

# Northern Ireland Health & Social Care Inequalities Monitoring System and the NIMS report





www.dhsspsni.gov.uk

AN ROINN

Sláinte, Seirbhísí Sóisialta agus Sábháilteachta Poiblí

MÄNNYSTRIE O

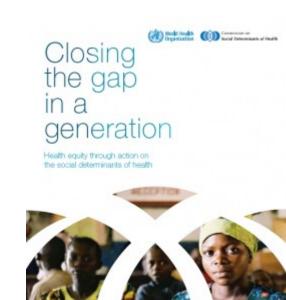
Poustie, Resydènter Heisin an Fowk Siccar

# What are Health Inequalities?

Health Inequalities are inequalities in respect of life expectancy or general state of health which are wholly or partly a result of differences in respect of general health determinants. These are typically referred to as the 'Wider social Determinants of health'

"Poor social and economic circumstances affect health throughout life.

People further down the ladder usually run at least twice the risk of serious illness and premature death as those near the top" (Wilkinson and Marmot)



BEST USE OF SOCIAL MEDIA 2011

News \* Sport Business \*

**Entertainment** \*

Lifestyle \*

Opinion \*

TeleBest\*

Woman \*

Tele Awards

Go

Classified

Services:

Food & Drink Fashion & Beauty Motoring House & Home Travel Books Weekend Personal Finance Woman

 $lap{Selfast Weather Hi <math>13^{\circ}\mathrm{C}$  | Lo 12 $^{\circ}\mathrm{C}$ 

<u>Home > News > Health</u>

LATEST:

#### Tackling inequality in healthcare is a priority: Poots

> Tweet



By Lisa Smyth Tuesday, 25 October 2011

The Health Minister has said every child in Northern Ireland deserves the best start possible in life.

Edwin Poots said it is unacceptable that life expectancy of children is determined by the area where they are born and raised.

The minister was speaking as he visited the Colin Neighbourhood Partnership (CNP) in Dunmurry.

The Colin area in west Belfast is the largest deprived area here.



Health Minister Edwin Poots

ENLARGE

The CNP plays a key role in

addressing health inequalities and is promoting an early intervention community. Early Intervention includes services supporting attachment and the early years.

#### Most viewed in Health

#### Read

- 1. English diet 'can help save lives'
- 2. Clinical trial shows aspirin could cut your risk of cancer by half.
- 3. Irishman hits on 'cure' for psoriasis
- 4. A&E expected to take on Belfast City Hospital patients already facing struggle
- 5. No sex please we're eunuchs
- 6. Aspirin could cut hereditary cancer risk
- 7. Jan de Vries: Wheat germ offers so many benefits to our well-being
- 8. A bowl of porridge a day keeps doctor away.
- 9. Discovery of the decade? Injection 'could cure Alzheimer's in minutes'
- 10. Drugs chief: Alcohol more dangerous than ecstasy, LSD and cannabis

#### Just Born: Readers' Baby Pictures



To send Us Your Baby snaps just Click here

#### Just Wed: Readers' Wedding Pictures



To send Us Your Wedding snaps just Click here

## NI Health & Social Care Inequalities Monitoring System (NIHSCIMS)

- Developed in 2002
- Basket of indicators by deprivation and rurality
- Morbidity/ Mortality/ Utilisation & Accessibility to services

#### Other areas within Inequality

- Sub-regional
- Accessibility
- Life Table decomposition
- Equality

## Outline

- Equality (S75)
- NILS/NIMS Project
- Aims
- Previous study (McClelland report)
- Methodology
- Preliminary results
- Future Work

## Section 75

- 1. Gender
- 2. Age
- 3. Marital Status
- 4. Religious Belief
- 5. Disability
- 6. Dependants
- 7. Ethnicity
- 8. Political Opinion
- 9. Sexual Orientation

## Equality – Previous Section 75 analysis

- Area based proxy
- Based on 2001 Census population
- Profile of 20% worst performing areas
- Comparison to NI Section 75 profile
- Increasingly outdated

### NILS & NIMS

So.....We considered:

#### **NILS**

Large scale linkage ~ 28%

#### **NIMS**

- 2001 to 2007 deaths
- 2001 Census, to which deaths registered to NIMS members are linked
- Look at most individuals and their S75 characteristics

## Aims

- To replicate HSCIMS deprivation analysis between S75 groups by examining rates
- To meet the demand from DHSSPS and the wider health family for monitoring

 Become a biennial analysis which becomes fully incorporated in the HSCIMS family.

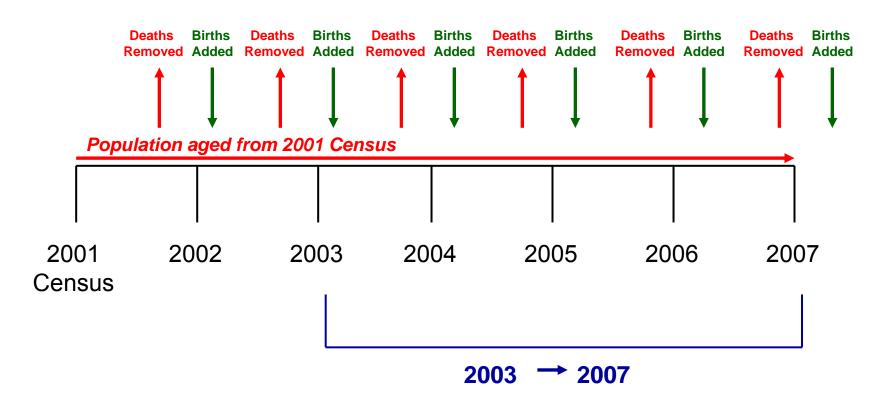
# McClelland Report Results

### Age Standardised Mortality Rates (ASMR)

- Highest for both Males & Females 16+
- Lowest in 16 to 74 age group
- Male ASMR significantly higher than female
- Lowest ASMR found among married
- Highest ASMR among divorced
- Having a LLTI is associated with significantly elevated ASMR
- Catholic community both male and female have highest ASMR

# Methodology

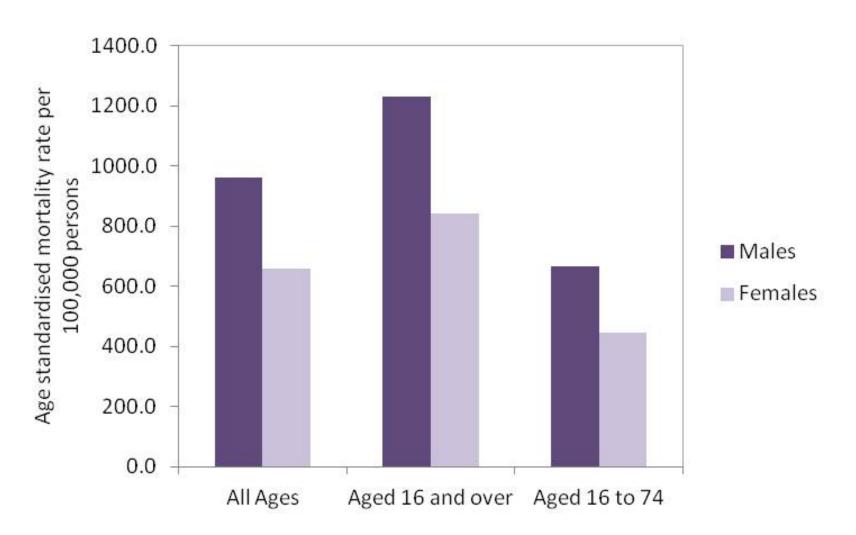
#### Base Population



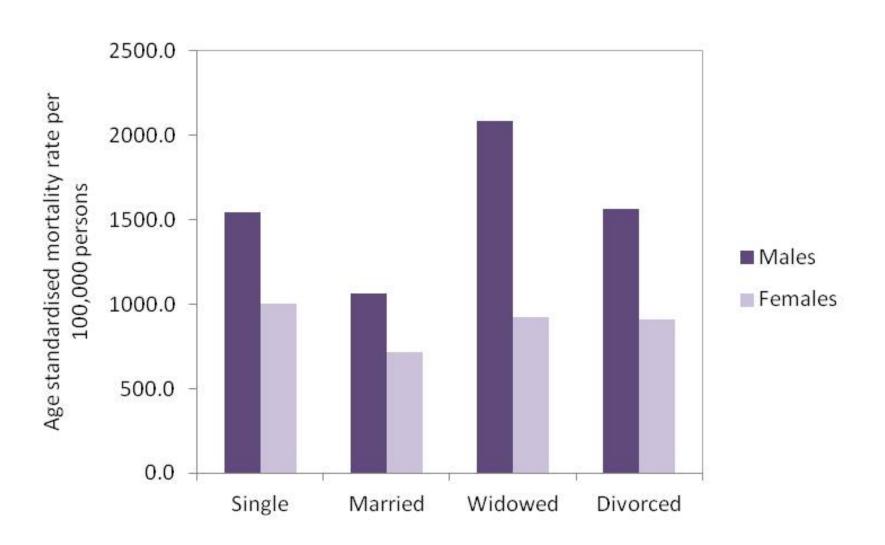
ASMR Calculations / Life expectancy calculations / Regression Modelling

# Results Section 75

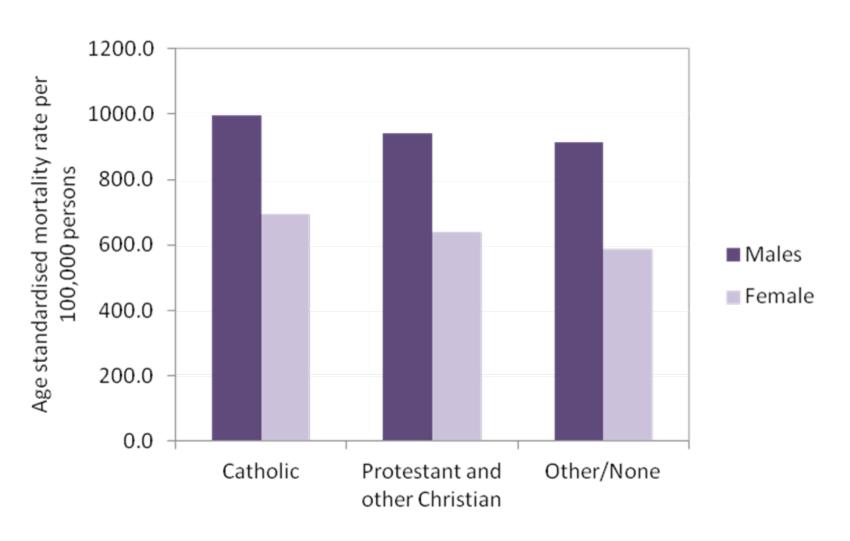
# Age



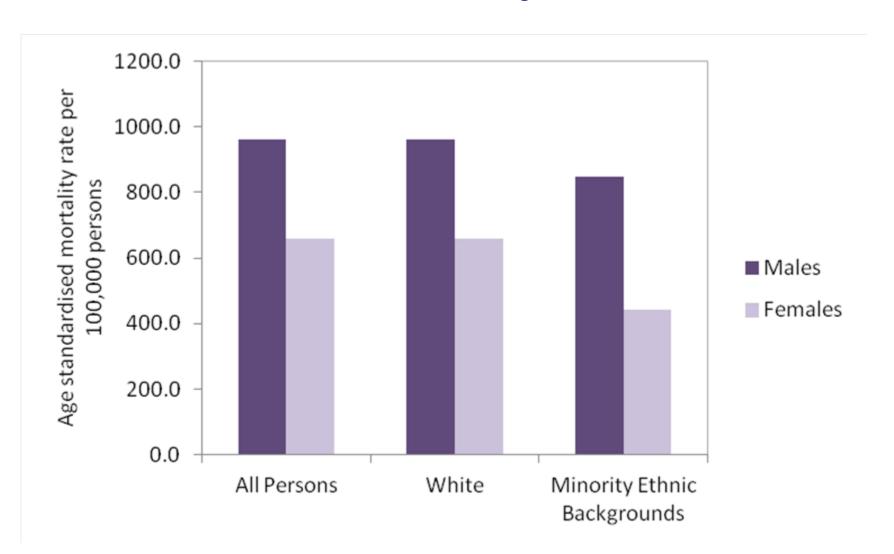
## **Marital Status**



# Community Background



# **Ethnicity**



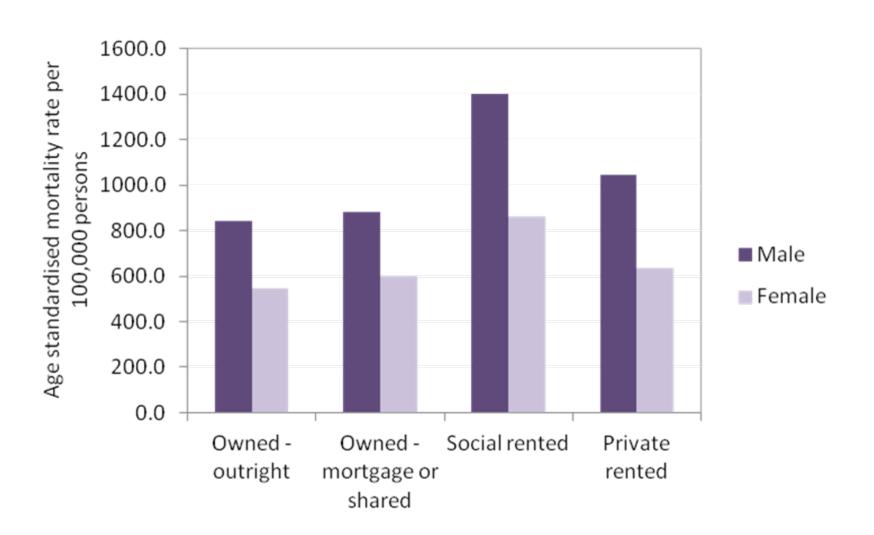
# Life Expectancy 2003 - 07

- Male = 76.9
- Female = 81.4

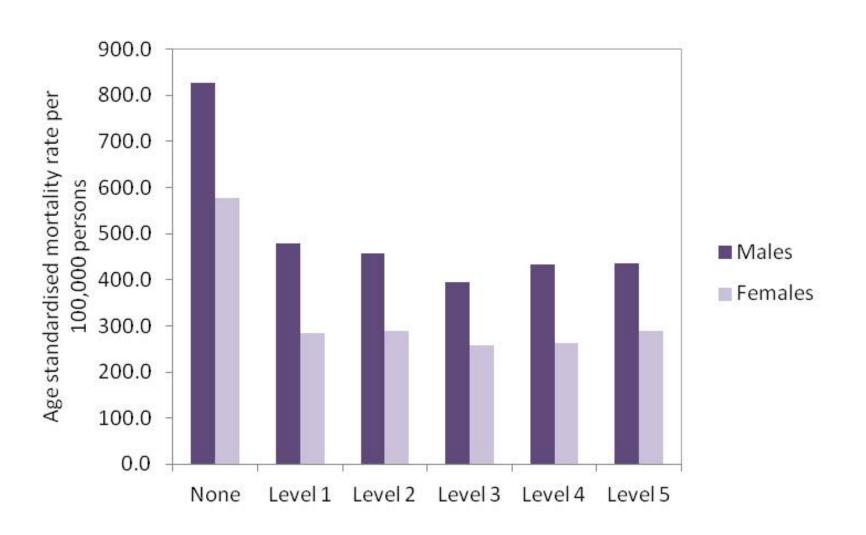
| Positive Impacts on Life expectancy   | Negative Impacts on Life expectancy   |
|---|---|
| <ul> <li>Longer LE among married men &amp; women</li> <li>One + dependents beneficial to men</li> <li>Most affluent → Higher LE</li> <li>Higher LE among "Other minority ethnic backgrounds" (low numbers mean this is inconclusive)</li> </ul> | <ul> <li>Lower LE among widows &amp; widowers</li> <li>Divorcees have lower LE</li> <li>Those with LLTI have lower LE</li> <li>Those living in the most deprived areas have shorter LE</li> </ul> |

# Results Social Disadvantage

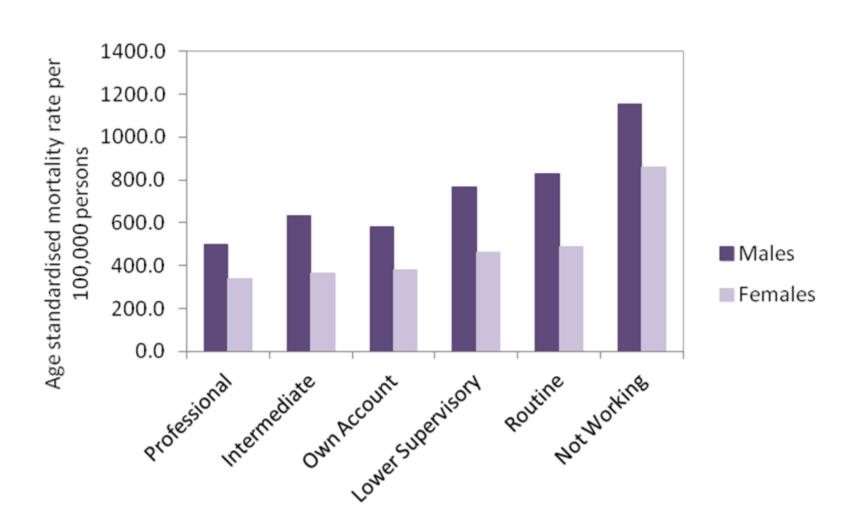
## Tenure



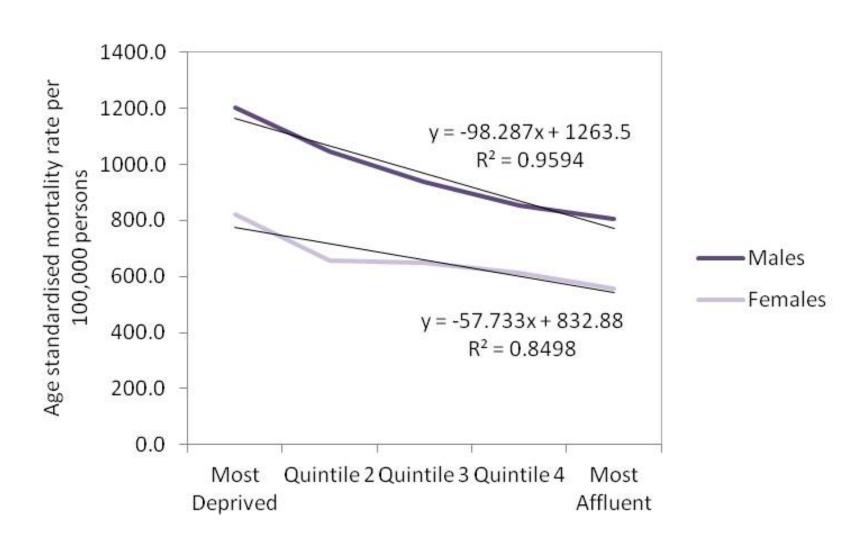
## **Educational Qualifications**



## Socio Economic Class



# **Deprivation Quintile**



# Results Regression Analysis

| Individual Characteristics     | Proportion of deaths % (n) | Adjusted for S75 Characteristics |          | Adjusted for deprivation |         |
|--------------------------------|----------------------------|----------------------------------|----------|--------------------------|---------|
| Aged 25 - 74                   |                            | HR (95% CI) (a)                  | Р        | HR (95% CI) (b)          | Р       |
|                                |                            |                                  |          |                          |         |
| Sex                            |                            |                                  |          |                          |         |
| Male                           | 57.1 (23419)               | 1 (Reference)                    |          | 1 (Reference)            |         |
| Female                         | 42.9 (17608)               | 0.58                             | < 0.001  | 0.55                     | <0.001  |
| Age                            |                            |                                  |          |                          |         |
| 25-34                          | 2.5 (1025)                 | 1 (Reference)                    |          | 1 (Reference)            |         |
| 35-44                          | 6.0 (2446)                 | 2.53 (2.34 - 2.72)               | < 0.001  | 2.47 (2.29 - 2.66)       | <0.001  |
| 45-54                          | 13.0 (5326)                | 5.84 (5.44 - 6.26)               | <0.001   | 5.91 (5.51 - 6.35)       | <0.001  |
| 55-64                          | 26.1 (10688)               | 11.84 (11.05 - 12.69)            | <0.001   | 12.02 (11.22 - 12.90)    | <0.001  |
| 65-74                          | 52.4 (21452)               | 31.94 (29.82 - 34.19)            | <0.001   | 32 (29.87 - 34.28)       | <0.001  |
| Marital                        |                            |                                  |          |                          |         |
| Divorced/Widowed/Separated     | 26.6 (10916)               | 1 (Reference)                    |          | 1 (Reference)            |         |
| Married                        | 56.3 (23110)               | 0.65 (0.62 - 0.67)               | <0.001   | 0.75 (0.73 - 0.78)       | <0.001  |
| Single                         | 17.1 (7001)                | 0.95 (0.91 - 0.98)               | <0.01    | 0.94 (0.90 - 0.97)       | <0.001  |
| Dependents                     |                            |                                  |          |                          |         |
| None                           | 87.6 (34556)               | 1 (Reference)                    |          | 1 (Reference)            |         |
| One or more                    | 12.4 (4874)                | 0.75 (0.72 - 0.78)               | <0.001   | 0.77 (0.74 - 0.80)       | <0.001  |
| LLTI                           |                            |                                  |          |                          |         |
| No LLTI                        | 37.2 (15269)               | 1 (Reference)                    |          | 1 (Reference)            |         |
| LLTI                           | 62.8 (25758)               | 2.76 (2.70 - 2.83)               | <0.001   | 2.51 (2.46 - 2.57)       | <0.001  |
| Community Background           |                            |                                  |          |                          |         |
| Protestant and other Christian | 60.5 (24817)               | 1 (Reference)                    |          | 1 (Reference)            |         |
| Catholic                       | 38.4 (15755)               | 0.99 (0.97 - 1.02)               | >0.05 ns | 1.03 (1.00 - 1.05)       | <0.05   |
| Other/None                     | 1.1 (455)                  | 0.83 (0.75 - 0.92)               | < 0.001  | 0.87 (0.79 - 0.97)       | <0.01   |
| Deprivation Scale              |                            |                                  |          |                          |         |
| 0 = Least deprived             | 2.2 (855)                  | -                                | -        | 1 (Reference)            |         |
| 1                              | 4.5 (1766)                 | -                                | _        | 1.31 (1.21 - 1.43)       | < 0.001 |
| 2                              | 11.8 (4658)                | -                                | _        | 1.41 (1.31 - 1.52)       | <0.001  |
| 3                              | 20.0 (7879)                | -                                | -        | 1.59 (1.48 - 1.71)       | <0.001  |
| 4                              | 22.1 (8695)                | -                                | -        | 1.82 (1.69 - 1.96)       | <0.001  |
| 5                              | 18.7 (7365)                | _                                | -        | 2.22 (2.06 - 2.39)       | <0.001  |
| 6                              | 14.7 (5805)                | -                                | -        | 2.61 (2.42 - 2.81)       | <0.001  |
| 7                              | 5.3 (2086)                 | _                                | _        | 2.91 (2.67 - 3.18)       | <0.001  |
| 8                              | 0.7 (281)                  | _                                | -        | 2.73 (2.35 - 3.16)       | <0.001  |
| 9 = Most deprived              | 0.0 (15)                   | -                                | -        | 2.16 (1.25 - 3.71)       | <0.01   |

## **Future Work**



- Possibility of an ongoing monitoring system
- Possibility of more linkages using NILS

# Acknowledgements

The help provided by the staff of the Ireland Mortality Study (NIMS) and the NILS Research Support Unit is acknowledged.

The NILS/NIMS 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 the Northern Ireland Government. The authors alone are responsible for the interpretation of the data.