400, yielding a labour productivity of £20,300 per FTE.**

The research also considered the indirect and induced effects of the adult social care sector. The indirect effect arises from increased demand in other sectors that are part of

[1] An up-to-date count of the regulated workforce is available on its Public Facing Register (the Register).

the adult social care sector's supply chain, such as personal protective equipment or home adaptations. Both direct and indirect effects lead to a rise in household income across the economy, driven by increased employment. A portion of this additional income is spent on other goods, which constitutes the induced effect**. The indirect effect, i.e., the value and employment created in other sectors due to adult social care, is estimated to comprise 5,500 FTEs and £181.2 million of GVA. Similarly, the induced impact, resulting from the additional spending of individuals directly or indirectly employed in the sector, is estimated to include 13,700 FTEs and £545.0 million of GVA.**

Overall, the adult social care sector in Northern Ireland is estimated to support 46,500 FTEs and generate £1.5 billion in value when considering direct, indirect, and induced impacts, not including informal care. The estimated GVA of the adult social care sector represents approximately 2.9% of the total GVA in Northern Ireland in 2023, up from 1.4% in 2016 (ICF 2018b; Office for National Statistics 2024). However, we recommend such direct comparisons be treated with caution, given methodological changes and data quality concerns.

The adult social care sector also creates a wide range of benefits that are not captured in GVA or employment measures, such as the wellbeing of adults receiving care and peace of mind for the general population. To estimate the magnitude of these socioeconomic impacts, we compared the costs and benefits of adult social care to a hypothetical scenario in which the adult social care sector (both formal and informal) ceases to exist. The results of this analysis suggest that the socioeconomic benefits of the adult social care sector in Northern Ireland are £12.1 billion while costing £4.3 billion. This means that for every £1 spent, there are £2.82 in socioeconomic benefits.

1. Introduction

To ensure the sustainability of the sector, Skills for Care and Development have commissioned Alma Economics to analyse the economic and social value of the adult social care sector in the UK and each of the four nations. The project estimated the value of the sector, and the findings will help inform investment cases and policymaking, and enhance public understanding of the sector's importance.

The chapters in this document are: 1. Introduction, 2. Methodological approach, 3. Findings, 4. Technical appendix, and 5. References.

1.1. Background

Skills for Care and Development is an Alliance of seven key organisations in the UK and Republic of Ireland, that focuses on regulation and workforce development in social care, social work, and early years. The Alliance consists of Skills for Care; Northern Ireland Social Care Council; Scottish Social Services Council; Social Care Wales; CORU; Early Years Alliance and Social Work England.

To support the long-term sustainability of the sector, Skills for Care and Development is seeking to build upon the economic information the Alliance have and inform the economic case for investment in the adult social care sector. To that end, Skills for Care and Development commissioned Alma Economics to analyse the adult social care sector's economic and social value in the UK as a whole and in each of the four nations.

The overall aim of the project is to:

- Inform the economic case for investment in the social care sector and its workforce in the UK as a whole (as well as having national breakdowns), influencing policymaking and national spending review decisions on investment.
- Improve public understanding of the value of the sector, emphasising the importance of investing in social care.

1.2. Structure of the document

This document presents our methodological approach and key findings across the macroeconomic and socioeconomic analysis of the adult social care sector in Northern Ireland. The document includes the following sections:

- Chapter 2 briefly outlines our methodological approach, including: (i) the definition of the sector used; (ii) the groups of interest analysed; (iii) the direct, indirect, and induced effects considered; and (iv) the types of impacts included in the socioeconomic costs and benefits.

- Chapter 3 presents key findings across the macroeconomic and socioeconomic analysis.
- Chapter 4 is the Technical Appendix, detailing our methodology, sources, and assumptions used to arrive at the direct, indirect, and induced value of the sector, as well as the benefit-cost ratio from its operation.
- Chapter 5 presents the sources referenced throughout the report.

2. Methodological approach

Following a thorough desk-based review, we identified key areas of impact of the adult social care sector, used to create two types of models, one including the macroeconomic impacts and another focusing on the socio-economic ones.

In the context of this analysis, social care is defined as "[…] *the support provided to adults (both older people and people of working age) with physical disabilities, learning disabilities, or physical or mental illnesses, and their carers. This may include personal care (such as support for eating, washing or getting dressed) or help with domestic routines (such as cleaning or going to the shops) .*" (Foster, 2024)

This analysis considers a wide range of care settings (e.g. residential) and types of service provision (e.g. Health and Social Care Trusts), including informal care, across the regulated and non-regulated sectors.

The macroeconomic impact of the sector consists of direct, indirect, and induced effects. The direct impact has been estimated using Gross Value Added (GVA), as the total value of wages and earnings of employees of the adult social care sector and the gross operating surplus of independent care providers. We also estimated the socioeconomic costs and benefits of the adult social care sector, encompassing both direct and induced costs, as well as tangible and intangible benefits.

2.1. Overview of the suggested approach

Our proposed strategy comprised three key stages. Initially, we created a detailed analysis plan by scoping and mapping the main areas of impact. In the second phase, we updated the analysis of direct, indirect, and induced impacts, and calculated wider and wellbeing benefits by developing an economic model. In the last phase, we compiled the findings into detailed reports for each nation and the UK.

In particular, Phase 2 consisted of:

- Calculating the macroeconomic impact of adult social care in Northern Ireland using quantifiable impacts. These include direct, indirect, and induced impacts (explained in a following section of this chapter).
- Estimating the socioeconomic costs and benefits of the adult social care sector in Northern Ireland.
- Creating indicative case studies of interventions and programmes that have proven successful in adult social care (presented in the UK-wide report).

2.2. Sector definition

Social care does not have an established definition and the range of people's care needs is wider than any definition. For the purposes of this work, we used the following definition: "*Adult social care is the support provided to adults (both older people and people of working age) with physical disabilities, learning disabilities, or physical or mental illnesses, and their carers. This may include personal care (such as support for eating, washing or getting dressed) or help with domestic routines (such as cleaning or going to the shops) .*" (Foster, 2024)

The definition may vary depending on the country and context. The Department of Health in Northern Ireland has established the Adult Social Care Collaborative Forum. The Forum uses an indicative definition of adult social care, based on the Department of Health's relevant 2013 consultation, which describes adult social care as *"[…] the activities, services and relationships that help us to live an independent, healthy and inclusive life. It is available to any adult with eligible needs who requires assistance due to disability, vulnerability, illness, incapacity or old age, and is designed to promote independence, social inclusion, safeguarding and wellbeing."*

2.2.1.Groups of interest

For the purpose of this study, we built on the ICF (2018b) work and defined as part of adult social care the following groups: (i) regulated providers across the private, public, and voluntary sectors; (ii) non-regulated providers; and (iii) personal assistants. As highlighted in our discussions with sector stakeholders, the landscape in the non-regulated sector is changing, with a significant recent increase in the non-regulated sector in Northern Ireland. However, as noted in ICF (2018b) and Social Care Council (2017), personal assistants and non-regulated providers cannot be robustly calculated at the moment.

We are also aware that informal care is a significant part of adult social care. To that end, we went beyond the ICF methodology and analysed the economic contribution of informal carers and the financial support provided to them.

We also accounted for different care settings in the regulated sector. In particular, we collated data on the following care settings:

- Residential.
- Domiciliary (or homecare).
- Day care.
- Other care settings.

2.3. Impacts and approach to quantification

Following a detailed literature and evidence review, we have identified direct, indirect, induced, and wider impacts of adult social care. The direct, indirect, and induced impacts were used to calculate the macroeconomic impact of the adult social care

sector in Northern Ireland, while the wider socioeconomic impacts were used in our socioeconomic impact analysis. The section below presents the impacts we quantified, the indicators used, and the underlying rationale. All figures are reported in 2023 values. Estimates before 2023 were adjusted to 2023 values using GDP deflators.

2.3.1. Gross Value Added (GVA)

Indicators:

- **Wages and earnings** of employees of the adult social care sector.
- **Gross Operating Surplus** to capture income generated by the sector, other than wages.

GVA is the standard metric to estimate the macroeconomic impact of a sector. GVA measures "*The value generated by any unit engaged in production and the contributions of individual sectors or industries to GDP. It is measured at basic prices, excluding taxes less subsidies on products*" (Office for National Statistics, n.d.). There are alternative approaches to calculating GVA, namely income, expenditure and output approaches. However, based on all ICF reports, the three approaches to calculating GVA would have yielded similar results (ICF, 2018a; 2018b; 2018c; 2018d; 2018e).[2] As a result, we followed the approach of the KD Network Analytics and Skills for Care (2021) report and Office for National Statistics (2017), and calculated GVA using the income approach (i.e. quantified the total income generated by the sector). We chose the income approach because the required indicators are readily available, consistently defined, and robustly calculated. This facilitated aggregation to the UK level and comparisons across countries.

2.3.2. Labour productivity

Indicators:

- **GVA**
- **Full Time Equivalent (FTE)**

Green Book guidance (HM Treasury, 2022) identifies productivity as a key metric of macroeconomic value. In this context, we focused on labour productivity, which is defined as GVA produced for a given measure of labour. For instance, the ONS calculates productivity as GVA per hour worked, per worker, or job (Office for National Statistics, 2023). To ensure comparability with previous reports on adult social care (i.e. ICF, 2018d and KD Network Analytics and Skills for Care, 2021 reports), we calculated labour productivity as GVA per FTE.

[2] The kd Network Analytics and Skills for Care (2021) report notes that "in theory, and with perfect data, all three methods give the same answer".

2.3.3. Avoided financial costs to the NHS

Indicators:

- **Hospital admissions**
- **Accident and Emergency (A&E) admissions**
- **Discharges from acute care**

The health and social care sectors operate in tandem, with care workers playing a pivotal role in averting hospitalisations and accidents, thereby decreasing the frequency of emergency visits. Additionally, social care arrangements are essential for facilitating the discharge process from acute care settings. Consequently, the absence of sufficient adult social care capacity would create additional expenses for the NHS to accommodate individuals who are medically fit and could have been discharged.

2.3.4. Peace of mind benefits

Indicator:

- **Loss ratio** of providers of private long-term care

Evidence suggests that individuals who buy insurance receive additional benefits, apart from monetary ones, as they pay more in premiums than they receive through claims (Forder, 2011). One possible explanation for people willing to accept the monetary cost is the value they place on the peace of mind that insurance provides. In that case, the monetary loss that individuals are willing to accept through insurance can be used as a proxy for the magnitude of the peace-of-mind benefit. We expect that adult social care also provides peace of mind to the general population by ensuring that support will be available when needed.

2.3.5. Quality of life and wellbeing

Indicators:

- **Social Care-Related Quality of Life** (SCRQoL) as captured in the Adult Social Care Survey: The significance of wellbeing in policy assessment and evaluations is underscored in the Green Book, which offers diverse metrics for consideration (HM Treasury 2022). Consistent with the findings of the KD Network Analytics and Skills for Care (2021)report, we quantified and monetised the impact adult social care on Social Care-Related Quality of Life (SCRQoL). To accomplish this, we adopted the adjusted SCRQoL methodology, as outlined by Forder et al. (2016). This approach enables us to address two critical aspects: (i) external factors that may influence service quality and (ii) variations in preferences across SCRQoL metrics.
- **Quality of Life Adjusted Years (QALYs):** Access to social care plays a crucial role in reducing the risk of injuries and falls among individuals, consequently improving health outcomes for care recipients. A common metric to quantify health outcomes is quality-adjusted life years (QALYs), which quantifies the

number and quality of healthy years for a person. As per HM Treasury (2022) Green Book guidance, QALYs can be monetised by applying a £70,000 value (in 2020 prices) for each QALY gained. For instance, if an intervention has been found to create 0.4 QALYs (i.e. 40% of a year in perfect health and wellbeing), that means that the monetary benefit of the intervention is £28,000 in 2020 prices.

2.4. Indirect and induced effects

The adult social care sector contributes directly to the economy but also generates additional value through indirect and induced effects. Indirect effects arise from the demand for intermediate goods and services required by adult social care to deliver its services (e.g., the need for medical supplies, employee education and training, cleaning services, and various household items). Consequently, adult social care stimulates additional employment opportunities and GVA beyond its direct impact. Moreover, induced effects stem from the purchases of goods and services by individuals employed in the adult social care sector (directly or indirectly).

2.5. Estimating the socioeconomic impact of the sector

This section outlines the approach used to estimate the economic and social costs and benefits of adult social care in Northern Ireland. Subsection 2.5.1 presents our methodological approach, including the analytical scenario and types of impacts. Subsection 2.5.2 presents our approach to estimating the costs and benefits included in our analysis.

Our approach accounted for both direct and indirect costs, as well as both tangible and intangible benefits that can arise from the sector. The direct costs concerned the financial investment need for the day-to-day operations of the sector, such as the labour costs of care workers. Indirect costs include non-cash side-effects of adult social care that arise indirectly from the operation of the sector and are not part of the operating expenses. In particular, we included the salaries of formal carers that would need to be paid to provide the same level of care currently offered by informal carers. Tangible benefits, such as the reduction of A&E admissions, were quantified and monetised based on avoided costs. Intangible benefits, such as peace of mind benefits, were monetised using evidence from the international literature on people's preferences and willingness to pay for such benefits.

2.5.1. Analytical scenario

In order to assess and quantify the costs and benefits associated with adult social care, we needed a reference point for comparison. Consequently, we compared the costs and benefits of the adult social care sector (our baseline) with a hypothetical scenario in which both formal and informal adult social care services do not exist (analytical scenario).

Under this analytical scenario, we anticipated that certain individuals would receive no support, while others would use NHS services to obtain the care that would otherwise be provided by adult social care. Those who do not receive support would likely experience adverse health and wellbeing consequences due to the lack of care, potentially leading to an increase in injuries or illnesses compared to the baseline where adult social care helps prevent the escalation of needs. Additionally, individuals accessing the NHS instead of adult social care would impose an added burden on the healthcare system, as they would remain in NHS care due to the absence of adult social care services.

2.5.2. Socioeconomic costs and benefits

We considered the following costs and benefits for the baseline scenario where adult social care exists:

Costs:

- Salaries of formal carers: Earnings of people providing formal care.
- Replacement cost of informal carers: The equivalent costs required to provide the level of care offered by unpaid carers.
- Resources spent on the delivery of adult social care: Expenditure on other non-labour costs, such as buildings and land.

Benefits:

- Improved wellbeing due to receiving social care: The improved wellbeing benefit relates to satisfaction with social care services. It captures care users' reported experience in eight outcome domains of control, dignity, personal care, food and nutrition, safety, social participation and accommodation. It does not include the impact of avoiding injuries on wellbeing or quality of life
- Improved health/quality of life due to not getting injured and being hospitalised (prevention): This benefit reflects the impact on quality and quantity of life due to avoided injuries through social care. This does not include the 8 domains mentioned above.
- Increased peace of mind benefits for the general public: The peace of mind benefits concern a different population compared to the previous two. While the aforementioned benefits apply to adults receiving social care, the peace of mind benefits apply to the general public, reflecting the benefit of knowing adult social care exists if needed (similar to insurance).
- Reduced NHS costs due to prevented hospitalisation and emergencies: As mentioned in the second benefit, adult social care helps prevent injuries. Apart from the impact on health and quality of life of adults in care, this also creates savings for the NHS through avoided hospitalisations.
- Increased efficiency in care provision from adult social care compared to the NHS: There is evidence that adult social care enables medically fit people to leave the hospital. The lack of available adult social care placements is one of

the main reasons for delayed hospital discharges. As a result, the existence of the adult social care sector helps free up NHS capacity and could prevent additional discharge delays if sufficient placements were available.

3. Findings

The adult social care sector, covering formal care, in Northern Ireland, creates approximately 46,500 FTEs and £1.5 billion in economic value across direct, indirect and induced impacts (excluding informal care).

The direct impact constitutes the largest portion of this macroeconomic value, reaching more than £730.8 million in GVA and 27,400 FTEs. As a result, each FTE in the adult social care sector creates approximately £26,700 in value. Including informal care in the calculations, the direct GVA increases to almost £4.3 billion, with the number of FTEs rising to almost 211,400. Consequently, the labour productivity is approximately £20,300 per FTE.

The adult social care sector also creates employment and economic value in other sectors due to the demand for intermediate goods and services (e.g. medical supplies) to provide care (indirect effects). Our analysis suggests that the indirect effects of formal care create 5,500 FTEs in other sectors, generating approximately £181.2 million in GVA. Furthermore, the spending of individuals directly or indirectly employed in the formal adult social care sector creates additional employment and economic value in other sectors (induced effects). In particular, the induced effects create 13,700 FTEs and generate £545.0 million in GVA.

The adult social care sector also generates wider impacts on society, beyond employment and GVA. Our analysis suggests that the socioeconomic benefits of the adult social care sector in Northern Ireland are £12.1 billion, while the costs are £4.3 billion. This means that for every £1 spent in adult social care in Northern Ireland, £2.82 in benefits are generated.

This chapter presents our findings across the macroeconomic and socioeconomic analyses. A detailed presentation of the underlying methodology and sources is included in the Technical Appendix.

3.1. Macroeconomic impact findings

3.1.1. Formal care

To estimate the total macroeconomic impact due to the operation of the adult social care sector in Northern Ireland, we considered direct, indirect, and induced effects. The following section presents our findings regarding the direct impacts. All figures presented have been rounded, so adding individual lines may not always add up to the quoted total.

Direct impact

The direct impact consists of GVA and employment. GVA was estimated using the (i) wages and earnings of all carers across provision types and care settings; and (ii) the Gross Operating Surplus of private and voluntary residential, nursing, and domiciliary/home care providers. The subsection below presents the results for the wages and earnings of carers in Northern Ireland.

Wages and earnings

The results suggest that the total value of wages and earnings in the adult social care sector in Northern Ireland, excluding informal care, is approximately £661 million. Workers in domiciliary/home care and residential care are the biggest contributors to this value, with earnings of £190 million and £343 million respectively.

Table 1. Income of formal and carers in Northern Ireland, million pounds, 2023[3] [4] [5]

Type of care	Health Trust	Private	Voluntary	Total
Residential	£51.0	£239.8	£52.2	£343.0
Nursing	-	-	-	-
Domiciliary/Home care	£49.8	£106.7	£33.6	£190.2
Day care	£34.7	£14.5	£8.3	£57.5
Other	£12.6	£8.9	£49.3	£70.8
Total excluding informal care	£148.2	£369.9	£143.4	£661.4

Gross Operating Surplus

The table below presents the results of our analysis of the Gross Operating Surplus of private and voluntary providers by type of care. The results suggest that the total GOS in the adult social care sector is approximately £69.4 million. Residential care providers constitute the vast majority of the total Gross Operating Surplus (GOS), with £58.0 million.

[3] The earnings of employees in regulated day care services have been proxied by the average earnings of employees in other care settings. This is due to the fact that day care is not regulated in England, so there are no relevant earnings from England to be used. Additional details are included in the Technical Appendix.

[4] Includes Supported Living services, as it is a statutory registered category in Northern Ireland. Supported living enables adults with support needs to live in their own home with the help they need to be independent. It allows them to choose: (i) where they want to live; (ii) who with; (iii) how they want to be supported; and (iv) what happens in their own home.

[5] In Northern Ireland, both health and social care services are provided by combined statutory bodies known as Health and Social Care Trusts. In the remaining UK countries, health services are provided by the NHS while care is provided by local authorities.

Table 2. Gross Operating Surplus of private and voluntary providers by types of care, million pounds, 2023

Type of care	GOS
Residential	£58.0
Domiciliary/Home care	£11.5
Total	**£69.4**

Total direct impact

The total direct impact consisting of GVA and employment is presented in the table below. We also calculated the labour productivity as the ratio of GVA per FTE.

The findings suggest that there are approximately 27,400 direct FTEs in the sector, producing £730.8 million of direct GVA. This suggests that the labour productivity in the adult social care sector is almost £26,700 per FTE.

Table 3. Total direct impact and productivity, 2023

Type of impact	Excluding informal care
GVA (million pounds)	£730.8
Number of FTEs	27,400
Productivity (£ per FTE)	£26,700

Indirect and induced impacts

The adult social care sector also creates employment and value in other sectors due to the demand for intermediate goods and services (e.g. medical supplies) to provide care (indirect effects). Furthermore, the spending of individuals directly or indirectly employed in the adult social care sector creates additional employment and value in other sectors (induced effects).

As shown in table 4, there are significant indirect and induced benefits resulting from the operation of the adult social care sector. In particular, the presence of the adult social care sector results in the generation of approximately £181.2 million and 5,500 FTEs in other sectors. Similarly, there are 13,700 FTEs created due to the behaviour of individuals directly or indirectly employed by adult social care (induced), which leads to an additional value of £545.0 million.

Table 4. Indirect and induced GVA and employment (excluding informal care), 2023

Type of impact	Indirect	Induced
GVA (million pounds)	£181.2	£545.0
Number of FTEs	5,500	13,700

Total macroeconomic impact

The following table summarises the direct, indirect, and induced impacts of adult social care in Northern Ireland. These figures represent the total macroeconomic value of the sector in terms of GVA and employment. The table excludes the contribution of unpaid carers, who are typically family members or friends providing care informally.

As shown below, the existence of the adult social care sector in Northern Ireland creates approximately 46,500 FTEs and £1.5 billion of value across direct, indirect and induced impacts.

Table 5. Direct, indirect, and induced impacts, 2023

Type of impact	Direct	Indirect	Induced	Total
GVA (million pounds)	£730.8	£181.2	£545.0	£1,457.0
Number of FTEs	27,400	5,500	13,700	46,500

Sensitivity analysis

This subsection presents a sensitivity analysis of the estimates of the gross operating surplus, direct GVA, and total GVA. As described in the methodology section and detailed in the technical appendix, our calculations involve several assumptions. To explore the importance of these assumptions to our final results, we varied one key assumption in our macroeconomic impact calculations.

Similar to the ICF (2018b) report, we explored how sensitive the overall results are to the change in the Earnings Before Interest Taxes Depreciation Amortisation and Restructuring or Rents (EBITDAR) used in the GOS calculation. In particular, we first compared the baseline estimates (i.e. the results presented in the previous sections) to the results under the EBITDAR used by the ICF (2018b) report. This scenario was explored to facilitate comparison with the previous macroeconomic value estimate. As a result, any comparisons with the ICF 2016 estimate and this report should be made using the “ICF EBITDAR” scenario.

The second sensitivity test was varying the EBITDAR by 20% above and below the baseline estimate. Varying the baseline estimate by a fixed percentage is a common sensitivity analysis technique (e.g. Hamby, 1995), while the magnitude of the percentage was an arbitrary choice.

In summary, to assess the sensitivity of our results to changes in EBITDAR, we calculated the GOS, as well as the direct and total GVA, for 3 alternative EBITDARs: (i) baseline -20%, (ii) baseline +20%; (iii) ICF EBITDAR. The results suggest that the total GVA varies by approximately £13.9 million in the lower bound and £30.9 million in the upper bound of our estimates.

Table 6. Total macroeconomic impacts with varied assumptions, million pounds, 2023

Scenarios	GOS	Direct GVA	Total GVA
Baseline	£69.4	£730.8	£1,457.0
Baseline - 20%	£55.5	£717.0	£1,443.1
Baseline + 20%	£83.3	£744.7	£1,470.8
ICF EBITDAR	£100.4	£761.8	£1,487.9

3.1.2. Informal care

Informal carers, similar to formal carers, create significant value in the sector. This subsection presents the estimates for direct, indirect, induced, and total macroeconomic impacts including the contribution of informal carers. In particular, if informal carers were replaced with formal carers, it would cost almost £4.2 billion to maintain the same level of care, as shown in the table below.

Table 7. Replacement cost of informal carers in Northern Ireland, million pounds, 2023 [6]

	Informal care	Total excluding informal care	Total including informal care
Wages and earnings	£3,571.3	£661.4	£4,232.8

The table below shows the total direct impacts including informal care. In particular, there are more than 211,400 FTEs in the sector, which would contribute more than £4.3 billion, with a labour productivity of £20,300 per FTE.

The inclusion of informal carers reduces labour productivity, as the replacement cost of one informal carer is assumed to be equal to the earnings of a formal carer. However, one informal carer's FTEs in Northern Ireland are higher than those of a formal carer's. As a result, the nominator of the productivity ratio, i.e. the total GVA including both formal and informal care, will not increase proportionately to the denominator, which is the FTEs of both formal and informal carers.

Table 8. Total direct impacts (including informal care), 2023

Type of impact	Excluding informal care	Including informal care
GVA (million pounds)	£730.8	£4,302.2
Number of FTEs	27,400	211,400
Productivity (£ per WTE)	£26,700	£20,300

Table 9 presents the indirect and induced impacts with the addition of informal carers. The indirect GVA, including informal carers, is approximately £233 million, and the associated indirect FTEs are 15,000. The induced GVA amounts to approximately £701 million, while the induced FTEs are almost 37,400.

[6] The replacement cost of informal carers has been assumed to be equal to the average earnings of all adult social care employees, weighted by the number employed in each care setting and type of provision. This was then converted to an FTE basis using the ratio of FTEs per informal carer.

Table 9. Indirect and induced GVA and employment (including informal care), 2023

Type of impact	Indirect	Induced
GVA (million pounds)	£233.0	£701.0
Number of FTEs	15,000	37,400

Finally, the table below collates and aggregates the aforementioned direct, indirect, and induced impacts of the sector, including informal care. In total, the adult social care sector creates more than £5.2 billion of GVA and 263,800 FTE jobs.

Table 10. Direct, indirect, and induced impacts (including informal care), 2023

Type of impact	Direct	Indirect	Induced	Total
GVA (million pounds)	£4,302.2	£233.0	£701.0	£5,236.2
Number of WTEs	211,400	15,000	37,400	263,800

3.1.3. Comparisons with past evidence

Previous attempts have been made to estimate the macroeconomic value of the adult social care sector in Northern Ireland. The Social Care Council published a report in 2017 on Assessing the Economic Value of the Adult Social Care Sector in Northern Ireland and most notably, ICF published a report in 2018, using 2016 data.

The box below presents high-level comparisons of findings between this report and that of ICF. It is important to note that the findings are not necessarily comparable due to differences in (i) data; (ii) methodology; and (iii) other external factors. As a result, we cannot comment on the causes of any changes in figures since 2016, since these are not necessarily attributable to the sector itself.

Our findings suggest that the adult social care sector, covering formal care, in Northern Ireland, creates approximately, 46,500 FTEs and £1.5 billion in economic value across direct, indirect and induced impacts (excluding informal care).

The ICF report estimated that the adult social care sector in Northern Ireland creates approximately 53,700 FTEs and £1 billion. The two estimates are broadly comparable as can be seen from the components' comparison below. In particular, there are increases in each of the direct, indirect, and induced impacts which summed together generate the above difference of approximately £0.5 billion.

We have estimated the direct impact at £730.8 million in GVA and 27,400 FTEs, compared to £544.3 million GVA and 28,900 FTEs in ICF. As a result, each FTE in the adult social care sector creates approximately £26,700 in value in 2023, compared to £18,800 in 2016. The increase in GVA between 2016 and 2023 is roughly 34%.

Our analysis also suggests that the indirect effects create 5,500 FTEs in other sectors, generating approximately £181.2 million in GVA. The ICF estimates are 8,400 and £155.7 million respectively, resulting in an increase of approximately 17% in GVA.

Finally, the induced effects in this report have been estimated to create 13,700 FTEs and generate £545.0 million in GVA. In contrast, ICF estimated the induced impacts to generate 16,400 FTEs and £308 million in GVA. This suggests an increase of approximately 77% in GVA from 2016.

If we look at the percentage differences between our estimates and ICF's, the indirect impacts appear to have increased the least and the induced the most

3.2. Socioeconomic impact

The second part of our analysis consisted of exploring the costs and benefits of the adult social care sector, compared to a hypothetical scenario where both the formal and informal care sectors cease to exist. Below, we present high-level findings from this analysis. Additional details on our sources and methodology can be found in the technical appendix.

3.2.1. Costs

The following table presents the main costs associated with the adult social care sector in Northern Ireland. As indicated below, the total cost of the adult social care sector in Northern Ireland is estimated to be approximately £4.3 billion in 2023. The most significant cost within the adult social care sector is related to the value generated from informal care, which equals the cost of replacing informal carers with formal care staff offering the same level of care (£3.6 billion in 2023).

Table 11. Costs due to the operation of adult social care, million pounds, 2023[7]

Salaries of formal carers	£582.6
Replacement cost of informal carers	£3,571.4
Resources spent on the delivery of adult social care	£135.2
Total costs	**£4,289.2**

[7] Please note that there is a small discrepancy between the total salaries of formal carers in the socioeconomic and macroeconomic models. This discrepancy arises because the macroeconomic impact model uses earnings per FTE, whereas the socioeconomic model uses earnings per person. The total earnings differ because the macroeconomic model calculates earnings per FTE based on care setting and provision type, while the socioeconomic model uses weighted average earnings to determine earnings per person. We chose different earnings measures for each model due to their distinct purposes. The macroeconomic model employs earnings per FTE for a more accurate bottom-up approach. In contrast, the socioeconomic model serves as a legacy tool for projecting future costs and benefits. To this end, using earnings per carer would be more suitable for projections as it allows the application of growth rates of cared-for individuals and carers.

3.2.2. Benefits

Similarly, the following table presents the benefits of adult social care. As shown below, the total socioeconomic benefits of the adult social care sector in Northern Ireland, including informal care, are estimated to be around £12.1 billion in 2023. The most significant benefit is the improvement in wellbeing due to receiving social care, estimated at approximately £11.0 billion in 2023. This benefit represents the monetary value that care users would be willing to pay to achieve improvements in outcomes such as safety, personal care, and accommodation (as captured by the SCRQoL). The size of this benefit can be explained from: (i) the magnitude of the impact that care services have on wellbeing; (ii) the monetary value of wellbeing impacts; and (iii) the size of the populations affected (i.e. the entire population receiving unpaid care and those receiving formal care, excluding nursing care).

Table 12. Benefits due to the operation of adult social care, million pounds, 2023

Improved wellbeing due to receiving social care	£10,999.6
Improved health/quality of life due to not getting injured and being hospitalised	£39.4
Increased peace of mind benefits for the general public	£280.5
Reduced NHS costs due to prevented hospitalisation and emergencies	£779.4
Increased efficiency in care provision from adult social care compared to NHS	£12.7
Total benefits	**£12,111.5**

3.2.3. Net benefits and Benefit-Cost Ratio

Overall, the analysis suggests that the benefits of the adult social care sector significantly outweigh the costs. In summary, the adult social care sector in Northern Ireland creates more than £7.8 billion in net benefits (i.e. total benefits minus total costs). **Furthermore, the adult social care sector achieves a Benefit-Cost ratio of £2.82, suggesting that for every £1 spent in adult social care in Northern Ireland, £2.82 of benefits are generated.**

4. Technical appendix

This appendix presents in detail the calculations and data sources used to estimate the macro and socioeconomic impact of the adult social care sector in Northern Ireland. Section 4.1 of this chapter outlines our approach to calculating the macroeconomic impacts. In particular, subsection 4.1.1 explores the direct benefits resulting from the operation of the adult social care sector, namely the Gross Value Added (GVA). Subsection 4.1.2 briefly outlines our approach to calculating the productivity benefits, while subsection 4.1.3 describes our methodology for calculating the indirect[8] and induced[9] impacts of adult social care, consisting of GVA and employment. **The direct, indirect, and induced effects together constitute the total macroeconomic impact of the adult social care sector.** Section 4.2 in this chapter outlines our approach to calculating the wider socioeconomic costs (subsection 4.2.1) and benefits (subsection 4.2.2) of the adult social care sector, as described in the previous chapter.

4.1. Macroeconomic impact

4.1.1. Direct effects

Gross Value Added

To calculate GVA, we summed the total earnings and profits generated by the adult social care sector. This includes:

- **Wages and earnings** of the employees in the regulated sector, as well as informal carers. We first collated data on the number of jobs and FTEs in the adult social care sector. These were then multiplied by the average earnings per FTE for each type and setting of care.
- **Gross operating surplus** in the independent sector across care settings. Our aim was to capture the additional value generated by the sector due to the profits of private and voluntary providers, apart from wages and earnings. To that end, we applied average profitability ratios (EBITDAR)[10] to the care home and domiciliary/home care placements provided by the private and voluntary sector. Day care and any other types of care were not included in this calculation as there is no information available for their profitability.

[8] Indirect are the effects created by the demand for intermediate goods and services by adult social care to provide its services (ICF, 2018d).

[9] Induced are the effects created by changes in the purchasing behaviour of individuals directly and indirectly employed in the adult social care (ICF, 2018d).

[10] Earnings Before Interest Taxes Depreciation Amortisation and Restructuring or Rents (EBITDAR) is a standard measure of operating profitability for the private sector (Competition & Markets Authority, 2017).

Detailed technical discussion

1. Number of jobs and FTEs

Employees working in the regulated sector are captured in the Social Care Council's Public Facing Register (the Register). However, to ensure comparability with the rest of the UK, we took the following steps to calculate the number of employees in the adult social care sector:

- Collate data from the Adult Social Care Workforce Dataset (ASC-WDS) (Skills for Care, 2021) on the number of carers and FTEs in England.
- Divide the above by the number of sites providing adult social care in England.
- Multiply the result by the number of adult social care sites in Northern Ireland.

Informal carers and the hours of care provided were taken from Census 2021 statistics (Northern Ireland Statistics and Research Agency, 2021). As noted in the second chapter, personal assistants and non-regulated providers cannot be robustly calculated at the moment.

We calculated separately the number of informal carers claiming Carer's Allowance using Department of Work and Pensions (DWP) data (Department for Work and Pensions, 2024), although the allowance was not included in the direct economic contribution. While Carer's Allowance is not explicitly exclusive to informal carers, the criterion of maximum net income of £139 per week makes it unlikely that a significant number of claimants are formal carers, given their gross weekly income is £393 (Annual Survey of Hours and Earnings, Office for National Statistics 2022). As a result, we assumed that all claimants of Carer's Allowance are informal carers receiving support from Health Trusts.

2. Wages and earnings

Earnings for the regulated care sector in Northern Ireland are collated in the Annual Survey of Hours and Earnings (ASHE), (Office for National Statistics, 2022). However, the ASHE does not include self-employed workers or those in non-Pay as You Earn (PAYE)[11] registered jobs. As a result, we followed ICF (2018c) to proxy earnings in the Northern Ireland regulated sector using data from the regulated sector in England, as described below:

- We calculated the average earnings in the adult social care sector in Northern Ireland and in England using the Annual Survey of Hours and Earnings (Office for National Statistics, 2022). The results suggest that care workers and home carers across seniority levels in England earn £418 gross, per week, compared to £432 in Northern Ireland.

[11] Pay As You Earn (PAYE) is HM Revenue and Customs' system to collect Income Tax and National Insurance from employment. Employers with no employees earning £123 or more a week, getting benefits, or having another job or pension are not required to register in PAYE.

- We calculated the ratio of the above-average earnings.
- The ratio was multiplied by the earnings for England quoted in the ASC-WDS (Skills for Care, 2021).

The earnings estimate for the formal sector employees was also used to calculate the value of informal care. In particular, we used the average earnings of employees in the formal sector, weighted by the number of employees in each setting, as a proxy for the compensation that formal carers would receive to offer the same volume of care as informal carers. This was then converted to an FTE basis using the ratio of FTEs per informal carer. Lastly, we applied the average to the hours of unpaid care provided by informal carers (Northern Ireland Statistics and Research Agency, 2021a). Any benefits or allowances received by informal carers were not included in the direct economic contribution, as we were interested in the value of the output produced by informal carers.

3. EBITDAR

Following the KD Network Analytics and Skills for Care (2021) report, we combined various sources to estimate the EBITDAR in residential, nursing, and domiciliary/home care settings. In particular, we first created a time series for EBITDARs using the following sources:

- EBITDARs from 2012 to 2016 are taken from the Care Homes market study, Competition & Markets Authority (2017).
- EBITDARs for 2017 and 2019 are taken from The adult social care market in England, National Audit Office (2021).
- EBITDAR for 2018 has been imputed from KDNA in The value of adult social care in England, KD Network Analytics and Skills for Care (2021).

We then calculated the average annual growth rate of EBITDARs from the time series described above, and applied this growth rate to the latest available data to project the EBITDARs to 2023.

4. Output of the independent sector

To calculate the Gross Operating Surplus, we multiplied the EBITDAR for the domiciliary/home care, nursing, and homecare settings, calculated in the previous step, by the output of the independent sector in the respective care settings. The output was calculated by multiplying the number of occupants in independent residential, nursing, and domiciliary/home care settings by the respective unit costs of care, including establishment costs, personal living expenses, and external services. Due to the lack of data for Northern Ireland, we used unit cost information for England, taken from the Personal Social Services Research Unit (2021) and the Homecare Association (2023). These costs were then adapted to Northern Ireland using the Annual Survey of Hours and Earnings, as described in subsection 2 of this chapter. Lastly, we multiplied the respective unit costs by the number of adults in independent provision care homes (Department of Health, 2023) and domiciliary/home care (Department of Health, 2023b).

4.1.2.Productivity

Following ICF (2018d), we calculated labour productivity as GVA per FTE. GVA, including the contribution of informal carers, was calculated as a standalone benefit, while FTE was an intermediate output in the calculation of GVA. These indicators were then divided to calculate labour productivity.

4.1.3.Indirect and induced impacts

The indirect and induced impacts on GVA and employment were estimated using impact multiplier tables. Type I multipliers were used to estimate the indirect impacts on employment and GVA, while Type II multipliers were used for induced impacts. The Northern Ireland Statistics and Research Agency produces its own Input-Output tables (Northern Ireland Statistics and Research Agency, 2023), including both Type I and Type II GVA and employment multipliers. Both Type II multipliers were applied to the direct and the indirect GVA and employment, excluding the contribution of informal carers.

In both the indirect and the induced impact, we have not included the contribution of informal carers as calculated in the direct impact. This is because indirect and induced impacts are created from realised spending, which cannot be achieved by the cost of replacing informal carers with formal care staff (i.e. our proxy for their direct impact). As a result, to estimate the indirect and induced impact of informal carers, we used Carer's Allowance payments, as these are realised earnings that could be spent and affect other sectors. The number of Carer's Allowance recipients and the amount claimed have been calculated using DWP data (Department for Work and Pensions, 2024), as described in an earlier section.

4.2. Socioeconomic impacts

4.2.1.Costs of Adult Social Care

Below, we present our approach to calculating the socioeconomic costs of the adult social care sector.

Salaries of formal carers

One of the main costs of the adult social care sector is the salaries of formal carers. We included the earnings of carers in the regulated sector, across statutory and independent provision. These were estimated as described in subsection 2 during the calculation of the macroeconomic impact of the sector. In summary, the earnings of employees in the regulated sector were sourced from the ASC-WDS (Skills for Care, 2021) and adapted to Northern Ireland using the ASHE (Office for National Statistics, 2022), as described in the wages and earnings section of the macroeconomic impact analysis.

Replacement cost of informal carers

We understand that informal carers make up a significant share of the adult social care service provision. As a result, we included their contribution both in the costs and benefits of the sector. To calculate the costs due to the existence of informal care, we replicated the approach described in subsection 2 of the macroeconomic analysis. In particular, we used the average earnings of employees in the formal sector, weighted by the number of employees in each setting. This figure was assumed to be equal to the value created by each informal carer and was then converted to an FTE basis using the ratio of FTEs per informal carer. The earnings were then multiplied by the number of FTEs that informal carers provide, as captured in the Northern Ireland Statistics and Research Agency (Northern Ireland). This means that informal carers create value equal to the earnings that formal carers would make to provide the same level of care.

Resources spent on the delivery of Adult Social Care

Apart from labour, the adult social care sector requires several other inputs. As a result, we have accounted for additional non-labour cost elements involved in the provision of adult social care. In particular, we used unit cost estimates from the PSSRU (Personal Social Services Research Unit, 2021) for items such as buildings and oncosts, and land costs. These costs were again adapted to Northern Ireland using the ASHE (Office for National Statistics, 2022), as described in the wages and earnings section of the macroeconomic impact analysis.

We recognise that using unit costs for large-scale interventions does not represent best practice in estimating their total costs, as costs are not always linear. This means that the cost of providing care for the first adult is not necessarily the same as the cost for the 100th adult. This is because services, programmes, or interventions can exhibit economies of scale or diminishing returns. However, at the time of writing, the PSSRU unit costs represented the best available evidence.

4.2.2.Benefits of Adult Social Care

This section includes our approach to quantifying and monetising socioeconomic benefits. In particular, we included: (i) quality of life and wellbeing impacts, (ii) peace of mind benefits, and (iii) avoided costs to Health and Social Care (HSC).

Avoided costs to the HSC

1. Hospital admissions

Adult social care helps reduce the need for hospitalisation by offering care services. In the analytical scenario without adult social care, we expect an increase in hospitalisations. To estimate the share of hospital admission costs that are avoided through social care, we used evidence from Bakx et al. (2020) showing that a care home admission in the Netherlands reduces the probability of hospital admission by 28%. We then applied this coefficient to the number of admissions from adults receiving adult social care in the baseline scenario. To calculate how many adults from adult

social care are hospitalised, we leveraged research by the Health Foundation & Nuffield Trust (Smith et al., 2015), showing that 8.2% of all hospital admissions come from care home residents. We then applied this coefficient to the total number of hospital admissions in Northern Ireland (Northern Ireland Statistics and Research Agency, 2023b). Lastly, the number of avoided admissions from adult social care was monetised using unit costs for elective and non-elective inpatients from the NHS England National Cost Collection (NHS England, 2021), which were then adapted to Northern Ireland using the ASHE (Office for National Statistics, 2022), as previously described.

2. A&E admissions

Adult social care also helps prevent accidents and emergency admissions, reducing the strain on the HSC. Under the analytical scenario, for example, people previously in care would be more likely to get injured and would receive care from the NHS. We explored different approaches to calculating avoidable A&E admissions. Ultimately, we used estimates from Wolters et al. (2019), indicating that 41% of all A&E admissions of care home residents were potentially avoidable. The same percentage for the general population was 27%. We assumed that the 14 percentage point difference in avoidable admissions was due to the support provided by care homes. We then multiplied this percentage point difference to the average number of A&E admissions per care home resident aged over 65[12], per year (Wolters et al., 2019). This calculation results in the number of A&E admissions that could be avoided per person, per year, which we then applied to all adults receiving informal care under the analytical scenario and all adults in non-nursing residential and domiciliary/home care, calculated during the macroeconomic impact analysis.

3. Discharges from acute care

The existence of adult social care helps the NHS discharge people from the hospital, increasing the capacity of the NHS to accommodate new patients and reduce costs associated with bed days. As a result, avoiding delayed discharges is associated with reduced costs to the NHS due to fewer bed days.

We estimated two types of delayed discharges that could be avoided due to the existence of adult social care. First, we estimated the number of delayed discharges that could be avoided if adult social care had sufficient placements (thereafter “potentially avoidable delays”). To that end, we used data held internally by the Department for Health, showing the number of delayed discharges and the associated reasons for the delays. This allowed us to calculate how many discharges are delayed due to insufficient adult social care capacity and thus could be potentially avoided through adult social care.

[12] Due to data limitations, we used the incidence of hospital admissions among care home residents over 65 as a proxy for total hospital admissions among all care home residents.

The second type of delays we examined were delays that are not realised in the baseline scenario due to the existence of adult social care. These delays are avoided because adult social care offers placements for people medically fit to be discharged. However, in the analytical scenario, these placements are no longer available, leading to additional discharges getting delayed. To estimate the share of all discharges that are made possible due to the existence of adult social care placements, we used evidence from the Healthcare Pricing Office (2019) showing that 5.9% of all discharges are to adult social care.

The share of delayed discharges potentially avoidable due to adult social care, as well as the share of those not realising due to adult social care placements were then applied to (i) current NHS patients, (ii) additional NHS patients receiving care previously offered by adult social care, and (iii) additional people entering NHS through A&E that adult social care helped avoid under the baseline scenario. These impacts were then monetised using estimates for excess bed day costs (NHS Improvement 2020), adapted to Northern Ireland using the ASHE (Office for National Statistics, 2022), as previously described.

Peace of mind benefits

There is a lack of evidence on peace of mind benefits due to adult social care in the UK. As a result, we explored alternative approaches to calculating this benefit. In all reviewed studies, peace of mind benefits were calculated as the difference of insurance payments subtracting the insurance claims paid out. The claims divided by the total insurance payments represent the loss ratio. For instance, if a loss ratio is 40%, this means that someone paying for insurance can expect to get back only 40% of the money they pay in insurance premiums. As a result, the remaining 60% must represent another form of benefit to the insurance buyer, otherwise they would be willing to pay only the 40% they would get back in claims. Research suggests that the remaining value (60% in this case) represents peace of mind benefits.

Forder (2011) explored the peace of mind benefits of Immediate Needs Annuities (INA), one of the few private insurance products in the UK. The author concluded that the average person would pay a lifetime cost of care of up to £69,000 through an INA, while they would pay £66,000 without one. The difference of £3,000 (or 4% of the premium) is the minimum peace of mind benefit holders of INAs accept (or equivalently, 96% is the maximum loss ratio). A report by Buckle et al. (2019) on 15 private UK health insurers calculated the medical insurance loss ratio ranging from 59% to 73%. Lastly, evidence from the US long-term insurance market suggests that the loss ratio is between 40% to 60% (Department of Health & Social Care, 2022).

Overall, the loss ratios range from 40% to 96% across studies and sectors. Due to the lack of a single, widely accepted loss ratio in the UK, we used the average of the UK's lower and higher bound estimates (i.e., the average of 59% and 96%).

The resulting ratio (78% loss ratio or 22% peace of mind benefit) was multiplied by the fair price of care, calculated as the total net expenditure on adult social care from HM Treasury's Public Expenditure Statistical Analyses (HM Treasury 2023). In particular, we used the cost line of "personal social services" for old age and sickness and disability.

Quality of life and wellbeing benefits

1. Social care-related quality of life

SCRQoL is part of the Adult Social Care Outcomes Framework (ASCOF)[13] and Adult Social Care Survey (ASCS) captured in metric "1A: Quality of life of people who use services". This measures the care users' reported experience in eight outcome domains of control, dignity, personal care, food and nutrition, safety, social participation and accommodation. As a result, the impacts captured are distinct from the wellbeing of avoided injuries, captured in QALYs below, thus avoiding the risk of double-counting.

To ensure that the measured quality of life impact is not affected by non-service related factors, we used metric "1B: Quality of life of people who use services" from the ASCS, which is the metric 1A adjusted for preferences of service users and external factors that might influence perceived wellbeing. Using this metric follows the methodological approach outlined in Forder et al. (2016). However, the ASCS is produced only for England. To estimate the impact of adult social care expenditure on SCRQoL for Northern Ireland, we explored different approaches and ultimately decided to divide England's expenditure on adult social care by the achieved SCRQoL. This allowed us to estimate the cost per SCRQoL, which was then applied to Northern Ireland's expenditure on formal adult social care. The expenditure per country was sourced from HM Treasury's Public Expenditure Statistical Analyses (HM Treasury, 2023), as described above.

We then used evidence by Stevens et al. (2018) showing that the adjusted SCRQoL is the wellbeing equivalent of a QALY. As a result, we monetised the impact on SCRQoL by applying the monetary value of a QALY (HM Treasury, 2021). Lastly, the monetised impact was applied to adults receiving informal care under the baseline, as well as to those receiving formal care under the baseline but not receiving any support in the analytical scenario.

2. Quality of Life Adjusted Years

Access to social care significantly reduces the likelihood of individuals experiencing injuries (Crawford et al., 2020), thereby preventing the deterioration of their health (Gabrielle F Miller et al., 2022). Thus, social care may result in increased "quantity and quality of life", captured by Quality Adjusted Life of Years (QALYs), by preventing injuries and illnesses (Office for Health Improvement and Disparities, 2020). Under the

[13] The ASCOF measures how well care and support services achieve the outcomes that matter most to people.

analytical scenario, people would no longer receive adult social care and would potentially suffer preventable injuries. According to Wolters et al. (2019), the most common avoidable admissions are for pneumonia, urinary tract infections, and fractures or sprains. To estimate the number of these admissions, we applied their incidence rates to the number of potentially avoided A&E admissions due to the existence of adult social care (as calculated in 1.2) for adults who previously received care but would not access any support under the analytical scenario. The impact of these potentially preventable injuries or illnesses on the quantity and quality of life was then monetised to estimate the savings that adult social care generates by preventing injuries.

To estimate the impact of injuries and illnesses on the quality and quantity of life, we first applied disability weights[14] (Institute for Health Metrics and Evaluation, 2019) for the most commonly avoided injuries and illnesses in care homes to Disability Adjusted Life Years (DALYs).[15] To translate DALYs to QALYs, we explored different approaches and ultimately assumed that the gains in QALYs are broadly equal to losses in DALYs, following Bevan et al. (2007). These QALY impacts were then monetised using the latest monetary value for a QALY, which is £70,000 in 20/21 prices according to the Green Book (HM Treasury, 2022).

[14] Disability weights are values representing the health impact associated with specific diseases and are generated through consultations with clinicians, experts, or community members. These are applied to Disability Adjusted Life Years (DALYs) to estimate mortality and morbidity of specific diseases (Hagell and Cheung, 2019).

[15] QALYs measure equivalent healthy years lived, whereas DALYs measure loss of health. A QALY value of 1 is equivalent to a year in perfect health, while a DALY value of 1 is equivalent to death (National Collaborative Centre for Infectious Diseases, 2015).

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