

Independent programme of evaluation of the State's investment in The Irish Longitudinal Study on Ageing (TILDA)



Main Report

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Executive summary

Introduction

Established in 2006, The Irish Longitudinal Study on Ageing (TILDA) is an internationally unique study that investigates the health and well-being of older people in the Republic of Ireland during two-yearly cycles. It aims to influence policy and change practice both within Ireland and globally, and social circumstances from people aged 50 years and over who are resident within the Republic of Ireland.

Objectives of the evaluation

This evaluation responds to the Health Research Board's (HRB's) Evaluation Strategy with the following specific objectives:

- Collate and examine TILDA outputs, outcomes, and impacts.
- Assess the effectiveness of TILDA in delivering on the objectives specified in the grant agreement with the HRB.
- Assess the efficiency of TILDA in relation to the cost of inputs.
- Assess the performance and impact of TILDA in the context of comparable cohort studies internationally.
- Use this information to examine the process and content of TILDA in order to determine its overall impact.
- Develop learnings and recommendations for improvement of the TILDA programme of research and/or the current funding model.

This report utilises a mixed-methods approach comprising both quantitative and qualitative tools adapted to and applied within a pragmatic conceptual evaluation framework that uniquely merges the Context, Input, Process, Product (CIPP) evaluation model and the Reach, Effectiveness, Adoption, Implementation, and Maintenance (RE-AIM) framework. These models were essentially the two building blocks of our evaluation strategy. The CIPP evaluation model considers project context (C), inputs (I), processes (P), and product (P) and their interrelationships in order to guide evaluations of programmes, projects, personnel, products, institutions, and systems across a variety of domains and institutional settings. In addition, the RE-AIM framework measures the reach (R), effectiveness (E), adoption (A), implementation (I), and maintenance (M) of the work of TILDA.

The following approaches were used in the evaluation of TILDA:

1. Desk research methods, including a comprehensive literature review of TILDA's academic outputs and a citation analysis of retrieved literature using bibliometric databases. Other grey literature was also explored, including a narrative and content analysis of a variety of sources such as research reports, policy documents, online platforms, newspaper reports, and a variety of other sources such as social media sites.
2. Semi-structured qualitative interviews with a purposefully selected sample of research participants and key stakeholders.
3. In-depth organisational case studies documenting changes in palliative and hospice care involving organisations via desk research, qualitative interviews, and ethnographic methodologies.
4. Focus groups with a purposefully selected sample of participants and other key stakeholders to review achievements and to assess the development of collaborations and the potential for sustainability.

The sample included international researchers, national policy-makers, stakeholder organisations, and bodies representing older people. We included the Irish Hospice Foundation as our case study. The analysis of the qualitative interviews was based on thematic analysis.

Key findings

Bibliometric analysis

A bibliometric analysis of the work of TILDA and comparison with similar longitudinal studies on ageing of a similar scope, including the English Longitudinal Study of Ageing (ELSA) and the Northern Ireland Cohort for the Longitudinal Study of Ageing (NICOLA), was undertaken. The findings from this analysis are summarised as follows:

- The TILDA project produced 454 (360 indexed in Scopus) academic research publications between 2012 and 2022. Additionally, 67.2% of the included retrieved TILDA publications were identified as open access.
- The Field-Weighted Citation Impact (FWCI) of TILDA is 1.53. As the world average FWCI is 1, the TILDA academic output is performing above average; that is, TILDA outputs are cited 53% more than expected.
- The average number of citations per TILDA publication was 21.2 between 2012 and 2021, ranking TILDA publications in the top 25% of the most cited academic outputs worldwide.
- TILDA has a high level of international collaboration in its publication outputs.
- A bibliometric analysis of TILDA compared with two other longitudinal cohort studies was undertaken; these studies included ELSA and NICOLA. TILDA, when compared with other cohort studies in terms of publications, was identified as an important longitudinal study on ageing that has generated significant research outputs.

TILDA's outputs related to policy

TILDA's policy outputs have been identified in four key areas:

1. The impact of COVID-19 on older people and policy concerns
2. Health and well-being
3. Healthcare services, and
4. Social issues.

These TILDA policy-related outputs were identified as providing an evidence base for addressing current and emerging issues associated with population ageing in Ireland across health, economic, and social systems.

TILDA's policy-related outputs were identified as informing:

- Nursing home responses to the COVID-19 pandemic
- Dental services coverage in rural areas
- State-provided home support availability to facilitate and support carers to retain their work and leisure pursuits in addition to care responsibilities
- Increase in general practitioner (GP) utilisation upon receipt of a full Medical Card/GP Visit Card
- Service demand for home support services for the population aged 65 years and older, and
- Enhanced public efforts to alleviate social isolation and loneliness.

The impact of TILDA on the narratives on ageing

This section of the evaluation explored how the work of TILDA impacted on debates and narratives on ageing in Irish society, and identified the following findings:

- The reach of TILDA in traditional print media has been extensive from its inception onwards.

- The reporting of the work of TILDA in relation to advice on exercise, on maintaining social connectedness, and on the role of vitamin D in infection prevention during the COVID-19 pandemic was identified as an effective process for managing risks and finding solutions to health problems that impacted on older people as a result of the pandemic.
- TILDA effectively uses social media to promote health and well-being among older people. This includes advice on obesity, dementia, nutrition, stress, loneliness, depression and anxiety, and socioeconomic factors relating to health and well-being.
- In the narrative analysis, it was identified that the work of TILDA was associated with the positive construction of ageing and growing old, termed 'ageing well' and 'healthy ageing' in print and online media.
- The analysis of TILDA's outputs identified that its work resulted in the development of a changing narrative on ageing; this was identified as one of the most important contributions of the TILDA project. The messages in the media as a result of TILDA's research served to counteract prevailing negative stereotypes of ageing and older people and their health.

Perceptions of key stakeholders and policy-makers

The evaluation examined the perceptions of stakeholders and policy-makers regarding TILDA's impact on policy and identified the following findings:

- Largely due to its longitudinal character and scientific standing, TILDA emerges as a source of inspiration and as a unique, and thus invaluable, project both nationally and internationally.
- TILDA's data access strategy, although conforming to national and European regulations, was perceived by some stakeholders as being challenging at times.
- Irish policy-makers highlighted that mechanisms and engagement between TILDA and policy-making could be improved in order to ensure that emerging policy questions influence future designs of the TILDA study.
- Policy-makers interviewed identified and welcomed that there are both structured and unstructured interactions between the TILDA team and policy departments to discuss data/findings.
- TILDA's high national and international scientific standing is unanimously recognised as one of the pivotal dimensions of its legitimacy.
- TILDA offers a plethora of resources for stakeholders to carry out their mandated activities, to support report writing, and to achieve their mission.
- Stakeholder organisations reported that they would like greater levels of support in the use and implementation of outputs produced by TILDA.
- Stakeholders reported that TILDA provides a deeper perspective and richer data related to healthy ageing in Ireland than other resources.
- Stakeholders, particularly those representing older people, highlighted the need for closer engagement between TILDA and representative organisations which are crucial to providing support for older people.

Conclusions

The aim of this evaluation was to collate and examine TILDA's outputs, outcomes, and impacts, and to assess the effectiveness of TILDA in delivering on the objectives specified in the grant agreement with the HRB.

In terms of our theoretical framework, based on the CIPP evaluation model and the RE-AIM framework and their subdimensions, we outline the following conclusions:

- **Context:** TILDA is viewed as a valuable resource, both nationally and internationally.

- **Input:** TILDA's longitudinal character is highlighted as legitimising, and TILDA is represented both as a national and international centre of excellence.
- **Process:** The work of TILDA is successfully integrated across institutional and national contexts, although there are a number of areas where further improvement would be necessary in order to ensure TILDA's sustainability over time and to make it an even more effective project.
- **Product:** TILDA has substantially delivered what it has promised. The work of TILDA could be strengthened in a number of areas but, overall, the evaluation identified that it is a valuable resource that is enhancing the health and well-being of older people in Ireland.

In relation to the **RE-AIM framework**, the evaluation noted the following:

- **Reach:** TILDA is positively perceived for its ability to reach intended audiences at both a national and international level.
- **Effectiveness:** TILDA is positively perceived as providing a comprehensive perspective and rich data on growing old in Ireland and positively impacting on the lives of older people.
- **Adoption:** According to our participants, TILDA's findings are widely adopted across national and institutional settings.
- **Implementation:** Overall, TILDA emerges as being successfully implemented both nationally and internationally. There were challenges including access to data and the level of dialogue between TILDA and government organisations. Nevertheless, as demonstrated from our interviews with policy-makers and organisations representing older people, the overall perspective is that the outputs from TILDA are used to inform policy and practice.
- **Maintenance:** The longitudinal character of TILDA is, for both international and national participants, the main feature that affirms TILDA's perceived impact over time. This is due to the fact that longitudinal studies become more effective as time passes and they gather more data, as recounted by several key stakeholders.

In terms of the HRB requirements for the evaluation, the evaluation team made the following conclusions:

Collate TILDA outputs, outcomes, and impacts: It is evident that the outcomes, outputs, and impacts of TILDA, as highlighted in this evaluation, are of a high standard and internationally recognised as being at a level comparable to or exceeding similar international longitudinal studies. It is also evident that the work of TILDA is effectively impacting on policy and practice, and is enhancing an understanding of the lives of older people in the health and social spheres.

Assess the effectiveness of TILDA in delivering on the objectives specified in the grant agreement with the HRB: It is evident from this evaluation that TILDA has been effective in delivering on its aim and objectives as required by the Department of Health and the HRB. These are outlined below. For example, TILDA has:

- a) Developed and collected a core set of data on a nationally representative, longitudinal sample of people aged 50 years and older in Ireland (bibliometric analysis)
- b) Continued to develop and enhance this dataset over subsequent waves of the TILDA project (bibliometric analysis)
- c) Participated with older people in project design, conduct, and dissemination, although it is recognised that this area requires further development and input by TILDA (case study and interviews with representatives of older people)
- d) Developed linkages in order to enable comparative analysis with national and international partners working in the area (interviews with international experts)

- e) Widened understanding of the whole rather than just individual parts; it is evident that the work of TILDA has positively impacted on the lives of older people in Ireland through producing outcomes that address the health and well-being of older people as well as facilitating a positive discourse on growing old in Ireland (discourse analysis)
- f) Served as a driver and facilitator of other innovative research sub-studies; for example, longitudinal studies on ageing in people with a learning disability and ageing in people who are living with human immunodeficiency virus (HIV) (bibliometric analysis)
- g) Analysed and translated data to inform and guide future planning, implementation, and evaluation of national policies, programmes, and services in Ireland; it was evident that the work of TILDA was impacting on policy and practice related to the lives of older people in Ireland, but there was an acknowledgement that more could be achieved in this area through the development of further collaborations (interviews with policy-makers, case study, and interviews with organisations representing older people)
- h) Optimised public access to TILDA data and engaged in the sharing and linkage of data with other datasets in order to expand the learning/findings from TILDA; this was achieved to some extent, but it was highlighted that groups representing older people in particular would like greater access to data in a user-friendly format (interviews with policy-makers, case study, and interviews with organisations representing older people), and
- i) Maintained a sample for possible subsequent waves of data collection; the longitudinal nature of the study and the maintenance of a nationally representative sample were identified as particular strengths of TILDA (interviews with international experts).

Analysis and findings on the efficiency of TILDA in relation to the costs of inputs: Although a full economic evaluation of the work of TILDA in relation to the costs of inputs was outside the scope of this evaluation, it was evident from the qualitative assessment of interviews with national and international participants that TILDA is providing value for money and that it is a valuable resource for Ireland in enabling an understanding of growing old in Ireland and through the collection of data on older people to a level not available before. Participants saw this as being essential for current and future health and social care planning and for its potential to positively affect the well-being of older people in Ireland. The evaluation participants felt that TILDA is providing essential longitudinal data on the lives of older people that are essential for evidence-based policy development, and this in itself justifies the costs of inputs.

Analysis and findings in the context of comparable cohort studies internationally: International perspectives from researchers involved in comparable international cohort studies identified that the work of TILDA and its team is held in very high regard and that it is a programme of research that is adding greatly to the field of longitudinal research on older people. Many of the innovations and outputs from TILDA were regarded by international experts interviewed for this evaluation as innovative and world-leading.

In conclusion, the evaluation of TILDA that emerges from an analysis of academic and policy-related outcomes, and the participation of international scholars and Irish policy-makers, clinical partners, and representatives of older person's organisations in interviews, is substantially positive. There are challenges in relation to data access, ensuring timely access to outputs from the work of TILDA to inform policy and practice, and ensuring that outcomes are communicated in a form that is usable by a wide variety of stakeholders. Overall, however, due to its longitudinal design and national and international scientific standing, TILDA emerges as a highly regarded programme of research. It is perceived by the academic community, policy-makers, and, most importantly, older people and organisations providing care and services to older people as a unique, and thus invaluable, national project that should continue its work with the ultimate goal of positively impacting on the health and well-being of older people in Ireland.

Recommendations for future consideration

The outputs from TILDA are of a high quality and continue to provide a strong evidence base for addressing current and emerging issues associated with population ageing in Ireland across health, economic, and social systems. The evaluation team presents the following recommendations for maximising the ongoing value and impact of TILDA:

- TILDA has developed strong collaborations with similar longitudinal studies elsewhere, e.g. the United Kingdom (UK). It is recommended that these collaborations should continue and be formally strengthened through the further development of an official network.
- TILDA should consider enhancing procedures (taking into consideration data protection legislation) to further facilitate researchers and other key stakeholders to access data generated as an outcome from the longitudinal study.
- Formal structures between key Government Departments should be further established and strengthened in order to enhance the impact of outputs from TILDA on public policy and decision-making.
- Guidelines should be developed outlining the policy regarding authorship of academic papers or reports as a consequence of other stakeholders using data generated through the work of TILDA.
- TILDA should consider developing greater access to data through other processes, such as secure online portals. This would facilitate researchers and policy-makers not based in the Dublin region to access data.
- There is a need for TILDA to work closely with Government Departments in order for both parties to be aware of the timelines required to translate TILDA outputs into policy. This should consider alignment with Government Departments' budget cycles.
- There is a need to formulate systems that will facilitate timely and comprehensive access to relevant datasets generated by TILDA for data analysts working within Government Departments.
- There is a need to enhance public and older people's involvement in discussing the outputs of TILDA. This could include the development of a more user-friendly website, further and enhanced outreach with older persons' representative organisations, the provision of information sessions for non-governmental organisations (NGOs), and furthering the development of collaborative relationships with a wide variety of bodies representing older persons.

1 Introduction

1.1 Introduction

Established in 2006, The Irish Longitudinal Study on Ageing (TILDA) (Kenny *et al.*, 2010) is an internationally unique study that investigates the health and well-being of older people in the Republic of Ireland during two-yearly cycles. It aims to influence policy and change practice both within Ireland and globally (Wormald *et al.*, 2019). This is achieved through the systematic collection, analysis, and dissemination of information “on all aspects of health, economic and social circumstances from people aged 50 and over” (<https://tilda.tcd.ie/>, last accessed May 29, 2022) who are resident within the Republic of Ireland.

This longitudinal study on ageing provides a comprehensive database from which to explore patterns in health and societal behaviour in order to influence policy and policy decisions. Its instigation arose in part due to the changing demographics in Ireland, which, like many countries internationally, has a growing trend towards an increasingly ageing population. This is also seen in demographic trends in Ireland; while Ireland has one of the youngest populations in the European Union the number of older adults is increasing disproportionately. Although the majority of older people age well, this exponential growth is predicted to become a considerable challenge for health and social care resourcing.

The Central Statistics Office (2020) projects that the proportion of the population made up of those over 65 is to increase from 13.3 percent according to the 2016 Census (usual residence) to 18.5 percent in 2031. This translates to an increase of 58.8 percent in the numbers of older persons from approximately 629,900 in 2016 to approximately 1,000,000 persons in 2031. The most notable increase among the age bands is in the oldest band of 85 years and over. The numbers here are due to almost double approximately 67,300 in 2016 to 134,000 in 2031. An increasingly ageing population represents a multifaceted challenge, with social, economic, and cultural transformations, both for the ageing individuals and their families, and for society at large (Lopreite and Mauro, 2017; Restrepo and Rozental, 1994; World Health Organization, 2022). Within this broader context, TILDA has the potential to contribute not only to the improvement of older people’s quality of life through competent and effective healthcare provision that is tailored to account for their traditional and emerging needs, but also to the sociocultural and practice-oriented understanding of ageing regarding the challenges and opportunities that longer life spans signify for individuals, care providers, and a variety of other stakeholders (such as families, health professionals, policy-makers, and civil society organisations) (e.g. Brown, 2015; Crimmins, 2015, 2021; Scott, 2021).

The work of TILDA comprises a nationally representative sample of at least 8,000 adults aged 50 years and older (TILDA 2022a) and is led by a research team based at Trinity College Dublin (TCD) in collaboration with researchers from various disciplinary fields and across a number of other institutions. TILDA relates to other international programmes of similar scope, such as the English Longitudinal Study of Ageing (ELSA), the Northern Ireland Cohort for the Longitudinal Study of Ageing (NICOLA), and the Healthy AGEing In Scotland (HAGIS) study, adding potential for cross-national and international comparative research.

TILDA is unique among longitudinal studies in the breadth of physical, mental health, and cognitive measures collected. These data, together with the extensive social and economic measures, make TILDA one of the most comprehensive research studies of its kind both in Europe and globally (TILDA 2022b). Among other research methods, TILDA relies on computer-aided personal interviewing (CAPI) and a Self-Completion Questionnaire (SCQ) (TILDA 2022c). The project is currently in its sixth wave of data collection, for which, due to the COVID-19 pandemic, the methodology was amended to computer-assisted telephone interviewing (CATI) due to the logistical difficulties of implementing CAPI.

To date, TILDA has produced a vast amount of published material in the form of reports, academic papers, research briefs, newsletters, and infographics, with specific attention to the impact of the still ongoing COVID-19

pandemic on the health and quality of life of older people in Ireland (TILDA 2022d). The breadth, social significance, and potentially transformative impact of TILDA calls for a critical and independent evaluation of its undertakings. This report, therefore, responds to the HRB's Evaluation Strategy with the following specific objectives:

- To collate and examine TILDA outputs, outcomes, and impacts
- To assess the effectiveness of TILDA in delivering on the objectives specified in the grant agreement with the HRB
- To assess the efficiency of TILDA in relation to the cost of inputs
- To assess the performance and impact of TILDA in the context of comparable cohort studies internationally
- To use this information to examine the process and content of TILDA, in order to determine its overall impact, and
- To develop learnings and recommendations for the improvement of the TILDA programme of research and/or the current funding model.

In order to competently respond to these objectives, this report utilises a mixed-methods approach comprising both quantitative and qualitative tools adapted to and applied within a pragmatic conceptual evaluation framework that uniquely merges the Context, Input, Process, Product (CIPP) evaluation model (Stufflebeam and Zhang, 2017) and the Reach, Effectiveness, Adoption, Implementation, and Maintenance (RE-AIM) framework (Green and Glasgow, 2006). These models were essentially the two building blocks of our evaluation strategy. The CIPP evaluation model considers project context (C), inputs (I), processes (P), and product (P) and their interrelationships in order to guide evaluations of programmes, projects, personnel, products, institutions, and systems (Stufflebeam, 2015) across a variety of domains and institutional settings. The RE-AIM framework is widely used in the evaluation of health interventions at the individual and population levels (Glasgow *et al.*, 2019) and has previously been used by members of this team to evaluate the reach (R), effectiveness (E), adoption (A), implementation (I), and maintenance (M) of the programmes for supporting palliative and hospice care in Ireland (McCarron *et al.*, 2011).

Together, the CIPP evaluation model and RE-AIM framework offer a unique combination of epistemological, theoretical, and methodological principles capable of pragmatically identifying, assessing, and evaluating, and thus suggesting desirable changes and integrations regarding the evaluation of TILDA. In so doing, this report aims to offer the first systematic and comprehensive evaluation model of TILDA and to propose a framework that is also exportable to the evaluation of other large-scale longitudinal projects in the fields of healthcare public policy and education. Importantly, as outlined by Glasgow and Emmons (2007), in order to “enhance integration of research and practice, we need to change how we perform research program development, evaluation, and reporting” (p. 427). Glasgow and Emmons further add, “if health researchers can develop and evaluate programs with greater attention to context and external validity and in partnership with relevant decision makers and target audiences, it will be much easier for both local practitioners and policy-makers to judge program relevance” (2007, p. 427). It is our intention, with the present report, to act on these directions.

1.2 Structure of the evaluation

This report is structured as follows. First, it provides a description of the evaluative framework, methodology, and approach that guided the evaluation (Chapter 2). This includes an overview of the sampling and analytical strategies used for different work packages. Second, it evaluates the outputs from TILDA in comparison with other comparable longitudinal studies on ageing as well as with outputs that informed policy, and it completes a narrative analysis of the impact of TILDA on traditional media (e.g. newspapers) and social media (Chapter 3). Chapter 4 presents an evaluation of TILDA in relation to education, policy, and practice from a number of key

stakeholders, including academics, researchers, and policy-makers. Chapter 4 also presents a case study on how the work of TILDA informs one particular organisation, as well as an evaluation of the reach and effectiveness of TILDA from stakeholders representing older persons' organisations. The final chapter presents the conclusions under the CIPP evaluation model and RE-AIM framework as recommendations that arose from the evaluation.

2 Methodology and approach

In this chapter, we provide an overview of the methods used within the evaluation constructed around the CIPP evaluation model and the RE-AIM framework.

2.1 Service delivery methodology: coupling the CIPP evaluation model and RE-AIM framework

The first building block of our evaluation strategy was Stufflebeam's CIPP evaluation model. This model was originally devised in the 1960s by Daniel Stufflebeam, and it has been used extensively in international settings as an evaluation framework (Zhang *et al.*, 2011). It can be described as a "comprehensive framework for guiding formative and summative evaluations of projects, programmes, personnel, products, institutions, and systems" (Stufflebeam, 2003, p. 2). More specifically, the CIPP evaluation model:

Is configured for use in internal evaluations conducted by an organization's evaluators, self-evaluations conducted by project teams or individual service providers and contracted or mandated external evaluations. The model has been employed throughout the U.S. and around the world in short-term and long-term investigations – both small and large. Applications have spanned various disciplines and service areas. (Stufflebeam, 2003, p. 2)

The CIPP evaluation model, due to its four reciprocally interactive constituents, permits evaluation of the impact of TILDA using a four-stage approach, as follows:

- *Context* evaluation considers the particular organisational, social, and cultural context within which the evaluated initiative (in this case, TILDA) takes place. Context evaluation is concerned with the type of approach implemented by TILDA, and whether or not this is responsive to participants' and stakeholders' needs in a particular context and in light of the demands of a changing society.
- *Input* evaluation allowed us to verify the strategies and the working plans chosen in the design phase for the implementation of TILDA. Input evaluation is concerned with an examination of the resources being used to deliver the project. During this phase, material resources produced by the project were examined in order to evaluate the effectiveness of the project design. Desk research was used to identify key resources, such as reports, academic papers, research briefs, newsletters, and infographics (all these resources are available at <https://tilda.tcd.ie/publications/>).
- *Process* evaluation deals directly with the operation and implementation of the project; that is, the monitoring of the activities of the evaluated initiative. More specifically, process evaluation both describes TILDA's services, activities, policies, and procedures, and measures their implementation using both qualitative and quantitative indicators.
- *Product* evaluation is concerned with the final outcomes of the project and assesses the extent to which the objectives of TILDA have been achieved. In doing so, it helps to make decisions about the impact of TILDA and, if necessary, its further improvement.

The second building block of our evaluation strategy was the RE-AIM framework. RE-AIM can be aptly defined as an "evolving framework designed to inform program decision making" (Glasgow, Toobert and Belza, 2006, p. 2). It was originally developed as a framework for consistent reporting of research results and later used to organise reviews of the existing literature on health promotion and disease management in different settings (Glasgow *et al.*, 2004). More specifically, RE-AIM has been applied across a vast array of disciplines and institutional settings, but it has primarily been applied "in public health and health behavior change research" (Glasgow *et al.*, 2019, p. 1).

The RE-AIM framework assesses the success of a programme along six domains:

- *Reach* refers to the evaluation of the penetration of the programme to its intended audience. More specifically, this dimension allows us to examine whether certain groups are more or less likely to participate in the programme and thus to assess “whether the program reaches those most in need” (Glasgow *et al.*, 2006 p. 3).
- *Efficacy*, or effectiveness, examines programme outcomes and their impact on targeted groups. This translates in the assessment of improvements on intervention targets and impact on quality of life, including any adverse consequence that may occur as a result of a programme.
- *Adoption* is the readiness and willingness of project settings to include (adopt) the programme components in their operations; that is, the extent that TILDA’s target organisations and institutional settings could integrate the suggested interventions in their organisational structures and working routines.
- *Implementation* evaluates the extent to which the different components of TILDA’s initiatives were delivered according to their design. Moreover, implementation is also concerned with the coherence of TILDA’s initiatives as they are applied across time and in multiple settings, thus assessing whether different contextual factors may shape the same intervention differently.
- *Maintenance* is the final component of the RE-AIM framework and is primarily concerned with the sustainability over time of the programme and of its effects. More specifically, at an individual level, it attempts to evaluate whether TILDA’s interventions have a long-term impact on targeted outcomes and quality of life indicators that TILDA’s initiatives seek to improve.

In summary, the coupled usage of the CIPP evaluation model and the RE-AIM framework allowed us to evaluate TILDA in relation to project context (C), inputs (I), processes (P), and product (P), as well as its reach (R), effectiveness (E), adoption (A), implementation (I), and maintenance (M), via a mixed-methods approach based on:

- Desk research methods, including a comprehensive literature review of TILDA’s academic outputs (using, for example, MEDLINE, Embase, and CINAHL), including a citation analysis of retrieved literature using Scopus and SciVal databases. Other grey literature was also explored, including a discourse and content analysis of a variety of sources such as research reports, policy documents, online platforms, and a variety of other sources, such as newspapers, social media sites, and the websites of a purposefully selected sample of organisations involved in the programme.
- Semi-structured qualitative interviews with a purposefully selected sample of research participants and key stakeholders.
- In-depth organisational case studies documenting changes in mature and new palliative and hospice care involving organisations via desk research, qualitative interviews, and ethnographic methodologies.
- Focus groups with a purposefully selected sample of participants and other key stakeholders to review achievements and to assess the development of collaborations and the potential for sustainability.

2.2 Sampling and analytical strategy

The sample design was predominantly purposeful sampling (Palinkas *et al.*, 2015); that is, a non-probabilistic sample approach guided by the intentional selection of key participants based on their ability to provide in-depth information on a specific theme, concept, or phenomenon (Robinson, 2014). More specifically, our sampling process was simultaneously guided by a selection based on convenience, maximum variation, and critical cases (Palinkas *et al.*, 2015). Convenience refers to the collection of narratives from key participants that

are accessible to the researcher whether due to some previous contact or to referral from other gatekeepers. In our case, the HRB provided us with a list of several key contacts at the outset of our evaluation.

Maximum variation relates to the selection of participants who occupy different positions regarding both TILDA's usage and understanding, such as international researchers, national policy-makers, stakeholder organisations, and organisations representing older people. The sampling strategy was guided by the selection of key participants whose specific positioning and experience are likely to be informative of a variety of other voices due to their representativeness. To this end, we included international researchers, national policy-makers, stakeholder organisations, and organisations representing older people as participants, as their perspectives regarding TILDA's impact are particularly informed and shed light on the overall representation that TILDA has both in the international scientific community and in the national political sphere, as well as in the community of practice of services for older people. As part of the sampling process, we specifically identified international researchers, national policy-makers, and stakeholder organisations. This choice was based on the sampling criteria discussed above (convenience, maximum variation, and critical cases) as well as on a pragmatic approach to research design aimed at achieving the most effective use of resources (Patton, 2002).

Between September and November 2022, we interviewed nine key international research and national policy stakeholders using an online platform. In order to protect the anonymity of our international participants, we will not disclose their countries of origin. In relation to national policy-makers, in order to protect their anonymity, their individual places of work are not identified, but they were employed in a variety of Government Departments and areas of clinical practice. We identified the Irish Hospice Foundation as our case study as it is a centre of excellence in the management, advocacy, and education surrounding the themes of dying, death and bereavement and due to its close collaboration with the TILDA project; finally, we also conducted 5 online focus groups with 16 representatives of different older persons' stakeholder organisations.

Our analytical strategy was based on a thematic analysis, one of the most prominent data analysis strategies in qualitative research across social and health sciences (Braun *et al.*, 2018). Thematic analysis focuses on the exploration of emergent themes, with particular attention paid to the processes of both implicit and explicit meaning-making construction in participants' narratives. In qualitative project evaluation, themes do not merely emerge from the empirical material; they are elicited by the interviewer through questions that address the specific concerns of the evaluation in question.

2.3 Conclusion

In order to comprehensively evaluate the work of TILDA, a mixed-methods approach comprising both quantitative and qualitative tools adapted under the CIPP evaluation model and the RE-AIM framework were used. The multiple methods used to collect data included desk research (including bibliometric analysis), individual and focus group qualitative interviews, an in-depth organisational case study, and narrative analysis of TILDA's outputs in various media. The sample consisted of key stakeholders, which included organisations representing older people, organisations using the work of TILDA, and researchers, as well as those working in the policy field.

3 Evaluation of TILDA's outputs and narrative analysis of the work of TILDA

3.1 Introduction

To evaluate the TILDA project comprehensively and systematically, and to translate the quality and impact of the insights gained into emerging patterns and predictive trajectories of the wider determinants of ageing on health, a literature review of TILDA's academic outputs was undertaken. This literature review reports on the findings of the academic outputs associated with the core published papers available on the TILDA project website and illustrates the value of the TILDA project literature through its quality and impact measurement.¹ In addition, a comparative analysis of TILDA's academic outputs in comparison with other comparable longitudinal studies on ageing (NICOLA and ELSA) is also presented. This is illustrated in Section 3.4 of this report. Section 3.5 of this review also includes the analysis of research reports published between 2016 and 2021 (available at <https://tilda.tcd.ie/publications/>) that provide insights into the capacity of TILDA to inform the development of policy documents both nationally and internationally.

Section 3.6 also discusses how TILDA has been represented in traditional print media and in social media. To achieve this goal, a narrative analysis of the content of reports and commentaries associated with TILDA was undertaken. Specifically, our study focused on public media content that reported on the findings from TILDA's studies and the topics of those findings, namely the health, life course, and circumstances of people aged 50 years and older, through an analysis of published items in a sample of two national newspapers and online posts on the Facebook social media platform.²

3.2 Research question

The research question for this review was: What are the quality and impact measures associated with the academic output of the retrieved TILDA project publications?

3.3 Materials and methods

Bibliometric research was used to analyse and compare the publication outputs from TILDA, including citation counts and more recent approaches, such as altmetrics. The use of bibliometrics in this evaluation focuses on the quantitative analysis of both scientific and scholarly publications from TILDA and allows for the measurement of academic impact through citation numbers and journal impact factors (Mori and Nakayama, 2013; Williams and Bornmann 2016). We also used more recent approaches, including altmetrics, which track mentions, likes, and shares on various platforms through the usage of a Digital Object identifier (DOI) or links (URLs) attached to online papers and provide real-time research activity information (Wilsdon *et al.*, 2017; Ravenscroft *et al.*, 2017). The SciVal and Scopus databases allowed for the evaluation of TILDA's academic outputs based on reliable evidence. These databases, in addition to Google Scholar, also allowed for a cross-national comparison with other longitudinal studies on ageing of a similar scope, such as ELSA and NICOLA. In order to conduct a robust bibliometric analysis for the assessment of the quality and impact of the retrieved TILDA academic publications, a logical framework proposed by Donthu *et al.* (2021) was applied (a full outline of the steps and guidelines is provided in Table 1 of the full literature review provided in Supplement Section 1). The steps of the bibliometric analysis are outlined below.

¹ For a more extensive analysis of TILDA's published material, please see Supplement Section 1. All tables referenced in Section 3.4 of this document are to be found in Supplement Section 1.

² For a more extensive analysis of TILDA's online and print media representations, please see Supplement Section 2.

Step 1: Define review aim and scope

The identification of the quality and impact of the TILDA academic output was based on the most used performance parameters (Craig *et al.*, 2021), listed in Table 4 of the literature review in Supplement Section 1, following discussion and consultation with a Scholarly Communications Librarian. The focus of the literature review was to evaluate the quality and impact of the academic output generated by the TILDA project by examining the retrieved TILDA academic publications from the TILDA website.

Step 2: Selecting the bibliometric analysis technique

Bibliometric analysis was conducted through a performance analysis, which allowed for a comprehensive evaluation of the quality and impact of the retrieved TILDA publications, as it refers to publication-related metrics, citation-related metrics, citation- and publication-related metrics, and citation analysis, coupled with an analysis based on the more generalised quality and impact metrics information of the included TILDA publications.

Step 3: Data collection

The data collection phase focused on the retrieval of all academic publications available on the TILDA project website. All publications were exported to Microsoft Excel in spreadsheet format (see Supplement Section 1 for further detail). Comparative analysis was undertaken with academic papers from the ELSA and NICOLA longitudinal studies. As with TILDA, academic papers were identified from the respective studies' websites and, as such, results need to be treated with caution as the number of publications may be incomplete.

Step 4: Analysis and discussion of findings

To triangulate the evidence generated through the SciVal/Scopus interface, all six groups of research metrics available in SciVal were included in the review, as including bibliometric intelligence gained from multiple metrics increases the degree of confidence and validity of the findings (Elsevier Research Intelligence, 2019) (see Table 6 of the literature review in Supplement Section 1).

3.4 Literature review of TILDA's academic outputs and comparison with other longitudinal studies on ageing

3.4.1 TILDA's academic outputs

TILDA's academic outputs were evaluated using SciVal/Scopus and Google Scholar. The TILDA project produced approximately 454 academic research publications between 2012 and 2022. Additionally, 67.2% of the included TILDA publications were identified as open access and are available to readers free of cost.

Approximately 360 of the TILDA outputs were indexed in Scopus and were included in the bibliometric analysis through the SciVal/Scopus interface, which provided a 79.2% coverage of the retrieved TILDA academic publications. The publication rate for TILDA is approximately 25–30 articles per year.

The TILDA publication Field-Weighted Citation Impact (FWCI) of 1.53 is outlined in Table 1, indicating the ratio of citations received by TILDA publications relative to the expected world average for a particular subject field, the publication type, and the publication year. As the world average is 1, the TILDA academic output is performing above average; that is, TILDA outputs are cited 53% more frequently than expected (Elsevier Research Intelligence, 2019).

The citation count generated by TILDA publications within the time frame indexed in Scopus is 7,631 and represents the total citation impact of TILDA's academic publication output; in comparison, according to Google Scholar, TILDA outputs have a higher citation count at 11,341, with an h-index of 57. Article-level metrics (such as citation counts) indicate the usefulness of the publication and indicate that the research work was used and published. Table 1 illustrates TILDA's citation metrics; the high number of overall citations was influenced by

some noticeably highly cited publications (Elsevier Research Intelligence, 2022), indicating that TILDA’s overall academic output performance remains high.

The average number of citations per TILDA publication was 21.2 between 2012 and 2021, ranking the TILDA academic publication average citation number as part of the top 25% of the most cited academic outputs worldwide (Table 1).

The number of TILDA publications indexed by Scopus that are published in the top 10% of journals by CiteScore Percentile are also illustrated in Table 1. CiteScore is a Scopus metric which captures the number of citations received by a journal within a single year for documents which were published in the previous 3 years, divided by the number of documents indexed in Scopus published within those same 3 years. Thus, CiteScore measures the average number of citations received per peer-reviewed document published by the TILDA project. The CiteScore Percentile indicates the relative standing of TILDA within its subject field (healthy ageing), and was calculated at 49.2%. This indicates that TILDA’s academic publications are ranked higher than 49.2% of titles in the category of healthy ageing.

Table 1 TILDA citation bibliometrics

Citation measure	Impact
FWCI	1.53
Number of citations received by TILDA publications in Scopus	7,631
Average number of citations per publication	21.2
Number of publications in the top 10% of journals by CiteScore Percentile	176 (49.2%)

A number of publications from TILDA were identified as being highly cited. Two publications on frailty, depicting cognitive impairment and the implementation of the Timed Up and Go Test as a frailty identification measure, were among the five most cited TILDA publications from 2012 to 2021. Additionally, papers on the design and methodological considerations of the TILDA project, the normative changes in phasic orthostatic blood pressure, and the protection of physical activity from incident anxiety were also highly cited. The five most cited TILDA publications are listed in Table 2. Each of the publications recorded a very high FWCI, ranging from 3.53 to 8.74.

Table 2 Five most cited TILDA publications

Publication	Number of citations	FWCI
Robertson, D.A., Savva, G.M. and Kenny, R.A. (2013) 'Frailty and cognitive impairment—A review of the evidence and casual mechanisms', <i>Ageing Research Reviews</i> , 12(4):840–851.	398	3.87
Whelan, B.J. and Savva, G.M. (2013) 'Design and Methodology of The Irish Longitudinal Study on Ageing', <i>Journal of the American Geriatrics Society</i> , 61(s2):S265–S268.	196	4.25
Savva, G.M., Donoghue, O.A., Horgan, F., O'Regan, C., Cronin, H. and Kenny, R.A. (2013) 'Using Timed Up-and-Go to Identify Frail Members of the Older Population', <i>Journals of Gerontology: Series A</i> , 68(4):441–446.	168	3.53
Finucane, C., O'Connell, M.D.L., Fan, C.W., Savva, G.M., Soraghan, C.J., Nolan, H., Cronin, H. and Kenny, R.A. (2014) 'Age-Related Normative Changes in Phasic Orthostatic Blood Pressure in a Large Population Study: Findings From The Irish Longitudinal Study on Ageing (TILDA)', <i>Circulation</i> , 130(20):1780–1789.	138	4.33
Schuch, F.B., Stubbs, B., Meyer, J., Heissel, A., Zech, P., Vancampfort, D., Rosenbaum, S., Deenik, J., Firth, J., Ward, P.B. and Carvalho, A.F. (2019) 'Physical activity protects from incident anxiety: A meta- analysis of prospective cohort studies', <i>Depression and Anxiety</i> , 36(9):864–858.	126	8.74

The 61 TILDA publications that fall within the top 10% of the most cited publications worldwide between 2012 and 2021 are outlined in Supplement Section 1. This highlights the performance of TILDA's publications which rank among the most cited and highly visible publications worldwide.

An analysis of TILDA publications by subject area illustrates the disciplinary diversity of the project's publications. The subject area count indicates that most publications are published in the subject area of medicine (77.8%), followed by biochemistry (22.5%); social sciences and psychology (both at 13.3%); nursing (11.9%); and other subject areas, including multidisciplinary (4.4%) and economics and economic change (4.2%); the remainder were unclassified.

Collaboration indicates the extent to which TILDA's publications have international, national, or institutional co-authorship or single authorship. Table 3 outlines the percentage of collaboration per category. The data indicate a mix of international, national, and institutional collaboration. It was identified that TILDA has a very high level of internationally collaborative publications at 41.7%. Only 1.9% of all TILDA publications within the SciVal/Scopus interface indicated no collaboration with outside entities with international, national, or institutional co-authorship. Additionally, the extensive amount of collaboration which underpins TILDA's academic output is a factor that contributes to the high citation count for TILDA's academic publications. The FWCI assigned to international (1.58), national (1.65), and institutional (1.38) collaborations are all above the benchmark of 1.00; this indicates that TILDA's degree of collaboration is proportionally higher than would be anticipated based on the worldwide average for similar publications (Elsevier Research Intelligence, 2019) (Table 3).

Table 3 TILDA’s international, national, and institutional publication collaborations

Metric	Percentage Share	Scholarly output	Number of citations	Number of citations per publication	FWCI
International collaboration	41.7%	150	3,339	22.3	1.58
National collaboration	28.6%	103	2,394	23.2	1.65
Institutional collaboration	27.8%	100	1,843	18.4	1.38
Single authorship (no collaboration)	1.9%	7	55	7.9	0.86

The Field-Weighted View Impact indicates how the number of views received by TILDA’s publications compares with the average number of views received by all other similar publications. As the Field-Weighted View Impact is above 1.00, this indicates that TILDA’s publications were viewed more than anticipated based on the worldwide average for similar publications within the Scopus database (Elsevier Research Intelligence, 2019). The Field-Weighted View Impact is outlined in Table 4. View counts indicate the total usage impact and represent the sum of views and clicks on links to view the full-text version of the publications on the Scopus website. The view count includes views from subscribers and other database users. The TILDA publication view count is illustrated in Table 4, indicating 9,778 views on Scopus over a 10-year period from 2012 to 2021. The average number of views per publication is 27.2 according to Scopus, and indicates the average usage impact of the TILDA publications. The views per publication metric is influenced by highly viewed TILDA academic publications and provides an indication of interest in the academic output. Overall, 43 academic publication outputs from TILDA ranked within the top 10% of the most viewed publications worldwide. The outputs in top views indicate the extent to which TILDA’s publications are viewed worldwide. Table 4 indicates the percentage of TILDA publications that are in the top 10% most viewed.

Table 4 TILDA publication set views 2012 to 2021

Field-Weighted View Impact	1.15
Number of Scopus views received by TILDA publications	9,778
Average number of Scopus views per TILDA publication	27.2
Number of TILDA publications in the top 10% most viewed publications worldwide	46 (11.9%)

The extracted data generated from the TILDA publications that were indexed in Scopus (n=360) indicate the dynamic co-authorship collaborations between a number of TILDA research themes – specifically within themes such as biomarkers, frailty and resilience, nutrition, biomedical engineering, neurocardiovascular instability, and neurocognitive issues – and show that the principal investigator co-authored 65 (19%) of the included studies. All of the 360 included studies that were indexed in Scopus were also published in peer-reviewed journals, thus

positively triangulating with the findings of the performance analysis results. All TILDA research themes³ (TILDA 2022) were represented within the extracted data and a variety of subcategories were also identified, including: psychiatry (n=69); urology (n=40); cardiology (n=38); general geriatrics (n=33); public health (n=28); psychology (n=17); epidemiology (n=17); mental health (n=17); public medicine (n=12); endocrinology (n=9); sociology (n=7); community medicine (n=6); addiction psychiatry, migration, and pharmacology (n=4 in each subcategory); internal medicine, neuroscience, nephrology, physical rehabilitation, social sciences, and vascular diseases (n=3 in each subcategory); circulation, depression, disability, neuropsychology, nutritional sciences, oncology, pain management, COVID-19, and social policy (n=2 in each subcategory); and artificial intelligence, chronic diseases, complementary therapies, demography, dentistry, econometrics and statistics, environmental health, gynaecology, human movement, neurobiology, occupational medicine, ophthalmology, orthopaedics, and psychosomatic research (n=1 in each subcategory). This diversity in TILDA’s disciplinary outputs is highlighted in the word cloud in Figure 1.



Figure 1 Word cloud of TILDA’s disciplinary outputs

Comparison of TILDA’s outputs with other longitudinal studies on ageing

This section presents a comparative analysis of TILDA’s outputs compared with two similar longitudinal cohort studies: ELSA and NICOLA. While these studies share similar objectives to TILDA, their commencement dates, specific focus, methods of recruitment, and data collection methods vary according to their specific contexts; therefore, the bibliometric comparisons outlined in this section should be treated with caution. Bibliometric comparisons were undertaken through Scopus/SciVal and Google Scholar. Due to the fact that ELSA began before TILDA (2002) and NICOLA began after TILDA (2017), there is a difference in the number of publication outputs and citation rates for these two studies when compared with TILDA. It is of note that, when compared with other cohort studies, taking into consideration its later starting date than ELSA, TILDA has achieved a high h-index, a high of citation rate, and a comparatively high FWCI. Overall, in terms of bibliometrics, both ELSA and

³ TILDA research themes: Biomarkers, Biomedical Engineering, Economics, Frailty and Resilience, Gait and Balance, Neuro-cardiovascular Instability, Neuro Cognitive, Nutrition, Vision.

TILDA have contributed significantly to research on ageing, and it is evident that they have both generated a considerable number of impactful publications in a wide range of academic journals (Table 5).

Table 5 High-level bibliometric comparisons between TILDA, ELSA, and NICOLA*

		2012–2023	2002–2023	2017–2023
		TILDA	ELSA	NICOLA
GOOGLE SCHOLAR	<i>Publications</i>	c. 500	c. 1,500	c. 100
	<i>H-index</i>	57	75	21
	<i>Citations</i>	11,341	31,072	1,401
PUBLICATIONS AND OUTPUTS	Outputs indexed in Scopus ⁴	360	1,274	77
	Annual publication rate	25–30 articles	50–60 articles	10–15 articles
CITATIONS	Total number of citations received by publications	7,631	8,428**	329
	Average number of citations per publication	21.2	63.8	13.2
	FWCI***	1.53	1.78	-

*Note: ELSA commenced in 2002, NICOLA in 2017, and TILDA in 2012.

**Only from 2012 onwards.

*** FWCI is the ratio of citations received by publications relative to the expected world average for the subject field, the publication type, and the publication year. The world average is 1.

Altmetrics is a measure of the impact and reach of research outputs such as journal articles, conference papers, and datasets in online spaces. This section presents a comparison of the altmetrics of TILDA, ELSA, and NICOLA.

TILDA has a relatively high Altmetric Attention Score of 331, indicating that its research outputs have received a significant amount of attention in online spaces. TILDA’s research papers have been mentioned in news outlets and on social media platforms, and its datasets have been used in other research studies. ELSA has an Altmetric Attention Score of 213, which is lower than TILDA’s score but still relatively high. ELSA’s research outputs have been mentioned in news outlets and on social media platforms, and its datasets have been used in other research studies. NICOLA has an Altmetric Attention Score of 14, which is significantly lower than TILDA’s and ELSA’s.

Overall, TILDA and ELSA have high Altmetric Attention Scores, which indicates that their research outputs have received high levels of attention in online spaces. However, it is important to note that altmetrics are just one measure of research impact, and other factors – such as citation counts and qualitative evaluations – should also be considered.

3.5 Literature review of TILDA's outputs related to policy

The evaluation of TILDA's outputs related to health and social policy was conducted through a purposeful sampling of TILDA research reports published between 2016 and 2021 (available at <https://tilda.tcd.ie/publications/>). The aim of this section is to evaluate those documents published by TILDA that impacted on, or had the potential to impact on, both national and international public health policy. While not describing actual policies implemented based on TILDA outputs (as this would require a separate study), the reports analysed show the policy relevance of TILDA data and publications by providing an overview of the way they have been operationalised and integrated into policy documents. Four major policy fields were identified as being informed by TILDA outputs in the 6-year period considered. These policy fields are as follows:

1. The impact of COVID-19 on older people and policy concerns (n=12). Reports falling within this policy field addressed issues related to frailty and infection risk; mental health; physical function; quality of life; vaccination; nursing homes; loneliness and social isolation; Internet access and technology; and disability.
2. Health and well-being (n=6). Reports falling within this policy field addressed issues related to disability, physical function, health service use, social participation, quality of life, cancer, depression, and dementia.
3. Healthcare services (n=8). Reports falling within this policy field addressed issues related to healthcare utilisation, oral health, cancer screening, public health entitlement, caregiving, life transitions, loneliness, and active ageing.
4. Social issues (n=3). Reports falling within this policy field addressed issues related to housing; substance and tobacco use; social engagement; public health access; migration; caregiving; retirement and pensions; disability; and transport.

TILDA outputs included policy-relevant information on the older population of Ireland as a result of the COVID-19 pandemic (Kenny *et al.*, 2020a), providing a context and information for the Irish population aged 50 years and older for tackling COVID-19 (Kenny *et al.*, 2020b), including the roll-out of COVID-19 vaccinations (De Looze *et al.*, 2021). These outputs covered issues related to risk factors for COVID-19 infection among the older Irish population – for example, frailty; multimorbidity and medication usage; the utilisation of healthcare and home care and the types of health coverage; the contributions of older people to Ireland's society and economy; access to and use of the Internet among the older population; and data on older people in nursing homes. Findings also provided relevant information related to the roll-out of the COVID-19 vaccination. Additionally, TILDA outputs offered relevant indications on the impact of the COVID-19 pandemic and the pandemic containment measures on the older Irish population (Costello *et al.*, 2021; Monaghan *et al.*, 2021). TILDA was particularly well placed to report on older people's experience of COVID-19, including the challenging aspects of social isolation during the periodic lockdowns and the specific impact these had on the quality of life of older people (Ward *et al.*, 2020; Ward *et al.*, 2021). The findings provided indications on access to, and utilisation of, Internet and information technology (IT) devices; the specific needs of older people with disabilities; and the correlations between social distancing, loneliness, and mental health issues. Finally, TILDA outcomes provided information and data on Irish nursing homes to inform COVID-19 responses targeted at nursing home residents (Romero-Ortuno *et al.*, 2020), and informed studies about deaths in nursing homes during the pandemic (Romero-Ortuño and Kennelly, 2020).

TILDA outputs predominantly provide an evidence base for addressing current and emerging issues associated with population ageing in Ireland across health, economic, and social systems (Turner *et al.*, 2018). Findings from TILDA highlight the link between well-being and health (McGarrigle *et al.*, 2017), stressing the benefit of social engagement, living conditions, healthcare coverage, and healthcare utilisation on quality of life and on mental and physical health and well-being. In this respect, TILDA outputs also highlight that the transition out of employment not only has effects on health-related behaviours, social interactions, and activities, but also has wider implications for well-being more generally (Ward, 2019). TILDA provides evidence of associations between

healthcare coverage and well-being, highlighting that dental status, for example, was related to both quality of life and mood, with large discrepancies between people living in Dublin and those living in rural areas. These findings pointed to the need for stepping up dental services coverage in rural areas, including informing and assisting older people in how to access State dental care services (Sheehan *et al.*, 2017).

Patterns of healthcare utilisation in general showed how adults aged 70 years and older use hospital, primary, and community care services across Ireland. The data suggested that community care service use in adults aged 50 years and older is low, underscoring the fact that the majority of adults in this age cohort are active and make significant contributions to the social and economic fabric of Irish society – for example, by providing essential informal care (Roe *et al.*, 2020). Studies showed that, in case of functional limitations, help received by the older population came from a mixture of family carers and formal care, either State-provided or privately sourced. In light of these considerations, in order to enable family caring to continue, TILDA highlights that State-provided home support must be available to facilitate and support carers to retain their work and leisure pursuits in addition to their care responsibilities (McGarrigle and Kenny, 2020). In addition, TILDA outputs showed an increase in general practitioner (GP) utilisation upon receipt of a full Medical Card/GP Visit Card (Nolan *et al.*, 2016). In the context of healthcare services coverage, the findings highlighted a higher uptake of cancer screening services among those with private health insurance, although that insurance does not confer any advantages in accessing these services, suggesting consideration of the integrated nature of healthcare systems when seeking to maximise the uptake of services (such as cancer screening) that potentially involve multiple parts of the healthcare system (Connolly and Whyte, 2019). Furthermore, TILDA outputs were included in recommendations from the Economic and Social Research Institute (ESRI) to help inform policy-makers about the service demand for home support services for the population aged 65 years and older in Ireland under various policy scenarios (Walsh and Lyons, 2021).

In terms of social issues, TILDA outputs highlight that the absence of strong social supports, which takes the form of loneliness and social isolation, negatively affected the well-being of older adults, underscoring the need for enhanced public efforts to alleviate these potentially damaging phenomena (Ward *et al.*, 2019). TILDA datasets also provided information on the determinants, patterns, and impacts of tobacco consumption in the Irish context in view of Ireland's commitment to becoming tobacco free by 2025 (Sheridan *et al.*, 2018). Housing conditions constituted another relevant issue impacting on the health, well-being, and quality of life of older adults in Ireland, providing useful information on how to step up home improvement, energy efficiency, and fuel allowance schemes. Specifically, adults who reported difficulty heating their homes had poorer self-rated health and were more likely to report clinically relevant depressive symptoms and chronic pain irrespective of educational attainment. Adults living alone, renters, those living in older housing, and those without central heating were most at risk of experiencing difficulties heating their homes (Orr *et al.*, 2016). TILDA has also provided a unique opportunity to observe changes in the lives of older adults as they embark on retirement, highlighting how individuals experience this transition according to their preparedness and the context of their retirement. In this respect, TILDA findings suggested that public policy must be mindful of this myriad of issues, particularly considering increasingly forceful calls for working lives to be extended as a response to ageing populations (Ward, 2019). Finally, TILDA outputs demonstrated that older adults aged 70 years and older continue to make valuable contributions to society, with many characterised by active citizenship and participation in the lives of their families and their communities. The vision for positive ageing set out in Ireland's National Positive Ageing Strategy – which includes a broad range of areas for targeted action, including economic, social, cultural, community, and family life, and solidarity between generations – provides a useful benchmark against which public policies and decisions should be continuously assessed, even in times of public health urgency (McGarrigle *et al.*, 2020).

3.5.1 Conclusion: TILDA's publication- and policy-focused outputs

This review of academic literature has shown that TILDA's academic output includes more than 360 papers published in peer-reviewed journals, 67% of which were published in open access sources. TILDA's academic publications were cited 53% more often than an average research publication, with an average of 21.2 citations per publication, ranking TILDA publications in the top 25% of the most cited academic outputs globally. In addition, 98% of TILDA publications resulted from international, national, or institutional collaborations. Finally, TILDA's academic outputs can be said to have covered a large breadth of themes and a variety of subcategories, contributing to the agility and responsiveness of the research.

TILDA's outputs included research reports containing information relevant to decision-making in both health policy and practice on the older population of Ireland. At the onset of the COVID-19 pandemic, this research provided context and demographic information on the Irish population aged 50 years and older for tackling COVID-19. Reports provided information on access to and the utilisation of the Internet and IT devices; the specific needs of older people with disabilities; and the correlations between social distancing, loneliness, and mental health issues. Moreover, TILDA research reports provided information on Irish nursing home data to inform COVID-19 responses targeted at nursing home residents, and informed studies on data about deaths in nursing homes during the pandemic. TILDA reports also suggested that the absence of strong social supports, which took the form of loneliness and social isolation, negatively affected the well-being of older adults, highlighting the need for enhanced public efforts to alleviate these potentially damaging phenomena. In conclusion, this review shows that TILDA outputs provide a strong evidence base for addressing current and emerging issues associated with population ageing in Ireland across health, economic, and social systems.

Overall, it is evident from the comparative bibliometric analysis that TILDA has made significant contributions to the field of ageing research, and its bibliometric profile indicates that it is producing highly productive and impactful studies. Although ELSA has more citations and a higher FWCI than TILDA, this is more a function of the length of time that the ELSA longitudinal study has been in place. It is evident that TILDA's outputs are having a high impact, as measured by their citation counts. It is also evident that TILDA is publishing in leading journals and has high levels of international collaboration in producing its publications. In summary this literature and bibliometric analysis found that:

- Since its inception, TILDA has established a sustained output of publications, averaging approximately 17 papers per year.
- TILDA's FWCI, at 1.53, is higher than would be expected of similar studies.
- The outputs from TILDA demonstrate a high level of citation in other publications (7,631); this works out to an average of 21.2 citations per publication.
- It is evident that TILDA is publishing in high-ranking journals, with approximately one-half of all TILDA publications appearing in the top 10% of highly ranked journals.
- The most cited outputs from TILDA have very high FWCI's.
- Approximately 17% of TILDA's publications are among the most cited publications worldwide.
- A high proportion of TILDA's publications demonstrate international (41.7%) and national (28.6%) collaboration.
- Overall, it is evident that the outputs from TILDA are impactful and of a high quality, with evidence of high levels of international and national collaboration.

3.6 The impact of TILDA on the narratives on ageing

3.6.1 Framing the discourse analysis as an output of the TILDA study

Discourse analysis is a valuable tool for evaluation, as it allows for a detailed examination of language and communication practices within a particular context. By analysing the patterns of communication from the outputs of TILDA, the evaluation team can gain insight into how the work of TILDA influences and impacts on the overall understanding of ageing. The discourse analysis presented here also assesses the effectiveness of communication strategies, including the clarity of messaging, and the way in which information is framed by TILDA. Through this analysis, we can measure the extent to which TILDA widens the understanding of ageing through its research as stated in the objectives for Government investment. This study identified public narratives in print and online media that constructed particular meanings and understandings of ageing and health as an outcome from the work of TILDA. The sources of public narratives identified consisted of: 1) newspaper reporting of, and associated commentary on, the TILDA study; and 2) posts on TILDA's official Facebook page. The analysis aimed to investigate how the underlying narratives that emerged from the abovementioned texts constructed and changed the understanding of ageing, older people, and health.

3.6.2 Methodology

By relying on a critical discourse analysis (CDA) methodology, this analysis identified recurring narratives concerning the work of TILDA and how ageing and health are discursively constructed through the reportage and commentary on that work. In effect, the evaluation explored how the work of TILDA impacted on debates and narratives on ageing.

3.6.3 Newspaper discourses

Our analysis of the selected newspaper items was conducted on the basis that the texts not only contained objective facts from the TILDA study, but also carried a narrative on ageing and health. Aside from the volume of scientific papers and other dissemination and outreach events and activities – represented, for instance, by the unexplored platforms of Twitter and YouTube, the reach of TILDA in traditional print media was relatively extensive in the years after the release of the findings from Wave 1. For example, in the two leading national newspapers combined, a total of 182 items were generated during the period from January 2009 to July 2022. Through their reporting of TILDA's study findings, the newspapers represented important carriers of health information (Ylänne *et al.*, 2009).

Despite the prevalence of negative media portrayals of ageing and older people, there is growing evidence of media presenting older people in positive ways, and our study demonstrated such evidence. While the newspapers that we analysed primarily contained reports of the findings from TILDA Waves 1–5, inclusive, and while reports faithfully reported the findings, the newspaper copy contained much material that was distilled through the 'pen' of the journalist or commentator. Hence, the extracts from, and emphasis placed on, the TILDA findings and the language used to communicate the findings constituted a particular narrative. Through our analysis, we were able to uncover recurring narratives that, in themselves, constituted ageing discourses and incorporated ageing identities. Unlike ageing narratives reported elsewhere in the literature that implicitly and explicitly carry ageist stereotyping (see, for example, Fealy *et al.*, 2012; Koskinen *et al.*, 2014; Zhang and Liu, 2021), newspapers reporting updates about the COVID-19 pandemic focused on maintaining health and avoiding the negative health consequences of isolation and infection.

The use of othering language that was evident in texts that otherwise affirmed older people and/or celebrated ageing and longevity was, perhaps, not unexpected. Naming words and phrases are commonplace in mass media, especially in broadcast media. For example, there were multiple references to 'the elderly' as a vulnerable population during the short-lived heatwave that affected Ireland and the United Kingdom (UK) in July 2022. The use of the noun 'the elderly' is so ubiquitous in mass media that its exclusion from the lexicon of

journalism is unlikely to happen in the absence of clear editorial guidelines. Naming and referencing older people as ‘the elderly’ connotes frailty (Allen and Ayalon, 2021) and confers on older people enduring characteristics that demand policy and service responses.

Over much of the period during which the TILDA results have been reported on in the media, there was evidence of a discourse entreating older people to stay healthy and offering strategies for maintaining health. Yläne *et al.* similarly reported discursive constructions of health identity in older age in magazine advertising, uncovering an underlying discourse of the “possibility, necessity and desirability to take positive action to maintain health and well-being in older age” (2009, p. 33). In reportage of TILDA results, the advice proffered on exercise, on maintaining social connectedness, and on the role of vitamin D in infection prevention constructed health and ageing as a process of managing risks and finding solutions to health problems (Yläne *et al.*, 2009).

With its focus on actions that older adults should take to stay healthy, the newspaper discourse associated with TILDA may represent a somewhat paternalistic attitude towards older adults (Koskinen *et al.*, 2014). Moreover, while the discourse on staying healthy in older age proffered advice on health-promoting lifestyle behaviours, the media’s tendency to single out older people for particular attention during the COVID-19 pandemic itself constituted a form of othering discourse. Nevertheless, public messaging through the media was important during the COVID-19 pandemic, and the ways in which older and younger adults perceived their level of susceptibility to the virus and its effects influenced their own health behaviours (Fraser *et al.*, 2020). Staying healthy in older age was one of a number of “normative points of reference” in public media discourses concerned with the COVID-19 pandemic (Ellerich-Groppe *et al.*, 2021, p. 159), and this was especially evident in the newspaper reportage concerning vitamin D, which represented important public health messaging that complemented other messaging, particularly in broadcast media.

3.6.4 Facebook page discourses

Similar to print media, online media such as TILDA’s Facebook page are producers of narratives that contribute to the social and discursive construction of a normative conception of ageing and health (Ellerich-Groppe *et al.*, 2021). In contrast to the discourses analysed in print media, which were largely generated through journalistic interpretation of TILDA’s research outputs, those identified on TILDA’s Facebook page emerged directly from TILDA’s own conception of ageing and health. The discourses identified and categorised the labels of promotion and dissemination, healthy ageing, health risk, and COVID-19.

More specifically, TILDA’s Facebook page is, overall, reproducing what we term a very specific kind of ‘promotional discourse’; that is, the effort to widely disseminate TILDA’s key research findings and rationale, both accounting for academic outputs, lay initiatives, and the voices of a plethora of stakeholders. This promotional discourse is also very much evident on TILDA’s YouTube page. The discourse is performed in several ways, whether in reference to TILDA’s conception of healthy ageing (based on the vision of ageing as a potentially active, happy, creative, and resourceful life phase), or on the promotional and dissemination efforts regarding a plurality of both academic and lay resources, such as TILDA reports, newspaper articles, radio interviews, specialised books, or scientific articles. The discourse is also performed in narratives associated with the most hazardous health risks for older people, such as obesity, dementia, nutrition, stress, and socioeconomic factors, which are framed as largely preventable so long as older people are willing to enact a series of recommended behavioural changes.

The socioeconomic factors associated with healthy ageing imply specific policies aimed at social inclusion and ameliorating stratification processes within Irish society. The overall health promotion discourse used by TILDA is also crucial in framing the discourse on COVID-19 and its sub-discourse concerning vitamin D intake, isolation, loneliness, depression and anxiety, and the opportunities offered by intergenerational support. Without such a promotional metadiscourse, all the discourses identified would be transient and not properly communicated to the desired audience. The emerging narrative associated with COVID-19 was consistent with what Mach *et al.*

(2021) observed in their analysis of news media reportage of COVID-19 and public health and policy information in Canada, the UK, and the United States of America, namely that it was largely non-sensationalist and was used to ensure the health and well-being of older people throughout the pandemic.

The analysis identified that TILDA's Facebook page relied on scientific knowledge as one of its defining narratives. TILDA's Facebook page also closely interrelated with the implicit assumption about older people's self-responsibility in adjusting and changing their behaviour – for instance, in reference to exercise and fitness habits or food and nutrition supplements – in order to achieve the desired result of 'healthy ageing' or 'ageing well'. However, healthy ageing is, in great part, contingent on factors outside of the individual's locus of control, being contingent on wider socioeconomic factors such as social connectedness, geography, and services and resources, and requires policy interventions in areas such as food safety, transport, environment, and climate. Our analysis suggests that this could be an area where TILDA's research efforts, and the policies that they inform, could be further strengthened in the future.

Finally, the language used to promote TILDA as an organisation focused on healthy ageing relies on health promotion, scientific evidence, and the idea of individuals taking responsibility for their own health. These ideas are interconnected and work together to reinforce each other. For example, TILDA's Facebook posts use scientific evidence as well as the idea of making responsible choices to appeal to older people. This combination of ideas makes TILDA's Facebook page effective in reaching its audience and promoting its goals. This is important to consider when evaluating the effectiveness of TILDA's dissemination activities on Facebook. It informs the "reach" and "product" elements of the evaluation frameworks (Context, Input, Process, Product (CIPP) and Reach, Effectiveness, Adoption, Implementation, and Maintenance (RE-AIM)) used.

3.6.5 Comparison of print and online media discourses

In our analysis, we aimed to identify possible differences between traditional and new media in the content of the emergent discourses, and to understand whether these differences, if they existed, might depend on "the characteristics of the form of media" (Uotila *et al.*, 2010) and on the specificity of the Irish culture and system. Accordingly, we paid particular attention to the use of language concerning older people, their life course from midlife to later years, their health, and their social and economic circumstances. As with previous studies in Ireland on the topic of media discourses on ageing (Martin *et al.*, 2009; Murphy, 2004; Fealy *et al.*, 2012), we were also sensitive to the particular words and phrases that journalists used to name and reference older people. Such words and phrases can show latent biases or serve to cast older people as *others*, outside of society (Fealy *et al.*, 2012). Moreover, we aimed to uncover changes over time in the ways that older people were talked about and to reveal changes in ageing discourses over the lifetime of TILDA in Ireland.

The main similarities that we identified across the media sources analysed concerned the positive construction of ageing and growing old, termed 'ageing well' and 'healthy ageing' in print and online media, respectively. For the purpose of this report, we have reported the print and online media discourses separately and have used different labels for their respective discourses, despite the obvious overlaps and concurrences. In terms of the print media, the 'ageing well' metadiscourse may be viewed as the journalists' own interpretations of TILDA evidence on healthy ageing, and is thus a public representation and a mediation of TILDA's own discursive construction of healthy ageing. Nevertheless, the discourses of both the newspaper copy and the Facebook posts largely corresponded in relation to their framing of ageing and health in such topics as lifestyle, exercise, nutrition, and the role of vitamin D in maintaining good health.

Where differences exist between the print and online media, they lie in the fact that in print media, the public representation and the social and discursive construction of health and ageing are filtered through the lenses of specific newspapers and their journalists' writing styles and personal understanding of the subject matter. These mediated texts mean that the journalists, by sharing TILDA's evidence with their readership, are themselves

constructing the discourses of ageing and health. This means that the newspapers' discursive repertoire substantially exceeds TILDA's own discursive repertoire and scientific agenda.

Although the emergent discourses are largely similar across both print and online media, substantial intrinsic differences exist in their use of language, their objectives, and, to a lesser extent, their respective target audiences. Hence, a Facebook post referencing an academic paper or other scholarly output will differ in both content and narrative style from a newspaper item on the same topic; in the former, the text is narrated by the academic researcher, while in the latter, the text is narrated by the journalist who prepares copy through a process of reframing. As places of public discourses, neither source is more or less superior to the other.

While displaying similarities and overlapping discursive constructions of ageing and health, the discourses that we analysed across the selected media sources contribute to the 'intertextuality' (Alfaro, 1996; Allen, 2021) that characterises the broader outreach and discursive representation of ageing promoted by TILDA. 'Intertextuality' refers to the degree to which a specific text, whether available in a newspaper or from an online source, contributes to and dialogues with other texts. In the texts analysed, intertextuality is demonstrated where, for example, a post on the TILDA Facebook page cites a newspaper article on TILDA or its researcher(s) or a scientific study finding from TILDA.

Intertextuality helps us understand how TILDA talks about ageing and health consistently across different media sources, even though they use different forms of communication and target different groups of people. It also shows that TILDA's efforts to promote and share its work are strong and effective. The study team are getting their message out widely through print and social media, which is important for evaluating TILDA's impact; this can be framed in terms of the 'product' element of the CIPP evaluation model and the 'reach' element of the RE-AIM framework. In this regard, the outputs of TILDA seem to be widely disseminated in selected print and social media, suggesting that, in terms of product and reach, TILDA is communicating effectively, either directly through its social media presence or indirectly through journalists.

3.7 Conclusion

Section 3.4 provided an analysis of the core published articles available on the TILDA project website. This review also included a section (Section 3.5) which analysed core research reports published between 2016 and 2021 in order to examine the extent to which outputs from TILDA inform published policy documents both nationally and internationally. The systematic extraction and the general quality and impact metrics information from the retrieved TILDA publications and the descriptive content analysis allow this review to provide relevant insights into the quality and impact of the TILDA project literature. Section 3.6, in turn, explored the emergence of a new discourse on ageing, particularly in relation to some of the subcategories of the discursive construction of healthy ageing and ageing well, as conducted by TILDA and by journalists. In contrast to common ageist tropes, this new discourse frames older people as self-responsible and resourceful subjects. Ageing, in reporting associated with the work of TILDA, was not framed in reference to the declining body, but as a life course stage that can be cultivated, enjoyed, diligently nurtured by older people themselves, and exploited for its positive aspects, in terms of leisure and as a resource to families and communities. This emerging new discourse may be considered as one of the most important contributions of the TILDA project, since the messages associated with TILDA's research, whether propagated directly by TILDA itself or mediated through the texts of journalists, serve to counteract prevailing negative stereotypes of ageing and older people and their health. In conclusion:

- TILDA's policy-related outputs provide an evidence base for addressing current and emerging issues associated with population ageing in Ireland across health, economic, and social systems.
- TILDA's academic outputs included more than 360 papers published in peer-reviewed journals, 67% of which were published in open access sources.

- TILDA's academic publications were cited 53% more than an average research publication, with an average of 21.2 citations per publication, ranking TILDA publications in the top 25% of the most cited academic outputs globally. Additionally, 43 of these publications are among the top 10% most viewed publications globally.
- The vast majority (98%) of TILDA publications resulted from international, national, or institutional collaborations.
- TILDA's academic outputs covered a large breadth of themes and a variety of subcategories, contributing to the agility and responsiveness of the research.
- TILDA's outputs included research reports containing information relevant to decision-making in both health policy and practice on the older population of Ireland at the beginning of the COVID-19 pandemic, providing a context and information to the Irish population aged 50 years and older for tackling COVID-19 within this cohort.
- TILDA's outcomes provided information on Irish nursing home data to inform COVID-19 responses targeted at nursing home residents, and informed studies on data about deaths in nursing homes during the pandemic.
- TILDA's outputs suggested that the absence of strong social supports, which took the form of loneliness and social isolation, negatively affected the well-being of older adults, highlighting the need for enhanced public efforts to alleviate these potentially damaging phenomena.
- The main similarities that we identified across the print and social media sources analysed concerned the positive construction of ageing and growing old based on the work of TILDA; we have termed these 'ageing well' and 'healthy ageing' for print and social media, respectively.
- The analysis of TILDA's outputs identified one of the most important contributions of the TILDA project: a changing discourse on ageing. This is because the messages associated with TILDA's research, whether propagated directly by TILDA itself or mediated through the texts of journalists, serve to counteract prevailing negative stereotypes of ageing and of older people and their health.

4 Perceptions of key stakeholders on TILDA's outcomes and impacts on education, policy, and practice

4.1 Introduction

This section reports on the perceptions of key stakeholders on TILDA's impacts on education, policy, and practice. The evaluation team first carried out semi-structured interviews with nine key stakeholders (three international researchers and six policy-makers employed within Government Departments) based on a purposeful sampling technique (Palinkas *et al.*, 2015). This ensured that we selected information-rich cases in the evaluation of the work of TILDA (Patton, 2002). Stakeholders' voices and experiences were pivotal in qualitatively assessing the effectiveness of TILDA in delivering on the objectives outlined in agreement with the HRB; the extent to which outputs from TILDA inform policy both nationally and internationally; TILDA's outputs, reach, and efficacy and their adoption, integration, and implementation across organisational contexts; and, finally, TILDA's future maintenance and sustainability.

The evaluation team then carried out an in-depth organisational case study of the Irish Hospice Foundation (IHF), a "national charity that addresses dying, death and bereavement in Ireland" (Irish Hospice Foundation 2022) with the aim to extend the availability of hospice services across Ireland, promote awareness of the hospice approach, and develop research and education. The aim was to evaluate the influence of TILDA at an organisational level. This was undertaken through an exploration of existing and new palliative and hospice care involving a focus group with key stakeholders at the IHF, desk research on the IHF website, and documentary analysis of policy and research reports. We chose the IHF as our case study as it is a centre of excellence in the management, advocacy, and education surrounding the themes of dying, death, and bereavement, as well as due to its close collaboration with the TILDA project.

The evaluation team then investigated the work of TILDA from the perspective of representative organisations; these were selected on the basis of them having the well-being or interests of older adults (social, health, or advocacy) as a core focus. All selected organisations had national reach. Seven representative organisations were invited, although two of them declined to participate, citing insufficient familiarity with the work of TILDA. One organisation had intended to participate in a focus group, but on the day of the data collection only one person attended, and thus this became a semi-structured interview. Four organisations participated in focus groups. A total of 15 people participated in either focus groups or semi-structured interviews. Focus groups took place between September and November 2022 via the Zoom virtual platform.

This chapter of the report is structured as follows: Section 4.2 presents the perceptions of the relevant stakeholders around the pivotal themes of collaboration with TILDA. Section 4.3 discusses issues related to access to the data, while Section 4.4 presents perspectives on TILDA's impacts on policy and practice. Section 4.5 analyses suggestions for improvement identified by policy-makers and international researchers. The chapter concludes with the main findings in light of our overall evaluation models.

4.2 Collaboration between TILDA and stakeholders

4.2.1 The national landscape

In this section, we will explore TILDA's representation from the perspective of Irish policy-makers/executives in order to facilitate the development of an understanding of how TILDA is viewed, perceived, and understood within its national boundaries.

According to the Irish policy-makers/executives interviewed, the collaboration with TILDA is largely presented in terms of overlapping roles and commitment of some of the members of their policy units across the political sphere and the research field. For instance, national policy-maker (NPM) 1 underlines the relationship with

TILDA that leads to policy development: “There was a researcher embedded in the unit over the last number of years, different researchers, which were kind of loosely associated with TILDA. So, they were using the TILDA dataset to shed light on healthy and positive ageing which was a particular policy area that the [Government Department] had.”

This overlap was also perceived as pivotal to the respondents’ Government Departments’ access to the data as well as to TILDA’s impact on policies.

NPM 2 expanded on their previous affiliations to shed light on the collaboration with TILDA:

I suppose what’s probably more relevant to this evaluation, is my role as the previous [role omitted for privacy reasons], and also as the [role omitted for privacy reasons] for the [name of initiative] which was the research, monitoring and evaluation pillar of the [name of strategy]. So, I was harnessing the benefits and engagement with TILDA and using the evidence to inform policy-making. So, I suppose my previous role is either an [role omitted for privacy reason] or as kind of leading on research, and it’s very much, you know, connecting in with TILDA. (NPM 2)

NPM 2’s previous professional positions, especially their involvement with different initiatives concerning ageing, saw them “harnessing the benefits and engagement with TILDA” (NPM 2) to inform policy. This element suggested the interconnection and overlaps between the themes of collaboration with TILDA and TILDA’s impact on policy and practice.

Interdepartmental collaboration was also mentioned by NPMs 3 and 4, with experience of working across Government Departments. NPM 4 pinpointed that as “the Department [of Health] funds TILDA ... this leads to a very high level of engagement”.

Finally, NPM 6 also underlined that their collaboration with TILDA was pivotal in the development of a programme:

We came up with an idea of how we might develop[a name of programme] programme, and we went to TILDA, and we sat down with them, and we had a discussion and two years later we ended up with a [names programme], interrupted by COVID for two years ... I’ve always believed I’ve learned this over the years. I’ve always believed that education is actually the easiest way to get people who may have different opinions sitting around because there, everybody wants to be educated. Everybody wants to be up to date. (NPM 6)

Respondents from multiple Government Departments identified the work of TILDA as pivotal in developing policy and future planning related to the lives of older people. They perceived that their level of engagement with TILDA was high, not least due to the funding relationship with the Department of Health.

4.2.2 Collaborative boundaries between TILDA and other international researchers

One of the main themes that emerged from our interviews with international researchers was their level of collaboration and involvement with TILDA in different capacities. This is highlighted in the following quotation from an international researcher (IR) interviewee, “Well, I’ve been collaborating with them, you know, and we’ve done the [name of study]. And so, we have collaborated with [the TILDA principal investigator (PI)] and various other researchers who have used their data” (IR 1).

Similarly, another high-profile international researcher (IR 2) stated, “I have been involved with TILDA since before it started as part of a set of international advisors that [the TILDA PI] brought in to talk about different aspects of starting such a study”. In addition to their involvement in TILDA “since before it started”, IR 2 also highlighted that:

On top of that one of the things that we’ve initiated on my study is a special project focused on [name of project] and the assessment of [name of project] and ... I’ve worked with both TILDA and a study [name of

study], which aims to do similar things in [name of location] to what TILDA does in the Republic [of Ireland] and hold the two studies together to do a common instrument to assess [name of project] in both. And so, I'm working actively with people at TILDA and [name of study] on implementing that protocol. So, I'm not completely external to the TILDA operation. (IR 2)

These extracts are particularly instructive in pinpointing the collaborative boundaries between TILDA and other international studies, in terms of both the overall objectives and of the scholars involved.

Moreover, as IR 1 explained further, their collaboration with TLDA was enhanced by “a cohort of postdoctoral fellows” with whom the participant worked extensively and who were also highly engaged with TILDA. Again, in our participant's words, these postdoctoral fellows “brought closer collaboration between us and the [TILDA's PI] team” (IR 1).

IR 3, also an international scholar, underlined the supportive role of TILDA in developing and supporting their work on another longitudinal study of older people outside of Ireland. More specifically, the participant stated that “We've just recently received some materials from TILDA, which will be very helpful for us in a new wave of data collection next year. So that's a specific instance where we have had a lot ... going on between us” (IR 3).

It was evident that interviewees highlighted the different capacities in which they have worked with TILDA, including their work on joint studies, involvement in advising TILDA at its inception, and collaborations with TILDA in developing and supporting other longitudinal studies. TILDA's support in providing materials for a new wave of data collection outside of Ireland was also emphasised. Overall, the interviews highlighted strong collaborative boundaries between TILDA and other international studies and the scholars involved.

4.2.3 Collaborations between the Government and TILDA

Stakeholders involved in policy identified the level of collaboration with TILDA and some of the challenges that arose, such as disconnections between policy and practice and the impact of the COVID-19 pandemic on accessing data.

NPM 2 pinpointed how, during their work, they witnessed a “sliding of policy responsibility” which did “not necessarily have to do with TILDA”. In practice, this signified that there was a certain disconnection across units in the Department of Health with the consequence of not always promoting or having the ability to build upon TILDA's data. This narrative highlighted that, while collaboration between the Government and TILDA is largely based on people's commitments, the integration and impact of TILDA in policy-making has to face certain organisational and institutional challenges that NPM 2 and their colleagues attempted to correct by “work[ing] across the Department” through the identification of “policy priorities or areas for focused research that TILDA could take away”.

In addition, during the COVID-19 pandemic, the issue of remote access to TILDA datasets was highlighted as an issue, especially for organisations and researchers that are not based in Dublin: “I suppose the other thing that I think about and kind of came to the forefront during COVID is about kind of remote access to the data. It's not a major issue for us, because we're in Dublin.... But I can imagine it would just open up the potential usage. Obviously, people didn't have to travel to Dublin if there was that remote access with, obviously, the necessary security” (NPM 5).

As NPM 1 clarifies, the COVID-19 pandemic led to challenges in further developing the connections between their Government Department and TILDA: “I think some of that use [of TILDA's dataset] was a little bit disrupted by COVID, because the priority was to respond to the pandemic. So, we've been working to sort of re-establish the links between TILDA and the various policy events” (NPM 1).

In conclusion, the level of collaboration between TILDA and policy stakeholders was discussed, with challenges such as disconnection between policy and practice and difficulties accessing data during the COVID-19 pandemic being identified. National policy-makers acknowledged the need to work together and identify policy priorities

that TILDA could focus on. The pandemic disrupted the use of TILDA's dataset; remote access to data was also highlighted as an issue for those not based in Dublin.

4.2.4 Importance of informal networks in international collaborations

There was also a perception from participants that TILDA's collaboration with other international programmes was based on informal networks, but with the potential to strengthen the cooperation between the various longitudinal studies:

There is a sort of semi-official, sort of loose network, which is called the British Islands Longitudinal Studies Group which met about two weeks ago in Scotland ... there were, you know, about maybe seven or eight people from TILDA, and then the people from ELSA [English Longitudinal Study of Ageing] and from NICOLA [Northern Ireland Cohort for the Longitudinal Study of Ageing] as well, and there was a lot of exchange at the kind of early career research level about how people were doing things, how they were, you know, collecting data, how they're analysing data, what sort of issues they thought were particularly interesting at the moment. And those things, I think, are important parts of the exchange, and we'll probably need some joint publications in the future, I think. (IR 3)

This "semi-official, loose network" was, according to the participant, crucial in the development, exchange, and cross-fertilisation of fruitful ideas and good practices, especially at the early career researcher level. Along with these informal exchanges there were also more structured – that is, institutionalised – exchanges and cross-fertilisation among TILDA and other international studies on ageing. For example, IR 1 highlighted that:

Now I and both TILDA and NICOLA are members of The Global Gateway. So, we're working with the ... people so that our data will be curated internationally in the UK. That's called DPUK: the Dementia Platform UK. So, anybody can apply to use NICOLA [data] by going through the DPUK gateway. And now, because of COVID, there's now another central gateway called UK LLC [UK Longitudinal Linkage Collaboration] And that came about because of COVID. So, our data are now going to be curated by them as well ... the idea behind the platform is to link up datasets, not just the cohorts themselves, but also to link them to all our health and social care data. (IR 1)

The picture that emerges from this extract regarding TILDA's relationship and collaboration with other international studies is multi-layered. TILDA is involved, together with ELSA and NICOLA, in the Gateway to Global Aging Data, a free public resource designed to facilitate cross-national and longitudinal studies on ageing to use the family of available health and retirement studies around the world (Global Aging Data 2022). In addition, there are relationships with the UK LLC, which was funded as part of the COVID-19 Longitudinal Health and Wellbeing National Core Study and is "an innovative project developing a new approach for linking well-established longitudinal studies to routine records" (UK Longitudinal Linkage Collaboration 2022). What emerged from the interviews is that there is a movement towards a progressive integration of datasets and longitudinal studies internationally, among which TILDA itself features prominently.

In summary, international respondents reported that TILDA seems to be influential in the international landscape, partaking in international projects and collaboration through both informal and formal networks and initiatives.

4.3 Access to data generated by TILDA

4.3.1 International researchers' views of the accessibility of TILDA datasets

According to the interviews with international scholars, gaining access to TILDA's data and resources was among the most challenging aspect of working with TILDA. IR 1 stated that: "I don't have a detailed understanding of the access arrangements ... I don't know what their current access arrangements are for external researchers". However, although IR 1 reported that they were not updated on the current access arrangements, they

described the scenario in the “early days” of TILDA: “In the early days you basically had to have the TILDA team named on all the papers. Say, if I was an external researcher applying to use TILDA [data], then [I] would have to have had either [name of person] or some core TILDA team members on the publication” (IR 1).

IR 1 compared this data access strategy with what is currently in place in their country, where every cohort that gets public money “has to be publicly discoverable” and “there should be no barriers for any external researchers using the data” (IR 1). IR 1 further stated that “there should be minimal, absolutely minimal barriers for external researchers”.

IR 2’s experience was somewhat similar to that stated by IR 1, but the challenges were framed with reference to European Union (EU) and national regulations on data protection and privacy that external researchers faced in accessing TILDA’s data:

The EU has been not always helpful, I would say, in terms of the goal of making scientific data widely available.... Our study really believes in public availability of the data, and we understand completely the need to protect the confidentiality of participants But what I found is that ... governments, when they get involved with the goal of protecting participants, are way too far on the side of caution, put too little weight on the importance of the scientific work that could be done if the data were more accessible. That said, the TILDA project has done everything it can within the framework of the EU to make data available and [the team] are very much committed to that. [However,] I’m never satisfied if, you know, I hear of someone who can’t get some part of the data, because, you know it’s just not distributed, or you have to come work in a secure facility in Dublin or something. I mean that bothers me, but I understand. (IR 2)

More specifically, what emerged from this narrative was the tension between “the goal of protecting participants” and “the importance of the scientific work that could be done if the data were more accessible”(IR 2). As IR 2 further specified, the issue around access does not seem to be entirely dependent on TILDA’s data access strategy.

In summary, from the perspective of international scholars, TILDA’s data access seems somewhat problematic, although there was a sense that this was not fully within TILDA’s control due to data protection regulatory frameworks at both national and European levels. On the one hand, in the early days of TILDA’s work, access to the data implied the involvement of TILDA’s researchers in the scientific work of external researchers who simply needed access to the data; this was perceived as challenging. On the other hand, there was a perception that both the national and European regulatory frameworks seem to hinder the availability of data from TILDA, prioritising participants’ privacy over scientific interests. We will explore this dimension further when discussing access from the perspective of national policy-makers/executives.

4.3.2 Abiding by regulations versus providing access to data

Challenges in national stakeholders’ ability to access TILDA data were similar to those expressed by international researchers. As highlighted by NPM 1: “I think we have to make sure that access is facilitated”. In fact, different policy-makers/executives did highlight the issue of having to pay to access TILDA’s data. This is highlighted by NPM/researcher 5: “I think once you get in there, it’s great! But there are some barriers, I suppose, the timing that you have to apply to use the data. And, you know, there’s this back and forth with that, and then you have to book a slot, and you know whether the data would be available” (NPM 5).

Timing was highlighted as a real issue for policy-makers because “by the time, certainly, by the time that I would get to see the data that I would have been using, you know, it would be a little old, a year or two old, and other people would have used it” (NPM 5). NPM 5 continued to state how personal contacts with TILDA can, in some cases, facilitate early access to the data, a theme echoed by other participants as well.

Again, NPM 3 highlighted challenges with TILDA's data access policy, stating that: "I don't think access to the data is what it should be in terms of researcher or policy-maker access to it". They continued their narrative, emphasising the importance of having some direct connection with TILDA in facilitating access to data:

Our experience was that obviously it needed to have a partnership with someone working on the project. So, while someone came forward for that project who was a [name of university] academic, even that wasn't enough! They had to partner with someone working on TILDA. We're also charged a [€10,000] admin fee for access to the data...This is a publicly funded study! (NPM 3)

NPM 2, in turn, also mentioned the "gatekeeping role of [the] TILDA team" regarding data access:

There's a question, I think ... around [the] kind of gatekeeping role of the TILDA team itself, and how we make sure that there's wider access, because when it comes to using the data to inform policy what's really important from our perspective is that lots of people are using the data in lots of different ways and that's something we work really hard on because you never know where interesting policy findings are going to emerge from It's really for us about research, or indeed other researchers. I think when you create a bit of a dependency there in terms of access to the data, and how that's structured within the team Obviously, it needs to be bona fide to researchers, and we need to be really careful with the data and all of that stuff. And I think there are ways of doing that, and that, you know I wouldn't for a minute downplay all of that. But I do think ... charging an admin fee, and then this concept that we had to partner with someone in the study We were just surprised. (NPM 2)

NPM 2 further summarises the core issue around access to TILDA's data and its impact on policy development, criticising the potential disconnection between scientific evidence and government organisations' challenges in accessing it. However, despite their criticism, NPM 2 believed that TILDA "should continue", although from their "position of being in a policy development role", TILDA's data access is a challenge to NPM 2 and their colleagues: "And you know, really, there's such an appetite for evidence for a policy, and so there's some easy wins here in getting more eyes looking at the issues. So, you could spend a huge amount of time developing some kind of architecture for policy-makers and analysts to talk to each other But if they don't have the data, they don't have it, they have to wait" (NPM 2).

There was a sense from some participants that challenges in timely access to data from TILDA could have a detrimental impact on using these data to develop and inform policy. The data collected by TILDA were highly regarded and there was unanimity that the work should continue; however, there was a sense that the communicating of, and access to, the data could be streamlined.

NPM 2 further highlighted the fact that, often times, policy-makers cannot access TILDA's data because they are currently under review, and this was perceived as substantially delaying policy-makers' ability to rely on timely access to TILDA's outcomes. A similar concern was voiced by NPM 3, who stated: "I think probably there is more potential there in terms of policy-makers... using the data ... but I'd say possibly we haven't used it as much as you might have expected, I suppose. I think we've probably, you know, there is probably a gap there on the policy side" (NPM 3).

According to our participants, such a gap can be explained either in terms of TILDA's communication with Government officials on the one hand, or in terms of TILDA's clinical focus on the other hand. However, it was also acknowledged that delays can also come from the Government Department side:

As policy-makers we need to take it on good faith that the evidence is robust and of good quality. But we need to know this And making sure that you're talking to the right policy-maker as well, because the Department [of Health], the agency is an enormous agency. So, I think that real engagement and getting champions, you know, across the Department units has been challenging, and from the perspective of

TILDA, you know, they're busy maintaining the study planning for the next one, ensuring they have funding, ensuring they have resources, getting the quality papers out. (NPM 3)

Regarding TILDA's clinical ethos, NPM 2 discusses how "TILDA from its infancy has been very clinically orientated, and I think there's the huge opportunity for the translation of results into clinical practice. That's been very good, and that's kind of like a bottom-up approach". However, NPM 2 continued:

But you know engagement in kind of more upstream policy and planning, harnessing that data for say a population-based modelling, that has been challenging And yet the access to TILDA [data] today has not, has not really matched expectation for me as I am sitting in the Department. If I wanted to use TILDA [data] today for modelling, I would have to partner with a principal investigator from TILDA, they'd have to approve the project, I'd have to use a hot desk, I'd have to physically go in there. Policy-making and evidence for policy is very time-sensitive. (NPM 2)

However, contrary to the overall narrative explored so far that describes access to TILDA's data as problematic, NPM 6 highlighted that, according to them, data access is "very good". They stated that: "These days it's on a public open database. And I think, I'd love to have time myself to sit down at one of the hot desks [in TILDA] and actually pick a topic myself and go through it ... but I think it's a database that they're [the data are] publicly usable" (NPM 6).

Making data generated by the work of TILDA more accessible was also viewed as highly important by a majority of participants from organisations representing older people. Accessibility was viewed through three main concepts. First was the issue of the accessibility of TILDA datasets, which it was argued needed to be available online in easy-to-access formats. This was a view expressed across three focus groups with representative organisations. As a major publicly funded study, participants felt that significantly enhanced access to these datasets was necessary. Second, while many participants felt that the academic outputs of TILDA were of a high standard, the need for actionable implementation-oriented policy briefs and alternative means of dissemination was considered essential. The implications for practice of all TILDA materials needed to be more explicit, with a focus on plain English versions of relevant outputs in order to make them accessible to older people as well as to representative organisations. Finally, the idea of somebody from TILDA visiting older persons' representative organisations was proposed in order to enhance the implementation and positive change in service delivery. These three quotes partially represent these viewpoints:

Who owns this data? Should the data be publicly funded? Because if we had the data in the same way that we could go to the set of statistics to get data online, then we, too, could do analysis. And indeed, we could do different analysis from what TILDA has done, and so that would be good. This could add to the knowledge base and perhaps help address what we perceive as some gaps in the TILDA outputs. (Participant 1, Focus Group 1)

Because it essentially, it's that line between academia and practice, the organisations that are putting it into practice, or being guided by it. Unless that interface is changed and made more understandable, then, you know, a lot of people would just say to hell with it, or I don't have the time, or I just can't. So, the language thing is really important. (Participant 4, Focus Group 3)

There's potentially a huge role for somebody there in terms of implementation, you know, implementation science. And I think that's probably missing. And maybe that's why there hasn't been that drive down. Because I think about our day-to-day services, you could find out something really new about loneliness, I don't know, but just as an example. So, if somebody was coming in [from TILDA] to tell leadership about that ... that might result in a change to the way a service is delivered. I just think that that's possibly missing. (Participant 3, Focus Group 4)

Box 1 TILDA's response to challenges associated with accessing data

A number of participants in the evaluation interviews had identified issues, as outlined throughout Section 4.3.2, with accessing data that were produced by TILDA. These issues related to cost, timeliness of access, and methods of access. The evaluation team met with key members of the TILDA team to seek clarification on these points. The TILDA team highlighted that the data is accessed via a hot desk facility that is currently (in 2022) accessed on-site at Trinity College Dublin and remotely in 2023, and through public archives. The public dataset contains a subset of variables from the main dataset to protect participant confidentiality, in compliance with EU General Data Protection Regulation (GDPR) and the Irish Health Research Regulations (HRR). The public archives are not managed by TILDA and do not have costs associated with data access. The hot desk contains the full dataset including data such as date of death and cause-specific mortality that cannot be lodged on the public archives due to GDPR and HRR as these data are potentially identifiable or disclosive. Prior to these data being made available to outside researchers, they have to be deidentified, source code books need to be developed, and the data need to be pseudoanonymised; this process was reported by the TILDA team as being time-consuming and costly in terms of person hours and the need to ensure that there were no data breaches. In addition, a member of the TILDA team has to be available to guide researchers when they visit TILDA to access the data. The TILDA team stated that they advise teams developing potential research proposals to consider these costs when creating research protocols. In line with GDPR and HRR, TILDA must monitor access and use of researchers using the hot desks. In relation to cost, there is no blanket charge to access the data through the hot desks. Data access is always permitted where the data is available. If a researcher has costs available in their budget for data access fees, an annual fee of €10,000 pro rata is requested. However if a researcher does not have budget for access fees, fees are waived. They also highlighted that charging for access to the data was not unique in the international context, with longitudinal studies internationally using the same approach. The TILDA team did emphasise that fees are not a barrier to access and no request for data was ever refused if the applicant could not afford the fee; for example, in the case of applications by PhD candidates or early career researchers. However, they did stress that the costs associated with preparing hot desk datasets were not met by TILDA's current grant. Issues such as the relatively low overheads (10%) awarded by the grant and the need for information technology (IT) infrastructure for remote access were highlighted as excessive costs for facilitating access to data for external research teams. The TILDA team highlighted that the protection of data was paramount, and they emphasised that any data breach would be disastrous for TILDA. It was further highlighted that the reputational risk of a data breach was high, hence the need for a secure and rigorous approach to facilitating external data access.

Another issue highlighted by the stakeholders who were interviewed as part of this evaluation was challenges in accessing data if researchers are not based in Dublin. The TILDA team acknowledged this as a challenging factor, and highlighted that they were moving towards developing approaches that would facilitate remote access to data; however, as highlighted previously, there were challenges related to cost and data security, particularly the cost related to IT data storage servers. The current hot desk approach was seen as the best current approach to ensuring the safety and integrity of the data.

Another issue that arose in the evaluation interviews was the policy regarding TILDA staff members being named on publications that used TILDA data but did not directly involve the TILDA team. The TILDA team stated that this was not the case and that researchers from outside TILDA were free to publish from publicly available data, with the prerequisite that they cited and acknowledged TILDA as a data source.

4.4 TILDA's impact on policy and practice

Another relevant theme identified from our interviews with international scholars regarded their perceptions of the impact of the work of TILDA on policy and practice. This was identified as a complex and wide-ranging

thematic area which covered different aspects, ranging from TILDA's inspirational role for other international projects and the political linkages between TILDA and the Irish political landscape, to the direct engagement of its key stakeholders and the social transformation it fosters on the ground through the scientific evidence it collects. In Sections 4.4.1–4.4.3, we unpack each of these points in further detail.

4.4.1 Legitimacy

International participants have an extremely positive impression of TILDA, which is informed by their direct engagement with it via collaborations, and an acknowledgement of TILDA as a source of inspiration. There was a perception from respondents that TILDA was successful and doing a 'tremendous job' (IR2) through its work in informing policy, practice, and the impact on older people's everyday lives. There was also a sense from participants that there was a need to translate the research outcomes from TILDA into concrete action. In addition, participants spoke about the longitudinal character of TILDA and the potential for even greater impacts and effectiveness in the future.

According to IR 2, TILDA is one of the main sources of inspiration and innovation for their own longitudinal research in another national context. Moreover, as they explained, TILDA is also "a very frequent source" for other scholars around the world interested in comparative research on health and ageing:

My complete obsession is making my study the best study it can be. And so, you know, we go out every two years with a new wave of the survey, and we try and update things. One of the places I look to for innovation and ideas are the international studies. So, the English Longitudinal Study of Ageing and the TILDA study are probably the two most important partners in terms of innovative things that I see, that I say: "Oh, that's a really smart idea – let's do that". And so, it's terribly important for me because of what they're able to do. So, in terms of my research, I'm not as active in writing papers as others. But I know that TILDA is a very frequent source for people who are trying to do comparative work. (IR 2)

IR 2 further provided a specific example of how TILDA functions as a source of inspiration for their own research, referring to TILDA's leader's (PI) ability to build scientific legitimacy around everyday aspects of older people's lives, such as falls risk and mobility, through to the study of biomarkers: "[The TILDA PI] elevates to a science how you assess people's fall risk and mobility...because falls are a huge changer of lives for the elderly...when we began as a survey, we had no biomarkers. TILDA was showing us what could be done if you had proper blood draws and could do more things" (IR 2).

TILDA's work is thus portrayed as simultaneously influencing both policy and stakeholders, although there was a recognition that the work of TILDA needed time to be fully implemented; however, it is represented by international key participants as an exemplar of longitudinal research on ageing. In addition, IR 3 commented on the time needed for research to inform and translate into policy, referring to a "study by Morris *et al.*,⁴ which is cited over two thousand times, indicating that seventeen years is the expected lag between most research being published and the final impact on policy and practice". Moreover, as IR 1 also highlighted, "you have to regard longitudinal studies as acquiring value over time. You know, the longer they live, the more policy-relevant stuff they will give you", a point they made again during the interview: "these types of longitudinal [studies] obviously have a huge asset of having a kind of historical trajectory, and an understanding of the kind of evolution of health and other issues as people age. And so ... as these studies go on for longer, they become in many ways more valuable than they were in the past ... that's a huge advantage for many kinds of health issues" (IR 1).

Mirroring international researchers' positive views about the overall impact of TILDA on policy and practice, national policy-makers/executives tended to see TILDA as a high-quality, legitimate source of data: "Their analysis is excellent, really. It's showing us not just the kind of ... quantitative stuff, but there is a qualitative

⁴ We were not able to retrace the study in question.

element that leads us to being able to ensure that we incorporate that kind of learning into policy development” (NPM 1).

The respondent continued that TILDA is “the best evidence that we have on the experience of ageing in Ireland. If you do have a question around what it’s like to age in Ireland It’s better than a lot of the administrative [information] that we would have available at this point in time” (NPM 1).

Similarly, NPM 6 emphasised that “TILDA is a phenomenal resource for this country”, further commenting that: “I see TILDA as crucial to the development of policy for healthcare in older people, public healthcare and public healthcare messages for older people and for the ageing population at large” (NPM 6).

NPM 5 highlighted TILDA’s impact, this time in reference to both the changing discourse around ageing and older people in Ireland and stakeholders’ ability to integrate TILDA’s findings relatively quickly into their practical repertoires: “Some of the key messages that TILDA has conveyed, I suppose spotlighting the contribution of older people to society, about promoting the value and the rights of older people as well, [I] think it has been important ... there was a lot of trust in the quality of TILDA data as well as the integrity” (NPM 5).

Pivotal to this process of reliance on and integration of TILDA’s findings by a number of stakeholders is, according to NPM 5, the implementation of cost-effective interventions. Moreover, this reliance seems to be largely based on “trust in the quality of TILDA data” (NPM 5) as well as integrity, thus connecting this narrative with the representation of TILDA as a legitimate source of high-quality data. As NPM 5 continued, they reiterated the value of TILDA and how it contributes to “talking very positively about” ageing: “[TILDA] shows a lot of value and I think just as well providing ... that kind of a community [of] practice and that kind of talking very positively about it [ageing]. And I think that that’s an important narrative” (NPM 5).

The value for money of TILDA was also highlighted by a national policy-maker who perceived that TILDA “does offer the potential for value for money”, but only partially, because “we have to maximise the benefit arising from it” (NPM 3). Nevertheless, they continued: “But if you look at the expenditure in the overall health budget, which is, you know, twenty-two billion [euros], [it] is twenty-three billion now, and the expenditure on TILDA, I think it’s a very smart investment that can shed a lot of light on areas of expenditure elsewhere, and actually kind of give us the tools to investigate value for money” (NPM 3).

The public representation of TILDA, largely constructed around TILDA’s evidence-based approach to the study of older adults’ life conditions in Ireland, is, according to the narratives gathered, the main source of legitimacy for TILDA itself.

The legitimacy of the outputs from TILDA was also highlighted by those providing services to and representing older people. As a participant who worked for an organisation representing older people highlighted in reference to preparing workshops on older people and COVID-19, “what TILDA says is evidence-based statements So if I was preparing under them, I’d pull from TILDA, one of the resources would be TILDA” (service provider (SP) 1).

Another service provider (SP 2) highlighted TILDA’s recognition in the “political sphere”, and they perceived the approach taken by TILDA as being unanimously “legitimised”:

[TILDA] brings a strong legitimacy ... you know, I would work a lot in the kind of political sphere, and there’s no doubt. TILDA is absolutely recognised as a solid base for saying, “well, [the] TILDA study said that people are ageing, but they have different needs as they age”. Now, it’s like, okay, you could have said that for loads of...years before but now there’s a legitimacy around the TILDA study. I think, and again, not directly related to Irish Hospice Foundation [IHF], in our work, but it has brought up older people and the issues they’re facing. It’s given them a relevance whereas before, although we kind of knew some of the experiences they may [have] had, actually, I think they were often misunderstood. They

just got old, and then they died, and there wasn't the kind of nuance of the experiences within that. For me there's such a strong legitimacy. (SP 2)

While participants highlighted that TILDA is recognised in the political sphere, it was also perceived as having substantially contributed to bringing to public attention a different picture of older people; that is, contributing to changing the discourses surrounding ageing in Ireland. This is important, as SP 2 says, because although ageing is a natural process ripe with individual, societal, and public challenges, it is also deeply socially and culturally constructed. As a consequence, TILDA's efforts to bring ageing to the forefront of public attention and reframe it in terms of, for instance, 'positive ageing' and as a resource for families and the broader community is an important innovation in the public representation of ageing that may have an impact on older people's experiences. It is evident that as a consequence of the work of TILDA, it has had the positive effect of improving the narratives around ageing.

4.4.2 Links between policy-makers and TILDA

Another important dimension of TILDA's impact on both policy and practice derives from participants' perceptions of its linkages with the Irish political landscape. Again, according to the vantage point of international researchers, in Ireland the disconnect between good academic research and policy-makers seems less profound than elsewhere, thus granting TILDA's permeability into decision-making bodies as well as its reach in the national and international scientific community:

It feels like the distance between good academic research and policy-makers is not as great a chasm [in Ireland] as it is [in name of country] ... the Economic [and Social] Research Institute in Dublin ... does a lot of policy evaluation work for [the] Government ... as well as some academic-type research and those kinds of organisations are really valuable in my estimation, and TILDA has worked very closely with them to make the data available, they've had that tradition of working closely with the organisations that do analysis to inform policy. I mean they don't just walk into the office of the Prime Minister, or whatever, and say "TILDA results. You should pay attention", I mean, they understand that you work through these intermediary bodies that do the analysis to support policy-making, and they've engaged with them very successfully. So, I'm impressed with that aspect of TILDA, and certainly the academic uptake of TILDA ... within Ireland has been fabulous. (IR 3)

According to IR 3, such networking strategies with intermediary bodies such as the Economic and Social Research Institute (ESRI), grant TILDA a legitimacy and a greater means of translation and transition into the political sphere and policy-making than it would have had otherwise. TILDA was also praised by the international participants because, in their accounts, it fosters the direct engagement of its key stakeholders. For instance, IR 3 stated that TILDA is "a broad omnibus instrument ... which is what you need". They continued by stating that "one of the other early impacts that [the TILDA PI] told me about was ... whenever they did their work on gait speed,⁵ she was able to tell the people that looked after the roads and the zebra crossings: 'Look! Sixty [in one hundred] older people [aged] over sixty-five [years] will not again get across the street if the zebra or the pelican cross doesn't change its timings'" (IR 3).

From the narratives discussed, there was a clear sense that TILDA is a vital resource on ageing, unique in the extent to which quality data are available. This was largely due to its longitudinal character, as mentioned by a number of participants.

Questions were also asked of the participants relating to the policy changes and developments that were influenced by the work of TILDA. As NPM 1 (along with other participants) mentions, TILDA is particularly pervasive in influencing and informing "home support", "designing interventions around the home

⁵ See O'Halloran *et al.* (2014) and Maguire *et al.* (2016).

environment”, and “palliative care” policies, at least within the Department of Health. NPM 5, in turn, highlighted that TILDA is particularly effective in “preventing hospitalisation” and following individuals’ trajectories throughout their life course, while NPM 3 perceived that TILDA is “much stronger on the health side than the social policy side”. This was a point that NPM 3 elaborated upon further, stating, “So, I’d say TILDA probably is quite impactful on the health side. I think it is probably less so when it comes to issues of social policy, or inclusion, or poverty, or all those types of things” (NPM 3).

Nevertheless, despite its focus on health, TILDA was perceived favourably in using the data as a source of information for people in marginalised groups, such as to shed light on the experiences of older lesbian, gay, bisexual, transgender, and other (LGBT+) people. This is highlighted by the following quotation from NPM 3:

What we have done recently is we went out to tender for a project, looking at the experiences of older LGBT+ people, and we sought explicitly that that project would use TILDA data ... I don’t have it yet, but it’s something we’re quite excited to get hold of, and I think it’ll be valuable. So that’s really the only way that we’ve used it in a kind of a very explicit way But I think we’re at the beginning of a journey with it. (NPM 3)

While acknowledging that the clinical evidence from TILDA and its influence on practice is quite effective and follows a bottom-up logic, NPM 2 highlighted the difficulties of relying on TILDA for policy-making purposes. This seems to be largely the outcome of TILDA’s data access strategy, which requires potential users, even public officials, to either wait for the publication of the results or partner with somebody from TILDA in order to gain early access to the data. Moreover, as NPM 2 elaborates, the disconnect between research and policy-making is also due to timing in the first place:

We have an annual budget, we have a short number of months to be able to do that analytical work, [make] decisions, [plan] for next year, [plan] for the HSE [Health Service Executive] programme of work ... to be clear, those processes are not unknown, you know. And so, the fact that TILDA doesn’t align with the budget cycle in terms of getting their evidence to us in [a] timely fashion, engaging across the summer before the Budget, engaging in what we might need for the year ahead, you know we tried that, but we haven’t reached that kind of optimal kind of engagement. And again, there’s plenty of analysts and statisticians in every department, and certainly in the Department of Health, who have no problem, they would have no problem taking that data, running the numbers, doing their modelling and getting the information they need, but because they need to partner with [TILDA] and get an academic paper out of it and go through the TILDA processes, that model actually prohibits them [from] engaging and getting their hands on the data and using it in a way that we would need it. So that’s really challenging. (NPM 2)

The tension between TILDA as a largely academic enterprise versus its impact in policy-making was also evoked by NPM 2 as they discussed how, in their opinion, several departments failed to influence TILDA’s overall direction:

I think perhaps at times the level of direction from the Department, and this is only a sense that I have, but the level of direction and the linkage with the policy, wasn’t as strong, and that gave more attitude to the researchers to go and investigate whatever ... there’s something I’ve been trying to do over the last while, is just to get more policy feedback to TILDA to kind of show them the areas where we think there’s value in conducting research. (NPM 2)

This scenario – that is, participants from Government Departments perceiving their inability to direct TILDA’s research so as to be able to get relevant data on topics of particular importance to them – favoured a climate

where, in the words of NPM 3, “blue sky research”⁶ could flourish. However, it was perceived as being “academic research”: “While it shed a light on the experience of ageing in Ireland, it might leave a policy-maker [with the question], you know, what do I do now? How do I kind of implement some level of reform which is going to improve outcomes relative to a baseline that’s been established?” (NPM 3).

In conclusion, TILDA is represented by national policy-makers/executives as being extremely important to political and practical advancements, especially in relation to ageing and health, but there were also areas where challenges remained; in particular, the perceived disconnect between TILDA and timely policy-making emerged as a key concern. However, there was recognition that this could be a complicated process, underpinned by budgetary cycles on the Government side and research timing on TILDA’s side.

4.4.3 Dissemination

The centrality of TILDA’s dissemination strategy through traditional and popular media (such as the radio and TILDA PI Professor Kenny’s own book), and of the TILDA PI’s “charisma”, was highlighted by a number of research participants. It was further highlighted that the skilled means of both oral and written communication from the TILDA PI can directly influence older people, organisations representing older people, and policy-makers. There was a further sense from the participants that TILDA is, through the use of these channels, contributing to “healthy ageing”, as discussed in the following extract:

I think [TILDA is] ... generating lots of insights about ageing and what makes for healthy ageing. What kind of a social environment, kind of a policy scheme, helps support people in healthy ageing, and also what people themselves and families themselves can and should be doing to support healthier ageing.... And I just think [TILDA is] doing a tremendous job It is an exemplar to a lot of studies around the world in terms of what [it does], so I certainly hope [its] work would continue. (IR 1)

According to the participants, TILDA’s communication strategy is pivotal in fostering these processes of transformation regarding the public representation of ageing and older people in Ireland, as well as impacting on policy and practice. For example, NPM 1 discusses how the radio appearances of TILDA’s PI are important in raising awareness about TILDA and its contributions to Irish society: “[the TILDA PI] has been on the radio recently talking about the experience of ageing, and I think that kind of broadened out the conversation. I know friends and our family members were kind of commenting on the results and the stuff that they heard [in the media]. So, I think there is a good awareness that TILDA is there, and some of the results that are coming out get picked up here as well” (NPM 1).

NPM 2, in turn, discussed that TILDA’s positive impact also stems from the emerging evidence it is providing to the scientific community (for example, regarding diabetes, or regarding older persons and health assessment), stressing the importance of TILDA’s communication strategy in effectively disseminating its findings:

The issues particularly around undiagnosed diabetes, you know ... certain conditions in the population that we didn’t know about, that can be addressed before they become an acute problem like a stroke. So that’s really valuable. And what has been really effective is not just the evidence, but the way they kind of communicate it.... So I think that’s been very empowering, and certainly for all the cohorts of people who’ve gone through [took part in the project]. (NPM 2)

Talking about TILDA’s dissemination strategy and impact on policy, NPM 1 referred to TILDA’s presentations for the Department of Health, praising their ability to maintain a balance between informative yet accessible

⁶ Blue sky research is generally referred to research where real-world applications are not immediately apparent but may lead to discoveries in the future.

presentations. This was perceived as a pivotal aspect of the effective translation of TILDA's key findings in the policy domains:

They get the balance between communicating what could be a complex message in a clear and concise way. I think they have that balance right, because ... everybody comes from a different level of understanding, not the sort of the granular detail of health or of data. Their presentations are good, and also, as questions arise, their capacity and ability to respond in a sort of very informed way is very good ... It's also how the presenters can convey information. So yeah, certainly very impressed. (NPM 1)

NPM 5, in turn, mentions certain organisations' reliance on TILDA's published reports, especially "in relation to the utilisation of healthcare services". They specified further: "You know, working in the health ... domain in Ireland the level of data, once you start comparing it to other countries, is very limited. And you know, just having that information [from TILDA] that we can either use directly or to do some analysis, absolutely fills a big gap, I think, in the existing data infrastructure [in Ireland]" (NPM 5).

Similarly, IR 2 also mentioned how TILDA is accessible to older people and accounts for "their challenges", engaging with "the older population of Ireland directly", especially when compared with other international studies:

We really don't deem to do that here but [TILDA PI] kind of made that a point. And partly it's just her style again. It's the small-town nature of her society. She can go on the radio or the television, and, you know, talk to somebody, and just communicate and that's hard to do in this country. But also, I'm not as gifted at doing it as she is. So, I think she's done a remarkable job of outreach.... You must know of her book ... I mean it's an academic book, but it's in part written ... [so] that a member of the community who just wanted to know about this stuff could learn something. And you can use it in terms of guidance for living a healthy life at all ages. So, I think she's done remarkably well at that. (IR 2)

In summary, according our findings, TILDA was perceived as directly impacting on the work in several Irish institutions, such as the Department of Health, the Economic and Social Research Institute, and the Department of Children, Equality, Disability, Integration and Youth. It was also perceived as impacting on and influencing stakeholders, contributing to a community of practice that designs its work based on TILDA's findings. Its main focus was perceived as revolving around ageing, and around health (and, to a lesser extent, social) care. Its main strengths identified by stakeholders were its unique character, its longitudinal design, the legitimacy and validity of its outputs, and its impact (and potential to impact) on policy and practice.

However, the work of TILDA was also highlighted by some of our participants as being challenging. NPM 6, for example, mentions that "the reach could be bigger", explaining that:

I actually think that the information they hold is so important for the way the ageing demographic of this country is going that they should be one of the places to go for advice, for any Government Department, for any healthcare planning, for any social care planning, [or] development [of] community service because they have information about local Irish people in different parts of the community that those service planners need. I don't think people know that exists as well as they should. (NPM 6)

Similarly, NPM 2 spoke about the need to do more with the outputs from TILDA: "I think there's a way to go to realise more benefits. There could be more benefits from the cost at this point in time There's so much data there that has yet to be analysed, because it is difficult to find the resources, the expertise and ensuring that you have a full complement of analysts there, and to keep the show on the road, and to run the whole study" (NPM 2).

In other words, the breadth and richness of TILDA's data was described here not only as a resource but also as a challenge, as it requires a substantial amount of work to be analysed and, in turn, translated into policy and practice. Another issue mentioned by NPM 2 was regarding the link between TILDA and policy-makers: "The

supply of the evidence is not in sync with how the policy-makers work So some alignment there would be really useful ... we can't wait for that all the time" (NPM 2).

4.5 Service users' and service providers' perspectives on TILDA

This section reports on interviews from a case study with representatives from the IHF and organisations representing older people regarding their perceptions of the work of TILDA.

In focus groups and semi-structured interviews with relevant organisations, participants expressed their feeling that TILDA corroborated their experiences either as older adults themselves or as a person working with older adults. As such, the evidence presented helped validate their experience while also providing data for advocacy purposes. As one participant explained, "We are passionate about evidence-based advocacy so when we are advocating for people who are living with specific health conditions, whether [they are] young or old, the incredible database of TILDA gives us this evidence base. This is especially so for our pre-Budget submissions for the Government, we go through and look at reports and it really gives us a huge boost" (SP 3).

A central recurring view expressed by a majority of participants was that the work of TILDA was of a very high standard. While there was scope for critique, which is a normal part of most research projects, the academic rigour and overall quality of TILDA outputs was regarded as being very good and applicable to their work. Participants felt that the richness of the data helped to amplify the voices of older people in ways which hitherto had not been possible. The following quotes capture some of these viewpoints:

I said before, but I mean I will say it again just for clarity and emphasis, TILDA's work is high-quality academic work. It is serious about data gathering and data analysis ... so certainly, one hundred percent, it is valuable to us. (SP 3)

It is fantastic to see a structured study and ongoing piece of work like this that is really amplifying older people's voices. Which is something we see anecdotally every day when we're hearing both sides of the older demographic. But it is so interesting to have that in a structured way. And again, like everybody, it really informs how we respond, how we support our volunteers. As well as the learners and maybe newer members of the community coming to Ireland as well. (SP 4)

4.6 Perceived challenges and suggestions for improvement

A number of shortcomings and suggestions for improvement emerged in the context of our research from the perspective of participants from the IHF and from organisations that represent older people. These included: 1) a lack of focus on bereavement across TILDA's resources, 2) issues regarding the representativeness of the sample, 3) the actual impact of TILDA's outcomes on the lives of older people, and 4) dissemination.

Regarding the suggestions for future work, the narratives gathered demonstrated the need for a greater focus on bereavement and a more collaborative approach between TILDA and stakeholder organisations on how to best use TILDA's resources. This is further discussed by participants in the quotations below.

In the following extract, SP 4 specifically mentions the TILDA report *Altered lives in a time of crisis: The impact of the COVID-19 pandemic on the lives of older adults in Ireland* (Ward 2021), highlighting the substantial lack of focus on the issue of bereavement:

There's a report that TILDA has called *Altered lives in a time of crisis* and I just searched for the word bereavement, and it's only in it once, in the conclusion. They [older adults] are the most impacted by, you know, I suppose bereavement impacts everyone. But the laws of statistics say it impacts older people

more. You're more likely to lose people to that [COVID-19] as you get older, and I just think that'd be one thing that's kind of missing.⁷ (SP 4)

Similarly, SP 2 also perceives that TILDA lacks focus on bereavement, framing it as an integral part of people's life experiences that should be accounted for:

The key thing, you know, for me is that TILDA do look at the life course and that includes death, and it includes bereavement, and it's not just about life. It's also about death ... our life is very important. But how we experience death in our life as well is really important ... yeah, bereavement is something that has just such an inevitability of people's life and...it's often overlooked and not given [enough attention], and particularly when everything about COVID was talking about death. Normally we don't talk about death at all, at least during COVID they talked about death for sure, because that was all we heard about. But even in that, the experience of bereavement was overlooked [by TILDA]. (SP 2)

A greater focus on bereavement was also suggested by a participant with reference to an IHF report on the economic impacts of bereavement in Ireland, titled *The Real Financial Impact of Bereavement* (IHF, 2022b), which drew on the TILDA datasets. The recommendations in the summary report included a call for the inclusion of bereavement in further datasets developed by TILDA. As one participant states, "What we would like to see ... [is] to add more bereavement questions. Once you get to the question, we've got loads of ideas for what and how TILDA could be improved" (SP 1).

Participant SP 5 stressed the same point; that is, the desire to see a greater inclusion of the dimension of bereavement in TILDA's overall research effort: "It would be great to see more on the life course, beyond just the living and possibly getting frailer ... extend the life course to looking at life and death. You know, and what happens before, during, and after" (SP 5).

How TILDA might account for the life course including bereavement as a pivotal dimension did not emerge directly from the IHF focus group. However, one participant suggested adding a question on the topic to future waves of TILDA surveys, as older people are particularly exposed to the bereavement of family members, friends, and acquaintances (Anderson and Dimond, 1995; Hashim *et al.*, 2013; Meichsner *et al.*, 2020).

Another perception of the work of TILDA from stakeholders representing older people was whether the findings of TILDA were representative of the wider older adult population. Some participants highlighted that TILDA was not representative of the older adults they worked with, and it was argued that systemic issues of social inequality were sometimes not given prominence. There was a sense that, in the absence of other well-funded research into ageing, TILDA potentially occupied a position of unassailable pre-eminence. This feeling that TILDA has a narrow focus is illustrated in the following quotes from service providers:

So, for me, building on everything that we just said, with a narrow lens TILDA situates the lived experience of a particular group of people which lacks, potentially, that diversity, and it doesn't give the analysis on the systemic issues.... And for us that can be difficult because it doesn't tell the full story. (SP 6)

I think that's one of the challenges here for us. The experience of ageing highlighted in TILDA is not necessarily the experience of ageing a lot of the people we work with have. So, in that respect, it may also give a view of ageing that is a little bit narrower than it should be. (SP 4)

Participants also highlighted the presence (or the lack thereof) of disadvantaged subgroups of the older population within the broader sample. This led to questions of how the outcomes from TILDA translate to and account for people's actual lived experience. One participant questioned the internal coherence of the sample across time, mentioning that illness and the inability of certain individuals to be involved in the project for a

⁷ We checked the referenced report, and indeed it explicitly mentioned bereavement only twice: in the conclusion on pages 61 and 62.

variety of reasons may impact on the quality of the sample: “But how representative the sample is, you know, as in we’re talking about nursing homes, so people with dementia, chances are they’re not completing for, you know, forums. And what about socioeconomic background? You know that sort of stuff” (SP 3).

Another issue highlighted by IHF participants was the perceived gap between TILDA’s outcomes and people’s life experiences, specifically in terms of the experiences of older people, but also those of their family members and of professionals in the field. For instance, one participant commented that:

The sample of the people we follow is really great. But then, how do you translate that back into each individual person? ... I mean, we certainly found them [TILDA’s findings] very useful. We certainly incorporate them...In the number of times, we go to our schools, we’ll be talking about TILDA, and they wouldn’t be aware of it. So there, there’s, somewhere in terms of me, realising that all this is applicable to every one of us, whether I’m a nurse or whether I am a daughter of somebody going into a nursing home, or whether I’m that nursing home user. (SP 1)

Social justice issues or a wider mandate beyond healthy ageing were also considered important areas of focus for future work by participants from representative organisations. There was also a sense among both the representative organisations and older people within representative organisations that TILDA should somehow become more prominent in the thinking of older people. Some examples given included having guest speakers at local events oriented towards older adults, or distributing pamphlets. There seemed to be a desire that TILDA would routinely (or where practicable) be known and spoken about by members of the older adult community. This was perhaps driven by a view that TILDA’s work was very good, and of great importance, yet more people simply needed to know about it. These views are represented by the following two participant quotes:

We have a wider mandate, as [focus group participant] said, to look at the systemic issues and particularly social justice issues and therefore understanding the more diverse experience of older persons and their situation, and the cumulative advantage and disadvantage that leads to the healthy ageing model is important to us. Engaging with older people at local and regional levels would be an important component of this. I think that’s not what TILDA is designed to do necessarily, and it doesn’t do it. And therefore, that’s where we have our gap. (SP 3)

I know I have been involved in things over the years where a lot of TILDA information has been used. I think TILDA has to become more high profile. This means that TILDA researchers would go out and meet with groups. TILDA goes under the radar. A lot of its work is being used but [TILDA is] not familiar to the man on the street. (SP 1)

Some participants suggested that the lack of representativeness could be due to a perceived mismatch between TILDA and the experiences of representative organisations on the ground. It was suggested that more could be done to ensure that hard-to-reach voices were illuminated. Even where this occurred, it was felt that these could be highlighted more in policy briefs. Participants in one focus group questioned whether there may be a sampling bias, with one participant saying:

Is the sample actually a good reflection of the older people who are in the worst circumstances, who are furthest behind, who have the least education, who are least likely to sign up to these kinds of surveys, and who would need significant support to participate. So there’s a concern in my mind that there may be a sampling bias which can make the situation look rosier than it is. The perspective is too focused on healthy ageing. That is perhaps too optimistic and fails to interrogate some of the social inequalities. Particularly when you get into people living in isolation in rural areas, and so on. But I haven’t interrogated the data sufficiently to answer that question. But I suppose it [is] just to give you that as my bias, I suppose, or my concern when I approach the TILDA data. (SP 1)

Box 2 TILDA's response to challenges highlighted by organisations representing older people

As the issue of TILDA reaching marginalised and minority groups in society was highlighted in a number of interviews with older persons' representative groups for the evaluation, the evaluation team met with the TILDA team to discuss this component. The TILDA team acknowledged that this was an issue and identified a number of methodological and data protection issues in relation to accessing particular cohorts of older people. In relation to methodological challenges, the TILDA team highlighted issues with oversampling and the difficulty in accessing these groups, although there was a desire to 'tap into' these cohorts. It was also highlighted that following up with older persons in nursing homes had a number of practical challenges, such as sampling frames, and ethical issues, such as informed consent. In addition, protection and ensuring the anonymity of people within marginalised groups was also highlighted as an issue in the type of longitudinal research undertaken by TILDA. It was also identified by the TILDA team that as the demographic profile of Ireland changes, in particular through immigration and an ageing population, this will be reflected in future samples. The TILDA team spoke at length of the challenges of gaining ethical approval and, in particular, the requirements that have to be followed under the Irish Health Research Regulations (HRR); this makes it particularly difficult to do research in Ireland with groups of people that could be potentially identifiable. The TILDA team provided an example of where TILDA is working with teams at St. James's Hospital undertaking long-term health and social research with older people living with HIV. Overall, the TILDA team highlighted that the basis of their programme of research is the representativeness of older people in Irish society.

Another challenge highlighted by participants from older persons' representative groups was that closer collaboration with representative organisations was necessary in order to ensure that the work of TILDA gained the best exposure and achieved its maximum impact. The view was expressed that reaching older adults directly (as well as representative organisations) was also important, although it was less clear how this could be achieved. In terms of connecting with representative organisations, a greater emphasis on the co-design of research as well as on access to output materials from TILDA was considered advantageous. The recent COVID-19 pandemic was referenced as facilitating representative organisations' capacity to engage with TILDA but, more broadly, specific implementation and user-friendly policy briefs were sought. Easily accessible documents with practical, day-to-day examples of how TILDA findings could impact on organisational effectiveness was viewed as an important next step:

Or maybe we haven't been able to engage with TILDA because we have been too busy. But it would be good to work more closely with TILDA, but I don't know if that's necessarily [something that] TILDA need[s] to improve on or something that we as an organisation need to improve on. (SP 6)

There are a lot of steps or points of removal, which maybe is to be expected, between TILDA and us. But more collaboration and a closer fit would be a good thing. (SP 3)

This issue of the perceived relevance of TILDA's findings to stakeholders' own private and professional lives relates to the issue of how to translate TILDA's outcomes into practice. It was perceived that, according to our participants, TILDA's results are relevant to people's experience even though they do not always manage to come across that way; this is highlighted in the following quotation:

[TILDA's] findings have implications on their [older persons'] lives ... I think it's just a matter of TILDA just have to keep on doing what they're doing again and again and again, because the messages will land in different ways, with different cohorts. So, like people don't consider themselves older until they reach a certain age, and they're actually told they're older, and it's like what? So suddenly the messages start to land differently when they hear about TILDA, whereas before it wasn't relevant, and [now] it is. It kind of feels like that kind of constant reinforcement around what's been done. Because yeah, it's only relevant when it's relevant in people's lives. (SP 4)

A key dimension here is dissemination, or, as highlighted by the same participant, “I think you have to keep banging the drum as well, even when you think you’ve done it, you have to do it again, because no matter how much you’ve done, there’ll always be someone that needs to hear it” (SP 4). More specifically, the participant continued, the reports from TILDA need better circulation in order to reach a wider audience than they currently do: “So, I suppose kind of like, there was the reports, but who knows about them? And when do they know about them? And how do they keep knowing about them? And how can they helpfully apply what’s in those reports into their work? Life? Personal life? And I have to be honest, I wouldn’t have been too familiar with the different streams of the TILDA programme” (SP 4).

While it was generally acknowledged that TILDA has been reported upon widely in the media (via the national press and television in particular), its impact on and relevance to representative organisations and the older adults they serve was less clear. This lack of visibility was reflected by certain organisations which took part in the research reporting having difficulty in sourcing colleagues with sufficient knowledge or confidence to speak about TILDA. This was observed in the analysis of focus groups and semi-structured interviews with representative organisations, where some participants were unsure about how to approach certain questions, citing an insufficient impact of TILDA on their organisations’ strategies and operations. The following quotes are representative of some of the viewpoints that arose in this area:

I will try to raise more awareness within my own organisation about TILDA’s work. I think what TILDA do is important. Their work is not sexy. They need to get it out there. They need to be the people who are informing decisions and policy. Their work needs to be better known. (SP 3)

Yes, I would agree totally ... that the wider population of older people don’t know who TILDA are, unless you have some sort of a link with the older persons’ organisation, or you’re on the interview panel for TILDA, I wouldn’t think people know about it. (SP 5)

Finally, participants emphasised the importance of a more collaborative approach between TILDA and stakeholder organisations in terms of how to best rely on TILDA’s resources, as, due to the ‘selective usage’ of TILDA resources, many stakeholders may pick and choose what is relevant for the accomplishment of a specific task and not necessarily make the most out of TILDA’s multi-layered and rich research outcomes. In the words of one participant:

Infographics are probably one of the more effective ways of getting complex messaging out. But actually, it’s in the complex messaging that you should take the time to kind of delve deeper, and I think that, possibly, the biggest challenge is just taking the time. So, you hear the bit of information, but it’s kind of like time-relevant, isn’t it? You don’t necessarily remember to go back to it when you may need it and that could just be me. But I think it’s, you know, really getting something that’s, like there’s large pieces of information. So how to distil those resources into what you need? (SP 3)

The participant makes it clear that the most useful materials are those that are schematically organised and easy to access and read, such as infographics. This, from the perspective of the interested stakeholders, would make it easier to access and understand the rich and complex material produced by TILDA.

Participants further highlighted that organisations representing older people were not using the results from TILDA’s work to their full extent. There was a sense that organisations could use this to build arguments for change as well as to receive resources; however, there was a sense that there was a lack of expertise within the stakeholder organisations in translating TILDA’s findings, and participants highlighted the challenge of using large and diverse findings without proper guidance. The “grassroots dissemination” of TILDA’s outputs was perceived as a possible solution: “I suppose it’s that kind of outreach with organisations who could benefit [from] and use what TILDA have found to influence and advocate for what they’re looking for and doing that a bit more effectively. So yeah, [it] kind of comes back to that kind of more grassroots dissemination” (SP 5).

As mentioned by another participant, “TILDA is a fantastic resource”, and they highlighted how impactful its outcomes can be:

But what I do find is, there tends to be a lot of reports after reports, which is fantastic. It’s the usage of those reports. And I know we use them, and I suppose what I will say is, there’s one example with the IDS-TILDA [the Intellectual Disability Supplement to the Irish Longitudinal Study on Ageing]. They were actually developed for end-of-life care planning for people with disabilities. They developed three very good documents and supporting documents, and one of them was a user guide for families and workers, and I found they were fantastic, and we utilise those so much any time we [are] doing workshops or any time we’re doing stuff for people with disabilities, and that to me was a kind of a new step further. They had done the research on the report and then provided guidance documents along with infographics (SP 4).

In summary, participants identified a number of opportunities with a few challenges in the research outputs from TILDA. The challenges highlighted were related to the translation of TILDA’s results into a form that can be used by stakeholder organisations representing older people. Opportunities were related to the recognition that TILDA’s outputs are relevant and directly related to the experiences of Irish citizens (not only older people); this was seen as particularly important. In conclusion, although TILDA’s results were viewed as a pivotal resource for the Irish scientific and professional communities, the participants highlighted that TILDA should engage more with other social groups so as to allow all parties involved to fully benefit from the outputs that emerge.

4.7 Conclusion

In Section 4, we highlighted the experience of three international researchers and six Irish policy-makers in reference to TILDA, its outcomes, and its impacts, both nationally and internationally. According to these voices, collaboration with TILDA is facilitated due to its reputable scientific standing, which makes it an example on the international stage of a well-run longitudinal study as well as a very valuable national resource. However, both international and national participants identified challenges related to data access, a barrier that impacts on and influences both scholarly and policy development. Although access to data was an issue, it was acknowledged that this was not always directly related to the work of TILDA, but that TILDA was constrained by issues related to data protection.

Finally, in relation to TILDA’s impact on policy and practice, international researchers highlighted the extent to which the work of TILDA impacts on and informs the Irish political landscape to a greater extent than other projects do in their respective national contexts due to TILDA’s communication strategy, and the close relationship between TILDA and the Government sphere. However, although Irish policy-makers recognised TILDA as an invaluable resource in informing both policy and practice, they also raised some concerns regarding the perceived disconnect between TILDA as an academic concern and the timing of its impact on policy.

In conclusion, the social and discursive representation of TILDA that emerges from the voices of the international researchers and Irish policy-makers interviewed is substantially positive, although there were at least two issues raised: first, TILDA’s data access strategy, although conforming to national and European regulations, is perceived as problematic, for it risks endangering both TILDA’s outcome dissemination and viability, as well as TILDA’s impact on policy-making; second, the disconnect, from the point of view of Irish policy-makers, between TILDA and policy-making is perceived as a challenge to ensuring that the work of TILDA is fully utilised to inform both policy and practice in Ireland and internationally. In this regard, we suggest that a specific communication strategy and the reciprocal reinforcement of inputs between TILDA and Government organisations should be discussed and implemented.

In relation to participants representing older people, the scientific standing of TILDA is not in question, as demonstrated from its rich published material and its impact; this was particularly seen in interviews with participants from the IHF. There are two areas for consideration: 1) how to support stakeholder organisations to

use TILDA's resources in practice, and 2) how to effectively involve a wider variety of stakeholders, including older people and organisations that represent older people, to access and understand TILDA's multi-layered and insightful work for the betterment of older people's lives in Ireland and internationally. The following is a summary of participants' perceived challenges of the TILDA project, and areas for improvement:

- Largely due to its longitudinal character and scientific standing, TILDA emerges as a source of inspiration and as a unique, and thus invaluable, project both nationally and internationally.
- TILDA's data access strategy, although conforming to national and European regulations, has challenges, and this can lead to delays in using these data to impact on policy related to the lives of older people.
- Irish policy-makers highlighted that mechanisms and engagement between TILDA and policy-making could be improved in order to ensure that emerging policy questions influence future designs of the TILDA study.
- Policy-makers identified and welcomed that there are both structured and unstructured interactions between the TILDA team and policy departments to discuss data/findings.
- TILDA's high national and international scientific standing is unanimously recognised as one of the pivotal dimensions of its legitimacy.
- TILDA offers a plethora of useful resources (especially infographics) for by key stakeholders to carry out their mandated activities, in report writing and to achieve their mission.
- Stakeholder organisations reported that they would like greater levels of accessibility and support in the use and implementation of TILDA's resources.
- Stakeholders reported that TILDA provides a deeper perspective and richer data related to healthy ageing in Ireland than other resources.
- Stakeholders, particularly those representing older people, highlighted the need for closer engagement with TILDA in order to enable them to identify resources and to provide evidence-based support for older people.

5 Conclusions and recommendations

The aim of this evaluation was to collate and examine TILDA's outputs, outcomes, and impacts, and to assess the effectiveness of TILDA in delivering on the objectives specified in the grant agreement with the HRB. In addition, the evaluation also assessed TILDA's performance and impact in the context of comparable cohort studies internationally. This was achieved through the use of a number of approaches to the evaluation, underpinned by the Context, Input, Process, Product (CIPP) evaluation model and the Reach, Effectiveness, Adoption, Implementation, and Maintenance (RE-AIM) framework of evaluation. The approaches included a comprehensive literature review summarising the key work of TILDA; an analysis of key TILDA reports to explore their impact on policy; a case study analysis; and interviews with key stakeholders, including older people, organisations representing older people, national and international researchers, and individuals working within governmental and non-governmental organisations.

Overall, from the perspective of key stakeholders, the work of TILDA has had a very positive impact on Irish society and healthcare in particular; this was particularly evident during the COVID-19 pandemic. It is evident that the TILDA team are publishing and disseminating their work in high-impact journals, the outputs of which are comparable to similar studies. This was objectively assessed through a systematic bibliometric analysis. In this evaluation, we reviewed TILDA's academic output. The TILDA project produced more than 450 academic research publications between 2012 and 2022. Additionally, the vast majority of the included retrieved TILDA publications are open access and are thus available to readers at no additional cost. This metric benchmarks against studies that are similar in size and which fall within similar research fields. Publication activity with the highest scholarly output occurred during 2021, at the height of the COVID-19 pandemic. As TILDA's level of academic output increased, the set of power metrics (such as citation counts or view counts) increased as well, as these tend to increase once the quantity of academic output grows in size (Elsevier Research Intelligence, 2019). The TILDA publications have a high Field-Weighted Citation Impact. The number of citations per TILDA publication is also high, ranking TILDA publications in the top 25% of the most cited academic outputs worldwide.

Our analysis of a sample of items from two national newspapers indicated the emergence of a broad underlying metadiscourse on ageing and health that we have termed 'ageing well'. The reach of TILDA in traditional print media was extensive in the years after the release of the findings from Wave 1. Despite the prevalence of negative media portrayals of ageing and older people, there is growing evidence of media presenting older people in positive ways, and our evaluation has demonstrated such evidence. Indeed, over much of the period during which the TILDA results have been reported on, there was evidence of a discourse entreating older people to stay healthy and offering strategies for maintaining health.

Consultation with key stakeholders to evaluate the impact of TILDA on education, policy, and practice identified that TILDA is represented as a valuable resource – both nationally and internationally – for a variety of social, political, and practical contexts, despite its limitations (e.g. limited data access and the perceived disconnect between research and policy-making). Moreover, TILDA is perceived as a body of international and national excellence. This is largely due to TILDA's coherence in terms of research design and delivered outputs, and its perception as having substantial merit and having delivered on its key objectives. TILDA is also positively perceived for its ability to reach intended audiences at both a national and international level, and its findings are widely adopted across national and institutional settings. The longitudinal character of TILDA's work is the main feature that drives its impact over time, and this is specifically emphasised by the almost total agreement on TILDA's value for money. There is overwhelming support for the programme to continue.

However, as identified in the evaluation, certain challenges exist, with access to data being somewhat problematic, as well as challenges in translating the outputs from TILDA into Government policy. While TILDA features as an international example which is looked at as an inspiration, and nationally is capable of fostering

practice changes based on its perceived legitimacy and trusted character across stakeholders, the interviews highlighted that more integration is needed at policy level, especially in relation to meeting policy development deadlines.

The in-depth organisational case study of the IHF undertaken as part of this evaluation identified the perception that TILDA excludes from its sampling process older adults in nursing homes and those with conditions such as dementia, or those older people from marginalised and minority groups; however, this was countered by the TILDA team's emphasis on the need to ensure that the sample is nationally representative. In the case study, TILDA was identified by participants as a pivotal resource for the work of the IHF; however, our participants highlighted the need to translate the outcomes from TILDA into user-friendly guides and collaborative strategies that can support key stakeholders who provide health and social services to older people to translate TILDA's results into actions that can enhance the lives of older people at functional, organisational, and strategic levels.

In terms of public and patient involvement (PPI), there was a perception among respondents – particularly those working with or representing older people – that TILDA is not always seen as reaching its PPI audience. This was particularly related to the accessibility and usability of TILDA's resources and outputs, with a call for these to be produced in a user-friendly format for PPI groups. Notwithstanding these issues, with the recognised reach of TILDA through both traditional and social media, the members of the stakeholder organisations interviewed reported that their organisations do adopt TILDA's findings. TILDA's results and outputs are implemented by the organisations' PPI groups and do contribute in a positive way to the work of the stakeholder organisations. The longitudinal character of TILDA, together with the richness of the data it gathers, were perceived by PPI participants as the main strengths of the TILDA project. There was also agreement among the participants regarding the unique character of the project and its transformative potential for older people, policy-making, and healthcare practice in Ireland.

There was also acknowledgement from participants that TILDA provides a deeper perspective and richer data related to healthy ageing in Ireland than other resources, although greater engagement with representative organisations is required, which is crucial to provide support for older people. Through engagement with these organisations, healthy ageing policies across Ireland can be enhanced and further developed via both top-down and bottom-up interventions. Collaboration of TILDA with representative organisations across Ireland was viewed as essential. In this way, older people in Irish society would also gain a greater awareness of healthy ageing policies. A focus on the needs of both society and organisations (specifically their lived 'on-the-ground' experience), together with enhanced data access, can facilitate deeper insights into the lives and well-being of older people in society.

Outcomes related to evaluation models

In terms of our theoretical framework, based on the CIPP evaluation model (Stufflebeam and Zhang, 2017) and the RE-AIM framework (Green and Glasgow, 2006) and their subdimensions, we outline the following conclusions:

- **Context:** TILDA is largely represented as a valuable resource, both nationally and internationally, for a variety of social, political, and practical contexts.
- **Input:** TILDA's longitudinal character is highlighted as legitimising, and TILDA is represented both as a national and international centre of excellence. This is largely due to TILDA's coherence in terms of research design and delivered outputs.
- **Process:** The work of TILDA is successfully integrated across institutional and national contexts, although there are a number of areas where further improvement would be necessary in order to ensure TILDA's sustainability over time and to make it an even more effective project. This could include the revision of TILDA's data access strategy to allow Government Departments and units to have greater access to data for

policy modelling. There needs to be a more proactive approach between government organisations and TILDA so as to underline those policy-sensitive areas where research priorities could be systematically identified.

- **Product:** TILDA has substantially delivered what it has promised. The work of TILDA could be strengthened in a number of areas but, overall, the evaluation identified that it is a valuable resource that is enhancing the health and well-being of older people in Ireland.

In relation to the **RE-AIM framework**, the evaluation noted the following:

- **Reach:** TILDA is positively perceived for its ability to reach intended audiences at both a national and international level. More specifically, this seems to be largely the result of the high profile of TILDA's Principal Investigator in communicating to both lay and scholarly audiences. A number of policy-makers did highlight the possibility of improving their dialogue with TILDA and its specific impact on policy-making and organisations representing older people.
- **Effectiveness:** TILDA is positively perceived as providing a comprehensive perspective and rich data on growing old in Ireland and positively impacting on the lives of older people.
- **Adoption:** According to our participants, TILDA's findings are widely adopted across national and institutional settings. Nevertheless, while TILDA features as an international example which is often also looked at as an inspiration, and nationally is capable of fostering bottom-up practice changes based on its perceived legitimacy and trusted character across stakeholders, greater collaboration is required at policy level. In this regard, we collected a variety of opinions depicting a picture of TILDA as being influential in the policy-making process, but not as influential as it could be. This, we contend, should be the subject of further investigation by the HRB in order to strengthen TILDA's impact in the Irish policy-making arena.
- **Implementation:** Overall, TILDA emerges as being successfully implemented both nationally and internationally. There were challenges, as highlighted, including access to data and the level of dialogue between TILDA and government organisations. Nevertheless, as emerged from our interviews with policy-makers and organisations representing older people, the overall perspective is that the outputs from TILDA are used to inform policy and practice.
- **Maintenance:** The longitudinal character of TILDA is, for both international and national participants, the main feature that affirms TILDA's perceived impact over time. This is due to the fact that longitudinal studies become more effective as time passes and they gather more data, as recounted by several key stakeholders. This was specifically emphasised by the almost total agreement on TILDA's value for money, which offers the possibility to develop cost-effective interventions in relation to a plethora of other health issues besides those associated with ageing.

In conclusion, the evaluation of TILDA that emerges from our analysis of academic and policy-related outcomes and from the participation of international researchers and Irish policy-makers, clinical partners, and representatives of older persons' organisations interviewed is substantially positive, although there are at least two major issues: first, TILDA's data access strategy, although conforming to national and European regulations, is perceived as problematic; second, from the point of view of Irish policy-makers, the disconnect between TILDA and policy-making is perceived as an obstacle to TILDA's aim to inform both policy and practice in Ireland and internationally. In this regard, we suggest that a specific communication strategy and the reciprocal reinforcement of inputs between TILDA and government organisations should be discussed and implemented. Overall, due to its longitudinal character and scientific standing, TILDA emerges as a source of inspiration and as a unique, and thus invaluable, project both nationally and internationally.

In terms of the HRB requirements for the evaluation, our team made the following conclusions

- **Collate TILDA outputs, outcomes, and impacts:** It is evident that the outcomes, outputs, and impacts of TILDA, as highlighted in this evaluation, are of a high standard and internationally recognised as being at a level comparable to or exceeding similar international longitudinal studies. It is also evident that the work of TILDA is effectively impacting on policy and practice, and is enhancing an understanding of the lives of older people in the health and social spheres. While there are challenges in the usability of TILDA's outputs by older people and organisations representing or providing care to older people, and in their transferability to policy, there is a recognition that further and targeted collaboration can enhance and further develop this aspect of TILDA's work.
- **Assess the effectiveness of TILDA in delivering on the objectives specified in the grant agreement with the HRB:** It is evident from this evaluation that TILDA has been effective in delivering on its aim and objectives as required by the Department of Health and the HRB. These are outlined below. For example, TILDA has:
 - a) Developed and collected a core set of data on a nationally representative, longitudinal sample of people aged 50 years and older in Ireland (bibliometric analysis)
 - b) Continued to develop and enhance this dataset over subsequent waves of the TILDA project (bibliometric analysis)
 - c) Participated with older people in project design, conduct, and dissemination, although it is recognised that this area requires further development and input by TILDA (case study and interviews with representatives of older people)
 - d) Developed linkages in order to enable comparative analysis with national and international partners working in the area; this delivery was identified as a particularly strong aspect of TILDA's work, as international participants in the evaluation highlighted the strong collaboration with TILDA and that the longitudinal study was held in high regard internationally (interviews with international experts)
 - e) Widened understanding of the whole rather than just individual parts; it is evident that the work of TILDA has positively impacted on the lives of older people in Ireland through producing outcomes that address the health and well-being of older people as well as facilitating a positive discourse on growing old in Ireland (discourse analysis)
 - f) Served as a driver and facilitator of other innovative research sub-studies; for example, longitudinal studies on ageing in people with a learning disability and ageing in people who are HIV positive (bibliometric analysis)
 - g) Analysed and translated data to inform and guide future planning, implementation, and evaluation of national policies, programmes, and services in Ireland; it was evident that the work of TILDA was impacting on policy and practice related to the lives of older people in Ireland, but there was an acknowledgement that more could be achieved in this area through the development of further collaborations (interviews with policy-makers, case study, and interviews with organisations representing older people)
 - h) Optimised public access to TILDA data and engaged in the sharing and linkage of data with other datasets in order to expand the learning/findings from TILDA; this was achieved to some extent, but it was highlighted that PPI groups in particular would like greater access to data in a user-friendly format (interviews with policy-makers, case study, and interviews with organisations representing older people), and
 - i) Maintained a sample for possible subsequent waves of data collection; the longitudinal nature of the study and the maintenance of a nationally representative sample were identified as particular strengths of TILDA (interviews with international experts).
- **Analysis and findings on the efficiency of TILDA in relation to the costs of inputs:** Although a full economic evaluation of the work of TILDA in relation to the costs of inputs was outside the scope of this evaluation, it was evident from the qualitative assessment of interviews with national and international participants that TILDA is providing value for money and that it is a valuable resource for Ireland in enabling an understanding of growing old in Ireland and through the collection of data on older people to a level not available before.

Participants saw this as being essential for current and future health and social care planning and for its potential to positively affect the well-being of older people in Ireland. The evaluation participants felt that TILDA is providing essential longitudinal data on the lives of older people that are essential for evidence-based policy development, and this in itself justifies the costs of inputs.

- **Analysis and findings in the context of comparable cohort studies internationally:** International perspectives from researchers involved in comparable international cohort studies identified that the work of TILDA and its team is held in very high regard and it is a programme of research that is adding greatly to the field of longitudinal research on older people. Many of the innovations and outputs from TILDA were regarded by international experts interviewed for this evaluation as innovative and world-leading. The high quality and impact of the work of TILDA was also identifiable in the bibliometric analysis of its academic outputs. The impact of TILDA's work was comparable with, and in some areas exceeded, that of international cohort studies with a large volume of work published in high-impact journals.

5.1 Key learnings and recommendations for future consideration

The following summarises the evaluation team's key learnings and recommendations on the TILDA project:

- The outputs from TILDA are of a high quality and continue to provide a strong evidence base for addressing current and emerging issues associated with population ageing in Ireland across health, economic, and social systems.
- TILDA has developed strong collaborations with similar longitudinal studies in the United Kingdom (UK). It is recommended that these collaborations should continue and be formally strengthened through the further development of an official network.
- TILDA should consider enhancing procedures (taking into consideration data protection legislation) to further facilitate researchers and other key stakeholders to access data generated as an outcome from the longitudinal study.
- Formal structures between key Government Departments should be further established and strengthened in order to enhance the impact of outputs from TILDA on public policy and decision-making.
- Guidelines should be developed outlining the policy regarding authorship of academic papers or reports as a consequence of other stakeholders using data generated through the work of TILDA.
- TILDA should consider developing greater access to data through other processes, such as secure online portals. This would facilitate researchers and policy-makers not based in the Dublin region to access data.
- There is a need for TILDA to work closely with Government Departments in order for both parties to be aware of the timelines required to translate TILDA outputs into policy. This should consider alignment with Government Departments' budget cycles.
- There is a need to formulate systems that will facilitate timely and comprehensive access to relevant datasets generated by TILDA for data analysts working within Government Departments.
- There is a need to enhance public and older people's involvement in discussing the outputs of TILDA. This could include the development of a more user-friendly website, further and enhanced outreach with older persons' representative organisations, the provision of information sessions for non-governmental organisations (NGOs), and furthering the development of collaborative relationships with a wide variety of bodies representing older persons.

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Appendix A Evaluation team

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Appendix B Questions for policy-makers

1. Can you please begin by providing a brief overview of your role in this department/organisation and how does it connect with the work of The Irish Longitudinal Study on Ageing (TILDA)?
2. To what extent do you think that the work of TILDA has informed policy in your department/organisation? Can you please share one or two examples with me?
3. From your perspective, what are the main strengths and opportunities you have identified from the work of TILDA?
 - Now can you tell me what challenges you have experienced from the work of TILDA?
4. In what way do you think the results from TILDA have been successfully implemented? If so, can you provide one or two examples?
 - If the work of TILDA has not been used, can you please explain why?
5. What is your perspective on how the work of TILDA has been successful in reaching out to the public (policy-makers, academic users of data, older people and their families, other stakeholders)? Can you please give me one example?
6. In what ways do you think TILDA has been effective in improving the lives of older people in Ireland?
7. From your perspective, to what extent have the results of TILDA been adopted in your department/organisation?
 - If the work of TILDA has not been adopted, why do you think the results have not been adopted?
8. To what extent do you think the work of TILDA has been implemented across health and social services in Ireland? Can you provide one or two examples?
 - If the work of TILDA has not been implemented, why do you think that is not happening?
9. In summary, what do you think the main contribution of the work of TILDA is to Irish society? Should this work continue?
10. Do you think the work of TILDA offers value for money?

Appendix C Questions for international researchers

1. Can you please tell me what is your field of expertise as a researcher?
 - How does your research relate to the work of The Irish Longitudinal Study on Ageing (TILDA)?
2. How does your research benefit from the work of TILDA? Can you please share some examples?
3. From your perspective, how accessible to you are the data generated by TILDA? Can you please give me an example to understand this better?
4. From your perspective, what are the main strengths and opportunities that TILDA offers to its beneficiaries (policy-makers, academic users of data both within Ireland and abroad, older people and their families, other stakeholders)? Can you please share one or two examples with me?
 - According to your perspective, what are the main challenges to the successful implementation of TILDA's results?
5. Accounting for your own expert opinion, do you think that TILDA's work is impacting on the well-being and health and social care of older people both nationally and internationally? Can you please share one or two examples with me?
6. Do you think the work of TILDA has been beneficial to further developing research with older people?
 - If not, can you please discuss why?
7. What do you think could be improved about the work of TILDA?
8. In summary, what do you think are the main contributions of TILDA to Irish society and internationally? Should this work continue?

Appendix D Questions for stakeholder organisations

1. Do you think the guidelines, publications, and other materials of The Irish Longitudinal Study on Ageing (TILDA) have influenced your organisation? Can you please give us an example?
2. How do you regard the reach and impact of the results of TILDA? Can you please give us an example(s)?
3. How do you evaluate the adoption and integration of TILDA's initiatives in your organisation? In wider society?
 - What worked best and what didn't?
4. Do you think the effects of TILDA are sustainable?
 - Why do you think so?
5. What should change in order to make TILDA's impact more effective and beneficial?
 - What could your organisation change in order to make TILDA's impact more effective and beneficial?
6. Do you have any concluding comments related to TILDA before finalising the focus group interview?