The Northern Ireland Longitudinal Study (NILS) Ten Year Anniversary

Linking Data, Informing Policy

Supported by funding from
The NILS was established in 2006 and is now celebrating its 10th Anniversary. It has been supported and funded by the Economic and Social Research Council (ESRC), the Public Health Agency, and the Northern Ireland Statistics and Research Agency (NISRA) and its users, comprising researchers from academia and the civil service, are grateful to these organisations. During its first decade, the NILS has gradually widened its circle of users not only geographically but also in terms of the topics that have been researched using this rich and detailed data resource. Users are drawn not only from Northern Ireland but from Britain and the USA and the subjects that have been considered are wide-ranging, including fertility, mortality, health inequalities, segregation, internal migration and the labour market. We look forward to another decade of exciting developments, new data, new research, new users, and new audiences for research using the NILS. Meanwhile, this booklet gives you a flavour of some of the work that has been done to date and shows how you can either access this research or even start to use the NILS yourself.

Foreword

Dr Ian Shuttleworth
Director of the NILS Research Support Unit

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Introduction

The NILS, alongside the Office for National Statistics Longitudinal Study of England and Wales and the Scottish Longitudinal Study, is one of three key UK data resources based on the linkage of census and administrative records.

Dr Dermot O’Reilly
Director of the Administrative Data Research Centre in Northern Ireland

The NILS is an extremely valuable data source for my own research on public health, social epidemiology and health inequalities, the work of my research colleagues in the Centre for Public Health at Queen’s University Belfast and also the wide user base that now extends beyond Northern Ireland. For the establishment of the Administrative Data Research Centre in Northern Ireland (ADRC-NI), the NILS has been of great assistance in terms of developing statistical office and researcher experience in creating, accessing and using microdata. Furthermore, the pooling of resources for a shared safe research environment in NISRA headquarters to service the NILS and ADRC-NI is beneficial for both investments. I greatly look forward to seeing the NILS prosper over the coming years, building on the excellent research highlighted in this booklet and supporting the development of its users.

Ms Siobhan Carey
Registrar General for Northern Ireland and Chief Executive of NISRA

Since taking up my post as Registrar General for Northern Ireland and Chief Executive of NISRA in September, I have had the opportunity to learn about the important research that has been advanced through the NILS over the past decade – some 107 projects in total as highlighted in this informative 10th Anniversary booklet. The potential afforded by longitudinal research, spanning some 30 years, continues to grow. Not only do we have a wider pool of experienced researchers at our disposal, but an enriched range of data and a heightened interest among policy makers to utilise research of this nature in their decision making. To help optimise both the future reach and impact of the NILS, NISRA is expanding the facilities that will be available to researchers in our new Colby House headquarters. Early next year, this added investment will double the number of researchers who can be accommodated in our new Secure Environment at any point in time, give rise to extended opening hours and provide facilities for researchers to network and share ideas. As the newly appointed Chief Executive of NISRA, I (like my predecessor Dr Norman Caven) realise the considerable potential that the NILS continues to offer and, as a part investor, am fully committed to its continuance and future success.

In addition to supporting high-quality and policy-relevant research from a Northern Ireland perspective, the NILS makes a wider contribution in terms of enhancing the statistical infrastructure and understanding of society in the UK. Comprising two major data linkage studies, namely the NILS and the Northern Ireland Mortality Study (NIMS), the NILS has facilitated research on a range of topics relating to health, population and society since its inception in 2006. A decade on, it is appropriate to reflect on the success of the NILS. Accordingly, this booklet has been produced as part of a special event being held at Queen’s University Belfast (QUB) on December 5th 2016, to mark the 10th Anniversary of the NILS. It provides an overview of the type of research undertaken over the period and profiles a number of the individuals who have worked with this unique data source.

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The presentation of NILS research in this booklet is aligned with the six themes of Making Life Better 2013–2023 (MLB), a ten year public health strategic framework for Northern Ireland (Department of Health, Social Services and Public Safety, 2014). This highlights the value of the NILS in that much of the research it supports is highly relevant to the development of policies and actions to improve health and wellbeing and to reduce health inequalities throughout Northern Ireland. The final section of the booklet refers to building research capacity, demonstrating the extent to which the NILS supports the development of undergraduate and postgraduate researchers. Research using the NILS is not solely related to health, with numerous projects over the decade providing valuable insights on diverse topics such as internal migration, housing, religious identity and residential segregation; a selection of these are summarised and presented.
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The ‘Giving Every Child the Best Start’ theme of MLB sets out long-term outcomes of healthy children and young people who are skilled for life.

With its large database of children in Northern Ireland (and the NILS data for 2011 holds approximately 100,000 records for individuals aged 15 years and under), the NILS is very well equipped to underpin research on the health and wellbeing of children and young adolescents.

Detailed census data routinely updated with vital events information (e.g. births and deaths) and residential histories from the Health Card Registration System (HCRS), in addition to the capacity for record linkage of external data sources, facilitate wide-ranging research on childhood. The NILS has been used in this regard to investigate the relationship between birth month and later health and education outcomes, the impact during adolescence of childhood residential mobility and the use of dental care services by children.

The availability of data from the last four censuses of Northern Ireland (1981, 1991, 2001 and 2011) is a particular strength of the NILS in terms of facilitating longitudinal research on education, health and labour market outcomes for children in later life.

Characteristics at birth of lone mothers in Northern Ireland who have low birthweight babies

Dr Karen Casson, Prof. Helen Doll, Dr Ann Marie Gray and Ms Evie Gardner (all Ulster University, UU)

Low birthweight (<2500g) is an indicator of infant and adult health. This NILS Distinct Linkage Project (DLP) investigated the socio-demographic and household characteristics of mothers of different registrant groups (married, mother only, joint with father living at same address, joint with father living at different address) who had low birthweight babies. Ward’s method of cluster analysis revealed low birthweight was not about marriage per se as there were sub-groups within registrant groups at very low risk. Maternal smoking was found to be an important factor for low birthweight as were older maternal age and a grandparent living in the household. Identified distinctions in characteristics within registrant groups will facilitate targeting of antenatal support for groups of women at highest risk of low birthweight.

Researcher profile

Dr Karen Casson (Lecturer, Institute of Nursing and Health Research, UU)

I have been a co-investigator on Projects 018 and 049 of the NILS. This research project has been beneficial to improving health outcomes by targeting specific clusters of women and changing prescribing practices of professionals during pregnancy. My research interests are in health and social inequalities, maternal and infant health, young people’s health and social needs, physical activity, sexual health and economic evaluation. I chair the Health Inequalities Group led by Belfast Health Cities which developed a tool to assess the impact of inequality on draft policies and practice. A programme is being rolled out to assist statutory organisations in Belfast to build capacity to make health, wellbeing and inequalities a key consideration in the planning and development of policies, projects and actions. I am Vice-Chair of the NILS User Group, a member of the NILS Steering Group, a co-investigator with the ADRC-NI and Vice-Chair of Belfast Healthy Cities Board.

Relevant publications


Childhood residential mobility and mental health outcomes

Ms Fotini Tseliou, Dr Dermot O’Reilly, Dr Aideen Maguire, Dr David Wright and Dr Michael Donnelly (all QUB)

Project 085 examined whether the long-term educational prospects of children born close to the cut-off date of the school year in Northern Ireland were worse compared to children born later in the year. Although in other parts of the UK, the youngest pupils within school-classes have been found to suffer short- and intermediate-term disadvantages, this research did not show a disadvantage in Northern Ireland for people aged 22-28 in the 2011 Census. Other factors, such as socio-economic deprivation were found to be far more influential for later educational outcomes.

Month of birth and education outcomes

Dr Stefanie Doebler (University of Liverpool), Dr Ian Shuttleworth (QUB) and Dr Myles Gould (University of Leeds)

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Among the long-term outcomes of the ‘Equipped Throughout Life’ theme of MLB is healthy active ageing.

Equipped Throughout Life

With over 200,000 NILS members linked across the last four censuses of Northern Ireland, the data source is uniquely suitable for research on ageing and the life course. In addition to the longitudinal perspective provided, the exceptionally large representative sample (28% of the Northern Ireland population) permits researchers to investigate small population subgroups such as children, single parents or older people aged over 70 years. This would not be possible with many other data sources due to disclosure risk. The NILS has supported research on different aspects of ageing and enabled a life course perspective to be applied to various social phenomena such as internal migration.

Taking a life course approach to research using the NILS

Dr Aileen Stockdale (QUB) and Dr Gemma Catney (University of Liverpool)

Project 032 of the NILS applied a life course perspective to migration research. We explored Northern Ireland’s internal migration patterns, specifically testing for the importance of urban to rural migration at different stages of the life course. Data from the NILS were used for the first time to analyse urban–rural migration patterns. The results from logistic regression modelling suggested an age selectivity to urban–rural mobility but not necessarily at the life course stages predicted from a review of the associated literature. Individuals in younger age groups (at the household and family formation stages of the life course) were most likely to make an urban to rural move in Northern Ireland, with a decline in the likelihood of this move type with age. Our findings show that migration processes may play out differently in varying geographical, social, and policy planning contexts.

Relevant publication


The impact of deprivation on healthy ageing

Dr Stefanie Doebler (University of Liverpool) and Dr Nina Glasgow (Cornell University, USA)

Our research on ageing and life course inequalities focused on how different dimensions of poverty and socio-economic deprivation affect healthy ageing. As part of NILS Project 081, we investigated how the factors of residing in a deprived area, living in sub-standard housing, not having access to a car and being deprived in terms of education and employment were related to poor health and mental health as reported in the Northern Ireland census. Other more recent research has looked at premature mortality and found that, in particular, the housing dimension of poverty is related to a higher risk of dying early.

Relevant publications


Improved health and wellbeing is a key outcome of the ‘Empowering Healthy Living’ theme of MLB.

Empowering Healthy Living

The NILS is an ideal data source for undertaking health research, which is reflected in the large number of projects in this area that have been completed since 2006 or are ongoing. The detailed health information available from the Northern Ireland census combined with the facility to link external sources such as the Enhanced Prescribing Database (EPD) provides a comprehensive and rich source of data for research on population health and epidemiology. Owing to the large sample size, it is possible to focus on specific population groups such as children, the elderly and migrants. Alongside the NILS, the NIMS links census returns to registered death data, supporting research on mortality in Northern Ireland. Health-related research using the NILS covers a broad range of topics including occupational mortality, geographical and social inequalities in health, breast screening uptake, and migrant health and mortality. Much of this work has been funded by the ESRC, Health and Social Care (HSC) Northern Ireland and other major research funding bodies. Mental health is a particular strong focus of NILS research, with a number of researchers and projects associated with this subject.

Researcher profile

Dr Aideen Maguire (Research Fellow, Centre for Public Health, QUB)

My research is focused around mental health and utilising secondary administrative data to better understand the determinants of poor mental health in the population. My PhD successfully linked prescribing data from the EPD to census data from the NILS and care home data from the Regulation Quality and Improvement Authority. My main findings were associated with the individual, household and area level predictors of psychotropic drug utilisation. I am currently involved in data linkage projects utilising both the Honest Broker Service and the NILS. I have also recently been involved in securing an ESRC Secondary Data Analysis Initiative grant to utilise data on receipt of disability benefit to determine the mental health profile of claimants. My research is of major interest to mental health service providers, charitable organisations and in particular to the Assistant Director of Mental Health and Learning Disability in the Department of Health.

The Grief Study: How bereavement can affect mental health

Dr Mark McCann (University of Glasgow), Dr Aideen Maguire (QUB), Dr John Moriarty (QUB) and Dr Dermot O’Reilly (QUB)

The Grief Study, as part of Project 061, linked the NILS with data from the NIMS, allowing for the identification of persons whose co-residents had died since the 2001 Census. A further link was made to a subset of prescribing data from the EPD; this provided a proxy measure of mental health problems in the general population, namely whether the NILS cohort member was prescribed antidepressant or anxiolytic medication in a chosen time period. Bereavement status was determined by cause of death and divided into four categories: those not bereaved, those bereaved by an illness/expected death, those bereaved by a sudden death and those bereaved by suicide. Census returns enabled further stratification of analysis by different characteristics such as age, sex, general health, education level and socio-economic deprivation. Key findings include:

- 23,821 (7.5%) NILS members suffered bereavement between 2001 and 2009
- Bereaved persons were 1.38 times more likely to be prescribed antidepressants (95% confidence interval 1.29-1.48)
- Risk of poor mental health was increased for those bereaved in sudden death circumstances and highest for those bereaved by suicide
- Losing a child by suicide was the largest examined risk factor for poor mental health post bereavement

As part of this study, the research team engaged directly with organisations such as Cruse Bereavement Care, Contact and the HSC Bereavement Network. This led to the production of a publically available podcast and seminar to discuss the findings on sudden bereavement, on protective factors such as education and on treatment patterns for mental health.

Relevant publications


Researcher profile

Dr Aideen Maguire (Research Fellow, Centre for Public Health, QUB)

My research interests are in the importance of interpersonal relationships, of major life experiences and of societal structures on personal wellbeing. Since 2012, I have been involved in four NILS projects, which have looked at the health effects of social roles such as caring for a loved one as well as the impact of major life events. I collaborated with colleagues on the NILS-based Grief Study, which examined mental health impacts post bereavement, with the findings published in the American Journal of Public Health. More recently, we have used the longitudinal structure of the NILS to assess levels of social and occupational mobility in the Northern Ireland labour force, as well as the factors which influence mobility. These results will be presented as part of the Knowledge Exchange Seminar Series at the Stormont Assembly in January 2017.

Researcher profile

Dr John Moriarty (Research Fellow, Centre for Public Health, QUB)

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The health and mental health of informal caregivers in rural and urban Northern Ireland
Dr Stefanie Doebler (University of Liverpool), Dr Assumpta Ryan (UU), Professor Sally Shortall (QUB) and Dr Aideen Maguire (QUB)

This Distinct Linkage Project (082) involved record linkage between the NILS and EPD to investigate the mental health of caregivers in Northern Ireland. Of specific interest was their likelihood of admitting to poor mental health in the census and how being prescribed antidepressants by a general practitioner varied by gender, employment status, age and area-remoteness. Based on binary logistic multilevel models, the findings indicated that especially younger caregivers with a double-burden of maintaining a job and caring for ill relatives faced an elevated risk of poor mental health. Furthermore, long-term unemployed and caregivers in remote areas were significantly more likely to require antidepressants than caregivers in urban areas and those who held jobs (of a moderate workload). These findings have been presented at the Knowledge Exchange Seminar Series at the Stormont Assembly and have contributed to podcasts informing stakeholders and policy-makers.

Relevant publication

Mortality risk for caregivers in Northern Ireland
Dr Dermot O’Reilly (QUB), Dr Aideen Maguire (QUB), Dr Michael Rosato (UU), Dr David Wright (QUB) and Ms Foteini Tseliou (QUB)

While much research reports that caregiving has a detrimental impact on health, some studies find evidence of a comparative survivorship advantage. Approximately 17% of the Northern Ireland population provides informal care and understanding those who are most at risk of negative outcomes is vital for ensuring the health and well-being of caregivers. For Project 086 of the NILS, we utilised data from the NIMS to determine the risk of all-cause mortality based on caregiving status and psychological health. Based on NILS members enumerated in the 2011 Census with mortality follow-up of 33 months, mortality risk for caregivers was found to be lower than for non-caregivers; the lower risk was evident even for those providing 50 or more hours of caregiving per week. Even among people with chronic health problems such as poor mental health, caregivers had lower mortality risk than non-caregivers. This large population-based study confirms that for the majority of caregivers the beneficial effects of caregiving in terms of short-term mortality risk appear to outweigh any negative effects.

Relevant publication

Researcher profile
Dr David Wright (Research Fellow, Centre for Public Health, QUB)

My current research interests are centred on the social and geographic factors that influence people’s health and interactions with the health services. I have been a frequent user of the NILS during the past four years, investigating urban/rural variation in mortality risk during widowhood and variation among areas in the likelihood of becoming a teenage mother. My other NILS work has centred on interactions between the major religious groups, including the ways in which risk of marital dissolution differs with religious affiliation and the socio-economic and mortality differentials between groups.

Relevant publication
Creating the Conditions for Good Health and Wellbeing

Key long-term outcomes of this theme include a decent standard of living, and safe and healthy homes. With regard to the former, one of a range of commitments involves reducing the number of births to teenage mothers, especially in disadvantaged areas, to help mitigate the impact of poverty. Related to safe and healthy homes, the goal is to improve the quality of the housing stock as it is vital for mental and physical wellbeing; one specific action is to tackle Northern Ireland’s high rates of fuel poverty. The NILS has been used successfully for research in these specific areas, thereby providing a valuable insight for policy-makers.

Influence of area of residence on teenage pregnancy
Dr Dermot O’Reilly (QUB), Dr Michael Rosato (UU), Ms Rachel Doherty (QUB) and Dr David Wright (QUB)

Despite gradually decreasing since 2002, the UK continues to have the highest rates of teenage motherhood (TM) in Western Europe. Although the life course for teenage parents is not necessarily negative, adolescent pregnancies entail the risk of adverse health problems for both parents and infants as well as generating considerable emotional, economic and social costs. While much research has examined the demographic and social factors associated with TM, less is known about possible area effects. Using a sample of circa 14,000 nulliparous females aged 15-18 years from the NILS, Project 065 measured the TM risk while adjusting for a range of demographic, socio-economic and area factors. Our results showed that living in an area with fewer employment opportunities was associated with increased TM risk, as was urban dwelling; therefore, area of residence was a significant risk factor for TM.

Relevant publication

Housing and temperature-related mortality
Dr Chris Morris (formerly with the Department for Social Development) and Professor Christine Liddell (UU)

The Northern Ireland Assembly is committed to addressing the problem of fuel poverty. One of the earliest NILS projects (Project 002) was initiated by the Department for Social Development to investigate the factors impacting on cold-related mortality due to its strong link with fuel poverty. Data from the NIMS on individuals who died in the period 2001-2006, including socio-economic and housing characteristics, were linked to local housing data (e.g. energy efficiency, use of double glazing) and a range of geographic indicators (e.g. altitude, urban/rural location). Results showed that up to 6% of deaths had an association with low temperature, which may have been inside the home (fuel poverty) or outside. Lack of central heating increased the chance of death being circulatory by 10% and respiratory by 20%. The findings from this project have been used to inform the debate around fuel poverty in Northern Ireland and how progress can be made in tackling the issue.

Relevant publication

The ‘Creating the Conditions’ theme of MLB focuses on fundamental elements for good health and wellbeing, including employment and income levels, the wider physical environment and living conditions.
Empowering Communities

The health and wellbeing of individuals is impacted greatly by the communities and social networks to which they belong. Distinct communities, most notably by religion, have been an enduring feature of the social landscape in Northern Ireland. The economic, social and demographic composition of these communities is greatly influenced by the residential movement of people. A considerable body of NILS-based research has been built up, which provides valuable insights on community-related topics such as segregation patterns and religious change.

Investigating migration patterns and social change using the NILS

Dr Ian Shuttleworth (QUB), Dr Paul Barr (Dartmouth College, USA) and Dr Myles Gould (University of Leeds)

Because of its large sample fraction, the NILS is particularly useful for analysing people in their geographical context. In Northern Ireland, given recent history, themes of particular interest are residential segregation and socio-economic deprivation. These subjects have formed the focus on a completed project (Project 020) with further work in this area being currently undertaken in Project 110. These have examined what happens when people change address and move from one place to another. They find that Catholics and Protestants continued to move to different areas after 2001 despite the end of violence, and that socially less advantaged people were more likely to move to poorer areas than their more affluent counterparts. However, there is no evidence for increases in either communal or social segregation. It is suggested that this is because relatively few people move, they move only short distances, and the current net redistributive impact of migration is therefore small. It is hypothesised that a much more dynamic population with regard to migration is needed to increase or decrease segregation.

Investigating migration and address accuracy in administrative data

Dr Ian Shuttleworth (QUB), Dr Paul Barr (Dartmouth College, USA), Professor David Martin (University of Southampton) and Dr Brian Foley (QUB)

The use of administrative data from the healthcare system for the delivery of health programmes plus its increasing statistical use for estimating migration and the populations of small areas means that it is important to know more about its geographical accuracy. The NILS, because it is based on a linkage between health and social care data and the census, is well placed to contribute to this analysis. The census can be used as a gold standard since it counts people where they actually were at the time of enumeration and this can be compared with the household locations of individuals as reported through the HCRS at the same time. These topics were therefore considered in Projects 020 and 051. Key findings are that about 75% of people are reported as being in the same place in the HCRS as in the census and that it is younger, healthier and more spatially mobile people who are more likely to be misplaced. A substantial part of this error is down to reporting lag – many people update their medical address record within a year – but as they update it is likely that other more recent movers fall into this category of ‘laggers’.

Relevant publications


Shuttleworth, I. and Barr, P.J. (2011). Who reports address changes through the healthcare system? The characteristics of laggers and non-respondents using the Northern Ireland Longitudinal Study. Population Trends, 146, 48-54.
Collaboration is also a very positive feature of NILS-based research. Over the past decade, the NILS has underpinned the establishment of a vibrant research community in Northern Ireland and beyond, with growing networks and collaborations with academics in England, Wales, Scotland, the USA, Sweden and Finland. The ability to attract researchers from both within and outside of Northern Ireland is testament to the value and uniqueness of the NILS as a data source for health and social research.

Dr Ian Shuttleworth from QUB and Professor Tom Cooke from the University of Connecticut in the USA are using the NILS to investigate the relationship between internet usage in Northern Ireland (based on mode of response to the 2011 Census) and residential mobility represented by the frequency of address changes recorded in the HCRS. Professor Tony Champion from the University of Newcastle is working with Dr Shuttleworth and Dr Brian Foley from QUB on the subject of residential mobility in Northern Ireland, with specific focus on high frequency address changers and their demographic and socio-economic characteristics. A research team from University College London, comprising Dr Caroline Uggla, Professor Ruth Mace and Dr Antonio Silva, used the NILS to examine cultural norms of health-related behaviour based on the Catholic and Protestant communities in Northern Ireland.

Within UU, research teams from the School of Nursing, School of Psychology and the Bamford Centre for Health and Wellbeing have frequently employed the NILS over the past decade. In QUB, the Centre for Public Health, School of Natural and Built Environment and School of Social Sciences, Education and Social Work have been the source of a large number of NILS users. This user base is diverse and growing, consisting of senior academics, post-doctoral researchers, and both postgraduate and undergraduate students. Government departments in Northern Ireland have been directly involved in a number of NILS projects to generate findings on specific topic areas and inform policy development. The Office of the First Minister and Deputy First Minister utilised the NILS to commission research on the use of spatial measures for the targeting of need. In addition, the Department of Health, Social Services and Public Safety (currently the Department of Health) used the NILS to assess the differences in health outcomes across the various equality (Section 75) groups in Northern Ireland.

The ‘Developing Collaboration’ theme of MLB refers to the importance of strengthening collaborations to successfully address and resolve the issues affecting the health and wellbeing of the Northern Ireland population.
One of the major successes of the NILS is its role in building research capacity.

Over the decade, the NILS has supported many successful Master’s dissertations and PhD theses. Currently, five PhD students, one Master’s student and one undergraduate student use the NILS for their research. Importantly, those who continue their careers in health and social research are likely to remain members of the NILS user base into the future.

Adopting the ‘life course’ approach to investigate migratory behaviour and patterns of segregation in Northern Ireland between 1974 and 2015
Brad Campbell (School of Natural and Built Environment, QUB)

This project is using the NILS to examine how demographically selective flows of internal migration by age, religion, social class, gender and health contributed to the process of segregation and desegregation in Northern Ireland between 1974 and 2015. The study adopts the life course approach as a theoretical and methodological framework.

Social mobility and the emergence of new mixed-community identities: Mapping occurrence, understanding causes, determining consequences
Deborah Hyden (School of Natural and Built Environment, QUB)

The context for this project is the recent evidence of a decline in residential segregation between Catholics and Protestants in Northern Ireland and the increase in the proportion of residentially mixed areas. Using the NILS among other data sources, the research aims to determine the characteristics of individuals most likely to migrate from a highly segregated to less segregated area and to investigate whether such migration has an impact on mental wellbeing, as measured by levels of psychotropic medication uptake, before and after the event.

A Longitudinal Study of Commuting Patterns in Northern Ireland 2001 – 2011: A Public Health Perspective
Claire O’Boyle (School of Natural and Built Environment, QUB)

The aim of this project is to use the NILS to examine trends in travel to work patterns over time. These patterns are being explored in terms of demographic and socio-economic characteristics at the Super Output Area level. A particular focus will be on the changing nature of self-reported health status and limiting long-term illness, and how these are linked to changes in mode of transport and commuting distances over time.

The Evolution of Labour Market Inequalities in Northern Ireland, 1991-2011
Neil Rowland (School of Natural and Built Environment, QUB)

My research seeks to quantify and understand religious differences in Northern Ireland’s labour market, particularly with respect to unemployment. Whilst there has been a long-standing tradition of examining whether Catholics and Protestants have unequal chances of unemployment, such a tradition has been neglected recently. The NILS enables a unique examination of this issue from a longitudinal perspective. This research therefore seeks to quantify the current degree of inequality and see whether new light can be shed on what has historically been a debate of great prominence.

Childhood residential mobility and poor mental health in adolescence and early adulthood: a record linkage study
Foteini Tseliou (Centre for Public Health, QUB)

This study explores the effect of childhood residential mobility on mental health outcomes in adolescence, as well as other potential factors including the impact of a critical age of move and number of residential changes. The range of data available in the NILS, including the 2001 and 2011 censuses, birth records and migration information from the HCRS facilitates a longitudinal perspective for this research, which enables identification of clear patterns and associations.
The relationship between birth weight and educational attainment
Emma Morgan (School of Social Sciences, Education and Social Work, QUB)
This MRes project used the NILS and data made available by Belfast HSC Trust to examine the associations between three infant health indicators (birth weight, gestational age and foetal growth), childhood health and educational attainment in early adulthood, using the life course perspective for a cohort of 1,736 children born in Belfast in the early 1990s. The health trust data and a series of measures from the 1991, 2001 and 2011 censuses were included in logistic regression models to test the association infant health measures and childhood health had with educational attainment. No significant associations between low birth weight, pre-term birth or small for gestational age and educational attainment were found. However, childhood health had significant negative associations with educational attainment, as did environmental and familial factors.

Spatialising health inequalities in Northern Ireland: A GIS based analysis of the relationship between socio-economic status and respiratory disease
Rachel McCann (School of Natural and Built Environment, QUB)
For my undergraduate dissertation, I am using the NILS to investigate the relationship between socio-economic conditions and respiratory diseases in Northern Ireland, using GIS as a tool for visualising and analysing data. Three common indices of deprivation (household income, employment rates and education) and religion will be mapped followed by the number of deaths caused by respiratory disease. Using spatial regression methods, the strength of the relationships between variables will be investigated.

* As of October 2016
The NILS Research Support Unit Team
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