INFORMATION ANALYSIS DIRECTORATE

Health Inequalities

Annual Report 2020

A product of the NI Health and Social Care Inequalities Monitoring System

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Health Inequalities

Annual Report 2020

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Information Analysis Directorate (IAD) sits within the **Department of Health (DoH)** and carries out various statistical work and research on behalf of the department. It comprises four statistical areas: Hospital Information, Community Information, Public Health Information & Research and Project Support Analysis.

IAD is responsible for compiling, processing, analysing, interpreting and disseminating a wide range of statistics covering health and social care.

The statisticians within IAD are out-posted from the Northern Ireland Statistics & Research Agency (NISRA) and our statistics are produced in accordance with the principles and protocols set out in the UK Code of Practice for Official Statistics.

About Public Health Information and Research Branch

The role of Public Health Information and Research Branch (PHIRB) is to support public health policy development through managing the public health survey function while also providing analysis and monitoring data. The head of the branch is the Principal Statistician, Mr. Bill Stewart.

In support of the public health survey function, PHIRB is involved in the commissioning, managing and publishing of results from departmental funded surveys, such as the Health Survey Northern Ireland, All Ireland Drug Prevalence Survey, Young Persons Behaviour & Attitudes Survey, Patient Experience Surveys and the Adult Drinking Patterns Survey.

The branch also houses the NI Health and Social Care Inequalities Monitoring System which covers a range of different health inequality/equality based projects conducted for both the region as well as for more localised area levels. In addition, PHIRB is responsible for the production of official life expectancy estimates for NI, and areas within the region.

PHIRB provides support to a range of key DoH NI strategies including Making Life Better, a 10 year cross-departmental public health strategic framework as well as a range of other departmental strategies such as those dealing with suicide, sexual health, breastfeeding, tobacco control and obesity prevention. It also has a key role in supporting the Departmental Alcohol and Drug Strategy, by maintaining and developing key departmental databases such as, the Substance Misuse Database, Impact Measurement Tool and the Census of Drug & Alcohol Treatment Services, which are all used to monitor drug misuse and treatments across Northern Ireland. In addition to Departmental functions, PHIRB also support the executive level Programme for Government and its strategic outcomes through a series of performance indicators.

CONTENTS

KEY FINDINGS – REGIONAL (NI)

- In 2016-18, male life expectancy at birth has continued to improve in NI and its most and least deprived areas, with no notable change in the deprivation gap (7.1 years) observed since 2012-14. Female life expectancy remained constant in NI and its most and least deprived areas, with no notable change in the deprivation gap (4.4 years).

- Between 2012-14 and 2016-18 there was no change in the male or female healthy life expectancy inequality gaps, although male healthy life expectancy did improve for NI. While there was no change in female healthy life expectancy for NI, there was a negative change in the most deprived areas. Disability-free life expectancy has changed negatively for both genders since 2012-14 with the inequality gaps widening.

- For indicators of premature mortality, rates generally decreased over the period in NI and its most and least deprived areas. The inequality gaps narrowed or remained broadly similar except for death rates among under 75s due to respiratory diseases, where the deprivation gap widened to 258% due to increased mortality in the most deprived areas.

- The inequality gap for suicide widened as a result of negative changes in the most deprived areas, where the rate is almost three and a half times that in the least deprived areas.

- Alcohol and drug related indicators continue to show some of the largest health inequalities monitored in NI, with drug related and alcohol specific mortality in the most deprived areas more than four times the rates seen in the least deprived.

- In 2018, the proportion of births where the mother reported smoking during pregnancy in the most deprived areas was five and a half times the rate in the least deprived, with the inequality gap widening.

Most Notable Inequality Gaps	
Female HLE	15.2 years
Male HLE	14.0 years
Smoking in Pregnancy	457%
Teenage Birth Rate (U20)	400%
SDR - Drug Related	391%

Most Notable Narrowing of Gaps
SDR – Avoidable: Children & Young People
SAR – Self-Harm
SAR – Alcohol Related Causes
SAR – Emergency Admissions

Most Notable Widening of Gaps
Male Disability Free Life Expectancy
Female Disability Free Life Expectancy
SDR – Drug Related Causes
SDR – Drug Misuse

KEY FINDINGS – SUB-REGIONAL (HSC TRUST & LGD)

- Male life expectancy either increased or remained similar across the period in all Trusts and Local Government Districts (LGDs), and their most deprived areas, with the exception of the most deprived areas of Antrim & Newtownabbey LGD.
- For male life expectancy, the inequality gap between the 20% most deprived areas and the area average widened in Northern Trust and the Antrim & Newtownabbey; Derry City & Strabane and Mid & East Antrim LGDs. Only the Southern Trust and the Newry, Mourne & Down LGD experienced a narrowing of the inequality gap.
- Female life expectancy either increased or remained similar across the period in all Trusts and LGDs, and their most deprived areas. The exception to this was the most deprived areas of the South Eastern Trust and the most deprived areas of the Antrim & Newtownabbey; Belfast; Derry City & Strabane and Fermanagh & Omagh LGDs where it declined.
- For female life expectancy, the inequality gap between the 20% most deprived areas and the area average widened in South Eastern Trust and in the Antrim & Newtownabbey; Armagh City, Banbridge & Craigavon; Belfast and Fermanagh & Omagh LGDs. Conversely, the Southern Trust and the Mid Ulster, and Newry, Mourne & Down LGDs experienced a narrowing of their respective inequality gaps.
- Similar to the regional picture, deprivation related inequality was most prominent in indicators relating to alcohol and drugs, self-harm, smoking during pregnancy and teenage births, which were among the five largest inequality gaps for the majority of Trusts and LGDs.
- Drug related mortality was the largest inequality gap seen in three of the five HSC Trusts and nine of the eleven LGDs. In the South Eastern Trust, the rate in its most deprived areas was more than two and a half times (159%) that of the Trust average. While in Lisburn & Castlereagh LGD the rate in the most deprived areas was almost three times (188%) the LGD average.
- Large inequality gaps for suicide were also seen in some of the LGD and Trust areas. Suicide was among the five largest inequality gaps for Belfast Trust, and Antrim & Newtownabbey and Mid Ulster LGDs.
- Deaths due to drug misuse was the largest inequality gap seen in the Western Trust (172%), with the teenage birth rate the largest inequality gap in the Southern Trust (120%).
- The teenage birth rate was the largest inequality gap in Armagh City, Banbridge & Craigavon LGD (141%); while alcohol related admissions showed the largest gap in Derry & Strabane LGD (145%).

INTRODUCTION

This annual publication is one of a series of reports produced as part of the NI Health & Social Care Inequalities Monitoring System (HSCIMS) and presents a comprehensive analysis of health inequality gaps between the most and least deprived areas of NI, and within Health & Social Care (HSC) Trust and Local Government District (LGD) areas across a range of indicators. This report is an update of the Health Inequalities Annual Report 2019. As an accompaniment to the 2019 Public Health NI Fact Sheet[1], which presented the latest statistics at NI, HSC Trust and Local Government District levels for a range of public health outcome statistics, this report provides a more detailed assessment of the associated trends and health inequalities gaps. The report is accompanied by downloadable data tables[2] which contain all figures, including urban and rural breakdowns.

FORMAT OF THE REPORT

This report is separated into three sections, the first focusing on regional health inequalities, the second containing a decomposition of the deprivation gap in life expectancy and the third presenting sub-regional analysis. The regional section contains separate chapters for each theme/topic area, with each section containing a summary of the key findings, followed by individual indicator analysis. For each indicator two charts are displayed.

ASSESSMENT OF CHANGE OVER TIME

In addition various symbols are provided that depict changes in the rates in the most deprived and least deprived areas, and in the most-least deprived inequality gap (see below). An indication of the changes observed at the NI level has also been provided for each health outcome. An improvement or decline in the rate is only indicated when the change is statistically significant, or where there is a clear and consistent trend observed over the series. For a notable change in the inequality gap to have occurred, a significant change in at least one of the areas (most/least deprived) has to have been observed, or, where no statistically significant change is apparent then a change in the gap will have deemed to have occurred if there is a clear and consistent trend in both the outcome and the gap over the analysed period. Table 3 overleaf can be used as a reference to aid the reader in understanding how the symbols indicate a change in both the health outcome over time and the resultant inequality gap in this report have been determined[3].

Table 1: Indication of change to Indicator Rate

Changes to indicator rate	
MD / LD	Most Deprived Areas / Least Deprived Areas
	Positive Change
	No Notable Change
	Negative Change

Table 2: Indication of change in Inequality Gap over time

Changes in inequality gaps	
〈 〉	Widening of the gaps
〉〈	Narrowing of the gaps
—	No notable change in the gap

The sub-regional section presents a condensed summary of findings for each HSC Trust and LGD accompanied by downloadable data tables[2] which contain all figures and an indication of changes to rates and gaps.

It should be noted that inequality gaps for indicators can exist in either direction; however health outcomes generally tend to be worse in the most deprived areas than in the least deprived. For the purposes of this report, a positive value for the gap means that the health outcomes experienced in the most deprived areas were worse than in the least deprived.

Table 3: Understanding changes in the inequality gap

[1] https://www.health-ni.gov.uk/articles/public-health-statistics
[2] https://www.health-ni.gov.uk/publications/health-inequalities-annual-report-2020
[3] Indicated changes are based on a subjective assessment of the available data.

	Change in Health Outcome		Inequality Gap
	Most Deprived Areas	Least Deprived Areas	Symbol
Gap Widens	Small Positive Change	Large Positive Change	
	Negative Change	Positive Change	
	Negative Change	No Notable Change	
	Large Negative Change	Small Negative Change	
	No Notable Change	Positive Change	
Gap Narrows	Large Positive Change	Small Positive Change	
	Positive Change	Negative Change	
	Positive Change	No Notable Change	
	Small Negative Change	Large Negative Change	
	No Notable Change	Negative Change	
No Notable Change	Positive Change	Positive Change	
	Negative Change	Negative Change	
	No Notable Change	No Notable Change	
	Small Negative Change (Red)/ Positive Change/(Green)	No Notable Change	
	No Notable Change	Small Negative Change (Red)/ Positive Change/(Green)	

Observed differences in the most and least deprived areas, as indicated by the symbol, does not always lead to a change in the gap. Where this has occurred an explanation has been provided where appropriate.

NOTES FOR USER

- **Regional Inequality Gaps** refer to the difference in health outcomes between the 20% most deprived and 20% least deprived areas of Northern Ireland.
- **Sub-regional Inequality Gaps** refer to the difference between health outcomes for
  - The 20% most deprived areas within an area (LGD/Trust) and the area's average
  - The Trust or LGD and the regional average.
- **Deprivation Measure:** the 20% most and least deprived areas are defined according to the Northern Ireland Multiple Deprivation Measure (NIMDM). For each indicator, the latest four years / data points presented are newly published figures and are defined according to the 2017 NIMDM[4], all other data points are based on the 2010 NIMDM[5]
- **Rounded Figures:** some individual figures have been rounded to either zero or one decimal place independently. As a result, the sum of component items may not therefore always add to the totals shown.
- **Additional Indicators:** figures relating to five additional indicators such as Median Fire Response Times and Median Ambulance Response Times, which form part of the HSCIMS but are not contained in the main body of the report, can be found in Appendix C. One new indicator has been introduced since the previous report of 2019; Standardised Attendance Rate – Emergency Care.
- **Changes to Avoidable Mortality Definitions:** following an Office for National Statistics (ONS) consultation[6], on a new definition of avoidable mortality as proposed by the Organisation for Economic Co-operation and Development (OECD)[7], a new definition has been implemented. Figures based on the old definition have been included in Appendix C: Additional Indicators for Programme for Government (PfG) monitoring purposes. Full details can be found in Appendix E: Technical Notes & Definitions.
- **Further Analysis:** The appendix section included at the back of the report provides **further analysis** regarding the Social Gradient of Health (Appendix A) and the Population Attributable Risk (PAR) of Deprivation (Appendix B).
- **Urban/Rural Analysis** In addition urban and rural figures for each indicator have been included within the accompanying downloadable tables, and a summary assessment of Rural-NI gaps has been provided in Appendix D.
- **District Electoral Areas** (DEAs) analysis is included within the accompanying downloadable tables. The most recent available health outcomes within each DEA are compared and contrasted with those in the surrounding LGD and notable differences are highlighted.
- **Data limitations** mean that not all health indicators analysed at a regional level can be analysed at Trust, LGD or DEA level. In this report, 45 health indicators have been presented at Trust and 43 at LGD level, with 30 reported at DEA level.
- For **further information** regarding the methodologies, indicator descriptions and sources of data used to produce the analyses throughout this report, please refer to Appendix E: Technical Notes & Definitions.

[4] https://www.nisra.gov.uk/statistics/deprivation/northern-ireland-multiple-deprivation-measure-2017-nimdm2017
[5] https://www.nisra.gov.uk/statistics/deprivation/northern-ireland-multiple-deprivation-measure-2010-nimdm2010
[6] https://consultations.ons.gov.uk/health-and-life-events/avoidable-mortality-definition/
[7] http://www.oecd.org/health/health-systems/Avoidable-mortality-2019-Joint-OECD-Eurostat-List-preventable-treatable-causes-of-death.pdf

Understanding Gaps

Regional Level:
A positive inequality gap means that the health outcomes in the most deprived areas are worse than in the least deprived areas.

Sub-regional Level:
A positive inequality gap between the Trust or LGD and its most deprived areas means that the health outcomes in the most deprived areas are worse than the Trust or LGD average.

Similarly, a positive inequality gap between the Trust or LGD and NI means that the health outcomes in the Trust or LGD are worse than the NI average.

A negative inequality gap that is widening indicates that the health outcome is experiencing a better change over time within the Trust or LGD than that seen regionally.

Other routine reports in the HSCIMS series include:

Public Health NI Fact Sheet – Presents the latest health outcome statistics at Northern Ireland, HSC Trust and LGD levels, and includes information on general health, mortality, health expectancies and more (https://www.health-ni.gov.uk/articles/public-health-statistics).

Life Expectancy in Northern Ireland – Presenting the latest official estimates of life expectancy in Northern Ireland and an examination of the causes that contribute to the change in life expectancy over time, as well as the differentials between genders and across Local Government Districts. The latest figures for life expectancy at 65, healthy life expectancy and disability-free life expectancy are also included. (https://www.health-ni.gov.uk/articles/life-expectancy-northern-ireland

Making life better: monitoring the wider social determinants of health & wellbeing - key indicators – monitoring report for the key indicators of the wider social determinants of health & wellbeing, contained in the Making Life Better, the public health strategic framework for NI[8] https://www.health-ni.gov.uk/articles/social-determinants-health-statistics).

[8] www.health-ni.gov.uk/topics/public-health-policy-and-advice/making-life-better-whole-system-strategic-framework-public

Regional Health Inequalities

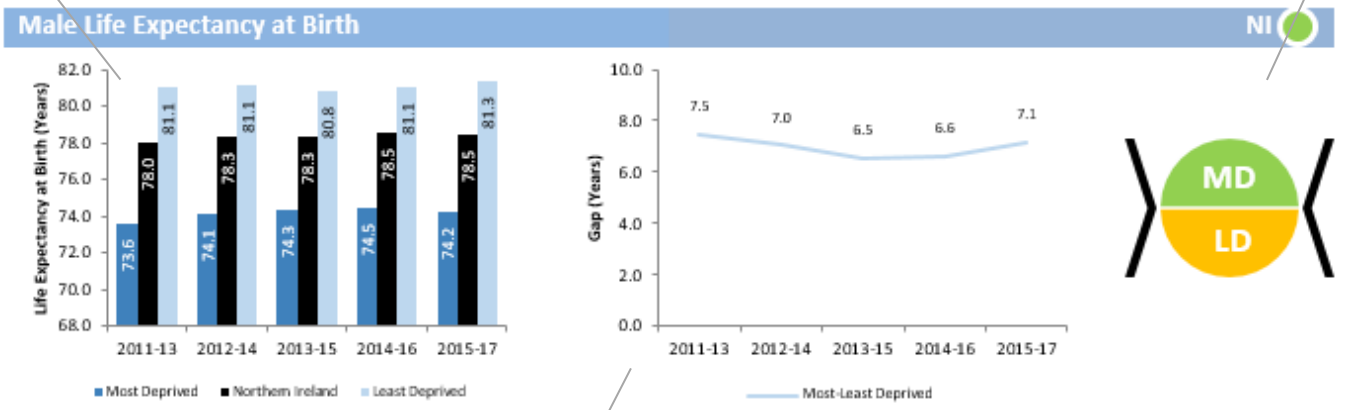
Regional health inequalities refer to the difference in health outcomes between the 20% most deprived and 20% least deprived areas of Northern Ireland according to the Northern Ireland Multiple Deprivation Measure. This section contains separate chapters for each theme/topic area, with each chapter containing a summary of the key findings, followed by individual indicator analysis.

For each indicator two charts and two symbols are displayed. For ease of understanding, each theme is assigned a separate colour (for example blue is for 'Life Expectancy and General Health'), with a deeper tone representing the 20% most deprived areas and a lighter tone the 20% least deprived.

An example of the indicator analysis, with guidance, can be seen below:

This chart shows trends in rates over time for **Northern Ireland**, the **20% most deprived areas** and **20% least deprived areas**.

This symbol for assessment of change over time is explained on pages 7 and 8 of this report. Also shown is an indication of change at the Northern Ireland (NI) level.

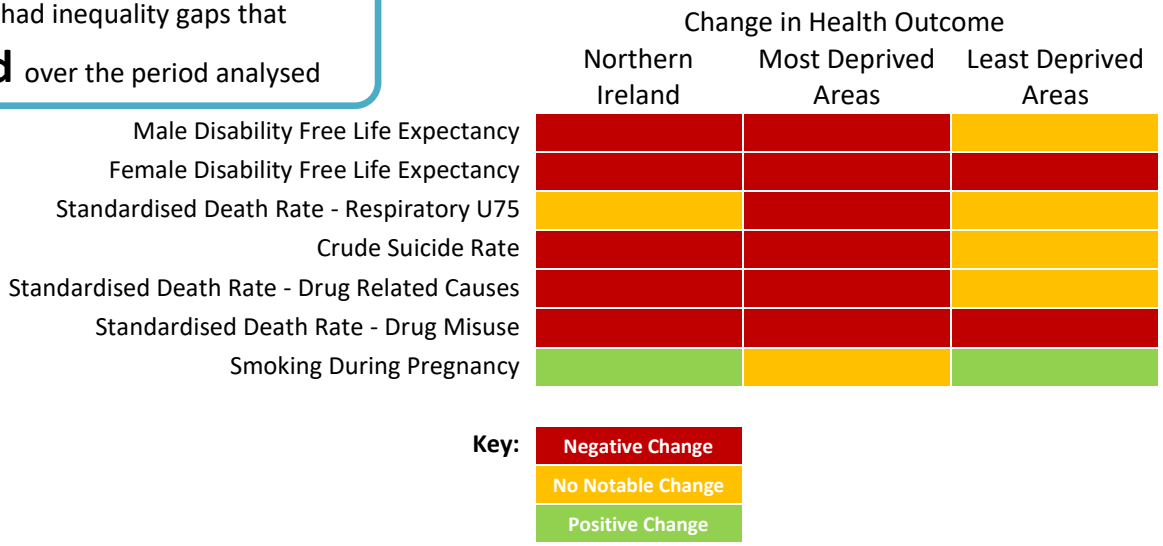


This chart shows the trend for the most-least deprived inequality gap over the same period. The gap between most-least deprived may be displayed as a discrete value, e.g. years for life expectancies or as a percentage difference.

SUMMARY OF CHANGES IN REGIONAL INEQUALITY GAPS OVER THE LAST 5 YEARS[9]

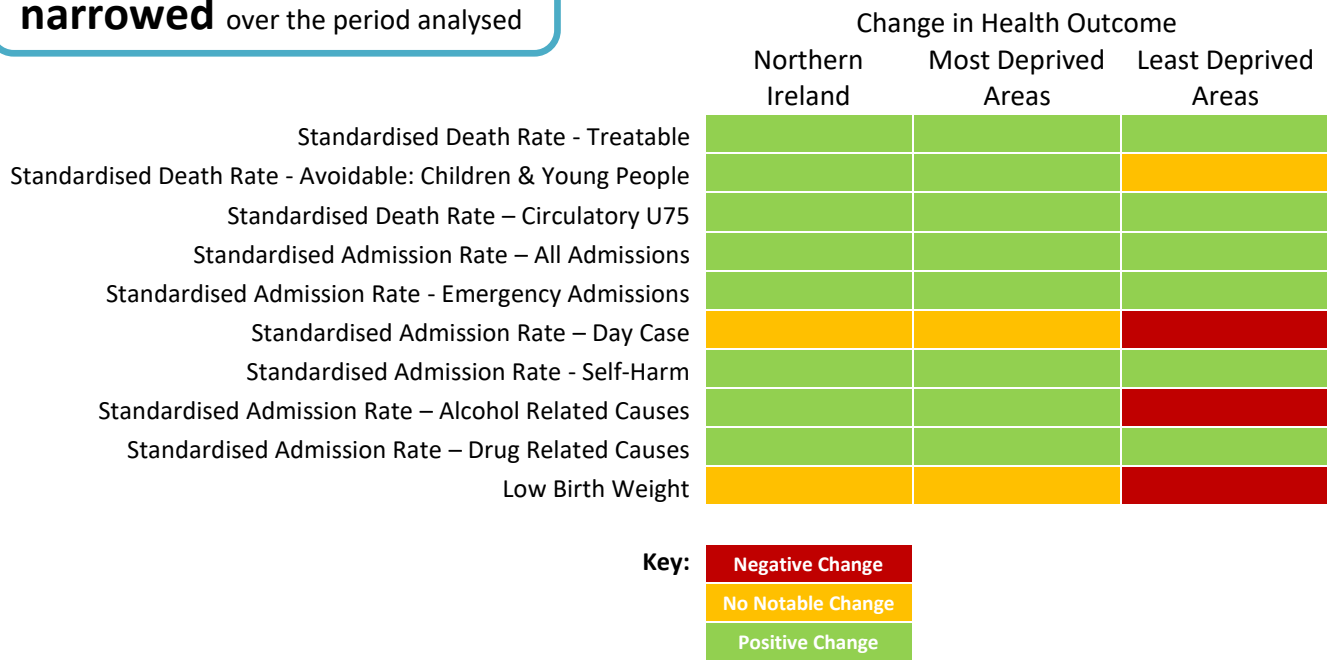
〈 〉 Most-Least Deprived Inequality Gaps that Widened over the Analysed Period

7 indicators had inequality gaps that **widened** over the period analysed



〉 〈 Most-Least Deprived Inequality Gaps that Narrowed over the Analysed Period

10 indicators had inequality gaps that **narrowed** over the period analysed



[9] There are some indicators, Small for Gestational Age and Year 8 Obesity, for which a regional assessment of change has not been carried out. Further details are provided alongside each indicator where relevant.

Most-Least Deprived Inequality Gaps that Showed No Notable Change over the Analysed Period

31 indicators had inequality gaps that **showed no notable change** over the period analysed

Life Expectancy & General Health

In 2016-18 the life expectancy gender gap between males and females in Northern Ireland was 3.7 years. There was no change in the deprivation gap for male life expectancy at birth, although it improved across all areas. There was no change in female life expectancy at birth across all areas and therefore no change in the inequality gap. There was also no change in the male or female healthy life expectancy gaps, although male healthy life expectancy did improve for NI overall. For disability free life expectancies there were negative changes across all areas, in addition to widening of the deprivation gaps.

Key:

Northern Ireland: NI

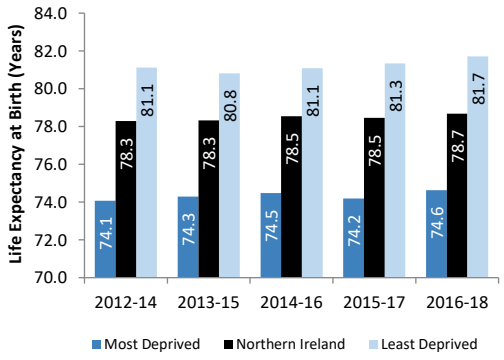
MD — Most Deprived Areas

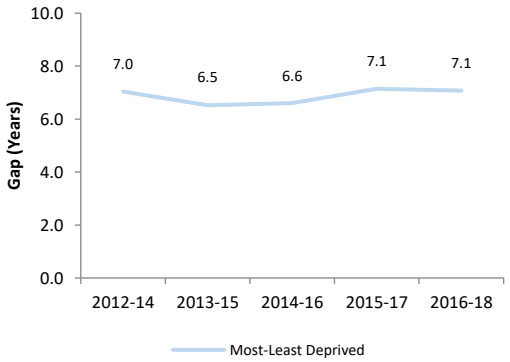
LD — Least Deprived Areas

- Positive Change
- No Notable Change
- Negative Change
- Narrowing of the Gap
- No Notable Change in the Gap
- Widening of the Gap

Male Life Expectancy at Birth

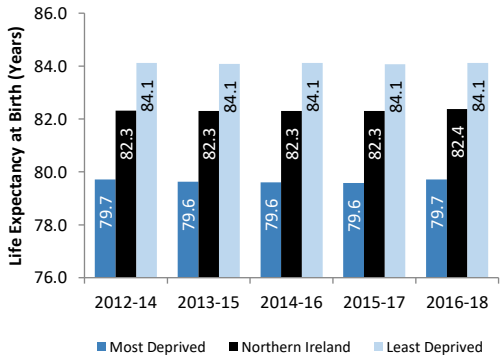
NI

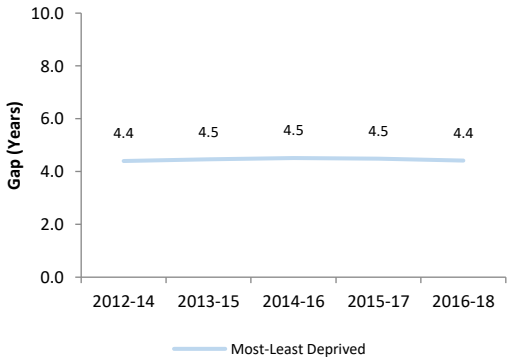




Female Life Expectancy at Birth

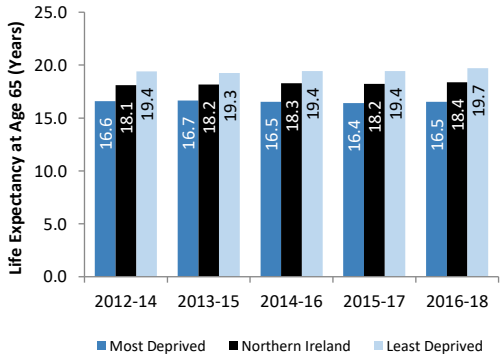
NI

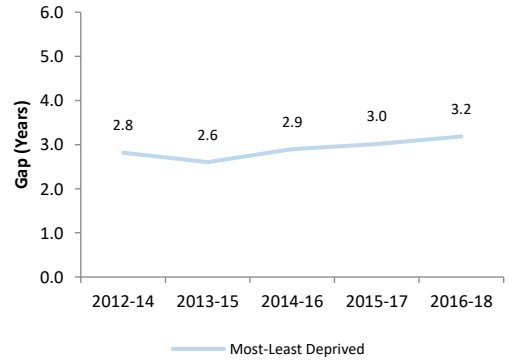




Male Life Expectancy at Age 65

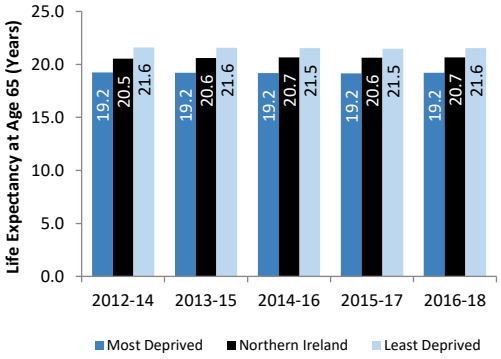
NI

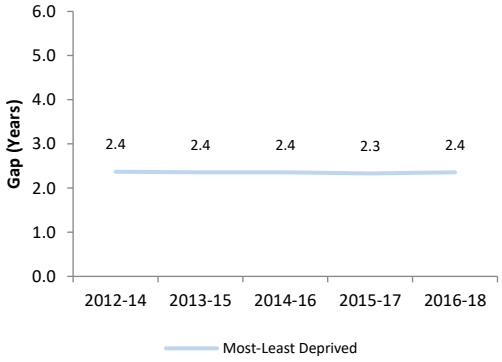




Female Life Expectancy at Age 65

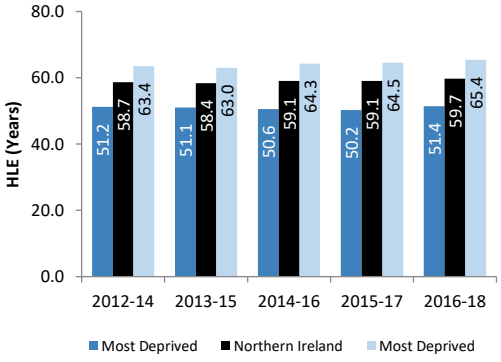
NI

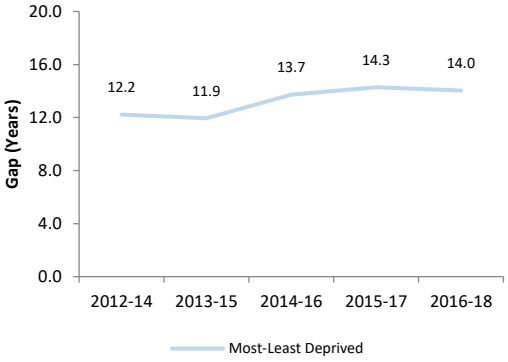




Male Healthy Life Expectancy

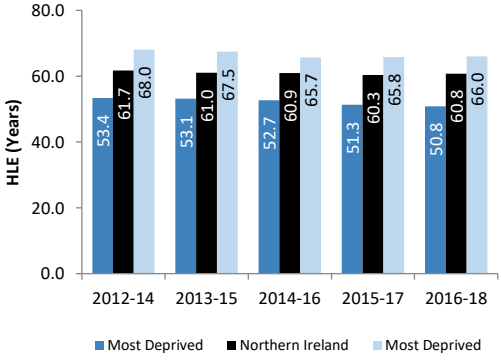
NI

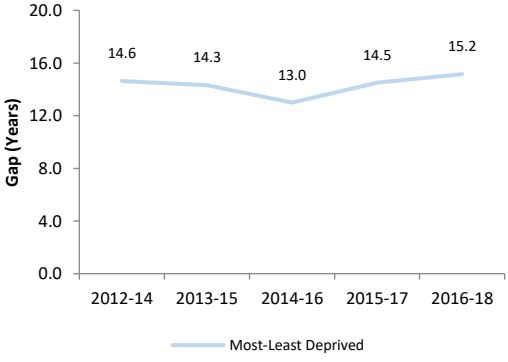


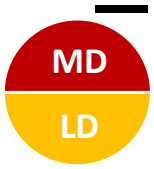


Female Healthy Life Expectancy

NI

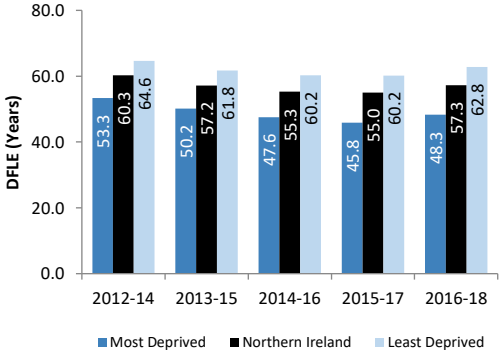


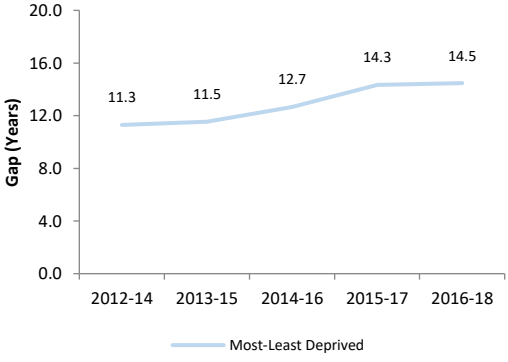


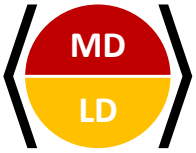


Male Disability Free Life Expectancy[10]

NI



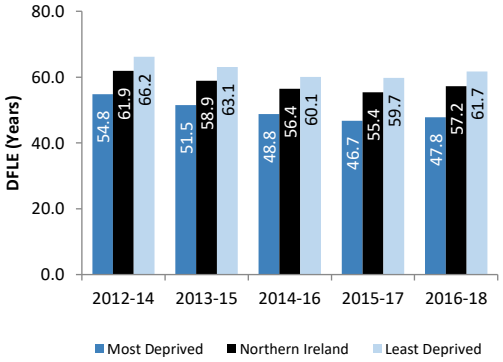


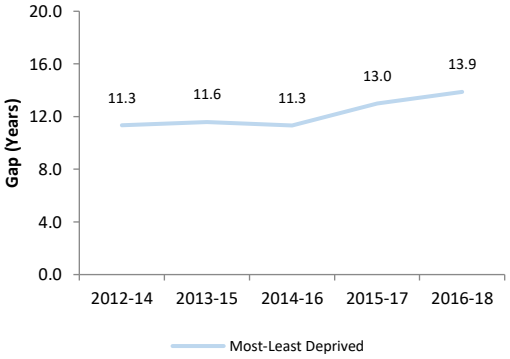


[10] A change in the wording of the Health Survey NI question from which the DFLE indicators are derived may explain the decrease in DFLE estimates. Further information is included under 'Indicator Definitions' within the Appendices.

Female Disability Free Life Expectancy[10]

NI





Premature Mortality[11]

Rates of premature mortality generally decreased over the period in NI and its most and least deprived areas. The inequality gaps narrowed or remained broadly similar except for death rates among under 75s due to respiratory diseases, where the deprivation gap widened due to increased mortality in the most deprived areas. The inequality gaps for premature mortality remained large with the most deprived areas continuing to experience higher mortality rates than the least deprived areas. For respiratory mortality among under 75s, the rate in the most deprived areas was almost three and a half times that seen in the least deprived.

Key:

Northern Ireland: NI

MD Most Deprived Areas

LD Least Deprived Areas

Positive Change

No Notable Change

Negative Change

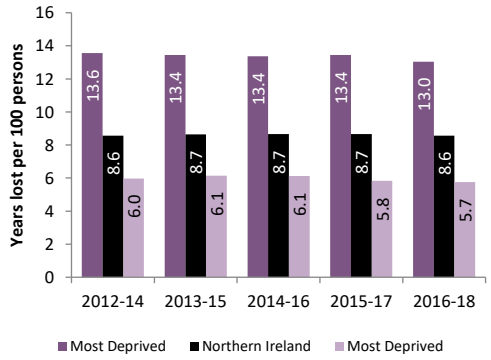
Narrowing of the Gap

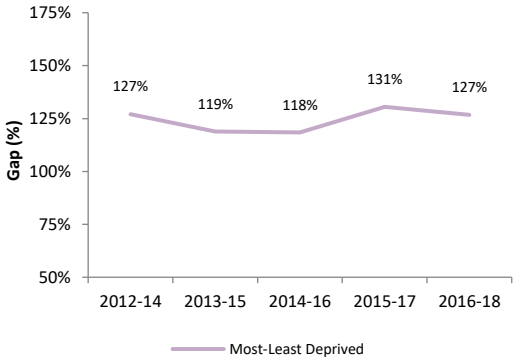
No Notable Change in the Gap

Widening of the Gap

Potential Years of Life Lost

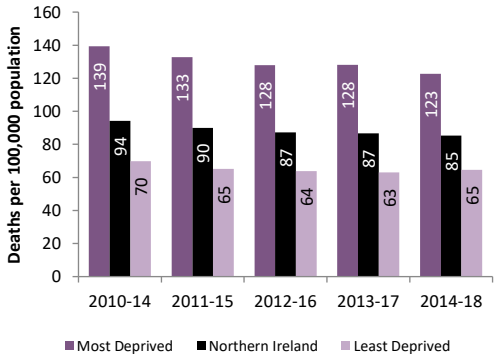
NI

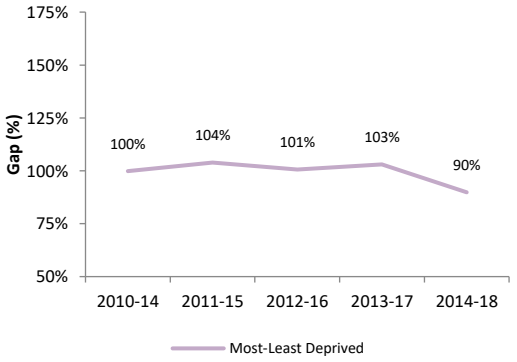




Standardised Death Rate - Treatable[11]

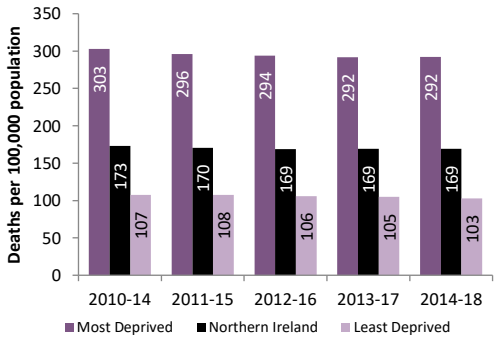
NI

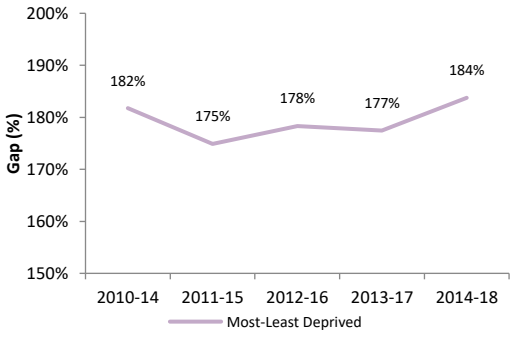




Standardised Death Rate – Preventable[11]

NI

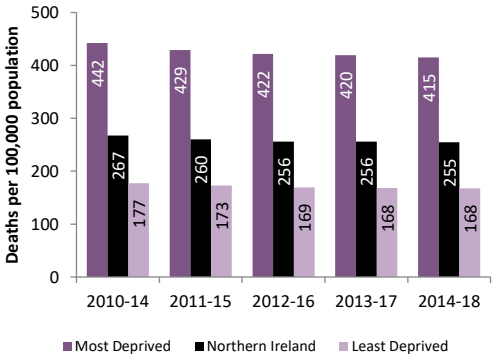


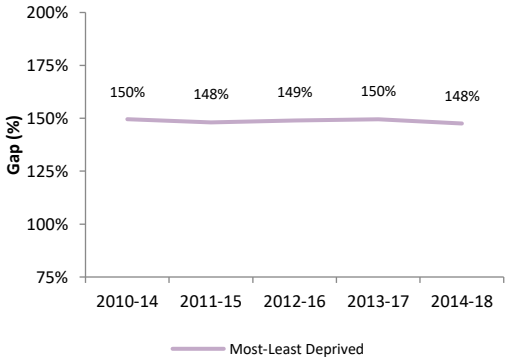


[11] A new definition of avoidable mortality has been introduced with changes to the indicators for treatable, preventable and avoidable deaths. The Programme for Government indicator for preventable mortality will continue to be calculated using the old definition and is published in Appendix C. A full explanation, including indicator definitions, can be found in Appendix E.

Standardised Death Rate – Avoidable[12]

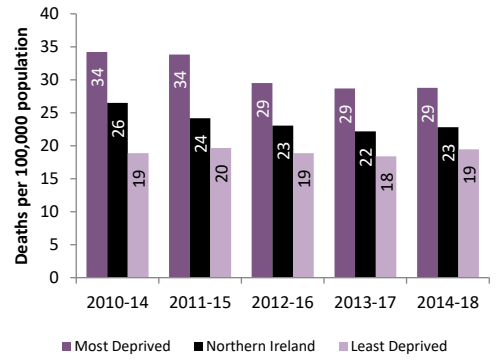
NI

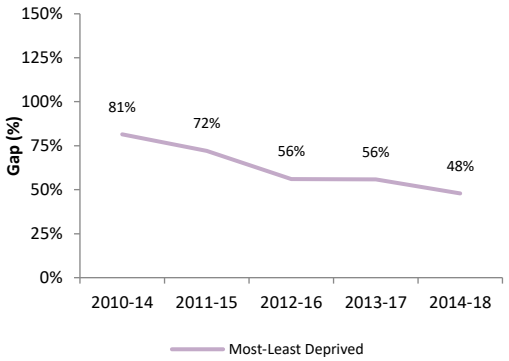


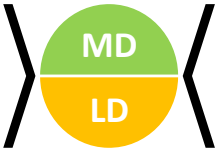


Standardised Death Rate – Avoidable: Children & Young People[13]

NI

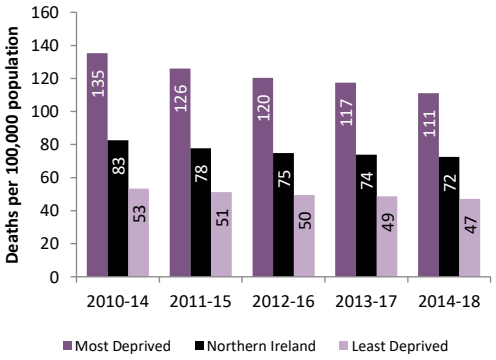


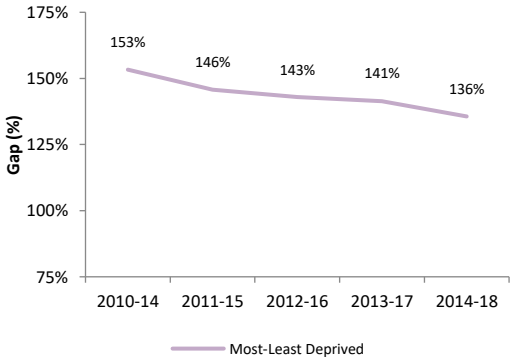




Standardised Death Rate – Circulatory U75

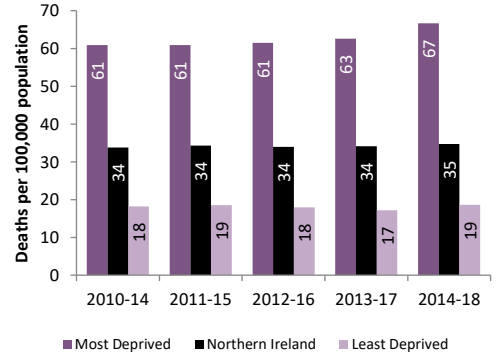
NI

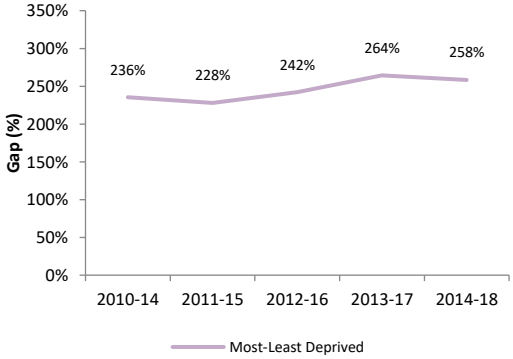


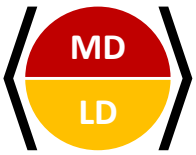


Standardised Death Rate – Respiratory U75

NI





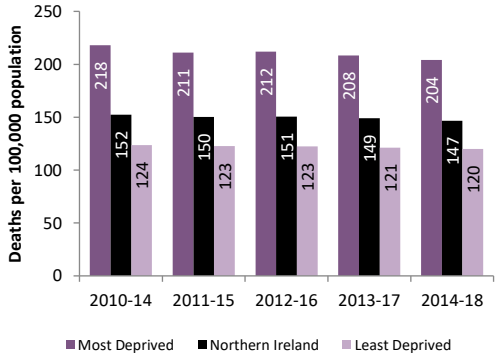


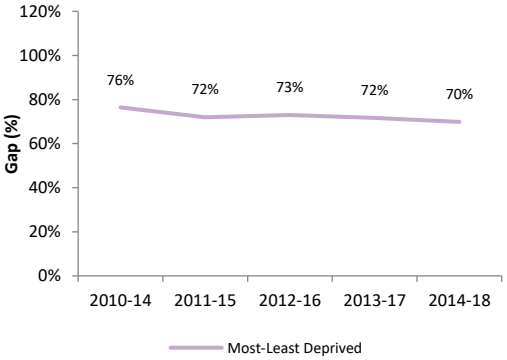
[12] A new definition of avoidable mortality has been introduced with changes to the indicators for treatable, preventable and avoidable deaths. The Programme for Government indicator for preventable mortality will continue to be calculated using the old definition and is published in Appendix C. A full explanation, including indicator definitions, can be found in Appendix E.

[13] This indicator should be treated as an experimental statistic. Given the relatively small numbers and large variability in specific causes of childhood deaths, interpretation should be made with caution.

Standardised Death Rate – Cancer U75

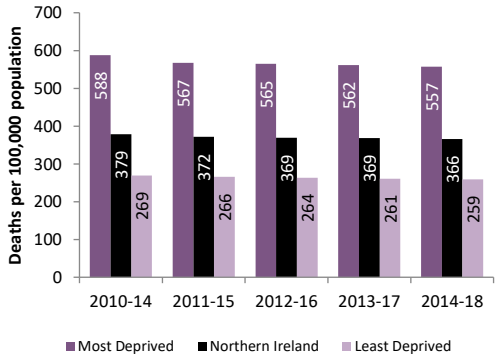
NI

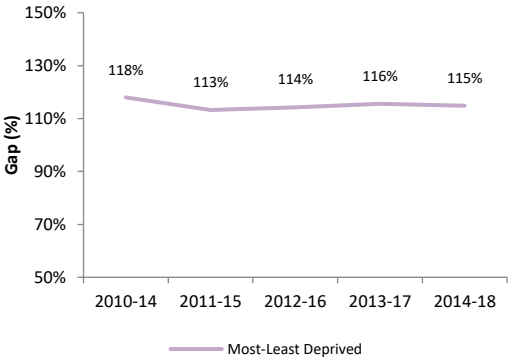




Standardised Death Rate – All Cause U75

NI





Major Diseases[14]

Inequality gaps for all indicators remained constant over the period. There were improvements in all indicators at a regional level, with the exception of admissions for respiratory conditions were there was no change, and cancer incidence were there was a negative change. There was also negative change in the most and least deprived areas for cancer incidence. The largest inequality gap was observed for admissions due to respiratory diseases, with the admission rate in the most deprived areas around double that of the least deprived areas, for all ages and for those aged under 75 years.

Key:

Northern Ireland: NI

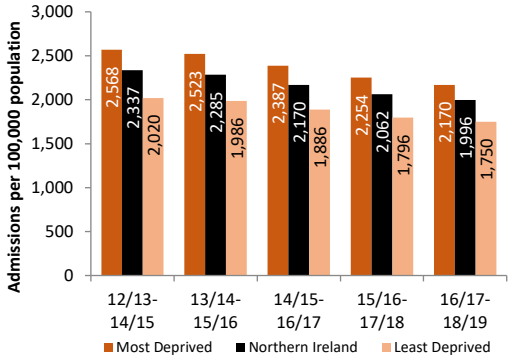
MD — Most Deprived Areas

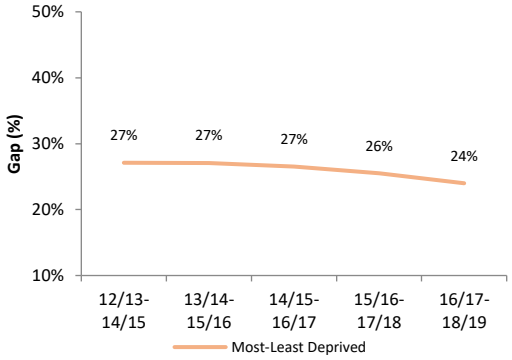
LD — Least Deprived Areas

- Positive Change
- No Notable Change
- Negative Change
- Narrowing of the Gap
- No Notable Change in the Gap
- Widening of the Gap

Standardised Admission Rate – Circulatory

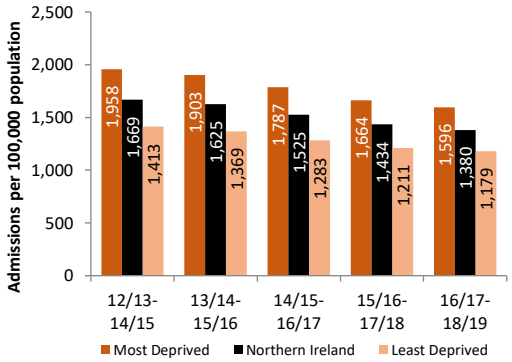
NI

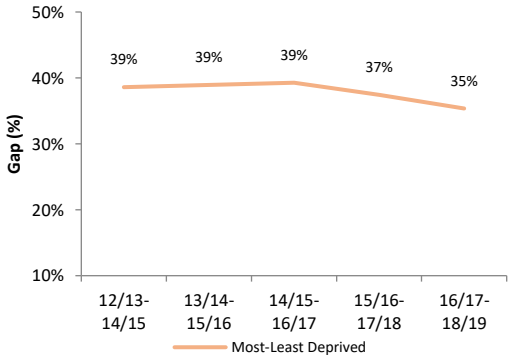




Standardised Admission Rate – Circulatory U75

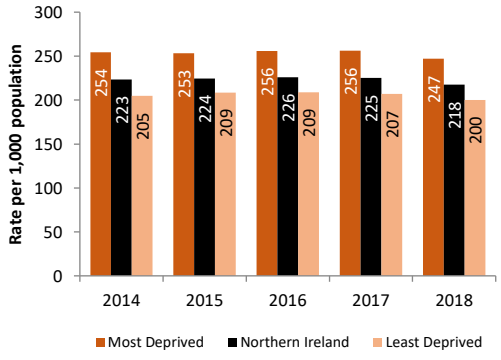
NI

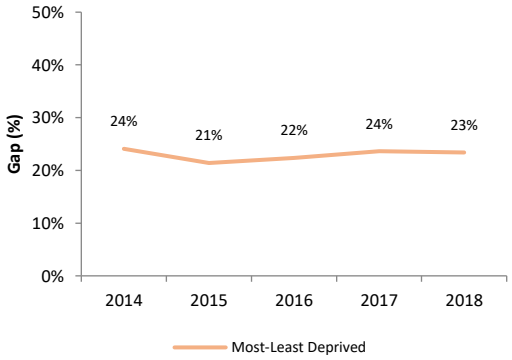




Standardised Prescription Rate – Antihypertensive

NI

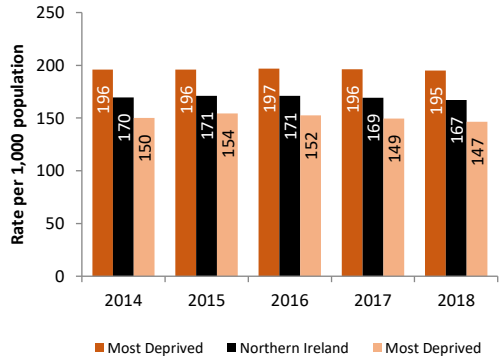


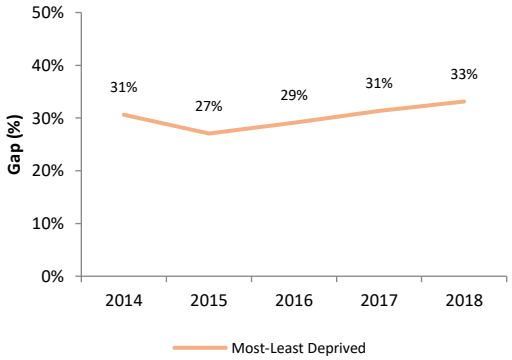


[14] Mental health related conditions, alcohol and drug related conditions; are considered in separate chapters.

Standardised Prescription Rate – Statin

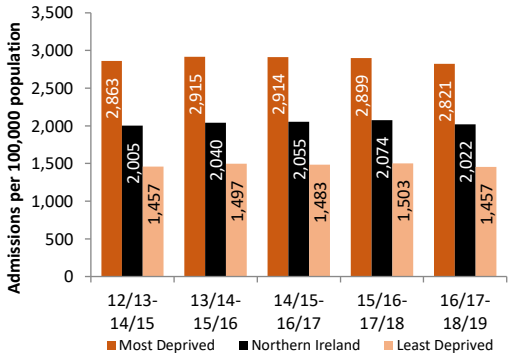
NI

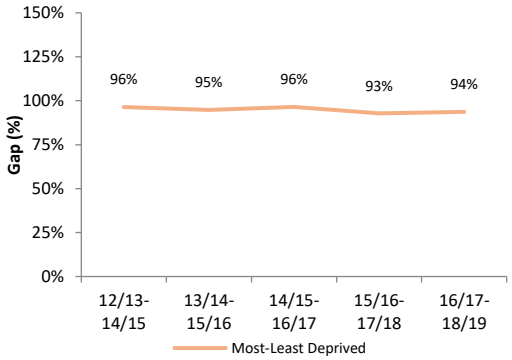




Standardised Admission Rate – Respiratory

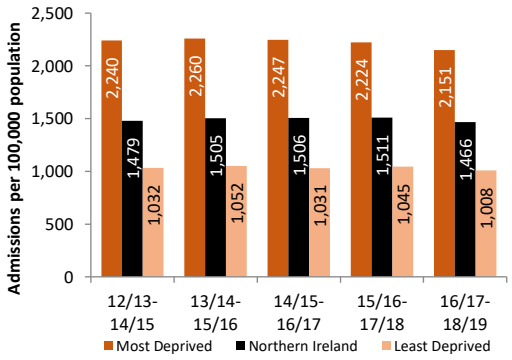
NI

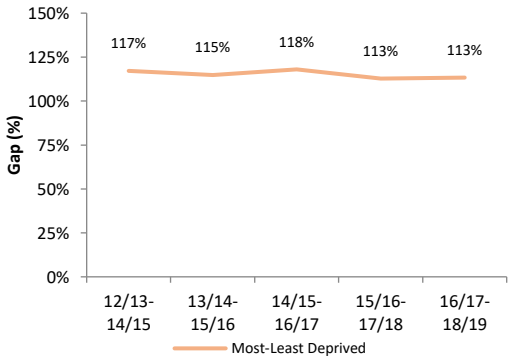




Standardised Admission Rate – Respiratory U75

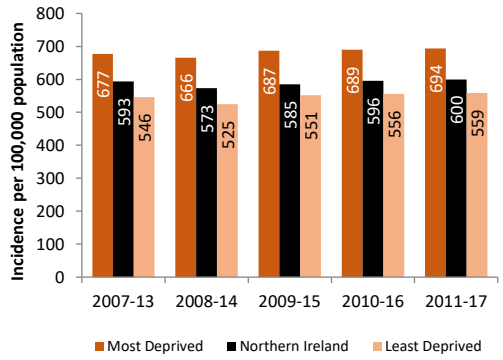
NI





Standardised Incidence Rate – Cancer

NI



Hospital Activity

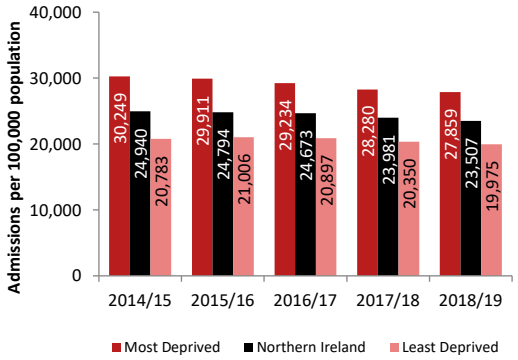
Inequality gaps for all indicators narrowed over the period with the exception of emergency care attendances[15] and elective inpatient admissions which remained constant. All admissions indicators improved across NI and in its most and least deprived areas, with the exception of day case, which remained constant in the most deprived areas and increased in the least deprived areas. Emergency admissions continued to show the largest inequality gap of the four indicators analysed. Despite a narrowing of the gap, the rate among those living in the most deprived areas remained more than three-fifths higher than that in the least deprived areas.

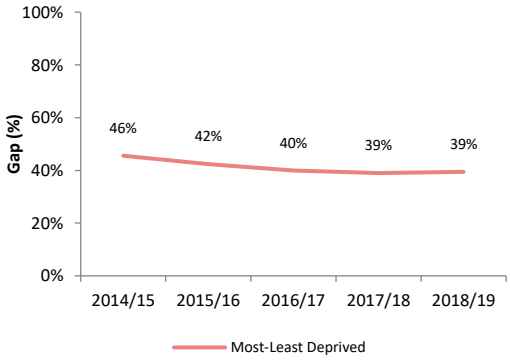
Key: Northern Ireland: NI

- MD — Most Deprived Areas
- LD — Least Deprived Areas
- Positive Change
- No Notable Change
- Negative Change
- Narrowing of the Gap
- No Notable Change in the Gap
- Widening of the Gap

Standardised Admission Rate – All Admissions

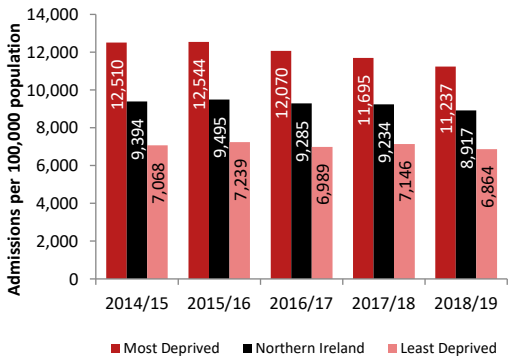
NI

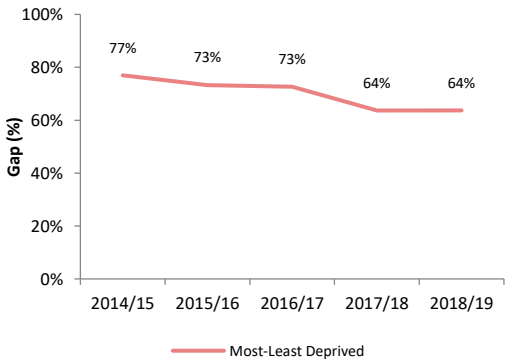




Standardised Admission Rate – Emergency Admissions

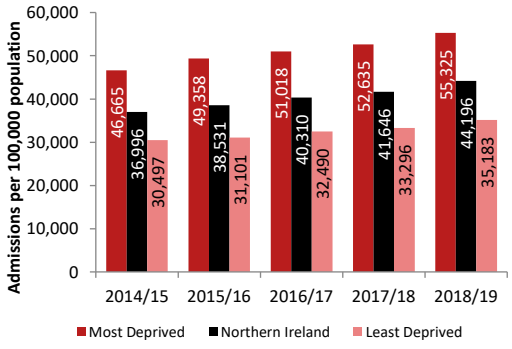
NI

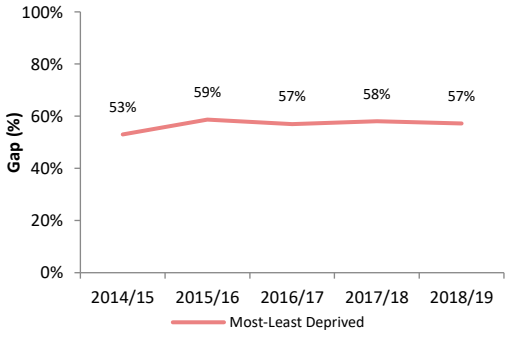


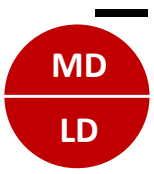


Standardised Attendance Rate – Emergency Care NEW

NI



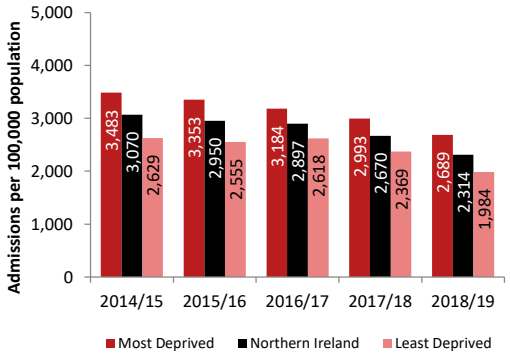


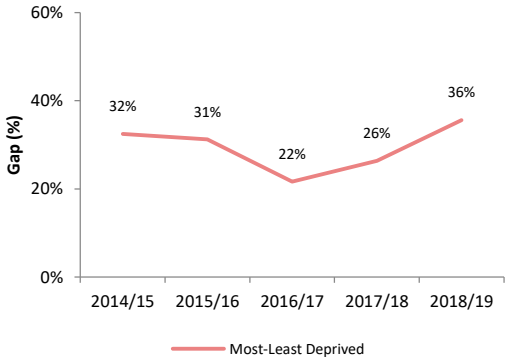


[15] This is a new indicator. A full explanation of all indicators, including the difference between an attendance at and admission to hospital, can be found in Appendix E: Technical Notes & Definitions.

Standardised Admission Rate – Elective Inpatient Admissions[16]

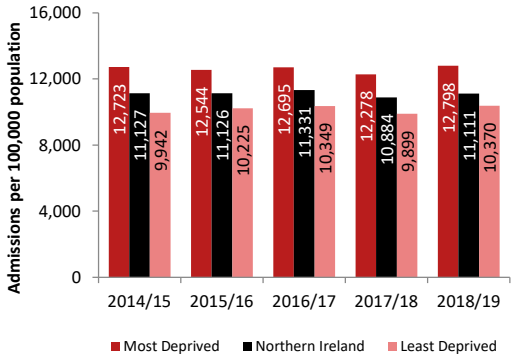
NI

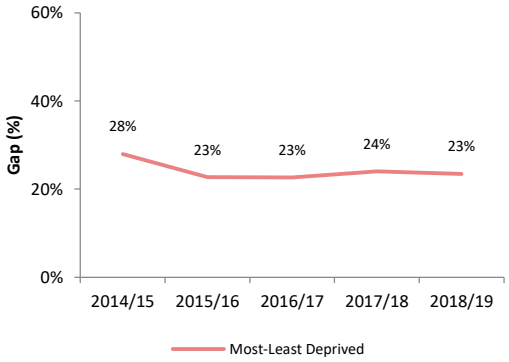


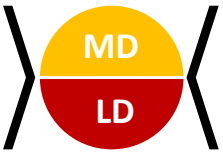


Standardised Admission Rate – Day Case Admissions

NI







[16] Please note that some of the observed decreases in the admission rate across all areas may be explained by a service reconfiguration. For further information, see indicator definitions in Appendix E: Technical Notes & Definitions.

Mental Health

Large inequality gaps continue to exist for mental health indicators, with the latest position showing that the rate of suicide in the most deprived areas was nearly three and a half times that in the least deprived areas, with the gap widening. There was positive change regionally and in the most and least deprived areas for admissions due to self-harm, with the inequality gap narrowing[17]. Prescription rates for mood and anxiety disorders increased in NI and its most and least deprived areas.

Key:

Northern Ireland: NI

MD Most Deprived Areas

LD Least Deprived Areas

Positive Change

No Notable Change

Negative Change

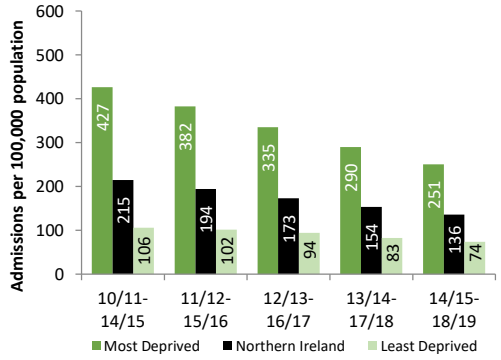
Narrowing of the Gap

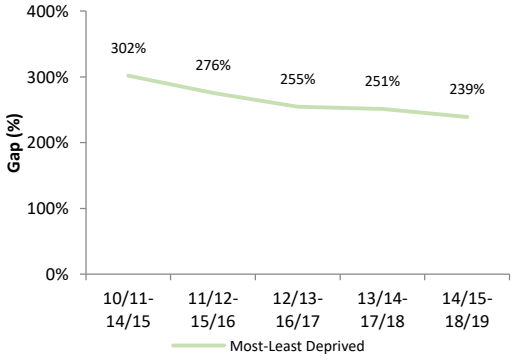
No Notable Change in the Gap

Widening of the Gap

Standardised Admission Rate – Self-Harm[17]

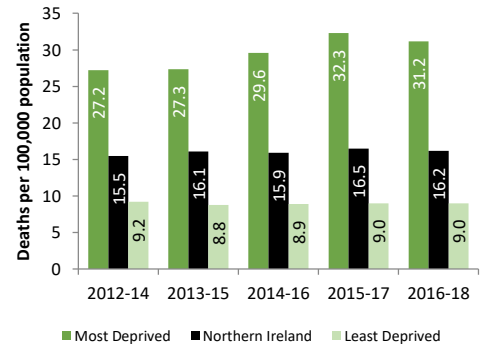
NI

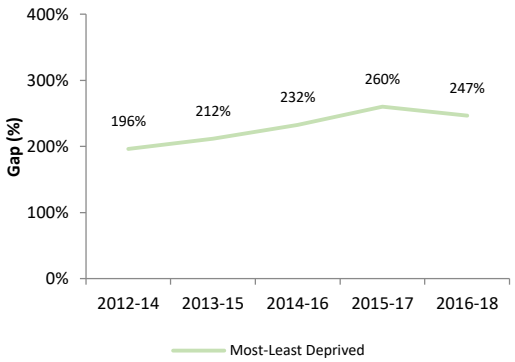


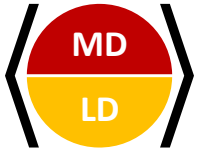


Crude Suicide Rate

NI

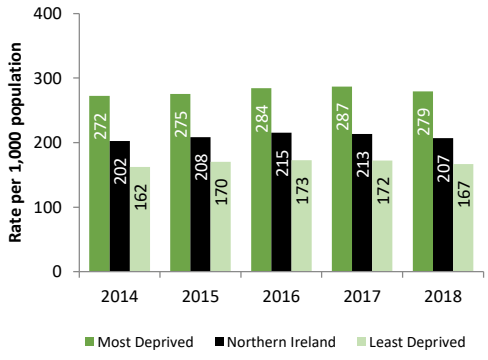


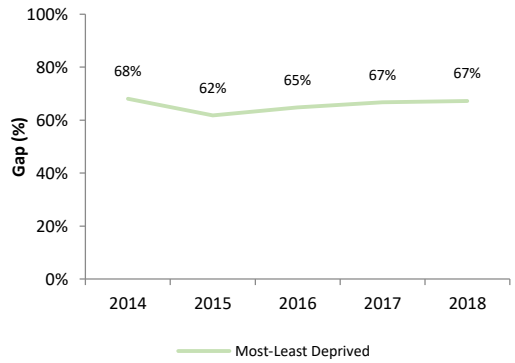




Standardised Prescription Rate – Mood & Anxiety

NI





[17] Please note that some of the observed decreases in the admission rate across all areas may be explained by a service reconfiguration. For further information, see indicator definitions in Appendix E: Technical Notes & Definitions.

Alcohol, Smoking & Drugs

Alcohol, smoking and drug related indicators continued to show some of the largest health inequalities monitored in NI. For alcohol specific mortality and alcohol related admissions the rate in the most deprived areas is approximately four times that seen in the least deprived areas. Although there has been no change in the inequality gap for lung cancer incidence, the rate has increased in NI and its most deprived areas. While the admission rate for drug related causes decreased across all areas the opposite was true for the death rates for drug related causes and drug misuse which rose with a widening of the inequality gaps[18].

Key:

Northern Ireland: NI

MD Most Deprived Areas

LD Least Deprived Areas

Positive Change

No Notable Change

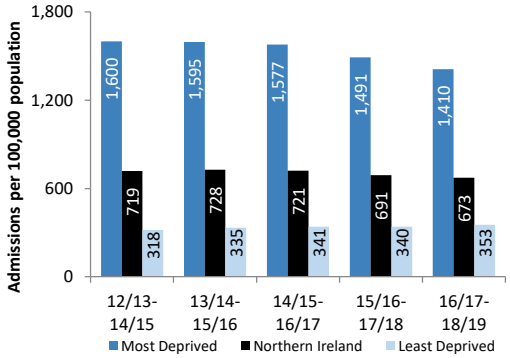
Negative Change

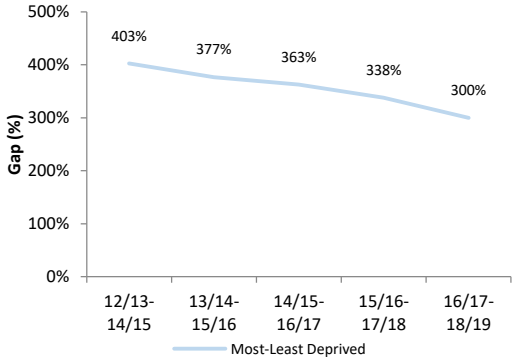
Narrowing of the Gap

No Notable Change in the Gap

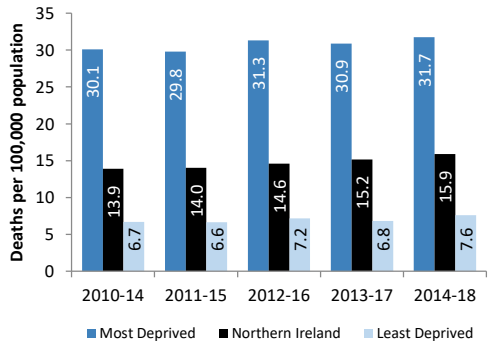
Widening of the Gap

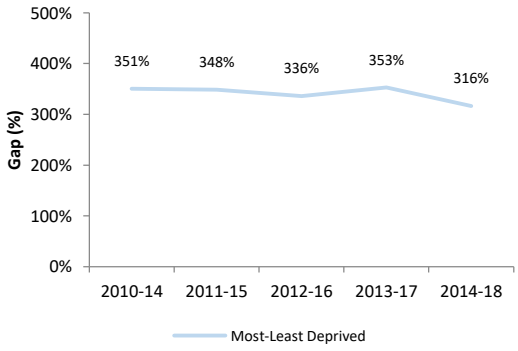
Standardised Admission Rate – Alcohol Related Causes NI



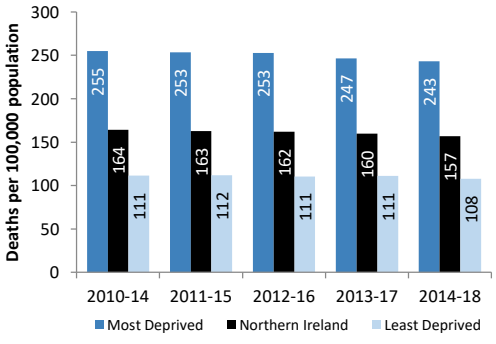


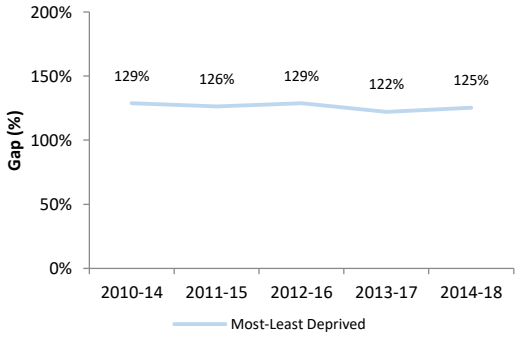
Standardised Death Rate – Alcohol Specific NI





Standardised Death Rate – Smoking Related Causes NI

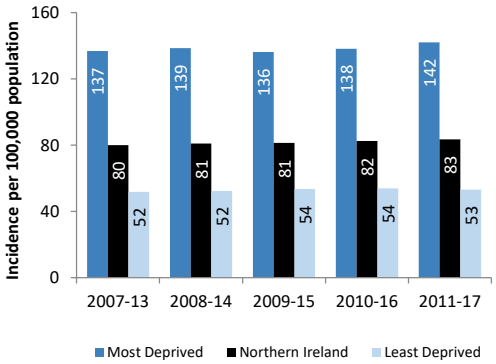


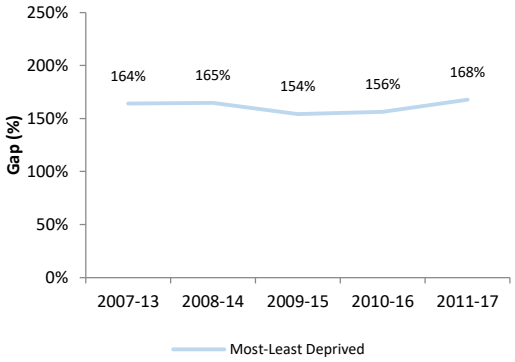


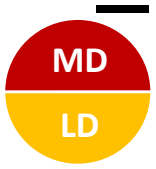
[18] Please note that some observations may be due to changes in drug misuse behaviours among the population. For more information see Appendix E: Technical Notes & Definitions.

Standardised Incidence Rate – Lung Cancer

NI

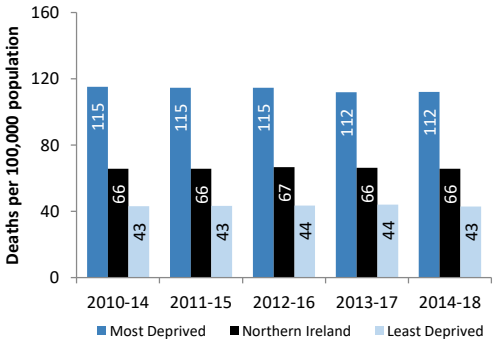


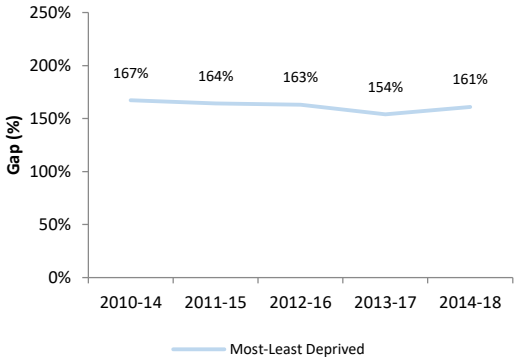




Standardised Death Rate – Lung Cancer

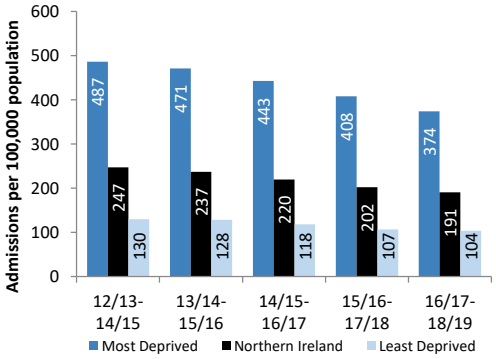
NI

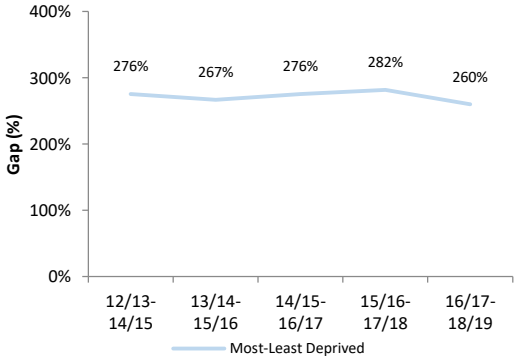




Standardised Admission Rate – Drug Related Causes

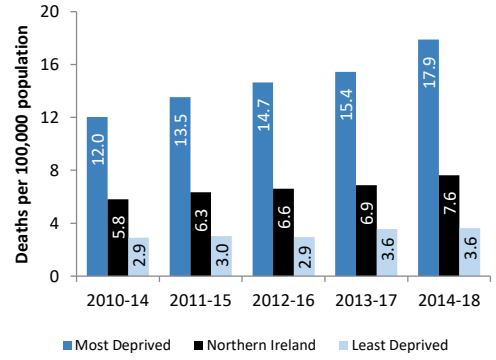
NI

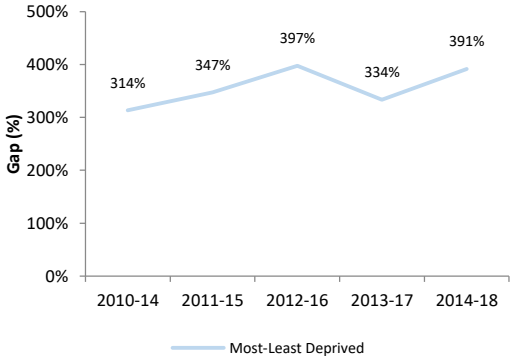


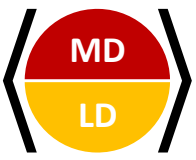


Standardised Death Rate – Drug Related Causes

NI

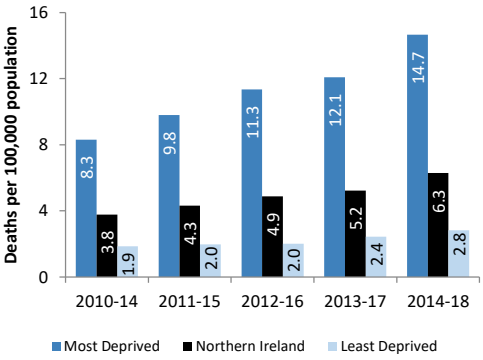


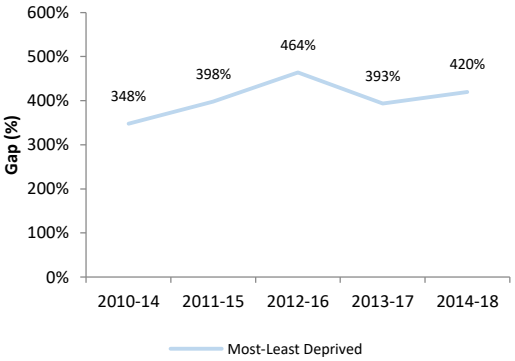




Standardised Death Rate – Drug Misuse

NI





Pregnancy & Early Years

Changes over the period in inequality gaps related to pregnancy and early years tended to vary across the indicators analysed. The low birth weight inequality gap narrowed, due to negative changes in the least deprived areas. The gap between the most and least deprived areas for smoking during pregnancy widened due to positive changes in least deprived areas. The inequality gaps for the under 20 teenage birth rate and the proportion of mothers smoking during pregnancy still remain very large. For both, the rate in the most deprived areas was five times the rate in the least deprived areas.

Key: Northern Ireland: NI

MD Most Deprived Areas

LD Least Deprived Areas

Positive Change

No Notable Change

Negative Change

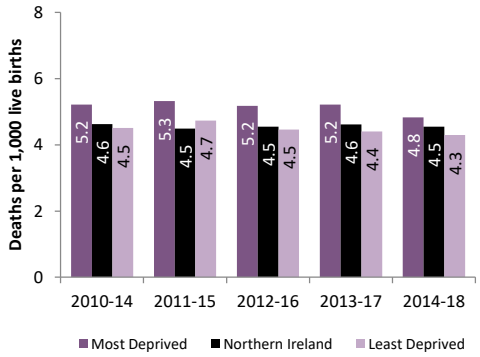
Narrowing of the Gap

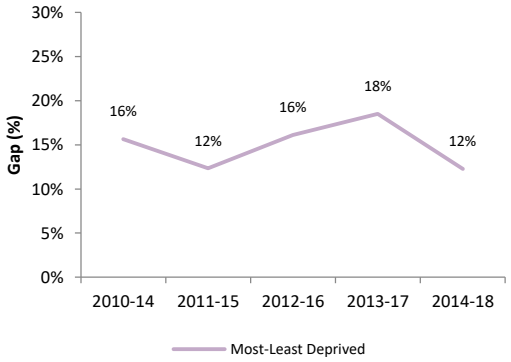
No Notable Change in the Gap

Widening of the Gap

Infant Mortality Rate

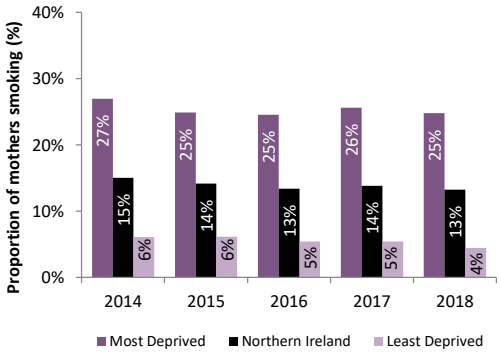
NI

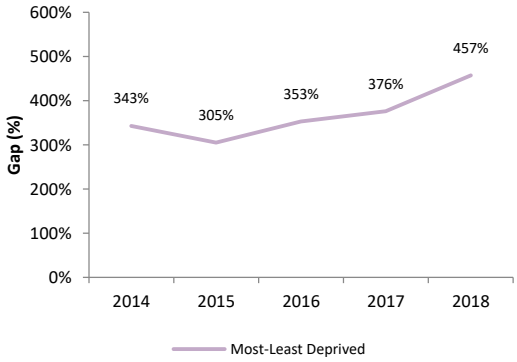


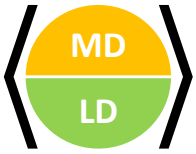


Smoking During Pregnancy

NI

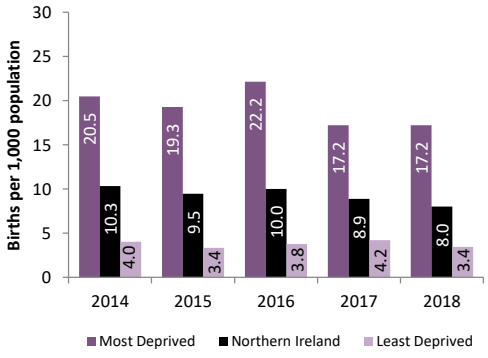


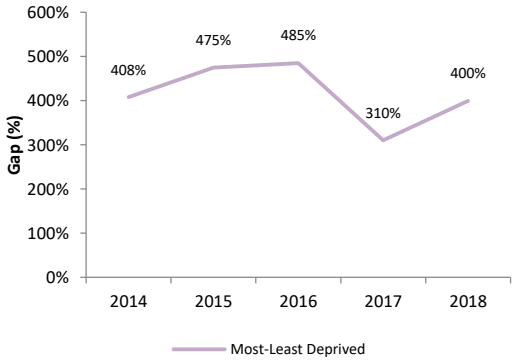




Teenage Birth Rate U20

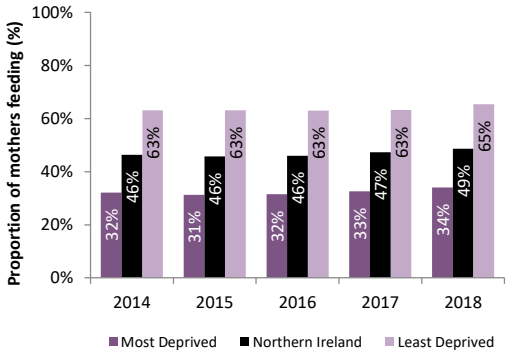
NI

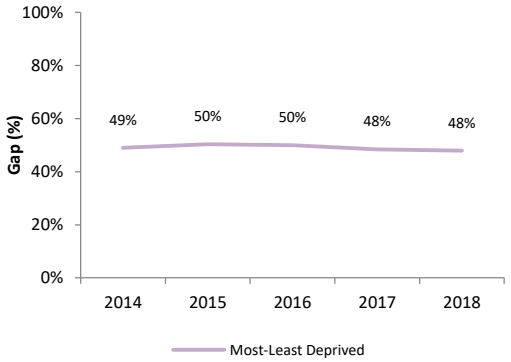




Breastfeeding on Discharge

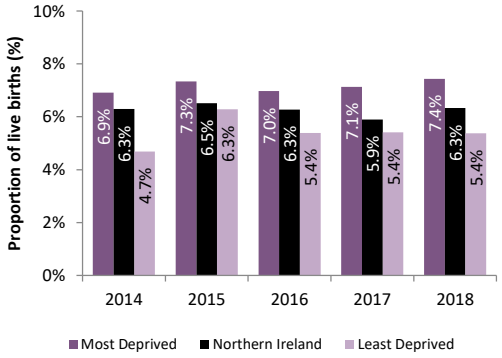
NI

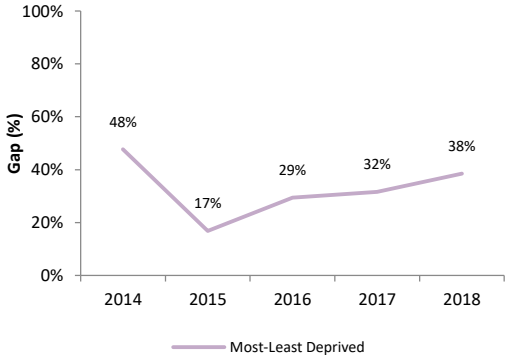


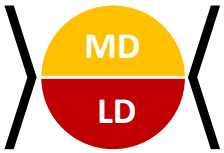


Low Birth Weight

NI

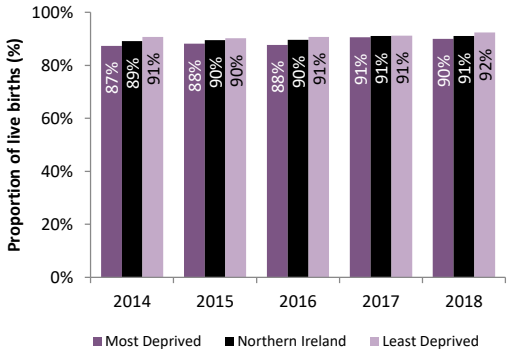


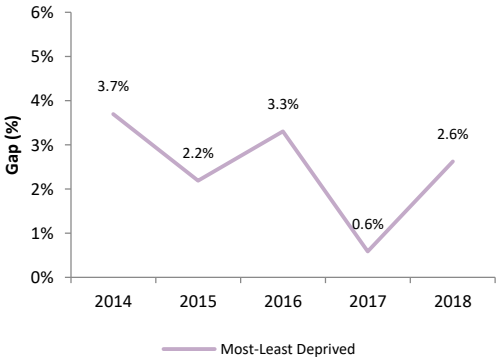




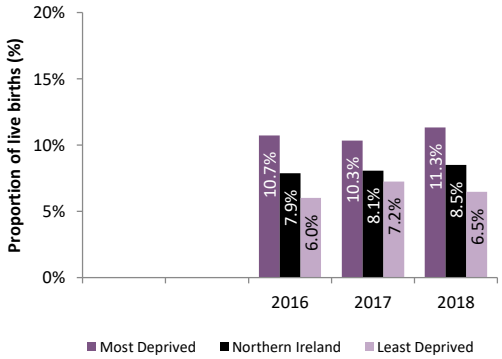
Healthy Birth Weight

NI





Small for Gestational Age [19]



[19] No assessment of the inequality gap trend will be made until 5 years of data are available.

Childhood Obesity

Over the period analysed there was no notable change in the proportion of Primary 1 children reported as overweight or obese. It should be noted that as the underlying figures are somewhat low, small annual changes can have a large impact on the observed inequality gap. However, rates of obesity are continually higher in the most deprived areas. Please note that Year 8 figures for Northern Ireland do not include measurements from the Western HSC Trust, therefore no assessment of change relating to NI values will be provided[20].

Key: Northern Ireland: NI

MD — Most Deprived Areas

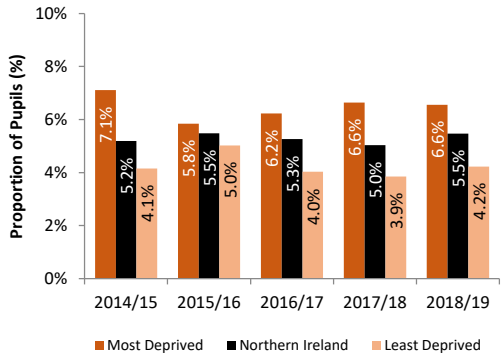
LD — Least Deprived Areas

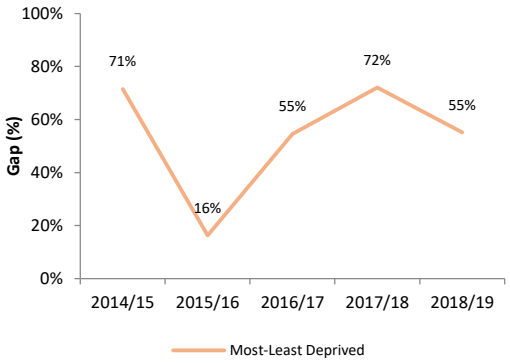
Positive Change — Narrowing of the Gap

No Notable Change — No Notable Change in the Gap

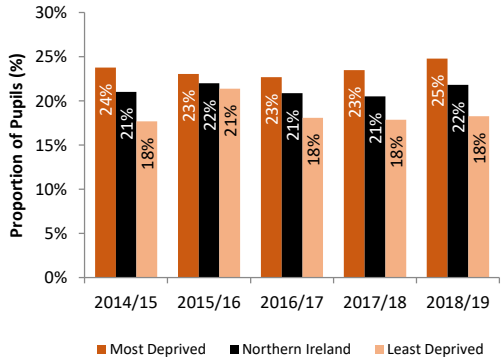
Negative Change — Widening of the Gap

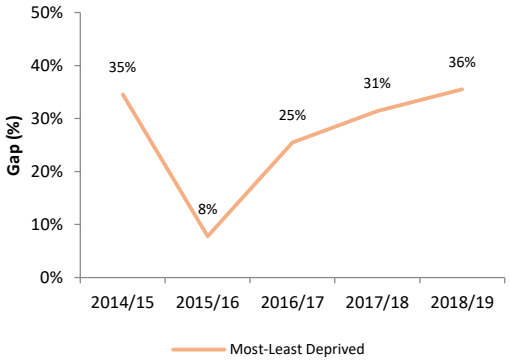
Primary 1 BMI: Obese



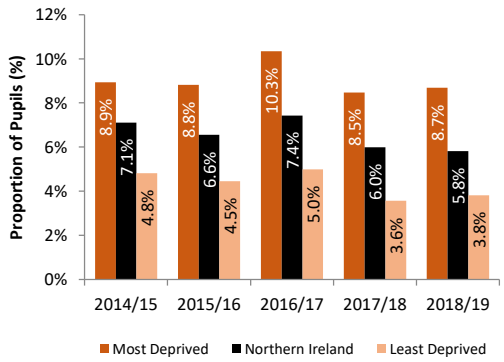


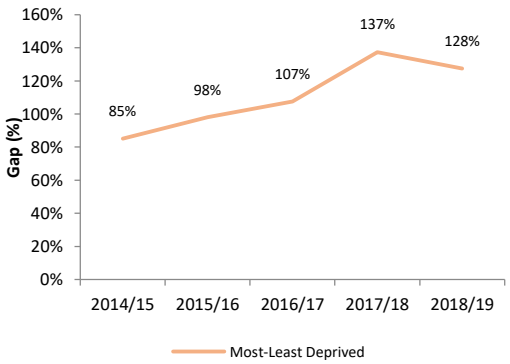
Primary 1 BMI: Overweight or Obese





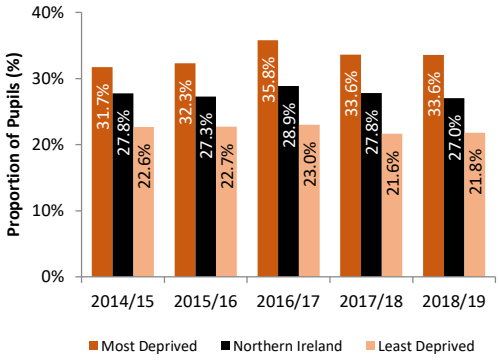
Year 8 BMI: Obese[20]

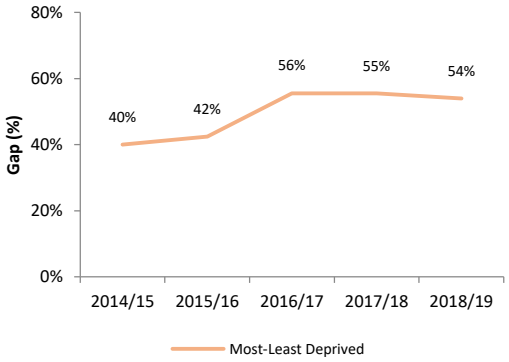




[20] No assessment of Year 8 Obesity will be made as data for the Western Trust in 2018/19 is unavailable. A full explanation of any data issues can be found in Appendix E: Technical Notes & Definitions.

Year 8 BMI: Overweight or Obese[21]





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[21] No assessment of Year 8 Obesity will be made as data for the Western Trust in 2018/19 is unavailable. A full explanation of any data issues can be found in Appendix E: Technical Notes & Definitions.

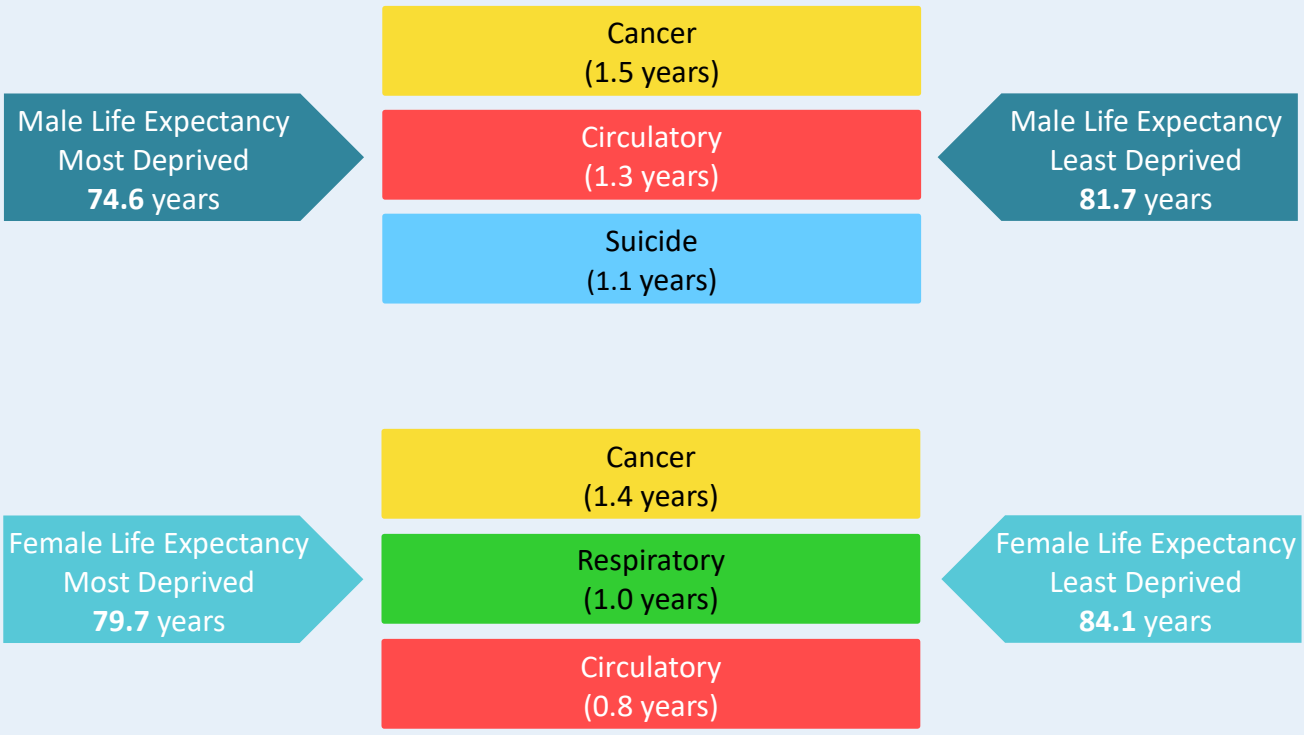
Decomposition of Life Expectancy

This section explores the extent to which mortality within certain age groups and causes of death contribute to the observed variations in life expectancy between the **20% most and least deprived areas** in Northern Ireland. Information relates to the deprivation analysis of life expectancy at birth contained in the Life Expectancy and General Health section on page 14 of this report.

A full analysis of life expectancy in Northern Ireland, including an illustration of how to interpret decomposition charts, can be found in the Life Expectancy in NI annual report[22].

A further explanation of life expectancy decomposition can be found in Appendix E: Technical Notes & Definitions, with a full breakdown of figures included within the tables accompanying this report.

Largest Mortality Contributions to Deprivation Gaps in Life Expectancy



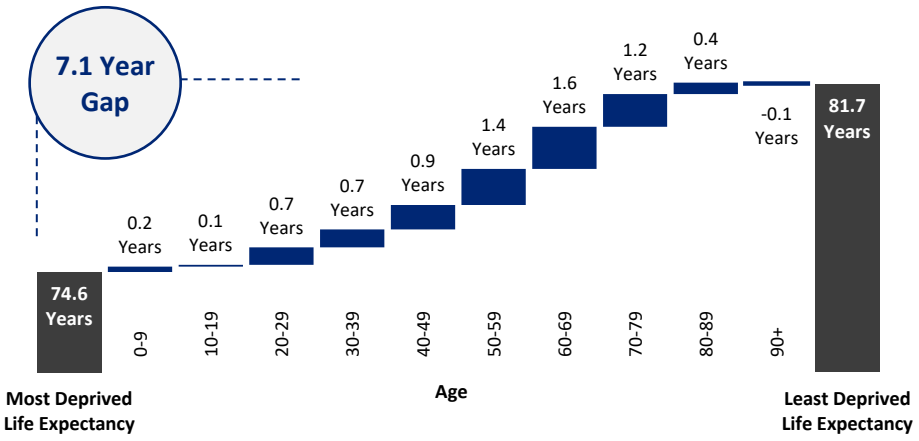
[22] https://www.health-ni.gov.uk/articles/life-expectancy-northern-ireland

Male Deprivation Decomposition

In 2016-18, life expectancy for males living in the 20% most deprived areas in NI was 74.6 years. This was 7.1 years less than those in the 20% least deprived areas (81.7 years). The contributions to this deprivation gap from age and cause of death are examined below.

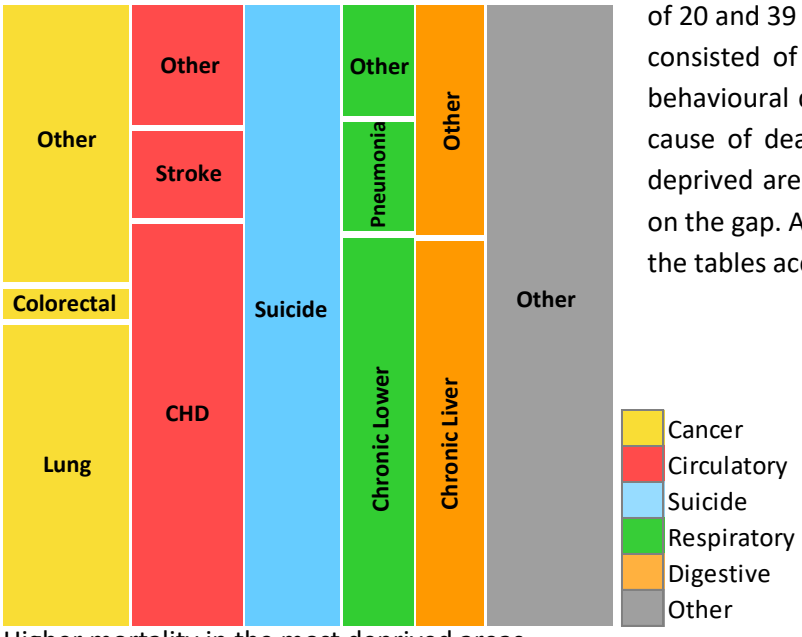
Decomposition of Male Life Expectancy Deprivation Gap by Age

Almost all age groups contributed towards the life expectancy deprivation gap, with higher mortality in the most deprived areas compared with the least deprived areas. Seven-tenths of the deprivation gap was attributable to males aged between 40 and 79, mainly due to Coronary Heart Disease (CHD) and lung cancer. However, mortality rates for males aged 90 and over in the least deprived areas were higher than those in the most deprived areas and led to a reduction of 0.1 years in the deprivation gap. This is likely due to a larger proportion of the population in the least deprived areas surviving into the 90+ age group.



Decomposition of Male Life Expectancy Deprivation Gap by Cause of Death

For the majority of causes of death, mortality was greater in the most deprived areas when compared with the least deprived. In 2016-18, over one-fifth (1.5 years) of the life expectancy deprivation gap was due to cancer related mortality with almost half (0.7 years) being attributable to lung cancer. Of the 1.3 years that circulatory disease contributed to the life expectancy deprivation gap, approximately two-thirds (0.8 years) were attributable to CHD. Suicide was the third highest contributor to the deprivation gap, after cancer and circulatory diseases, contributing 1.1 years of the total. Of this, three-quarters (0.8 years) was attributable to males between the ages of 20 and 39 years. The 'Other' category (1.5 years) largely consisted of deaths caused by accidents and mental or behavioural disorders. 'Other genitourinary' was the only cause of death where mortality was higher in the least deprived areas however this only had a negligible impact on the gap. A full breakdown of figures are included within the tables accompanying this report.



Higher mortality in the most deprived areas

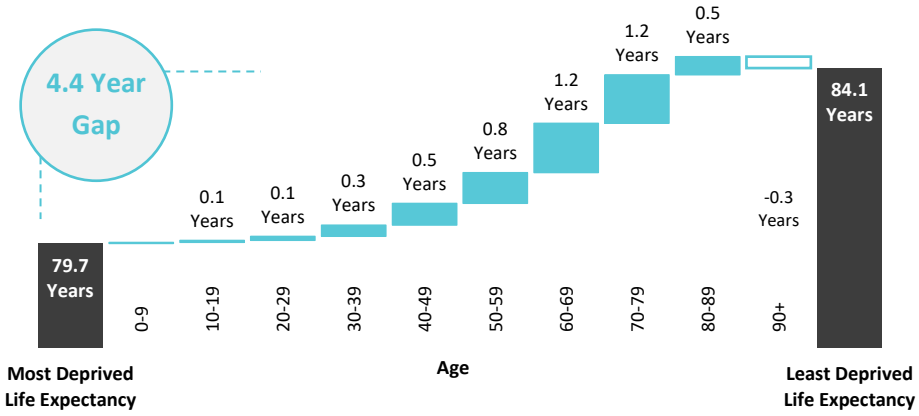
7.1 year gap from higher mortality in the most deprived areas

Female Deprivation Decomposition

In 2016-18, life expectancy for females living in the 20% most deprived areas in NI was 79.7 years. This was 4.4 years less than those in the 20% least deprived areas (84.1 years). The contributions to this deprivation gap from age and cause of death are examined below.

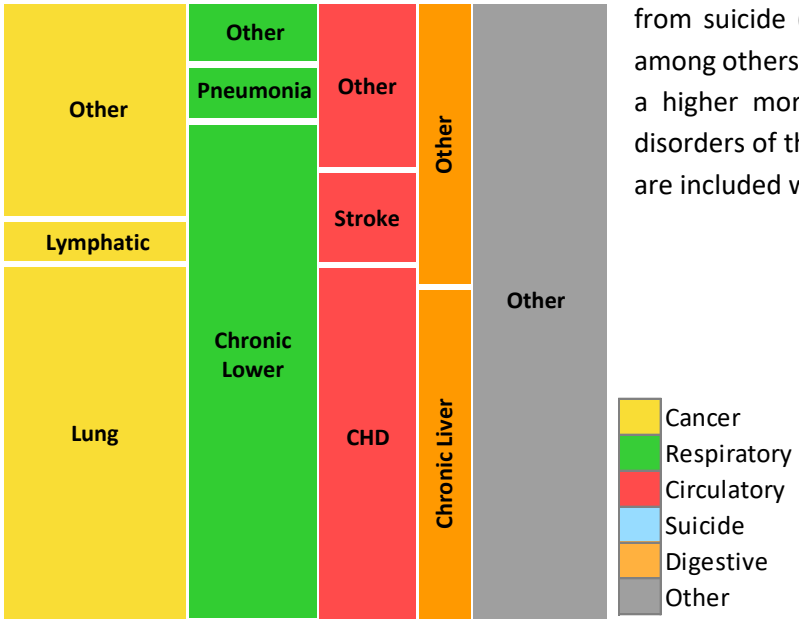
Decomposition of Female Life Expectancy Deprivation Gap by Age

Across the majority of age groups, females living in the most deprived areas experienced higher mortality rates compared with those in the least deprived areas. Females aged 60-79 years contributed over half of the total life expectancy deprivation gap, largely due to mortality from chronic lower respiratory diseases and lung cancer. Over a third of the gap was attributable to those aged 30-59 years with mortality from lung cancer and suicide the highest contributing causes. However, the mortality rate for females aged 90 and over in the least deprived areas was higher than in the most deprived areas leading to a reduction of 0.3 years in the deprivation gap. As with males, this is likely due in some part to a larger proportion of females from the least deprived areas surviving into their nineties.



Decomposition of Female Life Expectancy Deprivation Gap by Cause of Death

In 2016-18, greater mortality in the most deprived areas resulted in a 4.4 year deprivation gap for females. Cancer mortality (1.4 years), mainly due to lung cancer, was the largest cause of death contributing to the female life expectancy deprivation gap. Additionally, 1.0 years and 0.8 years were attributable to mortality from respiratory and circulatory diseases respectively. Of all respiratory diseases, chronic lower respiratory diseases were the largest contributor to the gap, accounting for 0.8 years. The 'Other' category (1.0 years) encompasses mortality from suicide (0.4 years), and accidental deaths (0.1 years) among others. The gap was offset by 0.1 years, largely due to a higher mortality rate in the least deprived areas from disorders of the nervous system. A full breakdown of figures are included within the tables accompanying this report.



Higher mortality in the most deprived areas

4.5 year gap from higher mortality in the most deprived areas

4.4 Year Gap

0.1 year offset from higher mortality in the least deprived areas

Sub-regional Health Inequalities

There are two aspects to the analysis of sub-regional health inequalities in this section. The analysis for each sub-regional area will either relate to the difference in health outcomes between the **Trust or LGD and the regional (NI) average** or to the **20% most deprived areas within an area and the area's average**.

Each chapter is a summary of findings only. For a full assessment of the HSC Trust and LGD figures, including a range of indicators that are also available at District Electoral Area (DEA), see downloadable tables at:

https://www.health-ni.gov.uk/articles/health-inequalities-statistics

An example of a sub-regional analysis, with guidance, can be seen below:

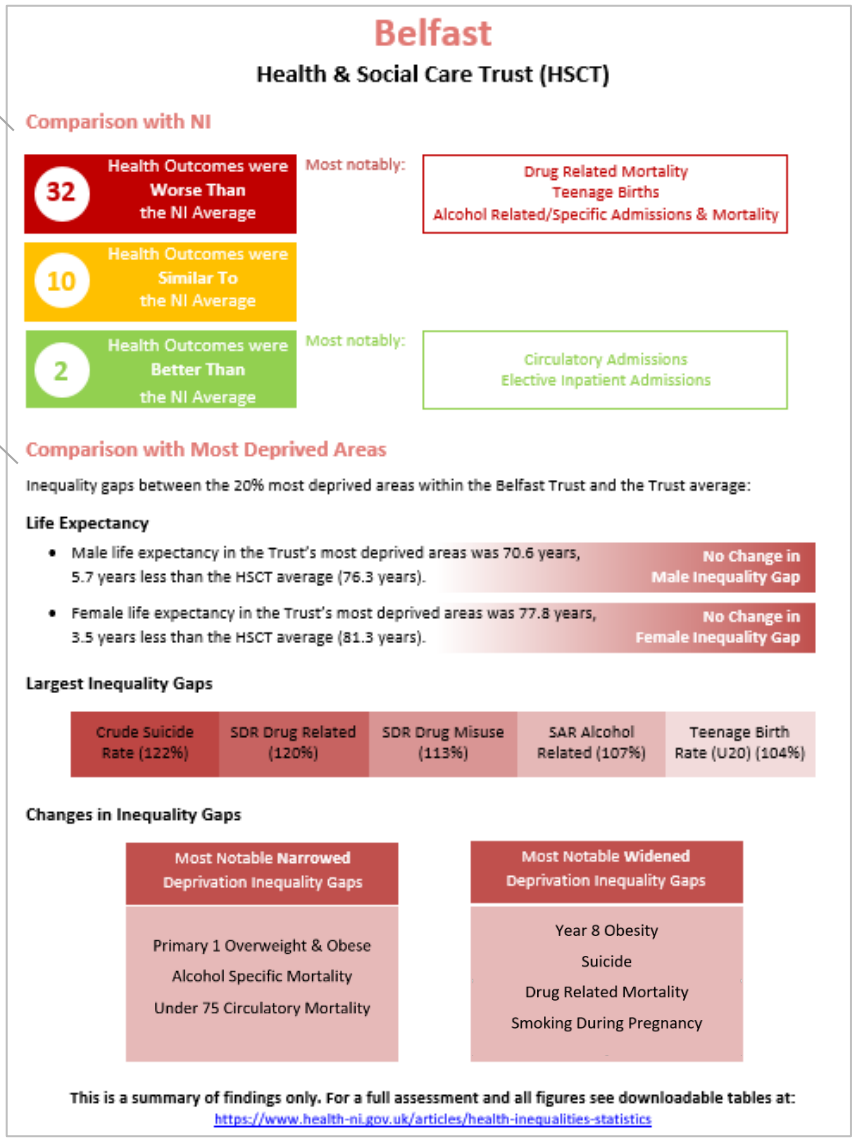
Each chapter contains a comparison of the area's health outcomes against the regional average including a summary of the most notable indicators that were better or worse.

There is also a comparison of the Inequality Gap between the area average and its most deprived areas in respect of:

Life Expectancy
Analysis of the male and female life expectancy gap within the area and if this gap has changed.

Largest Inequality Gaps
The five largest inequality gaps in the area.

Changes in Inequality Gaps
A summary of the most notable indicators that have either narrowed or widened across the analysed period.

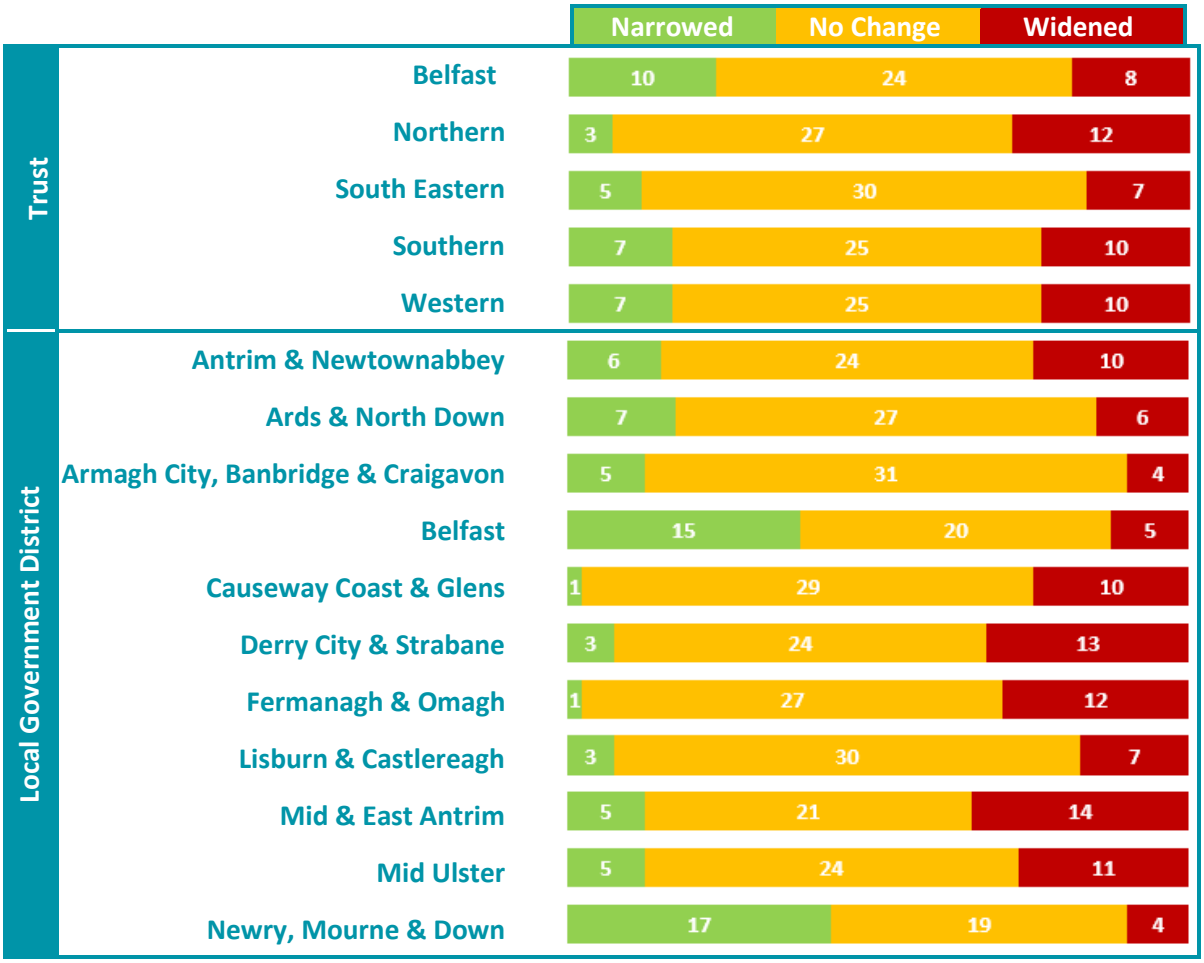


SUMMARY OF CHANGES IN SUB-REGIONAL INEQUALITY GAPS OVER THE LAST 5 YEARS

Changes in Deprivation Related Inequality Gaps

Over the period analysed, with the exception of the Belfast Trust, there were more inequality gaps that widened than narrowed in each HSC Trust. This was also true for the majority of LGDs with the exception of Ards & North Down; Armagh City, Banbridge & Craigavon; Belfast and Newry, Mourne & Down.

For each area analysed, the chart below shows the number of indicators that widened, narrowed or did not show a notable change across the period.



* For the purposes of this graphic, gaps which reversed direction, but remained similar in magnitude have been included in the "No Change" category.

COMPARISON OF AN AREA'S HEALTH OUTCOMES AGAINST THE REGIONAL AVERAGE

The following areas had a majority of health outcomes that were better than the NI average:

- South Eastern Trust
- Ards & North Down
- Causeway Coast & Glens
- Lisburn & Castlereagh

The following areas had a majority of health outcomes that were worse than the NI average:

- Belfast Trust
- Belfast LGD
- Derry City & Strabane

Largest Deprivation Inequality Gaps in Each Area

The table below indicates the five largest deprivation inequality gaps in each Health & Social Care Trust (HSCT) and Local Government District (LGD).

Belfast HSCT	SDR Drug Related (125%)	SDR Drug Misuse (125%)	Crude Suicide Rate (106%)	SAR Alcohol Related (106%)	SAR Drug Related (104%)
Northern HSCT	SDR Drug Related (147%)	SDR Drug Misuse (146%)	SAR Drug Related (105%)	SDR Alcohol Specific (105%)	SAR Self-Harm (104%)
South Eastern HSCT	SDR Drug Related (159%)	SDR Drug Misuse (153%)	Smoking During Pregnancy (105%)	SDR Alcohol Specific (101%)	Teenage Birth Rate (U20) (97%)
Southern HSCT	Teenage Birth Rate (U20) (120%)	SAR Alcohol Related (101%)	Smoking During Pregnancy (100%)	SAR Self-Harm (95%)	SAR Drug Related (87%)
Western HSCT	SDR Drug Misuse (172%)	SDR Drug Related (159%)	SAR Alcohol Related (139%)	SAR Drug Related (107%)	SAR Self-Harm (105%)
Antrim & Newtownabbey LGD	SDR Drug Related (138%)	Smoking During Pregnancy (123%)	SDR Alcohol Specific (118%)	Teenage Birth Rate (U20) (111%)	Crude Suicide Rate (108%)
Ards & North Down LGD	SDR Drug Related (126%)	Teenage Birth Rate (U20) (113%)	SDR Alcohol Specific (97%)	Smoking During Pregnancy (89%)	SAR Alcohol Related (78%)
Armagh City, Banbridge & Craigavon LGD	Teenage Birth Rate (U20) (141%)	SAR Alcohol Related (105%)	SAR Drug Related (98%)	SAR Self-Harm (97%)	Smoking During Pregnancy (81%)
Belfast LGD	SDR Drug Related (96%)	SAR Drug Related (95%)	SAR Alcohol Related (91%)	SAR Self-Harm (86%)	Teenage Birth Rate (U20)(73%)
Causeway Coast & Glens LGD	SDR Drug Related (157%)	SDR Alcohol Specific (121%)	SAR Alcohol Related (115%)	Teenage Birth Rate (U20) (111%)	SAR Drug Related (102%)
Derry City & Strabane LGD	SAR Alcohol Related (145%)	SDR Alcohol Specific (130%)	SAR Drug Related (112%)	SAR Self-Harm (111%)	SDR Drug Related (91%)
Fermanagh & Omagh LGD	SDR Drug Related (85%)	SAR Alcohol Related (80%)	SAR Drug Related (79%)	Smoking During Pregnancy (70%)	SAR Self-Harm (62%)
Lisburn & Castlereagh LGD	SDR Drug Related (188%)	Smoking During Pregnancy (176%)	SDR Alcohol Specific (140%)	Teenage Birth Rate (U20) (107%)	SAR Alcohol Related (104%)
Mid & East Antrim LGD	SDR Drug Related (184%)	SAR Drug Related (149%)	Teenage Birth Rate (U20) (146%)	SAR Self-Harm (144%)	SAR Alcohol Related (126%)
Mid Ulster LGD	SDR Drug Related (108%)	SAR Alcohol Related (73%)	Teenage Birth Rate (U20) (63%)	Crude Suicide Rate (61%)	Smoking During Pregnancy (57%)
Newry, Mourne & Down LGD	SDR Drug Related (107%)	Smoking During Pregnancy (71%)	Teenage Birth Rate (U20) (69%)	SAR Self-Harm (62%)	SAR Alcohol Related (59%)

Belfast

Health & Social Care Trust (HSCT)

Comparison with NI

32	Health Outcomes were **Worse Than** the NI Average	Most notably: Drug Misuse/Related Mortality; Alcohol Specific Mortality; Alcohol Related Admissions
8	Health Outcomes were **Similar To** the NI Average	
3	Health Outcomes were **Better Than** the NI Average	Most notably: Circulatory Admissions; Elective Inpatient Admissions; Emergency Admissions

Comparison with Most Deprived Areas

Inequality gaps between the 20% most deprived areas within the Belfast Trust and the Trust average:

Life Expectancy

- Male life expectancy in the Trust's most deprived areas was 70.8 years, **5.9 years** less than the HSCT average (76.7 years). **No Change in Male Inequality Gap**
- Female life expectancy in the Trust's most deprived areas was 77.8 years, **3.5 years** less than the HSCT average (81.3 years). **No Change in Female Inequality Gap**

Largest Inequality Gaps

SDR Drug Related (125%)	SDR Drug Misuse (125%)	Crude Suicide Rate (106%)	SAR Alcohol Related (106%)	SAR Drug Related (104%)

Changes in Inequality Gaps

Most Notable **Narrowed** Deprivation Inequality Gaps	Most Notable **Widened** Deprivation Inequality Gaps
Primary 1 Obese	Drug Related/Misuse Mortality
Alcohol Specific Mortality	Respiratory Admissions
Under 75 Circulatory Mortality	Drug Related Admissions

This is a summary of findings only. For a full assessment and all figures see downloadable tables at:
https://www.health-ni.gov.uk/articles/health-inequalities-statistics

Northern
Health & Social Care Trust (HSCT)

Comparison with NI

2	Health Outcomes were **Worse Than** the NI Average	Most notably: Primary 1 Overweight or Obese; Circulatory Admissions
22	Health Outcomes were **Similar To** the NI Average	
19	Health Outcomes were **Better Than** the NI Average	Most notably: Alcohol Related Admissions; Crude Suicide Rate; Emergency Care Attendances; Lung Cancer Mortality

Comparison with Most Deprived Areas

Inequality gaps between the 20% most deprived areas within the Northern Trust and the Trust average:

Life Expectancy

- Male life expectancy in the Trust's most deprived areas was 75.6 years, **3.7 years** less than the HSCT average (79.3 years). **Male Inequality Gap Widened**
- Female life expectancy in the Trust's most deprived areas was 80.1 years, **2.5 years** less than the HSCT average (82.7 years). **No Change in Female Inequality Gap**

Largest Inequality Gaps

SDR Drug Related (147%)	SDR Drug Misuse (146%)	SAR Drug Related (105%)	SDR Alcohol Specific (105%)	SAR Self-Harm (104%)

Changes in Inequality Gaps

Most Notable **Narrowed** Deprivation Inequality Gaps	Most Notable **Widened** Deprivation Inequality Gaps
Statin Prescriptions Respiratory Admissions	Crude Suicide Rate Alcohol Specific Mortality Smoking During Pregnancy

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South Eastern

Health & Social Care Trust (HSCT)

Comparison with NI

1	Health Outcomes were **Worse Than** the NI Average	Most notably: Emergency Care Attendances
16	Health Outcomes were **Similar To** the NI Average	
26	Health Outcomes were **Better Than** the NI Average	Most notably: Alcohol Specific Mortality, Lung Cancer Mortality, Lung Cancer Incidence, Preventable Mortality

Comparison with Most Deprived Areas

Inequality gaps between the 20% most deprived areas within the South Eastern Trust and the Trust average:

Life Expectancy

- Male life expectancy in the Trust's most deprived areas was 75.8 years, **3.7 years** less than the HSCT average (79.5 years). **No Change in Male Inequality Gap**
- Female life expectancy in the Trust's most deprived areas was 80.6 years, **2.1 years** less than the HSCT average (82.7 years). **Female Inequality Gap Widened**

Largest Inequality Gaps

SDR Drug Related (159%)	SDR Drug Misuse (153%)	Smoking During Pregnancy (105%)	SDR Alcohol Specific (101%)	Teenage Birth Rate (U20) (97%)

Changes in Inequality Gaps

Most Notable **Narrowed** Deprivation Inequality Gaps	Most Notable **Widened** Deprivation Inequality Gaps
Primary 1 Obese	Smoking During Pregnancy
Self-Harm Admissions	Statin Prescriptions
Alcohol Related Admissions	Drug Related Mortality

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Southern

Health & Social Care Trust (HSCT)

Comparison with NI

7	Health Outcomes were **Worse Than** the NI Average	Most notably: Emergency Admissions, Day Case Admissions, Circulatory Admissions
20	Health Outcomes were **Similar To** the NI Average	
16	Health Outcomes were **Better Than** the NI Average	Most notably: Small for Gestational Age, Alcohol Specific Mortality, Drug Related Admissions

Comparison with Most Deprived Areas

Inequality gaps between the 20% most deprived areas within the Southern Trust and the Trust average:

Life Expectancy

- Male life expectancy in the Trust's most deprived areas was 76.7 years, **2.2 years** less than the HSCT average (78.9 years). **Male Inequality Gap Narrowed**
- Female life expectancy in the Trust's most deprived areas was 81.9 years, **0.9 years** less than the HSCT average (82.8 years). **Female Inequality Gap Narrowed**

Largest Inequality Gaps

Teenage Birth Rate (U20) (120%)	SAR Alcohol Related (101%)	Smoking During Pregnancy (100%)	SAR Self-Harm (95%)	SAR Drug Related (87%)

Changes in Inequality Gaps

Most Notable **Narrowed** Deprivation Inequality Gaps	Most Notable **Widened** Deprivation Inequality Gaps
Crude Suicide Rate Alcohol Specific Mortality	Day Case Admissions Smoking During Pregnancy Circulatory Admissions

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Western

Health & Social Care Trust (HSCT)

Comparison with NI

10	Health Outcomes were **Worse Than** the NI Average	Most notably: Elective Inpatient Admissions, Primary 1 Obese, Smoking Related Mortality
28	Health Outcomes were **Similar To** the NI Average	
5	Health Outcomes were **Better Than** the NI Average	Most notably: Teenage Births, Circulatory Admissions, Emergency Care Attendances

Comparison with Most Deprived Areas

Inequality gaps between the 20% most deprived areas within the Western Trust and the Trust average:

Life Expectancy

- Male life expectancy in the Trust's most deprived areas was 73.8 years, **4.8 years** less than the HSCT average (78.6 years). **No Change in Male Inequality Gap**
- Female life expectancy in the Trust's most deprived areas was 78.9 years, **3.2 years** less than the HSCT average (82.1 years). **No Change in Female Inequality Gap**

Largest Inequality Gaps

SDR Drug Misuse (172%)	SDR Drug Related (159%)	SAR Alcohol Related (139%)	SAR Drug Related (107%)	SAR Self-Harm (105%)

Changes in Inequality Gaps

Most Notable **Narrowed** Deprivation Inequality Gaps	Most Notable **Widened** Deprivation Inequality Gaps
Circulatory Admissions	Primary 1 Obese
Under 75 Circulatory Admissions	Cancer Incidence
Emergency Admissions	Drug Related Mortality

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Antrim & Newtownabbey

Local Government District (LGD)

Comparison with NI

5	Health Outcomes were **Worse Than** the NI Average	Most notably: Primary 1 Obese, Self-Harm Admissions, Drug Related Admissions
30	Health Outcomes were **Similar To** the NI Average	
6	Health Outcomes were **Better Than** the NI Average	Most notably: Alcohol Related Admissions, Emergency Care Attendances, Elective Inpatient Admissions

Comparison with Most Deprived Areas

Inequality gaps between the 20% most deprived areas within the Antrim & Newtownabbey LGD and the LGD average:

Life Expectancy

- Male life expectancy in the LGD's most deprived areas was 74.5 years, **4.9 years** less than the LGD average (79.4 years). **Male Inequality Gap Widened**
- Female life expectancy in the LGD's most deprived areas was 78.2 years, **3.8 years** less than the LGD average (82.0 years). **Female Inequality Gap Widened**

Largest Inequality Gaps

SDR Drug Related (138%)	Smoking During Pregnancy (123%)	SDR Alcohol Specific (118%)	Teenage Birth Rate (U20) (111%)	Crude Suicide Rate (108%)

Changes in Inequality Gaps

Most Notable **Narrowed** Deprivation Inequality Gaps	Most Notable **Widened** Deprivation Inequality Gaps
Breastfeeding on Discharge	Crude Suicide Rate
Circulatory Admissions	Primary 1 Overweight or Obese
Elective Inpatient Admissions	Alcohol Specific Mortality

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Ards & North Down

Local Government District (LGD)

Comparison with NI

1	Health Outcomes were **Worse Than** the NI Average	Most notably: Low Birth Weight
19	Health Outcomes were **Similar To** the NI Average	
21	Health Outcomes were **Better Than** the NI Average	Most notably: Lung Cancer Incidence/Mortality, Primary 1 Obese, Preventable Mortality

Comparison with Most Deprived Areas

Inequality gaps between the 20% most deprived areas within the Ards & North Down LGD and the LGD average:

Life Expectancy

- Male life expectancy in the LGD's most deprived areas was 76.0 years, **3.6 years** less than the LGD average (79.7 years). **No Change in Male Inequality Gap**
- Female life expectancy in the LGD's most deprived areas was 80.3 years, **2.3 years** less than the LGD average (82.6 years). **No Change in Female Inequality Gap**

Largest Inequality Gaps

SDR Drug Related (126%)	Teenage Birth Rate (U20) (113%)	SDR Alcohol Specific (97%)	Smoking During Pregnancy (89%)	SAR Alcohol Related (78%)

Changes in Inequality Gaps

Most Notable **Narrowed** Deprivation Inequality Gaps	Most Notable **Widened** Deprivation Inequality Gaps
Primary 1 Obesity	Emergency Care Attendances
Low Birth Weight	Cancer Incidence
U75 Circulatory Admissions	Alcohol Specific Mortality

This is a summary of findings only. For a full assessment and all figures see downloadable tables at:
https://www.health-ni.gov.uk/articles/health-inequalities-statistics

Armagh City, Banbridge & Craigavon

Local Government District (LGD)

Comparison with NI

5	Health Outcomes were **Worse Than** the NI Average	Most notably: Emergency Admissions, Day Case Admissions
20	Health Outcomes were **Similar To** the NI Average	
16	Health Outcomes were **Better Than** the NI Average	Most notably: Small for Gestational Age, Crude Suicide Rate, Primary 1 Obese

Comparison with Most Deprived Areas

Inequality gaps between the 20% most deprived areas within the Armagh City, Banbridge & Craigavon LGD and the LGD average:

Life Expectancy

- Male life expectancy in the LGD's most deprived areas was 76.1 years, **3.0 years** less than the LGD average (79.1 years). **No Change in Male Inequality Gap**
- Female life expectancy in the LGD's most deprived areas was 81.3 years, **1.6 years** less than the LGD average (82.9 years). **Female Inequality Gap Widened**

Largest Inequality Gaps

Teenage Birth Rate (U20) (141%)	SAR Alcohol Related (105%)	SAR Drug Related (98%)	SAR Self-Harm (97%)	Smoking During Pregnancy (81%)

Changes in Inequality Gaps

Most Notable **Narrowed** Deprivation Inequality Gaps	Most Notable **Widened** Deprivation Inequality Gaps
Elective Inpatient Admissions Alcohol Specific Mortality Emergency Care Attendances	Low Birth Weight Male Life Expectancy at 65

This is a summary of findings only. For a full assessment and all figures see downloadable tables at:
https://www.health-ni.gov.uk/articles/health-inequalities-statistics

Belfast

Local Government District (LGD)

Comparison with NI

32	Health Outcomes were **Worse Than** the NI Average	Most notably: Male Life Expectancy; Drug Related Mortality; Alcohol Specific Mortality
7	Health Outcomes were **Similar To** the NI Average	
2	Health Outcomes were **Better Than** the NI Average	Most notably: Elective Inpatient Admissions; Circulatory Admissions

Comparison with Most Deprived Areas

Inequality gaps between the 20% most deprived areas within the Belfast LGD and the LGD average:

Life Expectancy

- Male life expectancy in the LGD's most deprived areas was 71.7 years, **4.6 years** less than the LGD average (76.3 years). **No Change in Male Inequality Gap**
- Female life expectancy in the LGD's most deprived areas was 77.5 years, **3.6 years** less than the LGD average (81.1 years). **Female Inequality Gap Widened**

Largest Inequality Gaps

SDR Drug Related (96%)	SAR Drug Related (95%)	SAR Alcohol Related (91%)	SAR Self-Harm (86%)	Teenage Birth Rate (U20) (73%)

Changes in Inequality Gaps

Most Notable **Narrowed** Deprivation Inequality Gaps	Most Notable **Widened** Deprivation Inequality Gaps
Primary 1 Obesity/Overweight Alcohol Specific Mortality U75 Circulatory Mortality	Emergency Care Attendances Drug Related Mortality

This is a summary of findings only. For a full assessment and all figures see downloadable tables at:
https://www.health-ni.gov.uk/articles/health-inequalities-statistics

Causeway Coast & Glens

Local Government District (LGD)

Comparison with NI

2 Health Outcomes were **Worse Than** the NI Average	Most notably:	Elective Inpatient Admissions Primary 1 Overweight or Obese
16 Health Outcomes were **Similar To** the NI Average		
23 Health Outcomes were **Better Than** the NI Average	Most notably:	Drug Related Mortality Alcohol Related Admissions Crude Suicide Rate Drug Related Admissions

Comparison with Most Deprived Areas

Inequality gaps between the 20% most deprived areas within the Causeway Coast & Glens LGD and the LGD average:

Life Expectancy

- Male life expectancy in the LGD's most deprived areas was 75.3 years, **4.0 years** less than the LGD average (79.3 years). **No Change in Male Inequality Gap**
- Female life expectancy in the LGD's most deprived areas was 81.6 years, **1.5 years** less than the LGD average (83.1 years). **No Change in Female Inequality Gap**

Largest Inequality Gaps

SDR Drug Related (157%)	SDR Alcohol Specific (121%)	SAR Alcohol Related (115%)	Teenage Birth Rate (U20) (111%)	SAR Drug Related (102%)

Changes in Inequality Gaps

Most Notable **Narrowed** Deprivation Inequality Gaps	Most Notable **Widened** Deprivation Inequality Gaps
Antihypertensive Prescriptions	Low Birth Weight Alcohol Specific Mortality Drug Related Mortality Breastfeeding on Discharge

This is a summary of findings only. For a full assessment and all figures see downloadable tables at:
https://www.health-ni.gov.uk/articles/health-inequalities-statistics

Derry City & Strabane

Local Government District (LGD)

Comparison with NI

25	Health Outcomes were **Worse Than** the NI Average	Most notably: Elective Inpatient Admissions; Small for Gestational Age; Alcohol Specific Mortality; Alcohol Related Admissions
13	Health Outcomes were **Similar To** the NI Average	
3	Health Outcomes were **Better Than** the NI Average	Most notably: Circulatory Admissions; Emergency Care Attendances

Comparison with Most Deprived Areas

Inequality gaps between the 20% most deprived areas within the Derry City & Strabane LGD and the LGD average:

Life Expectancy

- Male life expectancy in the LGD's most deprived areas was 72.7 years, **5.3 years** less than the LGD average (78.0 years). **Male Inequality Gap Widened**
- Female life expectancy in the LGD's most deprived areas was 78.3 years, **2.9 years** less than the LGD average (81.3 years). **No Change in Female Inequality Gap**

Largest Inequality Gaps

SAR Alcohol Related (145%)	SDR Alcohol Specific (130%)	SAR Drug Related (112%)	SAR Self-Harm (111%)	SDR Drug Related (91%)

Changes in Inequality Gaps

Most Notable **Narrowed** Deprivation Inequality Gaps	Most Notable **Widened** Deprivation Inequality Gaps
Low Birth Weight	Primary 1 Obesity
Smoking During Pregnancy	Male Life Expectancy at 65
Emergency Care Attendances	Lung Cancer Incidence
	Cancer Incidence

This is a summary of findings only. For a full assessment and all figures see downloadable tables at:
https://www.health-ni.gov.uk/articles/health-inequalities-statistics

Fermanagh & Omagh

Local Government District (LGD)

Comparison with NI

7 Health Outcomes were **Worse Than** the NI Average	Most notably:	Elective Inpatient Admissions Circulatory Admissions Emergency Admissions
22 Health Outcomes were **Similar To** the NI Average		
12 Health Outcomes were **Better Than** the NI Average	Most notably:	Teenage Birth Rate Smoking During Pregnancy Self-Harm Admissions Drug Related Admissions

Comparison with Most Deprived Areas

Inequality gaps between the 20% most deprived areas within the Fermanagh & Omagh LGD and the LGD average:

Life Expectancy

- Male life expectancy in the LGD's most deprived areas was 76.5 years, **2.6 years** less than the LGD average (79.2 years). **No Change in Male Inequality Gap**
- Female life expectancy in the LGD's most deprived areas was 80.5 years, **2.5 years** less than the LGD average (83.0 years). **Female Inequality Gap Widened**

Largest Inequality Gaps

SDR Drug Related (85%)	SAR Alcohol Related (80%)	SAR Drug Related (79%)	Smoking During Pregnancy (70%)	SAR Self-Harm (62%)

Changes in Inequality Gaps

Most Notable **Narrowed** Deprivation Inequality Gaps	Most Notable **Widened** Deprivation Inequality Gaps
Alcohol Specific Mortality	Lung Cancer Incidence/ Mortality Teenage Births U75 Cancer Mortality

This is a summary of findings only. For a full assessment and all figures see downloadable tables at:
https://www.health-ni.gov.uk/articles/health-inequalities-statistics

Lisburn & Castlereagh

Local Government District (LGD)

Comparison with NI

0	Health Outcomes were **Worse Than** the NI Average
5	Health Outcomes were **Similar To** the NI Average
36	Health Outcomes were **Better Than** the NI Average

Most notably:

- Drug Related Mortality
- Smoking During Pregnancy
- Alcohol Specific Mortality
- Drug Related Admissions

Comparison with Most Deprived Areas

Inequality gaps between the 20% most deprived areas within the Lisburn & Castlereagh LGD and the LGD average:

Life Expectancy

- Male life expectancy in the LGD's most deprived areas was 75.7 years, **4.4 years** less than the LGD average (80.2 years). **No Change in Male Inequality Gap**
- Female life expectancy in the LGD's most deprived areas was 81.2 years, **2.0 years** less than the LGD average (83.2 years). **No Change in Female Inequality Gap**

Largest Inequality Gaps

SDR Drug Related (188%)	Smoking During Pregnancy (176%)	SDR Alcohol Specific (140%)	Teenage Birth Rate (U20) (107%)	SAR Alcohol Related (104%)

Changes in Inequality Gaps

Most Notable **Narrowed** Deprivation Inequality Gaps	Most Notable **Widened** Deprivation Inequality Gaps
Teenage Births	Elective Inpatient Admissions
Treatable Mortality	Alcohol Specific Mortality
Under 75 Circulatory Mortality	Drug Related Mortality
	Lung Cancer Mortality

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Mid and East Antrim

Local Government District (LGD)

Comparison with NI

2	Health Outcomes were **Worse Than** the NI Average	Most notably: Self-Harm Admissions, Drug Related Admissions
27	Health Outcomes were **Similar To** the NI Average	
12	Health Outcomes were **Better Than** the NI Average	Most notably: Emergency Care Attendances, Alcohol Related Admissions, Treatable Mortality, Day Case Admissions

Comparison with Most Deprived Areas

Inequality gaps between the 20% most deprived areas within the Mid and East Antrim LGD and the LGD average:

Life Expectancy

- Male life expectancy in the LGD's most deprived areas was 74.7 years, **4.3 years** less than the LGD average (78.9 years). **Male Inequality Gap Widened**
- Female life expectancy in the LGD's most deprived areas was 79.3 years, **3.2 years** less than the LGD average (82.5 years). **No Change in Female Inequality Gap**

Largest Inequality Gaps

SDR Drug Related (184%)	SAR Drug Related (149%)	Teenage Birth Rate (U20) (146%)	SAR Self-Harm (144%)	SAR Alcohol Related (126%)

Changes in Inequality Gaps

Most Notable **Narrowed** Deprivation Inequality Gaps	Most Notable **Widened** Deprivation Inequality Gaps
Primary 1 Overweight or Obese	Teenage Births
Healthy Birth weight	Cancer Incidence
Day Case Admissions	Crude Suicide Rate
	Low Birth Weight

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https://www.health-ni.gov.uk/articles/health-inequalities-statistics

Mid Ulster

Local Government District (LGD)

Comparison with NI

4 Health Outcomes were **Worse Than** the NI Average

Most notably:

Emergency Care Attendances
Statin Prescriptions
Circulatory Admissions

17 Health Outcomes were **Similar To** the NI Average

20 Health Outcomes were **Better Than** the NI Average

Most notably:

Drug Related Admissions
Self-Harm Admissions
Teenage Births
Smoking During Pregnancy

Comparison with Most Deprived Areas

Inequality gaps between the 20% most deprived areas within the Mid Ulster LGD and the LGD average:

Life Expectancy

- Male life expectancy in the LGD's most deprived areas was 77.3 years, **2.0 years** less than the LGD average (79.3 years). **No Change in Male Inequality Gap**
- Female life expectancy in the LGD's most deprived areas was 82.5 years, **0.2 years** less than the LGD average (82.7 years). **Female Inequality Gap Narrowed**

Largest Inequality Gaps

SDR Drug Related (108%)	SAR Alcohol Related (73%)	Teenage Birth Rate (U20) (63%)	Crude Suicide Rate (61%)	Smoking During Pregnancy (57%)

Changes in Inequality Gaps

Most Notable **Narrowed** Deprivation Inequality Gaps	Most Notable **Widened** Deprivation Inequality Gaps
Breastfeeding on Discharge Respiratory Admissions	U75 Circulatory Admissions Primary 1 Obesity U75 Cancer Mortality

This is a summary of findings only. For a full assessment and all figures see downloadable tables at:
https://www.health-ni.gov.uk/articles/health-inequalities-statistics

Newry, Mourne and Down

Local Government District (LGD)

Comparison with NI

9 Health Outcomes were **Worse Than** the NI Average	Most notably:	Respiratory Admissions Circulatory Admissions Emergency Admissions
22 Health Outcomes were **Similar To** the NI Average		
10 Health Outcomes were **Better Than** the NI Average	Most notably:	Drug Related Mortality Alcohol Specific Mortality Teenage Births

Comparison with Most Deprived Areas

Inequality gaps between the 20% most deprived areas within the Newry, Mourne & Down LGD and the LGD average:

Life Expectancy

- Male life expectancy in the LGD's most deprived areas was 77.5 years, **1.4 years** less than the LGD average (78.9 years). **Male Inequality Gap Narrowed**
- Female life expectancy in the LGD's most deprived areas was 82.4 years, **0.8 years** less than the LGD average (83.1 years). **Female Inequality Gap Narrowed**

Largest Inequality Gaps

SDR Drug Related (107%)	Smoking During Pregnancy (71%)	Teenage Birth Rate (U20) (69%)	SAR Self-Harm (62%)	SAR Alcohol Related (59%)

Changes in Inequality Gaps

Most Notable **Narrowed** Deprivation Inequality Gaps	Most Notable **Widened** Deprivation Inequality Gaps
Primary 1 Overweight or Obese	Day Case Admissions
Low Birth Weight	Circulatory Admissions
Potential Years of Life Lost	All Admissions

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APPENDICES

APPENDIX A: SOCIAL GRADIENT OF HEALTH

Health inequalities are often considered in terms of the gap between the most and least deprived quintiles of the population. However this does not account for those areas of intermediate levels of deprivation that may also be relatively disadvantaged in terms of their health status. The Marmot Review[23] demonstrated that there is a social gradient in health that runs from top to bottom of the socioeconomic spectrum, meaning that health inequalities affect everyone. There is consistent evidence from throughout the world that people at a socioeconomic disadvantage suffer a heavier burden of illness and have higher mortality rates than their better off counterparts.

Different inequality measures can give information about different aspects of inequalities. Some measures concentrate on the extremes of deprivation such as the most-least deprived (*or absolute*) gap analysis presented in the main body of this report, whilst others include relative inequality gaps across the socioeconomic scale – taking into account the whole population - and can give quite different interpretations of inequalities. Therefore, in addition to the most-least deprived *(or absolute*) gap analysis presented in this report, a social gradient analysis using the Relative Index of Inequalities (RII) has been undertaken to provide a fuller assessment of inequalities.

Absolute gap (most-least deprived gap): This measure describes the absolute difference between the extremes of deprivation. It has the advantage that it is intuitive and straightforward to explain, but the disadvantage that, because it focuses only on the extremes of deprivation, it does not take account of patterns of inequalities observed across the intermediate groups.

Slope Index of Inequality (SII): SII describes the gradient of health observed across the deprivation scale. While the absolute gap shows the difference between two large groups, SII measures the difference in health outcomes between the theoretical most and least deprived individuals, according to linear regression across health outcomes for all deprivation deciles. SII therefore has the advantage of being sensitive to the experience of the entire population, rather than just the extremes of deprivation.

Relative Index of Inequality (RII): The RII describes the gradient of health observed across the deprivation scale, relative to the average for the observed population (by dividing the Slope of Index of Inequality (SII) by the mean). The value of RII tells you the magnitude of inequality in relation to the mean thus representing the proportionate change in the health outcome across the population. It allows inequalities to be compared and contrasted across a number of different health indicators, and also to be monitored over time.

For further information regarding the RII methodology, including how it is calculated, please refer to the NI Health & Social Care Inequalities Monitoring System – Regional 2014 report: https://www.health-ni.gov.uk/publications/ni-health-and-social-care-inequalities-monitoring-system-hscims-regional-2014

[23] *Fair Society, Healthy Lives: The Marmot Review* can be accessed at http://www.instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review

RESULTS

Social gradient analyses were carried out for the majority of indicators included in the HSCIMS. For some indicators this analysis could not be performed due to limitations on the level of data available. An explanatory interpretation of RII results is provided for life expectancy at birth below, with a time series for the Absolute Gap (most-least deprived) and Relative Index of Inequality (RII) for all other indicators provided in Table 4. It should be noted that in this report the SII value tends to be larger when compared with the absolute gap. This is due to the SII calculating across deprivation deciles whereas the absolute gap is calculated across deprivation quintiles.

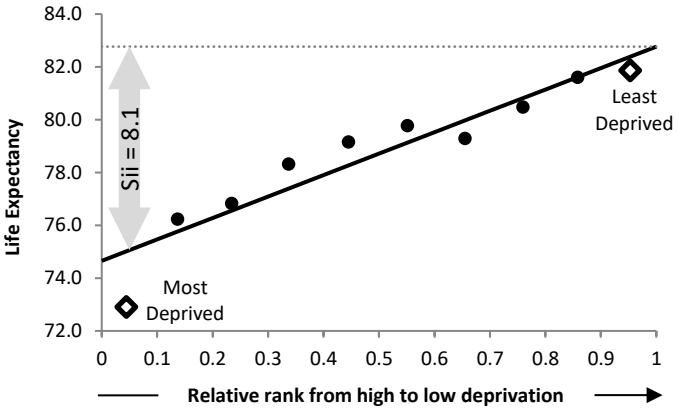
The symbols used in the main body of the report to show the change in the inequality gap indicated by the absolute gap analysis, have also been included in the table for each indicator.

Worked examples are shown below for SII and RII[24].

Male Life Expectancy at Birth – SII

Year	2012-14	2013-15	2014-16	2015-17	2016-18
Absolute Gap (Most-Least Deprived)	7.0	6.5	6.6	7.1	7.1
Slope Index of Inequality (SII)	8.3	7.6	7.8	8.2	8.1

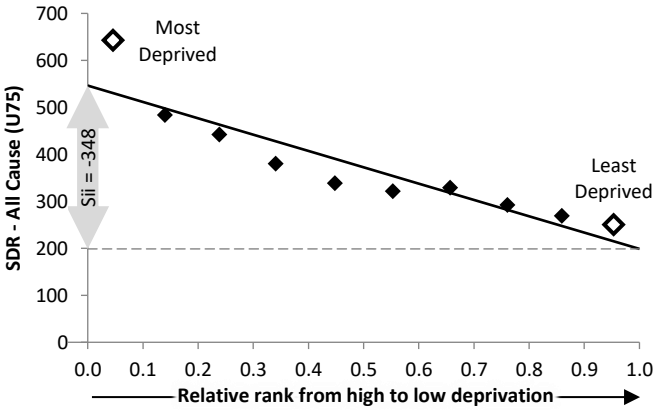
For life expectancy values, the Slope Index of Inequality (SII) indicates the absolute gap across the deprivation scale, represented by the gradient of the linear best fit line shown. In 2016-18, male life expectancy at birth indicates a SII gap of 8.1 years, higher than that indicated by the absolute gap between the most and least deprived quintiles (7.1 years). Both the absolute gap and SII showed no change in the male life expectancy deprivation gap between 2012-14 and 2016-18.



SDR – All Cause Mortality (U75) - RII

Year	2010-14	2011-15	2012-16	2013-17	2014-18
Absolute Gap (Most-Least Deprived)	118%	113%	114%	116%	115%
Relative Index of Inequality (RII)	-0.96	-0.93	-0.95	-0.95	-0.95

The Relative Index of Inequality (RII) indicates the relative gap across the deprivation scale. In 2014-18, mortality rates among those aged below 75 years indicated a deprivation gap of -0.95, meaning that the SII value of -348 deaths per 100,000 population is equivalent to 95% of the average mortality rate across NI. Both the RII and the absolute gap showed that the deprivation gap remained similar across the analysed period.



[24] Calculation is deprivation quintile based i.e. difference between 20% most and least deprived areas.

Table 4: Social Gradient Analysis of Indicators

A comparison of the inequality gaps provided in the main body of the report with social gradient results are presented in the table below:

Indicator		Time Series				
Male Life Expectancy at Birth		2012-14	2013-15	2014-16	2015-17	2016-18
Absolute Gap (Most–Least Deprived)	—	7.0	6.5	6.6	7.1	7.1
Slope Index of Inequality (SII)	—	8.3	7.6	7.8	8.2	8.1
Female Life Expectancy at Birth		2012-14	2013-15	2014-16	2015-17	2016-18
Absolute Gap (Most–Least Deprived)	—	4.4	4.5	4.5	4.5	4.4
Slope Index of Inequality (SII)	—	5.0	5.1	5.2	5.3	5.1
Male Life Expectancy at Age 65		2012-14	2013-15	2014-16	2015-17	2016-18
Absolute Gap (Most–Least Deprived)	—	2.8	2.6	2.9	3.0	3.2
Slope Index of Inequality (SII)	—	3.5	3.1	3.3	3.3	3.5
Female Life Expectancy at Age 65		2012-14	2013-15	2014-16	2015-17	2016-18
Absolute Gap (Most–Least Deprived)	—	2.4	2.4	2.4	2.3	2.4
Slope Index of Inequality (SII)	—	2.7	2.6	2.7	2.6	2.6
Potential Years of Life Lost		2012-14	2013-15	2014-16	2015-17	2016-18
Absolute Gap (Most–Least Deprived)	—	127%	119%	118%	131%	127%
Relative Index of Inequality (RII)	—	-1.02	-0.98	-0.98	-1.01	-0.99
SDR – Treatable		2010-14	2011-15	2012-16	2013-17	2014-18
Absolute Gap (Most–Least Deprived)	▶◀	100%	104%	101%	103%	90%
Relative Index of Inequality (RII)	▶◀	-0.85	-0.85	-0.82	-0.85	-0.78
SDR – Preventable		2010-14	2011-15	2012-16	2013-17	2014-18
Absolute Gap (Most–Least Deprived)	—	182%	175%	178%	177%	184%
Relative Index of Inequality (RII)	—	-1.29	-1.27	-1.28	-1.27	-1.28
SDR – Avoidable		2010-14	2011-15	2012-16	2013-17	2014-18
Absolute Gap (Most–Least Deprived)	—	150%	148%	149%	150%	148%
Relative Index of Inequality (RII)	—	-1.13	-1.12	-1.13	-1.13	-1.12
SDR - Circulatory (U75)		2010-14	2011-15	2012-16	2013-17	2014-18
Absolute Gap (Most–Least Deprived)	▶◀	153%	146%	143%	141%	136%
Relative Index of Inequality (RII)	▶◀	-1.14	-1.10	-1.08	-1.06	-1.01
SDR - Respiratory (U75)		2010-14	2011-15	2012-16	2013-17	2014-18
Absolute Gap (Most–Least Deprived)	◀▶	236%	228%	242%	264%	258%
Relative Index of Inequality (RII)	—	-1.50	-1.43	-1.47	-1.49	-1.53
SDR - Cancer (U75)		2010-14	2011-15	2012-16	2013-17	2014-18
Absolute Gap (Most–Least Deprived)	—	76%	72%	73%	72%	70%
Relative Index of Inequality (RII)	—	-0.71	-0.70	-0.72	-0.70	-0.68
SDR - All Cause Mortality (U75)		2010-14	2011-15	2012-16	2013-17	2014-18
Absolute Gap (Most–Least Deprived)	—	118%	113%	114%	116%	115%
Relative Index of Inequality (RII)	—	-0.96	-0.93	-0.95	-0.95	-0.95
SAR - Circulatory		2012/13-14/15	2013/14-15/16	2014/15-16/17	2015/16-17/18	2016/17-18/19
Absolute Gap (Most–Least Deprived)	—	27%	27%	27%	26%	24%
Relative Index of Inequality (RII)	—	-0.27	-0.27	-0.27	-0.25	-0.24
SAR - Circulatory (U75)		2012/13-14/15	2013/14-15/16	2014/15-16/17	2015/16-17/18	2016/17-18/19
Absolute Gap (Most–Least Deprived)	—	39%	39%	39%	37%	35%
Relative Index of Inequality (RII)	—	-0.39	-0.40	-0.40	-0.39	-0.37
SPR - Antihypertensive		2014	2015	2016	2017	2018
Absolute Gap (Most–Least Deprived)	—	24%	21%	22%	24%	23%
Relative Index of Inequality (RII)	—	-0.24	-0.23	-0.24	-0.25	-0.25
SPR - Statin		2014	2015	2016	2017	2018
Absolute Gap (Most–Least Deprived)	—	31%	27%	29%	31%	33%
Relative Index of Inequality (RII)	—	-0.32	-0.30	-0.32	-0.34	-0.35
SAR - Respiratory		2012/13-14/15	2013/14-15/16	2014/15-16/17	2015/16-17/18	2016/17-18/19
Absolute Gap (Most–Least Deprived)	—	96%	95%	96%	93%	94%
Relative Index of Inequality (RII)	—	-0.79	-0.78	-0.78	-0.75	-0.75
SAR - Respiratory (U75)		2012/13-14/15	2013/14-15/16	2014/15-16/17	2015/16-17/18	2016/17-18/19
Absolute Gap (Most–Least Deprived)	—	117%	115%	118%	113%	113%
Relative Index of Inequality (RII)	—	-0.93	-0.91	-0.91	-0.88	-0.89
SIR - Cancer		2007-13	2008-14	2009-15	2010-16	2011-17
Absolute Gap (Most–Least Deprived)	—	24%	27%	25%	24%	24%
Relative Index of Inequality (RII)	—	-0.24	-0.28	-0.25	-0.25	-0.26

SAR - All Admissions		2014/15	2015/16	2016/17	2017/18	2018/19
Absolute Gap (Most–Least Deprived)	►◄	46%	42%	40%	39%	39%
Relative Index of Inequality (RII)	▬	-0.44	-0.42	-0.39	-0.38	-0.39
SAR - Emergency Admissions		2014/15	2015/16	2016/17	2017/18	2018/19
Absolute Gap (Most–Least Deprived)	►◄	77%	73%	73%	64%	64%
Relative Index of Inequality (RII)	►◄	-0.68	-0.65	-0.63	-0.57	-0.58
SAtR – Emergency Care Attendances		2014/15	2015/16	2016/17	2017/18	2018/19
Absolute Gap (Most–Least Deprived)	▬	26%	28%	27%	26%	25%
Relative Index of Inequality (RII)	▬	-0.49	-0.53	-0.52	-0.53	-0.52
SAR - Elective Inpatient Admissions		2014/15	2015/16	2016/17	2017/18	2018/19
Absolute Gap (Most–Least Deprived)	▬	53%	59%	57%	58%	57%
Relative Index of Inequality (RII)	▬	-0.31	-0.32	-0.23	-0.26	-0.36
SAR - Day Case Admissions		2014/15	2015/16	2016/17	2017/18	2018/19
Absolute Gap (Most–Least Deprived)	►◄	28%	23%	23%	24%	23%
Relative Index of Inequality (RII)	▬	- 0.29	- 0.24	- 0.24	- 0.26	- 0.26
SAR – Self-Harm Admissions		2010/11-14/15	2011/12-15/16	2012/13-16/17	2013/14-17/18	2014/15-18/19
Absolute Gap (Most–Least Deprived)	►◄	302%	276%	255%	251%	239%
Relative Index of Inequality (RII)	►◄	-1.73	-1.65	-1.59	-1.56	-1.51
Crude Suicide Rate		2012-14	2013-15	2014-16	2015-17	2016-18
Absolute Gap (Most–Least Deprived)	◄►	196%	212%	232%	260%	247%
Relative Index of Inequality (RII)	◄►	-1.30	-1.30	-1.48	-1.58	-1.55
SPR - Mood & Anxiety		2014	2015	2016	2017	2018
Absolute Gap (Most–Least Deprived)	▬	68%	62%	65%	67%	67%
Relative Index of Inequality (RII)	▬	-0.63	-0.58	-0.60	-0.62	-0.62
SAR - Alcohol Related Causes		2012/13-14/15	2013/14-15/16	2014/15-16/17	2015/16-17/18	2016/17-18/19
Absolute Gap (Most–Least Deprived)	►◄	403%	377%	363%	338%	300%
Relative Index of Inequality (RII)	▬	-2.06	-1.98	-1.96	-1.91	-1.82
SDR - Alcohol Specific		2010-14	2011-15	2012-16	2013-17	2014-18
Absolute Gap (Most–Least Deprived)	▬	351%	348%	336%	353%	316%
Relative Index of Inequality (RII)	▬	-1.92	-1.84	-1.87	-1.85	-1.83
SDR - Smoking Related Causes		2010-14	2011-15	2012-16	2013-17	2014-18
Absolute Gap (Most–Least Deprived)	▬	129%	126%	129%	122%	125%
Relative Index of Inequality (RII)	▬	-1.00	-0.98	-1.00	-0.97	-0.99
SIR - Lung Cancer		2007-13	2008-14	2009-15	2010-16	2011-17
Absolute Gap (Most–Least Deprived)	▬	164%	165%	154%	156%	168%
Relative Index of Inequality (RII)	▬	-1.18	-1.18	-1.12	-1.16	-1.20
SDR - Lung Cancer		2010-14	2011-15	2012-16	2013-17	2014-18
Absolute Gap (Most–Least Deprived)	▬	167%	164%	163%	154%	161%
Relative Index of Inequality (RII)	▬	-1.25	-1.20	-1.20	-1.19	-1.22
SAR - Drug Related Causes		2012/13-14/15	2013/14-15/16	2014/15-16/17	2015/16-17/18	2016/17-18/19
Absolute Gap (Most–Least Deprived)	►◄	276%	267%	276%	282%	260%
Relative Index of Inequality (RII)	▬	-1.67	-1.64	-1.66	-1.66	-1.60
SDR - Drug Related Causes		2010-14	2011-15	2012-16	2013-17	2014-18
Absolute Gap (Most–Least Deprived)	◄►	314%	347%	397%	334%	391%
Relative Index of Inequality (RII)	▬	-1.89	-1.92	-2.00	-2.00	-2.13
SDR - Drug Misuse		2010-14	2011-15	2012-16	2013-17	2014-18
Absolute Gap (Most–Least Deprived)	◄►	348%	398%	464%	393%	420%
Relative Index of Inequality (RII)	◄►	-1.97	-1.99	-2.08	-2.06	-2.12
Smoking During Pregnancy		2014	2015	2016	2017	2018
Absolute Gap (Most–Least Deprived)	◄►	343%	305%	353%	376%	457%
Relative Index of Inequality (RII)	◄►	-1.65	-1.57	-1.71	-1.75	-1.79
Breastfeeding on Discharge		2014	2015	2016	2017	2018
Absolute Gap (Most–Least Deprived)	▬	49%	50%	50%	48%	48%
Relative Index of Inequality (RII)	▬	0.75	0.78	0.78	0.73	0.73
Small for Gestational Age[25]				2016	2017	2018
Absolute Gap (Most–Least Deprived)				79%	43%	75%
Relative Index of Inequality (RII)				- 0.65	- 0.51	- 0.69

[25] No assessment of the inequality gap trend will be made until 5 years of data are available.

Primary 1 BMI: Obese		2014/15	2015/16	2016/17	2017/18	2018/19
Absolute Gap (Most–Least Deprived)	—	71%	16%	55%	72%	55%
Relative Index of Inequality (RII)	—	-0.71	-0.25	-0.47	-0.59	-0.46
Primary 1 BMI: Overweight or Obese		2014/15	2015/16	2016/17	2017/18	2018/19
Absolute Gap (Most–Least Deprived)	—	35%	8%	25%	31%	36%
Relative Index of Inequality (RII)	—	-1.55	-0.47	-0.91	-1.44	-1.25
Year 8 BMI: Obese[26]		2014/15	2015/16	2016/17	2017/18	2018/19
Absolute Gap (Most–Least Deprived)		85%	98%	107%	137%	128%
Relative Index of Inequality (RII)		-0.57	-0.78	-0.76	-1.18	-0.94
Year 8 BMI: Overweight or Obese		2014/15	2015/16	2016/17	2017/18	2018/19
Absolute Gap (Most–Least Deprived)		40%	42%	56%	55%	54%
Relative Index of Inequality (RII)		-0.93	-1.94	-1.97	-1.35	-1.52

Changes in Inequality Gaps

In the majority of indicators, there was an agreement between the absolute gap and the slope index of inequality or relative index of inequality. When differences were observed, it was the result of a change in the absolute gap with the social gradient showing the gap remained constant.

The absolute deprivation gap of the following indicators were widening while the social gradient analysis remained constant:

- SDR- Respiratory (U75)
- SDR- Drug Related Causes

The absolute deprivation gap of the following indicators were narrowing while the social gradient analysis remained constant:

- SDR- Avoidable Children & Young People
- SAR- All Admissions
- SAR- Day Case Admissions
- SAR- Alcohol Related Causes
- SAR- Drug Related Causes
- Low Birth Weight

[26] No assessment of Year 8 Obesity will be made as data for the Western Trust in 2018/19 is unavailable. A full explanation of any data issues can be found in Appendix E: Technical Notes & Definitions.

Ranking of Inequality Gaps

The table below displays, in rank order from largest to smallest, the ten indicators with the largest inequality gaps as identified by RII and absolute gap analysis. As can be seen the all ten indicators identified in each analysis were the same, with a few differences in the rank order of these inequality gaps.

Rank	Absolute Gap	RII		
1	Smoking During Pregnancy	SDR - Drug Related Causes	3	^
2	SDR - Drug Misuse	SDR - Drug Misuse		
3	Teenage Birth Rate (U20)	Teenage Birth Rate (U20)		
4	SDR - Drug Related Causes	SDR - Alcohol Specific	1	^
5	SDR - Alcohol Specific	SAR - Alcohol Related Causes	1	^
6	SAR - Alcohol Related Causes	Smoking During Pregnancy	5	v
7	SAR - Drug Related Causes	SAR - Drug Related Causes		
8	SDR - Respiratory (U75)	Crude Suicide Rate	1	^
9	Crude Suicide Rate	SDR - Respiratory (U75)	1	v
10	SAR - Self-Harm Admissions	SAR - Self-Harm Admissions		

It should be noted that life expectancy gaps have not been included in the ranking of inequality gaps above. This is because proportionately, life expectancy gaps are comparatively lower to those ranking highest in the table above. However, as the gap refers to years of life, and as life expectancy is an overarching indicator of health status it is a vital statistic of high importance and reducing this gap is considered a high priority[27].

[27] Life expectancy inequality gaps are included as key overarching indicators of the public health strategic framework 'Making Life Better' www.health-ni.gov.uk/articles/making-life-better-strategic-framework-public-health

APPENDIX B: POPULATION ATTRIBUTABLE RISK (PAR) OF DEPRIVATION

Population Attributable Risk (PAR) measures the proportion of a disease/outcome (i.e. prevalence, mortality, admissions etc.) in the population that is attributable to deprivation and thus could be eliminated if deprivation were eliminated. This allows us to determine the proportional decrease in alcohol-related admissions in the population for example, in the hypothetical situation that all individuals had the same rate of alcohol-related admission as those in the highest socioeconomic category (least deprived deprivation decile). The PAR is calculated as the rate of disease in the overall population minus the rate in the unexposed group (least deprived).

PAR has been calculated in the table below for a number of health outcomes. For example, as can be seen the PAR percentage for suicide in 2016-18 is 47% which indicates that nearly half of deaths due to suicide in Northern Ireland could be considered attributable to deprivation.

Indicator	%PAR
Teenage Birth Rate (U20)	65%
SAR - Self Harm Admissions	54%
SDR - Alcohol Related Causes (U75)	54%
SAR - Alcohol Related Causes	51%
SDR - Respiratory (U75)	49%
Suicide	47%
SDR - Preventable	42%
SDR – Circulatory (U75)	38%
SIR – Lung Cancer	37%
SDR - Avoidable	37%
SAR – Emergency	27%
SDR - Cancer (U75)	21%

APPENDIX C: ADDITIONAL INDICATORS

The tables below refer to additional indicators which form part of the HSCIMS that have not been included in the main body of the report. For each indicator the figures are presented for NI, the 20% most deprived areas, the 20% least deprived areas and the most-least deprived inequality gap. In addition the RII is provided, where appropriate.

Median Fire Response Times[28]	2014/15	2015/16	2016/17	2017/18	2018/19
Time (Minutes: Seconds)	All	All	All	All	All
NI	00:06:26	00:07:49	00:08:02	00:08:11	00:08:23
Most Deprived	00:05:02	00:07:17	00:06:30	00:06:38	00:06:40
Least Deprived	00:06:17	00:07:59	00:07:58	00:08:07	00:08:13
Most-Least Deprived	-20%	-9%	-18%	-18%	-19%

Median Ambulance Response Times[28]	2015	2016	2017	2018	2018
Time (Minutes: Seconds)	All	All	All	All	All
NI	00:09:21	00:09:57	00:10:36	00:13:36	00:15:36
Most Deprived	00:07:27	00:07:46	00:07:38	00:09:41	00:12:11
Least Deprived	00:10:16	00:11:02	00:12:58	00:14:48	00:16:21
Most-Least Deprived	-27%	-30%	-41%	-20%	-25%

SDR - All Age All Cause Mortality	2010-14	2011-15	2012-16	2013-17	2014-18
Deaths per 100,000 population	All	All	All	All	All
NI	1,048	1,041	1,036	1,032	1,023
Most Deprived	1,249	1,252	1,250	1,241	1,246
Least Deprived	904	908	900	901	887
Most-Least Deprived	38%	38%	39%	38%	40%
RII	- 0.39	- 0.37	- 0.39	- 0.38	- 0.40

Looked After Children	2014	2015	2016	2017	2018
Rate per 1,000 population under 18 years	All	All	All	All	All
NI	5.0	5.0	5.1	5.3	5.5
Most Deprived	10.0	10.0	10.5	10.8	11.3
Least Deprived	1.7	1.7	1.5	1.6	1.8
Most-Least Deprived	484%	482%	582%	555%	530%

Autism Prevalence in School Age Children	2014/15	2015/16	2016/17	2017/18	2018/19
Rate per 100,000 population	All	All	All	All	All
NI	2,155	2,310	2,509	2,909	3,331
Most Deprived	2,544	2,844	3,207	3,598	4,321
Least Deprived	2,151	2,277	2,332	2,861	3,223
Most-Least Deprived	18%	25%	37%	26%	34%

[28] Evidence shows that emergency times are correlated more with location such as urban/rural than deprivation.

Changes to Avoidable Mortality Definitions: following an Office for National Statistics (ONS) consultation[29], on a new definition of avoidable mortality as proposed by the Organisation for Economic Co-operation and Development (OECD)[30], a new definition has been implemented. Figures based on the old definition have been included below for Programme for Government (PfG) monitoring purposes, specifically the Avoidable Mortality indicator. Full details can be found in Appendix E: Technical Notes & Definitions. The tables below provide figures based on the previous ONS definition, the full definition of which can be found in Table 13 within Appendix E.

SDR Amenable Mortality (Previous ONS Definition) Rate per 100,000 population	2010/14 All	2011/15 All	2012/16 All	2013/17 All	2014/18 All	Trend Analysis
NI	132	127	127	124	123	No Change
Most Deprived	208	201	199	196	193	Positive Change
Least Deprived	91	89	88	86	87	No Change
Most-Least Deprived	128%	127%	127%	128%	121%	No Change

SDR Preventable Mortality (Previous ONS Definition) Rate per 100,000 population	2010/14 All	2011/15 All	2012/16 All	2013/17 All	2014/18 All	Trend Analysis
NI	211	207	205	207	207	No Change
Most Deprived	347	338	335	335	333	Positive Change
Least Deprived	140	139	139	142	141	No Change
Most-Least Deprived	148%	144%	141%	135%	136%	No Change

SDR Avoidable Mortality (Previous ONS Definition) Rate per 100,000 population	2010/14 All	2011/15 All	2012/16 All	2013/17 All	2014/18 All	Trend Analysis
NI	251	245	242	244	244	Positive Change
Most Deprived	409	398	391	390	388	Positive Change
Least Deprived	170	167	166	168	169	Narrowed
Most-Least Deprived	141%	138%	136%	132%	130%	No Change

SDR Avoidable: Children & Young People Mortality (Previous ONS Definition) Rate per 100,000 population	2010/14 All	2011/15 All	2012/16 All	2013/17 All	2014/18 All	Trend Analysis
NI	26	24	22	22	22	No Change
Most Deprived	34	33	29	28	28	Positive Change
Least Deprived	19	20	19	18	19	No Change
Most-Least Deprived	77%	68%	53%	54%	46%	Narrowed

[29] https://consultations.ons.gov.uk/health-and-life-events/avoidable-mortality-definition/
[30] http://www.oecd.org/health/health-systems/Avoidable-mortality-2019-Joint-OECD-Eurostat-List-preventable-treatable-causes-of-death.pdf

APPENDIX D: URBAN-RURAL ANALYSIS

Urban-Rural analysis included below is based on the 2015 NISRA Urban-Rural classification, with the exception of Healthy Life Expectancy and Disability Free Life Expectancy which use the 2005 urban rural classification, due to data limitations. Further information regarding urban-rural classification can be found on the NISRA webpage at https://www.nisra.gov.uk/urban-rural-classification.

A positive inequality gap means that the health outcomes in Northern Ireland are worse than in the rural areas.

Summary of findings

Compared with the regional average, rural areas experienced better outcomes across the majority of indicators analysed, however fire and ambulance response times continue to remain higher in rural areas.

Outcomes that were significantly better in rural areas than the NI average

Male Life Expectancy at Birth	SPR Statin	SDR Alcohol
Female Life Expectancy at Birth	SAR Respiratory	SDR Smoking
Female Healthy Life Expectancy	SAR Respiratory (U75)	SIR Lung Cancer
Female Disability Free Life Expectancy	SAR Circulatory	SDR Lung Cancer
Male Life Expectancy at 65	SIR Cancer	SAR Drug Related
Female Life Expectancy at 65	SAR All	SDR Drug Related
PYLL	SAR Emergency	SDR Drug Misuse
SDR Treatable	SAtR Emergency Care	Infant Mortality
SDR Preventable	SAR Day Case	Smoking During Pregnancy
SDR Avoidable	SAR Self Harm	Teenage Birth Rate
SDR Circulatory (U75)	Suicide	Small for Gestational Age
SDR Respiratory (U75)	SPR Mood & Anxiety	P1 Obese
SDR Cancer (U75)	SAR Alcohol	
SPR Antihypertensive		

Outcomes that were significantly worse in rural areas than the NI average

Ambulance Response Times	Fire Response Times

Outcomes that were similar (or not significantly different) in Rural areas and the NI average

Male Healthy Life Expectancy	SAR Circulatory (U75)	Low Birth Weight
Male Disability Free Life Expectancy	SAR Elective Inpatient Admissions	Breastfeeding on Discharge
SDR Avoidable: Children & Young People	Healthy Birth Weight	P1 Overweight or Obese

Figures for each indicator for NI, Rural areas, Urban areas, Mixed Urban-Rural areas and the NI-Rural Gap, are provided within the accompanying downloadable tables:

https://www.health-ni.gov.uk/articles/health-inequalities-statistics

APPENDIX E: TECHNICAL NOTES & DEFINITIONS

Indicators

There are 51 indicators included in the Northern Ireland analyses for the current report, of which one has been introduced since the previous report of 2018; Emergency Care Attendances.

Due to random fluctuations in events over time, it is often necessary to aggregate more than one year of data for indicators, in order to ensure stability. The number of years of information that are required to aggregate for each indicator is informed by both the number of events and also an assessment of its annual variability.

Standardisation Methods

A number of indicators included in this report have been age standardised to allow the comparison of rates between populations with different age structures by relating them to a standard population, in this case the 2013 European Standard Population (90+ version). In most circumstances direct standardisation is used which not only allows the comparison of disease and death rates across both areas and time, but also to assess the relative burden of disease in a population. Further detail on the standardisation methods can be found in the Regional report 2014.[31]

Indicator Stability/Confidence Intervals

Indicator stability at the regional level does not mean that an indicator is also stable at the lower geographic levels of HSC Trust, LGD or DEA. To ensure robustness of the data, confidence intervals were calculated for rates for the most recent year at each geographic level, including the 20% most deprived Trust and LGD areas. The confidence interval for each standardised rate was assessed, in terms of its size and in relation to other comparable rates for other geographical areas, i.e. the Belfast Trust average and its 20% most deprived Trust areas. As a result of these assessments not all of the 51 indicators examined at the regional level were deemed robust enough to be presented at the sub-regional level, of these 51 indicators; 45 were found suitable to be published at the HSC Trust level, 43 at the LGD level and 30 at the DEA level. A full list of indicators and the level analysed can be found in Table 5.

Confidence intervals are used to quantify the imprecision in the estimate of a particular value. Specifically it quantifies the imprecision that results from random variation in the estimation of the value. In many cases the source of this random variation is sampling, for example in Healthy Life Expectancy, as any measurement taken from a sample provides an imprecise estimate of the true population value. In public health many indicators are based on what can be considered to be complete data sets and not samples, e.g. age standardised mortality rates based on death registers. In these instances the imprecision arises not as a result of sampling variation but of 'natural' variation. The indicator is considered to be the outcome of a stochastic process, i.e. one which can be influenced by the random occurrences that are inherent in the world around us. In such instances the value actually observed is only one of the set that could occur under the same circumstances. Generally in public health, it is the underlying circumstances or process that is of interest and the actual value observed gives only an imprecise estimate of this 'underlying risk'.

[31] https://www.health-ni.gov.uk/publications/ni-health-and-social-care-inequalities-monitoring-system-hscims-regional-2014

Table 5: HSCIMS Indicators Analysed at Northern Ireland (NI), HSC Trust, LGD and DEA level

INDICATOR	NI	Trust	LGD	DEA
Male Life Expectancy at Birth	●	●	●	●
Female Life Expectancy at Birth	●	●	●	●
Male Life Expectancy at Age 65	●	●	●	●
Female Life Expectancy at Age 65	●	●	●	●
Male Healthy Life Expectancy	●			
Female Healthy Life Expectancy	●			
Male Disability Free Life Expectancy	●			
Female Disability Free Life Expectancy	●			
Potential Years of Life Lost –All	●	●	●	●
Standardised Death Rate – Treatable	●	●	●	●
Standardised Death Rate – Preventable	●	●	●	●
Standardised Death Rate – Avoidable	●	●	●	●
Standardised Death Rate – Avoidable: Children & Young People	●			
Standardised Death Rate - Circulatory (U75)	●	●	●	
Standardised Death Rate - Respiratory (U75)	●	●		
Standardised Death Rate - Cancer (U75)	●	●	●	
Standardised Death Rate - All Cause Mortality (U75)	●	●	●	
Standardised Admission Rate –Circulatory	●	●	●	●
Standardised Admission Rate - Circulatory (U75)	●	●	●	●
Standardised Prescription Rate – Antihypertensive	●	●	●	●
Standardised Prescription Rate – Statin	●	●	●	●
Standardised Admission Rate – Respiratory	●	●	●	●
Standardised Admission Rate - Respiratory (U75)	●	●	●	●
Standardised Incidence Rate – Cancer	●	●	●	●
Standardised Admission Rate - All Admissions	●	●	●	●
Standardised Admission Rate - Emergency Admissions	●	●	●	●
Standardised Attendance Rate - Emergency Care	●	●	●	
Standardised Admission Rate - Elective Inpatient Admissions	●	●	●	●
Standardised Admission Rate - Day Case Admissions	●	●	●	●
Standardised Admission Rate – Self-Harm Admissions	●	●	●	
Crude Suicide Rate	●	●	●	●
Standardised Prescription Rate - Mood & Anxiety	●	●	●	●
Standardised Admission Rate - Alcohol Related Causes	●	●	●	●
Standardised Death Rate - Alcohol Specific Causes	●	●	●	
Standardised Death Rate - Smoking Related Causes	●	●	●	●
Standardised Incidence Rate - Lung Cancer	●	●	●	●
Standardised Death Rate - Lung Cancer	●	●	●	
Standardised Admission Rate - Drug Related Causes	●	●	●	●
Standardised Death Rate - Drug Related Causes	●	●	●	
Standardised Death Rate - Drug Misuse	●	●		
Infant Mortality Rate	●			
Smoking During Pregnancy	●	●	●	●
Teenage Birth Rate (U20)	●	●	●	
Low Birth Weight	●	●	●	●
Healthy Birth Weight	●	●	●	●
Breastfeeding on Discharge	●	●	●	●
Small for Gestational Age	●	●	●	●
Primary 1 BMI: Obese	●	●	●	
Primary 1 BMI: Obese & Overweight	●	●	●	
Year 8 BMI: Obese	●	●	●	
Year 8 BMI: Obese & Overweight or Obese	●	●	●	

Methodology for assessing Health Outcomes

In order to provide an assessment of the LGD to NI inequality gaps for the most recent year, analysis was performed to indicate whether the LGD average was better than, similar to, or worse than the NI average. If the LGD average of the health outcome had overlapping confidence intervals with the NI average, then the health outcome was reported as being similar to the NI average. Where confidence intervals did not overlap, the LGD average of the health outcome was reported as being either better or worse than the NI average. This methodology was employed for all standardised rates (i.e. death, admission, incidence and prescription rates). For those health outcomes which did not have confidence intervals associated with them, such as teenage birth rate, a range of +/- 5% was calculated for each health outcome value and if the NI average fell within this range the health outcome was considered to be similar to the NI average. It should be noted that given the particular sensitivity around the health outcome 'crude suicide rate' and the relatively small numbers involved a range of +/- 2.5% was employed. This methodology allowed us to identify any health outcomes which were notably worse or better than the NI average and was used to provide an assessment of the health outcomes at DEA level, compared with the LGD average. As with all of our observations of differences between areas and assessments of changes over time, conclusions are open to interpretation.

Mortality Rates

For simplicity of understanding, mortality figures are based on the single main underlying cause of death classification, but a death can be due to a variety of different causes. This can lead to an underestimation of the impact of common conditions associated with multiple causes of death (e.g. diabetes, influenza and pneumonia). All death figures used in the HSCIMS are based on the year that the death was registered and not necessarily the year in which the death occurred. While the vast majority of deaths are registered shortly after death, there may be a delay in registering some deaths. Events such as infant death or suicide are usually referred to a coroner and this legal process can take some time.

Population

Population is a vital part of rate calculations; a change to the size of a population or its age distribution will impact on rates and subsequently inequality gaps. For instance, overall yearly deaths in Northern Ireland remained between 14,000 and 16,250 from the turn of the century up to 2018, yet mortality rates have been falling – this can be partially explaining by the growing and ageing Northern Ireland population. Between 2008 and 2018 for example, the population grew from 1,779,152 to 1,881,641; an increase of 102,489 persons (5.8%). During this time the proportion of the population aged 65 and over increased from 13.9% (247,500 persons) in 2008 to 16.4% (308,197 persons) in 2018.

Small Area Population Estimates

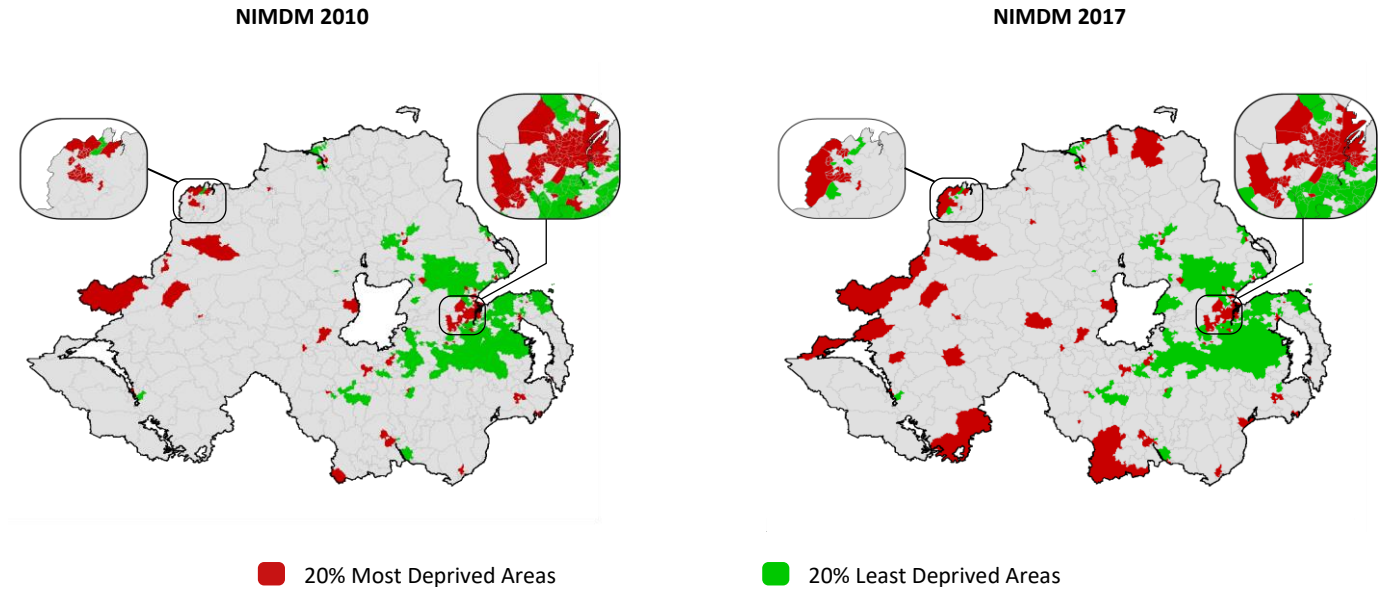
Population estimates disaggregated to a relatively small geographic area level (i.e. Super Output Area (SOA) and Small Area (SA)), by age and gender, are used to calculate many of the HSCIMS indicators for deprived and rural areas. However, as population estimates produced for NI are not available to the required level of detail, it is necessary to rework these estimates by proportioning out aggregated small area population estimates by gender and single year of age breakdowns from NISRA mid-year estimates. These reworked estimates are validated by a process of integrity checks with higher level age and geography population totals published by NISRA. Reworked estimates are calculated from unrounded population breakdown figures which may not match exactly with some of the population breakdowns published by NISRA which have been rounded to the nearest person.

Deprivation Classification

The deprivation classification used in this report is based on the Northern Ireland Multiple Deprivation Measure (NIMDM) produced by NISRA. The 2017 NIMDM[32] has been applied to all newly published figures, specifically the latest three years / data points in the time series presented for each indicator. All other data points are based on the 2010 NIMDM[33].

Although the 2017 NIMDM is available at small area level it was decided to continue using the SOA classification within the HSCIMS to ensure continuity and comparability with the back series of data and across indicators. In addition, all analysis presented is based on multiple deprivation rather than any specific deprivation domain.

Chart 1 – 20% Most and least deprived areas in Northern Ireland according to 2010 and 2017 NIMDM



Life Expectancy Decomposition Methodology

Life expectancy gaps exist due to differences in mortality patterns between areas, which can be assessed by the contribution of differences in death rates within age bands and across different causes of death. Contributions to gaps represent the amount that life expectancy would improve in the area with lower life expectancy if its mortality rate was reduced to that in the area it is being compared with, assuming all other rates remained constant. Contributions that widen the inequality gap (i.e. where mortality rate is higher in the area with lower life expectancy) are represented with a positive value, while contributions that offset the gap (i.e. where mortality rate is higher in the area with higher life expectancy) are represented with a negative value.

To measure the contribution of age-specific mortality changes to the change in the life expectancy gap over time, a life table decomposition method[34] for both age and cause of death is used. It assumes that the distribution of deaths by cause is constant within five year age bands in each population. The difference in all-cause mortality between populations can then be distributed into contributions from each cause of death within each age group, proportionate to the difference in mortality from each cause of death within each age group.

[32] https://www.nisra.gov.uk/statistics/deprivation/northern-ireland-multiple-deprivation-measure-2017-nimdm2017
[33] https://www.nisra.gov.uk/statistics/deprivation/northern-ireland-multiple-deprivation-measure-2010-nimdm2010
[34] Arriaga, Eduardo. 1984 "Measuring and Explaining the Changes in Life Expectancies".

Drug Related Admissions and Mortality

Please note that some observations may be due to changes in drug misuse behaviours among the population. There are ongoing concerns about polydrug misuse and the misuse of prescription drugs and new psychoactive substances. It appears that a significant cohort are engaging in increasingly risky behaviours, with an acute increase in related harms.

Childhood Obesity

The data cleansing parameters applied to the calculation of childhood obesity figures has been refined from 2017/18 onwards. Therefore figures should be treated with caution when making comparisons.

Year 8 childhood obesity data for the Western Trust in 2018/19 is unavailable and therefore figures for NI should be treated with caution. As a result, no regional trend analysis for these indicators will be made, nor will any comparison of sub-regional areas with the NI average. Sub-regional trend analysis is available for all HSC Trusts and LGDs with the exception of the Western HSC Trust and the Causeway Coast & Glens, Derry City & Strabane and Fermanagh & Omagh LGDs.

Sources of Information

Table 6: Indicators and Supplementary Information

Information	Source
Deaths and births	General Register Office, Vital Statistics & Administrative Research and Support Branch (VARS), NI Statistics and Research Agency (NISRA)
Hospital Admissions & Attendances	Hospital Information Branch, Information Analysis Directorate, DoH
Prescriptions	Business Services Organisation
Cancer Incidence	NI Cancer Registry
Smoking during pregnancy, breastfeeding, low birth weight, small for gestational age, healthy birth weight	NI Maternity System[35]
Childhood overweight/obesity	Child Health System
Fire response times	NI Fire and Rescue Service
Ambulance response times	NI Ambulance Service
NI Health Survey	Public Health Information & Research Branch, Information Analysis Directorate, DoH
Continuous Household Survey	NI Statistics and Research Agency (NISRA)
NI Small Area Population Estimates	NI Statistics and Research Agency (NISRA)
European Standard Population (ESP) 2013	Eurostat
Deprivation classification	NI Multiple Deprivation Measure 2017 (NISRA)
Urban-rural classification	NI Statistics and Research Agency (NISRA)
Looked after Children	Community Information Branch, Information Analysis Directorate, DoH
Children with Autism	Community Information Branch, Information Analysis Directorate, DoH

Indicator Definitions

Disease Classification - The indicators making up the HSCIMS are classified using the International Classification of Disease, 10th revision (ICD-10). This is the standard diagnostic tool for epidemiology, health management and clinical purposes, including the analysis of the general health situation of population groups.

A complete listing of ICD-10 codes can be found at the following web link:
www.who.int/classifications/apps/icd/icd10online/

[35] Please note that prior to 2017, data used in the production of low birth weight statistics, as well as healthy birth weight, smoking during pregnancy and breastfeeding, were provided from each of the HSC Trust Child Health Systems (CHS). From 2017 onwards figures are produced directly from the Northern Ireland Maternity System (NIMATS) by Information & Analysis Directorate (IAD). Low birth weight data from NIMATs data is used to populate the Trust CHS so data from the two systems should be consistent. IAD have investigated historic data to ensure that previously published data obtained through CHS was wholly consistent with that held on NIMATS.

LIFE EXPECTANCY	
Life Expectancy Estimates	NISRA publish the official life expectancy estimates at NI, Local Government District and Parliamentary Constituency level. The HSCIMS publishes at further levels to allow for assessment of inequality gaps between different areas/population groups, including deprivation analysis.
Life Expectancy at Birth	The expected years of life at time of birth based on mortality patterns in the period in question. It is based on the average death rates over a three year period. Presented separately for males and females.
Life Expectancy at Age 65	The expected years of life at age 65 based on mortality patterns in the period in question. It is based on the average death rates over a three year period. Presented separately for males and females.
Healthy Life Expectancy (HLE)	This is the average number of years a person can expect to live in good health. HLE provides an estimate of lifetime spent in 'Very Good' or 'Good' health, calculated using respondents' perception of their own health according to the Health Survey Northern Ireland (HSNI). HLE excludes communal establishments. All urban/rural analysis is based on the 2005 urban-rural classification. 2015 urban-rural classification cannot currently be applied due to data limitations.
Disability Free Life Expectancy (DFLE)	This is the average number of years a person can expect to live disability free. DFLE provides an estimate of lifetime spent free from a limiting persistent (twelve months or more) illness or disability, based upon a self-rated functional assessment of health recorded in the HSNI. DFLE excludes communal establishments. All urban/rural analysis is based on the 2005 urban-rural classification. 2015 urban-rural classification cannot currently be applied due to data limitations. It should be noted that the health survey question used to determine longstanding illness changed from 2012/13 onward by making specific reference to mental health conditions in addition to physical. The new question is based on the UK harmonised principle for long-lasting health conditions and illness. This change may have affected responses to the question and subsequently impacted on DFLE figures. For further information contact PHIRB (details on reverse of publication).

Pregnancy & Early Years	
Teenage Birth Rate (U20)	The number of births in an area to teenage mothers (i.e. Between 13 and 19 years of age) expressed per 1,000 females.
Smoking during Pregnancy	The proportion of all live births, where the Health and Care Number (HCN) of the mother is recorded, that were to mothers that reported smoking during pregnancy. Information is gathered at the 'booking in' appointment and therefore represents mothers at the end of the first trimester. As this indicator is self-reported, it may be subject to a degree of under-reporting.
Low Birth Weight	The proportion of all live births where the HCN of the mother is recorded and the birth weight of the child was less than 2,500g.
Healthy Birth Weight	The proportion of all live births, where the HCN of the mother is recorded, with a birth weight within a range appropriate for their gestational age and gender.
Breastfeeding on Discharge	The proportion of all live births, where the HCN of the mother is recorded, that were being breastfed on discharge from hospital. Figures include mothers' breastfeeding their child as well as using complementary feeding.
Small for Gestational Age	The proportion of all live births, where the HCN of the mother is recorded, that were small-for-gestational age (SGA). This is when an infant is born with a birth weight less than the 10th percentile, on a chart customised for maternal characteristics, for gestational age in body weight.

ADMISSIONS	
Hospital Information System (HIS)	Admissions data used to calculate rates are provided by the Hospital Information Branch and are extracted from the Hospital Information System (HIS). All mental health specialities have been excluded from the data. Figures are based on number of admissions and not individuals. Further information and definition on inpatient and day case activity is available at https://www.health-ni.gov.uk/articles/inpatient-and-day-case-activity.
Standardised Admission Rate (SAR)	This is calculated by standardising (using the direct method) the average admission rate in NI (over a predefined period) due to specified ICD-10 classification codes (may also be age specific) to the 2013 European Standard Population (ESP).
Indicator Name	
- All Admissions	Includes all acute inpatient and day case admissions (excluding regular day and night attenders, hospital transfers and other (maternity/delivery episodes)). Deaths and discharges have been used as an approximation for admissions.
- Emergency Admissions	A patient for whom admission is unpredictable and at short notice because of clinical need. All non-elective acute admissions excluding maternity, other and not known.
- Elective Inpatient Admissions	A patient for whom the decision to admit could be separated in time from the actual admission. Does not include day cases, not to be confused with elective admissions (which include day cases)
- Day Case Admissions	A patient admitted electively during the course of a day with the intention of receiving care who does not require the use of a hospital bed overnight and who returns home as scheduled. If this original intention is not fulfilled and the patient stays overnight, such a patient should be counted as an inpatient and is not counted as a day case admission.
- Circulatory	Selected according to International Classification of Disease (ICD-10) codes I00-I99.[36]
- Circulatory U75	ICD-10 codes I00-I99, under 75 years of age.
- Respiratory	ICD-10 codes J00-J99.
- Respiratory U75	ICD-10 codes J00-J99, under 75 years of age.
- Alcohol Related Causes	Alcohol related causes included in Table 8.
- Drug Related Causes	Drug related causes included in Table 10.
- Self-Harm Admissions	ICD-10 codes X60-84 and Y87.0. This indicator was developed to complement the suicide information, however it does not provide a complete picture of the problem of self-harm (or parasuicide) as in many instances, self-harm does not result in an acute admission to hospital. It should be noted that there have been a range of additional infrastructure provided to support people presenting with self-harm. These programmes may be contributing to the decrease in self-harm admissions.

[36] For a listing and explanation of topology or site codes see: International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, World Health Organisation, Geneva. Or view online at: http://apps.who.int/classifications/icd10/browse/2010/en#/II

ATTENDANCES	
SYMPHONY & EEMS	Attendance data used to calculate rates are provided by the Hospital Information Branch and are from the two administrative systems used by emergency departments in Northern Ireland (SYMPHONY & EEMS). Figures are based on number of attendances and not individuals. Further information on emergency care activity is available at https://www.health-ni.gov.uk/articles/emergency-care-and-ambulance-statistics.
Indicator Name	
- Emergency Care Attendances	New and unplanned review attendances at all Emergency Departments (Types 1 - 3). Data for RVH-RAES (Eye Casualty) not included prior to 2018/19. This relates to any patient who presents without appointment to an emergency care department. This differs from an emergency admission where a patient is admitted to an acute hospital by various routes, including through an emergency care department or via a General Practitioner.

MORTALITY	
Infant Mortality Rate	The number of infant deaths per 1,000 live births. Infant deaths refer to all deaths in the first year of life.
Potential Years of Life Lost (PYLL)	This is calculated by summing the deaths occurring at each age and multiplying this with the number of years a person of that age could have been expected to live. It is a summary measure of premature mortality, weighting deaths occurring at younger ages, which are, a priori, preventable. It uses the average age-specific life expectancy for each five year age band as the age to which a person in that age band might be expected to live.
Crude Suicide Rate *Not age standardised as it was found to make little or no difference whilst introducing a new confidence interval*	The number of deaths by suicide per 100,000 population Suicide deaths in NI are defined using the UK definition - ICD-10 Classification: X60-84 and Y87.0 (Self-inflicted Injury) and Y10-Y34, Y87.2 (as well as Events of Undetermined Intent). Crude rate is used instead of age standardised rate as it was found to make little or no difference whilst introducing a confidence interval.
Standardised Death Rate (SDR)	This is calculated by directly age standardising the average death rate in NI over a given period, due to specific causes of death (selected according to ICD-10 classification) to the 2013 European Standard Population (ESP). Some death rates relate to those under the age of 75 as indicators of premature mortality for specific diseases.
Indicator Name	
- All Cause U75	All causes, under 75 year of age
- All Age All Cause	All causes
- Treatable	Causes of death that can be mainly avoided through timely and effective health care interventions, including secondary prevention and treatment (i.e. after the onset of disease, to reduce case-fatality) – see Table 7 for full list of causes.
- Preventable	Causes of death that can be mainly avoided through effective public health and primary prevention interventions (i.e. before the onset of diseases/injuries, to reduce incidence) – see Table 7 for full list of causes.
- Avoidable	Avoidable deaths are all those defined as preventable and treatable – see Table 7 for full list of causes.
- Avoidable: Children & Young People	Causes of death are the same as those for overall avoidable, with all causes restricted to those aged 0-19 years. – see Table 7 for full list of causes.
- Circulatory U75	ICD-10 codes I00-I99, under 75 year of age.
- Respiratory U75	ICD-10 codes J00-J99, under 75 year of age.
- Cancer U75	ICD-10 codes C00-C97, under 75 year of age.
- Lung Cancer	ICD-10 codes C33-C34.

- Alcohol Specific	Alcohol Specific causes – see Table 9 for full list of causes.
- Drug Related Causes	Drug related causes – see Table 10 for full list of causes.
- Drug Misuse	Deaths related to drug misuse – see Table 11 for full list of causes.
- Smoking Related Causes	Deaths due to Smoking related causes– see Table 12 for full list of causes.

Cancer Incidence	
Northern Ireland Cancer Registry (NICR)	Cancer incidence numbers are extracted from the NICR's "live" database, and hence are continuously updated. As a result, an earlier extract taken at a later date may supply slightly different results. Therefore, although the overall trend will be the same, previously published data and data published elsewhere may have rates that vary slightly to what is published is here.
	NICR publish official Standardised Incidence Rates (SIRs), however the HSCIMS publishes at further levels to allow for assessment of inequality gaps between different areas/population groups, including deprivation analysis.
Standardised Incidence Rate (SIR)	This is calculated by standardising (using the direct method) the average incidence rate in NI (over seven years) due to specified ICD-10 classification codes to the 2013 European Standard Population (ESP).
Indicator Name	**ICD-10 Classification**
- Cancer	ICD-10 codes C00-C97, excluding C44 (non-melanoma skin cancer which is quite common, in most cases easily treated and rarely fatal).
- Lung Cancer	ICD-10 codes C33 and C34.

Prescriptions	
Electronic Prescribing Eligibility System (EPES)	Prescription data is extracted from the EPES which is maintained by Business Services Organisation (BSO). The data provided covers drugs dispensed in primary care only, and includes prescriptions issued by all types of prescribers including doctors, nurses and dentists, and all those issued and dispensed by pharmacists, dispensing doctors and appliance suppliers. Drugs prescribed and dispensed in hospital cannot be captured centrally due to the use of different IT systems.
Standardised Prescription Rate (SPR)	This is calculated by standardising (using the direct method) the average prescription rate (over one year) in NI for people dispensed predefined prescription drugs, to the 2013 European Standard Population (ESP). Rates refer to number of persons prescribed a drug and does not include multiple prescription.
Indicator Name	**British National Formulary (BNF) code**
- Antihypertensive	Drugs included are those with a BNF code of 2.2.1, 2.4, 2.5.5.1, 2.5.5.2 and 2.6.2
- Statin	Drugs included are those with a BNF code of 2.12
- Mood & Anxiety Disorders	Drugs included are those with a BNF code of 4.1.2 and 4.3

Childhood Obesity	
Childhood Overweight and Obese	Height and weight information is extracted from the Child Health System (CHS) and converted into a Body Mass Index (BMI) score for each pupil. The BMI can be categorized using International Growth Charts as determined by the International Obesity Taskforce (IOTF) which consider age and gender, allowing the identification of those who are overweight or obese. Records are analysed based on two criteria: Date of Exam within the Primary 1 or Year 8 school year: 01/09/XX-31/08/XX Date of Birth for Primary 1 or Year 8 pupils: 02/07/XX - 01/07/XX For data since 2017/18, additional data cleansing parameters have been applied.
Indicator Name	**CHS Data**
-Primary 1 BMI: Obese	The proportion of children in Primary 1 classified as obese.
-Primary 1 BMI: Overweight or Obese	The proportion of children in Primary 1 classified as overweight or obese.
-Year 8 BMI: Obese	The proportion of children in Year 8 classified as obese.
-Year 8 BMI: Overweight or Obese	The proportion of children in Year 8 classified as overweight or obese.

Additional Indicators	
Median Fire Response Time	The median response time taken by the Northern Ireland Fire and Rescue Service (NIFRS) to respond to an incident. The 'response time' is measured as the 'time of the call to NIFRS Regional Control Centre' to 'the time the 1st Appliance books in attendance' at the incident. Calculations are based on the time taken for NIFRS to respond to each incident within a one year time period. The median i.e. midpoint value is reported rather than the simple average as it is unaffected by atypically long or short response times.
Median Ambulance Response Time	The median time taken by the first ambulance to respond to an incident. Calculations are based on the time taken to respond to each incident within a one month time period (August).This data refers to Categories A, B and C emergency responses, excluding Healthcare Professionals (HCP) calls. The median i.e. midpoint value is reported rather than the simple average as it is unaffected by atypically long or short response times.
Looked after Children	The number of looked after children per 100,000 population (under 18 years of age) by location prior to last entering care. Data was extracted from the annual OC2 Community Information Return, which includes children who have been in care continuously for twelve months or longer at 30th September.
Autism Prevalence in School Age Children	The number of children with Autism or Asperger Syndrome per 100,000 children in compulsory grant-aided education. Data extracted from the NI School Census.

ICD-10 Classification Tables

The table below lists the revised ICD-10 classification codes of all causes of death considered avoidable, with indication as to which are considered treatable, preventable or both. This definition has been implemented following an Office for National Statistics (ONS) consultation[37], on a new definition of avoidable mortality as proposed by the Organisation for Economic Co-operation and Development (OECD)[38]. All avoidable mortality indicators, including the back series, are based on the new definition. The previous definition, for use with the additional indicators in Appendix C, can be found in Table 13.

Table 7: Treatable, Preventable & Avoidable Causes

Condition Group & Cause	ICD-10 Codes	Age	Treatable	Preventable
Infectious Diseases				
Intestinal Diseases	A00-A09	0-74		•
Diphtheria, Tetanus, Poliomyelitis	A35, A36, A80	0-74		•
Whooping cough	A37	0-74		•
Meningococcal infection	A39	0-74		•
Sepsis due to streptococcus pneumonia and sepsis due to haemophilus influenza	A40.3, A41.3	0-74		•
Haemophilus influenza infections	A49.2	0-74		•
Sexually transmitted infections (except HIV/AIDS)	A50-A60, A63, A64	0-74		•
Varicella	B01	0-74		•
Measles	B05	0-74		•
Rubella	B06	0-74		•
Viral Hepatitis	B15-B19	0-74		•
HIV/AIDS	B20-B24	0-74		•
Malaria	B50-B54	0-74		•
Haemophilus and pneumococcal meningitis	G00.0, G00.1	0-74		•
Tuberculosis	A15-A19, B90, J65	0-74	• (50%)	• (50%)
Scarlet fever	A38	0-74	•	
Sepsis	A40 (excl. A40.3),A41 (excl. A41.3)	0-74	•	
Cellulitis	A46, L03	0-74	•	
Legionnaires disease	A48.1	0-74	•	
Streptococcal and enterococci infection	A49.1	0-74	•	
Other meningitis	G00.2, G00.3, G00.8, G00.9	0-74	•	
Meningitis due to other and unspecified causes	G03	0-74	•	

[37] https://consultations.ons.gov.uk/health-and-life-events/avoidable-mortality-definition/

[38] http://www.oecd.org/health/health-systems/Avoidable-mortality-2019-Joint-OECD-Eurostat-List-preventable-treatable-causes-of-death.pdf

Condition Group & Cause	ICD-10 Codes	Age	Treatable	Preventable
Neoplasms				
Lip, oral cavity and pharynx cancer	C00-C14	0-74		•
Oesophageal cancer	C15	0-74		•
Stomach cancer	C16	0-74		•
Liver cancer	C22	0-74		•
Lung cancer	C33-C34	0-74		•
Mesothelioma	C45	0-74		•
Skin (melanoma) caner	C43	0-74		•
Bladder cancer	C67	0-74		•
Cervical cancer	C53	0-74	• (50%)	• (50%)
Colorectal cancer	C18-C21	0-74	•	
Breast cancer (Female only)	C50	0-74	•	
Uterus cancer	C54,C55	0-74	•	
Testicular cancer	C62	0-74	•	
Thyroid cancer	C73	0-74	•	
Hodgkin's disease	C81	0-74	•	
Lymphoid leukaemia	C91.0, C91.1	0-74	•	
Benign neoplasm	D10-D36	0-74	•	
Endocrine and metabolic diseases				
Nutritional deficiency anaemia	D50-D53			•
Diabetes mellitus	E10-E14		• (50%)	• (50%)
Thyroid disorders	E00-E07		•	
Adrenal disorders	E24-E25 (except E24.4), E27		•	
Diseases of the nervous system				
Epilepsy	G40,G41	0-74	•	
Diseases of the circulatory system				
Aortic aneurysm	I71	0-74	• (50%)	• (50%)
Hypertensive diseases	I10-I13, I15	0-74	• (50%)	• (50%)
Ischaemic heart diseases	I20-I25	0-74	• (50%)	• (50%)
Cerebrovascular diseases	I60-I69	0-74	• (50%)	• (50%)
Other atherosclerosis	I70, I73.9	0-74	• (50%)	• (50%)
Rheumatic and other heart diseases	I00-I09	0-74	•	
Venous thromboembolism	I26, I80	0-74	•	

Condition Group & Cause	ICD-10 Codes	Age	Treatable	Preventable
Diseases of the respiratory system				
Influenza	J09-J11	0-74		•
Pneumonia due to Streptococcus pneumonia or Haemophilus influenza	J13-J14	0-74		•
Chronic lower respiratory diseases	J40-J44	0-74		•
Lung diseases due to external agents	J60-J64, J66-J70, J82, J92	0-74		•
Upper respiratory infections	J00-J06, J30-J39	0-74	•	
Pneumonia, not elsewhere classified or organism unspecified	J12, J15, J16- J18	0-74	•	
Acute lower respiratory infections	J20-J22	0-74	•	
Asthma and bronchiectasis	J45-J47	0-74	•	
Adult respiratory distress syndrome	J80	0-74	•	
Pulmonary oedema	J81	0-74	•	
Abscess of lung and mediastinum pyothorax	J85, J86	0-74	•	
Other pleural disorders	J90, J93, J94	0-74	•	
Diseases of the digestive system				
Gastric and duodenal ulcer	K25-K28	0-74	•	
Appendicitis	K35-K38	0-74	•	
Abdominal hernia	K40-K46	0-74	•	
Cholelithiasis and cholecystitis	K80-K81	0-74	•	
Other diseases of gallbladder or biliary tract	K82-K83	0-74	•	
Acute pancreatitis	K85.0, K85.1, K85.3, K85.8, K85.9	0-74	•	
Other diseases of pancreas	K86.1, K86.2, K86.3, K86.8, K86.9	0-74	•	
Diseases of the genitourinary system				
Nephritis and nephrosis	N00-N07	0-74	•	
Obstructive uropathy	N13, N20-N21, N35	0-74	•	
Renal failure	N17-N19	0-74	•	
Renal colic	N23	0-74	•	
Disorders resulting from renal tubular dysfunction	N25	0-74	•	
Unspecified contracted kidney, small kidney of unknown cause	N26-N27	0-74	•	
Inflammatory diseases of genitourinary system	N34.1, N70-N73, N75.0, N75.1, N76.4, N76.6	0-74	•	
Prostatic hyperplasia	N40	0-74	•	

Condition Group & Cause	ICD-10 Codes	Age	Treatable	Preventable
Pregnancy, childbirth and perinatal period				
Tetanus neonatorum	A33	0-74		•
Obstetrical tetanus	A34	0-74		•
Pregnancy, childbirth and the puerperium	O00-O99	0-74	•	
Certain conditions originating in the perinatal period	P00-P96	0-74	•	
Congenital malformations				
Certain congenital malformations (neural tube defects)	Q00, Q01, Q05	0-74		•
Congenital malformations of the circulatory system (heart defects)	Q20-Q28	0-74	•	
Adverse effects of medical and surgical care				
Drugs, medicaments and biological substances causing adverse effects in therapeutic use	Y40-Y59	0-74	•	
Misadventures to patients during surgical and medical care	Y60-Y69,Y83-Y84	0-74	•	
Medical devices associated with adverse incidents in diagnostic and therapeutic use	Y70-Y82	0-74	•	
Injuries				
Transport Accidents	V01-V99	0-74		•
Accidental Injuries	W00-X39, X46-59	0-74		•
Intentional self-harm	X66-X84	0-74		•
Event of undetermined intent	Y16-Y34	0-74		•
Assault	X86-Y09	0-74		•
Alcohol related and drug-related deaths				
Alcohol specific disorders and poisonings	E24.4, F10, G31.2, G62.1, G72.1, I42.6, K29.2, K70, K85.2, K86.0, Q86.0, R78.0, X45, X65, Y15	0-74		•
Other alcohol related disorders	K73, K74.0-K74.2, K74.6,K74.9	0-74		•
Drug disorders and poisonings	F11-F16, F18-F19, X40-X44, X85, Y10-Y14	0-74		•
Intentional self-poisoning by drugs	X60-X64	0-74		•

Table 8: Admissions – Alcohol Related Causes[39]

ICD-10 code	Description
E24.4	Alcohol induced Pseudo-Cushing's syndrome
E51.2	Wernicke's Encephalopathy
F10	Mental and Behavioural disorders due to use of alcohol
G31.2	Degeneration of the nervous system due to alcohol
G62.1	Alcoholic polyneuropathy
G72.1	Alcoholic myopathy
I42.6	Alcoholic cardiomyopathy
K29.2	Alcoholic gastritis
K70	Alcoholic liver disease
K85.2	Alcohol-induced acute pancreatitis
K86.0	Alcohol-induced chronic pancreatitis
O35.4	Maternal care for (suspected) damage to foetus from alcohol
P04.3	Foetus and newborn affected by maternal use of alcohol
Q86.0	Foetal alcohol syndrome (dysmorphic)
T51.0	Toxic effect of ethanol
T51.1	Toxic effect of methanol
T51.9	Toxic effect of alcohol, unspecified
X45	Accidental poisoning by and exposure to alcohol
X65	Intentional self-poisoning by and exposure to alcohol
Y15	Poisoning by and exposure to alcohol, undetermined intent
Y57.3	Alcohol deterrents
Y90	Evidence of alcohol involvement determined by blood alcohol level
Y91	Evidence of alcohol involvement determined by level intoxication
Z50.2	Alcohol rehabilitation
Z71.4	Alcohol abuse counselling and surveillance
Z72.1	Alcohol use

[39] The definition for admissions due to alcohol related causes was updated for 2017/18 to include ICD Code K85.2: alcohol-induced chronic pancreatitis.

Table 9: Deaths – Alcohol Specific Causes

ICD-10 code	Description
E24.4	Alcohol-induced pseudo-Cushing's syndrome
F10	Mental and Behavioural disorders due to use of alcohol
G31.2	Degeneration of the nervous system due to alcohol
G62.1	Alcoholic polyneuropathy
G72.1	Alcohol myopathy
I42.6	Alcoholic cardiomyopathy
K29.2	Alcoholic gastritis
K70	Alcoholic liver disease
K85.2	Alcohol-induced acute pancreatitis
K86.0	Alcohol induced chronic pancreatitis
Q86.0	Fetal alcohol syndrome (dysmorphic)
R78.0	Excess alcohol blood levels
X45	Accidental poisoning by and exposure to alcohol
X65	Intentional self-poisoning by and exposure to alcohol
Y15	Poisoning by and exposure to alcohol, undetermined intent

Table 10: Admissions and Deaths – Drug Related Causes

ICD-10 code	Description
F11-16, F18-F19	Mental and Behavioural disorders due to drug use (excluding alcohol and tobacco)
X40-44	Accidental poisoning by drugs, medicaments and biological substances
X60-X64	Intentional self-poisoning by drugs, medicaments and biological substances
X85	Assault by drugs, medicaments and biological substances
Y10-14	Poisoning by drugs, medicaments and biological substances, undetermined intent

Table 11: Deaths – Drugs Misuse

ICD-10 code	Description
F11-16, F19	Mental and Behavioural disorders due to drug use (excluding alcohol, tobacco and volatile substances)
Deaths due to the following categories *and* where a drug controlled under the Misuse of Drugs Act 1971 was mentioned;	
X40-44	Accidental poisoning by drugs, medicaments and biological substances
X60-X64	Intentional self-poisoning by drugs, medicaments and biological substances
X85	Assault by drugs, medicaments and biological substances
Y10-14	Poisoning by drugs, medicaments and biological substances, undetermined intent

Table 12: Deaths – Smoking Related Causes[40]

Cause of Death	ICD-10 code	Attributable Percentage Men	Women
Cancer			
Lung	C33 – C34	90%	79%
Upper respiratory	C32, C14.0	77%	58%
Oesophagus	C15	70%	72%
Bladder	C67	49%	20%
Kidney	C64	41%	7%
Stomach	C16	35%	10%
Pancreas	C25	26%	30%
Unspecified site	C80	33%	7%
Myeloid Leukaemia	C92	19%	10%
Respiratory			
Chronic obstructive lung disease	J44	87%	83%
Pneumonia 35-64	J18	33%	53%
Pneumonia 65+	J18	23%	13%
Circulatory			
Ischaemic heart disease 35-54	I20-I25	55%	63%
Ischaemic heart disease 55-64	I20-I25	41%	36%
Ischaemic heart disease 65-74	I20-I25	25%	18%
Ischaemic heart disease 75+	I20-I25	9%	5%
Cerebrovascular disease 35-54	I60-I69	56%	53%
Cerebrovascular disease 55-64	I60-I69	33%	38%
Cerebrovascular disease 65-74	I60-I69	16%	31%
Cerebrovascular disease 75+	I60-I69	4%	2%
Aortic Aneurysm	I71	64%	66%
Myocardial Degeneration	I51.5	27%	18%
Atherosclerosis	I70	21%	21%
Digestive			
Stomach/Duodenum Ulcer	K25-K26	53%	59%
Disease Prevented by Smoking			
Parkinson's Disease	G20	-51%	-30%
Endometrial Cancer	C54	N/A	-16%

[40]It should be noted that this definition is specific to the death rates in NI and therefore differs from those used in other parts of the UK and other countries, meaning it is not directly comparable.

The table below lists the previous definition for all causes of death considered avoidable, with indication as to which are considered amenable, preventable or both. This list is for use with the additional indicators in Appendix C which include the avoidable mortality indicator as used by the NI Programme for Government.

Table 13: Amenable, Preventable and Avoidable Mortality (Previous ONS Definition).

Condition Group & Cause	ICD-10 Codes	Age	Amenable	Preventable
Infections				
Tuberculosis	A15-A19, B90	0-74	•	•
Selected invasive bacterial and protozoal infections	A38-A41, A46, A48.1, B50-B54, G00, G03, J02, L03	0-74	•	
Hepatitis C	B17.1, B18.2	0-74	•	•
Pertussis (whooping cough)	A37	0-14	•	•
Measles	B05	1-14	•	•
Rubella	B06	0-14		•
Other infections (Diphtheria, Tetanus, Poliomyelitis and Varicella)	A35, A36, A80, B01	0-19	•	•
Intestinal infections	A00-A09	0-14	•	
HIV/AIDS	B20-B24	All	•	•
Neoplasms				
Malignant neoplasm of lip, oral cavity and pharynx	C00-C14	0-74		•
Malignant neoplasm of oesophagus	C15	0-74		•
Malignant neoplasm of stomach	C16	0-74		•
Malignant neoplasm of colon and rectum	C18-C21	0-74	•	•
Malignant neoplasm of liver	C22	0-74		•
Malignant neoplasm of trachea, bronchus and lung	C33-C34	0-74		•
Malignant melanoma of skin	C43	0-74	•	•
Mesothelioma	C45	0-74		•
Malignant neoplasm of breast	C50	0-74	•	•
Malignant neoplasm of cervix uteri	C53	0-74	•	•
Malignant neoplasm of bladder	C67	0-74	•	
Malignant neoplasm of thyroid gland	C73	0-74	•	
Hodgkin's disease	C81	0-74	•	
Leukaemia	C91, C92.0	0-44	•	
Malignant neoplasm of testis	C62	0-74	•	
Malignant neoplasm of unspecified parts of uterus and body of uterus	C54-C55	0-44	•	
Benign neoplasms	D10-D36	0-74	•	
Nutritional, endocrine and metabolic				
Diabetes mellitus	E10-E14	0-74	•	•
Diseases of Thyroid	E00-E07	0-74	•	
Addison's Disease	E27.1	0-74	•	

Condition Group & Cause	ICD-10 Codes	Age	Amenable	Preventable
Drug use disorders				
Alcohol related diseases, excluding external causes	F10, G31.2, G62.1, I42.6, K29.2, K70, K73, K74 (excl. K74.3-K74.5), K86.0	0-74		•
Illicit drug use disorders	F11-F16, F18-F19	0-74		•
Neurological disorders				
Epilepsy and status epilepticus	G40-G41	0-74	•	
Cardiovascular diseases				
Rheumatic and other valvular heart disease	I01-I09	0-74	•	
Hypertensive diseases	I10-I15	0-74	•	
Ischaemic heart disease	I20-I25	0-74	•	•
DVT with pulmonary embolism	I26, I80.1-I80.3, I80.9, I82.9	0-74		•
Cerebrovascular diseases	I60-I69	0-74	•	
Aortic aneurysm and dissection	I71	0-74		•
Respiratory diseases				
Influenza (including swine flu)	J09-J11	0-74	•	•
Pneumonia	J12-J18	0-74	•	
Chronic obstructive pulmonary disorder	J40-J44	0-74	•	•
Asthma	J45-J46	0-74	•	
Selected respiratory diseases	J00-J06, J20-J22, J30-J39	1-14	•	
Digestive disorders				
Gastric and duodenal ulcer	K25-K28	0-74	•	
Acute abdomen, appendicitis, intestinal obstruction, cholecystitis/lithiasis, pancreatitis, hernia	K35-K38, K40-K46, K80-K83, K85, K86.1-K86.9, K91.5	0-74	•	
Genitourinary disorders				
Nephritis and nephrosis	N00-N07, N17-N19, N25-N27	0-74	•	
Obstructive uropathy and prostatic hyperplasia	N13, N20-N21, N35, N40, N99.1	0-74	•	
Maternal and infant				
Complications of perinatal period	P00-P96, A33	All	•	
Congenital malformations of the circulatory system	Q20-Q28	0-74	•	
Spina Bifida	Q05	0-74		•
Unintentional injuries				
Transport Accidents	V01-V99	All		•
Accidental Injury	W00-X59	All		•
Intentional injuries				
Suicide and self inflicted injuries	X60-X84, Y10-Y34	All		•
Homicide/Assault	X85-Y09, U50.9	All		•
Misadventures to patients during surgical and medical care	Y60-Y69, Y83-Y84	All	•	•

Also available for the Health & Social Care Inequalities Monitoring System (HSCIMS)

Public Health NI

Fact Sheet

Summary of the latest position for a range of public health indicators at NI, Health & Social Care Trust, and Local Government District levels. These statistics are a combination of the latest information from the HSCIMS, the Health Survey NI, and other information sources (Annual).

https://www.health-ni.gov.uk/articles/public-health-statistics

Life Expectancy in Northern Ireland

Presenting the latest official estimates of life expectancy in Northern Ireland and an examination of the causes that contribute to the change in life expectancy over time, as well as the differentials between genders and across Local Government Districts. The latest figures for life expectancy at 65, healthy life expectancy and disability-free life expectancy are also included.

https://www.health-ni.gov.uk/articles/life-expectancy-northern-ireland

Making Life Better

Monitoring the Wider Social Determinants of Health & Wellbeing

Key Indicators

Monitoring of the key indicators of the wider social determinant of health & wellbeing set out against each of the themes contained in the making life better strategic framework (Annual).

http://www.health-ni.gov.uk/articles/social-determinants-health-statistics

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