2013-14

Director of Public Health

annual report

NHS Grampian

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Foreword

As I complete my third Director of Public Health Annual Report, the implementation of the Public Bodies (Joint Working) (Scotland) Act 2014 is moving at pace with preparations for the establishment of the three Integrated Joint Boards (IJBs) in Grampian.

This, coupled with the Community Empowerment (Scotland) Bill 2014, will provide unprecedented opportunity to address the enduring inequalities across our communities. Together these pieces of legislation will create an increasingly strong platform for co-ordinated action with communities and rooted in localities.

The DPH Annual Report 2013-14 provides an overview of the improving health status of the population, the associated challenges of inequalities, ageing and long-term conditions. It sets out a vision for Public Health 2020 and the opportunity for a resilient Grampian where we can transform the ways we think about health and deliver aspects of care by adapting to new challenges. The report illustrates how some of our current work is helping. It identifies ways in which this work can support the endeavours of colleagues within NHS Grampian and Community Planning Partners to play their part in public health - as everyone's business - to realise our aspirations for equitable healthier life expectancy. It provides an evidence-based tool to inform engagement with communities, planning and service delivery.

The report builds from my previous DPH Annual Report 2012 with each section including key messages to foster the conditions - for engagement and cultural shift - which will help to accelerate changes in improving health, particularly for those whose needs are greatest.

Effective partnership and leadership within and across our communities and our services will be essential for success. We have a long history of working together in Grampian. We need to seize the current opportunities to enhance our progress.

I am particularly grateful to the editor of this report, Dr Linda Leighton-Beck, who again ably led a team of contributors each of whom is acknowledged below.

This report is available in hard copy. It is also available at www.nhsgrampian.org/dph and http://www.hi-netgrampian.org/hinet/8354.html.

Sir Lewis Ritchie
Director of Public Health
NHS Grampian

Acknowledgements

Authors

Dr Mary Bellizzi; Dr Corri Black; Fiona Browning; Eleanor Bull; Caroline Comerford; Jillian Evans; Julie Fletcher; Dr Gillian Flett; Jenni Haxton; Dr Simon Hilton; Dr Jamie Hogg; Carolyn Lamb; Geraldine Lawrie; Dr Linda Leighton-Beck; Chris Littlejohn; Aileen MacVinish; Dr William Moore; Dorothy Ross-Archer; Laura Sutherland; Susan Webb; Dr Diana Webster; Marlene Westland.

Editorial Group

Nicola Beech; Dr Corri Black; Fiona Browning; Linda Smith; Susan Webb.

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Editor

Dr Linda Leighton-Beck.

Executive Summary

In **Section 1**, we identify some of the key features of the current health of the population of Grampian, the threats and the opportunities. **In Section 2**, we set out our aspirations for a healthier future. **In Sections 3-7**, we look at how some of our current work, in conjunction with our partners, is supporting greater resilience at organisational, community and individual levels and creating the conditions to tackle health inequalities. **In Section 8**, we make some concluding comments.

Since the founding of the NHS, more people live considerably longer. In 1948, the average life expectancy for a new born male was 66 years (70 years for females). Scotland has the highest rates of premature mortality in the United Kingdom. However the death rate of those aged under 75 has declined over the short and long term. It is estimated that one in three babies born in the United Kingdom today will live to their 100th birthday. In Grampian, the overall picture is also one of declining premature mortality with many factors contributing, from universal healthcare to health and safety and other legislation.

These changes have benefited some, but not all, of our population as we noted in the DPH Annual Report 2012. Our task must be to address the substantial variation in premature mortality rates across our Local Authorities in Grampian. Age and sex adjusted premature mortality rates for intermediate data zones range from the lowest death rates at 134, to the highest at 687, per 100,000 per annum.

Where and how we live, whether and how we are employed, and our education, affect the health of our population. We still live in a country where, for example, 9% of adults aged 16 to 64 have no qualifications, an estimated 8% of 16-19 year-olds in Scotland (4% in Grampian) were not in employment, education or training; and 35% of pupils in Scotland aged 13-14 were not working within the relevant curriculum level.

Demographic and health trends are built over years and can take many years of focused action to reverse. We continue to highlight the pressures from an ageing population with a growing burden from complex, multiple, long-term conditions. By 2037 the Scottish population aged 75 and over is projected to increase by 86% and in Grampian by 93%. The demand for, and associated costs of, all health and social care services increase with age. Deprivation influences both the amount and the type of multiple conditions, with multi-morbidity occurring 10-15 years earlier in deprived compared with affluent areas. It is estimated that almost 50% of the gradient in mortality associated with socioeconomic status in later life can be explained by early life experiences.

Deprivation was also particularly associated with multi-morbidity that included mental health disorders.

We live with challenge, change and uncertainty. The pace of change permeates every aspect of our lives from urbanisation and immigration to communication and technology. Grampian continues to evolve as a region with rapid urbanisation in some areas. Nevertheless, 31% of our population live in rural areas.

Whilst Grampian has a relatively stable population it is also becoming more culturally diverse. The region has had more than a five-fold increase in the African ethnic population between the 2001 and 2011 census. The last decade has also seen a significant rise in the population of Eastern Europeans, and in particular Polish citizens, living and working in Grampian. The proportion of National Insurance Registrations in 2003, in Grampian, from Eastern Europeans was 4.5% rising to 51.2% in 2013.

The continued growth in digital technology means more and more information is available to manage, secure and navigate. NHS Grampian has harnessed this new technology in innovative ways to enhance the quality of patient care from prescribing and dispensing to the management of patient records.

We also acknowledge a range of uncertainties - political, economic, climactic, biological - which may impact on our health at many levels creating challenges and potential opportunities.

These provide the backdrop for achieving sustainable change in improving health. The convergence of pressures from an ageing population, increasing multiple long-term health conditions and health inequalities make these challenging times in Grampian, as elsewhere. The evidence, needs and reasons for change are compelling. We recognise that this is not easy. Our partnerships across communities and agencies are the starting point for increasing clarity about the outcomes for health at all levels and the means to achieving these.

In Grampian, we share Scottish Government's vision of a future where more people will live longer independently and in good health. We are using the nationally devised 3-Step Improvement Framework to take forward NHS Grampian's vision for 2020 which sets out the very different future we wish to achieve. A future where fewer people die prematurely, are healthier because they take, and are supported to take, responsibility for their own health and are less dependent on health services. The savings have been invested in increasing the efficiency of services tailored to individual needs.

Our vision for Public Health reflects an increasing focus of effort on preventing ill-health and promoting the wellbeing of our population to ensure healthy life expectancy for all, and reducing the difference between those in our most and least deprived communities. We recognise that people need to be supported to actively manage their own health and clinicians supported to allow them to do so. A 5% increase in self-care could reduce professional demand by 25%, while a 10% decrease could increase demand for professional care by 50%.

Locally, as well as nationally, this will require transformational change - in the way we think of ourselves, our communities and our services. A range of factors interact to determine health and wellbeing. These include individual lifestyle factors, social and community networks, living and working conditions, socioeconomic, cultural and environmental conditions. A strengthening alliance of Grampian residents and agencies is best suited to tackling this complex agenda and what needs to be different by 2020. Improving and protecting health on moral, social and economic grounds is everyone's business - NHS colleagues, other public, private and third sector organisations, communities and individuals.

Where there is a will, we must find a way. In Sections 3-7, we look at how some of our current work, in conjunction with our partners, is supporting greater resilience at organisational, community and individual levels and creating the conditions to tackle health inequalities. We illustrate how increasing resilience in Grampian can enable individuals, communities and organisations to cope and make the most of pressures, changes and uncertainties.

Reliance on professionals to identify, prevent, and remedy the challenges we face will be insufficient to maintain the relatively recent gains in our health and wellbeing. As organisations, communities and individuals we need to be resilient in the face of demographic, economic, and ecological challenges by adapting and generating new ways of thinking and functioning in the context of change. Resilience is a common thread that can bind multiple efforts together, effectively supporting integration.

Creating resilience in Grampian can help us to make the most of the pressures, changes, uncertainties and opportunities. In supporting public service reform, resilience can be incorporated into our planning and delivery of services as a desired outcome. We provide a range of examples through valuing public resources and services, available to all, proportionate to need, investment in early years, and ownership, participation and involvement in co-production. We illustrate a range of work which contributes to this.

A strong theme is interdependence. The programmes of work outlined in Sections 3-7 are all dependent on partnerships within the NHS and across agencies. They are dependent on partnerships with patients and communities. The gains through any intervention or service are often multiple. The approaches we describe focus on the organisation in order to benefit individuals, families and communities and *vice versa*.

The majority of the work we illustrate has the potential, when developed at scale and over time, to transform the resilience of people and communities to adapt and thrive in new circumstances.

Our work in protecting health, however, often requires a time-limited response to reduce avoidable harm. A timely response is critical in addressing all communicable disease, environmental incidents and other civil emergencies which present actual or potential threats to the health of our population. Many of these require a rapid and effective response out of office hours and depend on similar capacity from partners.

In Section 3, we look at transformational change and resilience and how these underpin our approaches to reforming public services. In the face of uncertain challenges, unpredictable events, and the transformation of traditional ways of doing things, resilience is a common thread that can bind multiple efforts together, effectively supporting integration. There are many ways in which resilience, as a desired outcome, can be incorporated into our approach to services. These include valuing public resources and services, available to all, proportionate to need, and are at the heart of Community Planning.

In Section 4, we are concerned about finding routes to a healthier future. The functions and challenges are broadly grouped around improving organisations and systems to support our transformational journey to 2020. They include protecting health, screening and intervening early, ensuring the health of children and young people, transforming patient care using technology, sustaining a resilient workforce, and providing high quality health intelligence.

In Section 5, we focus on three different slants on supporting sustainable communities, from improving our approaches to transport to using a mobile facility to increase access to services in more rural communities to using the physical assets in communities to create opportunities to improve health and reduce inequalities.

In Section 6, we address improving services and tackling health behaviours. We discuss mental health and wellbeing, and how a social prescribing initiative aims to provide early support. We provide key messages on reducing the harm of alcohol, promoting positive sexual health, working with schools to help children achieve a healthy weight, and increasing levels of physical activity. Many examples illustrate the importance of prevention, support for self-care, making the most of the contact which the NHS and other services have with patients/clients to reinforce simple health messages, signpost and refer to relevant help.

In Section 7, we assess our approach to addressing health inequalities. We identify the complementary streams of work - tackling health behaviours and addressing the social determinants of health, the 'causes of the causes'. We assess our progress using the national 3-Step Improvement Framework. Key messages focus on 'creating the conditions' which will improve our capacity and culture, across communities and agencies, helping us make a step-change at scale across Grampian.

In our concluding remarks, in section 8, we recommend the adoption and progressive implementation, at scale, of the key messages in each section of the report. These can contribute to the transformational shift we need to realise our aspirations for healthy, resilient citizens, patients and services in Grampian.

1 Health in Grampian today

1.1 Introduction

When the NHS was founded in 1948, the average life expectancy for a new born male was 66 years (70 years for females).[1] An estimated one in every three babies born in 2013 will live to their 100th birthday.[2] Improvements in the 20th and 21st centuries were driven initially by reduction in infant and childhood mortality from infection, then reduction in infection causing death in early adulthood. The reduction in premature deaths from cardiovascular disease has been a major contributor to improvement. Significant improvements in survival reflect changes across all aspects of life, including:

- Introduction of vaccination and screening programmes
- Better nutrition
- Dry, warmer houses with reduction in overcrowding
- Universal healthcare free at the point of need
- Developments in better treatments and new technologies
- Legislation: reducing carbon emission, cleaner air, reduced smoking, building standards with increased insulation
- Improved education opportunities, increasing literacy and numeracy
- Improvements in working conditions and workplaces
- A growing safety culture.

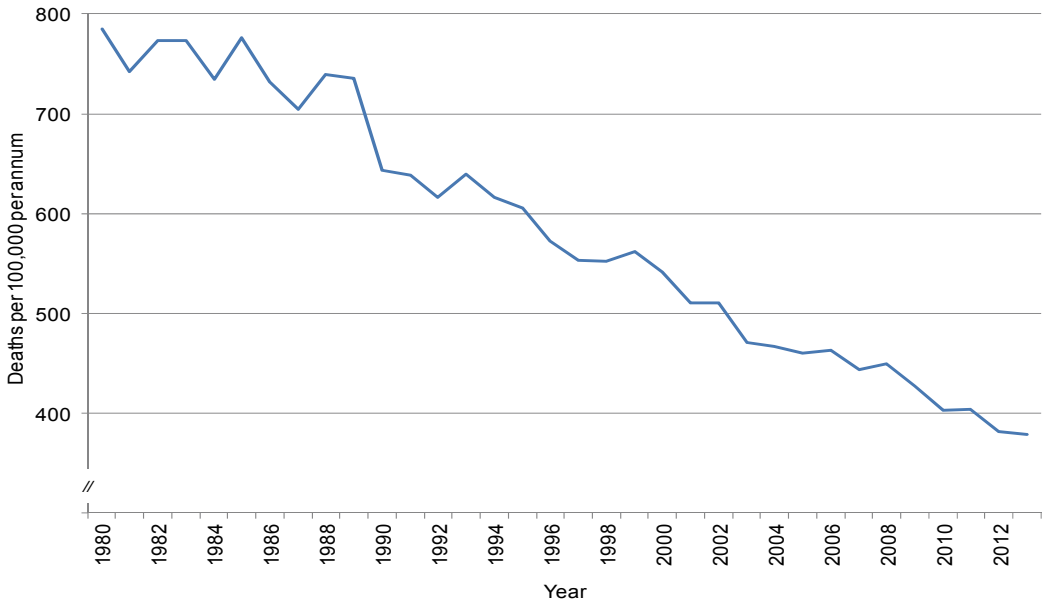
In 2012 in Scotland, the age standardised death rate for those aged under 75 was 335.6 per 100,000, an improvement over the short and long term: 3% below the rate in 2011, 24% below the rate in 2002 and 51% below the rate in 1979.[3]

Scotland, however, has the highest rates of premature mortality in the UK, as well as significant inequalities. The death rate (2011) is 3.5 times higher for those in the most compared to the least deprived areas. Relative inequalities showed a long-term increase before stabilising from around 2006.[4]

In Grampian, the overall picture is also one of declining premature mortality.

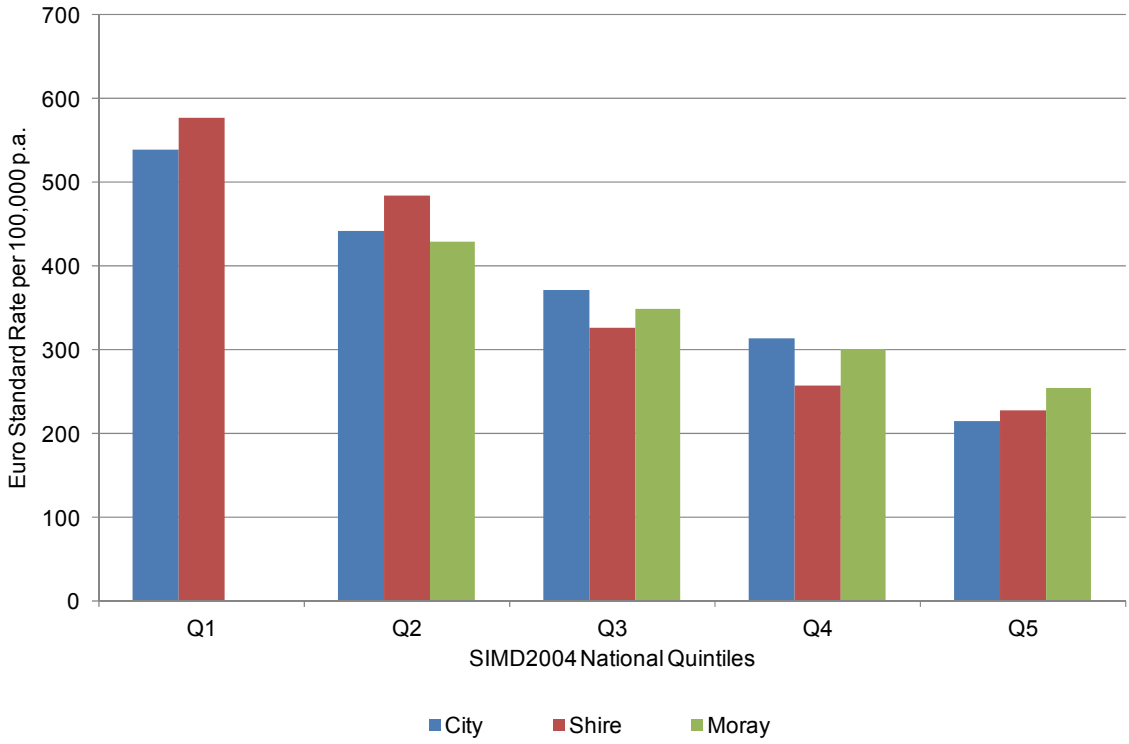
Figure 1 illustrates the significant progress we have made.

Figure 1: European Age Standardised mortality rates per 100,000 for people aged under 75 in Grampian from 1980 to 2013 by year.[5]



These changes have benefited some, but not all, of our population as we noted in the DPH Report (2012).[6] Our task now must be to address the substantial variation in premature mortality rates across our Local Authorities in Grampian (Figure 2). Age and sex adjusted premature mortality rates for intermediate data zones [7] (of which there are 1,235 in Scotland, containing on average 4,000 household residents) range from the lowest death rates at 134, to the highest at 687, per 100,000 per annum. The range for each Local Authority also varies. Rates are: for Moray 235-431, for Aberdeen 134-687 and for Aberdeenshire 135-615.

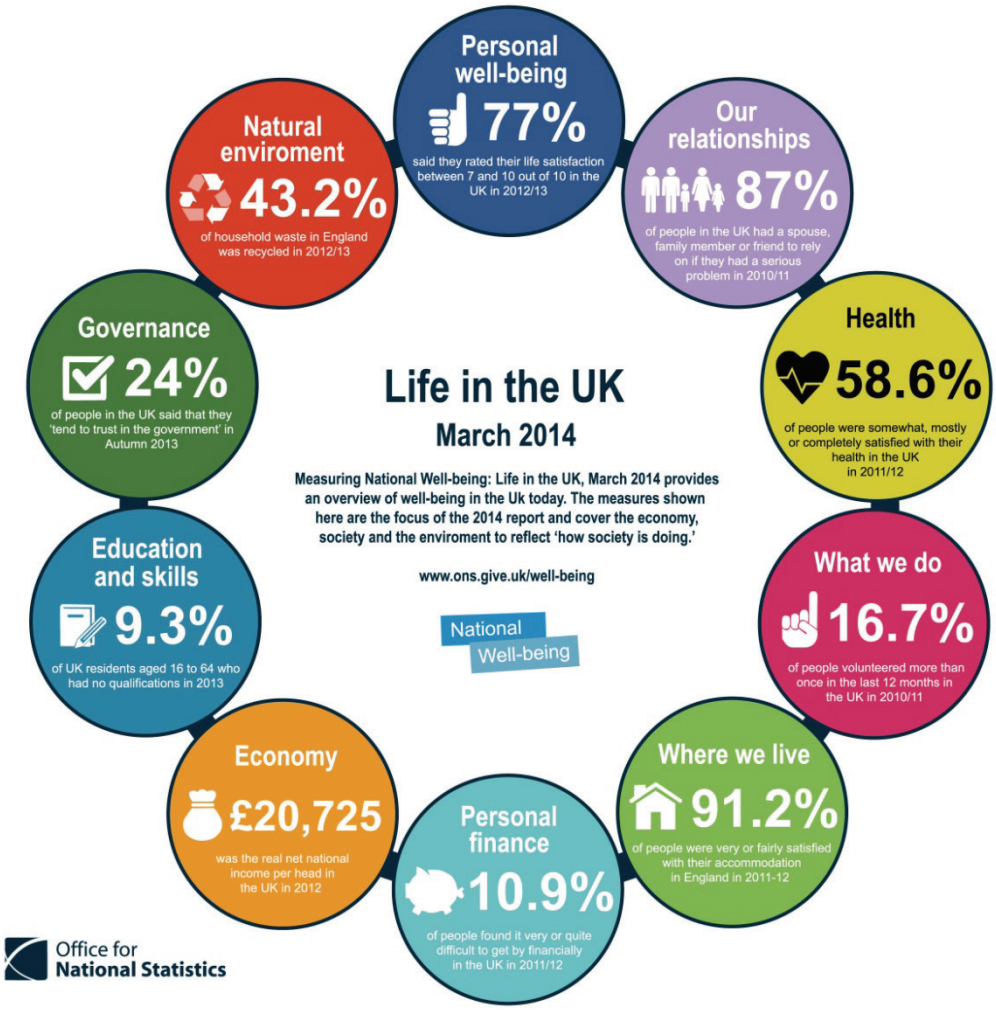
Figure 2: All Causes Mortality in Grampian (2008-12), by Local Authority Area and Scottish Index of Multiple Deprivation (SIMD) 2004 National Quintile.



1.2 Life in the UK today

Health sits within, affects and is affected by, a range of factors as Figure 3 illustrates.

Figure 3: Life in the UK today[8]



1.2.1 Life in Scotland today

Where and how we live, whether and how we are employed, and our education, affect the health of our population. We still live in a country where, for example, 9% of adults aged 16 to 64 have no qualifications,[9] 35% of pupils in Scotland aged 13-14 were not working within the relevant curriculum level[10] and an estimated 8% of 16-19 year-olds in Scotland (4% in Grampian, 2013) were not in employment, education or training.[11]

In Grampian,1 in 10 households were in extreme fuel poverty, 3,005 applications[12] were made under legislation on Homeless Persons, and 7,200 crisis grant applications were made to the Scottish Welfare Fund (April - September 2013).[13] 16% of the adult population were prescribed medication for anxiety, depression or psychosis.[14]

Audit Scotland also provides a keen illustration of this inequality (Figure 4), particularly in relation to health behaviours and outcomes.

Figure 4: Key Facts (Audit Scotland, 2012)

Whilst, as we noted, overall health in Scotland has improved over the last fifty years, '*significant differences remain owing to deprivation and other factors*'.[15]

An overview of the Health and Wellbeing profile for Grampian[16] is available at http://www.scotpho.org.uk/comparative-health/profiles/online-profiles-tool and the NHS Grampian Data Compendium is available at http://www.hi-netgrampian.org/hinet/8740.html.

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1.3 Challenge, change and uncertainty

We live in unprecedented times of challenge, change and uncertainty. Together, these bring possibility and opportunity. We need to be equipped to cope and to realise the benefits for everyone in the population.

1.3.1 Challenges to living longer healthier lives

There are three principal challenges to achieving longer, healthier lives.

- **An ageing population**

The Scottish population is ageing and Grampian will, over the next two decades, see an ongoing and substantial increase in the proportion of the population that is aged 75 years and over (Figure 5). By 2037 the Scottish population aged 75 and over is projected to increase by 86% and in Grampian by 93%.[17] The demand for, and associated costs of, all health and social care services increase with age. Grampian, however, is one of the few NHS Board areas with a projected increase in the population 0-15 years. By 2037, this will have increased by 20% in comparison with a 6% increase for Scotland (Figure 6).

Figure 5: Projected percentage change in population aged 75 and over (2012-based) by NHS Board area, 2012-2037

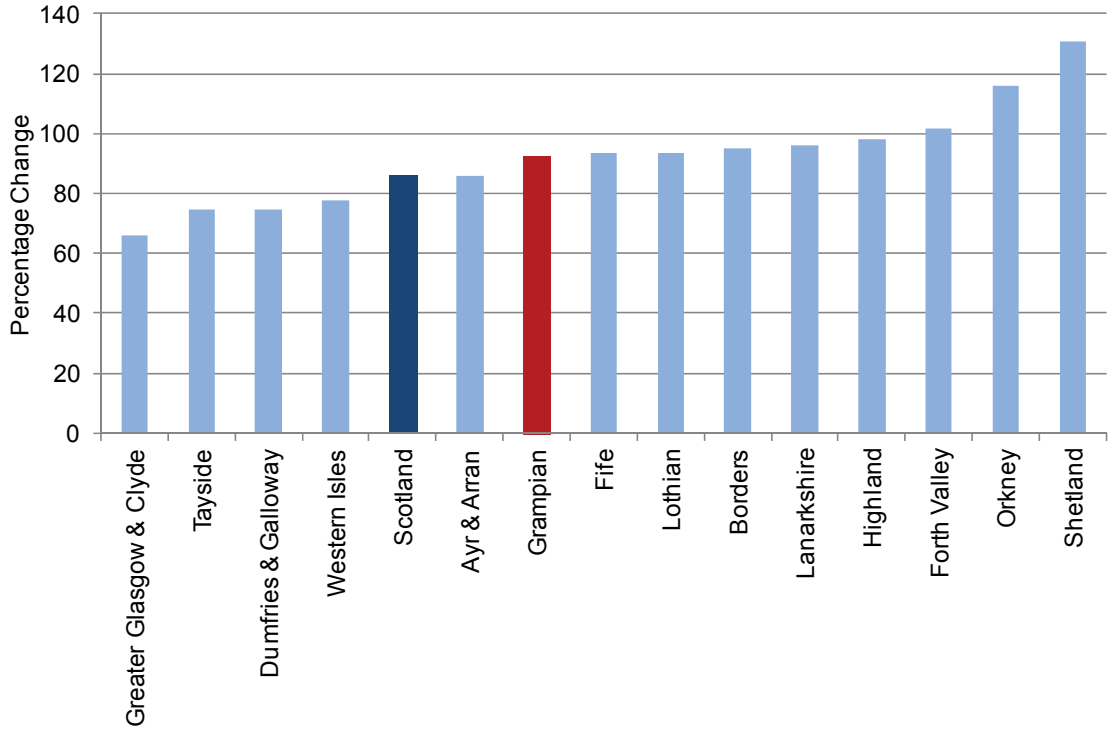
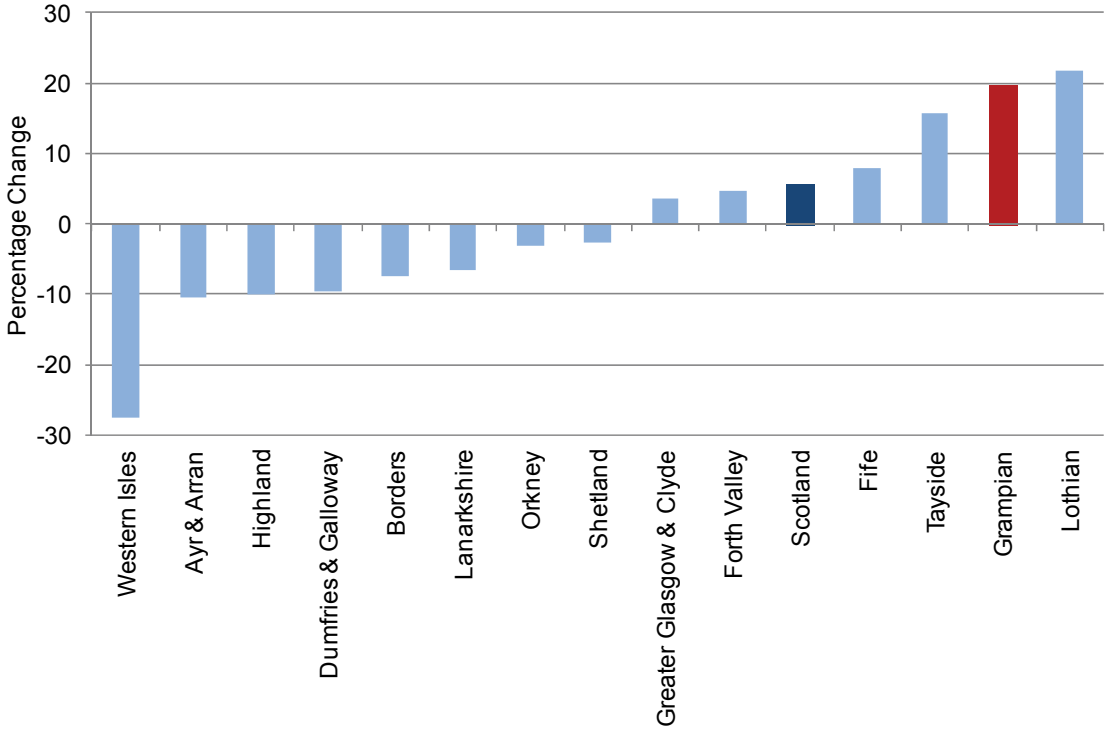


Figure 6: Projected percentage change in population of 0-15 (2012-based) by NHS Board area, 2012-2037



- **Persistent health inequalities**

Healthy life expectancy has improved for all in Scotland in the last 20 years. However, the substantial geographical and socioeconomic variations we have illustrated mean that the opportunities are not the same for all of us. Measures of the key wider determinants of health and surveys assessing our sense of wellbeing demonstrate that nationally things have improved over recent years but that inequalities are enduring.

It is estimated that almost 50% of the gradient in mortality associated with socioeconomic status in later life can be explained by early life experiences. [18] We address this issue further in **Section 4.4**.

- **Growth in numbers with long-term conditions**

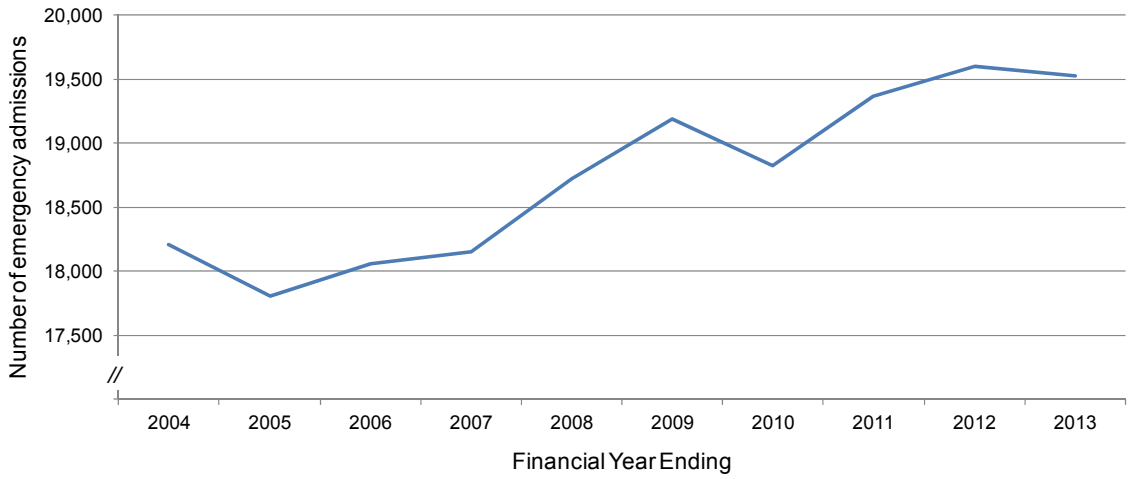
There is a continuing shift in the pattern of disease towards long-term conditions where people often have multiple conditions with complex needs.[19] Recent work by the King's Fund indicates that people with long-term conditions now account for about 50% of all GP appointments, 64% of all outpatient appointments and over 70% of all inpatient bed days.[20]

We also know, from a recent sizeable study of 315 GP practices in Scotland, that deprivation influences both the amount and the type of multiple conditions, with

multi-morbidity occurring 10-15 years earlier in deprived, compared with affluent, areas.[21] Deprivation was particularly associated with multi-morbidity that included mental health disorders.

£4.5 billion was spent on health and social care for people aged 65 and over in Scotland in 2011-12.[22] £422.3 million was spent in Grampian on health and care for those 65 and over, in the same period. In Grampian, 39% of the population has at least one long-term condition.[23] There were 19,562 emergency admissions to hospital for residents aged 65 or over, representing 41% of all emergency admissions.[24] Figure 7 illustrates the trend in emergency admissions.[25]

Figure 7: Emergency Admissions for Grampian residents from 2004 to 2013



An increased focus on prevention will help to achieve long-term, sustainable improvements in health for all.[26] In **Sections 4-7**, we discuss a range of primary and secondary prevention programmes, which address the risk of serious preventable ill-health and can reduce some of the risks inherent in living with a long-term condition.

1.3.2 The changing face of Grampian

Grampian continues to evolve as a region. There has been rapid urbanisation spread in some areas. However, 31% of our population live in rural areas.[27] The relative composition of our population, new housing, business parks and changing transport infrastructure reshape our communities - where we live and work and how we get around. In **Section 5.1** we look in more detail at the important role of transport in supporting resilient communities.

Grampian remains a region of relative population stability. Nonetheless, families are becoming more dispersed and influxes of people for work and higher education bring a diverse and changing cultural mix.

Between 2001 and 2011, the proportion of people born outside the UK increased in every council area in Scotland.

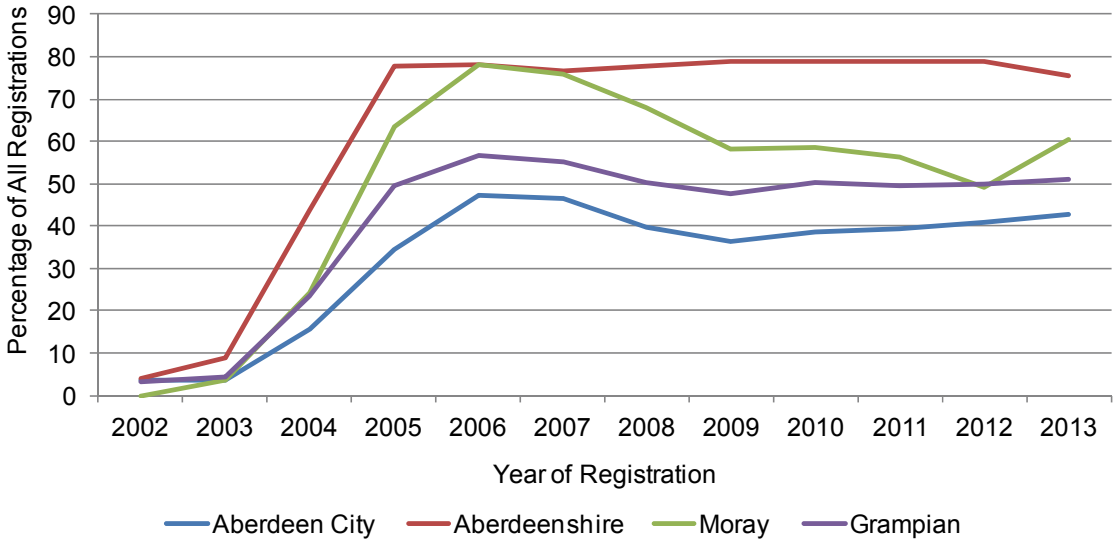
The proportion of the population reported as belonging to a minority ethnic group varied by Local Authority. The highest figures were in the four Local Authorities with the large cities: Glasgow City (12%), City of Edinburgh and Aberdeen City (8%), and Dundee City (6%). These were also the Local Authorities with the highest proportions of their population born outside the UK. Aberdeen City and the City of Edinburgh had the highest proportions (around 1 in 6, or 16 per cent).

Grampian has also seen more than a five-fold increase in people from Africa between the 2001 and 2011 census[28], with 90% of the increase in Aberdeen City.

In the last decade there has also been a significant rise in the population of Eastern Europeans living and working in Grampian[29] (Figure 8). Of these, the greatest numbers of new National Insurance Registrations from all overseas countries were from Polish citizens. The proportion of registrations in 2003 in Grampian, from Eastern Europeans, was 5% rising to 51% in 2013.

Aberdeen City has the largest number of registrations in Grampian. In 2003, there were 56 registrations from Eastern Europeans. In 2013 there were 2,105. For Aberdeenshire the figures were 34 and 1210, and for Moray, 5 and 195 respectively. In Aberdeenshire, Eastern Europeans accounted for more than three quarters of all registrations. In Moray and Aberdeen, the proportion was lower, 61% and 43% respectively, in 2013.

Figure 8: National Insurance Registrations from Eastern European nationals as a percentage of adult registrations from all overseas countries



1.3.3 Impact of information and communications technology

We are reshaping the way we communicate with each other, with businesses and with health services through the ongoing rollout of higher speed broadband, along with the array of mobile communication technologies. In 2013, 73% of UK adults used the internet every day (anywhere and on any device) - a significant increase from 16% in 2006.[30] We illustrate, in **Section 4.5** some innovative work to harness digital technology to promote health and enhance the quality of care.

The continued growth in digital technology means more and more information is available to manage, secure and navigate to realise its potential benefits. However, it is important to remember that these benefits are not equally spread. In parts of Grampian, internet access remains slow. In the UK, only 1 in 4 people aged 75 and over report access to the internet.[31]

Within healthcare, we have seen significant developments in the last few years. The continued rollout of the electronic patient record in Aberdeen Royal Infirmary is beginning to reduce our reliance on the transfer of paper notes. Sharing the emergency care record supports better, safer care as patients transfer from primary to the acute sector. Digitalisation of dispensing in community pharmacies is facilitating shared roles around prescribing and dispensing between GPs and pharmacists. As we improve the recording of information across the health service, we need to ensure that we are able to harness the information to optimise care, support patient safety and drive service quality improvement. Better data must also improve our surveillance of health, care and needs of the Grampian population.

1.3.4 Recognising uncertainties

We live with a lot of uncertainty at many levels, locally nationally and internationally.

Politically, 2014 is an important year for Scotland, our place in the UK and Europe.

Changing weather patterns, high winds, flooding, coastal erosion and snow have shaped our communities and our lives. Climate change is predicted to bring unstable weather. Whilst some direct effects on health may occur, the main effect expected is exacerbation of long-term conditions.[32]

The impact of new and re-emerging infectious diseases in the future is uncertain. The European Union (EU) and World Health Organisation (WHO) have identified antimicrobial resistance as a priority. An estimated 25,000 patients die in the EU each year from multi-drug resistant bacteria. Ongoing surveillance, the stringent use of transmission control measures and wise use of antibiotics will be important in managing this uncertain risk.

1.4 Achieving sustainable change

To achieve long-term sustained improvement in health for Grampian, the evidence returns to areas that are not new.[33] However, these are now underpinned by better knowledge of how physical, social and economic conditions contribute to health and wellbeing, alongside direct healthcare provision.

We have a long history of partnership working in Grampian. The opportunities to improve health and wellbeing in the coming years will heavily depend on greater and more successful partnerships, with a clear focus on outcomes. For success, enabling everyone in Grampian to have the best opportunities for long, healthy lives, we need to:

- Optimise all of the assets available to us to work more effectively - in common cause.
- Encourage early partnership consultation in all key decisions which affect our communities, including Rapid Health Impact Assessment.
- Strengthen partnership priorities, direction and resolve.
- Draw on the growing evidence base to make the most of what we have in relation to the outcomes we want.
- Innovate to find solutions that best suit Grampian.
- Monitor progress against our key plans - Single Outcome Agreements (SOAs), Improvement and Co-Production Plan, and (forthcoming) Joint Strategic Plans.
- Evaluate our actions to ensure progress is being made.

The convergence of pressures from an ageing population, increasing multiple long-term health conditions and the growing complexity of healthcare make these challenging times in Grampian, as elsewhere. It brings into sharp focus the importance of longer-term ambitions to improve health for everyone, tackle health inequalities and identify and target care to those with the greatest needs.

1.5 Conclusion

In the journey to 2020 we need to create and make the most of the opportunities for improving health, wellbeing and our ability to cope with ongoing change, challenge and uncertainty. The evidence, opportunities, benefits and need for change are clear; the reasons are compelling.

The DPH Report (2012), focused on the need for sustained transformational change. We recognise that this is not easy but where there is a will, we must

find a way. In **Section 2**, we set out Scottish Government's, NHS Grampian's and our Public Health aspirations for transformed health and healthcare by 2020.

In **Section 3**, we explore how creating resilience in Grampian can help us to make the most of the pressures, changes, uncertainties and opportunities and in **Sections 4-7,** we illustrate this through some of our current work programmes. In **Section 8**, we include brief concluding remarks.

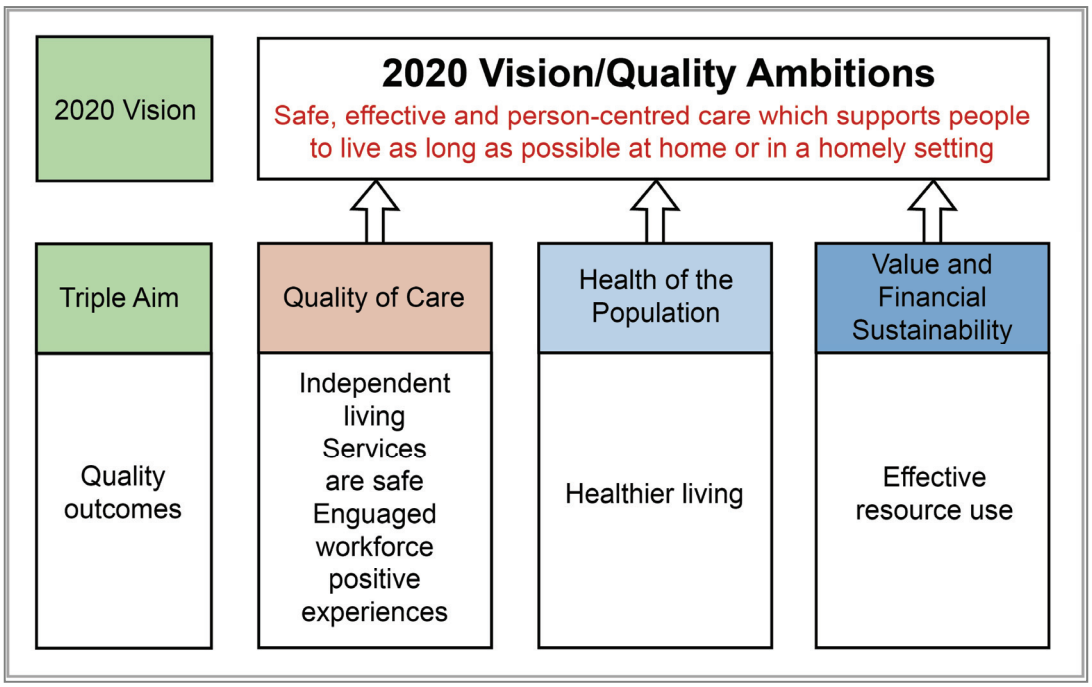
2 Health in Grampian in 2020: sharing a vision

2.1 Establishing our Vision

'Our vision is that by 2020 everyone is able to live longer healthier lives at home, or in a homely setting. We will have a healthcare system where we have integrated health and social care, a focus on prevention, anticipation and supported self-management'.

Scottish Government[34]

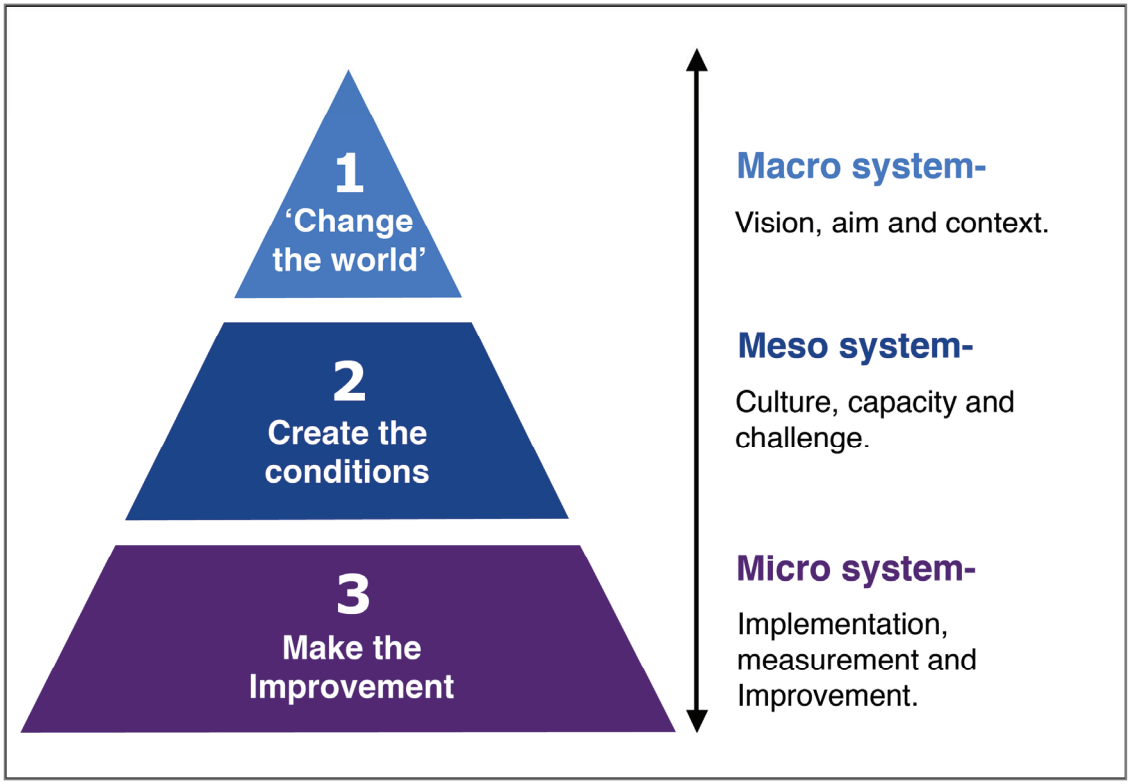
Figure 9: A Route Map to the 2020 Vision for Health and Social Care. (Scottish Government, 2013)



In Grampian, we share this aspiration of a future where more people will not only live longer but will have lives which are healthy and independent. The Scottish Government's 2020 vision reminds us that to achieve sustainable health services and improve population health we will need to increase our focus on prevention, proactive care closer to people's homes and the wellbeing of our population, as much as responding to their illnesses.

Nationally and locally this will require transformational change - in the ways we think of ourselves, our communities and our services. We are using the helpful national 3-Step Framework (Figure 10) to focus our work and to promote (health) improvement across our services.

Figure 10: The 3-Step Improvement Framework for Scotland's Public Services.[35]



In NHS Grampian, this framework is proving useful in taking forward *The NHS Grampian 2020: a possible future.*[36] This sets out a very different view of health and health services from the one that prevails and imagines the future we wish to achieve:

'The health of the people of Grampian and the health service in the area are radically different compared with how it was in 2011. People are healthier because they take responsibility for their own health and participate in screening programmes. There has been a reduction in premature death in conditions such as cancer, heart attacks and stroke and a reduction in the incidence of depression. This in turn has meant that the people of Grampian are less dependent on the health service - primary care, community care and acute care. When health services are needed, they are more efficient and tailored to individual needs. This focus on the individual has been made possible by the release of staff, funding and buildings from more traditional ways of working to create the new NHS in Grampian today in 2020. The focus on the individual has been undertaken in partnership with Local Authorities and the third sector who, since 2012, provide a cohesive service specifically for children, older and vulnerable people'.

Improving the health and wellbeing of the population is a central component of both Scottish Government's and NHS Grampian's vision. What determines health and wellbeing is wide ranging. It requires a focus not only on health services but also on increasing the resilience of individuals, communities and organisations and the wider environment in which we grow, work and retire.

Key services and functions within NHS Grampian are setting out their own vision 2020 to support NHS Grampian's ambitions. The Public Health vision reflects our need to address the population's health issues, some of which we described in **Section 1**:

'That healthy life expectancy for men and women living in Grampian will have improved faster than our European Union counterparts. At the same time the difference in life expectancy between those in our most deprived communities and our least deprived communities will have reduced'. [37]

We have already seen how a range of factors interact to determine health and wellbeing. These include individual lifestyle factors, social and community networks, living and working conditions, socioeconomic, cultural and environmental conditions. Recent analysis has shown that 20% of areas with the highest rate of emergency hospital admission for adults are also the areas with high income deprivation, high levels of unemployment, low educational attainment, and high crime rates. A partnership of Grampian residents and agencies working towards health and wellbeing is best suited to tackling this complex agenda.

Mainstream health service delivery is largely designed to react to problems rather than to prevent them. A substantial amount of the public service budget is spent on dealing with demand generated by preventable negative outcomes - some calculate as much as 40%. It will not be possible to absorb these rising costs within static or declining budgets which are forecast over the next decade.

In the Director of Public Health Report 2012, we looked at trends and scenarios to help us plan for the future. We identified the major impact of alcohol, smoking and obesity on our health, our services and our economy and indicated how small changes (reductions of 1-10%) could result in savings of £1.3m, £2.1m and £1m respectively in the Grampian healthcare budget. [38] We recognise that people need to be supported to actively manage their own health and clinicians supported to allow them to do so. A 5% increase in self-care could reduce professional demand by 25%. Conversely, a 10% decrease could increase demand for professional care by 50%.

Improving and protecting health on moral, social and economic grounds is therefore everyone's business - NHS colleagues, other public, private and third sector organisations, communities and individuals.

2.2 Examples of what needs to be different by 2020

We will work with partners to:

- Better understand the diverse needs of our population and use this information routinely to shape health and healthcare service delivery as a matter of course.
- Increase focus on working with those experiencing inequalities in their natural communities and with geographic clusters of professionals building on individual and community strengths. Services will enable patients to be more active participants in their own care.
- Support greater awareness of the benefits for long-term health and wellbeing of increasing the level of literacy and numeracy.
- Ensure every visit to our services provides an opportunity, where appropriate, to promote health. In the NHS, this ethos will be highly visible to staff, patients and visitors through supportive policies such as tobacco control and healthy eating, healthy environments such as building design, walking routes, green spaces, and arts in health. Supportive programmes to promote healthy behaviour change will form a routine part of our pathway of clinical care. We will also help our partners to adopt this approach.
- Support a reduction in greenhouse gas emissions by tackling climate change and sustainable development through energy, building and transport policies.
- Promote a supportive working environment for all, facilitated by *Healthy Working Lives* (HWL) programme and in NHS Grampian achieve the HWL gold award by helping staff to fulfil their health promoting role.
- Promote recognition that a 'long hours' culture is not conducive to good parenting, stable family relationships, development of social capital, or the ability to provide care for disabled, sick or frail family members.
- Ensure that, as a major employer and commissioner of services, NHS Grampian procures in ways which impact positively on health and wellbeing in our communities - requiring contractors working on our projects to invest in the local community.
- Seek greater impact of interventions aimed at protecting the population's health. Vaccine preventable diseases will be a rare occurrence through increased uptake of immunisation programmes.
- Promote access to safe drinking water and improve hand washing and food hygiene practices of Grampian residents and food related

businesses. Acquiring infections when receiving health or social care will be at an all-time low through improved infection control practices.

- Use routinely a robust resource allocation and decision-making framework as part of the governance arrangements in NHS Grampian. This will ensure resources are directed to tackle health inequalities and deliver greatest health improvement for all.
- Establish a systematic process for evidence-informed, timely and transparent identification of new public health issues.

2.3 Getting from here to 2020

In **Section 1** we set out some of the pressing challenges for health and care, the things known and those yet to be known, and the constant threads of the overall sustainability of public services and the scourge of inequalities.

We have now set out the future to which we must aspire if we are to address these issues.

In **Sections 3-7**, we illustrate some of the current ways we are investing in improving the health of the population and tackling health inequalities, and how resilience - individual family/community and organisational - can support our endeavours, moving forward.

3 Transformational change and resilience

3.1 Introduction

In **Section 1**, we highlighted improvements in health, how these improvements were not enjoyed across all of the population, our changing demography and the challenges we face. In **Section 2**, we outlined the Scottish Government's and NHS Grampian's aspirations for integrated health and social care with a focus on prevention, anticipation and supported self-management. We shared the Public Health vision for increasing equitable health improvement with our partners by 2020.

In this section, we outline how resilience - the capacity to endure, adapt and generate new approaches - is a common thread that can bind multiple efforts together and support us to achieve transformational change. We will illustrate this theme through some of our current work, at organisational, community/family and individual levels in **Sections 4-7**.

Another strong theme, in addition to resilience, is interdependence. Our work is dependent on partnerships within the NHS and across agencies. The work is also crucially dependent on effective partnerships with patients and communities. The gains through any intervention or service can often be multiple.

The approaches we describe focus on the organisation in order to benefit individuals, families and communities and *vice versa.* In consequence, **Sections 4-7** are broadly grouped to focus predominantly on organisational, community/family and individual levels. Each section covers actions which contribute to our overall drive to improve health and reduce health inequalities in Grampian, in support of our vision that healthy life expectancy for men and women will have improved faster than our European Union counterparts. At the same time, the difference in life expectancy between those in our most deprived communities and our least deprived communities will have reduced.

The majority of the sections look at potential longer-term health gain associated with 'transformational' resilience of people and communities to adapt and thrive in new circumstances. In contrast some of our work, particularly in health protection, illustrates aspects where an immediate and time-limited response is essential to reduce avoidable harm.

We begin by looking at resilience in the context of public service reform. Subsequent sections, broadly grouped organisational/systems, community and more individually oriented, provide background on the particular service, programme or intervention and key messages looking forward. These are examples from a significant body of work being delivered by NHS Grampian and

Community Panning Partners to highlight some of the change which is happening. A range of ambitious activities are underway. However, to achieve significant benefits, we need to deliver at scale.

3.1.1 Public Service Reform

The pace of Public Service Reform is being aided by legislation in the form of the Public Bodies (Joint Working) (Scotland) Act 2014[39] and the Community Empowerment (Scotland) Bill (2014).[40] The latter in particular, aims to empower communities, strengthening their voice, supporting a focus on outcomes and improving the process of community planning. The Bill recognises that communities can often achieve significant improvements by doing things for themselves. They become more confident and resilient as the challenges often present new opportunities.

3.1.2 What is resilience?

Resilience is '*the capacity for populations to endure, adapt and generate new ways of thinking and functioning in the context of change, uncertainty or adversity.'* [41]

Adaptive responses to challenge and adversity absorb impacts, meet demands, and deploy collective resources to bounce back or grow stronger.[42] [43] Resilience emerges through our collective actions.[43] In the face of uncertain challenges, unpredictable events, and the transformation of traditional ways of doing things, resilience is a common thread that can bind multiple efforts together, effectively supporting integration.

Resilient communities exist through individuals, who create and maintain empowering environments. Communities, in turn, contribute to and benefit from resilient organisations to create a 'virtuous circle'. Resilience is more than a collection of individual traits.[42] [43] Resilience is forged in the interaction between individuals, in their childhood experiences, their families and support networks, their communities, and the wider environment. Individuals demonstrate resilience when their context and circumstances support this.[44]

Communities vary in their resilience.[45] [46] [47] We know that more resilient communities are characterised by lower rates of illness and premature death. Factors associated with resilient communities include: high levels of employment,[46] [47] [48]good housing,[47] [49] the quality of the natural [50] and the built environment,[48] enhanced social capital,[46] [50] residential stability,[47] [49] and an increased sense of belonging.[46] [50]

These factors inter-relate in complex ways. There is no 'quick fix' in developing resilient communities. Material and structural goods and resources are necessary but not sufficient. The importance of belonging means that resilience needs to emerge from interactions and relationships. Resilience can be supported but not 'given' to communities from outwith.[48] [50]

3.1.3 Resilience as a service outcome

There are many ways in which resilience, as a desired outcome, can be incorporated into our approach to services.

These include valuing public resources and services, available to all, proportionate to need. For example, ensuring our services focus on the whole person and address prevention of future health challenges as well as treatment of current conditions. Ensuring we have an effective public health response to incidents involving communicable disease, environmental hazards, or civil emergency. By partners valuing investment in early years, for example, they are recognising pregnancy, birth, infancy, and childhood as fundamental periods for the development of firm foundations for life, in terms of resilience, health, and wellbeing. Valuing ownership, participation, and involvement with service users - as equal partners - is fundamental to their engagement in decisions around design and delivery of services. This is reflected in the provisions of the Community Empowerment (Scotland) Bill (2014) and is at the heart of Community Planning.

4 Routes to a healthier future

4.1 Improving organisational systems to improve population health

The functions and challenges we explore in this section are broadly grouped around improving organisations and systems which support our transformational journey to 2020. They include protecting health, screening and intervening early, ensuring the health of children and young people, transforming patient care using technology, sustaining a resilient workforce, and providing high quality health intelligence.

4.2 Protecting Health

4.2.1 Health Protection Function

Surveillance, investigation, control and prevention of communicable disease and environmental hazards are fundamental to the protection of human health. NHS Grampian's Health Protection Team (HPT) carries out NHS Grampian's statutory obligations, laid out in The Public Health etc. (Scotland) Act 2008.[51]

The HPT is committed to providing a timely response to all communicable disease and environmental incidents which present actual or potential threats to the health of our population.[52] Experienced specialist medical and nursing staff are co-located to undertake rapid peer review of incidents and cases. Flexible working ensures a resilient system of round the clock protection every day of the year. Teleconference and videoconference facilities facilitate rapid establishment of Incident Management Team (IMT) meetings of key local and national partners. The recent introduction of the national information management system, HP Zone, provides all on-call rota HPT and public health staff with immediate access to online health protection activity, wherever they are working.

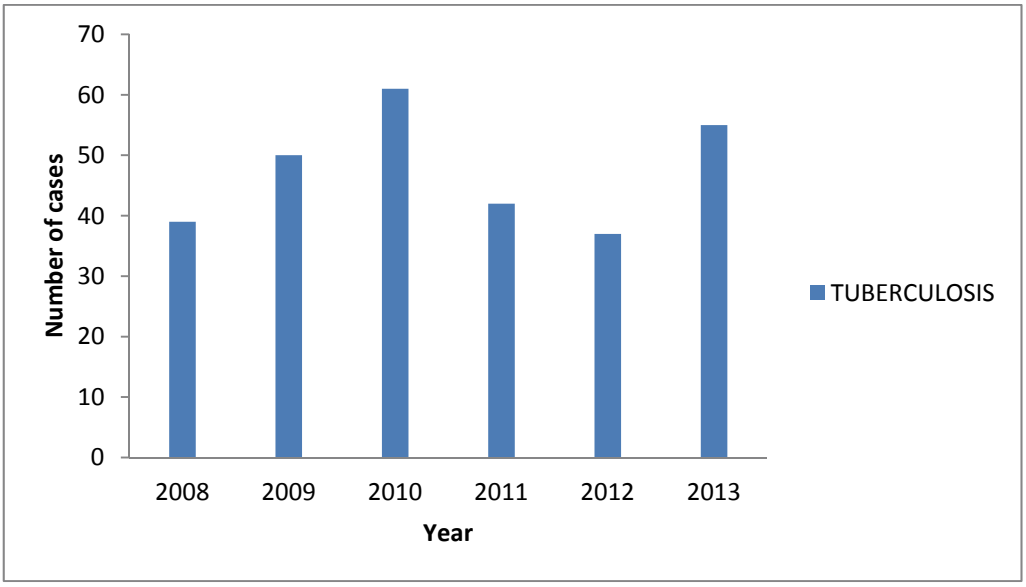
4.2.2 Working together to protect the public

Protecting the health of the public means maintaining a level of organisational resilience consistent with the increasing pressures associated with new and emerging infections. The nature of these complex challenges requires ever closer joint working with predominantly Aberdeen-based NHS specialist services and disciplines. In addition, the HPT continues to work closely with many other partners both in and outside the NHS. These include colleagues in Grampian's three Local Authorities' Environmental Health Services, to investigate and manage selected relevant infectious disease incidents and outbreaks as well as

environmental hazards. As many of these incidents require a rapid and effective response out of office hours, Environmental Health capacity is vital to this partnership.

Staff from a wide range of backgrounds, including nursing and medical staff, care home staff and managers, childcare staff and the voluntary sector, need to be confident in managing incidents in their workplace and know when to seek assistance from the HPT. The HPT provides training in infection control, immunisation, and **Tuberculosis** (TB) investigation and public health management.

Figure 11: Notified cases of TB to NHS Grampian, 2008-2013. Source: NHS Grampian Health Protection Team.



It should be noted, however, that Figure 11 illustrates the numbers of cases recorded through screening of contacts and the limited Immigrant Screening. They may not truly reflect latent disease in the population.

Incident management training is invaluable in limiting spread of infection and reducing the impact on services, workplaces and the wider community.

Rapid response to cases of active TB disease, latent TB infection and the incidents these cases generate is fundamental to their effective management. This is achieved by integrating the work of team within the Grampian multidisciplinary TB team whose other members are drawn from a range of NHS clinical services. This facilitates communication, sharing of expertise, evidence-based decision-making, rapid response and development of skills.

The Occupational **Flu Immunisation Programme** is vital to the provision of a resilient workforce and delivery of quality patient care, particularly over winter. We continue to introduce initiatives to increase awareness of the importance of flu vaccination among healthcare workers (HCW). Steady progress has increased uptake of this vaccination among HCWs, with 38.8% of frontline staff in Grampian vaccinated last winter, which is well above the Scottish average.

Significant changes to the immunisation programme (SGHD/CMO (2013)13) require sustained organisational resilience across partners including Community Health Partnerships (CHPs), school and child health services, primary care, pharmacy, transport and NHS Grampian's corporate services.

Timely public health (health protection) responses are required to reduce avoidable harm in a specific situation where there is a risk that susceptible people are exposed to biological, chemical, radiological, or physical hazards.[53] The overall aim is to prevent adverse health consequences, and facilitate recovery to the *status quo* for the population at risk, as soon as possible. Dependent on the nature and scale of the incident, this may require escalation to a co-ordinated multi-agency response.

From November 2013, new **civil contingency** structural arrangements have been in place for a Local Resilience Partnership (LRP) at Grampian level and Regional Resilience Partnership (RRP) at North of Scotland level.[54] These multi-agency groupings are convened to co-ordinate an integrated response to a given emergency. In mitigating the consequences, it is critical that partner agencies make joint decisions and respond in a unified manner, with efficient and effective use of available resources. NHS Grampian retains the responsibility for the local investigation and management of the public health aspects of an incident, irrespective of an LRP or RRP led response.

4.2.3 Key health protection messages

- Incident management training is invaluable in limiting spread of infection and reducing the impact on services, workplaces and the wider community.
- Staff from a wide range of backgrounds, need the necessary training to be confident in managing incidents in their workplace and in knowing when to seek assistance from the HPT.
- Increased uptake of Occupational Flu Immunisation is essential to ensure a resilient workforce and delivery of quality patient care, particularly over winter.
- Effective co-ordination in response to a civil emergency is vital to joint decision-making. NHS Grampian is responsible for the local investigation and management of the public health aspects of any incident.

4.3 Screening and early intervention

4.3.1 Screening programmes

Screening is an important way of detecting disease early, often before the individual experiences symptoms. Detecting disease in this way reduces the amount of disease in the population. It also reduces the impact of disease on individuals and on the health service. It leads to a decrease in the number of premature deaths and/or significant impairment of function. It can improve quality of life in those who can receive earlier treatment than they would otherwise have done, and gives people information to make choices. Screening programmes contribute to the resilience of the health service in the face of an increasing cost burden of treatment, and can empower the individual to make proactive choices regarding their own health.

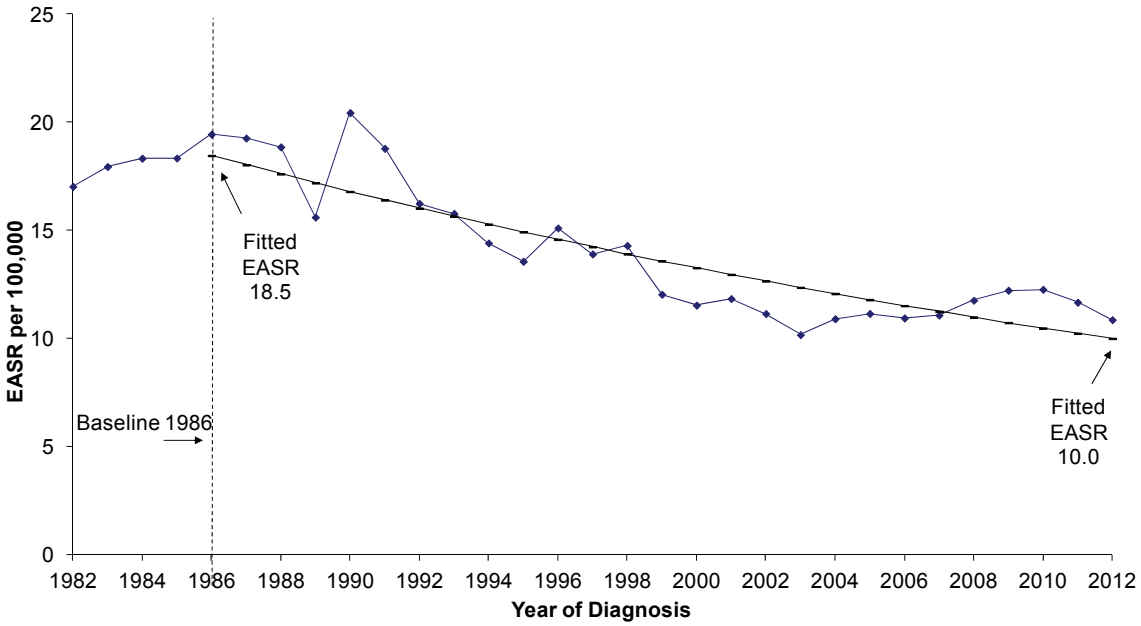
The national population screening programmes[55] include:

- Screening in pregnancy for Down's Syndrome, haemoglobinopathies, infectious diseases (rubella, HIV, hepatitis B and syphilis) and foetal anomalies.
- Screening in early childhood for hearing problems and a number of conditions using the newborn bloodspot test.
- Diabetic retinopathy screening.
- Cervical, bowel and breast cancer screening.
- Abdominal aortic aneurysm (AAA) screening.

4.3.2 Cancer screening

The cancer screening programmes are good examples of this. Cancers are an important cause of morbidity and mortality,[56] and treatment costs are a significant challenge. Diagnoses of cancer increased by 14% between 2002 and 2012 in Scotland, and during the latter year, breast cancer and colorectal cancer were the 2nd and 3rd most commonly registered cancers.[57] Cervical cancer is much less common, partly due to the success of the Scottish Cervical Screening Programme introduced in 1988, which aims to detect the precursors of the disease and treat these to prevent progression (Figure 12). Women who attend for screening at the appropriate interval are very unlikely to develop cervical cancer.

Figure 12: Cervical Cancer Incidence (European Age Standardised Rates) Standardised using the 2013 European Standard Population[58]) Females of All Ages, Scotland 1982-2012



1 The European Standard Population (ESP), which was first used in 1976, was revised in 2013. Figures using ESP1976 and ESP2013 are not comparable.
2 European Age-Sex Standardised Rate (EASR), calculated using ESP2013 and using 5 year age groups 0-4, 5-9 up to an upper age group of 90+.

However, screening programmes also present a number of challenges. They occasionally may cause harm; they incur significant costs; the screening tests are not acceptable to some individuals; and, screening may lead some to becoming 'passive recipients' and reducing their own vigilance. In addition, socioeconomically deprived populations are less likely to access screening programmes with a resultant increase in inequality. For example, uptake rates for bowel screening are around 66% in the least deprived fifth of the Grampian population compared with around 42% in the most deprived fifth.[59]

4.3.3 Future screening developments

A number of current and planned developments in the screening programmes should go some way towards addressing these issues. These include tests and interventions which are more acceptable and accessible, for example, alternative tests for bowel screening; and, delivering abdominal aortic aneurysm (AAA) screening in community settings. We are also getting better at targeting high risk individuals, for example in cervical screening, testing 'screen positive' women for human papilloma virus (HPV) and reducing the screening interval in older women. We are continuously improving the ways we inform and engage patients to enable them to make properly informed choices, for example, commencing

antenatal care earlier to allow women time to consider whether they wish to be screened.

4.3.4 Key screening messages

- Improving engagement and understanding of the public of the benefits of screening should lead to enhanced levels of uptake.
- Better and more targeted tests should also help.
- Active participation in screening supports increased health awareness in the individual and promotes self-care.

4.4 Ensuring the health of children and young people

4.4.1 The healthiest start in life

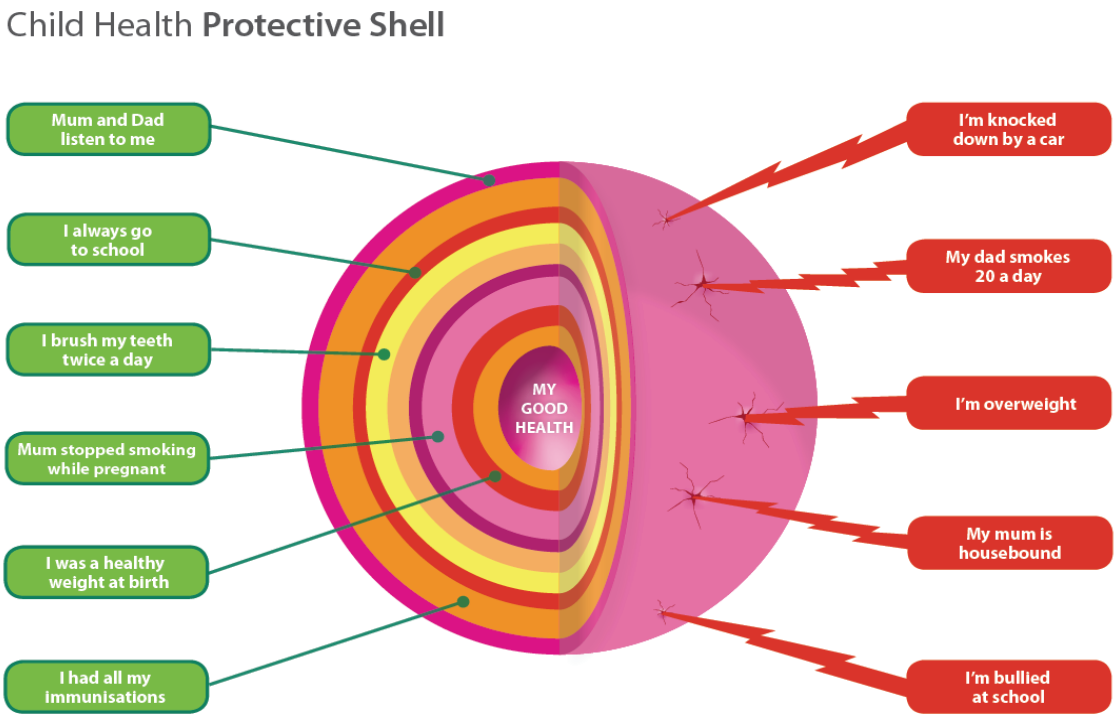
Today's children are tomorrow's adults, very many of whom will also be parents/guardians. Childhood presents an opportunity to embed good health and healthy behaviours which last for a lifetime and will be passed to future generations. Children are also one of our most vulnerable population groups, for whom we have a moral and legal duty to do what we can to protect them.

The Director of Public Health is the Executive Lead for Children and Young People for NHS Grampian and Chair of the Child Health 2020 Programme Board. This group provides strategic leadership and oversees implementation of the Child Health 2020 Strategic Framework[60] which sets out the vision that: *'...by 2020, all children and young people of Grampian will have the healthiest possible start in life.'*

4.4.2 Getting it Right for Every Child (GIRFEC)

Central to Child Health 2020 is the Scottish Government's policy, *Getting It Right for Every Child* (GIRFEC).[61] Many of the key principles are now incorporated in the Children and Young People (Scotland) Act 2014.[62] GIRFEC represents a move from a 'welfare approach' to one of individual wellbeing. The focus is on realising individual potential. It is our duty to support all children to achieve that in ways that are child and family-centred. The *Protective Shell* (Figure 13) is a tool we have developed locally and first shared with a wider audience in the DPH Report 2012. It helps conceptualise our approach to developing individual resilience.

Figure 13: *Protective Shell*



This model shows the importance of both intrinsic and external factors (green boxes) in providing resilience against adversity (red boxes). Building this resilience in childhood is particularly important for future health and wellbeing.

In **Section 1**, we referred to the impact of early life experiences on health outcomes and inequalities in later life. In his 2010 annual report, Scotland's Chief Medical Officer advised that deaths in the 15-44 year age group, an important marker of health inequalities overall, were 6 times more common in deprived areas than in areas of affluence, and that this inequality appeared to be increasing. Substance misuse, assaults and suicides account for many of the deaths in this age group, and these are heavily influenced by behaviour and resilience mechanisms which develop in early life.[63]

The 23 goals set out in the Child Health Strategic Framework have been translated into an action plan which is challenging, but attainable, if it is given sufficient priority and resolve. The approach taken so far has been to see Child Health 2020 as a process of increasing the confidence of staff in making the changes that they want to see happen i.e. to build the transformational resilience of individuals and of NHS Grampian and its partners in working to improve the health of this population group.

4.4.3 Key child and young people health messages

- The Child Health 2020 Framework has been based on open and honest consultation and discussion with staff members, in both the NHS and partner agencies.
- This gives a shared sense of direction very much grounded in increasing the resilience of children and families.
- The key challenge now is for the Programme Board and those responsible for spearheading the desired changes to continue to build on this process through strong leadership, true engagement and positive collaboration.

4.5 Using technology to transform patient care: No Delays

4.5.1 No Delays resource

No Delays[64] is a dynamic online resource with the potential to transform the interaction between clinical teams and patients. The concept has been developed jointly by NHS Grampian and Digital Life Sciences.

The aim is to redesign the delivery of health and care services to allow people to remain in their communities and only travel to traditional clinic appointments when absolutely necessary.[65]

Currently being piloted in several areas, the *No Delays* team worked closely with clinicians and patients to study the way these two groups interact during a consultation. Patients can, at times, feel overwhelmed with information during a consultation.

The *No Delays* platform, by digitising elements of the local care pathway, enables healthcare teams to create interactive packages of information relevant to the patient's condition. These can be personalised and 'prescribed' to patients according to their needs.

When patients return home, they receive a personal email containing a digital postcard that follows up the medical discussion. This digital postcard contains short videos introducing the condition and the team who will be working with the patient. *No Delays* videos feature patients who have had the same condition explaining, in personal terms, how they manage.

The patient can find answers to questions they may not have had the time or knowledge to ask the clinician. S/he can consider the information in his or her own time, and at any time in the future and can choose to share this with friends, family and carers. The package also enables the patient to prepare for any subsequent meetings with the clinical team. As patients become more informed,

they are able to manage their condition or medication and to get the most from face-to-face consultations.

As well as supporting patients with information about treatment and medication, *No Delays* postcards can help alleviate the stress felt by some patients during the time between referral and first appointment with specialist services. The *No Delays* postcard can be used immediately to inform and help the patient to prepare for the appointment.

4.5.2 No Delays in practice

As an example, the *No Delays* team has been working with the respiratory service to redesign how care is delivered to patients with a diagnosis of Chronic Obstructive Pulmonary Disease (COPD).

Digital postcards are being used to increase patients' understanding of what Pulmonary Rehabilitation (PR) can offer them and maximise their participation. Patients are prescribed postcards by different members of the clinical team at various points along the care pathway. The packages include an introduction to COPD, overview of medication and inhaler technique, advice on self-management, stopping smoking and exercises to undertake at home following physiotherapist assessment. The use of *No Delays* in support of PR has increased access to this service for patients who live remotely or who are unable to travel to established PR classes. Patients who do not have access to digital media continue to receive information in the form of leaflets.

A range of measures is being used to evaluate this approach including the number of patient postcards prescribed and how many times they are viewed. The impact on health services is being measured by the number of unplanned emergency admissions related to COPD, the referral rates to Pulmonary Rehabilitation services and the number of patients who fail to attend Pulmonary Rehabilitation sessions. Most importantly, patients are being invited to share their views on using this resource to inform the future direction of both the clinical service and the online *No Delays* resource.

4.5.3 Key No Delays messages

The *No Delays* methodology brings the wider clinical team together to look at the whole pathway. There is a range of prospective benefits which may come to fruition:

Potential patient benefits:

- Timely access to approved clinical advice to support self-management of a long-term condition
- Improved understanding of his or her condition and how to manage it
- Reduced need for attendance at GP or hospital appointment.

Potential clinical team benefits:

- Release of clinical time to refocus on new patients
- Release of clinical time to create a more responsive service for clinically urgent patients
- Ability to reinforce key clinical messages to support patients in self-management
- Opportunity to share best practice and learn from other teams.

Potential organisational benefits

- Improved access times
- Reduction in the numbers of patients who do not attend (DNAs) through provision of a more responsive service
- Possible savings through more appropriate use of treatment
- Opportunity to introduce new methodology for service redesign
- Opportunity to share and deploy the method in other NHS Board areas.

4.6 Sustaining a resilient workforce

4.6.1 Our workforce commitment

NHS Grampian is committed to developing a resilient and sustainable workforce. By 2020, the workforce will be organised in an integrated way and be more flexible. The needs of patients will be paramount, with professionals shaping and delivering services around these. The workforce will be multi-skilled, enabling and empowering colleagues, as well as patients, to take responsibility for their own health.

4.6.2 Staff development

Core to a resilient workforce is one which can adapt and change. This will mean, for some, working in different locations and in different roles often within multi-agency teams. These teams will comprise staff from NHS Grampian alongside staff from other organisations including Local Authorities, care homes, other NHS Boards and the third sector.[66]

In NHS Grampian, we currently employ around 16,000 staff in both clinical and non-clinical roles. We are committed to ensuring that each individual has the skills and capability to carry out his/her job competently. We provide personal development planning for all staff, supported by objective-setting and review at least annually.[67]

4.6.3 Dignified Workplace

We know that individual experience in the workplace is positively associated with an individual's motivation, wellbeing, engagement and contribution.[68] [69] In recognition of this, NHS Grampian is constantly striving to create and maintain a healthy organisational culture, adopting the term Dignified Workplace (2013).

4.6.4 Key workforce messages

NHS Grampian:

- Will support its staff to stay safe and healthy
- Is committed to the national *Healthy Working Lives* programme, promoting a healthier workforce and safer workplace
- Is committed to *making every opportunity count* to embed a supportive culture for self-care and self-management
- Will deliver this through its forthcoming Workforce Plan 2014.

The benefit for the NHS as an employer - of staff who enjoy increased health and wellbeing - feeds through to patient care. By focusing on both patient and staff health, we are building a culture in which health, as well as healthcare, are central to our business.

4.7 Supporting the health system through intelligence

4.7.1 Better health intelligence

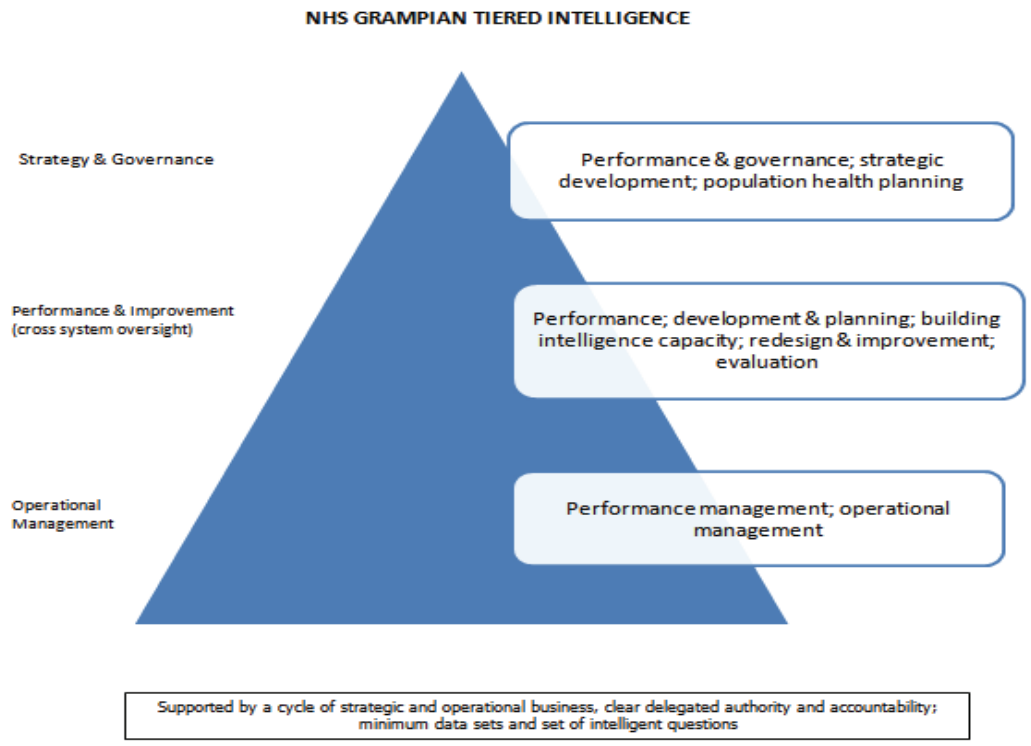
Health intelligence is needed to inform decisions which improve the health of the population. It supports NHS Grampian to carry out its core functions of policy and strategy development, performance management, governance and resource

allocation. Achieving this relies on having the right information at the right time to ensure the organisation is focused on the right issues.

The information needs of an organisation increase as the operating environment constantly evolves - in the case of the NHS, driven by policy, expectation and advances in healthcare.

In NHS Grampian, drawing on good practice,[70] a 'tiered intelligence' approach has been developed (Figure 14). This focuses on improving access to information and intelligence throughout the organisation at all levels and packaging it appropriately to manage the risk of information overload.

Figure 14: NHS Grampian Tiered Intelligence.



The importance of capacity building for intelligence throughout the organisation is crucial. The 'Intelligent Directorate' is a framework to help staff integrate intelligence in their daily work.[71] This helps individuals and teams to build evidence-informed and evaluative ways of working, to influence healthcare planning and to support the work of NHS Grampian Board.

Our Health Intelligence team is developing as a resource for the health system. The tiered intelligence approach means providing intelligence to help the organisation with national service standards and targets. Health Intelligence is also concerned with developing and providing public health intelligence for

surveillance and monitoring.[72] It collaborates with other organisations to develop the availability of intelligence. Working with the University of Aberdeen, a new population data platform and safe environment has been created to support research needs and health surveillance. This will enable linkage of hospital data with primary care, prescribing, social work and education, and will provide a rich source of intelligence.

4.7.2 Shared health intelligence imperative

Working with the new Health and Social Care Partnerships, and Community Planning Partners, the provision of enhanced community health intelligence will help develop capacity for localities to *'endure, adapt and generate new ways of thinking and functioning in the context of change, uncertainty or adversity'*.[73]

Implementation of the Public Bodies (Joint Working) (Scotland) Act 2014[74] has increased impetus to more effective ways of working. Empowering communities to optimise their resilience in health and wellbeing requires a change in thinking from the traditional focus on fixing problems in the present, to one which connects the present with desired futures, and helps identify some of the disruptions which might occur in moving forward.[75] To support this, health intelligence must augment traditional 'treatment' data with 'asset-based' intelligence which recognises what communities have, rather than what they might lack.[76] Using different mechanisms for gathering and generating intelligence, such as digital and social networks, may also have a bearing on health outcomes, as communities introduce different solutions and begin to see their contributions as co-producers (and customers).

4.7.3 Key health intelligence messages

- Health intelligence can support improved resilience across the health system.
- New health intelligence will be developed to support asset mapping, including the identification and use of social networks to generate new knowledge.
- Making best use, and secure sharing, of health intelligence across our partnerships will be essential for future success.

5 Supporting sustainable communities

In this section we focus on three different slants on supporting communities ranging from improving our approaches to transport, using a mobile facility to increase access to services in more rural communities, and using the physical assets in communities to create opportunities to improve health and reduce inequalities.

5.1 Transport and health

5.1.1 Health and Transport Action Plan

NHS Grampian is a stakeholder and signatory to the *Health and Transport Action Plan* (HTAP), June 2014.[77] Together with Aberdeen City, Aberdeenshire and The Moray Council, our Community Planning Partners, North East Scotland Transport (NESTRANS) and the Scottish Ambulance Service (SAS), we are linking transport strategies to public health outcomes. In this way, we can improve the active travel infrastructure and road safety, promote active travel, reduce the adverse impacts of the transport system, and improve access to healthcare.

The HTAP provides an important strategic framework to support all that we do as partners to enhance local infrastructure. This section of the report is adapted from that plan.

5.1.2 Adverse impacts of transport

Transport networks and the ways they are used can affect the health of the public directly and indirectly. Direct impacts include air quality, high background noise levels, injury and death in road traffic accidents.

It is estimated that if all human-made particulate air pollution was removed, average life expectancy from birth in the UK would increase by six months.[78] Many homes in Scotland and in Grampian are in areas where pollution levels exceed standards[79] and thousands of people regularly travel to or through areas with high levels of pollution.

The majority of air pollution in UK towns and cities is caused by road transport. Where pollution exceeds standards, more than two-thirds of mono-nitrogen oxides (NOx) and around half of particulate pollution are caused by road traffic.

The health and wellbeing impacts of exposure to high noise levels remain to be comprehensively understood. However, an estimated 13,000 people in Grampian are exposed to daytime noise from traffic in excess of 65dB, and a further 1,900 to noise at this level from trains.[80]

There has been a substantial reduction in the number of people injured on the roads in recent decades in the UK. Nevertheless, Grampian has an annual average of 1,087 fatal and serious road traffic accidents (2009-2013). The Grampian rate (0.99 per 100,000 population) is much greater than for Scotland (0.67). Within Grampian, the rates were - Aberdeenshire 1.43, Moray 0.86 and Aberdeen City 0.54. These rates do not include the many more who suffer minor injuries.

The indirect impacts of transport include severance and isolation - individuals being 'cut off' from key services or part of their community by, for example, a busy road or lack of appropriate transport. Thirteen per cent of older people living in rural areas report poor access to a range of basic services, including GPs, dentists and hospitals; older people and those on low income are significantly more likely to suffer poor access.[81] The resulting isolation can have adverse effects, particularly on mental wellbeing.

There are substantial inequities between those more likely to be causing, than to be affected by, these problems.[82] People living in deprived communities are much more likely to be adversely affected by transport pollution or noise, in large part due to depressed housing costs in noisy and polluted places. They are also more likely to be involved in road traffic accidents. People on low incomes, or who have a physical or mental impairment, are more likely to be excluded from transport choices.[83]

Increased use of sedentary travel in recent decades has been a key contributor to the reduction in physical activity levels in the UK. About one in three adults exercise less than 30 minutes per week.[84] In Grampian, an estimated 61% of adults do not take enough exercise to meet the recommended guidelines.[85] They are at increased risk of a range of chronic health problems including cardiovascular disease, obesity, Type 2 diabetes and mental disorders.

The potential for travel options to contribute to an active lifestyle is well recognised: *'for most people, the easiest and most acceptable forms of physical activity are those that can be incorporated into everyday life,*[86] while *'one of the most effective ways to [increase] activity in a busy day is to reduce reliance on motorised transport, changing our means of everyday travel to walking and cycling'*.[87] Two fifths of all journeys made in Scotland are less than 2 kilometres - an easy walk or cycle for many people - yet more than 40% of these journeys are made by car.[88] Of journeys between 2 and 5 kilometres 72% are made by car.

Across the Grampian region, 79% of all journeys to work in 2011 were made using sedentary transport.

Cycling and walking are important in a sustainable, low-pollution transport network; more people travelling actively helps improve their health, and the health of others. Investing in walking and cycling is one of the most cost effective forms of public investment, with median benefit to cost ratios from typical UK schemes being 19:1.[89]

A shift from cars towards walking, cycling and public transport would reduce the harms of the road transport system, enhance the benefits to individuals, society and the environment, reduce inequalities and help carbon reduction.

Health professionals, planners and decision-makers need to work together to reconcile the often competing demands and challenges on our citizens and on our respective services if we are to support the development of sustainable environments to:

- Ensure that transport policies support sustainable and healthy communities.
- Reduce air pollution, especially within Air Quality Management Areas.
- Reduce the number of people exposed to high transport noise levels.
- Reduce the number of people killed or seriously injured on the transport network.
- Reduce the number of people isolated from their communities and key services by lack of appropriate transport.

5.1.3 Key messages for transport issues

- Working collaboratively with agencies and communities within the HTAP framework will help us to secure a more co-ordinated approach to transport and support, improving health outcomes.
- Increasing the provision of high quality infrastructure for active travel will enable more people to walk and cycle routinely. We know that this provision is necessary but not sufficient and in **Section 6.6**, on physical activity, we outline further efforts to support this.

5.2 Reaching into local communities

5.2.1 New ways to engage communities

The Commission on the Future Delivery of Public Services in Scotland[90] makes the case for working differently with a focus on delivering services within

community settings. Given the current demands on services and our vision for 2020, we need innovative approaches to engage with our communities, using existing resources more effectively to meet health and wellbeing needs.

Enabling communities to take control over their own lives will increase their sense of wellbeing and ability to look after their own health. Creating skilled and resilient communities with employment opportunities, and who participate in the economy, are important in reducing health inequalities.

5.2.2 Collaborative working

Working more collaboratively across Community Planning Partners will be essential to improve health and wellbeing.

In more rural areas, such as Moray, with a wide geographic area and a population of 93,000, access to services can present a challenge. The recent review of the Moray Community Planning Partnership by the Audit Commission and Audit Scotland[91] records that, '*In general, people living in Moray are healthy but the Community Planning Partnership has not been successful in tackling specific local health issues of alcohol abuse, obesity and smoking'*. The Health and Wellbeing Profile for Moray[92] illustrates that the number of people living in the 15% most 'access deprived' areas is double that of the Scottish average; mothers smoking during pregnancy is 2% above the Scottish average; and households living in extreme fuel poverty is 3% above the national average.

A key asset in working in communities is the Mobile Information Bus (MIB), operational in Moray since 2002, recently renewed and pictured on the front cover of this report. Working in collaboration with communities and Community Planning Partners, the MIB enables us to address health inequalities and promote social inclusion by reaching those who are most vulnerable. For example, as partners, we have worked with over 15,000 young people across Moray; most notably with Police Scotland, Moray Drug and Alcohol Partnership, Social Work, Youth Justice and the Early Engagement Team Working to tackle substance abuse and anti-social behavior (Operation Avon). To address specific issues, such as fuel poverty, partnerships have been forged with the Rural Environmental Action Project (REAP)[93], a local sustainable development charity improving the local environment, community links and social enterprise through a variety of projects and services.

Our partnership approach, delivered through the MIB helps us to:

- Build relationships, trust and capacity within communities, maximising opportunities for health gain, by providing evidence based programmes to address individual lifestyles and life circumstances.
- Provide another mechanism for two-way communication with communities, not only giving, but gathering, information related to unmet health and social needs in the local areas. This is then fed back to local service providers, acting as a catalyst for change in improving services.
- Enhance community resilience by improving support and sustaining services. Information collated during the sessions held in the MIB can be responded to quickly, showing communities that they are listened to.
- Target areas of social disadvantage.

5.2.3 Key messages

- By taking a more integrated and focused approach to supporting vulnerable and often more isolated communities, strengthened community partnerships will improve health and wellbeing outcomes.
- Proactive outreach programmes increasing local accessibility will be a key feature of this approach.

5.3 The place of community kitchens

5.3.1 Deploying community kitchens

NHS Grampian's strategic framework and delivery plan for healthy eating active living (HEAL) provides a vision for 2020, promoting healthy eating and being physically active from birth to old age. It aims to encourage communities, families, partners and NHS to work collaboratively to tackle inequalities in health through creating healthy environments.[94]

An asset-based approach uses any resource which enhances the ability of individuals, communities and populations to maintain and sustain their health and wellbeing and reduce health inequalities. There is evidence that using local assets promotes factors which reduce 'life stresses', and can have a protective effect for the whole community.[95]

In Aberdeenshire, partners are using an asset-based approach to community kitchens as a small but important component of a wide range of food skills programmes. Community kitchens are designed to help build confidence and skills to eat healthily, as part of maintaining a healthy lifestyle.

5.3.2 Supporting vulnerable communities

The overall health status of the population of Aberdeenshire is amongst the best in Scotland. However, averages mask areas of health inequality. An asset-based approach is engaging and helping to build resilient communities, by encouraging healthy lifestyles.

The establishment of community training kitchens in Aberdeenshire and the refurbishment of existing community facilities were identified as ways to support vulnerable individuals and groups to share positive nutrition messages and cooking skills.

Two kitchens, one in Garioch and one in Huntly, have been established. Garioch Area, one of six administrative areas in Aberdeenshire, has a population of 50,523 people. Many of its communities have experienced rapid population growth in recent years with projected further growth of 12% over the next decade – by far the fastest projected growth rate in Aberdeenshire. Social Inclusion is one of five key priorities in the Garioch Community Plan 2013-16.[96] Huntly lies within the Marr Area, population 37,609, whose Community Plan includes supporting communities and individuals to make choices that enable them to eat healthily, take part in physical activity and improve their sense of wellbeing. Partners have worked closely - as part of the A45 Health and Wellbeing Group to tackle health inequalities in the Huntly area - to establish the Huntly Community Kitchen.

A qualitative needs assessment completed on behalf of Huntly Community Kitchen found the community kitchen successfully delivered positive nutrition messages, enhanced cooking skills, promoted inclusion and confidence amongst participants. Two thirds of participants had improved knowledge of healthy eating and 50% had changed their diet.[97]

The Garioch Community Kitchen delivers a range of programmes to meet the needs of different groups. For example, a local mental health group facilitates programmes for people suffering, or recovering from, mental health and/or substance misuse issues. *Confidence to Cook* is another programme included to improve nutrition and cooking skills. Accredited courses which help prepare secondary pupils for work in hospitality or care industries are also run.[98]

The Garioch Community Kitchen has had yearly increases in people participating in healthy eating programmes such as *Healthy Heart Challenge*. These provide participants with a weekly weigh in, nutritional advice, a health walk and the opportunity to cook healthy recipes. Participants' feedback from evaluations has been positive:

'I have less waste due to cooking everything from scratch.'

'I have implemented the portion control in the household and my husband and I have lost 7lb each.'
'Increased knowledge of healthy eating, met new people. Just loved this course. Life changing. Super tutors.'

5.3.3 Key community kitchen messages

- Community kitchens make an important contribution to the wide range of food skills programmes being delivered by partners.
- They are one example of an asset-based approach to build health-focused social capital in communities.
- They enable individuals to build their own food knowledge and skills and contribute to resilient and healthy communities.

6 Improving services and tackling health behaviours

In this section we look at mental health wellbeing, and how a social prescribing initiative aims to provide early support. We also discuss reducing the harm of alcohol, promoting positive sexual health, working with schools to help children achieve a healthy weight, and increasing physical activity.

6.1 Improving mental health and wellbeing

6.1.1 Mental health and wellbeing - a key priority

Improving mental health and treating mental illness are central to our approach nationally and in Grampian.

Mental Illness is one of the top public health challenges in Scotland, as in Europe, measured by prevalence, burden of disease and disability.[99] It is estimated that mental disorders affect more than a third of the population every year, the most common of these being depression and anxiety. About 1-2% of the population have psychotic disorders, and across Europe 5.6% of men and 1.3% of women have substance misuse disorders. The ageing population is leading to an increase in the number of people with dementia: 5% of people over 65 and 20% of those over 80 years of age. In all countries, most mental disorders are more prevalent among those who are most deprived. The prevalence of mental disorders does not appear to be changing significantly over time, though more people are accessing treatment and support, as understanding grows and the stigma of mental illness is reducing.[100]

6.1.2 Implementing the Scottish Mental Health Strategy

Grampian has a slightly higher mean mental wellbeing score than the Scottish average, 8th highest of 14 Health Board areas.[101] However, our Grampian Mental Health and Wellbeing Dataset [102] demonstrates no room for complacency. Depression, anxiety, drug and alcohol misuse all take their toll on individuals, families, communities and the local economy.

In his foreword to Scottish Government's Mental Health Strategy 2012-15[103], the Public Health Minister indicates that people are already taking greater responsibility for their own health. They are more likely to seek information and access help and support to understand their own mental health and wellbeing. Self-care, self-management, social prescribing and peer assistance will grow in importance and demand a different mindset and approach to service design. We

need to develop these approaches alongside more traditional approaches to service delivery.

The Scottish Government and NHS Grampian are also committed to faster access to psychological therapies. We are assessing and developing our local workforce capacity to involve staff - including psychologists, nurses, allied health professionals and doctors - who are equipped to deliver a range of therapies, as part of their standard clinical practice.

The Scottish Government's Suicide Prevention Strategy 2014-16[104] also focuses on key areas of work that, locally, we believe will continue the downward trend in suicides in Scotland over the past 10 years. Our Choose Life Groups for Moray and for Aberdeen City/Aberdeenshire aim to deliver better outcomes for people who are suicidal and who come to services, for their families and carers, for those not in contact with services, and to improve our knowledge of what works.

Action plans include activities which help maintain the general population's vigilance about improving mental health, about supporting people who experience mental illness, and about preventing suicide, to reduce the overall rate of suicide. These include building resilience and mental and emotional wellbeing in schools and in the general population, work to reduce inequality, discrimination and stigma, the promotion of early years' services, and work to eradicate poverty.

6.1.3 Key messages for mental health and wellbeing

- Developing community-based models of mental healthcare and support is essential, as is making it easier to access on line help and support - for example, *Living Life* (NHS 24),[105] computerised Cognitive Behavioural Therapy[106] and *Steps for Stress.*[107]
- We need to ensure staff are trained to support individuals to move through recovery back to normal life.
- NHS Grampian continues to promote proactive screening such as Alcohol Brief Interventions, Keep Well and support for individuals to change their lifestyle. We should build on local consensus for better mental health outcomes and develop these interventions further in concert with our partners.

6.2 Social Prescribing

6.2.1The social prescribing approach

Social prescribing links patients with non-medical sources of support in the community. There is a sound evidence base for adopting this as an approach to responding to patients presenting with low mood and mild to moderate depression and anxiety. It offers the opportunity for them to address psychosocial issues that are impacting on their physical and mental health and wellbeing.[108]

The National Institute of Clinical Excellence (NICE) clinical guidelines on managing anxiety, depression and particularly mild depression state that many patients respond to interventions such as exercise or guided self-help. Current NICE guidelines (CG90 and 91) Oct 2009[109] indicate psychosocial interventions are helpful for patients with depressive symptoms or mild to moderate depression, particularly for those who also have a chronic physical health problem.

A local survey of professionals' views on social prescribing was undertaken on behalf of Aberdeenshire Community Health Partnership.[110] This provided evidence of social prescribing, referral and signposting of patients to various local community activities or organisations. The main barriers to referring and signposting patients to non-medical interventions were lack of knowledge of what was available locally and shortage of time in a GP consultation. The results indicated a need for improved methods for accessing up-to-date relevant information for health professionals.

6.2.2 Routes to Wellbeing pilot

Three GP practices in Aberdeen City are involved in a twelve month pilot of social prescribing[111] as one approach to help patients experiencing low mood, mild to moderate depression and anxiety. This involves a formal referral and feedback pathway for patients who are offered non-medical interventions in the community as part of their treatment. Patients are offered the opportunity to take part in lifestyle and/or social interventions.

The pilot is being overseen by a multi-agency advisory group, with wide partnership support for its development, implementation and evaluation.

Longer term expectations for *Routes to Wellbeing* would be to improve the resilience of participants through increased awareness of their own skills, increased participation in activities that are known to have a protective role for

mental wellbeing, and increased levels of social engagement among those experiencing marginalisation, isolation and disadvantage. We would also anticipate *Routes to Wellbeing,* building resilience of services in the community by increasing joint working across clinical and non-clinical services, strengthening their respective contributions to enhance the protective factors that contribute to mental wellbeing.

6.2.3 Key social prescribing messages

- Social prescribing is helping health professionals link patients with services and support in the community that address their psychosocial issues.[112]
- NHS Grampian and partners' current pilot will provide further local learning and guidance to develop and improve *Routes to Wellbeing*.

6.3 Reducing harm from alcohol

6.3.1 The adverse effects of alcohol

Alcohol has been valued for its calming, analgesic and sedative properties, and for its role in collective cultural and social activities. However, alcohol in anything other than small amounts can be toxic, carcinogenic, and socially disruptive. Alcohol can cause both immediate and long-term harms, which can be physical (for example, liver disease), behavioural (for example, violence), or social (for example, economic productivity losses).

Across Grampian it is estimated that more than 100,000 adults are putting their health at risk because of their alcohol consumption. If we count health conditions that can only be caused by alcohol, there were in Grampian nearly 3,000 alcohol-related hospital admissions (8 per day) and 92 alcohol-related deaths (8 per month) in 2012/13. If we include health conditions that can be caused by alcohol, some cancers for example, there were 7,000 alcohol-related hospital admissions (20 per day) and 260 alcohol-related deaths (5 per week).[113] Many of the individuals affected were young or middle-aged adults, and all experienced suffering that was potentially preventable.

6.3.2 Countering the alcohol challenge

Alcohol not only has the potential to harm individuals, it can harm those around them. Partners, children, unborn infants and whole communities can be adversely affected by alcohol use. Communities that offer inclusion, participation, support, accessible resources and services, and employment can

help to buffer against the need to 'escape' by using alcohol. Community Planning Partners have a key role in supporting and developing the contexts in which our communities can flourish.

The more freely that alcohol is available, the more it is bought and consumed. Licensing restrictions on the total number of outlets that can sell and serve alcohol are vital to efforts to promote the public's health.[114] [115] Even one additional outlet in an area can measurably increase the number of subsequent alcohol-related harms experienced. NHS Grampian remains committed to providing Local Licensing Boards with relevant information and analysis to help inform their decision-making.

Health professionals also have a vital role to play. Alcohol brief interventions are an evidence-based intervention, shown to reduce alcohol consumption and reduce risk of subsequent harm.[116] [117]

6.3.3 Key alcohol harm-reducing messages

- Actions to build stronger, participative communities have the potential to reduce alcohol-related harms.
- Licensing Boards have a significant role to play in reducing alcohol-related harm.
- Alcohol brief interventions reduce alcohol consumption.
- Healthcare and other professionals have an important role to play in empowering patients who have hazardous or harmful drinking habits to reduce their consumption of alcohol.

6.4 Maintaining sexual health and wellbeing

6.4.1 Sexual health and wellbeing

Maintaining sexual health and wellbeing underpins the philosophy and objectives of the Scottish and NHS Grampian Sexual Health strategies.[118] Sexual health is *'a state of physical, mental and social wellbeing in relation to sexuality. It requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence'.*

Reproductive trends are inextricably and positively linked with socioeconomic development at both individual and societal levels. In the UK, average family size started to fall in the early 20th century. Professor Sir Dugald Baird referred to fertility control as the *'fifth freedom'*. More reliable fertility control arrived with oral contraception in the 1960s, and the legalisation of abortion in 1967.

Diversity of method choice came in the mid 1990s with the advent of even more reliable, long lasting, reversible contraception (LARC).

Prevention of unplanned pregnancy and prevention of acquisition of sexually transmitted infections and HIV, along with increasing testing for recognition of these conditions, remain key service priorities. Sexual health outcomes have clear adverse gradients when matched to deprivation demographics, mirroring the situation for many other health outcomes. Vulnerable groups and those under 20 years require particular support to encourage positive behaviours and decisions around their sexual health. However, risk-taking behaviours tend to be linked and run across all age groups. Sexually transmitted infections, HIV, syphilis and hepatitis B are partial proxy indicators for levels of sexual health risk-taking in the population. New HIV diagnoses are equally likely to be seen in a heterosexual patient as in a man who has sex with other men (MSM), presenting a different profile in Grampian from the predominant MSM pattern in other Scottish Health Board areas.

6.4.2 Tackling complex sexual health issues

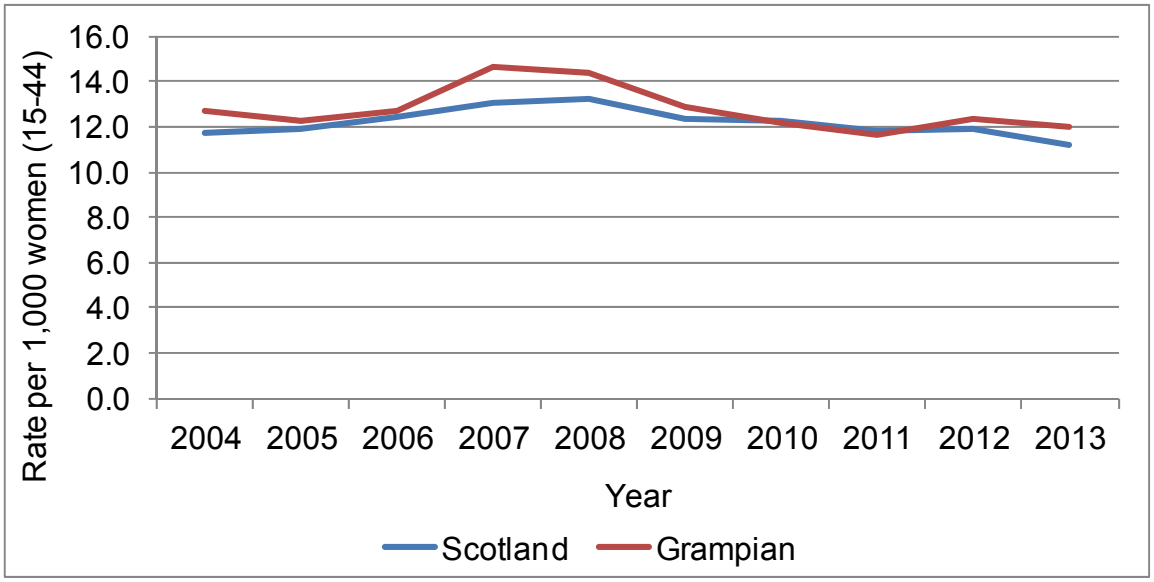
We increasingly recognise the influence of the early years, parenting and education on an individual's life course, achievement and resilience. Many of those seen in our specialist services are not so protected against life's challenges and may have experienced a less supportive and encouraging upbringing. Many may have been subjected to emotional, physical and sexual abuse. Others may be affected by intimate partner abuse, past or current, or suffered sexual assault. The impact of abuse and assault can be devastating with a long lasting emotional toll. Some patients present with sexual difficulties and some present with medically unexplained symptoms. Some of these difficulties may reflect experiences in their earlier years. For some, the impact on their mental health may have been even greater. We must acknowledge the scale and dimension of abuse and proactively address the issue.

Genito-urinary medicine and sexual and reproductive health operate an integrated service based at NHS Grampian's Aberdeen Community Health and Care Village with outreach services. The Sexual Health Managed Clinical Network (MCN) was the first to be fully accredited in Grampian. It provides a resilient framework for co-ordinated and accessible services across the population and engages with key partners beyond health. It continues to evolve partnerships with education, school nursing, substance misuse services, social work, Lesbian Gay Bi-Sexual and Transexual (LGBT) agencies, prison and police. It is multi-professional and multi-agency. The challenges are many. A primary prevention approach is critical and lies with multiple agencies. This needs engagement, effort and time, as opposed to any costly medical

interventions. Indeed, evidence demonstrates direct healthcare avoidance costs, as well as gain at individual and economic productivity level.[119]

Despite free provision of emergency contraception in Scottish pharmacies, and a wide range of highly effective reversible contraceptive methods, teenage pregnancy rates and abortion rates at all ages remain a challenge. Only in the past two years have Scottish and Grampian statistics started to show a very small decline in abortion rates (Figure 15).

Figure 15: Abortion rate Grampian and Scotland per 1,000 women aged 15-44 years, 2004-2013.[120]



Over 30% of abortions each year in Grampian are repeat abortions.[121] Unwanted pregnancies result largely from failure to use contraception or inconsistent contraceptive use.

Our challenges are to:

- Raise awareness in the population about why it is important to take action regarding sexual health and fertility control.
- Advise what the consequences might be for not acting.
- Inform what to do and how to do it.
- Persuade the individual that it is in their best interests.
- Encourage the individual to take the most appropriate action.

Many gaps exist in our understanding of sexual and reproductive health risk-taking and the service is engaged in research.

The service and network must retain its resilience to support patients and professionals within a challenging economic environment. It must provide leadership and guidance alongside delivering an extensive training and education programme. It needs to remain flexible to change with emerging evidence and new developments, including new pharmaceutical advances, and to embrace opportunity. It needs to consider how to integrate psychological support, currently offered to those living with HIV, into other areas of the service.

6.4.3 Key sexual health and wellbeing messages

- NHS Grampian and partners should continue to provide appropriate information and awareness about sexual and reproductive health needs.
- We need to engage other groups to raise the profile of sexual health within their own spheres of influence and harness relevant social networks. A primary prevention approach across agencies is key.
- We need to maintain accessible services for primary and specialist care.

6.5 Childhood Obesity

6.5.1 The problem of childhood obesity

Evidence suggests that rates of childhood obesity in Scotland and other developed countries have levelled over the last 10 years. In 2011-12, 6.1% of Primary 1 children in Scotland were obese, assessed as Body Mass Index (BMI) at or above the 98 centile.[122]

This levelling has not been evident in children in more deprived areas. In addition, prevalence of obesity in children in the most deprived areas of Scotland was 7.7%, compared to 4.1% in the least deprived areas.

Obesity is difficult to reverse. Obese children are at an increased risk of obesity in adulthood making a strong case for prevention, to ensure healthy behaviours in childhood.

6.5.2 Tackling childhood obesity

Since 2008, Scottish Government has provided all NHS Health Boards with a target to address childhood obesity.

In response to the target, NHS Grampian developed a school-based healthy lifestyle choices programme Grow Well Choices (GWC) for primary school children predominantly in P5-7. This was delivered across Grampian schools to all children in a class, regardless of weight, from 2011 to 2014. NHS Grampian

has successfully met the Child Healthy Weight (CHW) target to achieve 1,556 completed CHW interventions over the three years ending March 2014, largely through GWC.[123] Discussions are currently underway on how best to sustain CHW services in Grampian.

Height and weight were measured at the start and end of the GWC programme and at 6 month follow-up. A recent service evaluation of this quantitative information[124] for Grampian detected a small but statistically significant decrease in Body Mass Index - Standard Deviation Score (BMI-SDS) (a measure of weight status in children) between the start and end of the programme. The reduction was greater for boys and in overweight and obese children, particularly those from more affluent areas. However, BMI-SDS increased between the end of the programme and 6-month follow-up. The study concluded that although the change in BMI-SDS was relatively small, at a population level this could have impact, if sustained over time.

Feedback from qualitative information in Aberdeenshire suggests that GWC was well received by pupils, teachers and parents. Parents felt their child had learned about making healthy choices. Over half of the parents who responded felt their child was now making healthier choices and over a third felt their child was being more active:

'We feel that this programme was delivered in a fun way, making our daughter look forward to the next session. She came home very enthusiastic about the team and their programme.' (Parent, Mearns)
'When I came to observe, I learnt things I did not know. My daughter enjoyed learning and participating in the programme.' (Parent, Portlethen)
'My child is overweight and can be very conscious of this. However I do feel they have made good choices and healthy suggestions towards meal times and becoming more active, thanks.' (Parent, Fraserburgh)

6.5.3 Key childhood obesity messages

- Prevention of obesity is vital if we are to sustain a resilient, healthy population.
- The earlier obesity is tackled the greater the likelihood that we will reduce the risk of preventable serious ill-health.
- The relative success of this local programme should encourage us to tackle obesity in partnership and at scale, with clear, measureable interventions such as Grow Well Choices.

6.6 Increasing physical activity

6.6.1 Benefits of physical activity

The 2014 Commonwealth Games in Glasgow are providing a strengthened platform for physical activity at individual and population levels. The benefits of physical activity range from improved wellbeing, mental health, social connectedness and quality of life to increased productivity, reduced absenteeism and reduced carbon emissions.[125]

6.6.2 Promoting increased physical activity

Walking is, for most people, the most accessible and sustainable way to get more active. The recently published national walking strategy *Let's Get Scotland Walking* [126] aims to encourage us to walk more, on a daily basis. Research shows that pedometers, small step monitoring devices usually worn on the waistband, over the hip,[127] are an effective and cost effective tool to help us achieve this.[128]

For example in Aberdeen City, the *Golden Games* now in their 4th year, provide a busy programme of events to help older people to flourish and lead happier and more independent lives.[129] The *Golden Games* contribute to Scotland's Active and Healthy Ageing Action Plan[130] which aims to build connectedness and improve the health of older people.

Physical activity is an important component of recovery and in managing to cope with illness. For example, Macmillan Cancer Support is working with partners, including NHS Grampian, to establish *Move More,* a physical activity programme to benefit individuals at all stages of cancer treatment.[131] *Move More* also builds social capital by encouraging social connections between people with cancer.

Scotland's national workplace campaign *Fit in 14*, promotes healthier, productive workplaces by encouraging employees to take small, simple steps towards more active lifestyles.[132] The campaign supports Scottish Government's first physical activity plan*, A More Active Scotland***,** launched earlier this year.[133] The plan challenges employers to make it easier for people to be more physically active as part of their everyday working lives.

A More Active Scotland also illustrates the important role our infrastructure plays in promoting physical activity and connecting people. In support of this, we have already discussed the local revised *Health and Transport Action Plan* in **Section 5.1**.

6.6.3 Key physical activity messages

- Physical activity programmes are more likely to build resilience when they encourage structures as well as individuals to change.
- Structural environmental changes, like improved infrastructure, are most likely to increase physical activity without widening health inequality.[134]
- As partners in improving health and reducing inequalities, we need to encourage users of our services and our employees to be more physically active regularly, as part of an active life, a working day and in leisure time.
- We need to remove unnecessary barriers to encouraging everyone to increase their physical activity. Exercising makes people feel good. The key is to support people to engage in physical activity they enjoy and that suits their level of mobility and fitness.[135]

6.7 Supporting self-care and self-management

Realising our vision for 2020 depends, to a considerable extent, on our increasing capacity to reduce preventable serious ill-health and, where long-term conditions arise, to equip ourselves to maintain the best health status we can. In this subsection, we describe our overall approach and illustrate three components which are shaping that.

6.7.1 Our overall approach

Healthcare organisations that systematically support patients to maximise their ability to self-care and self-manage, help them to improve their health, wellbeing, and quality of life.[136] [137]

Self-care and self-management are sometimes regarded as synonymous. Self-care can refer to self-directed treatment of minor ailments,[138] whereas self-management can refer to the actions of those living with irreversible, long-term health conditions.[139] [140] To self-care and self-manage successfully, people need the relevant knowledge, understanding and skills, and to live in a supportive environment.

With our Community Planning Partners, we need to build that environment where people are encouraged to know what to do to remain in good health. There is growing consensus on our need to develop and sustain health and social care services that embody self-care and self-management principles.[141] [142] [143] The planned integration of health and social care services affords great opportunity to rethink our approaches.[144]

The Grampian framework for self-care and self-management sets out the key components we require. It identifies a range of resources, and gives examples of good practice in Grampian, several of which we include in this section.[145]

6.7.2 Making every opportunity count

As healthcare professionals, we need simple ways to empower and support patients, carers and families to reap the benefits of looking after their health, and living as well as they can whatever their circumstances.[146]

Most healthcare staff provide services in non-emergency settings, as do most of our Community Planning Partners. Many are well placed to engage with patients, or clients, families and carers to influence positive choices and behaviours to improve health and wellbeing as part of their everyday activity.

Service deliverers providing consistent simple health benefit messages and tips[147] - in the right place and at the right time - can change the expectations of service users. In busy clinics and wards, much of this depends on engaging routinely with patients in a brief structured conversation about their health, consistent with their presenting condition and likely needs, then signposting patients to allow them to follow up any guidance.

A brief structured conversation appropriate to the needs of the patient is at the heart of person-centred, quality care. NHS Grampian's Ambulatory Services provide 400,000 outpatient appointments per year. If every *opportunity* is taken for a brief structured health conversation with patients there is scope, over time, to change the expectations, health beliefs and behaviours of both patients and staff.

A pilot, *Making Every Opportunity Count* (MeOC) in the Maxillofacial Clinic at Aberdeen Royal Infirmary, tested 'proof of concept' using a modified version of the evidenced-based programme *Making Every Contact Count* .[148] Staff provided brief opportunistic advice on actions that would benefit a patient's health. This advice was simple and took no more than a few minutes. The findings[149] were well received at NHS Grampian's Quality Conference (2012) and the Scottish Public Health Faculty Conference (2013).

This structured conversation approach is now included in NHS Grampian's scheduled and unscheduled care plans. The approach is being introduced in early adopting clinics with the first few MeOC 'champions' in place, in Aberdeen Royal Infirmary and Dr Gray's Hospital, Elgin. A simple web-based package for staff will ensure a consistent approach and key messages, wherever they are supplied. It will include standard sources of advice and support for staff and patients, and many of the resources will be useful to Community Planning Partners.

6.7.3 Sustaining anticipatory care in primary care

We implemented the national *Keep Well* programme in 2008 to address health inequalities in primary care. It targets patients from deprived communities and vulnerable groups who are at risk of preventable serious ill-health, providing a 'holistic health check', referral and signposting to appropriate services.

We developed a network of services to support GP practices to deliver health checks. There are now 37 participating GP practices across Grampian. Around 1,000 professionals working in a range of health and non-health services - primary and community care, community pharmacy, mental health services, substance misuse services, life-skills programmes, prison services, criminal justice services, Voluntary Service Aberdeen, carers' services, and benefit services - have more knowledge of, and better access to, a range of services for patients.

Over 8,000 of our most deprived patients[150] have now benefited from a health check and further support if required.

GP Practices now have a postcode checker to identify patients living in deprived areas and a means to capture their activity to address inequalities at practice, cluster and NHS Grampian levels. This is important in evidencing the contribution of primary care to tackling health inequalities - a Scottish Government, Audit Scotland[151] and NHS Grampian priority, and one of the nine national outcomes (draft, at time of press) on which the new Integration Joint Boards will require to deliver.

6.7.4 Co-producing changes in health behaviour

Behaviour is considered a modifiable influence on health. Changing behaviours can bring large health gains. For instance, stopping smoking increases life expectancy at any age and halves the risk of cardiovascular disease within one year.[152]

Interventions which 'build on what's strong', not just 'fix what's wrong', are starting to show positive lasting effects on individuals' wellbeing, engagement in health behaviours and even perceived physical symptoms.[153] [154] [155] For those with a face-to-face role with patients or clients, this may mean exploring how the grit, determination and flexibility people show in one area of their lives can be adapted to another.

Our Health Coaching Service was designed to address this, applying evidence from health psychology. Many patients who could ultimately benefit from our services, for example smoking cessation, were not 'ready' to engage effectively

with them. Often this led to a wasted referral. In consequence, we developed the Health Coaching Service. Following a Keep Well health check (currently), a *Keep Well* patient can meet with a trained health coach for up to four sessions. Patient and coach work together in the first session to identify meaningful possible changes. Thereafter, the focus is on building a patient's capacity to plan and bring about gradual changes, by anticipating and overcoming barriers based on his or her own experience, eliciting social support and finding out what is available to help. Formal evaluation suggests that patients find it particularly valuable that health coaches start from where patients are and provide them with the space and tools to find their own motivation, strategies and confidence to reach their behavioural goals.[156] We are now exploring the option to develop a 'one to many' approach from this one to one intervention, to address issues of scale and sustainability.

Behavioural change is also being supported through *Shaping the environment: Making our Hospitals Healthier* to make healthy choices easier for staff and for patients. Initiatives include making healthy changes to the menus of hospital food outlets and vending machines, providing weekly deliveries of fruit within NHS office buildings, developing and launching an NHS Grampian Tobacco Policy as well as facilitating guided lunchtime walks to encourage staff to be active, outside, during the day.

6.7.5 Key messages supporting self-care and self-management

- Addressing behaviour change is complex and includes both structurally and individually-focused solutions.
- Assessing needs and preparing service plans should include support for self-care and self-management, drawing on the NHS Grampian framework.
- Integrating a simple 30 second to 3 minute structured conversation into the routine business of non-emergency staff in the NHS and partner organisations, where feasible and appropriate using consistent health messages and tips,[157] can *Make Every Opportunity Count*.
- Reinforcing positive health messages across the NHS and Community Planning Partners, using a similar approach, can help transform how we think and act on health.
- Learning from Aberdeen Royal Infirmary on *Making Every Opportunity Count*, from primary care with partners delivering *Keep Well* and from health psychology in supporting health behaviour change will help to cultivate a culture and ethos of self-care and self-management.

7 Addressing health inequalities

7.1.1 Current position

While some variances in health are unavoidable, widening health inequalities are unacceptable.

Genetic inheritance may predispose individuals to particular diseases. Exposure to certain environments undoubtedly influences heath outcomes, as do individual choices and the play of chance. Where we have evidence of variations which are consistently distributed unequally - for example, across socioeconomic groups, between men and women, or associated with levels of education, income, occupation, ethnicity or access to services - these variations are unethical and unacceptable. We refer to these non-random variations in health as health inequalities.[158]

We address this in **Section 2** as a key aim of our 2020 vision[159] for *'healthy life expectancy for men and women living in Grampian to have improved faster than their European counterparts. At the same time, the difference in life expectancy between those in our most deprived communities and our least deprived communities will have reduced'.*

As Community Planning Partners in Aberdeen,[160] Aberdeenshire[161] and Moray[162] we are tackling health inequalities, through the Single Outcome Agreements (SOAs). These actions also form part of NHS Grampian's Improvement and Co-Production Plan.[163]

7.1.2 Transforming the map together

In his 1842 report on the conditions of the labouring poor in Britain the social reformer Edwin Chadwick remarked that when he asked for two maps of Aberdeen, one marked with the prevalence of fever and one with the location of the different social orders, only the map marked by fever prevalence was provided. This map was considered sufficient for both purposes.

Today life expectancy has improved significantly yet NHS Grampian's Health Traffic Lights[164] continue to reveal a strong association between where we live (postcode) and our health status. Advantaged groups have seen a faster improvement in health, creating a wider gap between most and least advantaged. Nevertheless, inequalities would be worse in the absence of social and public health policies providing universal healthcare and education and other services. Whilst we can draw some comfort that our collective efforts are having a positive effect, overall, the death rate (2011) in Scotland among those under 75

was 3.5 times higher for those living in the most deprived areas than those in the least deprived.[165]

7.1.3 Evidence to action

Why does it seem so difficult to make a difference, moving from the evidence to effective action?

Grappling with inequalities is a complex task. It involves multiple agencies and diverse communities engaging across different settings (school, workplace, community and so on), focusing at different levels (individual, vulnerable group, family/community/organisation), targeting different groups on the age continuum (from those in their early years to older people) and addressing a wide range of issues (from transport to employability to mental health, healthy eating, behaviour change and so on) agreeing priorities for action and marking progress.

Improving our culture, enthusiasm and effectiveness as organisations and communities is essential if we are to increase overall healthy life expectancy and simultaneously reduce the difference in life expectancy between our most and least deprived communities.

Simple messages, such as we provide in this report, acted on by a lot of people with everyone doing a little, will create the weight and direction of change we need to tackle the social determinants of health, sometimes referred to as 'causes of the causes'[166] as well as behaviours.[167]

The 2014 review of *Equally Well*, the national policy on Health Inequalities, makes clear, '*It is insufficient to try to prevent disease if the intention is to create health'*.[168] It refers to health inequalities as a consequence of fundamental inequalities in the distribution of power, wealth and income. Therefore, as Community Planning Partners, we need to persist with our focus on the real prize i.e. creating a fairer Grampian.

In implementing the Public Bodies (Joint Working) (Scotland) Act 2014, we will create an increasingly strong platform for a co-ordinated approach to service delivery, rooted in localities and communities. In particular, two of the nine national outcomes (draft, at time of press) will further focus our efforts through the Integrated Joint Boards (IJBs): '*People are able to look after and improve their own health and wellbeing and live in good health for longer',* and '*Health and social care services contribute to reducing health inequalities'*.

The modernisation of primary care also affords us the means to begin to address the messages in Audit Scotland's (2012) report, *Health Inequalities in Scotland,*[169] from reviewing the distribution of primary care services to exploring

the opportunities within local contracting for primary care, as a contribution to improving health and reducing inequalities over the medium and longer term.

7.1.4 Using the 3-Step Improvement Framework

We have demonstrated how NHS Grampian, as an improving, inequalities sensitive organisation, has increasingly embedded inequalities in its values and vision - 'changing the world'. We have illustrated in **Sections 3 - 6** a range of interventions for 'making the improvement'. Building from these, our focus now must be on culture and capacity, 'creating the conditions' (**Section 2,** Figure 10) to deliver at scale and accelerate progress.

7.1.5 Key messages for addressing health inequalities

Change the world

- By putting inequalities at the heart of what we do, in common cause with our communities, we can significantly help to reduce health inequalities within a generation.

Make the Improvements

- By extracting maximum learning from what has gone well and what we need to tackle differently, we can build continuously towards more equitable life expectancy across our communities.
- By agreeing an overall approach and priorities in partnership with communities who have poorer health outcomes, we can make better use of each others' assets to achieve better outcomes.

Create the Conditions

- By shaping and further refining some of our building blocks, we can create an integrated web of support across communities and agencies to underpin our vision for change.
- By focusing our collective capacity, assets and efforts, routinely, in ways that are mutually supportive we can reinforce inequalities sensitive practice at every level.
- By using a consistent, proportionate approach to Rapid Health Impact Assessment,[170] with communities and across agencies, we can put inequalities at the heart of decision-making.
- By implementing at scale interventions for which we have 'proof of concept,' we can deliver a step-change in the capacity of communities and professionals to reduce inequalities.
- By developing and implementing a common platform of support for delivering public health as everyone's business - using or modifying existing ehealth, health intelligence, workforce, finance, clinical

governance and communication systems - we can support staff to engage and record progress in addressing health inequalities routinely.

- By developing and maintaining an inequalities dataset in the ‘Intelligent Directorate’ we can better inform community action, workforce action, service planning and modernisation in NHS Grampian and partner organisations sharpening and deepening our work to address the ‘causes of the causes’.
- By using, routinely, a resource allocation and decision-making framework NHS Grampian and Community Planning Partners can better align available resource to address inequalities.
- By maximising the scope and leverage within provider, employer and commissioner roles, including local contracting arrangements, Community Planning Partners can better tackle the ‘causes of the causes’ of health inequalities.

8 Concluding Remarks

We have set out some of the current evidence on health, the improvements we have seen and the challenges we face in Grampian. We described our vision for improving healthy life expectancy and reducing the gap between our most and least advantaged by 2020. We described some of the ways in which NHS Grampian, in conjunction with our partners, are investing in improving the resilience and the health of the population and reducing inequalities.

In the key messages in each section of the report we have made recommendations which, if adopted progressively and at scale across Grampian, can contribute to the transformational shift we need to realise our aspirations for healthy, resilient citizens, patients and services.

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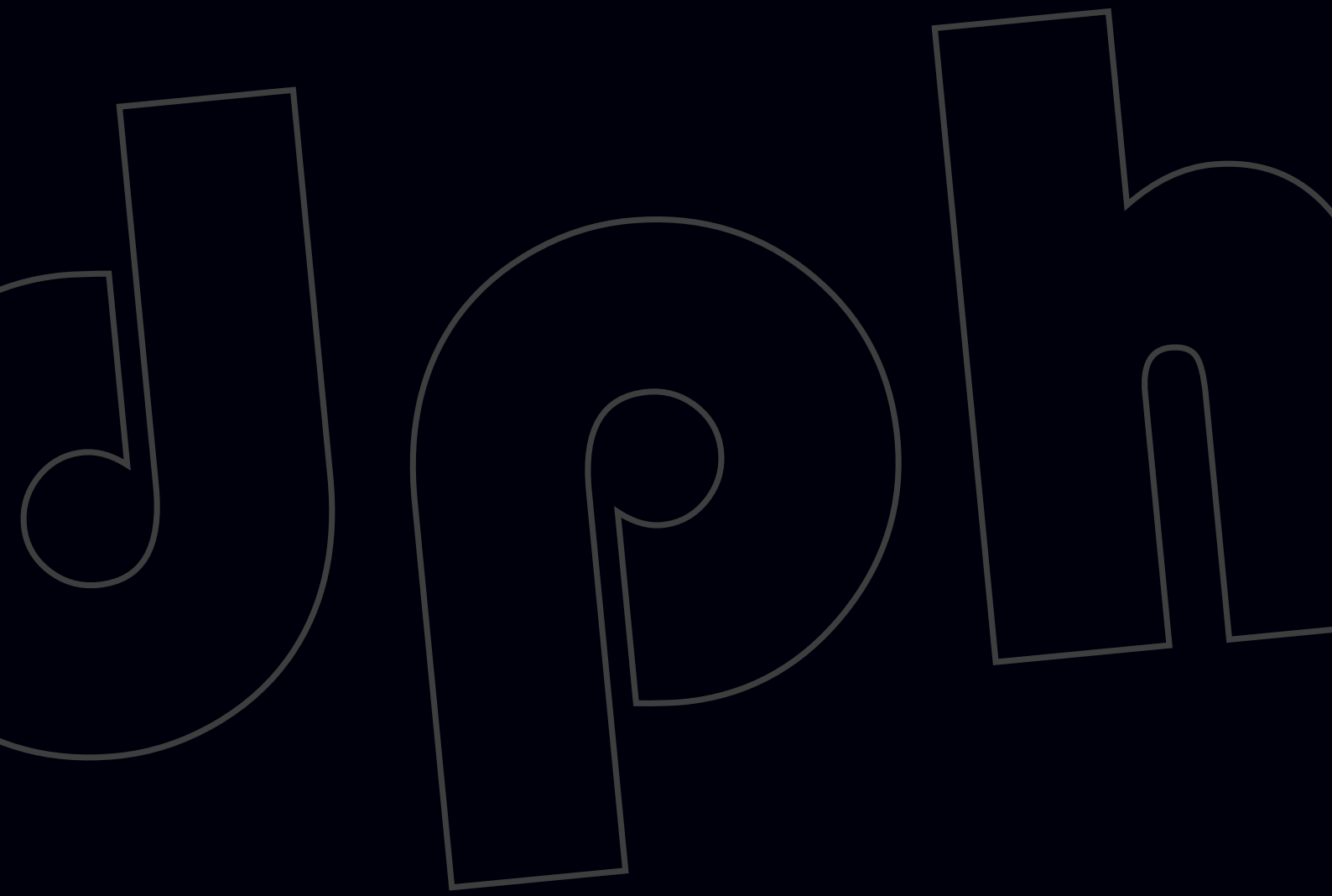

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