

Northern Ireland Longitudinal Study

NILS

An **Innovative Resource** for **High-Impact Research**

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ARK: January 2012



Outline

- Background to the NILS
- Research Potential
- Resources
- Case Studies



Background

Research-Driven

- Cross-sectional studies: change over time?
- ONS-LS since 1971 Census (SLS since 2006)
- Health & socio-demographic profile

Legislation

- NILS **confidentiality protected**, managed under **census legislation**
- NISRA have consulted:
 - Information Commissioner for Northern Ireland
 - Office of Research Ethics NI
 - Health and Social Care Privacy Advisory Committee

Funding

- Infrastructure funded by the HSC R&D Division & NISRA
- Research funded by ESRC Census Programme & NI Government: **future implications ++**



Background

Northern Ireland Longitudinal Study (NILS) – 28% sample (c. 500,000), based on health card registrations, routinely linked to:

- 2001 Census & 1991 Census (part)
- vital events (births, deaths, marriages)
- change of address/migration (health card registration)

AND potential to link to

- distinct Health & Social Care datasets
- 2011 Census

Northern Ireland Mortality Study (NIMS) – total enumerated population on 2001 Census Day linked to:

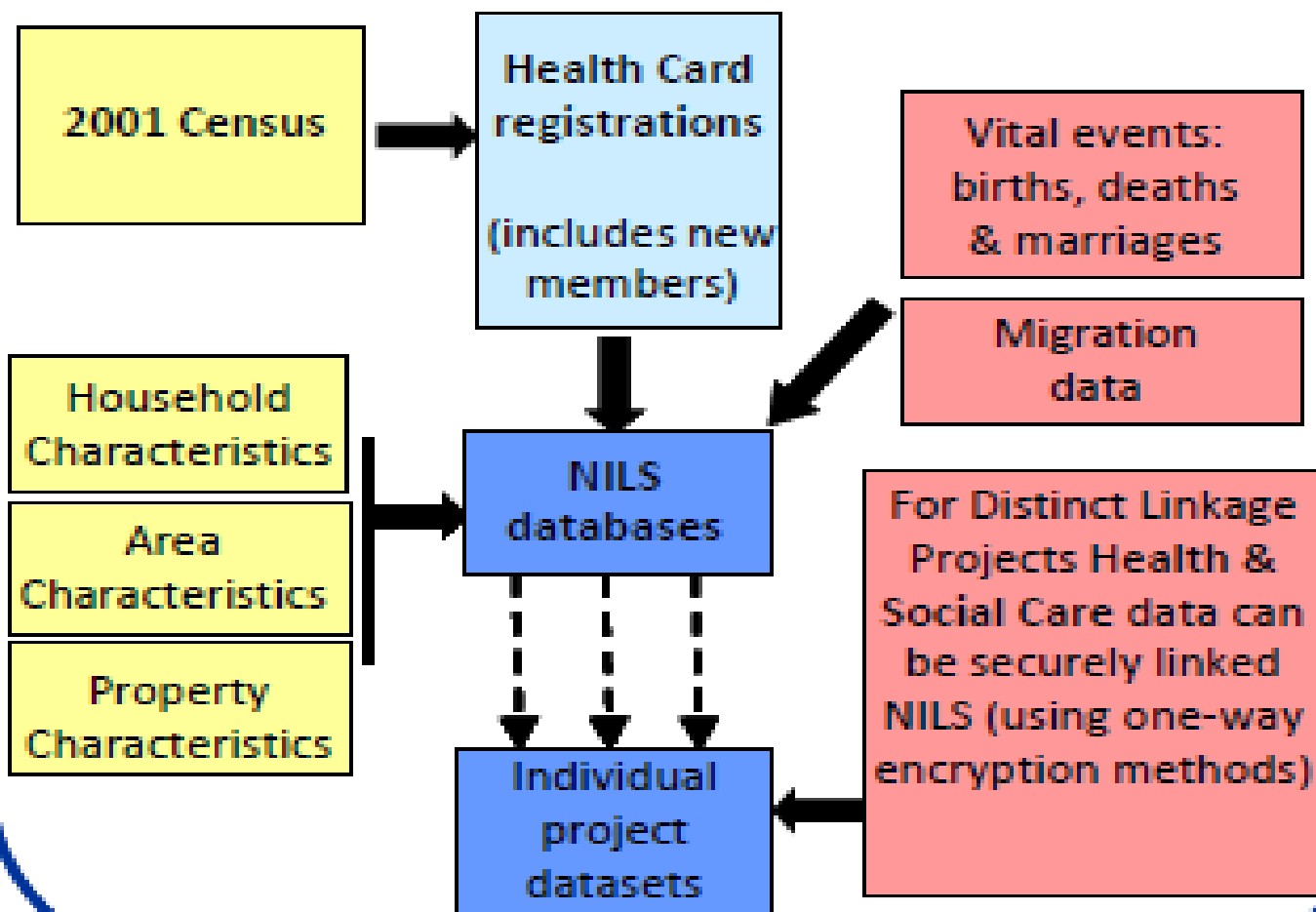
- 2001 Census returns
- subsequently registered mortality data

Structure of the NILES

Contextual data

NILES Core data

Events

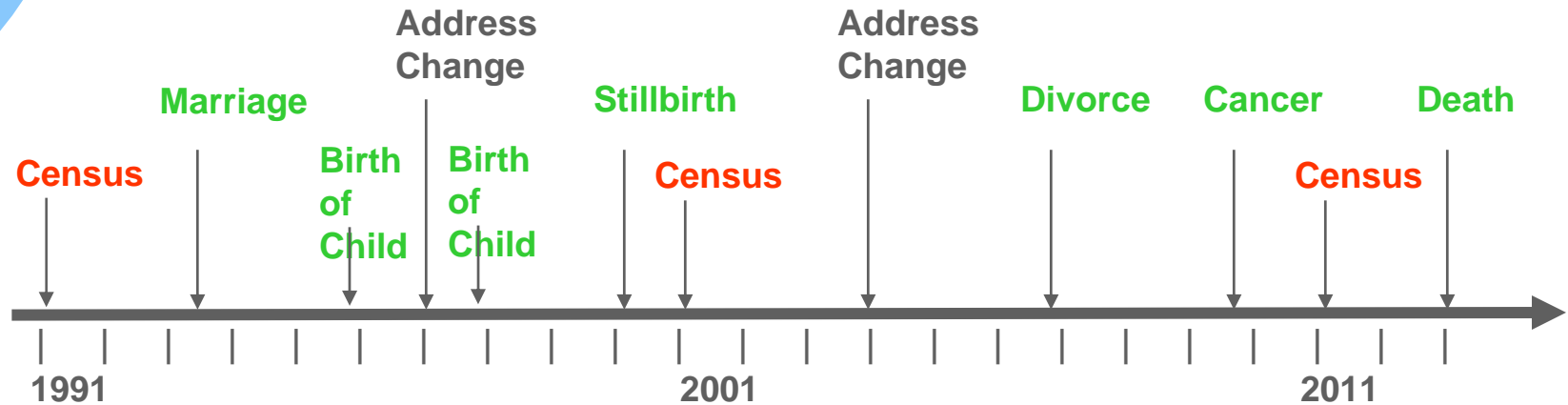


Datasets Currently Available

Census Data 2001	GRO Vital Events Data
<ul style="list-style-type: none">- Age, sex, marital status- Religion & community background- Family, household or communal establishment- Housing, tenure, rooms & amenities- Country of birth, ethnic- Educational qualifications- Economic activity, occupation & social class- Migration (between 2000 & 2001)- LLTI, general health, care-giving- Travel-to-work	<ul style="list-style-type: none">- New births into the sample- Births to sample members- Stillbirths to sample mothers- Infant mortality of children to sample members- Deaths of sample members- Marriages- Widow(er)hoods
LPS Property Data	Health Card Registration Datasets
<p>Capital and rating value</p> <p>-Household characteristics (no. of rooms, property type, floor space, central heating)</p>	<p>Demographics: age, status & location</p> <p>Migration:</p> <ul style="list-style-type: none">- Immigration to the sample- Emigration out of sample- Re-entry of sample members to NI-Internal migration

Example

27-year old Female in 1991





Resources: NILS Research Support Unit (NILS-RSU)

Remit:

- raise awareness of the NILS research potential; get new users
- assist with development of research ideas and projects;
- facilitate access to NILS data;
- training & advice in use and analysis of NILS datasets;
- promote policy relevance; and
- enhance NILS research capacity incl: specific duty to assist government researchers to undertake exemplar public policy research.

Resources: NILS Research Support Unit (NILS-RSU)

Remit:

- See <http://www.qub.ac.uk/research-centres/NILSResearchSupportUnit/> for documents/application forms;
- Projects must have a health dimension (but very broadly defined) and be longitudinal (eg only possible using the NILS)
- Straightforward projects using the database can expect to be undertaken quickly
- Some projects which involve linking data to the NILS can take more time because of the need for ethical approval and data undertakings to be completed



Research Potential: Policy Outreach

- Government researchers involved in NILS projects
- Researchers engage policy-makers with their findings
- NILS Research Briefs: summary of key findings & policy implications of NILS-based research
<http://www.qub.ac.uk/research-centres/NILSResearchSupportUnit/NILSResearchBriefs/>



Research Potential: Collaborative Government Projects

- Temperature-related mortality & housing / Movement between and within Neighbourhood Renewal Areas (**DSD**)
- Distribution of cancer deaths by population & household type (**NI Cancer Registry**)
- Projected fertility levels by area & community background (**DENI**)
- Vital events: Annual Standard Table Outputs (**DMB**)
- Educational attainment, occupational group & mobility (**DEL**)
- Pervasive area poverty: modelled household income / Section 75 groups & social disadvantage / Spatial measures of need (**OFMDFM**)
- Equality assessment of health outcomes: cause-specific mortality for Section 75 groups (**DHSSPS**)
- Socio-economic, cultural & demographic determinants of antibiotic prescribing patterns in NI (**BSO-HSC**)



Case Studies

- Project 005: Socio-demographic & area correlates of **suicides** in NI
- Project 021: Influence of demographic, socio-economic & area level factors on **uptake of breast screening** in NI
- Project 035: Equality assessment of health outcomes: cause-specific **mortality for Section 75 groups**
- Project 042: Socio-economic, cultural & demographic determinants of **antibiotic prescribing patterns** in NI



(1) Area Factors & Suicide

Background:

Suicide rates vary between areas: is this due to individual characteristics (composition) or area characteristics (context)?

Aim:

To determine if area factors are independently related to suicide risk after adjustment for individual and family characteristics.

Method:

5-year record linkage study using NIMS based on c.1.1 million individuals (not in communal establishments) aged 16–74 years

Results:

- i. suicide risks lowest for women & for those who were married/cohabiting;
- ii. higher rates of suicide in the more deprived/socially fragmented areas disappeared after adjustment for individual & household disadvantage



Last Updated: Friday, 1 February 2008, 06:55 GMT

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Suicide rates 'not down to area'

Individual circumstances are the key to understanding why someone takes their own life, a study has indicated.

Queen's University researchers said differences in rates of suicide were due to people's characteristics, not differences between location.



Researchers believe it could mean a shift of emphasis in policy

Once individual characteristics were taken into account, "higher rates of suicide found in more deprived and socially fragmented areas disappeared".

The findings are published in the British Journal of Psychiatry.

The researchers believe it could mean a shift of emphasis in policy for those working in the field.

Dr Dermot O'Reilly, who led the research, said it confirmed suicide risk was very strongly related to both individual and household characteristics such as age, gender, marital status and socio-economic circumstances.

"What has been less clear is whether the characteristics of the area in which you live represent an additional independent risk," he said.

"The study shows that variation in suicide rates between areas in Northern Ireland is entirely explained by the differences in the characteristics of the people living in these areas.

"Where you live doesn't add to that risk."

NO LINK BETWEEN SUICIDE AND AREA

By MAURICE FITZMAURICE

WHERE you live has no bearing on whether or not you will take your life, an academic study claimed yesterday.

The study, lead by Dr Dermot O'Reilly, found that people who kill themselves do so for a variety of reasons.

However, he found that once individual and household characteristics had been taken into account, higher rates of suicide found in the more deprived and socially fragmented areas disappeared.

Dr O'Reilly said: "Suicide risk is strongly related to individual and household characteristics such as age, gender, marital status and socio-economic circumstances. What

Study says age, sex & work are 'key factors'

has been less clear is whether the characteristics of the area in which you live represent an additional independent risk.

"The study shows variation in suicide rates between areas in Northern Ireland is entirely explained by the differences in the characteristics of the people living in these areas.

"Where you live doesn't add to that risk."

The findings, published in

this month's issue of the British Journal of Psychiatry, could mean a shift of emphasis in policy.

The research, which involved more than a million people in Ulster is one of the largest long-term studies of suicide risk undertaken in the UK.

In 2006 the Northern Ireland Statistics and Research Agency

linked the records of 1,116,744 people aged 16 to 74, counted in the 2001 census, to deaths in the subsequent five years.

During this period, 566 deaths were suicide or of "undetermined intent".

The report also found suicide is three times higher in men than women and is three times higher in people under 55. Living alone increases the risk by a third.

Unemployment also greatly increases the chances of suicide while married or co-habiting couples face a smaller risk.

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Research Potential: Policy Relevant Themes

Currently:

- Inequalities in health & mortality
- Demographic trends
- Education, employment & income
- Area-based analyses
- Equality research
- Distinct Linkage Projects ++

2011 Census Linkage (2013)

- information from two censuses (2001 and 2011), significant information from 1991 Census & 14 years of vital events data
- analysis of health, social, economic & demographic transitions between the two census points
- focus on research & policy interests across health, demography, equality, migration, deprivation, labour market & social change



Research Potential

2011 Census Linkage (2013)

- Will permit analyses of 'NI in Transition 2001-2011'
- Number of questions/topics that can be considered is very wide
 - Who, living where, has been upwardly socially mobile?
 - How stable are housing tenures?
 - How important is religion/community background in the labour market?
 - What is the impact of ill-health in 2001 on labour market status in 2011?
 - What types of people have emigrated?
 - What internal migration patterns are seen amongst immigrant communities?



Acknowledgements

The help provided by the staff of the Northern Ireland Longitudinal Study and the NILS Research Support Unit is acknowledged.

The NILS is funded by the Health and Social Care Research and Development Division of the Public Health Agency (HSC R&D Division) and NISRA. The NILS-RSU is funded by the ESRC and Northern Ireland Government.

The authors alone are responsible for the interpretation of the data.



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