NHS Lanarkshire

Public Health 2016/17

The Annual Report of the Director of Public Health

Acknowledgements

I am grateful to the staff within the Department of Public Health for all their work over the year. I am also grateful for their continued commitment, and the commitment of NHS Lanarkshire and staff in other organisations, to public health in Lanarkshire.

I would like to thank all the contributors to this report and the members of the Editorial Committee - Lee Baird, Rebecca Campbell, Jonathan Cavana, David Cromie, Jennifer Darnborough, Karen Lorenzetti, Fiona O'Dowd, Josephine Pravinkumar and Derek York. My particular thanks to Derek for designing the report.

Finally, I would like to extend my thanks to all the organisations who work with NHS Lanarkshire to protect, maintain and improve the health of the public. This includes North Lanarkshire Council, South Lanarkshire Council, North Lanarkshire Health and Social Care Partnership and South Lanarkshire Health and Social Care Partnership.

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Cover photo:
The Street Soccer project targets young people aged 9–21 years and offers them an alternative to hanging around on the streets. Street Soccer encourages young people, parents and residents to help create an improved sense of health and wellbeing in their communities. It uses football as a 'tool' to divert young people with chaotic lifestyles away from antisocial behaviour. The photo shows young people and coaches at an event in the Orbison area of Bellshill. *The image is used with permission from North Lanarkshire Leisure.*

Contents


NHS Forth Valley
North
NHS Greater Glasgow & Clyde
Airdrie
Coatbridge
Cambuslang/ Rutherglen
Bellshill
NHS Lothian
Wishaw
Motherwell
Hamilton
East Kilbride
NHS Lanarkshire
Clydesdale
NHS Ayrshire & Arran
NHS Borders
North Lanarkshire Health & Social Care Partnership
South Lanarkshire Health & Social Care Partnership
NHS Dumfries & Galloway

Foreword

It is an honour and privilege to produce the Annual Report of the Director of Public Health 2016 - 2017.

The report provides an overview of the health status of the population and describes progress over the year. It has been set out to focus on the themes of poverty and life circumstances; the need for all of us to embrace prevention and self-management and to respond to the ever increasing demand upon health and social care services. I believe that these areas are critical to the future health and wellbeing of the population of Lanarkshire.

People are living longer which is fantastic, however many are living with a range of long term conditions which is placing great strain on our health and social care services. In these times of increasing demand and of fewer resources, we all need to look at how we use services. People have become accustomed to relying on public services to provide help and support. We need everyone to embrace the concept of self-management and only use services when appropriate. A chapter has been included in this report that illustrates how this concept is being embraced in Lanarkshire.

The Chief Medical Officer, Dr Catherine Calderwood, has set out a vision for Realistic Medicine (Realistic Healthcare). This sets out to build a personalised approach to care, change our style to shared decision-making, reduce unnecessary variation in practice and outcomes, reduce harm and waste, manage risk better and to become more adept as improvers and innovators. We need all healthcare personnel to fully embrace this concept across Lanarkshire.

In his report titled *Commission on the Future Delivery of Public Services*[1] published in 2011, the late Campbell Christie estimated that 'failure demand' (demand that could have been avoided by earlier preventative spending) absorbed over 40% of local public service spending. The report also advocated for closer working with individuals and communities to understand their needs, maximise talents and resources, support self reliance and build resilience. The work of both Community Planning Partnerships in ensuring that the community are at the centre of the recently developed Local Outcome Improvement Plans is to be commended. Similarly, the efforts of both our Health and Social Care Partnerships in promoting prevention, anticipatory care and the concept of self-management and healthier living are to be commended. There is a concern that in these times of financial austerity, there is a real threat to the funding of programmes focused on prevention and on working with communities and the voluntary sector. In the short term, this may contribute to financial balance but in the long term it will contribute to greater demand and expenditure. Both nationally and locally, we need to rise to this challenge.

Levels of poverty are increasing as illustrated in the chapter on child poverty. Despite significant efforts, inequalities in health persist across Lanarkshire. Much of the problem is associated with socioeconomic inequality. In Lanarkshire we have areas in which life expectancy of men and women trail those living in some of our more affluent areas by 19.4 and 25.4 years respectively. There are differences in health outcomes for specific populations such as the homeless and lesbian, gay, bisexual, transgender and intersex (LGBTI). In 21st century Lanarkshire, inequalities are not acceptable nor are they inevitable.

Whilst recognising the role that people's life circumstances can play in determining behaviours and health outcomes, I take this opportunity to ask people to reflect on their own lifestyle and to make changes to promote their own health and wellbeing. The people of Lanarkshire can make changes to improve their health. In the last 20 years, the prevalence of people smoking in Lanarkshire has dropped from 35% to 22%. The levels of smoking in our most deprived communities remain too high, however, they have still dropped from 40% to 32% over the last 3 years. People can make changes on their own or participate in community based programmes such as Stress Control, both Leisure Trusts' Active Health programmes, Get Walking Lanarkshire and Weigh to Go.

In this report I have included a short chapter on dilemmas and challenges. The purpose of this chapter is to stimulate debate about these issues, particularly in the context of strategic decision making.

I take this opportunity to thank my editorial committee for all of their hard work and endeavours in producing this report and to thank my predecessor Dr Harpreet Kohli for his major contribution to improving the health of the population of Lanarkshire. I am sure that you will join me in wishing him well as he enters a new phase of his life.

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December 2017

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1 Christie, C. Dr. CBE. *Commission on the Future Delivery of Public Services*. 2011. Available from: www.gov.scot/Resource/Doc/352649/0118638.pdf

Vision for Public Health, Dilemmas and Challenges

Vision

The Public Health Review in 2015 recognised that in order to meet the significant challenges that we face in the 21st century, new population based approaches are now needed. Looking back, historically, the first wave of public health focused on issues such as sanitation, access to clean water and slum clearances. The second saw the emergence of medicine as a science and the introduction of mass vaccination programmes. The third phase involved the establishment of institutions such as the NHS and the Welfare State. The influence of social determinants of health characterised the fourth wave. Hanlon et al,[1] however, have recognised the need for a radically different approach to address modern public health challenges. They call for a fifth wave of public health which is likely to be characterised by enabling government, greater interdependence and co-operation across sectors and geographies, and involvement of the public more individually and collectively in improving and maintaining their own health.

In Lanarkshire, the vision is for people to be at the centre of the efforts to improve health and wellbeing with public services working together to empower individuals and communities to take greater control of these efforts. In practical terms this would entail the following:

- Reducing inequalities with significantly lower numbers of people, especially children and families living in poverty. This would focus effort upon the wider determinants of health such as homelessness, financial inclusion, employment and the development of living and working environments that are conducive to good health and wellbeing.
- Realising the ambitions of *Achieving Excellence* with hospitals only providing care for those who need to be in hospital and shifting the balance of care to the community in a safe and effective manner.
- Implementing the recommendations of the Christie Commission to have a greater focus on prevention.
- Delivering Realistic Medicine (Realistic Healthcare) across Lanarkshire.
- People embracing self-management, taking greater responsibility as much as possible for improving their own health and using services only when needed.

Dilemmas and Challenges

It is recognised that the changing demographics, increasing demand and changes in clinical guidance lead to increasing pressures on the NHS. With the current financial climate being unprecedented, investment and disinvestment decisions are challenging. Outcomes, cost effectiveness and opportunity costs must be considered in the decision making process regarding the provision of services and medicines in Lanarkshire. This will require tough and potentially unpopular decisions to be made.

People are living longer which is fantastic, however many are living with a range of long term conditions which is placing great strain on our health and social care services. In these times of increasing demand and of fewer resources, we all need to look at how we use services. People have become accustomed to relying on public services to provide help and support. We need everyone to embrace the concept of self-management and only use services when appropriate. A chapter has been included in this report that illustrates how this concept is being embraced in Lanarkshire.

Shifting the balance of care seeks to achieve improvements in health and wellbeing and better service outcomes. It is characterised by a greater focus on prevention, anticipatory care, providing more continuous care and more support at home. The Health and Sport Committee in its recent publication *Looking ahead to the Scottish Government Health and Sport Draft Budget 2018–19: Call for greater transparency*[2] took evidence from a range of contributors. Whilst recognising achievements to date, the Committee identified that significant challenges remain in achieving this transformational change. A number of the submissions made to the Committee focussed on the need to find additional resources to support the shift in the balance of care. In simple terms, they were identifying that current service pressures upon acute care were such that it was incredibly difficult to shift resources to the community. The Health and Sport Committee raised the issue of the need for investment to fund dual running of some services. Whilst acknowledging the significant efforts to shift the balance of care in Lanarkshire, there is a real need to secure additional resources to enable the development of community based services that will reduce reliance upon acute care.

Realistic Medicine has the potential to reduce unnecessary variation, harmful interventions and waste in healthcare. As well as improving patient care and outcomes it would also contribute to reducing costs. There is an opportunity to link Realistic Medicine with the prevention agenda. A percentage of the savings from realistic medicine could be diverted towards prevention by way of investing to save. This is an issue for NHS Lanarkshire Board to consider.

In the foreword, I have asked the people of Lanarkshire to embrace the concept of self-management and have challenged them to take action to improve their health and well-being. They have a key role to play in supporting health and social care services in their efforts to work with communities to create the conditions for good health.

There are many more dilemmas and challenges that require to be addressed. In next year's annual report I will take the opportunity to review progress in relation to recommendations made in previous reports. I will also respond to the review of outcomes and targets published by Professor Sir Harry Burns[3] with particular focus on the life course approach; explore the concept of safe staffing levels; the implications of regional working; focus on the need to improve mental health for all and the challenges that alcohol presents to our communities in Lanarkshire.

The purpose of this chapter is to stimulate debate and discussion, particularly at the strategic decision-making level. I have established an email account PublicHealthAnnualReport@lanarkshire.scot.nhs.uk and I welcome any comments on the issues that I have raised in this or any other chapter in the report.

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References

1 Hanlon, P., Carlisle, S., Hannah, M., Reilly, D., & Lyon, A. (2011). Making the case for a 'fifth wave' in public health. *Public Health*, Vol. 125, Issue 1, p30–36.

2 Health and Sport Committee. *Looking ahead to the Scottish Government Health and Sport Draft Budget 2018–19: A call for greater transparency* (SP Paper 224, 13th Report, Session 5). Edinburgh, 2017. Scottish Parliamentary Corporate Body.

3 Burns, H. Prof. Sir. *Targets and Indicators in Health and Social Care in Scotland: A Review*, 2017. Available from: www.gov.scot/Resource/0052/00527689.pdf.

1.1 Population Profile

In this section the current population of NHS Lanarkshire is described and how the population is projected to change over the next twenty years is reviewed. The number of births registered in Lanarkshire during 2016 and data on life expectancy is reported. Mortality information for specific diseases that cause the most deaths and the total number of deaths is presented. Detailed information on each area is included in the relevant section of the Statistical Appendix which users are referred to.

Deprivation

The Scottish Index of Multiple Deprivation 2016 (SIMD16) is used to identify areas of poverty and inequality in Scotland. It combines seven domains of deprivation: income, employment, education, health, access to services, crime and housing into a single index. SIMD16 divides Scotland into 6,976 small areas, called data zones, each containing around 760 people. The Index ranks each data zone, from 1 (most deprived) to 6,976 (least deprived). Previous reports used SIMD 2012 which was based on earlier data zone boundaries, this is not comparable to SIMD16.

This report uses the 15% most deprived data zones in Scotland as a measure of deprivation. Compared to Scotland, a greater proportion of Lanarkshire's data zones are in the 15% most deprived (18.9%). There is significant variation across Lanarkshire's Localities and Health and Social Care Partnerships (HSCPs). Coatbridge Locality has the highest proportion (32.8%) of data zones in the 15% most deprived data zones compared to East Kilbride Locality which has zero. North Lanarkshire has 23.3% and South Lanarkshire 14.4% of data zones in the 15% most deprived data zones. Overall 118,673 people in Lanarkshire live in one of the 15% most deprived data zones in Scotland.

More details on deprivation at Locality level is provided in table A1 in the Statistical Appendix.

Population estimates and projections

The estimated population of the NHS Lanarkshire area on 30th June 2016 was 656,490. This is an increase of 2,000 from National Records of Scotland's (NRS) population estimate for 2015.

The median age of the population was 42, similar to 41 for Scotland as a whole. Eighteen percent of Lanarkshire residents were aged less than 16, 63% were of working age, and 19% were of pensionable age. This was again similar to the Scotland average. There were 22,016 (1.07%) more women than men.

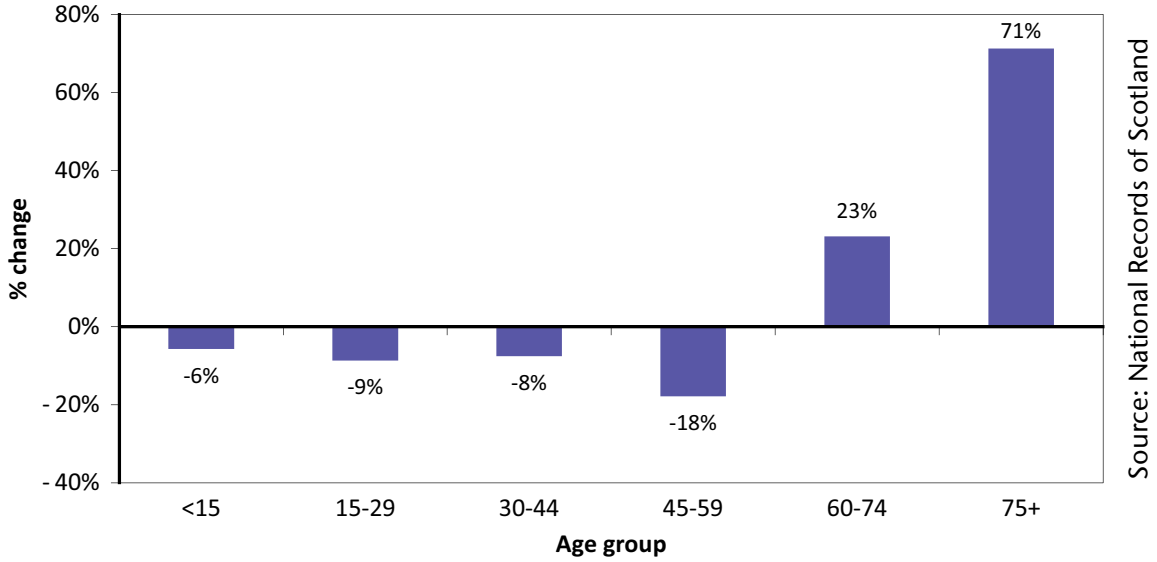
The latest projections of Lanarkshire's future population are based on estimates for 2014, and show that the population will rise about 0.8% in the next 10 years. The population is expected to rise by 1.2% overall in the 20 years from 2016. The projected change in the age structure of Lanarkshire's population between 2016 and 2036 is shown in Figure 1.1.1.

Key components in the changing Lanarkshire population are as follows:

- An increase of 31.6% in the population aged 75 and over is projected by 2026, and a further increase of 30% by 2036. Overall this means a projected increase of 71.2% over the next twenty years, resulting in 35,629 more people aged 75 and over.
- The largest fall in population will be in age range 50–54, with a projected decrease of 20% by 2036. There is estimated to be 10,356 less people aged 50–54 in the next twenty years.

More details on population estimates and projections for Lanarkshire are provided in tables A2 and A3 in the Statistical Appendix.

Figure 1.1.1
Projected percentage change in the age structure of Lanarkshire's population, 2016–2036



Births

There were 6,826 live births registered among NHS Lanarkshire residents in 2016, a decrease of 1.1% from 2015. The number of stillbirths increased slightly from 26 in 2015 to 29 in 2016. The overall birth rate per 1,000 women aged 15–44 was 56.0 for Lanarkshire, higher than the Scottish rate of 52.6.

Over the three-year period 2014–2016, 99.7% of all babies born alive in Lanarkshire survived their first year. There was an average of 21 deaths per year, excluding stillborn babies. These deaths were similar to the level in Lanarkshire reported previously for the period 2013–2015. The infant death rate (deaths during first year of life) in Lanarkshire was 3.1 per 1,000 live births similar to the Scottish rate of 3.4 per 1,000 live births. Due to the small numbers involved, death figures among children aged one year or younger fluctuate from one year to the next.

Further information on births is shown in tables A4 and A5 in the Statistical Appendix.

Life expectancy

Life expectancy at birth for a man born between 2013 and 2015 in Lanarkshire is 76.1 years, for a woman this is 80.2 years. Historical estimates for Lanarkshire as a whole are

currently not directly comparable to 2013–2015 estimates due to a difference in method of calculation, however they are available at HSCP level.

For North Lanarkshire HSCP and South Lanarkshire HSCP life expectancy has increased in the 10 years between 2003–2005 and 2013–2015. In North Lanarkshire, average life expectancy increased by 2.5 years for males (from 72.8 years to 75.3 years), and by 2.0 years (from 77.6 years to 79.6 years) for females. In South Lanarkshire, the increase for men was 2.8 years (from 74.2 years to 77.0 years) and for women this was 1.7 years (from 79.1 years to 80.8 years).

Women in Lanarkshire live on average 4.1 years longer than men. This gap between male and female life expectancy is similar to that for Scotland (4.0 years) and the U.K. as a whole (3.7 years).

Life expectancy is still below national levels; people in Lanarkshire live on average a year less than others in Scotland (men 1.0 years less and women 0.9 years). Compared to the UK as a whole, men in Lanarkshire die 3.0 years earlier and women 2.6 years earlier. Within Lanarkshire, life expectancy in South Lanarkshire is higher than in North Lanarkshire; in the South men live 1.6 years longer and women 1.2 years longer on average than those in the North.

Further information on life expectancy is shown in table A12 of the Statistical Appendix.

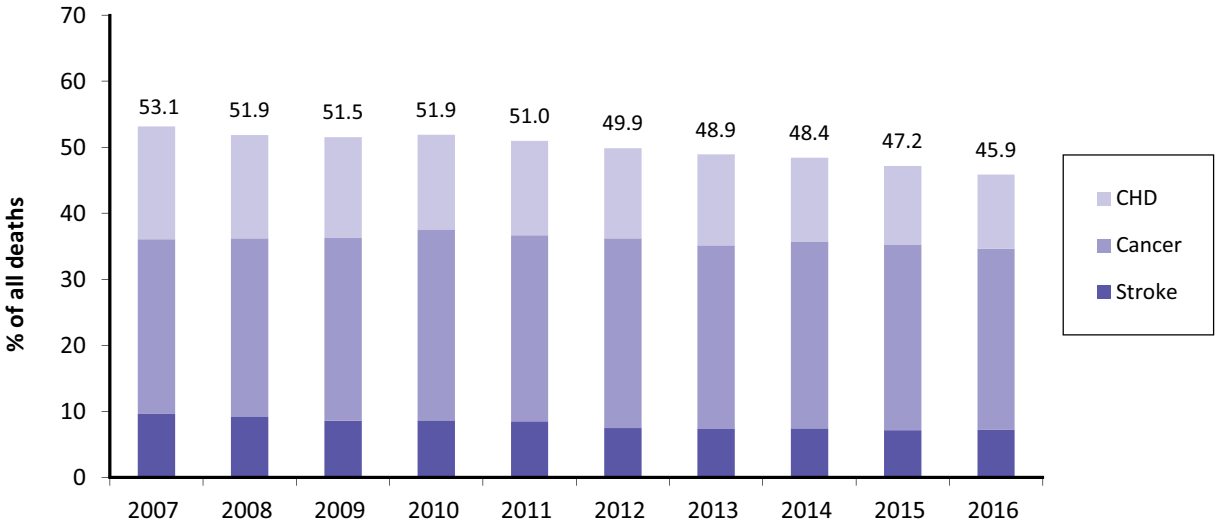
Deaths

There were 7,097 deaths in NHS Lanarkshire in 2016, a small decrease of 24 (0.3%) compared to 2015. Overall standardised mortality ratios (SMRs), in Lanarkshire remain above the Scottish average for men and women and for those under 75 years and 75 years and over. Over the last 10 years, Lanarkshire's SMR has ranged from 7.8% (in 2009) to 12.1% (in 2007) above the Scottish rate, and in 2016 was 10.0% above. The relative difference between Lanarkshire and Scotland continues, with no evidence that the gap is narrowing.

There is wide variation in SMRs between the different localities in Lanarkshire, which reflects differences in deprivation levels. Bellshill which has a high level of deprivation (23.1% of data zones were in the 15% most deprived data zones in Scotland) had an SMR which was statistically significantly higher than the Scottish rate (51.1% above) for females aged less than 75 years. Clydesdale with only 7.1% of data zones in the 15% most deprived data zones in Scotland, had an SMR which was statistically significantly lower than the Scottish rate (15.9%) for males aged less than 75 years.

There is a continuing reduction in the combined proportion of all deaths due to the so-called 'big killer' diseases of cancer, coronary heart disease (CHD) and stroke as shown in Figure 1.1.2. Since 2012 they have accounted for less than 50% of all deaths and in 2016 the proportion fell further to 45.9%. This is mostly due to a continuous decrease in deaths from coronary heart disease and stroke, although stroke is decreasing at a slower rate. There has not been any significant change in the proportion of cancer deaths over the last 10 years. In 2016, the 'big killer' diseases accounted for 3,254 deaths: individually cancer, CHD and stroke were responsible for 27.4%, 11.2% and 7.2% respectively of all deaths in Lanarkshire. Respiratory disease was also a significant cause of mortality in 2016, with 14.1% of all deaths.

Figure 1.1.2
Proportion of deaths caused by the 'big killer' diseases in Lanarkshire, 2007–2016



Source: National Records of Scotland

More detailed information on mortality is provided in the tables and charts in A6–A11 of the Statistical Appendix.

Key Points

- Lanarkshire's population increased from 2015 to 2016, and is projected to rise further in future years. Population projections for Lanarkshire indicate that there could be 35,629 more people aged 75 and over by 2036, an increase of 71.2%.
- There were 7,097 deaths in Lanarkshire in 2016. Deaths rates in Lanarkshire remain above the Scottish average.
- Less than half of all deaths in Lanarkshire were due to the so-called 'big killer' diseases of cancer (27.4% of all deaths), CHD (11.2%) and stroke (7.2%), although the proportion for cancer has not changed in the last 10 years.

Priorities for Action

- It is essential to ensure that life expectancy especially healthy life expectancy continues to increase in Lanarkshire.
- There is wide variation in SMRs between the different localities in Lanarkshire, reflecting differences in deprivation levels which need to be addressed.

The statistics in this section were obtained from local analysis of data supplied by National Records of Scotland (NRS) or directly from NRS published online at www.nrscotland.gov.uk/statistics-and-data and SIMD16 published online at www.gov.scot/Topics/Statistics/SIMD.

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Health Protection

2.1 Detecting and Preventing Illnesses from Infectious and Non-infectious Agents

Health Protection

Health protection is the subspecialty of the wider public health function that identifies and helps to prevent communicable and non-communicable diseases emerging from food, water, air and the general environment. The Health Protection team (HPT) deals with new cases daily; less frequently we manage, according to NHS Scotland standards[1], outbreaks and other incidents which can significantly threaten the public health.
The Department of Public Health, NHS Lanarkshire specialist HPT includes administrative staff, a clinical support worker, nurses, public health registrars, specialists and consultants. As well as covering core activities, such as gastrointestinal illness, meningitis, and waterborne risks, members of the team subspecialise, covering domains such as sexual health and blood borne illnesses, immunisation, tuberculosis and environmental health.

Partnership working

The HPT works very closely with a wide variety of Lanarkshire colleagues, such as, nursing and pharmacy at NHS corporate headquarters; microbiologists, infectious disease clinicians and infection prevention control based in the acute hospitals; and primary care through general practitioners and nursing staff in health and social care partnerships. The day to day close working within our geographical organisations is key to the robust working arrangements, clear mutual understanding and very good communication.

Outwith NHS Lanarkshire, we again work closely with partners in North and South Lanarkshire Council environmental health departments, other health board areas, Health Protection Scotland (HPS), specialist reference (microbiology and virology) laboratories, Scottish Water, Scottish Environment Protection Agency and Scottish Government.

Partnership working is at the heart of our role coordinating preparedness across Lanarkshire for an influenza pandemic. Pandemic influenza is Scotland's and UK's highest (non-terrorist) risk. Coordination for this includes health and social care providers as well as other (non-health) community service providers e.g. education, transport, utilities and supply contractors to these services.

Prevention, Detection and Surveillance

Immunisation can be highly effective at preventing a wide variety of infectious illnesses affecting the young, the old, those with underlying poor heath and those travelling abroad. Despite having higher levels of socio-economic deprivation, NHS Lanarkshire has achieved excellent uptake rates for childhood vaccines for the routine programmes for children less than 6 years of age and against flu in primary schools.[2] The influenza vaccine campaign covering around 250 Lanarkshire primary schools with over 50,000 pupils using the nasal flu vaccine spray is designed to protect pupils and interrupt spread in the community that might otherwise affect their siblings, parents and grandparents. With an uptake of around 80%, this significantly augments the flu vaccine campaigns for people aged 65 and over, those under 65 with 'at risk' conditions and pregnant women.

However, NHS Lanarkshire, in common with most other NHS Boards, is struggling to achieve satisfactory uptake of flu vaccine for NHS staff, despite comprehensive promotion campaigns and ease of access. This is perplexing, as staff with flu pose very significant risks to vulnerable, at times highly vulnerable, patients, to the service (as staff are unable to work), and to their families and friends and the wider community. This is an area that the HPT has committed time and resource to, with significant support from director level colleagues but with relatively modest increases in uptake. Further achievable but stretching targets are being set. This area will remain a priority for NHS Lanarkshire in forthcoming years, until uptake improves significantly.

Table 2.1.1: NHS Lanarkshire staff flu vaccine (actual and target) uptake rates, overall and by selected staff groups, 2014/15 – 2017/18

	Actual 14/15	Actual 15/16	Target 16/17	Actual 16/17	Proposed 17/18
Overall	34.8%	33.6%	37.0%	35.9%	40.0%
High Risk	37.0%	41.4%	45.0%	39.5%	47.5%
Medical	41.9%	41.0%	45.0%	45.2%	49.7%
Nursing	32.0%	31.8%	35.0%	33.3%	38.0%
Allied Health Professionals	39.7%	37.2%	41.0%	43.7%	48.1%
Primary Care	28.9%	28.4%	31.5%	36.8%	40.5%

Through our combined activities of surveillance and analysis of cases and disease patterns at local and national levels, we aim to target interventions ranging from improved infection control procedures within families, e.g. for *E coli* O157; use of antibiotics and immunisations for close contacts of person with meningococcal disease; through to analysis of multi-case outbreaks including exposure and environmental data to track down and stop sources of illness, such as commercial and wholesale food production.

Notifiable Diseases

During 2016, there were 320 cases of clinically notifiable diseases. These cases required various degrees of investigation and follow-up. Given the severity of these diseases, there is a legal requirement for clinicians to notify confirmed and suspected cases urgently, albeit some cases are subsequently shown not to have had that illness. In 2016, the numbers of most frequently notified (and numbers of confirmed) cases were:

Table 2.1.2: Most Frequently Notifiable Diseases 2016

Disease	Total Numbers Notified	Numbers Confirmed
Pertussis (Whooping cough)	167	151
Mumps	53	<5
Tuberculosis	29	26
Measles	24	<5
E coli O157	23	20
Meningococcal disease	15	10

Full list of notifiable diseases are shown in table A16 in the statistical appendix.

Reportable Diseases

During 2016, there were 2,210 reported diseases, the majority are those acquired by consumption of food, water or environmental conditions, such as campylobacter (802), cryptosporidiosis (142) salmonellosis (132) giardiasis (13) and shigellosis (12) with almost all being confirmed or probable (very likely).

In general, people with campylobacter are issued with advice leaflets, whereas those with other diseases are interviewed to identify possible sources. The data collected are added to the electronic clinical record and surveillance system (HPZone) that shares anonymised data across Scotland. Should individual restaurants, or other common exposure links, appear more than once in quick succession they will be identified as potentially being a common source that can be investigated further. This provides more real-time opportunity to identify common sources- the specialist microbiology and viral laboratories provide a similar function by genetically finger printing some organisms, which if they occur uncommonly or in unexpectedly large numbers can raise similar alerts. In such cases, patients will be re-interviewed with a view to narrowing down potential common links.

Furthermore, in the course of any one year, very small numbers of much more unusual infections such as legionnaires disease, listeria, cyclosporiasis, hepatitis A, amoebic dysentery, novel coronavirus will be reported. The degree of HPT involvement for each case will vary considerably depending on the disease and likelihood of there being a case.

Situations

The HPT defines situations as possible clusters of cases, obvious outbreaks, and others that could pose a risk to public health such as release of a chemical or drinking water failures. During 2016, 116 situations were declared and followed up.

There were several outbreaks of *E coli* O157 of prominence, one involving four Lanarkshire residents who acquired the illness whilst on holiday in Europe and another, more widespread, outbreak linked to a particular type of cheese produced in South Lanarkshire. In 2016, there were 45 care home situations generally either due to a viral gastroenteritis or a respiratory illness such as flu or flu-like illness. Care residents are elderly and frail and the focus is to help prevent further spread of what could potentially be a lethal infection for some of these people. It is also important to identify and follow full infection prevention advice to reduce the chances of someone being inadvertently admitted to an acute hospital and being the source of a hospital outbreak, leading to patient and staff illness and reduced hospital capacity due to closed beds and staff sickness.

There were also 45 situations related to drinking water, generally due to low level microbiology failures, excessive lead in the water and loss of supply or customer complains (smell, taste or appearance).

The investigation of TB clusters poses particular challenges in identifying close contacts, testing and diagnosing and following up for treatment. During 2016, there were several significant investigation of clusters of TB spanning many months.

Enquiries, Education and Training

The HPT seeks to promote higher standards of care through development and dissemination of protocols and guidance, various educational activities for NHS clinical staff, such as immunisation updates and promoting infection prevention control standards for care homes. The HPT responds to a variety of enquiries throughout the year supporting local professionals and the public. We also issue media statements to advise the public of known risks or to reassure, when needed. A number of public health colleagues from Lanarkshire and HPS have rotated through the department to strengthen their health protection understanding.

During 2016 there were 812 enquiries recorded on the database. The majority related to immunisation (316), general control of communicable disease (264), community infection control (181) and the remainder (61) cover a range of categories such as environmental, media, travel health and non-clinical.

Key Points

- Close working relations organisationally and professionally within local board structures are crucial to delivering an effective health protection service for NHS Lanarkshire.
- Core activities of surveillance and effective public health follow-up and situation management are vital to early detection and reducing the spread of serious infections.

Priorities for Action

- The HPT continues to support and promote staff flu vaccine and consider other options to achieve higher levels following the 2017/18 season.
- Increase education training and awareness by care home staff in the early detection and notification of outbreaks and encourage strict adherence to infection prevention and control activities.

References

1 *Management of Public Health Incidents: Guidance on the Roles and Responsibilities of NHS led Incident Management Teams. Scottish Guidance No 12* (2017 edition). Edinburgh, Health Protection Scotland, 2017. Available from: www.hps.scot.nhs.uk/guidelines/detail.aspx?id=1266 [accessed 7 December 2017].

2 *Childhood Immunisation Statistics Scotland*. Edinburgh, ISD Scotland, 2017. Available from: www.isdscotland.org/Health-Topics/Child-Health/Immunisation/ [accessed 7 December 2017].

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2.2 HIV in Lanarkshire

The Lanarkshire Blood Borne Viruses (BBV) Prevention and Care Network (PCN) leads on all HIV, hepatitis B and hepatitis C service development and delivery in Lanarkshire. Key aims of the Network include the development and promotion of education and prevention programmes and awareness raising campaigns that support and encourage testing for HIV and hepatitis, as well as developing services for people living with and affected by HIV and/or hepatitis.

Records for HIV patients in Lanarkshire show that, since recording, 623 people have been diagnosed with HIV, with 100 having died, 100 having left Scotland, 40 no longer engaged with services and 383 actively engaged in treatment.

HIV education sessions were delivered to staff across Lanarkshire and awareness of HIV using video messages on targeted social media provided for the general public as well as members of staff. The 2016 HIV social media campaign has again proven a powerful asset with over 170,000 video views and over 18,000 clicks through to the Lanarkshire HIV and hepatitis website www.LanarkshireHIVandHepatitis.org.

The development of the Lanarkshire BBV Testing Guideline highlights the need for enhanced testing for BBV infection in high risk settings and populations, such as specialist sexual health clinics and drug services, whilst stressing that these initiatives, by themselves, are not enough. To make a significant impact on undiagnosed BBV infection, significantly higher rates of BBV testing are required in non-specialist settings, such as, GP surgeries, general medical wards and outpatients and other areas where undiagnosed BBV infection may be present.[1] Work is on-going to promote HIV testing in each of these areas.

A significant HIV prevention development in 2017 has been the provision of HIV pre-exposure prophylaxis medication (PrEP) to HIV negative individuals at high risk of infection. PrEP will remain a key element of HIV prevention work in Lanarkshire and will continue to be delivered to individuals at high risk of HIV infection via Lanarkshire Sexual Health Services and the specialist BBV Service in Monklands.

Of significant concern is the re-emergence of HIV infection among people who inject drugs (PWID). The Lanarkshire BBV PCN will continue to increase BBV testing with this high risk group and to liaise with colleagues in other areas to reduce the likelihood of HIV infection among people who live in Lanarkshire and inject drugs. Furthermore, services are being developed to meet the needs of people with complex needs who use alcohol and drugs and who are HIV positive.

In 2018, third sector service provision will be extended to support BBV testing, hepatitis B vaccination, support and care to the Chinese community in Lanarkshire. This service will also contribute to the existing work of the BBV PCN on patient, service user and carer involvement.

The Lanarkshire BBV PCN held its third *Talking Together* event for patients, service users and carers in September 2017. The experiences shared during this event will contribute to HIV and hepatitis service improvement and development in Lanarkshire.

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2.3 Screening

Introduction

Lanarkshire's health and social care challenge is to strive for and maintain good health and wellbeing for the people of Lanarkshire. Picking up disease early is an important part of this challenge. Screening programmes, which aim to pick up diseases before they lead to symptoms, offer excellent opportunities for early detection. Screening is not foolproof but it can identify some of the people who have, or are at risk of developing a disease, and this can lead to quicker and better treatment. It is important that we offer people in the target group for screening, information about taking part, which explains the benefits and risks of screening.

NHS Lanarkshire provides all of the Scottish population screening programmes. Figure 1, 'Screening Highlights' shows, at a glance, the groups of people who are likeliest to benefit most from each programme as well as the headline outcomes (key performance indicators – KPIs) for each programme.

What's new?

- A new Scottish Screening committee was set up in 2016 to consider advice from the UK National Screening committee about new and existing screening programmes in the Scottish setting. A key priority for this group is tackling inequalities within screening.
- A new electronic maternity information system was introduced in Lanarkshire during 2016 which will help monitor the quality of the pregnancy and some of the newborn screening programmes.
- In March 2017, the Scottish Newborn Bloodspot Screening programme was expanded to test for 4 additional metabolic diseases (Homocystinuria, Maple Syrup Urine Disease, Glutaric Aciduria Type 1 and Isovaleric Aciduria (IVA)). Although these diseases are very rare, they can cause life-threatening damage in newborn babies. Early detection allows babies to be started on special diets and/or treatment before any damage is caused. In addition, the upper age-limit of the programme was extended from 6 months to 12 months. This means that any babies up to the age of 12 months, who move into Lanarkshire and have not previously had a bloodspot test will now be offered one.
- During 2015/16, the Scottish Detect Cancer Early (DCE) programme focused on the importance of taking part in breast and bowel screening. We know however that those who live in our poorest areas struggle to take up screening opportunities as well as those from our most well-off areas. Trying to address this imbalance is a key part of the work of the Lanarkshire screening team and its partners.
- In June 2016, there was a change to the age range and frequency (CARAF) of women invited for cervical screening from 20–60 to 25–64 years of age and also a change in the time between screens for women older than 50 years.
- Lots of work took place in 2016 to prepare for the new bowel screening test which will be introduced in November 2017.
- During 2016 NHS Lanarkshire secured funding for a Cancer Research UK facilitator for 2 years to support early detection of cancer.
- Areas of Lanarkshire with poor breast screening uptake have been targeted with a wide range of community activities aimed at raising awareness of the benefits of screening and encouraging uptake.

Table 2.3.1
Screening Programme highlights

Screening Programme	Target population	Denominator and time frame	Standard	Uptake	Outcomes[1]
Universal Newborn Hearing Screening (UNHS)	All newborn babies born to Lanarkshire residents in 2015 /2016 or moving into Lanarkshire under the age of 12 weeks	6,977 newborn babies Apr 2015–Mar 2016	98% of babies should have completed the hearing screen by 10 weeks.	99% babies completed screen by 10 weeks	4 moderate to severe hearing losses detected through screening.
Newborn Bloodspot Screening	All newborn babies born to Lanarkshire residents 2015/16	6,854 newborn babies Apr 2015–Mar 2016	99.5% of infants who have undergone screening tests have a screening result available or are recalled for repeat testing by 20 days of age.	99.9%	0 babies with PKU, <5 babies with CF, 6 babies who are carriers of CF, 6 babies with CHT, 8 babies with sickle cell carrier status, 0 babies with sickle cell disorder, 0 babies with MCADD, 5 babies who are carriers of a haemoglobinopathy disorder other than SCD, 0 babies with haemoglobinopathy disorder other than SCD.
Diabetic Retinopathy Screening	Patients with diabetes aged 12 years and over	33,821 April 2015–March 2016	Nationally agreed Key Performance Indicators (KPIs), including minimum uptake of 80% uptake.	72%	Currently unavailable.

Screening Programme	Target population	Denominator and time frame	Standard	Uptake	Outcomes[1]
AAA Screening	Men aged 65 years	3,473 men aged 65 April 2015–March 2016	Nationally agreed KPIs, including minimum uptake of 80% uptake.	81.1%	10 large aneurysms detected and referred for treatment.
Breast Cancer Screening	Females 50 to 70 years	79,369 women 8th Screening Round April 2013–March 2016	Nationally agreed KPIs, including minimum uptake of 70%.	68.4%	Currently unavailable.
Bowel screening	All males and females aged 50 to 74	201,108 men and women November 2014–October 2016, published August 2017	Nationally KPIs, including the target uptake of 60%.	53.1%	Meets all KPIs apart from uptake and time to scope for those who need investigation after screening.
Cervical screening	All women aged 25 to 64	181,693 women April 2016–March 2017	Nationally agreed KPIs, including the target uptake of 80%.	79.2%	Meets all KPIs apart from uptake.

1 Actual numbers where cases number less than 5 individuals are censored.
*PKU – Phenylketonuria
CF – Cystic fibrosis
CHT – Congenital hypothyroidism
MCADD – Medium-chain acyl-CoA dehydrogenase deficiency
SCD – Sickle Cell disorder

Key Points

- There is a strong focus on inequalities in screening both nationally and locally.
- Successful implementation of a range of screening programme developments, including CARAF.
- Almost 100% uptake of newborn screening programmes.

Priorities for Action

- Implementation of the new bowel screening test.
- The local focus on inequalities within screening will be driven by the work of health improvement and CRUK colleagues.
- The screening chapter in next year's DPH report will focus on the monitoring of screening (quality assurance).

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3.1 Responding to Challenges and Demands

Challenges in Health Improvement

If NHS Lanarkshire is to find a satisfactory response to rising demand for many services within an environment of restricted overall public spending, then there is an urgent requirement to develop innovative ways of working. A fundamental change in public services is necessary to ensure health and social care services can meet the challenges being faced now and in the future and achieve a commitment to continually improve the quality of support and care provided.

Financial restrictions occur not only from the demands of deficit reduction, but also stem from other well-known factors such as the impact of an ageing population and rising public expectations. Faced with this challenge, it is essential for organisations to work in integrated ways to identify some of the shared challenges and opportunities for learning between health, and other public services. It is essential to focus resources on what works and drive efficiencies but orthodox sources of efficiency gains are unlikely to be sufficient on their own. There is a need to shift the focus of health and social care towards prevention and supported self-management.

Tackling complexity

It has been argued that we now need a more radical approach, which takes account of the whole system of public service delivery and emphasises the importance of understanding the relationship between public services and those who need them most.

Among the most challenging factors influencing demand for health services are multi-faceted issues that cannot be addressed through efficiency savings or reducing unnecessary demand. These 'wicked' issues, such as chronic health conditions, antisocial behaviour and long-term unemployment, are beyond the scope of any single organisation to address alone. The causes of these issues are often poorly understood and the problem may seem to be intractable.

Wicked issues are difficult to solve because of the challenging and changing requirements needed to address them. These issues are multi-dimensional and are often difficult to recognise and can seem resistant to resolution. As such, the solutions to them must reflect this and be adapted to meet local context and be sufficiently flexible to address individual circumstances. Any attempt to tackle these complex issues effectively will require services across sectors to collaborate and work with target populations, to enable them to actively help to define the problem, identify solutions and take more responsibility for their own wellbeing and use of services. Tackling complexity in a time of sustained budgetary restrictions will require changes in the ways in which services are designed and delivered. Existing mind sets, tools and structures are not going to be sufficient and new ideas are required.

This chapter has a dual focus on two interconnected wicked issues, child poverty and adverse childhood experiences, and will view them within a framework of inequalities. These issues are inextricably linked to inequalities across the life course. Tackling the

complexities underlying them will require new approaches to addressing the influences of poor health and well-being across the life span and cross sectoral collaboration that focusses on prevention and resilience.

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3.2 Adverse Childhood Experience (ACE)

Introduction

The findings of a study on Adverse Childhood Experiences, published in 1998,[1] as well as a substantial and growing body of research, have revealed the most important public health findings of a generation. Early adversity, including child abuse and neglect, is associated with diminished health across the life course and across generations. Less well understood is the relationship between childhood adversity and adult socioeconomic status, including education, employment, and income.

Collectively, these outcomes provide an indication of overall life opportunity and arguably contribute to health inequalities. There is a growing amount of research that indicates that ACEs are transmitted inter-generationally – across generations, thus perpetuating inequalities experienced in health. Being aware of and understanding ACEs and the response provided within a public health context is therefore crucial in addressing and tackling inequalities. Within a public health context we have the opportunity to explore and understand further the potential impact of early adversity across the life course and how critical it is to breaking the intergenerational cycle of poverty. Furthermore, assuring the healthy development of all children is essential for societies seeking to achieve their full health, social, and economic potential.

What are ACEs?

ACEs are adverse childhood experiences that profoundly harm children's developing brains, the effects of which show up decades later; they cause much of the burden of chronic disease, most mental illness, and are very probably at the root of most violence. A growing body of research identifies the harmful effects that ACEs, occurring during childhood or adolescence cause.[2]

The science of "Toxic Stress" and the major findings that came out of the ACEs study[1] are becoming more common knowledge in relation to public health information. When we are threatened with any kind of adversity, our bodies prepare us to respond by increasing our heart rate, blood pressure, and stress hormones, such as cortisol. Health development can be derailed when the stress response is chronic, extreme and there are few or absent supports to buffer prolonged activation.[3]

The *Kaiser Permanente Adverse Childhood Experiences Study* conducted by Center for Disease Control was ground breaking public health research, published in 1998.[1] The original study involved asking over 17,000 people, already enrolled with Kaiser Permanente in United States to complete a study that involved answering questions about childhood maltreatment, family dysfunction and health status, after which a physical examination was conducted. The total count of adverse childhood experiences, of which there were ten in the original study, were counted up to give a score out of ten, known as the ACE score.

The investigations revealed that childhood trauma leads to the adult onset of chronic diseases, depression and other mental illness, violence and being a victim of violence – those most at risk of being socially excluded. Results also revealed that those with higher ACE scores were also at greater risk of poor educational and employment outcomes.

Sir Harry Burns, former Chief Medical Officer for Scotland debated this very issue for well over a decade. He agreed with the study findings that children who experience chaotic, affectionless childhoods are more likely to experience mental health problems, be poor achievers at school, more likely to become addicted to alcohol, use drugs, experience teenage pregnancy and end up in jail.[4]

The implications therefore, of the impact of ACEs on later life health and wellbeing are vast as they are contributors to major chronic, economic and social health issues. This in turn leads us to questioning their contribution, also to costs in health care emergency response, criminal justice and mental health care. It is becoming more evident that extreme childhood trauma is one of the leading causes of conditions such as heart disease, cancer, substance abuse and depression. Furthermore the Scottish Public Health network, May 2016 *Polishing the Diamonds* report, highlighted the correlation between ACEs and deprivation with the experience of four or more ACEs reported by 4.3% in the least deprived quartile & 12.7% in the most deprived quartile.[5]

Stress and Trauma

Trauma is overwhelming stress. It occurs when a person's internal and external resources are inadequate to cope with external threat, causing an imbalance to occur during the experiencing, witnessing or anticipation of the threat. When a child is exposed to rapid, dramatic and unpredictable changes to his or her environment, returning to homeostasis can be made difficult. This then proceeds to cause damaging biological reactions. When the stressful event is severe enough to disrupt the physical and emotional balance and security, that the child's primary care giver provides, trauma occurs.[6]

The aftermath of trauma can often manifest itself as a world of disconnection, fearfulness and shame.

Resilience – Post-traumatic Growth

As human beings, however, we have an incredible ability to adapt, survive and grow stronger. The invitation to demonstrate the real evidence of resilience and post-traumatic growth in people's lives and in their communities, and then turn around and use that experience to help others. This provides us not only with a new sense of purpose but makes sense in reducing toxic stress further. There is little point in telling people how the toxic stress that they experience could be fatal, as this may add to the existing problem.

This is the flexibility referred to in the introduction regarding the need to reflect and adapt the context and circumstances of individuals. There is a real invitation here to avoid employing a deficit model but to look at strengths and moving forward with a new sense of purpose. It is an invitation to redirect attention and to foster collective leadership.

Redirecting attention

We are now at a period within the social, economic and political landscape where the invitation to have a fundamental shift in philosophy and approach is more incumbent on us than ever. Dr Susan Deacon, early years champion and author of *Joining the dots* report

(2009)[7] said that the message of the importance of the early years needed to be heard far more consistently in debate and translated into decisions.

In Lanarkshire there has been much work done in that period since the report. In the last year the consistency in debate around adversity in childhood and the impact it has on health and wellbeing is more evident and we are at that time that Susan Deacon referred to when the "critical part of improvement is to get better joint working on the ground" and decisions need to be translated into actions. (Joining the Dots report, 2009).[7]

The importance of early years has been widely recognised and, as in other parts of Scotland, reflected and included in many areas of work and strategies, in order to focus on improving outcomes for parents to be, children, young people and families. Some of these are, the Children and Young People's Improvement Collaborative, Lanarkshire's Children and Young people's Health plan, Local Delivery Plans, Local Outcome Improvement Plans, and the Alcohol Drug Partnership Strategy to name but a few.

People can however become passive recipients of services that have been established, rather than active agents in their own lives. We need to turn that around, and start thinking afresh. We need to be thinking about the positives that we can provide our communities with and build on their existing strengths, in order to encourage them to become nurturing in developing their own approaches locally.

What does this mean for us at a population health level in Lanarkshire?

The Christie commission Report on Future Delivery of Public Services in June 20118 argued that it is necessary "to ensure that our public services are built around people and communities, their needs, aspirations, capacities, skills and work to build up their autonomy and resilience". This provides important guidance for understanding the differential burden and impact of early adversity across the life course, which as pointed out is critical in the tackling and desired reduction of inequalities in Lanarkshire and Scotland.

Growing resilient communities

The need therefore to raise awareness as to the impact that childhood adversity has on health is important and what that means for a public health workforce. There is a need for the effects of toxic stress to be better understood by and within our communities. The role of community education is vital if we are to collectively shift from a problem solving nature to one of creating the authorised environment in which to focus more on creating the conditions that can produce change and allow it to be self-sustaining.

Leadership

Raising awareness, building on and developing skills locally will help to understand and avoid the build-up of chronic stress. This will assist children, parents, grandparents, carers, schools and communities to find local solutions to building resilience. This will involve educating, engaging, and taking action with a multi-sector dimension. It is also an invitation for leaders, at any levels to assist as the change will need to be supported and driven with robust leadership to allow a letting go of previous approaches.

Furthermore, with poverty being one of the 10 original ACE scores, it is imperative that poverty or the threat of it needs to be prevented and focussed on large scale. We therefore have to build on the good work that has been achieved to date in Lanarkshire and focus on augmenting collective approaches to reducing poverty and low incomes for families.

There is now an opportunity however, to scale up efforts to date, to bring together a wide array of people and professionals to help us grow resilient communities.

Key Points

- Understanding the potential impact of early adversity across the life course is critical to breaking the intergenerational cycle of poverty and inequalities.
- The need to do things differently with a higher emphasis on collaborative leadership and provide a co-ordinated strike and to work with our respective communities.
- From a Public Health perspective, we are confronted with a whole new body of knowledge that could open up new ways of thinking about what we have up to now considered are intractable and insolvable.

Priorities for Action

- Connect with individuals interested in addressing ACEs and promoting trauma-informed and resilience-building practices and policies.
- Raise awareness and grow resilient communities.
- Take the opportunity to foster collective leadership – build relationships on deep listening so that networks of collaboration and trust start to flourish.
- NHSL to consider introducing routine enquiries about ACEs, adult adversity and trauma as part of the implementation of the national trauma training framework from the perspective of day to day practice. This will involve looking at change processes; offering training for staff and follow up support and supervision.

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3.3 Child Poverty

Introduction

Poverty is a lack of income. Individuals and families can be said to be in poverty when 'they lack resources to obtain the types of diet, participate in the activities and have the living conditions and amenities which are customary, or at least widely encouraged and approved, in societies in which they belong.[1]

All children have the right to have the best possible health, as enshrined in the United Nations Convention on the Rights of the Child (UNCRC). Unless we take action to reduce child poverty, we cannot expect to improve children's life chances and ensure they reach their full potential.

The Scale of Child Poverty in Scotland

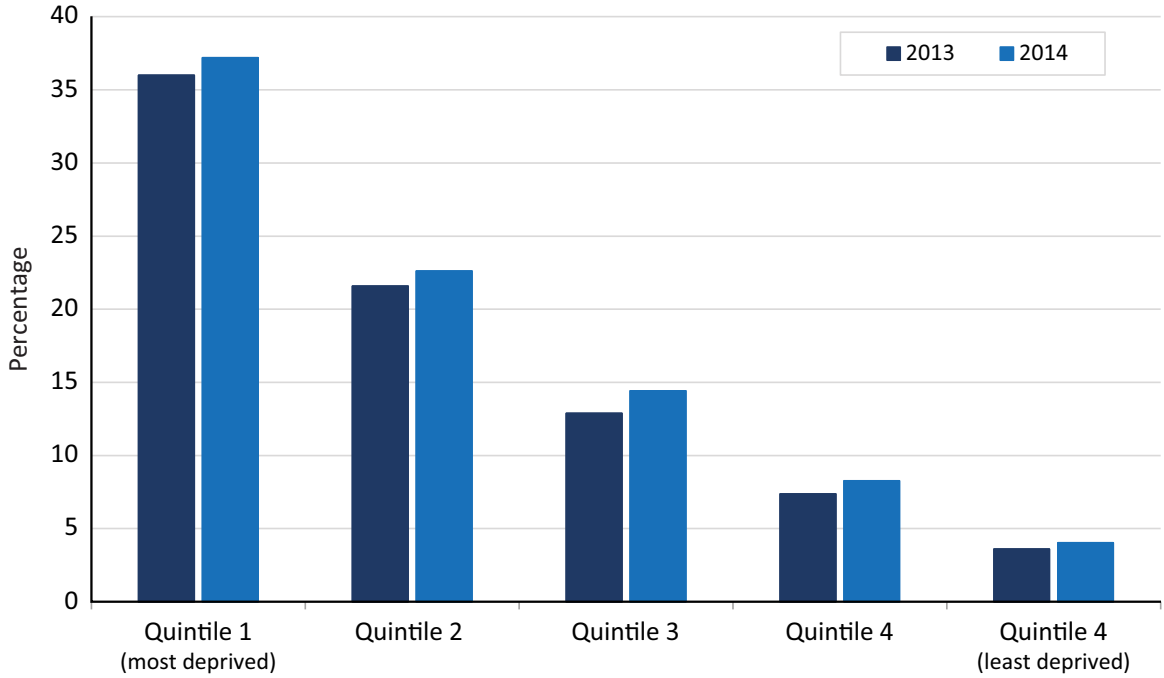
In Scotland in 2015/16, 20% of people (n=1.05 million) were living in relative poverty after housing costs were taken into account. Relative poverty is a measure of poverty relative to the rest of society and is defined as a household income less than 60% of the median equivalised net income for that financial year. Twenty-six percent of children lived in relative poverty in 2015/16 (n=260,000); 70% of those children lived in households where at least one adult worked. This is known as in-work poverty. In the same year, 18% of people (n=960,000) were living in absolute poverty after housing costs. Absolute poverty is a measure of poverty at a specific point in time and is defined as a household income below 60% of the equivalised net income in 2010/11. Twenty-four percent of children lived in absolute poverty in 2015/16 (n=230,000).[2]

Persistent poverty affects around one in five children in Scotland and is defined as living in relative poverty for three of the previous four years. Children living in persistent poverty are more likely to experience greater disadvantage than children in temporarily poor families.[3]

Risk of poverty

Child poverty is much more concentrated in deprived areas (see Figure 3.3.1). In the most deprived quintile, 37% of children lived in low income families compared to 4% in the least deprived quintile. However, although smaller in proportion, it should be recognised that not all poor children live in poor areas.

Figure 3.3.1: Percentage of children living in Scotland in low-income families, by SIMD deprivation quintile and year

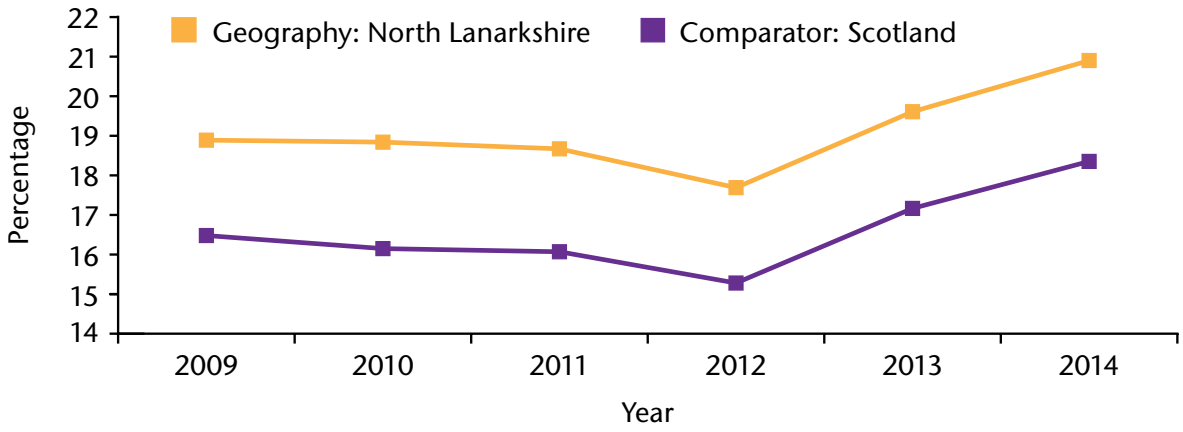


Source: HM Revenue & Customs. Personal tax credits statistics.
Graph reproduced with kind permission from NHS Health Scotland.

The Scale of Child Poverty in Lanarkshire

Since 2012 there has been an increase in the number of children in low income families. This is defined as dependent children under 20 years old in families in receipt of out-of-work benefits or child tax credits (reported income less than 60% of the UK median). Figure 3.3.2 below shows children in low income families in North Lanarkshire. In 2009, 18.9% of children were in low income families, falling to 17.7% in 2012. The latest available data for 2014 shows that 20.9% of children in North Lanarkshire were in low income families (n=15,060 children). This is statistically significantly worse than the Scotland average of 18.4%.

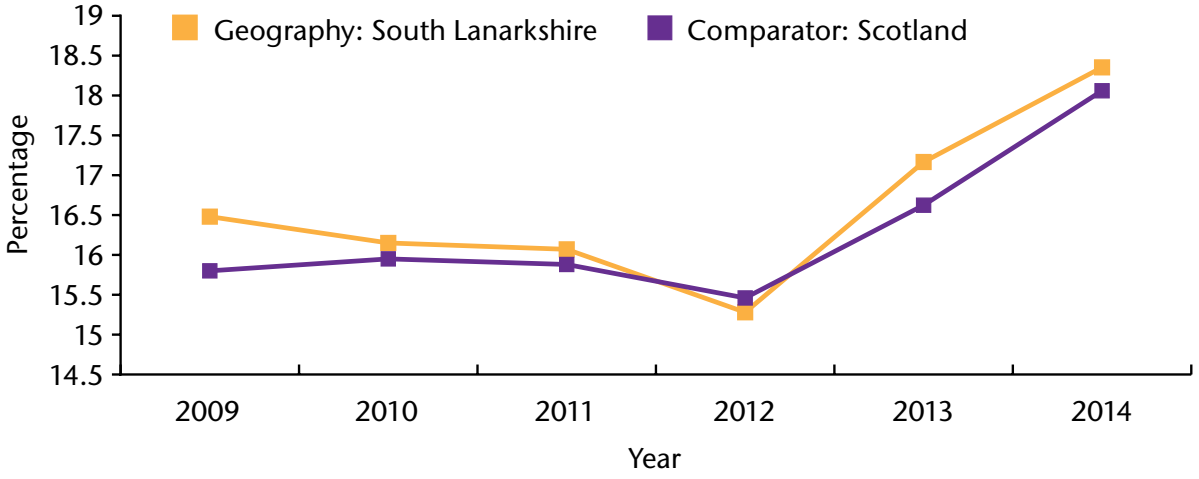
Figure 3.3.2: Percentage of children in low income families in North Lanarkshire, by year.



Source: HM Revenue & Customs.
Data accessed from Children and Young People Profile, Scottish Public Health Observatory.

Figure 3.3.3 shows children in low income families in South Lanarkshire. Following a similar trend to North Lanarkshire and Scotland, children in low income families decreased from 15.8% in 2009 to 15.5% in 2012. By 2014, children in low income families had risen to 18.1% in South Lanarkshire (n=11,435 children). This is statistically not significantly different to the Scotland average of 18.4%.

Figure 3.3.3: Percentage of children in low income families in South Lanarkshire, by year.



Source: HM Revenue & Customs.
Data accessed from Children and Young People Profile, Scottish Public Health Observatory.

Causes of child poverty

The causes of child poverty are often confused with the consequences. There is widespread misunderstanding that poverty is caused by individual factors (such as people not wanting to work or addiction) rather than the structural factors which influence labour and housing markets, employment and social security.[4] Families living in poverty have no control over these structural factors.

Table 3.3.1: Causes of child poverty

Employment	In some areas, there are not enough jobs. Personal circumstances, such as caring responsibilities and health, are barriers to finding work; as are individual factors such as lack of qualifications and work experience.[5] Some groups face additional barriers to work, including: lone parents, those with a disability or long term condition, those with complex needs such as addiction or homelessness, and some ethnic minority groups.[6] Being unemployed can increase the risk of ill health (particularly mental health) and premature death.
In-work poverty	Being in employment does not guarantee a route out of poverty.[7] Some jobs do not provide sufficient pay or hours to provide enough income for families. Many jobs are insecure (such as those with zero-hour contracts) and offer limited workplace progression. All families, including those in work, should be supported to claim all of the benefits they are entitled to, to ensure household incomes are maximised.
Cost of living – housing, fuel and childcare	The difference in relative poverty before and after housing costs is significant and highlights the problem of affordable housing. More good quality and affordable social housing is required. People in poverty often pay more for goods and services than those on higher incomes. This is known as the 'poverty premium'. For example, paying more for energy because of the type of payment method used. Support for those on low incomes should be available to tackle fuel poverty and the poverty premium. Lack of affordable, good quality childcare is a barrier for some parents. The expansion of early learning and childcare entitlement in Scotland to 1,140 hours per year is likely to positively impact on employment (particularly for females). Research suggests that universal childcare coverage is the most effective way of addressing women and children's poverty.[8] Earlier intervention has a positive impact on children's outcomes. Pre-school programmes show a much higher return on investment than primary schooling, particularly if high quality and educational rather than simply care.
Social security benefits	The social security system was established to provide a degree of income protection for people who cannot work (children and pensioners) and working-age adults who are currently not in work or whose incomes from work are insufficient to allow for independent living.[9] A reduction in welfare spending due to Welfare Reform means that benefits do not provide families with adequate income to keep them out of poverty. Child benefit covers only 21% of the cost of a child for a couple and 16% for a lone parent.[10] The impact of social security changes is unequally distributed across population groups with some being more affected e.g. lone parents, large families and those with a disability.[11] Households in the bottom two income deciles are expected to be £800-1,000 worse off each year, increasing to £3000 per year for families with children and no one in paid work.

Consequences of child poverty

Poverty negatively affects children's health and development, educational outcomes and future employment opportunities. Poverty can lead to low self-esteem, isolation, stigma and social divisions.

Table 3.3.2: Consequences of child poverty

Health and development	Child mortality is significantly higher in the UK than in other Western European countries.[12] Countries with a higher proportion of children living in relative poverty have higher infant deaths. It is estimated that eliminating child poverty in the UK would save the lives of 1,400 children under 15 years, every year. Children in the lowest income group (compared to the highest income group) were more likely to have mothers who smoked in pregnancy (49% vs. 8%), were not breastfed (55% vs. 19%) and were more likely to have high social, emotional and behavioural difficulties at age 8 (18% vs. 3%).[13] Income has a positive impact on health, particularly on birthweight and other early childhood outcomes. Income may affect children's outcomes by positively influencing maternal mental health, parenting and the home learning environment.[14]
Attainment	Children from low income households do significantly worse at school than those from better-off households.[15] At age five, there is a 10 month gap in problem solving and a 13 month gap in vocabulary between the most and least deprived groups. Literacy gaps at Primary 4 continue to widen at Primary 7. Those from the most deprived families leave school earlier and are less likely to go into further or higher education, employment or training. Low attainers are more likely to be unemployed or work in part-time, low paid jobs. In addition, schools should be aware of the cost of the school day (uniforms, equipment, school trips) and those who may be suffering from hunger at weekends and during holiday periods.
Life chances	Mid-teens to early adulthood is an important time for preventing and mitigating the impact of poverty.[16] Some groups of young people are at higher risk of poverty, including ethnic minority groups, young disabled, young carers, young parents and care experienced young people. For example, early pregnancy has a negative impact on transition from school to work, with young mothers more likely to have lower educational qualifications and employment levels. Four key issues influence youth employment: skills development and transition from school; access to the labour market; low quality employment (in 2016, 53% of young people earned less than the Living Wage compared to 20% of adults); and place of residence and reliance on public transport to look for work. More affordable housing options are needed. Young people in the private renting sector spend more of their income on rent (24%) than those who own their home and pay a mortgage (9%).

Legislation & policy context

A range of legislation supports work to tackle inequality and poverty in Scotland. The Scottish Government has recently consulted on a Socioeconomic Duty which will ensure public bodies consider how their decisions may impact on inequality of outcome caused by socioeconomic disadvantage. The Community Empowerment Act 2015 strengthens local community involvement in planning and decision making, with a particular focus on tackling inequalities and locality area disadvantage. The Children and Young People (Scotland) Act 2014 ensures children and young people are at the centre of planning and service delivery and that their rights are respected across agencies. Socioeconomic barriers to learning will be tackled by the Education (Scotland) Act 2016.

The Scotland Act 2016 provides the Scottish Parliament with a range of new powers, including those related to income tax and some social security benefits. The Social Security (Scotland) Bill was introduced in June 2017. The Bill sets out how the eleven newly devolved social security benefits will be delivered, including establishing a social security system in Scotland. Already, the Universal Credit (Claims and Payments) (Scotland) Regulations have been introduced to provide some flexibility to the provision of Universal Credit, increasing choice and control over payments to beneficiaries.

The Scottish Government has introduced the Child Poverty (Scotland) Bill 2017 to the Scottish Parliament. The Bill sets four ambitious income-based targets to measure child poverty. These are:

- Less than 10% of children live in households that are in relative poverty.
- Less than 5% of children live in households that are in absolute poverty.
- Less than 5% of children live in households that are in combined low income and material deprivation.
- Less than 5% of children live in households that are in persistent poverty.[17]

Local Authorities and NHS Boards will be expected to report on what action is being taken locally to prevent and mitigate child poverty.

Action for change

Tackling the structural causes of poverty (such as economic and welfare policies) lies largely with the UK Government. The Scotland Act 2016 will devolve further responsibilities to the Scottish Government on welfare and taxation, which provides opportunities to tackle health inequalities through more progressive taxation, achieving a basic minimum income and more targeted public services, including increased spend in the early years.[18]

Community Planning Partners (CPPs) should work together to prevent and mitigate child poverty locally, although evidence of effective intervention is limited. There remains a widespread lack of understanding of the causes and consequences of poverty among those who can help mitigate its effects. Better understanding of poverty would allow early identification of poverty risk and reduced stigma for those already living in poverty.

Four strategies for reducing poverty have been identified and include income maximisation, education, childcare and support for lone parents.

Income maximisation

- Increase uptake of benefits. Provide money advice services in accessible settings, such as GP practices and schools, and ensure universal services are identifying those in need of financial inclusion support.
- Offer support to those at risk of and affected by sanctions.
- Improve the level and quality of local employment by paying the Living Wage and discouraging use of zero-hour contracts, through public sector employment and procurement contracts.
- Improve transport links, digital access and skills.
- Provide help to address the poverty premium.

Education

- Poverty proof the school day. Local Authorities and schools should participate in 'Cost of the School Day'.
- Provide teachers with CPD on the causes and consequences of poverty.
- Increase uptake of free school meals and clothing grants.
- Use additional resources to support those most in need, for example, Pupil Equity Funding.

Childcare

- Support expansion of high quality and flexible early education and childcare, including free preschool provision for vulnerable two year olds.
- Consider provision of afterschool clubs, breakfast clubs and holiday clubs to support low income families to balance childcare and work and to tackle hunger.

Lone parents

- Forty-one percent of children in lone parent families live in poverty compared to 24% in two-parent households. CPPs should support lone parents to work by reducing or removing barriers to employment, such as accessing affordable childcare. Support should be given to increase maternal skills and confidence for work.
- Provide services which positively support maternal mental health.

Key Points

- Child poverty is increasing.
- Child poverty can have a long-lasting and detrimental impact on children's health, attainment and future life chances.
- CPPs can and should take action locally to prevent and mitigate child poverty.

Priorities for Action

- All those working with children and families should develop an understanding of the causes and consequences of poverty.
- CPPs should use the introduction of the Child Poverty (Scotland) Bill to strengthen action to prevent and mitigate child poverty locally.
- CPPs should tackle the stigma associated with living in poverty and, where possible, fully engage with affected families in order to better deliver support services.

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3.4 Realistic Medicine – Recalibrating Need

Realistic Medicine (RM) was the first annual report (2014–15) written by Dr Catherine Calderwood, the Chief Medical Officer (CMO) for Scotland.[1] In it, she set the challenge of thinking differently about health care in Scotland and posed some important and thought provoking questions to healthcare workers on a number of pertinent issues (Figure 3.4.1). Realistic Medicine in essence puts the person receiving health and care at the centre of decision-making and encourages a personalised approach to their care.

'Realising Realistic Medicine'

The second annual report published by the CMO encourages clinicians to take account of multi-morbidity and the overall burden of treatment and risk of harm faced by some patients and in partnership with them to consider how treatment plans might reduce this burden. By providing care in a more holistic fashion and focusing on what matters most for the patient, there are opportunities for improving patient experience and other dimensions of quality of care.

Figure 3.4.1: RM infographic

There has been incredible support and enthusiastic discussion following the publication of the report from both patients and professionals alike across the globe, with the suggestion that the principles should include the delivery of social care as well. *Realising Realistic Medicine* outlines plans for collaboration and engagement with the public and showcases work already underway in different parts of the country.[2] It focuses on creating conditions for better communication, connections and collaboration leading to a change in the culture of healthcare.

NHS Lanarkshire Initiatives

In Lanarkshire, a Realistic Medicine Steering Group (chaired by the Director of Acute Services) and the Realistic Healthcare Group (chaired by the Medical Director with input from key stakeholders across NHS Lanarkshire and the Health and Social Care Partnerships) has coordinated the development of a number of local initiatives across all services. The groups recognise the need for a multi-faceted approach to implementing RM so that in due course RM will become 'business as usual'. The CMO's vision is that "by 2025, everyone who provides healthcare in Scotland will demonstrate their professionalism through the approaches, behaviours and attitudes of RM".

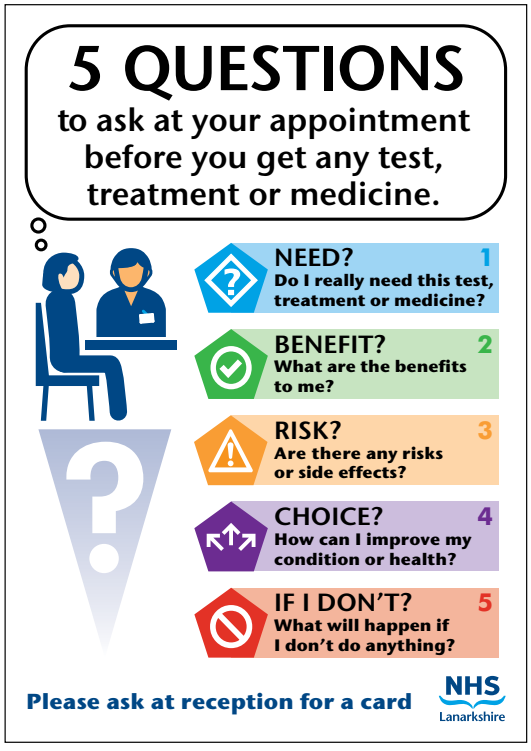
A virtual intelligence group to support the implementation of the evidence related to RM was set up in the initial phase and led to the scoping of a number of key areas of work. The group developed a commissioning template that was shared with all the work streams implementing Achieving Excellence, the healthcare strategy for NHS Lanarkshire, to ensure that the RM agenda is embraced.

The following list summarises a number of initiatives developed across NHS Lanarkshire embracing the RM vision:

- The Prescribing Quality and Efficiency Programme.
- A person-centred approach to aid decision making in relation to second eye cataract removal.
- Emphasis on tonsil hygiene that will support patient decision making and self-management in the watchful wait period following initial nurse led assessment of symptoms. This initiative endeavours to reduce return appointments by providing a virtual follow up thus releasing capacity, improved tonsil self-managed care and reducing the need for tonsillectomy.
- Building on alternative approaches to the management of heavy menstrual bleeding before consideration of hysterectomy.
- Adopting a Realistic Medicine approach to vetting for endoscopy and some out-patient referrals.
- Trialling of a group to support ethical decision-making in acute services.
- Adding in the option for GPs to request advice rather than an out-patient assessment across all specialties (already occurs for urology).
- Re-designing the referral pathway for colonoscopy to avoid straight to test for some patients.
- Implementing the 'House of Care' model that supports and enables people to articulate their own needs and decide on their priorities, through a process of joint decision making, goal setting and action planning.
- Use of Outcomes Star Action Plan in Addictions & Criminal Justice services.
- Development of Hospital and Community Anticipatory Care Plans.
- Use of advance statements in mental health services.

'5 Questions' and Shared Decision Making

Work is also underway to introduce the '5 Questions' to enhance shared decision making. This initiative is about ensuring the patient and doctor or other healthcare professionals are equal partners in deciding whether a test or treatment is wanted or needed. To be able to do this, patients need information about all the choices, understand these choices (including the benefits and harm) and be a partner in deciding which choice is best for them. Information on what patients can do to improve or manage their own health, reducing the need for health care, is also needed. Healthcare professionals need to listen and understand about patients' lives and preferences.



NHS Lanarkshire's response to RM was also presented at 'Realistic Medicine - Can it be Done?', a conference held in August 2017, led by the CMO. A Realistic Healthcare conference in NHS Lanarkshire is being planned for spring 2018.

Key Points

- Realistic Medicine is about putting the person receiving health and care at the centre of decision-making and encourages a personalised approach to their care. It challenges healthcare workers to think differently about providing healthcare.
- The six principles of RM include shared decision making, personalised approach to care, reducing harm, waste and unwarranted variation, managing risk better and becoming improvers and innovators.
- NHS Lanarkshire is focusing efforts on a number of initiatives to support the implementation of the principles of RM which in due course should become business as usual.

Priorities for Action

- There needs to be continued focus in NHS Lanarkshire on 'Realising Realistic Medicine' which, as a holistic approach, will lead to significant improvements in the quality of care provided.
- It is important for staff and patients to consider additional actions that require to be taken to help clinicians apply the principles of Realistic Medicine and embed them within routine practice.
- All the work streams taking forward the implementation of Achieving Excellence, the healthcare strategy for NHS Lanarkshire, should ensure that the RM agenda is embedded within their work areas.

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3.5 Self-Management – From Lifestyle Management to Technology Enabled Care

Self-Management refers to a variety of approaches taken to help people living with long term conditions to manage their own health effectively. Patients are recognised as experts in their own health and by providing support, improved health outcomes, patient experience and improved compliance with treatment, a decrease in emergency hospital admissions is evident.[1]

The concept of supported self-management has now been embedded within national policy for nearly a decade. *"Gaun Yersel!" The Self-Management Strategy for Long Term Conditions in Scotland*[2] was published by the Scottish Government and the Long Term Conditions Alliance Scotland (LTCAS) in 2008. This document set the direction of travel for adopting person-centred care in subsequent health policy and strategic action plans. Since then, many services across NHS Lanarkshire have introduced a variety of self-management support for people with individual long term conditions (LTCs), these range from patient education courses and resources to specific self-management action plans.

Supported Self-Management

Asthma Action Plans and Chronic Obstructive Pulmonary Disease (COPD) Management Plans were issued to all patients either via specialist services or primary healthcare practitioners. In addition, the COPD Rescue Medication Pack was aimed at patients with a history of frequent exacerbations and/or hospital admissions. NHS Lanarkshire advocates the use of the My Lungs My Life (mylungsmylife.org) website, which is a comprehensive online educational resource for people with asthma (adults and paediatrics) and COPD.

Staff in Lanarkshire have developed bespoke self-management education for people with diabetes. ADAPT (Adjusting for Diabetes, A Programme for Type 1) enables around 90 people each year to optimise their glycaemic control, thus reducing the risk of complications. STEP (Self-Management Type 2 Education Programme) focuses on diet, activity, medication and knowledge and around 300 people refer themselves each year to improve their diabetes control and quality of life.

In recent years, the Stroke MCN has worked in partnership with The Thistle Foundation to deliver a Lifestyle Management Course to people following a stroke or transient ischaemic attack (TIA).

Lifestyle Management

As part of the Primary Care and Mental Health Transformational Programme, the House of Care work stream has identified the need to support people with LTCs to be prepared for their care and support planning consultation, whether that be with a primary care or specialist healthcare professional. It was also acknowledged that many people with one or more LTCs find it difficult to not only engage with the self-care advice provided, but often experience a decline in wellbeing and, in many instances, reduction on functional capacity.

The first Lifestyle Management Course was delivered to a group of seven patients and six local facilitators from April to June 2017. The ten week course focuses on what matters to the individual and helps them to build confidence, learn techniques to reduce stress, develop coping strategies and improve ability to live life well despite limitations by making small and important changes. The course uses a variety of methods including the introduction of movement and mobility, a variety of relaxation techniques and focus on individual topics that address the day-to-day challenges people with LTCs often face. The course uses solution focused questions helping people to become their own 'health coach', providing the motivation to make small changes that help turn vicious cycles into virtuous cycles thus making big differences to their overall wellbeing and quality of life.

Interim results of the evaluation are very encouraging with most participants reporting a positive difference within the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS). They also provided extremely positive feedback with some evidence of continuation of positive behavioural changes.

Rheumatology Occupational Therapy also provides the Lifestyle Management for Arthritis Programme (LMAP), an evidence based self-management programme for patients who have a diagnosis of rheumatoid, psoriatic or inflammatory arthritis.

In 2017, a six week Fatigue Management Programme has also been initiated at Wishaw General Hospital for patients with Rheumatoid Arthritis which follows a cognitive behavioural therapy approach to help people manage their fatigue by changing their behaviour and thinking.

The Lanarkshire Blood Borne Viruses (BBV) Prevention and Care Network also promotes a holistic approach to the development of service provision. The key focus is on the provision of advice, information and support on welfare, financial and other social issues that support self-management including dealing with the significant issues of stigma, discrimination, the law and confidentiality.

Lanarkshire Technology Enabled Care (TEC) Programme

"Scotland is an international leader in technology enabled care, supporting more people to live longer healthier lives at home or in community settings."[3] *The Scottish Government 2020 Vision*[4] and *National Clinical Strategy 2016*[5] identify the value of and encourage the development of technology which can give "people the confidence and knowledge to manage their own conditions and retain their independence."

Since 2015, NHS Lanarkshire and North and South Lanarkshire Health & Social Care Partnerships have developed and implemented a number of innovative TEC programmes to

improve efficiency, effectiveness and support those living with long term conditions, mental health and lifestyle challenges.

A number of initiatives include Home and Mobile Health Monitoring (HMHM), Videoconferencing (VC), web based platforms and Assistive Technologies. HMHM is defined as "activities that enable patients outside of healthcare settings to acquire, record and relay clinically relevant information about their current condition to an electronic storage system."[6] HMHM in Lanarkshire has been identified nationally as an example of good practice1,5 and the number of people recruited to this programme with various conditions is demonstrated in Figure 3.5.1 and Figure 3.5.2 showing a steady increase in recruitment.

Figure 3.5.1: Recruitment to HMHM by condition/service: Year 2 TEC: July 2016 – June 2017

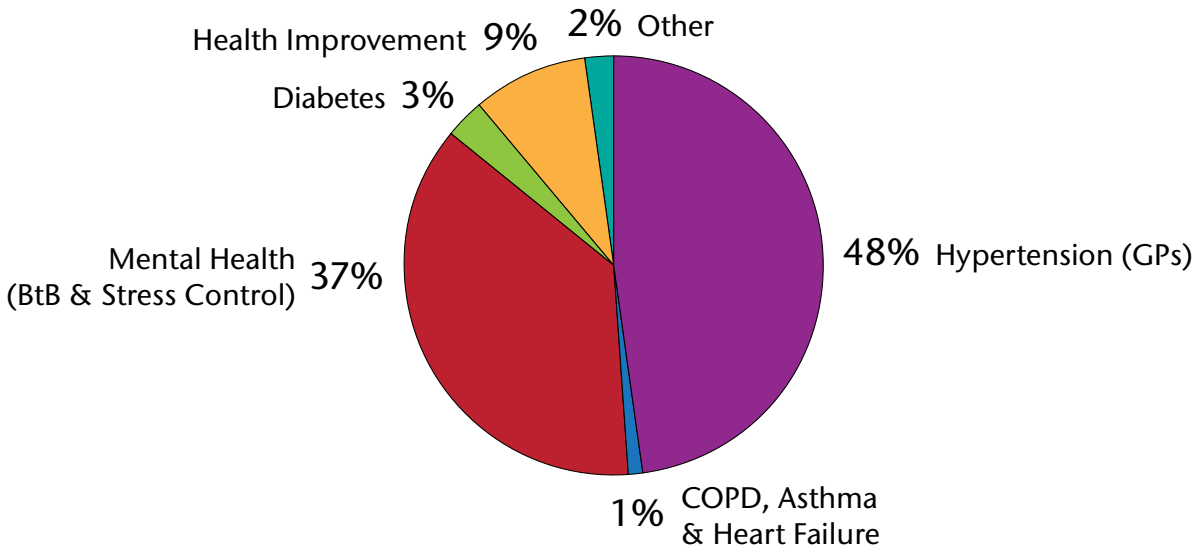
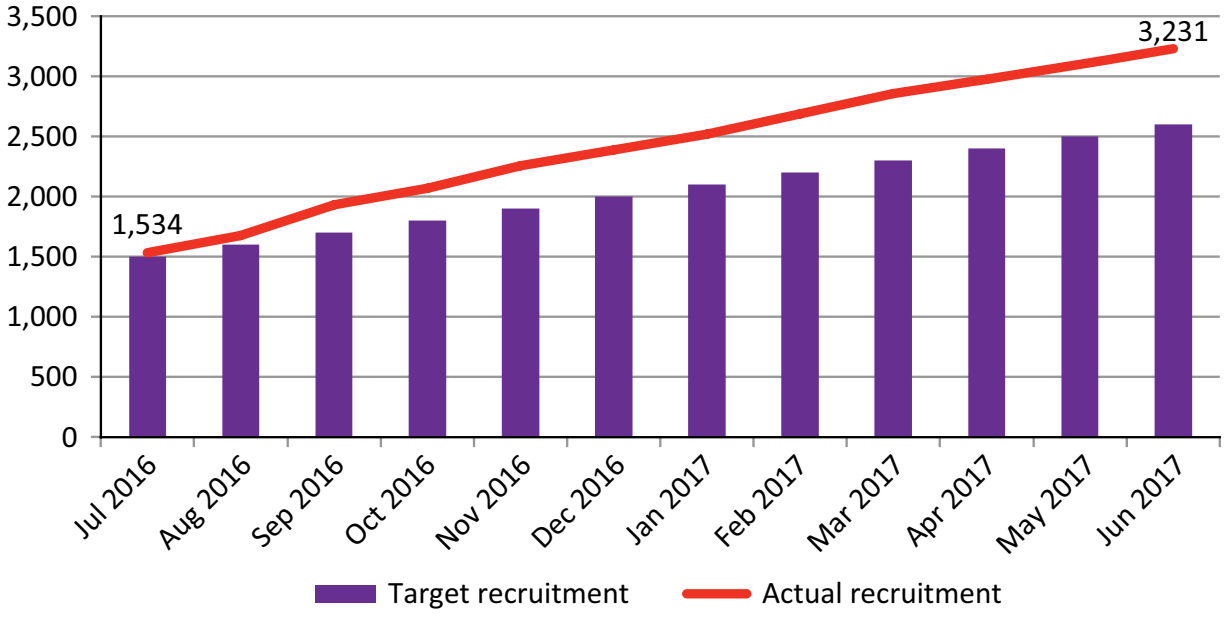


Figure 3.5.2: Recruitment to HMHM – total: Year 2 TEC: July 2016 – June 2017



The introduction of video conferencing into both local authority and independent sector care homes is providing improved access to a number of health and social services. Use of the national VC platform, Jabber, and provision of a Cisco tablet to the home is enabling training, peer support and between site liaison for staff. For residents, it provides the opportunity to receive timely clinical reviews, interventions and social activity opportunities.

Funding in year 2015/16 supported the additional development and upgrade of the Elament website[7] (Mental health) and the Making Life Easier website[8] improving accessibility and information.

Innovative assistive technology is increasingly being used to support independent living e.g. video doorbells linked to carers' smartphones, GPS monitoring, daily living activity monitoring systems, fire sensors linked to community alarms and the use of specialised applications on tablets and smart phones.

The Lanarkshire TEC programme will continue to be developed in line with the new National Digital Health and Social Care strategy due early 2018.[9]

Next Steps

As the ambitions of NHS Lanarkshire's Healthcare Strategy *Achieving Excellence*[3] are realised in relation to LTCs, it will be necessary to ensure a balanced approach between disease specific priorities and the need to develop a generic framework especially for those who have more than one LTC.

Key Points

- Self- management recognises patients as experts in their care and leads to improved health outcomes and patient experience and continues to be a national and local priority.
- The Lanarkshire TEC programme is expanding rapidly and providing people with this option to support their health and social care.
- There is work underway in both North and South Lanarkshire Health and Social Care Partnerships to facilitate engagement with the wide variety of community assets that support people with LTCs to become more independent and engaged in their own health and wellbeing.

Priorities for Action

- Maintain and further develop effective education, self-care and self-management resources.
- Ensure the evaluation of the TEC programme provides robust evidence of economic and sustainable outcomes.
- As we move forward, the health and social care needs of people living with one or more LTC will need to be addressed in a more holistic manner without compromising the support required to manage individual conditions.

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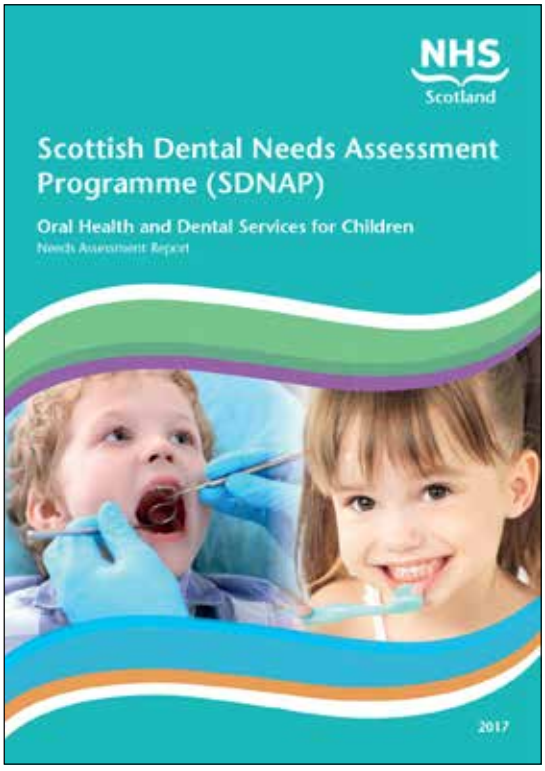
Oral Health

4.1 Oral Health and Dental Services for Children

Good oral health is an important component of overall general health and quality of life. In Scotland, dental health is widely used as an 'indicative measure' of children's general health. This is because it reflects a key 'outcome' of good parental care during the pre-school period.[1] Dental health has an impact on child wellbeing because of the consequences of dental disease such as pain, loss of sleep, reduced quality of life and disruption to a child's education.[2]

The Scottish Government has recently produced an Outcomes Framework which has set new Primary 1 and Primary 7 targets, to be met by NHS boards by 2022. While there have been improvements in children's oral health in Lanarkshire, these appear to be slowing. Current oral health activities may have reached the limit of what they can achieve and additional measures will be required to achieve further improvements. There is evidence at a national level that there have been reductions in oral health inequalities. However, targets for Lanarkshire's Primary 1 and Primary 7 children with no obvious decay experience (74.6% and 74.9% respectively by 2022) have yet to be reached (latest figures: 66.2% for Primary 1 children in 2016; 74.1% for Primary 7 children in 2017).



The Scottish Dental Needs Assessment Programme published a needs assessment report on oral health and dental services for children in March 2017. The report highlights a number of issues relating to the current service delivery model in general dental services, hospital dental services, the Public Dental Service and Childsmile. It also confirms that inequalities still exist in relation to social and geographical factors such as deprivation, accessibility to services and spread of population in rural Scotland, and as such, these factors should be taken into consideration when planning services.

The Scottish Government investment in the nursery toothbrushing component of the national Childsmile programme to prevent childhood dental decay has provided savings of approximately £5 million in dental treatment between 2001/02 and 2009/10 and has started to reduce the gap between affluent and deprived communities.[3] However, while there have been improvements in the oral health of children, there remains a group of children, mostly in deprived areas, who are hard to reach. Furthermore, there are still significant numbers of children who require dental extractions under general anaesthesia and this remains the most common elective surgical procedure.[4] These children often have complicated social care needs, and therefore there can be a requirement for specialist paediatric dental services. In addition, more children are now living with complex medical conditions than in the past, further necessitating the need for the specialist paediatric dentist.

Key Points

- New Scottish Government targets for Primary 1 and Primary 7 children with no obvious decay experience for Lanarkshire remain a challenge.
- A national needs assessment report on oral health and dental services for children was published in March 2017. Despite the narrowing of the gap in no obvious decay experience among Primary 1 and Primary 7 children in the least deprived and the most deprived areas in Scotland; inequalities still exist.
- Some children with complicated social care needs or complex medical conditions require specialist paediatric dental services.

Priorities for Action

- Develop additional activities targeted at children in hard to reach groups in order to make further improvements.
- Implement the recommendations from the Scottish Dental Needs Assessment Programme report on oral health and dental services for children.
- Continue the Childsmile programme and associated deliverables including fluoride varnishing, in order to work towards the national targets set for Lanarkshire.

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4.2 Oral Health Assessments for Head & Neck Cancer Patients

The incidence of head and neck cancer in Scotland has been steadily increasing with 1,234 cases reported in Scotland in 2014 compared with 967 cases in 2000. Of these 1,234 cases 11.2% (138 cases) were diagnosed in Lanarkshire.[1]

The Scottish Cancer Taskforce published the Head and Neck Cancer Clinical Quality Performance Indicators in 2014. These Quality Performance Indicators (QPIs) were developed to drive continuous quality improvement in cancer care across Scotland. There are 30 QPIs for head and neck cancer, one of which identifies the need for an oral health assessment. Patients with this type of cancer should have an oral assessment before treatment begins to ensure they are dentally fit prior to commencing cancer treatment. This will decrease the potential of post treatment complications such as osteoradionecrosis, a painful and debilitating condition which is extremely difficult to treat. In addition to preventing complications, a pre-treatment assessment improves the potential for a successful outcome for the patient's dental rehabilitation. The target set by Healthcare Improvement Scotland is that 90% of patients diagnosed with head and neck cancer should have an oral assessment.[2]

The Public Dental Service was asked to develop a new service which would allow all patients diagnosed with head and neck cancer in Lanarkshire to receive a dental assessment and, if required, have appropriate dental treatment carried out prior to starting their cancer treatment. The Public Dental Service commenced their assessment and treatment service for head and neck cancer patients in March 2016. Prior to the Public Dental Service's involvement, oral health assessments were carried out on an ad-hoc basis by the NHS Lanarkshire's Oral Maxillofacial team. This limited patient's treatment to the extraction of teeth rather than dental fillings to maintain as extensive a dentition as possible.

The Public Dental Service has worked closely with the Macmillan cancer nurse specialist, who is the link between the Public Dental Service and the oral maxillofacial and ear, nose and throat (ENT) consultants over the last 12 months to assess as many patients as possible. However, the target of 90% has not been reached and further work is needed to achieve this national target.

In the first 12 months of this new service 55 patients have been referred of which 80% were from the ENT team and the remaining 20% from the oral maxillofacial team. The average age of the patients referred was 60 years old with an age range between 33 and 83 years old; 76% were males and 24% were females, which is in line with what we would expect for this condition.

A total of 37 patients were treated by one of the three senior dentists in the Public Dental Service, with 251 teeth being extracted and 28 restorations being completed. The average number of teeth a patient had extracted was 4.5. Two patients chose to return to their registered general dental practitioner to have the necessary dental work completed. The remaining 16 patients had their treatment under GA at the time of their cancer surgery.

The treatment provided by the Public Dental Service was completed in an average of 3 days post assessment and no patients failed to complete their treatment.

This new service has allowed patients diagnosed with head and neck cancer early intervention from the dental team which has prevented delays in starting their cancer treatment. It has allowed the dental team to deliver the vital dental preventative advice that is required in this group of patients who due to their cancer treatment are very susceptible to dental problems in the future.

Key Points

- All patients diagnosed with head and neck cancer should have a dental assessment prior to commencing cancer treatment. While the target has not been met, it is important to recognise the service is in its infancy and the Public Dental Service is looking at ways to improve the referral pathway from the acute sector to our dental team.
- Assessment and treatment should be carried out within 2 weeks of referral to prevent delays in starting cancer treatment.
- Preventative advice given at an early stage can prevent more serious complications such as osteoradionecrosis at a later date.

Priorities for Action

- Ensure all patients diagnosed with head and neck cancer are referred to the public dental service including patients who have no teeth and palliative care patients.
- Further develop a pathway for palliative care patients to allow early access support from the oral health team.
- Undertake training to increase the dental team who can undertake the dental assessments for head and neck cancer patients.

References

1 ISD Scotland. *Cancer Statistics 2016*. ISD Scotland: Edinburgh, 2017. Available from: www.isdscotland.org/Health-Topics/Cancer/Cancer-Statistics/Head-and-Neck/#summary [Accessed: 13th April 2017].

2 Healthcare Improvement Scotland. *Head and Neck Cancer Clinical Quality Performance Indicators*. HIS: Edinburgh, 2016. Available from: www.healthcareimprovementscotland.org/our_work/cancer_care_improvement/cancer_qpis.aspx [Accessed: 13th April 2017].

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Statistical Appendix

List of tables

Appendix document

The data tables are available in a separate document at the following link:
www.nhslanarkshire.org.uk/publications/Documents/Public-Health-Report-2016-17-Appendix.pdf

General notes:

- Lanarkshire has two Health and Social Care Partnerships (HSCPs) – North Lanarkshire and South Lanarkshire. The HSCPs cover the same geographical areas as North Lanarkshire Council and South Lanarkshire Council. There are ten localities within the HSCPs – six in North Lanarkshire (*Airdrie, Coatbridge, North, Bellshill, Motherwell and Wishaw*) and four in South Lanarkshire (*Cambuslang/Rutherglen, East Kilbride, Clydesdale and Hamilton*) – **see map on page iv**. On 1 April 2014, changes to NHS board boundaries resulted in NHS Lanarkshire becoming coterminous with the HSCPs and local authorities. The tables in the Statistical Appendix indicate whether information relates to the old or new NHS Lanarkshire boundary, the exception being where all data relate to April 2014 onwards.
- Populations shown and used in rates calculations are, for NHS Lanarkshire, the HSCPs and Scotland, mid-year estimates produced by National Records of Scotland (NRS). Locality populations are from NRS small area population estimates at data zone level.

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