Joint Strategic Needs Assessment

Orkney Health and Care

November 2021

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Key Summary Points

Population Demographics

Chapter aim: To review how the Orkney population has changed and is expected to change. This underpins need in across the population.

- 70% of the Orkney Population estimated to be living in very remote and rural setting in 2020
- In 2020, the total population was estimated at 22,400
- NRS estimate the Orkney population will decrease by 0.7% between 2020 and 2035
- People aged 65+ are set to increase by 30% by 2035
- The cohort aged 18 and 64 years is forecast to decrease 10% by 2035
- The dependency ratio in Orkney is set to increase in the medium term to 2030 by 5% and by 21% over the long term to 2043
- Net migration is set to decrease by 6% in the medium term between 2019 and 2030

Life Circumstances – Social and Economic Factors

Chapter aim: To review how known wider determinants of health have changed in Orkney. The determinants of health are central to how different groups of people experience health and social care need. These measures provide insight into various socio-economic aspects of peoples experience as Orkney Residents.

- 0% live in the most deprived National SIMD Quintile, and 0% live in the least deprived National SIMD Quintile
- 63% of the population live in the most access deprived Quintile in Scotland
- 39% of People residing in the Orkney East Locality live in the two most Deprived Quintiles relative to Orkney. This compares to 19% of people living in Orkney West and 100% of people living in the Isles locality
- 87% of the working age population were economically active in 2019/20
- 1.5% of Orkney residents were unemployed in 2019/20
- Women in Orkney were estimated to receive 21.5% less salary on average than males in 2020
- 30.5% of people living in the Orkney were estimated to be living in fuel poverty between 2017-2019
- 2019/20 seen the highest level of Children living in low income families since 2015/16 at 703
- In 2019 3% of children were estimated as living in a single parent household in Orkney
- 75% of the Orkney population were estimated to be Home Owners
- 88% of people felt a very strong of fairly strong sense of belonging during 2017-2019
- 65% of people surveyed during 2017-2019 stated they felt there are welcoming places and opportunities to meet new people
- On average 80% of people reported meeting socially at least once a week

Lifestyle Risk

Chapter aim: Some behaviours carry a higher degree of risk than others in terms of the associated negative health outcomes. This chapter reviews to what extent people living in Orkney undertake risk related behaviour in order to gauge levels of potential health need.

- Latest estimates suggest 12% of the Adult population identify as a smoker
- PHS estimated that 2934 people smoke in 2019/20
- 4.9% of children aged 13 and 15 in 2013 stated they were a regular smoker
- 5.3% of women stated they were a current smoker at Antenatal booking appointments during 2019/20
- The period 2017-2018 seen the highest level of smoking related hospital admissions and smoking related deaths since 2012
- Findings from the Scottish Health Survey suggest nearly a quarter of Orkney residents responding between 2016 and 2019 drink to hazardous levels
- The number of alcohol related hospital stays has remained stable since 2014/15, ranging from 129 to 171
- The latest five year average (2016-2020) for alcohol related deaths indicates a yearly average of 4.6 deaths per year
- 2019 witnessed the highest level of recorded drug crime in the period 2004 2019
- Since 2016/17 the number of patients admitted to hospital for a drug related episode has ranged from 9 to 18
- The age/sex standardised drug related death rate for Orkney during 2016-2020 was 8.1 deaths per 100,000 compared to the Scottish rate of 20.6 deaths per 100,000.
- Almost two thirds (61%) of Orkney Adults surveyed between 2016 and 2019 met the Moderate to Vigorous Physical Activity guidelines
- Three quarters (75%) of people surveyed in the period reported eating on average fewer than 5 portions of fruit and vegetables per day
- Of Orkney adults surveyed between 2016 and 2019, a third (33%) were found to have a BMI that categorises them as Obese
- Three fifths (60%) of women were recorded as being either overweight or obese at their antenatal booking in 2019/20
- In 2019/20, three quarters of children were recorded as having a healthy weight
- During 2019/20, 80% of babies in Orkney were recorded as being breastfed at the time of their First Health Visitor appointment

Population Health

Chapter aim: Review the health status of the Orkney population.

- 77% of people living in Orkney stated their health was either 'Good' or 'Very good' in response to the Health and Care Experience Survey in 2019
- Latest estimates for the period 2017-2019 show that male life expectancy for Orkney is 79 years of age compared to 82 years for females
- In the medium term to 2030-2031 male life expectancy in Orkney is projected to increase by 3%. In the same period, female life expectancy is expected to rise by 2%
- In 2020, 2.3 female and 3.9 male deaths per 1,000 population were classified as premature
- In the period 2017-2019, 2.5 deaths per 1,000 people in the Orkney population were classified as potentially avoidable
- Neoplasms were the leading cause of death in Orkney, followed by Diseases of the circulatory system, together accounting for 57% of all deaths in 2020
- Latest figures 2016-2020 show that on average, 4 people per year in Orkney were assessed as having taken their own life
- Cancer, cardiovascular disease, neurological Disease, musculoskeletal and mental health Disorders were the leading disease burdens according to latest Burden of Disease estimates 2016
- The Scottish Health Survey reported that 37% of Orkney residents surveyed between 2016 and 2019 were living with a limiting long term illness
- In 2018/19 Hypertension was by far the most prevalent LTC recorded at 3,557 patients, representing 16.4 people per 100 population
- Arthritis the leading LTC in Orkney in terms in terms of associated hospital bed days
- Cancer incidence has incrementally risen over the past twenty years. There was a 28% increase between 2008 and 2019 for new cancer registrations in Orkney. There were 131 new Diagnosis in 2019
- There are an estimated 890 people living with sight loss across Orkney
- There were 91 adults with a known learning disability in Orkney during 2019
- Depression is by far the most prevalent Mental Health Condition in the Orkney
- In 2018/19 there were 738 people suffering from Depression registered at practices in Orkney
- In the period between 2010/11 and 2019/20 the level of Anti-Depressant prescribing across Orkney increased every year resulting in a doubling of Anti-Depressant prescribing
- Female healthy life expectancy is 75 Years. Male healthy life expectancy is lower at 69
- The Orkney rate per head of population for falls was 16.9 per 1,000 in 2019/20 compared to 22.7 people per 1,000 population across Scotland
- In 2019/20 people who passed away in Orkney spent 80% of their last six months of life living either at home or in the community

Service Utilisation – Secondary Care (Adults)

Chapter aim: To understand how demand is spread across secondary care services in Orkney.

- Gradual increase in Day Case admissions since 2014/15, decline in Elective Admissions and gradual increase in Emergency Admissions since 2014/15
- In 2019/20, there were 674 Elective admissions, 1,774 emergency admissions and 3,209 Day Case admissions
- In the decade 2010/11 2019/20 the level of emergency hospital admission for people aged 65+ has remained stable both in Orkney and nationally
- In the decade between 2010/11 and 2019/20, hospital occupancy operated on average at 80% across all specialties
- On average hospital occupancy across acute specialties operated at 97% and medical specialties operated at 94% occupancy
- Outpatient services are the largest hospital service utilisation group. In 2019/20 there were 11,641 outpatient attendances in Orkney
- 98% of Outpatients, 98% of Day Cases, 99% of Elective patients and 93% of Emergency admissions were treated in Orkney during 2019/20
- In 2019/20 there were 966 Outpatient appointments, 411 elective admissions, 233 Day Cases and 148 Emergency admissions for NHS Orkney residents in NHS Grampian
- On average just under a quarter of patients (24%) were admitted two or more times as an emergency each year across the decade between 2010/11 and 2019/20
- Over two thirds (70%) of emergency admissions in 2019/20 were for people with Long Term Conditions
- Over half (54%) of Emergency admissions for all people admitted with LTCs were for people aged 65+ with two or more Long Term Conditions
- people aged 75+ with 5 or more Long Term conditions, representing 17% of all Emergency Hospital admissions for people with Long Term Conditions in 2019/20
- A and E attendances increased by more than a third (34%), from 5,193 attendances in 2014 to 6,972 in 2019

Service Utilisation – Community Health Services

Chapter Aim: To understand demand associated with Community Health services

- The number of referrals for psychological therapy increased each year between 2016 and 2019. Overall, this represents a 92% increase in total referrals during that period
- Across the decade between 2010/11 and 2019/20 the level of new demand placed on psychiatry has varied from a low of 65 in 2017/18 to a high of 179 in the following year
- The number of admissions to the psychiatric transfer bed remained relatively low with annual totals ranging from 15 to 28 during the period 2016-2020.
- Following a high of 60 new patients in 2017/18, the number of new people completing a wait for Alcohol or Drugs treatment reduced year on year
- In 2019/20 there were 437 ABIs carried out across Orkney
- The number of Primary Care Out of Hours contacts remained relatively unchanged between 2015 and 2019, with an average of 2,230 consultations per year
- In 2019, there were 14,410 patients registered with a dentist in Orkney, representing 79% of Adults
- 2019 and 2020 also witnessed the highest rates of termination in the period across the Islands with 6.4 and 6.1 terminations respectively per 1,000 women aged 15-44 years

• Between 2015/16 and 2019/20 the level of quit attempts has been somewhat variable ranging from 94 in 2015/16 to 54 in 2018/19

Service Utilisation – Social Care

Chapter aim: To understand demand associated with social care services

- The number of Clients opting to receive Direct Payment increased each year between 2014/15 and 2017/18, representing a 55% increase during the period
- The number of clients opting for Direct Payments in 2019/20 declined by 16% to 79 clients
- During 2019 there were 39 registered care home places for older people per 1,000 population across Scotland compared with 22 in Orkney
- In the decade between 2009 and 2019, the number of registered care home places in Orkney have declined by over a third (36%)
- There were 59 Care Home admissions during 2018/19, the latest year where data available
- Occupancy rate across Orkney Care Homes was on average 90% between 2009 and 2019
- Of the client types submitted as part of the Care Home census, the largest cohort were people with a diagnosis of dementia at 42% of long term residents, a third had a chronic condition or physical disability and a fifth (20%) required nursing care
- In 2018/19 there were 353 respite and short stay care home admissions
- 2019/20 witness the highest level of weekly residential care costs in the decade between 2010-11 and 2019-20 for people aged 65+ in Orkney at £1,155 per week
- During 2020/21, there were 274 clients receiving home care which, despite the Coronavirus pandemic, has remained unchanged since 2019/20
- There is a smaller cohort of clients aged 65+ who receive a more intensive level of home care. This level ranged from 34 to 73 across the 12 year period 2009 to 2020/21 and was at the highest level in 2020/21
- The hourly Home Care cost has remained higher than the Scottish rate over the decade between 2010-11 and 2019-20
- 900 Clients had a telecare package during 2019/20
- 12% of Orkney respondents stated the cared for someone in the latest Health and Care Experience Survey
- Only 8% had been offered a carers assessment, now known as an Adult Carers Support Plan or Young Carers Statement (for carers under 18)
- In 2019-20, there were 60 SWCJ reports submitted
- 2019/20, recorded the highest level of CPOs (64) imposed since 2011

Children and Young People – Service Utilisation

Chapter aim: To understand demand associated with children and young people's services

- The uptake rates for the 27-30 month review show a decrease in 2020, however this is very likely to be due to the COVID-19 pandemic
- Both the rate and volume of patients highlights a slight upward trend over the past two years for emergency admissions
- Analysis of Elective hospital admissions of children aged under 18 years shows that Orkney is in line with the national rate, with the figures for both decreasing over the past 4 years
- Analysis by Heath Board of treatment (Figure YP13) has shown relatively stable numbers of out of area emergency admissions (between 53 and 70) for children aged 0-17 years the last 5 years

COVID-19 Pandemic Impact

Chapter Aim: To review key measures on more up to date data to assess initial impact of the COVID-19 pandemic on services.

- By 15th of November 2021 following an outbreak of COVID-19, the total number of cases increased to 830. Despite this sharp increase, as a rate per head of population Orkney still reported the lowest level proportionally across Scotland at 3705 per 100,000 population.
- Reduction in planned admissions from spring 2020 is noticeably lower than the average number for corresponding weeks in 2018 and 2019
- Initial decline in recorded numbers for emergency admissions during the first weeks of the lockdown period, compared to the average weekly figures from corresponding weeks in the two years prior
- A higher number of deaths in 2020 and 2021 compared to 5 year average of corresponding weeks (Excess Mortality) were particularly noticeable in the first few weeks of the initial lockdown in spring 2020 and again at the end of January 2021 during a further period of restriction
- Throughout 2019, a total of 175 individuals on Orkney were diagnosed with a cancer, compared to 184 diagnoses in 2020
- New outpatient appointments reduced on average by 48% a month in terms of the variation between 2020 and 2018/19 and return appointments reduced on average by 116% a month.
- 2019 ended with 189 outpatients waiting over 12 weeks for their procedure, compared to 485 at the end of 2020; an increase of 296 (156.6%)
- The number of patients waiting longer than 12 weeks to start treatment under treatment time guarantee (TTG) was consistently higher during 2020 and 2021, peaking at 128 in May 2020
- Since the initial lockdown until the time of writing (09 July 2021), a period of 68 weeks, the number of Orkney patients awaiting treatment for over 26 weeks remained higher than 30 patients a week for 62 of those weeks.

Introduction

Integration of Health and Social Care

NHS Orkney and Orkney Islands Council formally established a partnership arrangement in 2010 under the name Orkney Health and Care (OHAC). OHAC brought together local authority and NHS responsibilities into an integrated management and governance arrangement with each parent body (NHS Orkney and Orkney Islands Council). The Public Bodies (Joint Working) (Scotland) Act 2014 to implement health and social care integration, was passed by the Scottish parliament and came into force on 01 April 2016 creating integration authorities. The overarching aim is to improve services by ensuring services are joined up with a focus on anticipatory and preventive care. In essence, ensuring people receive the right care, at the right time, in the right place.

Integration authorities support people to achieve the following nine national health and wellbeing outcomes.

- 1. People are able to look after and improve their own health and wellbeing and live in good health for longer
- 2. People, including those with disabilities or long term conditions, or who are frail, are able to live, as far as reasonably practicable, independently and at home or in a homely setting in their community
- 3. People who use health and social care services have positive experiences of those services, and have their dignity respected
- 4. Health and social care services are centred on helping to maintain or improve the quality of life of people who use those services
- 5. Health and social care services contribute to reducing health inequalities
- 6. People who provide unpaid care are supported to look after their own health and wellbeing, including to reduce any negative impact of their caring role on their own health and wellbeing
- 7. People using health and social care services are safe from harm
- 8. People who work in health and social care services feel engaged with the work they do and are supported to continuously improve the information, support, care and treatment they provide
- 9. Resources are used effectively and efficiently in the provision of health and social care

The Strategic Planning Cycle and Joint Strategic Needs Assessment

The Public Bodies (Joint Working) (Scotland) Act 2014 mandates Integration Joint Boards to develop a strategic plan covering a medium term for integrated functions and budgets. This is part of the wider strategic commissioning process and involves assessing and forecasting the needs of the population and planning future services to meet these needs. This is all within a context of having to do more with less resources. Therefore, planning services efficiently is crucial. The joint strategic needs assessment produced by OHAC in collaboration with Public Health Scotland Local Intelligence Support Team (LIST) sets out the population needs and thus has an important part to play in future commissioning decisions.

What is a Joint Strategic Needs Assessment?

A joint strategic needs assessment (JSNA) can be defined as: "a systematic method for reviewing the health and wellbeing needs of a population, leading to agreed commissioning priorities that will improve health and wellbeing outcomes and reduce inequalities".

There are three key aspects that summarise the main aims of the needs assessment. Firstly, to describe a comprehensive picture of what is known about need to identify priorities for further work. This aim will largely involve reviewing data that is currently routinely collected to describe the population demographics and the most common causes of mortality, morbidity and use of health services. Secondly, to explore the wider determinants of health in the population recognising that the focus is on health. Thirdly, to consider how this relates to use of resources.

Needs Assessment Structure

The JSNA 2021 is structured into three main sections. Firstly, Section A reviews the wider determinants of health such as population demographics, Social and Economic Life Circumstances, risky lifestyle behaviours to health and population health outcomes. Secondly, Section B reviews service utilisation for children and young people and Section C reviews adult services, including a COVID-19 impact review of key measures. The final chapter applies the Orkney Health and Care risk assessment strategy in order to summarise the key issues in an actionable way.

Limitations

It is impossible to define and measure every need in any population. This is largely because information is not available for every potential issue in order to measure need. The most up-todate data available has been used where possible however, some areas have either not been updated or reporting publication has been impacted by the coronavirus pandemic.

Data has been used from a wide variety of sources with varying degrees of accuracy. There are key areas of social care and NHS community care where data is not available. Data has not been made available for certain services due to either recording practices or capacity issues for community nursing, palliative care services, primary care in hours and intermediate care as well as many council services.

Report Production

This report has been produced by the Local Intelligence Support team (LIST) within Public Health Scotland under the direction of Orkney Health and Care. There has been no input from wider specialist Public Health Scotland teams on specific subject areas.

Orkney Health and Care Service Structure Services Map



Integration Scheme

NHS Orkney	Orkney Islands Council
 Accident and emergency services provided in the Balfour Hospital for planning and operational oversight purposes with the Chief Officer working closely with Board staff responsible for operational management of hospital services Inpatient hospital services/budgets provided within the Balfour Hospital and capacity in the delegated specialties used in other hospitals located in other Health Boards will form the set aside portion of the hospital budget Macmillan palliative care services provided in the Balfour Hospital also includes cancer chemotherapy 	 Social work services for adults and older people Services and support for adults with physical disabilities and learning disabilities Mental health services Drug and alcohol services Adult protection and domestic abuse Carers support services Community care assessment teams Support services Care home services Adult placement services Adult places support, including aids and adaptions Day services Local area co-ordination Respite provision Occupational therapy services

NHS Orkney cont. **Orkney Islands Council cont.** Mental health services provided in a Reablement services, equipment and • • hospital telecare Community mental health teams/service Social work services for children and • **Clinical Psychology Service** young people Substance misuse services (ADP Child Care Assessment and Care • • Management budaet) Looked After and Accommodated District nursing services • • Children Health visiting • Child Protection School nursing • Primary medical services provided under Adoption and Fostering a general medical services contract, and • Special Needs/Additional Support arrangements for the provision of Early Intervention • services made under section 17C of the **Through-care Services** • National Health Service (Scotland) Act Youth Justice Services • 1978, or an arrangement made in Social Work Criminal Justice Services pursuance of section 2C(2) of the Services to Courts and Parole Board National Health Service (Scotland) Act Assessment of offenders 1978 **Diversions from Prosecution and Fiscal** General dental services provided under • Work Orders arrangements made in pursuance of Supervision of offenders subject to a section 25 of the National Health community based order (Scotland) Act 1978 Through care and supervision of • Public Dental Services released prisoners Ophthalmic services provided under Multi Agency Public Protection • arrangements made in pursuance of Arrangements section 17AA or section 26 of the National Health Service (Scotland) Act 1978 Pharmaceutical services and additional • pharmaceutical services provided under arrangements made in pursuance of sections 27 and 27A of the National Health Service (Scotland) Act 1978 Services providing primary medical • services to patients during the out-ofhours period Palliative care services provided out with • a hospital Community learning disability services • Continence services • Services provided by health • professionals that aim to promote public health Community Physiotherapy, speech and • language, dietetic and OT services Intermediate Care services • Family Health Service Prescribing •

- Resource Transfer, including Voluntary services
- Sexual and Reproductive Health services excluding hospital obstetrics/gynaecology services

Integrated Resource Framework – OHAC Expenditure

The Integrated Resource Framework (IRF) is a statistical publication produced by Public Health Scotland drawing on the NHS Cost Book and the Local Financial Return for social care produced by Scottish Government. IRF is useful as it provides a wider financial perspective to health costs related to population groups in a locality.

In 2019/20, the total expenditure was £78.8million, this follows an increase each year since 2017/18 and represents an increase in expenditure of almost a fifth (19%). A quarter (25%) of total expenditure was spent on Social Care and three quarters (75%) was spent on NHS services during 2019/20.



Figure IN1: Integrated Resource Framework – Total Expenditure 2014/15 – 2019/20*

Data Source: Public Health Scotland – Integrated Resource Framework

*2019/20 Figures sourced direct from Local Finance Return (LRF03) and NHS Cost Book

*Please note, figures not adjusted for inflation and may be impacted by changes to accountancy

In 2018/19 over two-fifths (42%) of total expenditure was spent on NHS hospital services, a third (34%) was spent on NHS Community Services and a quarter (25%) was spent on Social Care. Half (50.5%) of the total expenditure in 2018/19 was for the care or treatment of people aged 65+. Non-Elective hospital admissions accounted for the greatest spend in 2018/19 at nearly a fifth (18%) of total spending that year. Over half (57%) of non-elective hospital admissions were associated with people aged 65+. Of total spend, non-elective hospital admissions for people aged 65+ represented 12.6%.



Orkney Health & Social Care Expenditure 2018/19 Social Care NHS Community NHS Hospital



Data Source: Public Health Scotland – SOURCE IRF Mapping Expenditure

*Note: 2019/20 breakdowns unavailable

The NHS is one of the biggest employers in Scotland and across Orkney. Figure IN3 highlights all staff employed by NHS Orkney excluding GPs and General Dental practitioners. As at December 2020 were a total of 696 NHS staff accounting for 572.6 Whole Time Equivalents. Nursing and midwifery was the largest staff group accounting for over a third of the workforce (36%) in terms of head count.

Figure IN3: NHS Workforce Overview: Headcount and Whole Time Equivalent WTE December 2020



Data Source: NES – Workforce Statistics

NHS staff turnover is calculated as the number of leavers divided by staff in post as at 31st March each year. The annual turnover rate for NHS Orkney has remained near the average of 9.4 whole time equivalents WTE per year. This is a higher level of staff turnover compared with Scotland during the 9 years 2011/12 to 2019/20. In 2019/20 the staff turnover rate was 8.5 WTE.



Figure IN4: NHS Staff Turnover: Whole Time Equivalent

The total number of GPs has incrementally increased in the seven years between 2014 and 2020. There were a total of 41 GPs in 2020, an increase from 26 in 2014.

Figure IN5: GP Headcount NHS Orkney: All Contract types



Data Source: Public Health Scotland – GP Workforce Statistics

In December 2019, there was a total headcount of 1,290 staff in post working in the various services for social care. Home care and care home staff represented the largest staff cohorts at 40% and 28% respectively.



Figure IN6: Orkney Islands Council Social Care Workforce as at December 2019

Data Source: Scottish Social Services Council - Workforce Statistics

Information presented below reviews the age profile of the social care workforce. 4% of the workforce are aged 65+ and a quarter are aged 55+.

Figure IN7: Orkney Islands Council Social Care Workforce Age Profile as at December 2019



Data Source: Scottish Social Services Council – Workforce Statistics

Population Demographics

The demographics of an area shape the nature of need in many ways. How this is structured over time and location is crucial when considering the nature of health and social need.

This section reviews features of the Orkney population and is primarily based on the work of the National Records of Scotland (NRS). In particular, it is broken down into the constituent parts comprising NRS population estimates as well as projections. Overall trends are presented before going into more detail around the different population features.

Population

The latest National Records of Scotland mid-year 2020 estimate of the number of people living across Orkney was 22,400. Figure PD1 and Figure PD2 highlight how the Orkney population is geographically dispersed in terms of the Scottish Government's 8-Fold Urban Rural Classification. In 2020 6,892 people lived in very remote small towns and 15,508 people lived in very remote and rural settings. This equates at 30% of the population living in very remote and rural small towns. Overall, this has remained unchanged since 2011.

righter Dr. 6-rold Scottish Government orban Kurai classification					
Classification	Description				
1: Large urban areas	Settlement of over 125,000 people				
2: Other urban areas	Settlement of 10,000 to 125,000 people				
3: Accessible small	Settlement of between 3,000 and 10,000 people and within 30 minutes' drive of				
towns	a settlement of 10,000 or more				
4: Remote small	Settlement of between 3,000 and 10,000 people and with a drive time of				
towns *	between 30 and 60 minutes to a settlement of 10,000 or more				
5: Very remote small	Settlement of between 3,000 and 10,000 people and with a drive time of over 60				
towns	minutes to a settlement of 10,000 or more				
	Settlement of less than 3,000 people within 30 minutes' drive to a settlement of				
6: Accessible rural	10,000 or more				
	Settlement of less than 3,000 people and with a drive time of between 30 and 60				
7: Remote rural *	minutes to a settlement of 10,000 or more				
	Settlement of less than 3,000 people and with a drive time of over 60 minutes to				
8: Very remote rural	a settlement of 10,000 or more				

Figure PD1: 8-Fold Scottish Government Urban Rural classification

* The remote small towns and remote rural categories in the 8-fold classification should not be confused with the similarly labelled categories in the 6-fold classification

Figure PD2: Urban Rural Classification – Orkney



Data Source: Scottish Government / NRS

Figure PD3 shows the population distribution of Orkney. In 2019, the total population was estimated as 22,270, and is effectively spread 50/50 between male and female. Less than one in five (18%) of the population were under the age of 18, over half (58%) were aged between 18 and 64 years, with just under one quarter (24%) aged 65 and over.





Figure PD4 shows the historic population of Orkney, along with the NRS population projections until 2043. The population increased by 3.9% between 2011 and 2020 however, NRS estimate the Orkney population will decrease by 0.7% between 2020 and 2035. Moreover, it is projected the population will contract by a further 1.3% between 2035 and 2043.

Figure PD4: Population time trend and projection



Data Source: National Records of Scotland

Data Source: National Records of Scotland

Figure PD5 presents a breakdown of the population change by age and sex across the Orkney in the five years between 2014 and 2019. The cohort of those aged 65 and over witnessed consistent growth across both genders. Females aged 75-84 increased by 22%, while the number of males in the same age grouping went up by 30%.



Figure PD5: Change in population structure 2014-2019

Data Source: National Records of Scotland

Looking ahead to 2035 indicates the extent to which the Orkney population is set to change. Figure PD6 shows the NRS estimated levels of change linked to each age and sex group between 2020 and 2035. Overall, those aged 65+ are set to increase by 30%. The number of people aged between 18 and 64 years is forecast to decrease 10%, with a 15% reduction in the number of children and young people. Were these predictions borne out, there would be 618 fewer children and young people in 2035 than in 2020. The number of people aged between 18 and 64 years would reduce by 1,255. These reductions are in contrast to the increases projected among those aged 65+, where an additional 1,716 inhabitants are expected in 2035 compared to 2020. The estimated increase in people aged 85+ by 2035 is substantial.

Figure PD6: Projected change in population 2020 – 2035



Data Source: National Records of Scotland

Figure PD7 summarises the level of children and younger people, combined with those aged 65+, relative to the working age population. This is otherwise known as the population dependency ratio and is a useful measure to summarise the dynamics of age-based population change. The dependency ratio in Orkney is set to increase in the medium term to 2030 by 5% and by 21% over the long term to 2043.



Figure PD7: Projection Change in population Dependency 2018-2043

Data Source: National Records of Scotland

Orkney comprises geographically diverse areas ranging from remote island contexts to small town settings. Figure PD8 shows the number of people aged 65+ living in different intermediate zones across Orkney. The dispersed population across the Isles accounts for the greatest share of older people in Orkney. The closer the proximity to the centre of Kirkwall, the lower the proportion of people aged 65+ becomes.

Figure PD8: Number of People Aged 65+ by Intermediate Zone



Births

There were 182 births in Orkney during 2019. Figure PD10 places this within a broader declining trend from 2005 represented in a decrease of 15% to 2019. NRS birth projections suggest this decline will continue gradually over the next 10 years, reducing a further 15% by 2030. This equates at a reduction of 27 births per year. Following this predicted decline, it is projected birth rates will remain stable between 2030 and 2042.



Figure PD10: Births in Orkney

Data Source: National Records of Scotland

The total fertility ratio outlined in Figure PD11 reinforces the trend above in relation to births. Between 2005 and 2019, there has been a gradual decline in the fertility ratio. This is expected to remain mostly stable through to 2042.





Data Source: National Records of Scotland

Mortality

Similar to births, mortality rates shape the dynamic of an ageing population significantly. Figure PD12 below shows the age/sex standardised mortality rate for Orkney over the 28 year period since 1991. Overall, despite some slight annual variation, the mortality rate in declined consistently over the 28 year period.





Migration

Migration plays another important role in shaping the population of an area and is a key factor the NRS use when developing population estimates. Net migration is set to decrease by 6% in the medium term between 2019 and 2030. In the longer term period between 2030 and 2043, net migration is estimated to steadily increase by 21%. This is the equivalent of 23 people per year relocating to Orkney. Although a small number, they could nonetheless have significant impact on services.





Data Source: National Records of Scotland

Key Risk Areas of Population Demographics

1. Remote and Rural dispersed population

A central feature of the Orkney population is the remote and rural nature of the population. There are communities spread across a dispersed array of Islands in the north and south of the partnership. In addition, there are two mainland localities, one centred around Kirkwall and another spread across the west side of the mainland. With this in mind, there is no one size fits all approach to service provision given the differences in access to these different localities.

2. Ageing Population: Workforce challenge

Change associated with an ageing population is a well-established challenge facing many European societies. The key challenge associated with an ageing population is the changing ratio between the working age population and those dependent on this population. In essence, this means there are less people of working age available to care for a larger older age cohort. As highlighted in the benchmarking table below this is more acute in remote and rural areas.

3. Ageing Population: Disease Prevalence

As people age they have greater call on health and social care services. This is largely in part due to the development of either single or multiple long term conditions. As highlighted in further sections of the report, it is this cohort who currently account for the greatest proportion of health and care resource. With a growing older aged cohort, with increasingly complex care needs, this demand is expected to increase significantly. Meeting this change with a smaller workforce is a central challenge facing Orkney Health and Care.

4. Ageing Population across Localities within Orkney

Taking the three points above together adds a further layer of complexity to service provision for the population of Orkney. As highlighted in the heat map (figure PD8) there is a greater level of people aged 65+ living in the remote localities across Orkney. Therefore, it is anticipated there will be greater demand from an older age cohort with complex care needs who are dispersed across most inaccessible localities of Orkney.

5. Outward Migration

Orkney will rely on inward migration to meet challenges of future demand associated with an ageing population. In the medium term as highlighted in PD13, the level of people leaving Orkney is set to increase. These estimates were produced prior to Brexit and the COVID-19 pandemic. Therefore, there is some uncertainty around what impact these changes will have on migration to and from Orkney.

Population Demographics Benchmarking Table by local authority peer group

Figure	Indicators	Data Type	Time Period	Orkney Islands	Argyll & Bute	Aberdeenshire	Dumfries & Galloway	Highland	Na h- Eileanan Siar	Scottish Borders	Shetland Islands	Scotland
	Total Population	Count	Mid-Year 2020	22,400	85,430	260,780	148,290	235,430	26,500	115,240	22,870	5,466,000
PD3	Gender ratio male to female	ratio	Mid-Year 2020	0.99	1.00	0.99	0.95	0.96	0.97	0.95	1.03	0.95
PD3	Population over 65	%	Mid-Year 2020	32%	35%	25%	36%	30%	36%	34%	27%	24%
PD5	Population Change 2011 - 2020	%	Mid Year 2020	5%	-4%	3%	-2%	1%	-4%	1%	-2%	3%
PD6	Projected Population change 2035	%	2018 based estimates	-1%	-9%	3%	-5%	0%	-10%	1%	-2%	2%
PD7	Population Dependency Ratio	Rate	2018 based estimates	643	660	597	678	614	693	671	602	541
PD10	Birth Rate	Rate	Mid-Year 2020	8.2	6.9	8.8	7.7	7.9	6.9	7.3	7.7	8.6
PD10	Projected Birth rate % Change 2030	%	2018 based estimates	-12%	1%	2%	0%	6%	13%	15%	12%	5%
PD12	Mortality Rate	Rate	Mid-Year 2020	11.3	13.9	10.2	14.0	11.4	13.4	12.2	9.1	11.7
PD12	Projected mortality % Change 2030	%	2018 based estimates	10%	6%	6%	4%	6%	10%	6%	32%	-3%
PD13	Net Migration	Count	Mid-Year 2019	150	-70	-380	730	980	50	590	-90	30200
PD13	Net Migration projectd % change	%	2018 based estimates	-7%	488%	3%	14%	-5%	314%	13%	133%	-2%

Life Circumstances – Social and Economic Factors

Introduction

The wider social and economic environment people live in can impact profoundly on the health and social care needs of communities. This section will explore indicators associated with the social and economic life of people in Orkney. The information used in this section is mostly quantitative, drawn from social surveys such as the Scottish Household Survey as well as claimant figures from the Department of Welfare and Benefits. Information presented has been developed using various methodologies with varying levels of accuracy.

Deprivation

This section explores the deprivation structure of Orkney through the Scottish Index of Multiple Deprivation (SIMD). The SIMD is a relative measure of deprivation based on 6,976 small geographic areas known as data zones made up of populations ranging from 500 to 1,000 household residents nationwide. It is a measure of multiple deprivation which measures domains associated with access to services, crime, education, employment, health, housing and income. These domains are known factors that influence the resources and opportunities people experience in life. An overall deprivation score is derived from the individual domain scores, which is used to rank the 6,976 data zones across Scotland into deprivation quintiles (quintile 1 being the most deprived, and quintile 5 the least). There are two approaches to presenting SIMD breakdowns, the first is reviewed and referred to as national SIMD. The second follows this describing the limitations of national SIMD and presents an alternative approach referred to as relative SIMD.

The most recent SIMD ranking was carried out in 2020. Within the 2019 population in Orkney, nobody resided in either the most or least deprived SIMD quintile in Scotland. The SIMD weighs up highly populated urban areas against remote and rural contexts. Figure LC1 highlights nearly two-thirds (65%) of the Orkney Population live in areas classed as Quintile 4, the second least deprived quintile.







Exploring the individual domains that make up the overall SIMD score, as shown below in Figure LC2 for Orkney, highlights two key trends. Firstly, the access domain captures the remote and rural nature of the population, highlighting 63% of Orkney residents live in the most Access deprived quintile in Scotland. The geographic access indicator weighs the drive time and public transport time to certain services. These services include: GP Surgeries, Post Offices, retail centres, primary schools, secondary schools and petrol stations. These drive times include ferry journeys however, and may distort access to local services such as local shops not considered a retail centre or access to an Advanced Nurse Practitioner. Additionally, the Access indicator includes a measure of whether people have access to superfast broadband 75% of the Orkney population lived in the two least deprived quintiles for the crime domain.



Figure LC2: Percentage of population living in each national SIMD 2020 quintile: Orkney

Data Source: Scottish Government and National Records of Scotland

Figure LC3: Map of Data Zones within Orkney coloured by national SIMD quintiles.



Source: Scottish Government, Public Health Scotland

There are known challenges with using national SIMD scores to understand factors of multiple deprivation in remote and rural areas. In particular, populations tend to be more dispersed across larger geographies compared to urban areas. This presents challenges around making assumptions people share similar SIMD domain characteristics within a dispersed population. Therefore, using the national SIMD breakdowns can result in a distorted picture of deprivation in remote and rural areas. One way to counteract this issue is to produce relative SIMD scores for the area in question. The SIMD scores attributed to each datazone within an area can also be ranked by a local area level in order to produce relative deprivation groups. These are again based on domain scores but groupings are derived only from datazones in that particular locality. There are 29 datazones spread across the three locality areas of Orkney.

The proportion of the Orkney population living in each of the relative SIMD quintiles is presented below in Figure LC4. The first key point to note is the difference between Figure LC1, in particular the addition of SIMD Quintile 1 and SIMD Quintile 5. Relative SIMD breakdowns for Orkney show that 38% of the population live in the two most deprived quintiles. Additionally, this approach highlights 44% of the population live in the two least deprived quintiles. This is a marked difference compared with national SIMD breakdowns which report 65% of the population live in SIMD Quintile 4. Therefore, it provides a more accurate picture of deprivation in a particular locality that is less distorted by national levels. Relative SIMD is used for a variety of negative health outcomes measured throughout the remainder of this report.



Figure LC4: Proportion of population living in Relative SIMD 2020 Quintiles: Orkney

Data Source: Scottish Government, National Records of Scotland

Figure LC5 summarises the proportion of the population living in the various relative SIMD quintiles broken down by datazones within each locality. Considering the two most deprived quintiles together provides a useful comparative measure. 39% of people residing in the Orkney East locality live in the two most deprived quintiles relative to the NHS Orkney area. This compares to 19% of people living in Orkney West and 100% of the Isles locality. This highlights how relative deprivation in Orkney varies greatly by locality, but also how it contrasts to the Scottish Level SIMD quintiles. There are four data zones within the Orkney East locality placed in the most relatively deprived areas in the partnership area. These are all within Kirkwall, three of which are in Kirkwall East and one in Kirkwall West. This highlights the differences related to deprivation across localities in terms of the reasons why they are ranked in this way. For example, Orkney East has a somewhat urban element to deprivation compared to the Isles locality which is largely access based.



Figure LC5: Relative SIMD Orkney

Data Source: Scottish Government, National Records of Scotland

Figure LC6 presents the breakdown of SIMD domains ranked relatively to the 29 datazones of Orkney. As outlined above this provides a more accurate picture how deprivation is spread across a local geography, undistorted by national variation. A key point taken from Figure LC6 is that, in comparison to national SIMD domain breakdowns for Orkney, the proportion of the population resident in the different quintile groups is much more balanced. In particular, the access domain indicates only 40% of residents live in access deprived datazones, compared with 63% found in the national SIMD groupings.



Figure LC6: Relative SIMD Orkney Domains

Data Source: Scottish Government, National Records of Scotland

Employment

Employment plays an important role in people's lives in many ways. It provides a sense of purpose, financial stability, and continuity for children, as well as future security for retirement. However, it may act as a double-edged sword as it can be a key source of stress due to underemployment, insecure temporary contracts leading to uncertainty and anxiety, as well as physical impacts of low paid repetitive unskilled work. Figures are not available for local authority level however, the Office for National Statistics (ONS) estimated that in quarter one of 2021/22 (April – June 2021) 2.3% of the Scottish workforce work in zero hours contracts.

Latest estimates indicate 87% of the working age population on Orkney were economically active. Parallel to the above financial measures this has generally increased since 2010/11 when the economy started to recover following the financial downturn in 2008/09.

Figure LC7: Economic Activity



Data Source: ONS Annual Population Survey

The unemployment rate in 2019/20 was at its lowest level in the 16-year period since 2004/05. 1.5% of residents were unemployed according to the ONS. After an increase following the impact of the financial crisis in 2008/09 unemployment declined between 2010/11 and 2019/20.



Figure LC8: Estimated Unemployment Rate

Data Source: ONS Annual Population Survey

As expected due to the declining trend of unemployment, the level of Out of work claims declined in the 5-year period following the impact of the financial crisis in 2008/09. However, while the unemployment rate continued to decline until 2019/20, the number of people claiming Out of work benefits increased gradually between 2015 and 2017, followed by sharper increase in 2019. This is in part likely due to changes to welfare policy with the introduction of Universal Credit. The amount of people making out of work benefit claims increased to levels not witnessed since the mid-90s following the impact of the first wave of the COVID-19 pandemic.



Figure LC9: Out of Work Claimant Benefits

Data Source: Office for National Statistics – Job Seekers Allowance, Universal Credit out of work

Differences in Gender pay reflect the economic parity between genders within a community. It provides a high-level estimate of differences between genders in terms of how much people are paid for work but also reflects independence of women as members of society. The gender pay gap measure is defined as the difference between male and female hourly earnings as a percentage of male earnings. The latest estimate reveals, among local authorities in Scotland, Orkney is in the bottom five areas for female gender pay parity. On average, women in Orkney were estimated to receive 21.5% less in pay than males.

Shetland Islands **Dumfries and Galloway** South Ayrshire Highland **Scottish Borders** Inverclyde Na h-Eileanan Siar Falkirk East Ayrshire Aberdeenshire **Glasgow City Dundee City** Angus North Ayrshire West Lothian acal Authority South Lanarkshire Fife Argyll and Bute Perth and Kinross Scotland North Lanarkshire Stirling Renfrewshire Midlothian East Lothian West Dunbartonshire City of Edinburgh East Dunbartonshire Clackmannanshire Aberdeen City **Orkney Islands** Moray East Renfrewshire -10.0 0.0 10.0 20.0 30.0 Gender Pay Gap

Figure LC10: 2020 Gender Pay Gap

Data Source: Annual Survey of Hours and Earnings, Office for National Statistics

Household Finances

There are well-known links between physical and mental health outcomes based on personal financial status. These factors shape the resources people can draw upon in times of need and therefore have wider health and social care resource implications. Recent results from the Scottish Household Survey suggest 66% of Orkney households manage well or very well in terms of Household finances. This has mostly increased over the 20-year period since 1999 despite the financial crisis of 2008/09.





2011 data unavailable

Savings can act as a buffer in times of emergency to cover either unexpected costs due to ill health or changes in employment. In addition, savings can prevent debt and experiences of material deprivation. There are known links between mental health and whether people have savings too. Of those surveyed in the Scottish Household Survey in 2019, 8% of the Orkney households responding stated they had no savings. This was a decrease from 2017 but sits broadly in line with the Orkney average of 10% between 2009 and 2019.

Figure LC12: Proportion of households with no savings



*2011 data unavailable

Living costs in Remote and Rural areas tend to be inflated compared to more accessible areas due to aspects such as delivery availability and added delivery costs. This places additional pressure on households. Comparatively a single person's average weekly cost of living is 27% higher than mainland equivalents.

Household Structure	Town	Accessible settlement to town	Inaccessible settlement to town	Remote Settlement from Town
Single Person	£259.96	£275.47	£320.93	£336.27
Pensioner Couple	£293.86	£292.75	£297.64	£330.33
Lone Parent 1 Child under Two	£327.41	£340.65	£353.44	£368.68
Couple with primary and pre-school Child	£600.00	£617.53	£721.77	£758.83

Figure LC13: Cost of Living in Scotland and Remote Rural Areas – Excluding Rent

Data Source: Highlands and Islands Enterprise

Fuel Poverty

Fuel Poverty has an impact on health in many direct and indirect ways. Cold and Damp homes can lead to respiratory disease, heart disease, circulatory disease and mental health issues. People living in remote and rural areas have higher rates of fuel poverty. This increased between 2018 and 2019 from 33% to 43% compared to 24% of homes located in urban areas. This is further exacerbate when considering extreme fuel poverty where 19% of homes in remote and rural places were found to be in fuel poverty compared with 11% of urban homes.

If a household cannot afford to heat their home within their financial budget to a satisfactory level they are classed as living in fuel poverty. The Fuel Poverty (Targets, Definition and Strategy) (Scotland) Act, states a person is in Fuel Poverty when:

- In order to maintain a satisfactory heating regime, total fuel costs necessary for the home are more than 10% of the household's adjusted (i.e. after housing costs) net income; and
- After deducting those fuel costs, benefits received for a care need or disability and childcare costs, the household's remaining adjusted net income is insufficient to maintain an acceptable standard of living.
- Extreme fuel poverty follows the same definition except that a household would have to spend more than 20% of its adjusted net income (after housing costs) on total fuel costs to maintain a satisfactory heating regime

30.5% of people living in the Orkney were estimated to be living in fuel poverty between 2017 and 2019. This was more acute for older people than other cohorts. The same applies for extreme fuel poverty where 33.9% of older people were estimated to be living in extreme fuel poverty. While Orkney may not have the highest level of fuel poverty compared with the Western Isles or Shetland, the fuel poverty gap-the annual amount that would be required to move the household out of fuel poverty – is the largest in Orkney, where the median fuel poverty gap is estimated to be $\pounds1,640$. That is £950 more than the Scottish Median. The equivalent gap estimate for older people is again highest in Orkney at £1,890, which is £1,160 more than the Scottish Median of £730.
Figure LC14: Fuel Poverty in Orkney 2017-2019



Data Source: Scottish Household Condition Survey

The main negative impact of fuel poverty is its damaging effects on quality of life and health. The effects are both direct and indirect; illnesses such as influenza, heart disease and strokes are all exacerbated by cold conditions. Insufficiently warm homes can also promote the growth of fungi and a number of dust mites, often linked to conditions such as asthma. Less directly, households that spend a high proportion of their income on fuel have to compensate in other parts of their family budgets. This can lead to poor diet, or reduced participation in social and leisure activities, both of which can also impact on health and quality of life. These negative effects of fuel poverty can be particularly acute for vulnerable groups.

Food Insecurity

Food Insecurity is increasingly becoming recognised as a serious challenge for many people in Scotland. It is a negative outcome of poverty and has many health outcomes. Figures for the number of food parcels handed out by the Trussell Trust provide some insight into the extent in Orkney. The total number of food parcels given out to both children and Adults increased by 46% in 2020/21.

Table LC1: Number of Food Parcels distributed in Orkney

Year	Adults	Children	Total
2019/20	538	394	932
2020/21	768	594	1,362

Data Source: The Trussell Trust

Child Poverty

Child poverty is a precursor to many negative health and wellbeing outcomes. These range from low birthweight, obesity, unintentional injury, poorer mental wellbeing, lower educational attainment, teenage pregnancy and poorer health in adulthood. The socio-economic circumstances can impacts on a child's development in many ways. For example, less ability to interact with educational opportunities due to coldness, tiredness, hunger or worrying about home situations.

The Children in Low-Income Families' local area statistics (CiLIF), provides information on the number and proportion of children living in relative low income by local area across the United Kingdom. Relative low income is defined as "a family in low income before housing costs (BHC)" in the reference year. A family must have claimed one or more of Universal Credit, Tax Credits or Housing Benefit at any point in the year to be classed as low income in these statistics.

Figures from the Household Below Average Income Survey show in Figure LC15 below reflect an increasing trend across Orkney of children living in relative poverty. There has been an increase every year except between 2017/18 and 2018/19. 2019/20 witnessed the highest level of children (703) in low income families during the five financial years shown below.



Figure LC15: Children in Low Income Families

Data Source: Households below average Income Survey – Department for Work and Pensions

Free school meals provide further insight into the level of children living in child poverty within a locality. Children in school years P1–P3 are excluded in the figures below due to the policy of universal free school meals for this cohort since 2015. Figure LC13 below highlights the scale of the difference between Scotland and Orkney among remaining primary school pupils. A significantly smaller proportion of eligible pupils in Orkney receive free school meals. In the latest year this data is available for, 6.5% of all pupils in P4-P7 were registered to receive free school meals compared to 16% of children across Scotland. That equates at 62 children out of 952 across Orkney during the 2018 census.



Figure LC16: Percentage of all P4-P7 pupils registered for Free School Meals

Data Source: Scottish Government-Attainment, leaver destinations and healthy living Survey

Employment provides stability in family life by normalising the routine around work as well as providing an income that decreases the risk of deprivation. That is not to disregard in-work poverty however, it is one measure of many to assess the extent of Child Poverty in an area. Figure LC17 shows that, in 2019, 80% of children living in Orkney were part of a working family. This has declined marginally every year since 2016. While levels varied slightly during the 13-year period 2006 – 2019, the level of children living in working families has remained broadly unchanged. The levels on Orkney are consistently higher than the national rate.



Figure LC17: Children in Working Households

Data Source: ONS- Workless Households for Areas UK

Single parent households generally have fewer resources to draw upon than non-single parent households, potentially predisposing children to higher chances of poverty. In 2019, 3% of children in Orkney were estimated as living in a single parent household. This followed an eight year peak of 5% of households in 2017.



Figure LC18: Single Parent Households

Housing

Housing shapes communities and has established links to health outcomes, well-being, quality of life, and independence. Poor energy efficiency and thermal conditions can impact on flu, heart disease, stroke and respiratory illness. Similarly houses that are in a state of disrepair may increase the risk of falls and accidents. Housing has additionally impacted on health and social care recruitment in Orkney due to availability and affordability.

Orkney's Local Housing Strategy suggests the main issues with housing are:

- A general shortage of housing throughout Orkney and, in particular, affordable housing
- Increasing numbers of older people in unsuitable accommodation
- Increasing need to support households with particular needs
- Need for additional specialist housing (often with support) for households with particular needs and significant disrepair within the private housing stock

The 2020 NRS estimate of the number of households on Orkney was 10,635. This represents a 0.4% increase from 2019 compared to a 0.5% increase across Scotland. Looking at the decade 2010-2020 highlights that there was a 10% increase in the number of households across Orkney.



Figure LC19: NRS Household Estimates

Year

Data Source: National Records of Scotland

The 2020 NRS estimate of the number of dwellings was 11,391. 90.1% of dwellings were occupied, 11.3% were estimated to be vacant, 4.3% were second homes and the proportion of these households receiving a single adult Council Tax discount was 33.2%.





Data Source: National Records of Scotland

In 2019, 75% of the Orkney population were estimated to be Home Owners. This is the average rate of homeownership across Orkney during the 1991-2019 period.





Data Source: Scottish Household Survey *2011 Data not available The level of homeownership is estimated as relatively unchanged over the 20 years between 1999 despite increasing values. Despite the downturn in sales due to tightening of credit following the 2008/09 financial crisis, the average number of house sales and average value has steadily increased year on year. While this may benefit current homeowners, the same trend impacts first time buyers, affecting availability of credit, as well as increased risk at taking on higher levels of debt.



Figure LC22: Housing Market – Sales and Value

In 2018 NRS estimated the number of households across Orkney is set to increase by 5% during the period 2019-2028. Household structure projections highlighted below in Figure LC23 reflect changes to family structure projections in the previous section. This key trend shows an estimated increase in the number of adults living either alone or together without children and a decrease in households with children. This trend is set to continue at pace and will likely reshape what communities across Orkney look like.

Figure LC23: Housing Structure Projections 2018-2028



Data Source: National Records of Scotland

Crime

Feeling safe at home and in your community fosters a stronger sense of belonging in the local environment. Crime rates have remained broadly stable since 2013-14 across Orkney. As Figure LC24 shows, the recorded crime rate per 1,000 population in Orkney is significantly lower than the Scottish rate per head of population.



Figure LC24: Crimes and Offenses Recorded by the Police

Data Source: Scottish Government – Recorded Crime in Scotland

Data relating to the perception of crime in a local community are only available at a regional level. On the whole, citizen perception of whether crime has remained the same or declined in their community has remained broadly unchanged since 2010-11. Results relating to the 2018-20 Criminal Justice Survey show that 79% of people in the Highlands and Islands police division felt crime had stayed at the same level or reduced compared to the previous two-year period.



Figure LC25: Perceived Crime

Source: Scottish Criminal Justice Survey

Community

Sense of community plays an important role in numerous health and wellbeing outcomes. A healthy, inclusive community can act as a protective measure against a range of negative health and wellbeing outcomes. It can provide a sense of identity as well as providing a source of resilience in times of difficulty at an individual and community level. Results from Scottish Household Survey suggest Orkney has a strong sense of belonging. 88% of people felt a very strong or fairly strong sense of belonging during 2017-2019. This compares to 78% of all respondents to the Scottish Household Survey.



Figure LC26: Sense of belonging 2017-2019

Data Source: Scottish Household Survey

Results from the Scottish Household Survey outlined in Figure LC27 below indicates Orkney residents feel very safe in their community. When the question of safety was included in the Scottish Household Survey between 2012 and 2019, on average 100% of respondents stated they felt safe at home, and 97% stated they felt safe walking alone at night in their neighbourhood.

Figure LC27: Perception of Community Safety



Data Source: Scottish Household Survey

How people perceive their immediate neighbourhood affects a great deal of daily experience and shapes how people interact with other people in their community. Lack of trust, kindness, socialising, inclusion and participation all impact on the health and wellbeing of a community. Overall, people in Orkney suggested people are kind and can be trusted within their neighbourhoods. Opportunities to meet new people or places to socialise generally, are seemingly less abundant. This perhaps is no surprise given the remote and rural nature of Orkney.



Figure LC28: Perception of Neighbourhood 2017-2019

Questions

Data Source: Scottish Household Survey

Social Isolation

How often people meet socially with friends, relatives, neighbours or work colleagues provides insight into how predisposed people are to social isolation. There are emerging findings showing the link between social isolation and negative health outcomes. Across all age groups surveyed, on average 80% of people reported meeting at least once a week. A much smaller proportion reported meeting at least once a month.

Figure LC29: Frequency of Socialising 2017-2019



Data Source: Scottish Household Survey

Feelings of belonging to a community and the perception of a neighbourhood affect to what extent people are motivated to be involved in supporting others in their community. Further results from the Scottish Household Survey results 2017-2019 suggest there is a strong community spirit across Orkney. Across the four community involvement domains over 90% of people agreed they would offer to help others that they felt they could turn to someone, that they could count on someone and that they could rely on someone for help.

Figure LC30: Local Support and Community Involvement 2017-2019





Education

Education is as an important determinant of health and is recognised as having a key role in shaping lifelong health and wellbeing. As well as providing qualifications, education can have a much broader beneficial impact on health and wellbeing in terms of developing values, emotional intelligence, self-esteem and social functioning skills. There are striking inequalities in educational attainment in Scotland, which are the focus of considerable policy attention.

Table LC2: Literacy and Numeracy Attainment of School Leavers (S4, S5 and S6)

% Leavers achieving Literacy and Numeracy	SCQF Level 4					SCQF Level 5					
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	
Orkney	91	93	92	86		60	66	75	65	65	

During 2019-20, 91.1% of School leavers went on to a positive destination after leaving school. **Figure LC31: School Leavers Destination 2019/20**



The level of children registered with childcare services per head of population aged 0-15 is comparatively low. As at December 2019 there were 22.1 children per 100 people aged 0-15 registered with childcare services in Orkney. This compares to 27.2 children per 100 across Scotland. It should be noted the data presented around registered with child care service is prior to the nursey closing. These services impact on families, in particular woman who may have to give up work to look after their children.





Data Source: Source: Care Inspectorate service-lists and annual return data. National Records of Scotland mid-2019 population estimates

Key Risk Areas

- Access to services: As highlighted in the previous population demographics chapter, the remote and rural nature of the Orkney population presents challenges around access. When placed in the national context using the SIMD 2020 framework, Orkney hosts some of the most access deprived localities in Scotland. 60% of the Orkney population live in the most access deprived localities in Scotland. Service provision must therefore find novel ways to provide services to a dispersed, hard to reach population. This applies to the Orkney as a whole but is most acute in the Isles locality.
- Relative Deprivation: When considering relative deprivation across Orkney, Orkney East, particularly some areas within Kirkwall, have a higher concentration of overall deprivation. This relates more to the traditional forms of deprivation associated with education, crime, health outcomes, housing and employment. The links between deprivation and poorer health outcomes are well established.
- Gender pay gap Female Independence: The gender pay gap can lead to negative health and wellbeing outcomes for women in many ways. Risks associated with lower paid roles such as poorer working conditions and autonomy can lead to negative health outcomes. Discrimination associated with pay differences can also lead to poorer mental health outcomes. Moreover, women tend to work less hours than men due to childcare commitments. Orkney reports a lower than peer group level of children registered with childcare services. As women live longer than men, the gender pay gap extends into pension due to the disparities in accumulating wealth – which in itself can lead to increased stress -, pushing many women into poverty during retirement.
- Sharp rise in levels of out of work benefit claims due to COVID-19: Sharp rise in out of work benefit claims since April 2020. Has potential to result in higher levels of common mental health conditions due to stress associated with financial insecurity of unemployment. Unexpected unemployment can impact on families, children and individuals due to stresses of struggling to get by. This places people in challenging situations to make decisions around food and heating spending. Also reflected in trends of increasing claims to food banks and will be intensified by the reduction of Universal Credit as well as energy price rises.
- Fuel Poverty: Following on from the above, fuel poverty was already an acute issue in remote and rural areas before the pandemic. Elderly people are acutely affected by fuel poverty however, the combination of an increase in employment insecurity, higher costs of living associated with the current gas price and energy crisis could have very serious impacts on people's health and wellbeing in both the short term and long term. Illness associated with under heated homes could place increased short term pressure on services in winter 2021. These challenges in the short term will need consideration for winter planning.
- Rise in Child Poverty: Indicators of child poverty suggest this has been increasing in terms of the number of children living in low income families. The impact on children health and wellbeing is multifaceted in terms of development and long term health. Many more families and children may well be impacted in both the short and long term due to the rise in employment insecurity and the energy crisis.
- Social Isolation is becoming an increasingly better understood social issue affecting people. This applies in particular in remote and rural areas to elderly people. Social isolation can have negative health outcomes as well as mental health impacts.

Life Circumstances: Benchmarking Table by local authority peer group

Figure	Indicators	Data Type	Time Period	Orkney Islands	Argyll & Bute	Aberdeenshire	Dumfries & Galloway	Highland	Na h-Eileanan Siar	Scottish Borders	Shetland Islands	Scotland
LC1	Population living in 2 most deprived Quintiles	%	2019	40.0%	30.0%	39.0%	39.0%	39.0%	39.0%	39.0%	41.0%	39.0%
LC4	Economic Activity Rate	%	2020	85.8%	47.0%	54.6%	43.9%	52.1%	51.7%	82.2%	51.5%	79.9%
LC5	Unemployment Rate	%	2020	2.6%	12.7%	2.8%	4.0%	3.2%	2.9%	3.4%	2.5%	4.7%
LC6	% Out of Work Claimant Count	%	Jul-21	2.1%	4.4%	3.3%	4.5%	3.9%	3.8%	4.4%	2.6%	5.1%
LC7	Gender Pay Gap	% difference	2020	21.5	10.1	6.5	-4.5	-0.2	2.4	1	-6.7	11.1
LC8	Households that manage well	%	2018	55%	62%	64%	55%	52%	69%	69%	54%	55%
LC9	Households with no Savings	%	2017	14%	17%	8%	13%	10%	7%	22%	15%	22%
LC11	Fuel Poverty Rate	%	2017 - 2019	31%	32%	24%	29%	33%	32%	29%	31%	24%
LC12	Children in Low Income Families	%	2016	8.0%	12.9%	8.4%	16.0%	12.4%	9.0%	12.6%	6.8%	16.8%
LC13	p4 - p7 Free School Meals	%	2018	6.5%	12.8%	8.1%	15.9%	9.1%	12.8%	12.0%	6.6%	17.0%
LC14	Children in working families	%	2019	80.1%	68.2%	72.5%	63.1%	73.3%	63.7%	63.1%	70.2%	62.0%
LC15	Single Parent Households	%	2018	4.1%	5.3%	5.3%	3.9%	4.6%	3.4%	2.5%	3.3%	4.8%
LC16	Change in Households 2009 - 2019	% Change	2019	11.3%	3.6%	9.0%	3.0%	8.8%	5.3%	5.6%	6.9%	6.1%
LC17	Occupied Households	%	2019	90.3%	88.9%	94.4%	93.7%	93.3%	86.8%	93.6%	91.9%	95.9%
LC18	% Owner Occupiers	%	2019	74.5%	68.2%	73.5%	59.6%	66.3%	74.6%	58.5%	71.1%	61.6%
LC19	Average House Value	£	Apr - Jun 2021	181,241	180,131	217,449	158,552	198,416	135,645	197,308	167,951	191,583
LC21	Recorded Crime	Rate per 10,000	2019-20	159	289	259	441	307	155	310	212	451
LC23	Sense of Belonging to Community	%	2019	88.1%	84.4%	77.8%	85.1%	81.5%	93.5%	78.0%	89.9%	77.8%
LC24a	Felt Safe at Home	%	2019	100.0%	99.5%	99.4%	98.0%	99.1%	100.0%	98.1%	99.5%	98.2%
LC24b	Felt Safe - Walking at Night	%	2019	95.7%	88.9%	88.5%	88.6%	88.2%	98.7%	86.7%	97.2%	85.1%
LC25a	Places to meet and Socialise	%	2019	77.7%	66.1%	63.4%	50.4%	59.8%	49.1%	61.2%	70.6%	57.1%
LC25b	People aged 60+ Meet weekly	%	2018	80.6%	50.2%	78.9%	72.3%	78.7%	83.5%	85.9%	80.0%	75.8%

Lifestyle and Risky Health Behaviours

An individual's health is affected by many behavioural and lifestyle risk factors. The World Health Organisation estimates 90% of the total burden of disease in high income countries is associated with just five risk factors. These are tobacco use, alcohol consumption, poor diet, overweight and obesity, and physical inactivity. Many of these factors are interrelated and co-occurring presenting a complex impact on health. In addition, wider societal factors such as deprivation are known predictors of risk related behaviour. This chapter will review available data relating to these risk factors with the addition of drug related behaviour.

Smoking

One of the biggest public health threats the world has ever faced.

World Health Organisation, 2019

Worldwide, it is estimated that smoking is attributable to eight million deaths per year. Smoking is one of the leading causes of preventable disease and premature death in Scotland and is a significant public health challenge. It is estimated to be the cause of one in five deaths nationwide, and the leading cause of premature death. Moreover, there are known links to deprivation and smoking status.

Results from the latest Scottish Health Survey available at a local level suggest 12% of the Orkney adult population currently report being a smoker. This compares to 19% of people across Scotland and is a reduction from 17% in the previous release of locally available survey data. 15% of the adult male population indicated they were smokers, compared to 9% of adult females. However, both sex estimates are lower than the Scottish estimates of 20% and 17% for males and females respectively.





Data Source: Scottish Health Survey Combined Results 2016-2019

Public Health Scotland use collated smoking prevalence estimates from the Scottish Survey Core Questionnaires and apply them to the NRS population estimates. Figure LS2 below shows the number of people estimated to be smokers in Orkney between 2013/13 and 2019/20. Overall, estimates have remained broadly stable during the eight year period at around 3,000 people estimated to be current smokers.



Figure LS2: Smoking Prevalence Adults

Data Source: Public Health Scotland – Smoking Cessation Publication

There is a strong relationship between deprivation and smoking status. Figure LS3 below indicates a clear reduction in the likelihood of being a smoker as you move through the deprivation groups to the least deprived. A person living in the most deprived quintile is almost twelve times more likely to be a smoker than someone living in the least deprived quintile.



Figure LS3: Estimated Smoking Prevalence Scotland 2019/20

Data Source: Public Health Scotland – Smoking Cessation Publication

The Scottish Schools Adolescent Lifestyle and Substance Use (SALSUS) survey conducted in 2013 provided a comprehensive review of adolescent smoking behaviour. Of all 13 and 15 year olds surveyed, 12.5% stated they had tried a cigarette at least once. This was particularly higher for 15 year old girls, where 18% stated they had tried a cigarette compared with 13.4% of boys. This is reflected in the higher level of 15 year old girls stating they are a regular smoker compared with 5.2% of 15 year old boys. However, a higher level of 15 year old boys stated they were an occasional smoker compared with 4.6% of girls. This may be related to response bias to the survey especially if completed in a school setting. Despite this, these findings highlight that in 2013, a proportion of adolescents were being exposed to cigarettes. In most cases this is how and when people become smokers as it moves from collective social experience to an individualised habit and addiction.

Smoking	13 years (%)			15 years (%)			Gender (%)			
Behaviour	Boys	Girls	All	Boys	Girls	All	Boys	Girls	All	
Regular smoker	-	-	-	5.2	12.6	9.0	2.9	7.0	4.9	
Occasional smoker	-	-	-	11.8	4.6	8.1	6.5	2.6	4.4	
Used to smoke	2.7	1.2	1.9	5.0	5.0	5.0	4.0	3.3	3.6	
Tried once	7.3	6.1	8.4	13.4	18.0	15.8	10.7	12.8	12.5	
Never smoked	89.8	92.6	89.6	64.3	59.6	61.8	75.7	74.2	74.3	
Pupils Surveyed	71	80	151	79	85	164	150	165	315	

Table LS1: Adolescent Smoking 2013

There are many negative health outcomes related to smoking during pregnancy. Complications during labour, an increased risk of miscarriage, premature birth, stillbirth, low birthweight and sudden unexpected death in infancy carry a higher risk if women smoke during pregnancy. Younger age and social economic status are both known risk factors increasing the likelihood of smoking during pregnancy. Smoking can also reduce the likelihood of conception by increasing the amount of time it takes for a women to conceive and reducing sperm count in men.

Information regarding smoking during pregnancy is recorded during the first antenatal booking appointment within the first 12 weeks of a pregnancy. Nine women (5.3%) were current smokers, 44 (25.7%) were former smokers and the remaining 118 (69%) reported never smoking.





Data Source: Public Health Scotland – Births in Scottish Hospitals publication: SMR02

Deprivation is a risk factor influencing the likelihood of whether someone smokes and whether a mother smokes while pregnant. Using relative SIMD quintiles for Orkney backs up this theme. 10% of women living in the most deprived relative SIMD quintile areas in Orkney were known smokers during pregnancy at first booking. This is more than double the amount from either of the two lest deprived quintiles.





Data Source: Public Health Scotland – ScotPho

**For description of relative SIMD see SIMD discussion on page 28

As highlighted, smoking results in a high level of negative health outcomes resulting in hospital admission due to diseases such as cancer, cardiovascular disease, respiratory disease, digestive disease and other disease. Figure LS6 below highlights the level of hospital admissions related to smoking has remained broadly stable, ranging between 150 and 200 admissions per year since 2012. 2017-2018 witnessed the highest level in the period.





Data Source: ScotPho/SMR01

Following on from hospital admissions, smoking is one of the leading attributable factors toward premature death in Scotland. The number of related deaths in Orkney has similarly remained broadly stable since 2012 as highlighted below in figure LS7. The number of deaths per aggregated period has ranged from 30 - 35; the latest period available reported the highest level of Smoking Attributable deaths in Orkney at 35.



Figure LS7: Orkney Smoking Attributable Deaths

Data Source: ScotPho/SMR01

Alcohol

There are many short and long term health outcomes related to the misuse of alcohol. Drunkenness increases the risk of injury due to accidents, as well as violence and wider social disorder. Longer term health harms due to drinking excessively on a regular basis affect the liver and brain can also lead to mental health conditions such as alcohol dependency. There are known links between alcohol dependency and an increased risk of suicide. On a wider level, cancer, stroke and heart disease all carry an increased risk due to excessive alcohol misuse. In addition, there are numerous developmental issues linked to alcohol consumption during pregnancy such as foetal alcohol spectrum disorders and foetal alcohol syndrome.

Drinking guidelines have been developed in order to reduce the health risks of excessive alcohol misuse at an individual and population level. The UK Chief Medical Officer advises not to drink more than 14 units per week on a regular basis. Findings from the Scottish Health Survey suggest nearly a quarter of Orkney residents responding between 2016 and 2019 drink to hazardous levels. This is broadly similar across Scotland. Almost a third of Orkney males (32%) reported drinking to a hazardous level, compared to 14% of Orkney females. Nearly two-thirds of Orkney respondents reported moderate drinking levels and 16% stated they were non-drinkers during the four years between 2016 and 2019 inclusive.



Figure LS8: Hazardous drinking Alcohol Consumption Guidelines: Orkney

Data Source: Scottish Health Survey combined results 2016/2017/2018/2019

As outlined previously, alcohol misuse results in both short and long term health problems, both of which can result in hospital admission. Figure LS9 below presents the number of hospital admissions in Orkney from 1997/98 to 2019/20. These are based on a range of alcohol related conditions recorded during a stay in hospital. The number of stays has remained stable since 2014/15, ranging from 129 to 171. 2019/20 witnessed a 15% decline from 2018/19. This reduction may, in part, be attributed to the beginning of the COVID-19 pandemic in the spring of 2020, however, as the figures are marginal, it may be related to annual variation. The age/sex standardised rate for patients and stays admitted to hospital due to alcohol are broadly comparable in Orkney and Scotland. There were 425 patients per 100,000 admitted to hospital due to an alcohol related admission in Orkney compared to 440 per 100,000 across Scotland in 2019/20.

Figure LS9: Orkney Alcohol Related Hospital Admissions



Data Source: Public Health Scotland – Alcohol Related Hospital Admissions (SMR01/SMR04)

Figure LS10 reviews the rate of alcohol related hospital admissions split by relative deprivation group for during 2019/20. There is a clear association with people living in the most relatively deprived areas in Orkney and problem alcohol use. People living in the most relatively deprived quintile in Orkney represented 13 people per 1,000 population.





Data Source: Public Health Scotland – ScotPho

**For description of relative SIMD see SIMD discussion on page 28

Alcohol Specific Deaths have remained generally unchanged in the two decades since the turn of the millennium. On average, the number of alcohol specific deaths has ranged between 4 and 6 deaths per year. The latest five year average (2016-2020) shown below in Figure LS11 indicates a yearly average of 4.6 deaths per year. This is a very slight reduction since the previous rolling five year period 2015-2019 of 4.8. As an age/sex standardised rate per 100,000 population, Orkney reported slightly lower than the national rate at 18.6 deaths per 100,000 compared to 20.5 deaths per 100,000 across Scotland.



Figure LS11: Orkney Alcohol Specific Deaths (5 Year Rolling Average)

Data Source: National Records of Scotland – Alcohol Specific Deaths

Figure LS12 below provides further evidence of the link between deprivation and alcohol misuse. Proportionally, 0.35 people per 1,000 of the population living in the most relatively deprived areas in Orkney passed away during the five year period 2015-2019. This is compared with 0.15 and 0.1 per 1,000 living in the two least deprived localities. Small numbers make it difficult to make definitive conclusions about this however, the aggregated five year period goes some way to support this.





Data Source: Public Health Scotland – ScotPho **For description of relative SIMD see SIMD discussion on page 28

Drugs

Scotland faces significant challenges with the illicit use of drugs such as opiates, benzodiazepines and psychostimulants. These challenges affect both individual health and the wider community. The risk of social issues such as crime, prostitution, unemployment, family fragmentation and homelessness are all increased through drug use. Individual health risks involve communicable disease such as HIV as well as injection related injury. These issues therefore place additional demand on health services.

Available information on vulnerable populations is not always straightforward to come by and draw conclusions from. The following section reviews available data relating to drug use and harms in Orkney. Figure LS13 below highlights the level of recorded Drug crime since 2004. While figures are relatively low there has been a significant increase in recorded drug crime from 2016 to 2019. 2019 witnessed the highest level of recorded drug crime in the below period, and more than doubled between 2016 and 2019.





Data Source: Scottish Government Recorded Drug Crime

The Scottish Crime and Justice Survey only publish data at the national level. However, Table LS2 is instructive in highlighting which groups are likely at risk of drug use. To summarise, illicit drug use is more likely in urban areas, the more deprived the area you are resident, the higher likelihood of drug use, and routine manual workers are more likely to use drugs illicitly.

Table LS2: Illicit Drug use*

*Whether respondent had taken selected drugs in the past 12 months, segmented by geographic category, deprivation and socio economic group

	URBAN/R	URAL	DEPRIVATION		SOCIO ECONOMIC GROUP (NS SEC)						
Total	Urban	Rural	15% most	Rest	Management and Professional	Intermediate	Routine and Man.	NW and LTUE			
13.46%	14.31%	9.22%	19.50%	12.50%	11.78%	12.82%	20.37%	11.10%			

Data Source: Scottish Criminal Justice Survey – Illicit Drug Use

PHS produced problem drug use prevalence estimates in for 2015/16 in a Scottish Government Commission. Figure LS13 below details the three definitions used to categorise problem drug users in terms of drug types used. Estimates for Orkney suggested there are 27 users under Definition 1, 52 Users under Definition 2 and 123 users under Definition 3.

Definition 1	Definition 2	Definition 3
Opioids	Opioids	Opioids
Benzodiazepines	Benzodiazepines	Benzodiazepines
	Cocaine(Including crack	Cocaine(Including crack
	cocaine)	cocaine)
	Amphetamines and	Amphetamines and
	amphetamine-type substances	amphetamine-type substances
	(ATS)	(ATS)
		Cannabis/Synthetic
		Cannabinoids

Figure LS14: Problem Drug Use Prevalence Estimates 2015/16

Data Source: PHS Problem Drug Use Prevalence Estimates 2015/16

Figure LS15 below highlights the number of drug related hospital admissions in the ten year period between 2010/11 and 2019/20. Drug related hospital admissions include both mental and behavioural diagnosis codes as well as those related to poisoning caused by drug use admitted to acute and psychiatric hospitals. Hospital admissions figures are low however, there was an increasing trend over the period. Since 2016/17 the number of patients admitted to hospital for a drug related episode has ranged from 9 to 18.

Figure LS15: Orkney Drug Related Hospital Admissions



Data Source: PHS – Drug Related Hospital Admissions (SMR01 and SMR04)

2020 witnessed the highest registered level of drug related deaths in Scotland since NRS started publishing the series in 1996. This level increased by 5% between 2019 and 2020 across Scotland taking the total to 1,339 drug related deaths in 2020. The number of deaths in Orkney is characterised by very low numbers. In the decade between 2010 and 2020 there was an average of one drug related death in Orkney per year. However, considering drug related deaths in Orkney in terms of aggregated five year periods, there has been a steady increase since 2013-2017. In the period 2016-2020 there were 9 drug related deaths in Orkney which represents more than double the amount from 2013-2017. The age/sex standardised drug related death rate for Orkney during 2016-2020 was 8.1 deaths per 100,000 compared to the Scottish rate of 20.6 deaths per 100,000.



Figure LS16: Orkney Drug Related Deaths (Aggregated 5 Year Calendar Period)

Data Source: National Records of Scotland – Drug Related Deaths

Figure LS17 shows the drug related hospital admission rate per 1,000 population for the three year period 2016/17 to 2018/19. The aggregated year period to some extent increases the accuracy of the rate given individual years tend to have low numbers. Again, as with smoking and alcohol measures, there is an apparent link between people living in the most relatively deprived areas in Orkney and drug related hospital admission. In the period 1 person per 1,000 lived in the most deprived SIMD quintile in Orkney. This is nearly double the level across any other relative SIMD quintile.

Figure LS17: Drug-Related Hospital Admissions by Relative SIMD 2020 Quintile-2016/17 to 2018/19



Data Source: Public Health Scotland – ScotPho **For description of relative SIMD see SIMD discussion on page 28

Physical Activity

The health benefits of regular, moderately intense physical activity for people of all ages are extensive. This is particularly the case when people who are the least active undertake regular moderate activity. A lack of physical activity is strongly associated with an increased risk of many long term chronic health conditions such as; coronary heart disease, cardiovascular disease, stroke, type 2 diabetes, colon cancer, breast cancer, depression, cognitive decline, high blood pressure, obesity and osteoporosis. Moreover, the risk of premature mortality of people with type 2 diabetes is reduced. Older people additionally benefit from physical activity as it can maintain levels of independence and reduce the risk of falls. Similarly, children benefit considerably from regular physical activity in terms of health and cognitive development.

Some physical activity is better than none and can vary broadly from walking or gardening, to more intensive activities such as running. The UK Chief Medical Officer has set out moderate physical activity guidelines for different age groups in order to promote good physical and mental health in the population.

Age Group	Guidelines
Adults aged 18-64 years	For good physical and mental health, adults should aim to be physically active every day. Any activity is better than none, and more is better still.
	Adults should do activities to develop or maintain strength in the major muscle groups. These could include heavy gardening, carrying heavy shopping, or resistance exercise. Muscle strengthening activities should be done on at least two days a week, but any strengthening activity is better than none.
	Each week, adults should accumulate at least 150 minutes (2 1/2 hours) of moderate intensity activity (such as brisk walking or cycling); or 75 minutes of vigorous intensity activity (such as running); or even shorter durations of very vigorous intensity activity (such as sprinting or stair climbing); or a combination of moderate, vigorous and very vigorous intensity activity.
	Adults should aim to minimise the amount of time spent being sedentary, and when physically possible should break up long periods of inactivity with at least light physical activity.

Figure LS17: Adults aged 18 – 64 Physical Activity Guidelines

Data Source: UK Government/CMO

There is not a great deal of data available regarding physical activity levels in Scotland. The Scottish Health Survey is the main source of information reviewing physical activity levels in Scotland for adults. It breaks down activity levels into the following four categories shown in Figure LS19.

Measure	Definition
Meets Moderate to Vigorous Physical Activity MVPA guidelines	Reported 150 minutes/week of moderate physical activity, 75 minutes vigorous physical activity, or an equivalent combination of these.
Some activity	Reported 60-149 minutes/week of moderate physical activity, 30-74 minutes/week vigorous physical activity, or an equivalent combination of these.
Low activity	Reported 30-59 minutes/week of moderate physical activity, 15- 29 minutes/week vigorous physical activity or an equivalent combination of these.
Very low activity	Reported less than 30 minutes/week of moderate physical activity, less than 15 minutes/week vigorous physical activity, or an equivalent combination of these.

Figure LS19: Scottish Health Survey reporting Categories

Almost two thirds (61%) of Orkney adults surveyed between 2016 and 2019 met the moderate to vigorous physical activity guidelines detailed above. This level remained broadly unchanged from the previous release of local level findings from 2014-2017 at (62%). A third of males (67%), and just over half of women (55%), met the same level. A small portion (12%) of the population additionally reported some moderate/vigorous activity. Taking very low and low activity together indicates slightly more than quarter (27%) of people surveyed reported activity at these lower levels. Figures regarding children's physical activity levels are unavailable at a local level but national results from 2019 indicated 69% of children (aged 2 - 15) met the guidelines for children of an average of 60 minutes of moderate to vigorous physical activity per week.



Figure LS20: Summary Physical Activity – All adults Orkney

Data Source: Scottish Health Survey combined results 2016-2019

Figure LS21 reviews the proportion of all respondents across Scotland meeting the physical activity recommendations highlighted above by deprivation group. There is a clear deprivation relationship to physical activity suggesting the more deprived a cohort of people the less likely they are to meet physical activity levels. There may be many reasons for this, for example, access to resources or time due to wider life pressures.



Figure LS21: Physical Activity % who Meet Recommendations by SIMD2020– All adults Scotland

Data Source: Scottish Health Survey 2019

Diet and Healthy Weight

The Food Standards Agency estimated one in five deaths across 195 countries were due to poor diet; that is a diet high in salt and low in wholegrains and fruit. Poor diet is linked to a diverse range of negative health outcomes such as obesity (BMI of 25kgm2 or more) which can lead to longer term chronic disease such as diabetes, cardiovascular disease, hypertension and cancer. Obesity is not the only negative health outcome related to diet. High salt intake can result in high blood pressure and risk of stroke, saturated fat risks cardiovascular disease and sugar is linked to an increased risk of type 2 diabetes. Estimates of the impact of poor diet suggested, in 2006-07, poor diet had a bigger impact on the NHS than smoking, alcohol consumption, overweight and obesity, or physical activity. The impact in terms of costs is indirect due to treatment of chronic disease such as cardiovascular disease and type 2 diabetes.

Of the data available, the Scottish Health Survey locally based results provides the best insight into eating habits. Figure LS22 below shows the results on daily fruit and vegetable consumption for Orkney during the period 2016-2019. A quarter (25%) of adults surveyed stated they ate 5 portions or more of fruit and vegetables per day. Proportionally fewer females (23%) reported consuming 5 or more portions, compared to 30% of males. Three quarters (75%) of people surveyed in the period reported eating on average fewer than 5 portions of fruit and vegetables per day. Findings for children are not available at a local level from the Scottish Health Survey, but national results found only 14% of children met the daily recommendations of 5 portions of fruit or vegetables a day.



Figure LS22: Daily Fruit and Vegetable Consumption

Data Source: Scottish Health Survey 2016/2017/2018/2019

Both unhealthy weight and poor diet are preventable. Overweight and obesity has been found to increase the risk of cancer as well as cardiovascular disease. Continually, obesity increases the risk of type 2 diabetes, hypertension, heart disease, colorectal cancer, fertility, osteoarthritis, stroke and dementia.

There is not a lot of data available at a local level regarding healthy weight. However, the Scottish Health Survey provides some insight into adult weight at a local level. Of Orkney adults surveyed between 2016 and 2019, a third (33%) were found to have a BMI that categorises them as obese. A quarter of Orkney adults surveyed were found to have a normal BMI. Considering overweight and obese BMI categories together, nearly three quarters (73%) of those surveyed were found to be in an overweight category. While BMI may not be the ideal measure, it provides a starting point to gain insight into healthy weight in the Orkney adult population.



Figure LS23: Healthy Weight (BMI Categories, Orkney)

Data Source: Scottish Health Survey combined results 2016,2017,2018,2019

People living in the most deprived areas across Scotland were found to report higher levels of overweight compared with people living in the least deprived areas. This follows a similar pattern to wider risk related measures reflected in the incremental reduction in the level of people reporting negative health harms by deprivation.



Figure LS24: Healthy Weight (BMI Categories, Overweight Including Obese) Scotland

Maternal health during pregnancy, childbirth and during a child's early years are influenced by many factors. These range from demographic factors such as economic circumstances to lifestyle behaviours such as diet, exercise and smoking.

The risk of miscarriage, birth defects, thromboembolism, gestational diabetes, pre-eclampsia, dysfunctional labour, postpartum haemorrhage, wound infections, stillbirth, neonatal death, chances of caesarean section, lower breastfeeding rate are all associated with obesity in pregnancy. Higher BMI is also associated with older age and higher deprivation.

In Orkney, during 2019/20, the percentage of women giving birth with a recorded BMI were as follows: 1.2% were underweight, 38.1% were healthy, 28% were overweight and 32.7% were obese. Three fifths (60%) of women were recorded as being either overweight or obese at their antenatal booking in 2019/20, which is slightly higher than the Scottish proportion of 58%.

Figure LS25: Maternal BMI at antenatal booking 2019/20



Data Source: Public Health Scotland – Births in Scottish Hospitals publication: SMR02

Premature birth can be related to many behaviours during pregnancy such as smoking, obesity, diet and drug and alcohol use. These risk factors all have known links with deprivation. Considering Figure LS26 below however, suggests the opposite where women giving birth prematurely were more likely to live in the least relative deprived quintiles in Orkney during 2017/18 to 2019/20.



Figure LS26: Premature Births by Relative SIMD 2020 Quintile-2017/18 to 2019/20

Data Source: Scotpho

**For description of relative SIMD see SIMD discussion on page 28

Overweight and obesity is a concern throughout the life course in Scotland. There are many physical and mental health problems linked to childhood obesity. On the other hand, underweight individuals can reflect health conditions and poor diet. Healthy weight is difficult to measure in children given variation in growth rates. BMI is plotted against a standardised child development chart in order to categorise a child into different weight categories. In the decade between 2010/11 and 2019/20, the proportion of children reported as having a healthy weight in Primary 1 has remained near the average of 76%. In 2019/20, three quarters of children were recorded as having a healthy weight. This is broadly comparable with the national level of Primary 1 health weight.



Figure LS27: Primary 1 BMI categories

Data Source: Public Health Scotland - P1 BMI

There are many short and long term health benefits for babies that are breastfed. It is advised babies are breastfed for the first 6 months and can be breastfed along with solid food up until aged 2 years. Breastfeeding reduces the risk of many illness and improves child development as well as improving maternal health such as reducing the risk of cancer. During 2019/20, 80% of babies in Orkney were recorded as being breastfed at the time of their first health visitor appointment, compared to 65% of babies across Scotland. Just over half (54%) of Orkney babies were still exclusively breastfed at the 6-8 week visit and around two thirds (64%) were fed a mixture of breast milk and formula during the same financial year. Figure LS28 below highlights how this has changed over the decade since 2010/11. The levels have increased in Orkney marginally to just over half which is noticeably higher than the Scottish level of exclusive breastfeeding at 6 to 8 weeks.

Figure LS28: Children Exclusively Breastfed at 6 to 8 weeks



Data Source: Public Health Scotland - Infant Feeding

Key Risk Areas

- Smoking: There is a significant level of Orkney population estimated to be smokers. There are two implications on service planning. Firstly the longer term risk of needing intensive health and care services due to chances of the health harms associated with smoking and secondly, the current demand on smoking cessation services.
- Alcohol Use: There is a consistent level of demand placed on services related to alcohol misuse. This is reflected both in terms of alcohol related hospital admissions and alcohol related deaths. Continually, this demand is associated with people living in more deprived areas in Orkney.
- Drug Misuse: While relatively small numbers, indicators reviewed highlight that drug misuse has increased in recent period. In particular, drug recorded crime and drug related deaths. This is a vulnerable hard to engage cohort.
- Healthy, Active Life: According to recent estimates from the Scottish Health Survey over two thirds of people surveyed were found to be either obese or overweight. Moreover, only 1 in 4 adults were found to eat the daily recommended portions of fruit and vegetables every day as well as low levels of physical activity in adults. These are both wellestablished contributory factors to healthy weight and the associated negative health outcomes. This is a long term risk in terms service planning due to long term development of preventable disease associated with overweight/obesity.
- Clear deprivation link cutting across all risk related health behaviours. In summary, people living in the most deprived areas in Orkney and Scotland are more likely to partake in behaviours associated with negative health outcomes. Access to services via Intervention and prevention can mitigate against this.

Lifestyle and Risky Health Behaviours Benchmarking Table by local authority peer group

Figure	Indicators	Data Type	Time Period	Orkney Islands	Argyll & Bute	Aberdeenshire	Dumfries & Galloway	Highland	Na h- Eileanan Siar	Scottish Borders	Shetland Islands	Scotland
LS1	Current Smoker	%	2016-2019	12	**	14	19	20	16	18	17	19
Table LS1	% of S2 & S3 year old boys who Smoke	%	2013	2.9	6.09	5.09	5.07	4.76	4.33	4.98	4.38	5.15
Table LS1	% of S2 & S3 year old girls who Smoke	%	2013	7.04	8.08	2.93	8	7.11	5.26	6.39	6.13	5.44
LS4	Maternal Smoking Status	%	2019/20	5.26	12.25	10.29	16.27	16.69	15.05	12.41	10.30	13.85
LS6	Smoking Attributable Hospital Admissions	EASR 100,000	2017 -2018	1315	1297	1165	1367	1238	1279	1437	1255	1724
LS7	Smoking Attributable Deaths	EASR 100,000	2016-2020	18.6	21.5	10.3	13.3	21.9	25.2	11.1	10	20.5
LS8	Hazardous Drinking	%	2016-2019	23	**	18	21	23	17	24	20	24
LS9	Alcohol Related Hospital Admissions	EASR 100,000	2019/20	616.00	635.60	313.50	437.60	642.30	900.20	488.10	486.60	666.60
LS11	Alcohol Specific Deaths	5 Year Average, EASR 100,000	2016-2020	18.6	21.5	10.3	13.3	21.9	25.2	11.1	10	20.5
LS13	Recorded Drug Crime	rate per 10,000	2019/20	43.6	57.4	47.8	91	61.4	39.3	43.9	38	64.6
LS15	Drug Related Hospital Admissions	EASR 100,000	2019/20	91.24	193.11	87.91	316.58	177	95.57	208.68	122.59	243.29
LS16	Drug Related Deaths	5 Year Aggregate, EASR 100,000	2016-2020		15.1	9.3	19.3	12.8	**	16.4	**	21.2
LS20	Meets Physical Activity Recommendations	%	2016-2019	61	**	63	66	69	67	64	62	65
LS22	5 portions of fruit and veg a day	%	2016-2019	25	**	18	20	22	19	23	15	22
LS23	Overweight or Obese	%	2016-2019	75	**	70	72	70	71	65	68	65
LS25	Maternal BMI (Overweight or Obese)	%	2019/20	60.71	53.49	54.28	56.31	53.11	61.46	52.88	61.88	53.25
LS27	Primary 1 BMI - Healthy Weight	%	2019/20	22.07%	23.83%	**	24.18%	25.83%	31.72%	**	23.91%	22.79%
LS28	Children Breastfed at 6 weeks	%	2017/18 - 2019/20	54.29	34.88	41.22	27.87	36.33	24.04	38.76	52.91	31.61

Population Health

Introduction

This section aims to review key health outcome trends of Orkney population, and a range of measures drawn from multiple data sources are detailed below. Topics include mortality, general health and wellbeing, healthy ageing, long term conditions, burden of disease and maternal health.

General Health

77% of people living in Orkney stated their health was either 'Good' or 'Very good' in response to the Health and Care Experience Survey (HACE) in 2019. This finding is broadly in line with results from the Scottish Health Survey of 79% for the period 2016 – 2019. When asked to rate their quality of life in the HACE survey, 87% of respondents from Orkney stated it was either 'Excellent' or 'Good'. 44% of respondents from Orkney to the Scottish Health survey between 2016 and 2019 stated they were extremely satisfied with their life.

Figure PH1: General Health



Data Source: Health and Care Experience Survey

The GHQ-12 questionnaire was developed as a means to assess wellbeing within the population. Results of four or more indicate potential low wellbeing and/or possible psychiatric disorders. Figure PH2 below reviews the proportion of people responding to the Scottish Health Survey in Orkney during the period 2016-2019. 16% of respondents scored low wellbeing, while 60% of respondents had good general wellbeing.



Figure PH2: General Health & Wellbeing: GHQ-12 Score Orkney

Data Source: Scottish Health Survey Combined dataset 2016-2019

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) used in the Scottish Health Survey to monitor population level mental wellbeing. It is a scale based on 14 positively worded statements designed to assess: positive affect (optimism, cheerfulness, and relaxation), satisfying interpersonal relationships and positive functioning (energy, clear thinking, self-acceptance, personal development, mastery and autonomy). Responses are scored against a five-item scale ranging from '1-none of the time' to '5-all of the time'. The lowest score possible is therefore 14 and the highest score possible is 70.

The average WEMWBS score for Orkney remained comparable between reporting periods 2014 – 2017 (50.6) and 2016-2019 (50.4). The average scores associated with Orkney are marginally higher than the Scottish average of 49, which has remained unchanged between reporting periods.

Mortality

There are various measures of mortality that provide insight into underlying trends of population health. Life expectancy is one useful measure highlighting how long people can be expected to live from birth. Latest NRS estimates for the period 2017-2019 show that male life expectancy for Orkney is 79 years of age compared to 77 across Scotland. Females are known to live longer and latest NRS estimates indicate female life expectancy for Orkney is 82 years, compared to 81 years nationally. Both Male and Female life expectancy estimates have remained broadly unchanged from the average for the period 2008-2019 (Figure PH3).

Figure PH3: Male Life Expectancy



Data Source: National Records of Scotland

Figure PH4: Female Life Expectancy



Data Source: National Records of Scotland

Despite some stagnancy in the past decade to life expectancy, the National Records of Scotland (NRS) estimate an increase in life expectancy for both males and females over the next 20 years. In the medium term to 2030-2031, male life expectancy in Orkney is projected to increase by 3%. In the same period, female life expectancy is expected to rise by 2%. This equates at an increase from 84 to 86 years for females and 82 to 85 years for males. Two years may seem insignificant, but will present a larger older age cohort traditionally requiring more complex health and social care.





Data Source: National Records of Scotland – Life Expectancy

Premature mortality – defined as any death occurring under the age of 75-remained broadly unchanged for males living in Orkney during the decade between 2009 and 2019. On average 4 deaths per 1,000 people in the population were classified as premature. In 2020, 3.9 male deaths per 1,000 population in Orkney were classified as premature (Figure PH6). The same can be said for female premature mortality in Orkney where on average, in the decade between 2009 and 2019, rates remained stable at 2.5 deaths per 1,000 population (Figure PH7). 2017 witnessed an above average rate per head of population at 3.8; however, this returned to average levels in 2018 and, in 2019, it was 2.6 premature deaths per 1,000. These rates are broadly lower than the national average and the 2020 rate was the lowest level of female premature mortality in the period at 2.3 women per 1,000 population.





Data Source: National Records of Scotland – Vital Events

Figure PH7: Premature Mortality Aged <75 (Female)



Figure PH8 below shows that there is a higher rate of premature death (Aged <75) in the most deprived relative SIMD quintiles in Orkney. 3.6 people per 1,000 population living in the most deprived relative quintile were found to pass away prematurely during 2012/13 to 2014/15. Continually, 5.4 people per 1,000 population living in the second most relatively deprived quintile in Orkney passed away prematurely. This is more than double that of people living in the two least relative deprived Quintiles during the same period.





Data Source: Public Health Scotland: ScotPho **For description of relative SIMD see SIMD discussion on page 28
Avoidable mortality is a measure of deaths from causes for which all or most deaths are considered avoidable through timely and effective healthcare and public health interventions.

When discussing avoidable deaths, the following terms are used:

- 1. preventable mortality deaths that can be mainly avoided through effective public health and primary prevention interventions
- 2. treatable mortality deaths that can be mainly avoided through timely and effective healthcare interventions, including secondary prevention and treatment
- 3. avoidable mortality deaths defined as either preventable or treatable

In the period 2017-2019, 2.5 deaths per 1,000 people in the Orkney population were classified as potentially avoidable. There was not a great deal of variation between peer group local authority areas where rates on the whole varied from 2 per 1,000 to 3 per 1,000 (Figure PH9).

Figure PH9: Avoidable Mortality: Age Standardised death rate 2017-2019



Figure PH10 shows the leading causes of death in 2020 for Orkney ranked by the ICD-10 chapter grouping for disease. The number of deaths increased by 8% between 2019 and 2020 from 232 to 252 deaths. In 2020 neoplasms were the leading cause of death in Orkney, followed by diseases of the circulatory system, together accounting 57% of all deaths in 2020. There was little difference between males and females in terms of the two leading cause of death. However, females were found to report a higher rate of mental and behavioural causes of death and diseases of the nervous system than men. Continually, males were found to have a slightly higher level of respiratory death than females.



Figure PH10: Leading Cause of Death: Orkney 2020

Data Source: National Records of Scotland Vital Events Tables

Probable suicide is defined by NRS as "Deaths for which the underlying cause was classified as 'intentional self-harm' or 'event of undetermined intent'". In the latest period 2016-20 there were 21 probable suicides in Orkney. There was a clear sex basis to this trend, where seventeen were associated with males and four with females. Figure PH11 below shows the average number of deaths classed as probable suicide per 5-year period for Orkney since 1992-1996. On average, 4 people per year in Orkney were assessed as having taken their own life.





Data Source: National Records of Scotland – Probable Suicide

Scottish Burden of Disease Study

Global Burden of Disease Study is an internationally developed method of assessing the burden of disease on populations. The Scottish Burden of Disease (SBOD) study standardises estimates of morbidity and mortality in a composite measure called Disability-Adjusted Life Years (DALYs). It does this by framing morbidity and mortality in terms of health loss as a function of time. Estimates of the frequency of morbidity, such as prevalence, are transformed into Years Lived with Disability (YLD) using disability weights from the Global Burden of Disease (GBD) study. Mortality estimates are converted into Years of Life Lost to premature mortality (YLL) by estimating the excess life expectancy lost due to death at a given age using national life tables.

SBOD is useful as a measure of population health alongside other measures such as leading cause of death. The DALY helps put into perspective the impact of different diseases on the population in question. In particular, diseases that do not result in death are given added weight due to the lived with nature of them. For example, where cancer is by far the leading cause of death in Orkney (as discussed in the previous section), cardiovascular disease, neurological disease, musculoskeletal and mental health disorders are given near equal impact in terms of disability adjusted life years (Figure PH12a).





Data Source: Scottish Burden of Disease Study

Reviewing Disability Adjusted Life Years by age group highlights the extent to which disease burden affects older age groups. As would be expected, the disease burden increases by age given the nature of mortality and of years of life lived with a disease (Figure PH12b).



Figure PH12b: Disability Adjusted Life Years and Age Groups

Data Source: Scottish Burden of Disease

Long term Conditions

Long term conditions (LTCs) are health conditions lasting a year or longer that affect a person's life in many ways. LTCs can be life altering with a great deal of upheaval to an individual which require ongoing care and support while others can be self-managed. In many cases, LTCs are related to unhealthy lifestyle behaviours with known links to deprivation while others are genetic. Overall, LTCs with the greatest social and economic consequences for health and social care services are those related to unhealthy lifestyle exacerbated by deprivation. The Scottish Health Survey reported that 37% of Orkney residents surveyed between 2016 and 2019 were living with a limiting long term illness (Figure PH13).

Figure PH13: Long term Conditions – Scottish Health Survey (2016 – 2019)



Data Source: Scottish Health Survey Combined Dataset 2016,2017,2018,2019

The Health and Care Experience Survey (HACE) is a reliable and useful source of information due to the representative sample drawn across all GP practices. Results from the latest 2020 HACE survey found that 46% of respondents from Orkney reported having no long term condition. This is broadly similar to the findings from the combined 2016 – 2019 Scottish Health Survey results of 42%. A notable finding was that 14% of respondents stated they suffered from chronic pain for 3 months or more. This is noteworthy because of the complexity around defining chronic pain and the challenges of measuring prevalence in the population. Similarly, estimating the prevalence of mental health conditions is challenging due to a reliance on service based estimates. It is well known that only a small proportion of people will seek help for mental health conditions. Therefore, the finding that 9% of respondents stated they suffered from a mental health condition starts to give a broader insight into the level of mental health conditions in Orkney (Figure PH14).





Data Source: Health and Care Experience Survey

Figure PH15 shows estimated number of patients in Orkney with selected long term conditions recorded on GP registers for the latest financial year available 2018/19. In 2018/19 hypertension was by far the most prevalent LTC recorded in Orkney at 3,557 patients, representing 16.4 people per 100 population; one in six of the population. This level increased by 16% between 2016/17 and 2018/19, and is higher than the national rate of 13.8 people per 100 population. Six of the top 10 long term conditions result to varying extents, in a significant level of limitation to peoples everyday life, these are: cancer, heart disease, atrial fibrillation, kidney disease, COPD and stroke. The most prevalent condition hypertension, can exist largely undetected and increases the risk of many potentially fatal diseases such as; heart disease, kidney disease, cardiovascular disease (e.g. stroke, heart failure and heart attack) and vascular dementia. While asthma and type 1 diabetes are difficult to prevent, the remaining top 10 LTCs recorded in Orkney are potentially preventable disease linked to prolonged unhealthy lifestyle behaviours. As highlighted for most risk related health behaviours deprivation is a strong predictor of the prevalence for behaviour associated with negative health outcomes. Changes to lifestyle can significantly improve the health outcomes of people diagnosed with long term conditions and presents an opportunity for targeted interventions.



Figure PH15: Long term Conditions – Primary Care Disease Register 2018/19

Data Source: Public Health Scotland – Primary Care Indicators

The SOURCE dataset project links data from numerous national datasets such as hospital admissions, unscheduled care and prescribing data. One of the outputs from this is the production of LTC prevalence estimates. Figure PH16 shows the number of individuals in Orkney with current long term conditions and the associated level of hospital bed days during 2019/20. This is a useful way of highlighting the impact on both the individual and health services due to LTCs. For example asthma, while serious, has a lower level of bed days compared to arthritis or cancer. In contrast to the LTC findings above based on primary care data, arthritis is both the leading LTC in Orkney in terms of prevalence and in terms of associated hospital bed days.

Figure PH16: LTC prevalence and Hospital Bed Days 2019/20



Data Source: Public Health Scotland - SOURCE linkage

Over the last decade in Scotland, the risk of dying from cancer (the age-adjusted cancer mortality rate) has fallen by 10%. The number of annual cancer deaths has increased over the same period. This is largely because the number of older people, who are at greater risk of developing cancer, has increased. As outlined earlier in this chapter, cancer was the leading cause of death for people of Orkney in 2019. Figure PH17 below shows the incidence rate for all cancers between 1995 and 2019. Overall, cancer incidence in Orkney has incrementally risen over the past twenty years. Despite some annual variation, there is a clear upward trend; there was a 28% increase between 2008 and 2019 for new cancer registrations in Orkney. The leading type of cancer in Orkney in 2018 was lung cancer.

Figure PH17: Cancer Incidence Orkney



Source: Public Health Scotland cancer Statistics





Data Source: Public Health Scotland: Cancer Dashboard (NRS Vital Events)

Cancer is the leading cause of death in Orkney. Figure PH19 highlights the relationship between relative deprivation and cancer registration in Orkney from 2017 to 2019. People living in the more deprived areas in Orkney show a higher risk of developing cancer than people from the least deprived areas. This is reflected in the incremental reduction (excluding quintile 4) of cancer registration rates between the most deprived deprivation groups to the least deprived groups. The most deprived group report 6 people per 1,000, the second most deprived group report 5.6 people per 1,000, quintile 3 reported 5 people per 1,000 and the least deprived group reported 4.8 people per 1,000.



Figure PH19: Cancer Registrations by Relative SIMD 2020 Quintile-2017 to 2019

Data Source: Public Health Scotland – ScotPho

**For description of relative SIMD see SIMD discussion on page 28

Following on from above, figure PH20 below reinforces the evidence showing the link between deprivation, cancer and premature death. While there is not a great difference between deprivation and cancer diagnosis, there appears to be a higher chance of early death from cancer where a person lives in more deprived areas.





Data Source: Public Health Scotland-ScotPho

**For description of relative SIMD see SIMD discussion on page 28

The level of heart disease in Orkney has remained broadly in line with Scottish levels, falling slightly below in 2018/19 and 2019/20 (Figure PH21). In 2019/20, 93% of people across Scotland survived 30 days or more following their first heart attack compared with 90% a decade earlier. Heart disease is a central lifestyle related disease linked strongly with hypertension. The high figures of hypertension in Orkney suggest potential consistent demand on services for heart disease.



Figure PH21: Heart Disease Incidence – Orkney

Data Source: Public Health Scotland

Figure PH22 again highlights the relationship between deprivation and adverse health outcomes. For the period 2017 to 2019 0.8 people aged under seventy five per 1,000 population passed away due to coronary heart disease. This is 2.3 times higher than the rate reported for people from the least deprived relative quintile in Orkney.

Figure PH22: Early deaths from Coronary Heart Disease (Aged <75) by relative SIMD 2020 Quintile-2017 to 2019



Data Source: Scotpho

**For description of relative SIMD see SIMD discussion on page 28

Disabilities

Physical Disabilities

The 2011 Census included a question on particular disabilities including sensory impairments, physical disability, mental health condition or learning disability. Individuals with disabilities are likely to require short or long term support from services that support them in remaining independent within their community.

6.5% of the Orkney population reported a disability (Scotland 6.7%). Around half of reported disabilities (51%) were sensory impairments, while one third (32.8%) related to a physical disability.

Sensory Impairment

There are an estimated 890 people living with sight loss across Orkney. 120 are people living with blindness, and 770 people living with partial sight. These estimates include people whose vision is better than the levels that qualify for registration. The estimated prevalence of sight loss is higher in Orkney compared to the Scottish average, with 4.0% of the Orkney population living with sight loss, compared to 3.3% nationwide. In terms of age breakdowns, 160 are aged 18 to 64 years, 190 are aged 65 to 74 years, 270 are aged 75 to 84 years and 270 are aged 85 years and over. The Royal National Institute of Blind People (RNIB) estimate the total level of sensory impairment is set to rise by 20% over the next decade.

MildSIght Loss (Partial Sight) Moderate sight loss (partial sight) Severe sight loss (blindness) Sever

Figure PH23: Estimated Sensory Impairment Orkney 2021

Learning Disabilities

There were 91 adults with a known learning disability in Orkney during 2019. As a rate per head of population, 4.9 people per 1,000 adults had a known learning disability in Orkney during 2019, this is slightly lower than the national rate of 5.2 people per 1,000. Figure PH24 below shows the 2019 age and sex breakdown for Orkney residents with a learning disability. There was a higher proportion of males (63%) compared to females (37%) with a known learning disability. In terms of adults known to local authorities, the cohort aged 21-34 represented the highest proportion of people (49%) with a learning disability. Of the Orkney cohort, one in four (25%) have a known autism spectrum diagnosis. This is higher than the 18% across Scotland, however caution should be noted given comparatively small numbers in Orkney.

Data Source: RNIB 2021



Figure PH24: Learning Disability Cohort 2019

Data Source: Scottish Government - ESAY 2019

Mental Health

Around one in four people may suffer from a mental health condition in Scotland in any given year. The following section reviews available data for mental health from a variety of sources in order to understand the extent and change over time for mental health in Orkney.

Mental wellbeing

Of the available data from primary care registers relating to mental health shown in Figure PH25 below, it is clear that depression is by far the most prevalent mental health condition in Orkney. In 2018/19 there were 738 people registered at practices in Orkney who were suffering from depression. The number of patients diagnosed with depression has increased every year in Orkney since 2012/13 except in 2016/17, and represents a 102% increase in the number of patients since 2012/13. As a rate per head of population, 3.4 people per 100 people in the population were diagnosed with depression in 2018/19. This is lower than the Scottish level of 7.5 per 100 which has shown a parallel increase since 2012/13.

The prevalence of dementia and severe and enduring mental health (SEMI) such as schizophrenia, psychosis and bi-polar disorders has remained broadly stable in the decade between 2008/09 and 2018/19. In 2018/19, there were 198 people diagnosed with a severe and enduring mental illness and 42 people with a diagnosis of dementia.



Figure PH25: Mental Health Primary Care Prevalence

Data Source: Public Health Scotland PCI

Figure PH26: Depression rate per 100 Population



Data Source: Public Health Scotland – PCI publication

The Scottish Burden of Disease study detailed earlier is a useful measure that assesses multiple factors in order to compare the impact of disease on populations. Mental Health featured in the top five most burdensome diseases in 2016 in Orkney. Depression is by far the most burdensome mental health condition in terms of disability adjusted life years. Anxiety disorders and alcohol dependence follow depression, but are significantly lower in terms of the index measure of disability adjusted life years (Figure PH27). The burden of mental health conditions is associated with the health loss people live with rather than any associated mortality. What PH27 shows is that depression has the biggest impact on the Orkney population when compared to other mental health conditions. This is in part due to the scale of depression being a common mental health condition.

Figure PH27: Scottish Burden of Disease – Mental Health Disability Adjusted Life Year Orkney



Data Source: Scottish Burden of Disease Study 2016-ScotPho

In order to strengthen the information around mental health, it is instructive to review trends of prescribing used in mental health. Figure PH28 below confirms parallel trends seen in primary care prevalence figures where depression has increased substantially over the decade, where other conditions have remained broadly stable. The Defined Daily Dose (DDD) per 1,000 population is an internationally recognised measure developed by WHO to assess the level of prescribing within a population weighted by the average dosage level in a period. In the period between 2010/11 and 2019/20 the level of anti-depressant prescribing across Orkney increased every year resulting in a doubling of anti-depressant prescribing. In 2019/20 the Orkney defined daily dose of 172 DDDs per 1,000 population related to anti-depressant prescribing was marginally smaller than the Scottish level of 187 DDDs per 1,000 of the population.



Figure PH28: Anti-Depressant Prescribing – Defined Daily Dose

Data Source: Public Health Scotland – Medicines used in Mental Health Publication

Following on from the above observation, other mental health related areas have changed very little in the same period in Orkney. The level of hypnotics and anxiolytics traditionally used for anxiety has remained stable in the period at 15 DDDs per 1,000. Drugs used for the management of dementia declined by almost a quarter (23%) despite the overall prevalence remaining relatively unchanged in primary care registers. The use of anti-psychotics increased in the period by a third (33%), again despite the stable primary care prevalence. These trends suggest possible changes to treatment of mental health conditions given prevalence estimates remained stable. This compares with depression where there is clear parallel increase in both those diagnosed in primary care and prescribing levels.

Figure PH29: Other drugs Prescribed for Mental Health in Orkney



Data Source: Public Health Scotland – Medicines used in Mental Health Publication

Figure PH30 reviews the proportion of the population prescribed drugs for anxiety, depression or psychosis. 41% of the population prescribed these drugs lived in the most relative deprived quintiles in Orkney. This compares to 31% of the population who live in the two least relative deprived quintiles.

Figure PH30: Population Prescribed Drugs for Anxiety/Depression/Psychosis by Relative SIMD 2020 Quintile: 2019/20



Data Source: Public Health Scotland – ScotPho

**For description of relative SIMD see SIMD discussion on page 28

Dementia

The two methods for estimating dementia prevalence used in this report are the Eurocode 2013 study and a recent Scottish Government project estimating incidence rates. These rates were applied to the above NRS population projections 2016 – 2041 above in order to show the extent population change will affect the volume in patients diagnosed with dementia.

The Eurocode study 2013 (formerly the EuroDem 2000) used the meta-analysis method drawing on numerous studies estimating dementia prevalence in Europe. This method aggregated dementia prevalence rates from numerous European studies balancing both age and sex by five-year age bands for people aged 65 and over. As highlighted above, the trend is clear when applied to the NRS population projections. If the estimated prevalence rates remain similar the number of dementia patients is set to increase by 90% in line with the estimated population change for this cohort.

Figure PH31: Dementia Prevalence Estimates 2016-2041 NHS Orkney (Eurocode 2013 prevalence estimate and NRS Population Estimates)



Data Source: Alzheimers Scotland / National Records of Scotland

The main limitation of the Eurocode study is that the sample method is based on varying European population structures. This was recognised as a drawback when applied in Scotland as it was not reflective of the population. In light of this the Scottish Government (2017) developed a new methodology drawing on health data sources for three pilot boards in Scotland. The research produced incidence rates used to estimate the number of new diagnosis per year, reflecting more accurately the demand for new patients in Scotland. In line with projected population change, if the estimated incidence rates remain the same the number of patients newly diagnosed per year is estimated to increase by 84% by 2041.

Figure PH32: Estimated Dementia Incidence: Orkney 2016-2041



Source: ScotGov 2017 Method using NRS Population Estimates 2016 -2041

Birth Weight

Babies weighing between 2500g and 3999g at birth are considered to have a 'normal' birthweight. A birthweight of less than 2500g is considered low, and a birthweight of 4000g or more is considered high.

Birth weight indicates a child's development and how they have grown in the womb. There are numerous short and longer term health problems associated with preterm and small gestational aged babies. The risks relating to premature birth increase the risk of poor growth in the womb and low birthweight. During 2019/20, 3% of live singleton births in Orkney were between 1500-2499g, 76% weighed 2500-3999g and 21% weighed 4000g or more (Figure PH33).



Figure PH33: Birthweight, Live singleton births, Year Ending 31 March 2020

Data Source: Public Health Scotland – Births in Scottish Hospitals publication: SMR02



Figure PH34: Premature Births by Relative SIMD 2020 Quintile-2017/18 to 2019/20

Data Source: Public Health Scotland-ScotPho

**For description of relative SIMD see SIMD discussion on page 28

Healthy Ageing

Healthy Life Expectancy (HLE) is an estimate of the number of years lived in 'very good' or 'good' general health, based on how individuals perceive their state of health at the time of completing the Annual Population Survey (APS). Due to how figures are published it is not possible to provide trend figures, therefore the Orkney estimate is shown in comparison to other peer council areas. Orkney females were estimated to have a high healthy life expectancy in comparison to peer group local authorities at 75 Years (Figure PH35). Male healthy life expectancy was additionally estimated to be much higher in Orkney at 69 compared to the Scottish estimate of 61 (Figure PH36).



Figure PH35: Female Healthy Life Expectancy at Birth (Selected LAs 2017-2019)

Data Source: National Records of Scotland – Healthy Life Expectancy



Figure PH36: Male Healthy Life Expectancy at Birth (Selected LAs 2017-2019)

Data Source. National Records of Scotland – Reality Life Expectancy

Frailty

Frailty is the risk of negative health outcomes associated with ageing such as disability, hospital admission, institutional care or death. It can be a gradual process towards greater dependency on care due to reduced resilience to physical and emotional crisis and functional loss. Continually, it is a complexity associated with the development of multiple long term conditions that develop over time and can result in increased risk of delirium, falls, incontinence and/or immobility. Known risk factors that increase the likelihood of frailty include social isolation as well as deprivation.

The likelihood of unintentional injury for people aged 65+ is increasingly becoming a national health challenge. It is anticipated that hospital admissions related to unintentional injury will rise in the next decade as the population ages. Falls represent the highest proportion of hospital admissions for the older aged cohorts and Public Health Scotland (PHS) estimate people aged 65+ are 7 times more likely to be admitted to hospital due to a fall than those in younger cohorts.

Distress, pain, injury, loss of confidence, loss of independence and increased morbidity and mortality are all examples of the impact a fall can have on an individual. Continually, falls impact family members and carers as well as a wider impact on health and social care costs. The number of hospital admissions due to falls in Orkney for people aged 65+ increased by 11% in 2019/20 to 90 admissions. This followed six years of sustained decline with a reduction of 40% between 2013/14 and 2018/19. The Orkney rate per head of population for falls was 16.9 per 1,000 in 2019/20 compared to 22.7 people per 1,000 population across Scotland (Figure PH37).



Figure PH37: Hospital Admissions for Falls Aged 65+

Data Source: Public Health Scotland: SMR01

It is well established that the Scottish population is increasingly ageing. With that in mind, the level of people with complex care needs is set to rise, presenting additional pressures on end of life care. Palliative care seeks to improve the quality of life for individuals facing challenges related to life limiting conditions and their families helping care for them. It achieves this by relieving pain and suffering for both patients and families. It can be provided in hospital or the community, but tends to be community based. There has been little change in the length of time people spent living at home or in the community during the last six months of their life in Orkney between 2014/15 and 2019/20. In 2019/20 people who passed away in Orkney spent 80% of their last six months of life living either at home or in the community (Figure PH39).



Figure PH39: Percentage of last 6 months of Life lived in community

Data Source: Public Health Scotland – End of Life publication / SMR01, SMR04 and GRO Deaths

Key Risk Areas

- There is a strong link between the most burdensome diseases impacting on the Orkney population and lifestyle. Deprivation is a known risk factor for both risk related lifestyle choices and negative health outcomes. Continually, lifestyle related health harms is an area of opportunity to mitigate against the impact of wider impact of the social determinants of health. The burden of disease is likely to intensify in light of population change and current prevalence of behaviours exacerbated by deprivation status.
- Hypertension-High Blood Pressure-is the leading morbidity in both Scotland and Orkney. There are two risk areas associated with this. Firstly, a preventative and interventions based one targeting at risk groups in younger generations and people currently suffering from hypertension. This needs to focus on the risk factors associated with hypertension such as: determinants of health such as deprivation, unhealthy weight, poor diet, lack of exercise, excessive alcohol use, smoking – all of which have known links to deprivation. Secondly, the associated future demand on services related to the risk of development of serious morbidities such as heart disease and cancer associated with hypertension.
- Consistent rise in people suffering from depression. Mental health is placed in the top five most burdensome diseases in Orkney. Continually, depression is by far the most burdensome mental health condition in terms of impact on people's lives. The rise in people diagnosed with depression in primary care and the level of anti-depressants are clear indicators in this demand. This has both short and long term service planning implications.
- Life Expectancy has remained stable in recent estimates however, the gap between healthy
 life expectancy and life expectancy ranges from 10 20 years. This presents various
 challenges around the increased demand from complex multiple long term conditions. Not
 only do the individual conditions need treatment but additionally present the risk of
 associated morbidities such as frailty inevitably leading to reduced independence and in an
 increased reliance on health and social care services. Taken together with the contributory
 risk factors identified in the previous chapter, current levels of conditions such as
 hypertension and future population change, it is anticipated demand on services will very
 likely increase.

Population Health Benchmarking Table by local authority peer group

Figure	Indicators	Data Type	Time Period	Orkney Islands	Argyll & Bute	Aberdeen shire	Dumfries & Galloway	Highland	Na h- Eileanan Siar	Scottish Borders	Shetland Islands	Scotland
PH1	% Stating Excellent/Good Quality of Life HACE	%	2019	76	71	75	68	73	70	72	74	69
PH2	% GHQ-0 Scored 0 - ScHes (low wellbeing)**	%	2016-2019	16	14	13	14	14	14	15	14	17
PH3	Male Life Expectancy	Age	2017-19	79.0	78.3	79.3	78.2	77.8	77.8	79.2	80.2	77.2
PH4	Female Life Expectancy	Age	2017-19	82.3	81.7	82.5	81.4	81.9	83.4	81.9	83.2	81.1
PH5	Life Expectancy Projection	Age (Male)	2042-2043	86.0	82.1	82.4	81.8	82.4	82.6	82.4	82.4	80.6
PH5	Life Expectancy Projection	Age (Female)	2042-2043	86.9	85.4	85.0	84.2	86.0	88.5	85.6	85.4	83.8
PH6	Premature Mortality Males Aged <75	Rate per 100k	2020	387.5	509.2	432.5	474.7	500.9	535.1	441.5	446.4	566.6
PH7	Premature Mortality Females Aged <75	Rate per 100k	2020	227.8	290.3	264.5	313.1	298.8	277.8	294.6	266.4	355.2
PH11	Suicide Rate	5 Year Moving Average	2016-2020	4.2	12.8	31.2	17.6	46.4	4.4	13.6	1.6	747
PH13	Limiting Long Term Conditions	%	2016/2017/2018/2019	37	39	27	32	39	36	32	32	34
PH17	Cancer Incidence **	Number	2019	131	2294	3600	1168	2294	209	780	131	34133
PH19	Most Deprived Relative SIMD Cancer Incidence	Rate per 100k	2017-19	601.8	691.1	675.7	670.5	691.1	623.6	680.9	620.5	745.1
PH21	Heart Disease Incidence **	Number	2019/20	76	1227	1829	661	1829	118	435	63	18200
PH22	Early Deaths from CHD Reletive SIMD most deprived	Rate per 100k	2017-2019	80.2	72	56.5	70.6	74.3	40.8	46.9	96.9	92
PH23	Estimated Sensory Impairment	%	2021	4	4.2	3.3	4.2	3.8	4.5	4	3.4	3.3
PH24	Learning Disability Cohort	Rate per 1,000	2019	4.9	4.5	4.9	7.2	5.2	6.8	5.8	8.7	5.2
PH25a	Severe & Enduring Mental Health	HSCP rate per 100	2018/19	0.9	1.1	0.7	1.0	1.0	1.2	0.8	1.0	0.9
PH25b	Dementia Prevalence	HSCP rate per 100	2018/19	0.7	0.9	0.8	1.0	0.9	1.1	0.9	0.8	0.8
PH26	Depression Prevalence	Rate per 100	2018/19	3.4	5.7	5.8	6.7	7.2	8.0	10.2	9.8	7.5
PH28	Anti-Depressant Prescribing**	HB rate DDD	2019/20	146.2	135.0	135.5	168.0	135.0	125.2	169.8	134.0	157.7
PH29a	Anti-Psychotic Prescribing**	HB rate DDD	2019/20	12.23	12.10	9.91	14.59	12.10	15.98	10.94	10.02	11.84
PH29b	Anxiolytic Prescribing**	HB rate DDD	2019/20	14.18	18.63	25.38	29.56	18.63	26.01	21.78	17.67	26.20
PH29c	Dementia Prescribing**	HB rate DDD	2019/20	9.90	17.10	16.75	16.93	17.10	12.09	27.32	21.88	18.19
PH33	Normal Birthweight	% of known birthweight	2019/20	76	82.1	81	79.8	80.7	80.3	78	73.4	81.7
PH34	Most Deprived Premature Births	%	2017/18 - 2019/20	6	10.6	10.8	9.3	10.9	7.4	7.3	6.2	10.1
PH37	Falls Hospital Admissions 65+	Rate per 1,000	2019/20	17	26	16	21	15.3	26.5	21.1	16	22.6
PH39	Last 6 months lived in community**	%	2019/20	90	90.2	89.7	87.5	90.2	88.2	86.2	93.1	88.9

Secondary Care (Adults)-Service Utilisation

Acute Hospital Activity

NHS Orkney provides many types of specialist hospital care and treatment for the Orkney population. Hospitals provide a range of services from planned specialist diagnostic procedures to emergency care. Not all services are provided on Orkney, therefore there are certain services commissioned via service level agreements, chiefly with NHS Grampian.

This chapter uses routinely collected data to provide a general overview of hospital service provision until 2019/20. The overview aims to cover the level of demand on planned and unplanned hospital services for the Orkney population. This includes day care services, accident and emergency services and psychiatric services.

Patient pathways for hospital services can be summarised very generally in one of two ways. Planned hospital services tend to begin by referral from a health professional such as GP to a consultant for diagnosis, which may result in further referral for specialist treatment, such as a day case or planned hospital admission. These services tend to be less disruptive to service provision as they are planned in advance. Conversely, emergency admissions are disruptive to services as they are invariably unexpected and in many cases represent a missed opportunity to schedule appropriately planned care. Emergency admissions may be made by healthcare professionals, or patients may attend accident and emergency leading to emergency hospital admission for treatment. These pathways are difficult to plan for as there is an unknown element to these. This is largely seen as the traditional model of hospital care. However, there has been a significant redesign of unscheduled care due to the impact of the COVID-19 pandemic. Hospital activity below has been presented for people living in Orkney who have received treatment across all health boards. This is to present activity across the full system given the nature of cross border treatment with island health boards.

Figure SU1 below summarises how the Orkney population accessed hospital services both in Orkney and across other health boards during the decade 2010/11 – 2019/20. In the five year period from 2015/16 to 2019/20, elective inpatient services gradually contracted annually representing a reduction of just over a quarter (26%). In the same period, following a decline from a four year average of 3,000 day case admissions per year between 2010/11 and 2013/14, the level of day case admissions increased by 41% during this period. This brought the day case level back in 2019/20 back to pre-2014/15 levels. Emergency admissions have remained broadly constant during the period ranging from a high of 1,951 admissions during 2014/15 to a low of 1,631 during 2016/17. In 2019/20, there were 674 elective admissions, 1,774 emergency admissions and 3,209 day case admissions.



Figure SU1: Inpatient Activity – Numbers (Stays and Day Case): Orkney Residents

Data Source: Public Health Scotland – Acute Hospital Activity -SMR01 Based on council of residence. Orkney resident admissions to all health boards of treatment

Figures SU2 to SU4 compare Orkney hospital activity with Scotland. Orkney reported a consistently lower level of Emergency admission and a consistently higher level of elective and day case admissions compared to national levels during the decade 2010/11-2019/20. During 2019/20, in terms of emergency admissions, Orkney had a rate of 80 per 1,000 of the adult population, compared to 107 across Scotland. During the same year period, planned admissions in Orkney were at a rate of 30 per 1,000 of the adult population while the national rate was 25 per 1,000. Day case admissions on Orkney were at a rate of 144 per 1,000 compared to 85 per 1,000 of the adult population across Scotland.



Figure SU2: Emergency Admissions

Based on council of residence. Orkney resident admissions to all health boards of treatment

Figure SU3: Elective Admissions



Data Source: Public Health Scotland – Acute Hospital Activity -SMR01

Based on council of residence. Orkney resident admissions to all health boards of treatment



Figure SU4: Day Case

Based on council of residence. Orkney resident admissions to all health boards of treatment

People aged 65+ have a higher risk of emergency hospital admission for a variety of reasons. These could include the onset or worsening of chronic disease, or accidental admission related to susceptibility for falls, as an example. In the decade 2010/11 - 2019/20 the level of emergency hospital admission for people aged 65+ has remained stable both in Orkney and nationally. The Orkney rate in 2019/20 was lower than the Scottish rate at 176 emergency admissions per 1,000 of the population aged 65+, compared with the Scottish rate of 249 emergency admissions per 1,000 of the population aged 65+.

Figure SU5: Emergency Admissions 65+



Data Source: Public Health Scotland – Acute Hospital Activity -SMR01

Based on council of residence. Orkney resident admissions to all health boards of treatment

The extent of Hospital occupancy is important to consider for the Island board setting due to reliance on mainland hospitals for certain services or when there is no capacity. Bed occupancy is the percentage of available staffed hospital beds that are occupied in a period. Figure SU6 below summarises the annual average bed occupancy rates across all specialties compared with Scotland and the two other Island health boards. In the decade between 2010/11 and 2019/20, NHS Orkney operated on average at 80% occupancy across all specialties. This remained broadly consistent across the period as well as in line with Scotlish occupancy levels as a whole. In 2019/20, NHS Orkney hospital occupancy reduced to 69.3%, which was the lowest in the period and likely related the advent of the COVID-19 pandemic. Considering table SU01 below highlights the variation between specialties. Acute and medical specialties which account for the largest group of beds have been operating at near full capacity across the decade. On average acute specialties operated at 97% occupancy and medical specialties operated at 94% occupancy.

Figure SU6: Bed Occupancy Rate: All Specialties



Based on NHS Health Board

Table SU01: Bed Occupancy Rate (%) Specialty Breakdown: NHS Orkney

Specialty	2010/1	2011/1	2012/1	2013/1	2014/1	2015/1	2016/1	2017/1	2018/1	2019/2
	1	2	3	4	5	6	7	8	9	0p
All Specialties	86.8	80.7	80.6	77.7	86.7	83.7	83.9	77.6	82.9	69.3

Data Source: Public Health Scotland – Acute Hospital Activity -SMR01

Based on NHS Health Board

Figure SU7 below highlights the average number of available staffed beds as a measure for overall capacity per health board. The number of available staffed beds across each health board has been declining since 2014/15. Both Shetland and the Western Isles have a higher level of available staffed beds, likely impacting on occupancy rates highlighted in figure SU6 above. Reducing available beds represents an attempt to shift care from hospitals into the community, as well as changes to length of stay related to improved treatment. In addition NHS Western Isles have a psychiatric ward impacting on the higher bed rates. NHS Orkney and NHS Shetland have been operating with broadly similar available staffed beds since 2012/13.

Figure SU7: Average Available Staffed Beds – All Specialties



Data Source: Public Health Scotland – Acute Hospital Activity -SMR01 Based on NHS Health Board

Table SU01: Average Available Staffed Beds: Specialty Breakdown: NHS Orkney

Indicator	2010/1	2011/1	2012/1	2013/1	2014/1	2015/1	2016/1	2017/1	2018/1	2019/20
	1	2	3	4	5	6	7	8	9	p
All Specialties	54	53	54	54	55	53	49	49	49	50

Data Source: Public Health Scotland – Acute Hospital Activity -SMR01

Based on NHS Health Board

As outlined below, there has been a gradually declining trend in the average length of stay for Orkney patients. The average length of stay for emergency admissions is just over a week at 7.5 Days on average and is broadly in line with the national average of 7 Days. Elective admissions, given they are planned in advance, recorded a shorter average length of stay in 2019/20 at 3.7 days.

Figure SU8: Average Length of Stay



Data Source: Public Health Scotland – Acute Hospital Activity -SMR01

Based on council of residence. Orkney resident admissions to all health boards of treatment

Outpatients

Outpatient services are the largest hospital service utilisation group. In 2019/20 there were 11,641 outpatient attendances in Orkney, a slight increase from 2018/19 of (3.6%). On average, for each new referral made, there were two follow up return appointments. One in three new appointments were for people aged 65+.

Figure SU9: Outpatient Appointments



Data Source: Public Health Scotland – SMR00

Based on council of residence. Orkney resident admissions to all health boards of treatment

A high proportion of Orkney residents are treated locally across all types of Hospital service. Figure SU10 below shows the proportion of patients treated in 2019/20 by service. 98% of outpatients, 98% of day cases, 99% of elective patients and 93% of emergency admissions were treated in Orkney.



Figure SU10: Percentage Orkney residents treated in NHS Orkney 2019/20

Data Source: Public Health Scotland – Acute Hospital Services Publication / SMR01

In terms of figures and cross boundary flow, NHS Grampian is the leading mainland service provider for NHS Orkney. In 2019/20 there were 966 outpatient appointments, 411 elective admissions, 233 day cases and 148 emergency admissions for NHS Orkney residents. There were also a small amount of each admission type in other health board areas. Of all treatment provided off islands outpatient appointments was by far the largest type of service. Despite this, there is a small level of emergency admission to the NHS Grampian and Other Health Board areas, which can be highly disruptive to patients and service providers.



Figure SU11: Cross Boundary Flow – Board of Treatment (2019/20) – Number of Patients/Stays

Data Source: Public Health Scotland – SMR01 Orkney Resident treated in other health boards On average just under a quarter of patients (24%) were admitted two or more times as an emergency each year across the decade between 2010/11 and 2019/20. In 2019/20, there were 296 patients admitted as an emergency two or more times representing (23%) of patients. This proportion has remained steady throughout the ten most recent years of available data. On average across the period, 60% of patients with multiple admissions during the year were aged 65+. As a rate per head of population, 8 people per 1,000 of the Orkney Population were admitted twice in the year compared to 12 people per 1,000 across Scotland. Five people per 1,000 of the Orkney population were admitted as an emergency three or more times per year, compared with 7 people per 1,000 across Scotland.



Figure SU12: Multiple Hospital Admissions

Data Source: Public Health Scotland – Acute Hospital Services Publication – SMR01 Based on council of residence. Orkney resident admissions to all health boards of treatment

Delayed Discharges

Where a patient remains in a hospital bed and is clinically ready for discharge, they are referred to as a delayed discharge. This can happen for many reasons, such as health and social care reasons or personal family reasons. Delayed discharges act as a measure of person centred care. Figure SU13 below shows the average daily number of delayed discharge beds per month each year. 2019/20 and 2020/21 reported similar trends where, from April to August, there were on average each day two delayed discharge beds. This was subsequently followed by an increase to an average 6 beds per day for the latter half of the financial year. It is likely the reasons are different for each of these years given the pandemic's impact from March 2020. As a proportion of all occupied bed days in 2019/20, 5% were associated with a delayed discharged compared to 9% across Scotland.

Whilst Orkney compares favourably with the Scottish position we should not be complacent. There are two emergent broad categories of concern; firstly those who are admitted to hospital and cannot then be discharged due to the lack of legal powers being in place. Secondly delayed discharges are often due to lack of community resources to enable an individual to return home. If hospital throughput is to be sustained going forward work will be required to find timeous solutions to these complex issues.

Figure SU13: Delayed Discharges



Data Source: Public Health Scotland – Delayed Discharge

Based on council of residence. Orkney resident admissions to all health boards of treatment





Data Source: Public Health Scotland – Delayed Discharge Based on NHS Board of Treatment

Long Term Conditions

Figure SU15 below shows the number of individuals with a long term condition with associated hospital bed days in 2019/20. Arthritis, cancer, chronic heart disease, diabetes, atrial fibrillation and cardiovascular disease were the leading LTCs in terms of total bed days in Orkney during 2019/20.





Data Source: Public Health Scotland SOURCE LTC

Based on council of residence. Orkney resident admissions to all health boards of treatment

It is well known that as people age their health needs become more complex. Figure SU16 below summarises this relationship by presenting the proportion of emergency hospital admissions during 2019/20 grouped by age cohort and number of LTCs. To summarise:

- Older aged cohorts with multiple long term conditions are more likely to be admitted to hospital as an emergency
- Over two thirds (70%) of emergency admissions in 2019/20 were for people with Long Term Conditions
- Over half (54%) of emergency admissions for all people admitted with LTCs were for people aged 65+ with two or more Long Term Conditions
- Over a third (35%) of emergency admissions for people aged 75+ were for those with two or more Long Term Conditions
- The largest cohort were people aged 75+ with 5 or more LTCs, representing 17% of all emergency hospital admissions for people with LTCs in 2019/20



Figure SU16: Multiple LTC and Emergency Hospital Admission 2019/20

Data Source: Public Health Scotland – SOURCE linkage

Based on council of residence. Orkney resident admissions to all health boards of treatment

Table SU1: Number of Emergency Admissions and LTCs by Age Group 2019/20

LTCs	0-17	18-44	45-64	65-74	75+	Grand Total
1	34	84	95	33	33	279
2	7	38	78	52	53	228
3	*	19	68	47	73	208
4	*	9	44	46	94	194
5+	*	10	43	66	220	340
Grand Total	44	160	328	244	473	1,249

There are known links between deprivation, lifestyle behaviours and negative health outcomes. Figure SU17 below summarises the proportion of people living in the two most deprived relative SIMD categories admitted to hospital as an emergency with a long term condition in Orkney during 2019/20. There is not a great deal of variation between all conditions listed below. A key point is that nearly half of all people admitted as an emergency due to a longer term condition lived in the two most deprived relative SIMD categories in Orkney.



Figure SU17: Long Term Condition Emergency Admissions by Relative SIMD 2020 (Most Deprived Quintiles-Quintile 1 and 2: 2019/20

Data Source: Public Health Scotland – Source Linkage Project **For description of relative SIMD see SIMD discussion on page 28

Emergency Department

Emergency department presentations increased year on year between 2011 and 2019. The increase since 2014 represents an increase of a third (34%), from 5,193 attendances in 2014 to 6,972 in 2019. The pandemic coupled with unscheduled care redesign resulted in a 24% decline in emergency department attendances between 2019 and 2020.

Figure SU18: Emergency Department Attendances NHS Orkney



Data Source: Public Health Scotland – A and E Activity publication

Mental Health

There are no psychiatric inpatient facilities available in NHS Orkney other than the transfer holding bed for psychiatric patient transfer from Orkney to Royal Cornhill Hospital in Aberdeen (NHS Grampian). Despite this, it is still possible for a person to be admitted to hospital under various psychiatric diagnosis codes in Orkney. Figure SU19 below charts the number of people admitted per financial year under any F ICD-10 code. Despite a decline during 2016/17, the number of people admitted with a mental health specialty code diagnosis remained broadly static between 2014/15 and 2019/20. During 2019/20 there were 100 hospital admissions with a psychiatric diagnosis, including those transferred to NHS Grampian.





Data Source: Public Health Scotland: Mental Health Hospital Activity Publication

Mental Health Specialty Code for Orkney Residents treated NHS Orkney and NHS Grampian

As suggested above, there has been a consistent proportion of people admitted to hospital with a mental and behavioural diagnosis code in Orkney since the late 1990s. Figure SU20 below shows the breakdown of diagnosis groups for patients admitted to hospital in Orkney for the five year period 2015/16 to 2019/20. Two thirds (67%) of admissions during that period were related to mental and behavioural disorders due to psychoactive substance use. This includes the use of alcohol. A smaller proportion (15%) were related to mood (affective) disorders such as depression, 11% were related to severe and enduring types of mental illness such as Schizophrenia and a smaller proportion (7%) were related to Organic mental disorders such as Dementia.

Figure SU20: Mental and Behavioural related Hospital Admissions NHS Orkney by Diagnosis (2015/16 – 2019/20)



Data Source: Public Health Scotland – Mental Health Hospital Activity Publication Health Board of Treatment NHS Orkney Figure SU21 below highlights the clear link between deprivation and psychiatric hospital admission. In the period 2017/18 to 2019/20, the age sex standardised rate for people admitted to a psychiatric hospital living in the most relative deprived quintile in Orkney was 2.4 people per 1,000 population. This is double the rate of people living in the least deprived relative SIMD Quintile in Orkney.





Data Source: Public Health Scotland – ScotPho(SMR04)

**For description of relative SIMD see SIMD discussion on page 28
Key Risk Areas

- Emergency Hospital Admission: The level of emergency hospital admissions has remained unchanged in the decade 2010/11 – 2019/20. This is the most costly activity to Orkney health and care expenditure. As outlined in this chapter, people aged 65 years and over suffering from multiple long term conditions account for the largest proportion of emergency hospital activity. This issue is one of the main drivers behind the inception of health and social care integration. Much of this may well not be preventable however, early community based interventions and anticipatory care planning could go some way to improve health outcomes of individuals. Furthermore, this is only set to increase given the challenges associated with population change and morbidity in the population.
- Consistent level of multiple emergency admissions each year: Almost a quarter of patients were admitted as an emergency two or more times each year from 2010-11 to 2019/20. As above, there may be opportunities to review this and put in place anticipatory care plans to prevent further emergency admission.
- Rising annual A and E attendances: The level of A and E attendance has increased year on year over the past decade. The effects of the urgent care redesign are unknown but it would be anticipated that unscheduled care demand continues to rise. It will be worth reviewing A and E demand in terms of reasons for attendance and patient pathways.
- LTC emergency hospital admission: Over two thirds (70%) of emergency admissions in 2019/20 were for people with long term conditions. Potential need to scope out short and long term interventions to prevent impact on LTCs on individuals and wider service demand. Given costs associated with emergency admission, there is a risk the level of emergency admission related to LTC is set to intensify. In large part, this is due to population change however, the current levels of risk related behaviour identified in earlier chapters is only set to intensify the level of LTC demand on services.
- Psychiatric Hospital admission and Deprivation: There is a clear link between deprivation and psychiatric hospital admission. There are various aspects to the nature of this topic requiring different approaches in terms of service planning. Risk factors for poorer mental health associated with deprivation are wide ranging such as – employment, education, adverse childhood experiences, financial stress, access to services as well as social exclusion.
- Consistent level of mental and behavioural disorders due to substance use hospital admissions.

Secondary Care (Adults) – Service Utilisation Benchmarking Table by local authority peer group

Figure	Indicators	Data Type	Time Period	Orkney Islands	Argyll & Bute	Aberdeenshire	Dumfries & Galloway	Highland	Na h- Eileanan Siar	Scottish Borders	Shetland Islands	Scotland
SU1	Inpatient Activity – Emergency	Per 100,000	2019/20	7,966	10,348	8,036	12,209	9,181	12,777	10,887	8,198	10,739
	Inpatient Activity – Elective	Per 100,000	2019/20	3,026	3,647	2,254	2,849	2,801	4,716	2,454	3,556	2,512
	Inpatient Activity – Day Case	Per 100,000	2019/20	14,410	9,716	7,699	10,087	9,517	11,516	7,102	11,889	8,537
SU2	Emergency Admissions	Per 100,000	2019/20	5,824	7,341	5,568	8,365	6,030	8,327	7,444	5,750	7,288
SU3	Elective Admissions	Per 100,000	2019/20	2,497	2,889	1,892	1,990	2,266	3,585	2,118	2,906	2,018
SU4	Day Case	Per 100,000	2019/20	8,532	6,304	5,896	8,356	6,347	8,267	3,671	7,936	5,289
SU5	Emergency Admissions 65+	Per 100,000	2019/20	12,326	14,849	12,617	15,447	13,434	17,230	14,516	12,889	15,873
SU6	Bed Occupancy Rate **	%	2019/20	95.5	88.2	83.6	78.5	88.2	73.4	83.9	61.6	85.8
SU7	Average Available Staffed Beds **	%	2019/20	4.5	11.8	16.0	6.8	11.8	26.6	16.1	38.4	14.2
SU8	Average Length of Stay	Days (Elective)	2019/20	3.72	3.42	3.51	3.69	3.74	4.25	3.34	3.26	3.39
SU8	Average Length of Stay	Days (Emergency)	2019/20	7.56	7.7	7.29	8.35	8.69	8.93	5.78	6.33	6.69
SU9	New Outpatient Appointments	Per 1,000	2019/20	234.3	300.6	195.7	263.5	257.9	329.6	248.9	322.0	259.7
SU10	Emergency patients treated in HB of Residence**	%	2019/20	93.2	92.8	97	96.8	92.8	95.5	94.3	91.3	N/A
SU10	Outpatients treated in HB of Residence**	%	2019/20	98.5	98.1	95.6	99.1	98.1	99.8	96.6	97.3	N/A
SU10	Daycase patients treated in HB of Residence**	%	2019/20	98.9	97.7	97.9	99.4	97.7	99.9	96.8	99.1	N/A
SU10	Elective patients treated in HB of Residence**	%	2019/20	99.4	92.6	89.6	99.5	92.6	99.3	95.1	97.3	N/A
SU13	Delayed Discharges**	% Occupied Bed Days	2019/20	4.72%	16.48%	7.61%	10.74%	16.48%	24.45%	10.13%	14.44%	8.89%
SU18	Emergency Department Attendances**	Crude Rate per 1,000	2020	237.6	238.8	171.7	258.0	238.8	227.5	230.7	246.3	233.3
SU19	Psychiatric Hospital Discharges	Per 100,000	2019/20	179.61	232.91	260.33	577.72	313.79	261.98	441.52	87.26	400
SU21	Psychiatric Patient Hospitalisations by Relative SIMD 1 Quintile	Per 100,000	2017/18 to 2019/20	235.1	400.5	282.0	469.7	450.2	271.9	395.0	91.4	451.1

Community Health Services

Community Services

Community treatment is a central feature of care given the remote and rural nature of Orkney. There are many community based services from primary care, community nursing, pharmacy, sexual and reproductive health, as well as the wider Isles Network of care. This chapter aims to review demand on community services for those with data available.

Mental Health

Figure CH1 below highlights the increase in referrals to mental health specialties in the last decade. It shows a steady increase over the period despite a marginal decline during 2015 and 2016; referral rates increased by 58% since 2016. This is set against the backdrop of stagnant staffing within the mental health service, with the exception of psychology. 2020 numbers are still being compiled however, the service is aware referrals have risen significantly following the end of the first lockdown period.

At the time of writing there has been an increase in the number of urgent referrals. There is also reports of an increase in the complexity of cases with the level of risks at a level requiring multi-agency meetings. The outcome of these increases described above are that the service will be unable to cope timeously with demand. In addition some patients who do not require a referral to the service will nonetheless require significant time within Primary Care being cared for by either GPs or Primary Care Mental Health Nurse.



Figure CH1: Total referrals to (Adult) mental health teams 2010 - 2019

Data Source: NHS Orkney Mental Health Team

Team	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
CAAP	0	0	0	6	41	34	69	80	68	81
CBT	17	23	25	38	40	49	50	51	80	58
CCBT	0	0	0	0	0	0	6	56	51	133
Generic	192	139	141	212	221	169	151	192	172	208
Older Adult	63	50	41	57	88	77	105	91	112	106
Psychiatry	74	76	78	60	50	71	50	73	185	112
Psychology	13	40	46	38	45	55	61	73	128	122
Substance	110	82	103	110	104	101	70	96	87	70
Total	469	410	434	521	589	556	562	712	883	890

Data Source: NHS Orkney Mental Health Team

Psychological therapies are evidence-based interventions targeting a patient's understanding of the world in order to help overcome distress by changing their thinking, behaviour and relationships. Interventions tend to be facilitated as a series of one-to-one sessions where patients are given space to work through the challenges they face. The main referrals tend to come from primary care, but referrals can be made from a host of different settings. Figure CH2 below shows the level of demand being placed on psychological services over the five years between 2016 and 2020. The number of referrals for psychological therapy increased each year between 2016 and 2019. Overall, this represents a 92% increase in total referrals during that period. Understandably, referrals in 2020 decreased to the level of referral in 2016 at 186 referrals, representing a decline of 48% when comparing 2019 and 2020 totals. Due to the small staffing complement, the capacity for seeing new patients or review appointments, vary substantially on a month to month basis.

Figure CH2: Psychological Therapy Referrals 2016 to 2020



Data Source: NHS Orkney-Trakcare

While psychiatry is a secondary care hospital based service, it has been included here for consistency with other Mental Health data. Psychiatry provides diagnostic and prescribing functions for complex severe and enduring mental health conditions, playing a pivotal role with community teams. Moreover, psychiatrists play a central role in decisions around psychiatric hospital admission. Figure CH3 below highlights the number of new appointments for psychiatry, which is a useful measure similar to referrals in gauging new demand.

Across the decade between 2010/11 and 2019/20 the level of new demand placed on psychiatry has varied from a low of 65 in 2017/18 to a high of 179 in the following year. 2019/20 witnessed a return to lower levels in the period and the onset of the pandemic may have had a slight impact on numbers for the end of March 2020.



Figure CH3: General Psychiatry New Attendances

Data Source: Public Health Scotland – Outpatients

As above, while the mental health transfer bed is traditionally a secondary care hospital based service, admission to the transfer bed involves Community Psychiatric Nurse (CPN) capacity. Therefore, this data is presented to highlight part of the wider community team as transfer bed admission requires urgent support from the CPN team both before admission and during admission. Figure CH4 below shows the number of admissions to the transfer bed in Orkney from 2016 to 2021. The number of admissions per year, while increasing, remained relatively low with annual totals ranging from 15 to 28. 2019 and 2020 recorded 16 and 15 admissions respectively, with little change in 2020 despite the pandemic. Despite low numbers these are high intensity admissions requiring a great deal of CPN time before admission as well as during subsequent transfer to Royal Cornhill Hospital in Aberdeen; these episodes are often elongated due to lack of bed availability, air ambulance availability due to prioritisation of workload and weather. In practice this means that scheduled appointments are required to be re-arranged and this could have unintended and poorer consequences for other patients.



Figure CH4: Mental Health Transfer Bed Admissions

Data Source: NHS Orkney Health Intel – Trakcare

Alcohol and Drugs

People struggling with drug and alcohol problems should wait no longer than three weeks to begin treatment to support recovery. The Scottish Government set the target that 90% of referrals to alcohol and drugs services should be seen within three weeks. Waiting times reflect how well services can respond to demand for services, particularly those that require prompt intervention. Figure CH5 below highlights both the number of people receiving a first appointment for alcohol and drugs treatment, as well as the percentage seen within three weeks. During the five year period detailed below there has been no breach in the proportion of people seen within three weeks. Following a high of 60 new patients in 2017/18, the number of new people completing a wait for treatment reduced year on year. However, these are relatively small numbers. Interestingly, the level of completed waits in 2020/21 was relatively unchanged between from 2019/20 suggesting people were still able to access services.



Figure CH5: Number of Completed Waits for Alcohol and Drug Treatment services

Data Source: Public Health Scotland – Alcohol and Drugs Waiting Times Publication

The Scottish Government set out their strategic approach to alcohol misuse in 2009 which included the delivery of Alcohol Brief Intervention (ABI) targets. ABI is an intervention for people drinking to hazardous and harmful levels and aims to help people moderate their drinking. It is a preventative approach to reduce the risk of more adverse alcohol related conducted in priority settings such as primary care, A and E and antenatal settings as well as the wider setting includes areas such as pharmacy, social work, police or education. In 2019/20 there were 437 ABIs carried out across Orkney. Almost half (49.7%) of these were conducted in primary care, 48.7% were conducted in the wider setting, 1.6% were carried out in A and E, and there were no ABIs delivered in antenatal settings.



Figure CH6: Number of Alcohol Brief by Setting-NHS Orkney 2019/20

Data Source: Public Health Scotland – Alcohol and Drugs Waiting Times Publication

Allied Health Professionals – Musculoskeletal (MSK)

In order to gauge demand on AHP MSK services, this section reviews referrals from all sources to the following AHP services for MSK conditions: Physiotherapy, Chiropody/Podiatry, Occupational Therapy and Orthotics. MSK conditions are wide ranging with both short and long term conditions related to joints, bones, cartilage, ligaments, tendons and muscles. These figures also include pre or post orthopaedic surgery peripheral nerve lesions and complications of fractures/dislocation or trauma.

During the three year period between 2017/18 and 2019/20 the level of AHP MSK referral remained broadly stable. The quarterly average for the period was 400 referrals per quarter which increased in three quarters during the period to 500 referrals. As Figure CH7 highlights, referrals during 2020/21 due to the COVID-19 pandemic dropped significantly and did not recover during the year, with a quarterly average referral of 300.



Figure CH7: Allied Health Professionals Musculoskeletal Referrals

Data Source: Public Health Scotland – AHP MSK Waiting Times statistics

Primary Care Out of Hours

When GP practices are closed patients have been able to access urgent care via the primary care out of hour's service. This could include phone consultations or a home visit, often resulting in both. The number of primary care out of hours contacts remained relatively unchanged between 2015 and 2019, with an average of 2,230 consultations per year. Consultation levels comparative to other areas remained broadly unaffected, despite a slight decline to 1,865 consultations during 2020.



Figure CH8: Primary Care Out of Hour Consultations NHS Orkney

Data Source: Public Health Scotland – Primary Care OOH Statistics

General Dentistry

General dentistry tends to be provided by independent dentists with NHS contracts. This allows patients to have access to general dental services which includes a wide range of treatment. Figure CH9 reviews the level of adult registration in Orkney between 2001 and 2019. It should be noted that policy for registration changed at various points in the period regarding time people would be de-registered. People are now registered at a dental practice for life, impacting on numbers detailed below. This is important to note as, at first glance, the registration level looks to have improved significantly across the period. However, it is likely to be linked to the changes to de-registration. In 2019, there were 14,410 patients registered with a dentist in Orkney, representing 79% of adults.





Data Source: Public Health Scotland – Dental Registration and participation statistics

Participation rate with a general dentistry service is based on any contact with a dentist for examination or treatment in the previous two years for registered patients. Across the decade between 2010 and 2020 the level of registered patients has remained static at around 70% of registered patients being known to have had GDS contact. Census figures for March and September 2020 will likely not show any impact of the COVID-19 pandemic given the reporting methodology.



Figure CH10: GDS Participation Rate

Data Source: Public Health Scotland – Dental Registration and participation statistics

At the most recent dental participation census in September 2020, it is clear there is some variation in age groups engaging with general dentistry. Participation is much more likely in those aged 35+. Over 70% of people in the 35-44 years cohort were recorded as having participated in General Dentistry via a check-up or treatment in the two years previous, compared to less than half (47%) of 18-24 year olds and just under a third (63%) of 25-34 years.





Data Source: Public Health Scotland – Dental Registration and participation statistics

Sexual and Reproductive Health

England, Scotland and Wales are subject to the Abortion Act 1967 which provides the regulatory framework for the termination of pregnancy. There are various grounds for the termination of pregnancy and it must be sanctioned by two separate doctors to proceed. Following an abortion, the UK Chief Medical Officer (CMO) must be notified within seven days.

2020 witnessed the highest rate of abortions across Scotland per 1,000 women aged 15-44 years, during the period between 2011 and 2020, with a rate of 13 abortions per 1,000 of the female population aged 15-44 years. The rate of abortion across the NHS Island health boards remained static between 2011 and 2018 at a rate of 5 abortions per 1,000 women aged 15-44 years. 2019 and 2020 also witnessed the highest rates of termination in the period across the Islands with 6.4 and 6.1 terminations respectively per 1,000 women aged 15-44 years.

Figure CH12: Termination of Pregnancy: Rate per 1,000 women aged 15-44 years



Data Source: Public Health Scotland – Termination of Pregnancy Statistics

Women have access to a range of contraception via primary care and sexual health settings. Long acting reversible methods of contraception to women of reproductive age (15-49 years) have a much lower failure rate than other methods, such as the contraceptive pill or condoms. Figure CH13 below reviews the number of LARC items prescribed between 2013/14 and 2019/20. LARC prescription rates have remained largely unchanged during the reporting period below, with a low of 300 items in 2016/17 and a high of 374 items in 2013/14. In 2019/20 there were 355 LARC items prescribed.





Data Source: Public health Scotland – LARC key clinical indicator

Genital chlamydia is the most common bacterial sexually transmitted infection in Scotland. Chlamydia can go undetected as it is asymptomatic and is passed via unprotected sexual intercourse. The infection is treatable, however it can lead to reproductive morbidities in women including pelvic inflammatory disease (PID), ectopic pregnancy and tubal factor infertility, while men can suffer from epididymitis.

During the period between 2010 and 2019 the number of laboratory diagnosis of chlamydia in Orkney has remained broadly low. The number of positive diagnoses has ranged from a high of 64 in 2012, to a low of 20 in 2017. There has been a slight increase between 2017 and 2019, however the figures are relatively small.



Figure CH14: Laboratory Diagnosis of Chlamydia: Orkney

Data Source: Genital chlamydia and gonorrhoea infection in Scotland: laboratory diagnoses 2010-2019 Community Pharmacy Services

Community Pharmacy Services

There have been significant changes to community pharmacy services, largely the drawing to a close of the Minor Ailment Scheme and the introduction of Pharmacy First. The scheme was a service to provide assistance to people with minor ailments experiencing varying income-related insecurities. Pharmacy first builds on this but opens up the service to anyone in the community. The service covers most minor ailments such as colds as well as conditions such as urinary tract infections, additionally acting as a referring service to other healthcare if needed. This key aim of Pharmacy First is to reduce the impact of minor illness on GP practices and A and E departments by treating these conditions in a timely fashion.

Pharmacies also provide services such as smoking cessation, chronic medication services and emergency hormonal contraceptives. There has been a tailing off of chronic medication services between 2014 and 2017. Emergency hormonal contraceptives have remained relatively unchanged across the period with an average 100 items prescribed each year. 2020 witnessed lower levels, perhaps related to the pandemic. Smoking cessation support in pharmacies has also been variable across the period with a low of 52 prescribed items 2019, compared to 202 during 2015. Interestingly, the number of smoking cessation items prescribed in 2020 increased to 113 and may be linked to heightened concerns of respiratory disease brought to the fore by the COVID-19 pandemic.



Figure CH15: Community Pharmacy Services – Number of Prescribed Items NHS Orkney

Data Source: Public Health Scotland – Pharmacy Contractor open data

Figure CH16 below highlights the monthly comparison between the number of items prescribed under the Minor Ailment Scheme between 2017 and 2019, and Pharmacy First since it began in 2021. Prescribing across 2020 and 2021 under either the Minor Ailment Scheme or Pharmacy First has remained broadly below average levels each month. Prescribing rates in community pharmacies under the Minor Ailment Scheme did pick up in the latter half of 2020 however, due to mitigation measures, there was a clear reluctance of patients to access pharmacy services.

Figure CH16: Minor Ailment Scheme and Pharmacy First: NHS Orkney



Data Source: Public Health Scotland – Pharmacy Contractor open data

Smoking Cessation Service

As discussed in the Population Health and Lifestyle chapters, the relationship between smoking and poor health is a serious problem in Scotland. Smoking cessation services which provide evidence based interventions to support people to stop smoking. Figure CH17 below reviews the annual number of people making quit attempts between 2009/10 and 2019/20. From 2009/10 to 2014/15 there was a steady annual increase in the number of quit attempts across Orkney. Between 2015/16 and 2019/20 the level of quit attempts has been somewhat variable ranging from 94 in 2015/16 to 54 in 2018/19.



Figure CH17: Number of Quit Attempts each year

Data Source: Public Health Scotland – Smoking Cessation Statistics

Key Risk Areas

- Mental Health demand. Consistent rise in referrals mirrors trends in anti-depressant prescribing and primary care prevalence despite general stagnation in capacity. The decline in psychological therapy referrals in 2020 indicates a certain level unmet need due to the below average referrals. Furthermore, in light of wider social and economic risk factors anecdotal evidence suggests there is a significant cohort of people requiring mental health support.
- Level of Alcohol and Drug treatments: despite consistent level of Alcohol related hospital
 admissions the level of people accessing ADP services has incrementally declined year on
 year. The risk associated to this is that without timely intervention people suffering from
 alcohol or drug problems access services when the problem escalates. This is both harmful
 to the individual and wider hospital services.
- Very low coverage of ABIs delivered in Accident and Emergency: Given the level of emergency hospital admission related to alcohol misuse in Orkney it would be expected that these patients are access A and E. There is opportunity to implement ABIs within A and E in light of this for wider identification of people with alcohol problems to support earlier interventions.
- Significant drop in level of AHP MSK referrals during 2020: As is likely with many services the level of referrals to MSK dropped significantly during 2020. This is likely resulting in more people contacting services with more complex levels problems.
- Smoking cessation: There is a significant disparity between the level of quit attempts and the estimated number of smokers in Orkney. Given the negative health outcomes associated with smoking this presents long term risks for future development of LTCs both for individuals and at a service planning level. Given future challenges around population change it is likely the demand associated with health harms of smoking will increase. Early Intervention and prevention are crucial in mitigating against health harms associated with smoking.

Social Care (Adults) Service Utilisation

This chapter covers the demand surrounding key social care services across Orkney. The section will review information regarding how people access services such as Care Homes, Home Care and Criminal Justice Social work services.

Self-directed Support

There are many choices around how social care can be arranged to meet peoples' support needs. This can be in relation to how people get help with personal care, aspects of daily living or access to opportunities in the community. On 01 April 2014 the Social Care (Self-directed Support) (Scotland) Act 2013 became operational. Self-directed Support gives people more control over how they access social care and meet personal outcomes. Under the legislation, clients must be provided a choice in how care is received. There are four options listed below.

- SDS Option 1: Taken as a direct payment.
- SDS Option 2: Allocated to an organisation the person chooses and the person is in charge of how it is spent.
- SDS Option 3: The person chooses to allow the council to arrange and determine their services.
- SDS Option 4: The person can choose a mix of these options for different types of support.

The only information available for Orkney at present is regarding Direct Payments. Figure SC1 below shows the number of clients opting to arrange their own social care upon assessment. The number of clients opting to receive direct payment increased each year between 2014/15 and 2017/18, representing a 55% increase during the period. Figures are unavailable for 2018/19, however, the number of clients opting for direct payments in 2019/20 declined by 16%. Many of the direct payments will be due to the lack of council provided care at homes services and service users have made explicit that their preference would of that of the council service.



Figure SC1: Direct Payments – SDS Option 1

Data Source: Scottish Government / OHAC

Care Home

People are admitted to care homes due to the need for 24 hour care related to high dependency. In essence, care homes cater for people who can no longer live independently and act not only as accommodation but also provide nursing care, personal care as well as support for vulnerable adults unable to support themselves. In general, there are three services provided by care homes. Firstly, people with complex healthcare and functional need have a homely setting where care can be provided. Secondly, care homes offer short term stays to enable respite for carers. This section reviews demand on care homes in Orkney for long stay clients and respite clients.

There are five care homes across Orkney according to the Care Inspectorate registration list as at March 2019. It is important to note that three of these are for a mix of long and short stay residents and two are for short stay only. In 2019 there were 116 registered care home places, 111 of which were specifically for older people. This was considerably lower than the Scottish rate of registered places in care homes for older people. Across Scotland there were 39 registered care home places for older people per 1,000 population compared with 22 in Orkney. In the decade between 2009 and 2019, the number of registered care home places in Orkney declined by over a third (36%).

Figure SC2: Rate of Registered Places in Care Homes for Older People in Scotland, per 1,000 population aged 65+



Data Source: Public Health Scotland-Social Care Census

Figures submitted by care homes for the number of admissions throughout the year as reported in the Care Home Census are shown below. There has been a slight increase in the number admissions to care homes for long stay residents across the decade between 2008/09 and 2018/19. The average admissions per year in between 2008/09 to 2014/15 was 41. During the latter half of the period this increased to an average of 50 admissions per year.



Figure SC3: Long Stay Annual Admissions to Care Home – Orkney

Data Source: Public Health Scotland – Care Home Census

The Care Home Census takes a snapshot view of the number of residents as at 31st March each year. 2018 and 2019 witnessed the lowest level of long stay care home residents across the period at 92 residents.





Data Source: Scottish Government Care Home Census

Care home occupancy rates are reported in the same way above by taking a snapshot view as at 31st March each year. While not necessarily representative of the whole year, they do provide insight when considered over time. Figure SC5 below highlights the occupancy rate across Orkney was on average 90% between 2009 and 2019. This is broadly comparable to the picture across Scotland. In 2019 care homes in Orkney on 31st March were operating at 87% capacity.



Figure SC5: Care Home Occupancy Rates as at 31st Match Census Date – Orkney

Data Source: Scottish Government - Care Home Census

The median age of older adult clients admitted to a care home as a long stay client in Orkney remained broadly unchanged at 84 years of age between 2009 and 2019. Similarly, the age at discharge has broadly remained circa 87 years of age.

Figure SC6: Median Age on Admission and Discharge



Data Source: Scottish Government – Care Home Census

In terms of the type of need, the census information provides some insight into the type and level of care required in Orkney care homes. Clients may be included in multiple categories, therefore the total percentage exceeds 100%. Of the client types submitted as part of the census, the largest cohort were people with a diagnosis of dementia at 42% of long term residents, a third had a chronic condition or physical disability and a fifth (20%) required nursing care.



Figure SC7: Care Home Client Needs 2019 Census Snapshot

Data Source: Public Health Scotland – Care Home Census

Figure SC8 below presents the total respite and short stay admissions across each financial year between 2008/09 and 2018/19. Apart from an abnormal low in 2015/16, there have been on average 350 respite or short stay admissions each year. In 2018/19 there were 353 admissions.

Figure SC8: Short Stay and Respite Client Total Annual Admissions Orkney



2019/20 witness the highest level of weekly residential care costs to the partnership in the decade between 2010-11 and 2019-20 for people aged 65+ in Orkney at £1,155 per week. In the period costs have consistently remained more than double the national rate. In 2019/20 the weekly costs of residential care in Orkney was nearly three times higher than the Scottish weekly cost.



Figure SC9: Residential costs to OHAC per week per resident for people aged 65+

Data Source: Local Government Benchmarking Service

Home Care

Home care is a key social care service that aims to promote greater independence at home for longer. It encompasses many types of support such as personal care as well as practical support in daily living to support people's ability to live independently.

This information should be treated with caution as, in earlier years, other forms of provision and that provided by a Third Sector organisation were counted. This then ceased with the move away from domestic services to a service based almost solely on the provision of personal care. Furthermore increases in the number of visits and hours due to increasing dependency levels and frailty had an impact on overall service delivery. The concept of re-ablement was launched in 2010/11 which again impacted on both the number of service users and the level of care required as the benefits of re-ablement first require additional investment in time.

Figure SC10 shows the number of clients receiving homecare as at 31st March each year. This data was submitted as a count of the number of home care clients on that day. In the period between 2008 and 2015 the number of clients receiving Home Care remained broadly unchanged at an average of 260 clients per year. During the following period between 2016 and 2021 this reduced to an average of 190 clients receiving home care at the census date each year. As at March 2021 there were 187 clients receiving home care which represents a decline of 10% from March 2020.



Figure SC10: Home Care Clients Orkney (Council provided)



The month ending waiting list size for home care services increased substantially in the three year period 2019 to 2021. The average month ending waiting list size for the period 2016 to 2018 was 6. In 2019 this increased to 17 and declined slightly to a monthly average of 15 during 2020; the COVID-19 pandemic appears to have resulted in a gradual decline in clients waiting for services from April onwards. What should be noted is the number of people on the waiting list may in part mask the associated demand they require. For example, four clients may require 10 hours of care each resulting in a total of 40 hours however, two clients may require 20 hours resulting in the same level of care. 2021 witnessed some of the highest monthly home care waiting list totals since 2016. It has been reported that all three service providers (Council, Age Scotland Orkney and Crossroads) have had sustained periods running at 100% capacity during the summer and autumn of 2021.



Figure SC11: Home Care Clients Waiting List Size by Month: Orkney (Council provided)

Data Source: Orkney Health & Care – Home Care Waiting List

There is a smaller cohort of clients aged 65+ who receive a more intensive level of home care. This level ranged from 34 to 73 across the 12 year period 2009 to 2021 and was at the highest level in 2015. As at 31st March 2021 there were 52 clients receiving 10+ hours of home care, representing over a quarter (27%) of home care clients. Fluctuations can be explained to some degree by the introduction of re-ablement and the use of equipment to reduce the need for double up visits. The trend however does remain that of upward as increasing numbers of dependent people are cared for in their own home.





The number of home care clients increased slightly on a monthly basis across 2019/20. By March 2020 there were 210 home care clients. 2020/21 seen a consistently lower level of home care clients. This is likely due to the impact of the coronavirus pandemic on service provision. April 2020 saw a reduction in home care clients of 14% to 180 clients. This remained broadly consistent for the remainder of the financial year as highlighted below in SC13.

Figure SC13: Home Care Clients – Monthly Trend April 19 to March 21



Data Source: Public Health Scotland-SOURCE

As with residential care costs for people aged 65+, the hourly home care cost to Orkney Health and Care has remained higher than the Scottish rate over the decade between 2010-11 and 2019-20. Home care costs, however, remained unchanged between 2016-17 and 2019-20 where costs per hour were on average £40. In 2019-20 the Orkney hourly rate was 1.5 times higher than the Scottish hourly home care rate.

Data Source: Scottish Government / Public Health Scotland



Figure SC14: OHAC Home Care Cost per hour for people aged 65+

Data Source: Local Government Benchmarking Framework

Technology Enabled Care

Technology Enabled Care (TEC) within social care provides a range of services promoting independent living at home for longer. There are numerous forms of TEC but overall they consist of an alarm unit linked to a telephone line that alerts an emergency response centre. The response service team provide services across the Orkney mainland and the southern Isles 24 hours a day. The service promotes increased safety at home for many people with different types of need such as those suffering from Long Term Health conditions, people who are increasingly frail, vulnerable groups, or people suffering from memory loss. TEC promotes increased independence at home as it provides an immediate response to an emergency proving a safer home environment as well as reduced risk of hospital admission. There are many types of TEC alarm, from door alarms, bed sensors, medication dispensers, flood monitors, falls alarms as well as smoke alarms.

There are substantial number of clients receiving some of the various types of telecare across Orkney. This increased annually between 2015/16 and 2017/18 representing an overall increase of 61% during the period. Data is not available for 2018/19 however, figures from 2019/20 indicate a further increase of 11% to 896 clients receiving either community alarms and/or telecare.



Figure SC15: Community Alarms and Telecare

Data Source: Public Health Scotland – Insights into Social Care

Carers and Unpaid Carers

There were 1,970 (9.2%) individuals aged 16+ in Orkney who identified themselves as an unpaid carer in the 2011 Census (Scotland 9.3%). If the proportion of the population identifying as unpaid carers has remained stable at 9.2% there would have been 2,024 (an additional 54) in 2017. Up-to-date, accurate Information on the number of carers in the population is hard to find for a variety of reasons. The Orkney Carers strategy stated there were 1,978 carers in 2019 and estimated there may be up to 3,684 carers in Orkney. This estimate was based on the estimates taken from the 2011 Census (10% Adults) and the Scottish Health Survey (17% of Adults).

The Carers act 2016 when implemented will give cares the right to either a new adult carer support plan or young carer statement without first requiring them to be providing care on a substantial and regular basis. The aim of this is to help potential carers identify what support they need as a preventative approach to supporting carers.

The Health and Care Experience survey published in 2020 provides some updated – broadly similar-estimates on the number of cares across Orkney. 12% of respondents stated they cared for somebody across different time bands. 12% of the Adult population aged 17+ gives an estimate of 2,216 potential carers in Orkney based on the NRS 2019 mid-year population estimates. Only a small proportion (8%) of those stating they were a carer had been offered a carers assessment, now known as an Adult Carers Support Plan or Young Carers Statement (for carers under 18).

Figure SC16: Amount of Hours of Care provided 2020



Data Source: Scottish Government/ PHS-Health and Care Experience Survey 2020

Criminal Justice Social Work Services

There are a range of services provided locally by criminal justice social work departments. In particular, these involve reports to assist decision making during sentencing, supervision of people on social work orders to tackle offending behaviour, supervising people required to perform unpaid community work.

Criminal justice social work reports can take many forms such as:

- oral/written reports and information at the court's request on specific matters to inform the sentencing process or the decision to remand to custody rather than grant bail
- interviews with individuals and completing a medical mandate where significant medical issues have been highlighted
- diverting people with mental health difficulties who may be a risk to themselves from a custodial remand, to either hospital or appropriate bail accommodation, where available, for assessment
- interviewing individuals immediately after the court has passed a custodial sentence/remand or a community disposal involving criminal justice social work, in order to further explain the decision of the court and what this means for individuals. Also, establish if any pressing issues should be dealt with immediately, and inform individuals about the availability of relevant social work services
- forwarding relevant information to prisons in the event of a custodial sentence, including details on people who may pose a risk of harm to themselves and/or others
- representing the local authority criminal justice social work service in the court setting, including, where appropriate, court users' groups and liaising with other professional groups

During the period 16 year period reported below in figure SC17, there has been broadly little change in the level of reports submitted each year. These have ranged from lows of 60 to higher levels of 100 per year but still represent broadly small numbers. In 2019-20, there were 60 SWCJ reports submitted.



Figure SC17: Social Work Criminal Justice Reports Submitted Orkney

Data Source: Scottish Government-SWCJ

The number of Community Payback Orders imposed on adults in Orkney has been shown little variation. Slight increases were recorded between 2011/12 and 2019/20, with the highest level of CPOs (64) imposed in the most recent financial year of available data.





Data Source: Scottish Government-SWCJ

Key Risk Areas

- Relationship between high care home occupancy and availability of beds: Important to consider how this may change in the future. If turnaround of Care Home places is largely dependent on a one out one in model it runs the risk of there being unmet need in the population.
- Consistent level of waiting list for home care due to lack of capacity
- High cost of Home Care and Residential Care: Given the higher than average costs associated with remote/rural areas for Care home and home care there is a risk of not being able to meet future demand. In particular, given the challenges associated with an ageing population and current levels of lifestyle associated with long term conditions later in life, it is likely there will be a higher demand for intensive forms of both home care and care home.
- Question around whether all carers are being offered a carers assessment: There is very limited information around carers and unpaid carers. Findings suggest only a small amount of unpaid carers are accessing at the very least a carer's assessment.

Social Care (Adults) Service Utilisation Benchmarking by local authority peer group

Figure	Indicators	Data Type	Time Period	Orkney Islands	Argyll & Bute	Aberdeenshire	Dumfries & Galloway	Highland	Na h- Eileanan Siar	Scottish Borders	Shetland Islands	Scotland
SC1	Direct Payments – SDS Option 1	rate per 1,000	2017/18	4.4	2	1.6	3.1	2.9	3.7	3.9	1.8	1.6
SC2	Registered Care Home Places	Rate per 1,000 65+	2019	23	24	38	30	37	33	27	34	39
SC3	Long Stay Annual Admissions to Care Home	Admissions	2018/19	59	217	758	477	809	86	308	49	14,819
SC4	Long Stay Care Home Clients as at 31 March 2019	Number of Clients	31st March 2019	92	431	1,641	1,046	1,737	192	625	92	33,637
SC5	Care Home Occupancy Rate at at 31 March 2019	% Occupancy	31st March 2019	87	86	89	93	91	95	84	78	87
SC6	Median Age on Admission	Age	2019	85	84	82	83	81	83	83	83	82
SC6	Median Age on Discharge	Age	2019	87	88	87	87	87	86	89	86	87
SC7a	Care Home Dementia Diagnosed	% of Clients	2019	45.5	61.7	45.4	54.4	48.6	62.2	56.7	48.4	53.3
SC7b	Care Home: Other Physical Disability or Chronic Illness	% of Clients	2019	36.4	34.7	32.1	34.2	31.3	40	38.9	47.3	33.1
SC7c	Care Home: Requiring Nursing Care	% of Clients	2019	22.2	42.2	60.7	18.6	49.1	21.5	39.1	50.5	60.5
SC8	Short Stay/Respite Total Admissions	Admissions	2018/19	353	332	1,914	700	1,141	375	529	1,073	37,918
SC9	Residential Costs per week per resident aged 65+	£	2019/20	£1,155	£450	£364	£200	£518	£623	£414	£1,174	£401
SC14	Home Care Cost per hour for people aged 65+	£	2019/20	£39.26	£24.58	£25.70	£16.49	£28.77	£57.45	£21.45	£36.87	£25.99
SC15	Community Alarms & Telecare	Number of Clients	2017/18	807	2,101	5,375	3,719	3,340	1,176	2,583	615	131,917
SC17	Sumbitted Social Work Criminal Justice Reports	Reports per 10,000	2018/19*	45.3	54.8	36.2	91.2	55.1	34.4	44.2	39.0	70.8
SC18	Community Payback Orders	CPO per 10,00	2018/19*	32.2	32.6	31.9	42.3	37.3	21.1	26.5	27.7	42.6

Children and Young People: Service Utilisation

Current Service Model

NHS Orkney and Orkney Islands Council formally established a partnership arrangement in 2010 resulting in Orkney Health and Care (OHAC). Orkney Health and Care brought together local authority and NHS responsibilities into an integrated management and governance arrangement, with each parent body continuing to retain individual organisational accountability for statutory functions, resources and employment issues.

In 2016, the Public Bodies (Joint Working) (Scotland) Act 2014 came into force and with it the creation of Integration Authorities. This legislation requires Councils and NHS Boards to integrate adult health and social care services, however it also allows for the integration of other social care services. In Orkney, children's social care services have been included, along with children's community based health services.

Workforce

The following charts and tables show workforce rates and numbers for some services relating to children and young people's services.

Workforce Summary

The rate of Whole Time Equivalent (WTE) Health Visitors per 1,000 of the population aged between 0 and 5 years old in Orkney has had small fluctuations but has generally followed the same national trend. The number of Health Visitors has remained steady over the past 3 years.

Figure YP1: Rate of WTE Health Visitors per 1,000 of aged 0-5 population



Data Source: NHS Education Data for Scotland, Workforce Official Statistics, Turas Data Intelligence

Headcount of Health Visitors	Mar 2018	Jun 2018	Sep 2018	Dec 2018	Mar 2019			Dec 2019		Jun 2020	Sep 2020	Dec 2020	Mar 2021
Orkney	10	10	11	10	9	10	10	10	11	11	11	11	11
Scotland	2,561	2,530	2,545	2,545	2,612	2,593	2,615	2,618	2,624	2,599	2,589	2,585	2,606

Table YP1: Headcount of Health Visitors

Data Source: NHS Education Data for Scotland, Workforce Official Statistics, Turas Data Intelligence

The rate of WTE School Nurses per 1,000 of the 5-17 year old population has shown fluctuations over the past 6 years, especially in comparison with the national trend. This will be due to the small numbers of individuals working in School Nursing, rather than any significant trend.

Figure YP2: Rate of WTE School Nurses per 1,000 of aged 5-17 population



Data Source: NHS Education Data for Scotland, Workforce Official Statistics, Turas Data Intelligence

Table YP2: Headcount of School Nurses

Headcount of School Nurses	Mar 2018	Jun 2018	Sep 2018		Mar 2019		Sep 2019		Mar 2020			Dec 2020	Mar 2021
Orkney	2	2	1	2	2	2	3	3	3	3	3	4	4
Scotland	474	462	463	466	468	478	448	456	463	462	468	463	475

Data Source: NHS Education Data for Scotland, Workforce Official Statistics, Turas Data Intelligence NHS Orkney Maternity Service is a Midwifery Led, Integrated model, with Consultant Obstetric support both locally and from our tertiary referral centre, Aberdeen Maternity Hospital. Care is provided in both community and hospital settings for antenatal, intrapartum and postnatal care. In addition there are fertility, early pregnancy assessment, specialist clinic (diabetes/twins etc), daycare/triage and Midwife sonography services available locally. There is a close partnership with local Obstetricians which enables women to access some aspects of consultant led care & interventions locally (for example, Vaginal Birth after Caesarean and Induction of Labour for women meeting pathway inclusion criteria). Tertiary Obstetric care is predominantly provided in NHS Grampian. There is a close working relationships with the multidisciplinary team and work collaboratively with a wide range of teams & services.

The chart and tables below show that Orkney is in a strong position in terms of WTE per 1,000 of the population and the numbers of midwives employed in Orkney.



Figure YP3: Maternity team Whole Time Equivalent per 1,000 population

Data Source: NHS Education Data for Scotland, Workforce Official Statistics, Turas Data Intelligence

Table YP3: Headcount Midwives

	Ma r-18	Jun- 18	Sep- 18	Dec- 18	Mar- 19	Jun- 19	Sep- 19	Dec- 19	Mar- 20	Jun- 20	Sep- 20	Dec- 20	Mar- 21
WTE	15. 6	15.4	14.6	15	17	17	17	18.2	19.7	21.5	19	18.4	17.8
Head count	20	20	19	21	23	23	23	25	25	27	25	25	25

Data Source: NHS Education Data for Scotland, Workforce Official Statistics, Turas Data Intelligence Looking at the rate of WTE clinical staff working in Child and Adolescent Mental Health Services (CAMHS) and the number of clinical staff, there has been a lot of fluctuation in staff levels over the past 6 years. The rate of staff per 1,000 of the 0-18 population is well below that of the national rate, and in March 2021 was less than half. It should be noted that due to significant national funding this staffing ratio will improve substantially. It should also be noted that in common across Scotland Orkney is experiencing a rise in both the rate and acuity of CAMHS referrals post lockdown.

Figure YP4: Rate of WTE CAMHS per 1,000 0-18 aged population



Data Source: NHS Education Data for Scotland, Workforce Official Statistics, Turas Data Intelligence

Table YP4: Headcount of CAMHS Clinical Staff

Headcount of CAMHS Clinical Staff	Mar 2018	Jun 2018	Sep 2018	Dec 2018	Mar 2019	Jun 2019	Sep 2019	Dec 2019	Mar 2020	Jun 2020	Sep 2020	Dec 2020	Mar 2021
Orkney	1	4	4	3	3	3	2	2	3	4	4	3	3
Scotland	1,186	1,185	1,208	1,221	1,227	1,228	1,219	1,239	1,226	1,258	1,243	1,248	1,257

Data Source: NHS Education Data for Scotland, Workforce Official Statistics, Turas Data Intelligence

Social Care Workforce

The following chart shows the rate of Children and Young People Social Services workforce per 1,000 of the population aged 0 - 18 years. While the rate has dropped over the past 7 years, it is still above the national rate.

Figure YP5: Rate of Children and Young People Social Services Workforce per 1,000 0-18 aged population



Data Source: Scottish Social Services Council Scottish Social Services Workforce Data

Universal Child Health and Development

The percentage of 4-5 year olds who have a vision concern in 2019/20 has increased sharply since 2017/18. The number of reviews has also nearly doubled in the past three years in Orkney and also nearly trebled nationally. This may be due to the fact that the system used to obtain the figures only began to be used in 2016.

Figure YP6: 4-5 year reviews-% with a vision concern



Data Source: PHS Early child development Scotland 2019/20

Table YP5: Number of 4-5 year reviews

Number of 4-5 reviews	2017/18	2018/19	2019/20
Orkney	81	158	154
Scotland	12,914	22,085	39,436

Childhood Surveillance

The uptake rates for the 27-30 month review show a decrease in 2020, however this is very likely to be due to the COVID-19 pandemic. Orkney's uptake rate fluctuates in comparison with the national average, but this is most likely due to the smaller numbers involved.



Data Source: PHS Child Health Publications

Figure YP7 highlights the drop off in uptake at the start of the COVID-19 pandemic. From January 2018 up until 2020, the uptake rate remained above 75%.

Orkney	Offered	Accepted
Jan to Mar 18	39	33
Apr to Jun 18	39	35
Jul to Sep 18	48	41
Oct to Dec 18	67	63
Jan to Mar 19	49	42
Apr to Jun 19	44	39
Jul to Sep 19	48	44
Oct to Dec 19	43	40
Jan to Mar 20	60	41
Apr to Jun 20	43	24

Table YP6: 27-30 Month Review Numbers

Figure YP7: 27-30 Month Review Uptake rates

Data Source: PHS Child Health Publications

Again the uptake rates for the 13-15 month review fluctuate more heavily than the rates for Scotland, due to the smaller numbers involved. The steep drop in coverage is not so noticeable for the 13-15 month review.

Figure YP8: 13-15 Month Review Uptake rates



Data Source: PHS Child Health Publications

Figure YP8 highlights the relatively stable uptake from January 2018 through to June 2020 and the COVID-19 pandemic. From January 2018 up until June 2020, the uptake rate remained above 60%.

Table YP7: 13-15 Month Review Numbers

Orkney	Offered	Accepted
Jan to Mar 18	42	38
Apr to Jun 18	46	35
Jul to Sep 18	46	45
Oct to Dec 18	47	40
Jan to Mar 19	52	47
Apr to Jun 19	36	35
Jul to Sep 19	62	60
Oct to Dec 19	51	47
Jan to Mar 20	48	38
Apr to Jun 20	50	39

Data Source: PHS Child Health Publications

Best Start Programme

Best Start Grants and Best Start Foods are payments that help towards the costs of being pregnant or looking after a child. Best Start Foods will be a sub-set of Best Start Grant (BSG), which means that some, but not all, BSG recipients will also be entitled to Best Start Foods. Best Start replaced the Healthy Start programme in Scotland during the summer of 2019 but continue to provide targeted financial support for low income pregnant women and families to purchase healthier foods.

Best Start Foods have expanded the foods that families can purchase, increased the weekly payment amount and introduced a new smart card system.

Residents of Orkney account for less than 0.5% of all applications across Scotland.

Table YP8: Applications for Best Start Grant and Best Start Foods December 2018 – May 2020

NHS	Applications received	Applicati	Applications processed												
Board	Number	Total	of which authorised	of which denied	of which withdrawn	% authorised	% denied	% withdrawn							
Orkney	295	280	180	95	5	64%	34%	3%							
Scotland	159,975	151,230	99,445	46,060	5,725	66%	30%	4%							

From 12 August 2019 applications received are counted for both Best Start Grant and Best Start Foods. Until 12 August 2019 the numbers only include Best Start Grant.
Immunisation

The World Health Organisation (WHO) recommends that on a national basis at least 95% of children are immunised against diseases preventable by immunisation and targeted for elimination or control. Table YP9 highlights the uptake rates for Orkney's childhood immunisation rates.

In 2019/20, the majority of vaccines within the Immunisation Programme reached the recommended 95%. As the difference between the vaccinated children and the total cohort are small, only a small increase in uptake would be required to hit the 95% target.

Table YP9: Orkney Childhood Immunisation Uptake Rates by Financial Year

Immunisation Programme	Vaccine	2016	2017	2018	2019	2020
	5-in-1/6-in-1	88.9	92.3	97.0	95.6	94.5
	MenC	91.5	91.8			
Primary immunisation uptake rates by 12 months of age	PCV	89.4	92.9	97.0	95.1	94.5
sy 12 months of age	Rotavirus	87.3	86.2	95.0	93.4	89.9
	MenB			96.5	95.6	93.5
Primary and booster immunisation	Primary Course: 5-in-1 / 6-in-1 MMR1	97.4 96.9	94.1 90.4	97.0 95.5	97.0 96.5	96.9 94.3
uptake rates by 24 months of age	Booster: Hib/MenC PCVB MenB Booster	95.8 96.3 	90.4 90.9 	95.0 94.5 	96.5 93.5 93.0	93.2 92.7 93.2
	MMR1	93.7	90.7	96.3	97.2	98
MMR1 and booster immunisation	Hib/MenC	92.3	90.3	94.1	91.9	96
uptake rates by 5 years of age	4-in-1	88.3	88.9	95.9	96.2	96
	MMR2	87.4	85.8	95.4	96.7	96
MMD4 and be actor immunication	MMR1	94.0	94.1	91.1	96.9	95.8
MMR1 and booster immunisation uptake rates by 6 years of age	4-in-1	94.0	89.6	91.5	96.0	95.3
uptane rates by 0 years of age	MMR2	92.2	89.2	89.3	95.1	95.3

Data Source: PHS Childhood immunisation statistics Scotland

Immunisation uptake for S3/S4 pupils are provided in Figure YP9 which indicate uptake rates of approximately 78% for S3 pupils and 83% for S4 pupils. This suggests, however, that one in six S4 pupils eligible for vaccination have not been immunised against either: tetanus, diphtheria and polio; meningitis and septicaemia; or potentially both of these combinations. This compares to 80% (S3) and 87% (S4) in Scotland as a whole. Uptake rates for these could be further improved, however there has been an increase in uptake rates over the past few years.



Figure YP9: Orkney Teenage Booster Uptake Rates

Data Source: PHS Teenage booster immunisation statistics Scotland

From 01 August 2019, the Human Papillomavirus (HPV) immunisation programme in Scotland became universal with males in the first year of secondary school becoming eligible alongside females. The routine HPV immunisation schedule is two doses of vaccine to complete the full course. The second dose is given no sooner than six months and no later than two years after the first dose.

The chart below shows an average uptake rate of 85.3%, in comparison with the national average of 90.3%. It should be noted that Orkney's immunisation programme is only partially complete, with the majority of the programme postponed to the school year 2020/21.

Figure YP10: Orkney HPV immunisation uptake rates by the end of the school year 2019/20



*numbers suppressed

Data Source: PHS HPV immunisation statistics Scotland

Hospital Admissions

The number and rates of emergency hospital admissions are obtained from routinely collected data.

Analysis of Emergency Admissions data for the past 10 years of under 18's shows the rate for Orkney is consistently below the national average.

Figure YP11: Rate of Emergency hospital admissions of children aged under 18 years



Data Source: PHS Acute hospital activity and NHS beds information – Annual – year ending 31 March 2020

In terms of number of patients, Table YP10 shows volumes of less than 150 over the past 10 years. Both the rate and volume of patients highlights a slight upward trend over the past two years.

Table YP10: Numbers of Emergency hospital admissions of children aged under 18 years

Number of Patients	2010- 11	2011- 12	2012- 13	2013- 14	2014- 15	2015- 16	2016- 17	2017- 18	2018- 19	2019- 20
Orkney	118	117	145	102	141	115	107	93	96	119
Scotland	50,245	50,259	50,670	53,856	56,188	56,260	55,263	56,870	55,823	54,922

Data Source: PHS Acute hospital activity and NHS beds information – Annual – year ending 31 March 2020 Analysis of Elective hospital admissions of children aged under 18 years shows that Orkney is in line with the national rate, with the figures for both decreasing over the past 4 years Figure YP12: Rate of Elective hospital admissions of children aged under 18 years



Data Source: PHS Acute hospital activity and NHS beds information – Annual – year ending 31 March 2020

In terms of the number of elective admissions patients, Table YP11 shows volumes of less than 52 over the past 10 years. 2019/20 was the lowest number of under 18s during the past 10 years.

Table YP11: Numbers of Elective hospital admissions of children aged under 18 years											
Number of Patients2010- 112011- 122012- 132013- 142014- 152015- 162016- 172017- 182018- 192019- 20											
Orkney	47	49	51	47	34	42	43	41	34	28	
Scotland	10,720	10,780	11,969	11,099	10,974	10,830	10,837	10,106	9,547	8,602	

Data Source: PHS Acute hospital activity and NHS beds information – Annual – year ending 31 March 2020

Cross Boundary Flow

Analysis by Heath Board of treatment (Figure YP13) has shown relatively stable numbers of out of area emergency admissions (between 53 and 70) for children aged 0-17 years the last 5 years. The number of emergency admissions in Orkney for under 18s has remained at a steady level the last five years.

Figure YP13: Annual numbers of Orkney children aged under 18 years undergoing emergency admissions to hospitals in or out with the Health Board



Data Source: PHS ACaDMe Datamart (extract taken 25/08/2021)

In contrast, only a small proportion (4-6%) of Emergency Admissions for children under 18 in Orkney during the last 5 years, were for non-Orkney residents (Table YP12).

Table YP12: Emergency admissions of children aged under 18 years to hospitals in Orkney by NHS Health Board residence status

% by Area of Residence	2015/16	2016/17	2017/18	2018/19	2019/20
NHS Orkney	95%	95%	95%	94%	96%
Other Health Board	5%	5%	5%	6%	4%

Diagnosis

The following chart highlights the rate per 1,000 of the population for all categories of diagnoses and shows the rate for Orkney is well below that of the national rate.

Figure YP14: Day Case/Inpatient hospital episode of Orkney children aged under 18 years by all diagnoses for the period of FYs 2015/16 to 2019/20



Data Source: PHS Acute hospital activity and NHS beds information – Annual – year ending 31 March 2020

The reason for emergency hospital admissions in the population under 18 years are summarised in Table YP13. The largest proportion (18%) is in relation to Diseases of the digestive system. A further look at this category showed that the majority of those were due to disorders of the teeth and supporting structures.

Table YP13: Day Case/Inpatient hospital episode of Orkney children aged under 18 years by main categories of diagnosis for the period of Financial Years 2015/16 to 2019/20

Main Diagnostic Category	Number	% of Total
Diseases of the digestive system	237	18%
Injury, poisoning and certain other consequences of external causes	197	15%
Symptoms, signs and ill-defined conditions, not elsewhere classified	183	14%
Diseases of the respiratory system	170	13%
Diseases of the genitourinary system	79	6%
Certain infectious and parasitic diseases	75	6%
Factors influencing health status and contact with health services	72	5%
Diseases of the musculoskeletal system and connective tissue	55	4%
Neoplasms	52	4%
Other than above	228	17%
Total	1,348	100%

Data Source: PHS Acute hospital activity and NHS beds information – Annual – year ending 31 March 2020

Unscheduled Care

The figures above refer to all Emergency Admissions to hospital for children under 18 years of age in Orkney. As not all presentations at A and E will result in a hospital admittance, the following tables show a summary of A and E attendances for patients aged less than 18 years at Balfour Hospital.

Table YP14: Attendances of patients aged under 18 years to Balfour Hospital Emergency Department in NHS Orkney by source of referral

Source of Referral	2016/17	%	2017/18	%	2018/19	%	2019/20	%
Self	684	63.5%	778	67.2%	821	68.8%	1003	76.2%
GP	118	10.9%	98	8.5%	93	7.8%	123	9.3%
Other	89	8.3%	99	8.6%	69	5.8%	68	5.2%
NHS 24	93	8.6%	60	5.2%	66	5.5%	34	2.6%
999 Emergency Services	49	4.5%	52	4.5%	47	3.9%	53	4.0%
MIU	31	2.9%	61	5.3%	47	3.9%	26	2.0%
Out of Hours	14	1.3%	9	0.8%	50	4.2%	10	0.8%

Data Source: PHS AandE2 Datamart (extract taken 18/08/21)

Table YP15: Emergency department activity by discharge destination for attendees agedunder 18

Discharge Setting	2016/17	%	2017/18	%	2018/19	%	2019/20	%
Private residence	917	85.1%	1020	88.2%	1041	87.3%	1146	87.0%
Admission to same NHS healthcare provider	90	8.3%	87	7.5%	91	7.6%	98	7.4%
Transfer to same/other hospital	12	1.1%	19	1.6%	13	1.1%	30	2.3%
Temporary residence	11	1.0%	16	1.4%	18	1.5%	20	1.5%
Residential institution	47	4.4%	14	1.2%	24	2.0%	12	0.9%
Other	1	0.1%	1	0.1%	6	0.5%	11	0.8%

Data Source: PHS ACaDMe Datamart (extract taken 18/08/21)

Community Services

Dental Services

The percentage of Orkney children registered with an NHS dentist declined from the 31 March 2020, in line with the national percentage. By 30 September 2020, the percentage was 89.3%, the lowest level since 2012. Scotland's percentage at that time was slightly higher at 91.4%.



Figure YP15: Percentage of children registered with an NHS Dentist

Community Mental Health – CAMHS

Referral rates to Child and Adolescent Mental Health Services have been used here as an approximate indication of mental health issues associated with children under the age of 18 in Orkney (Figure YP16). This is due to a lack of other information available as to the scale of adverse mental health in children and young people. However, referrals to CAMHS are for those experiencing more severe mental health problems, so this is unlikely to reflect the true nature of the problem.

Numbers have been suppressed from October 2020 onwards, however NHS Island Boards follow the same trend line pattern as Scotland, just at a lower rate.





Data Source: PHS Child and Adolescent Mental Health Services (CAMHS) waiting times

The target for CAMHS is that 90% of patients should be seen with 18 weeks. Orkney was performing well with that regard until the COVID-19 pandemic and the effect of the two national lockdowns can be seen on the trend line.



Figure YP17: % of Children and Young People seen within 18 weeks

Data Source: PHS Child and Adolescent Mental Health Services (CAMHS) waiting times

GP Out of Hours

Figure YP18: Rate of OOH Contacts per 1,000 people aged 0-19 years old



Data Source: PHS Out of Hours primary care services in Scotland

Table YP16: Number of Primary Care Out of Hours Contacts by Financial Year 2019/20

Month	Orkney Island Contacts	Scotland Contacts
Apr-19	32	17223
May-19	42	16569
Jun-19	41	15966
Jul-19	38	13475
Aug-19	23	13747
Sep-19	29	18010
Oct-19	36	16823
Nov-19	33	21012
Dec-19	41	23758
Jan-20	44	17004
Feb-20	41	16061
Mar-20	30	12991

Data Source: PHS Out of Hours primary care services in Scotland

Social Care Services

Balance of Care

The percentage of Looked After Children in the community increased significantly between 2017 and 2019, almost reaching the national rate.

Figure YP19: % of Looked after Children in the community



Data Source: Looked after children statistics 2020: local authority benchmarking tool

Looked After and Accommodated Children

The rate of children looked after in Orkney has remained at a lower level than the national rate for the past 5 years. There is no trend evident in the number of looked after children, with the numbers declining then increasing the following year for the past six years.

Figure YP20: Rate of children looked after per 1,000 of 0-17 population



Data Source: Looked after children statistics 2020: local authority benchmarking tool

Table YP17: Number of looked after children

Number of LAC	2015	2016	2017	2018	2019	2020
Orkney	34	28	38	31	37	31
Scotland	15,400	15,317	14,897	14,554	14,262	14,458

Child Protection

The Orkney numbers for 2010 and 2019 were suppressed to avoid patient identification. However, we can see that in 2020 the rate for Orkney was the same as the national rate.

Figure YP21: Rate of children on the Child Protection Register per 1,000 population aged 0-15



Data Source: Children's social work statistics: 2019 to 2020

Table YP18: Number of children on the Child Protection Register

Number on CPR	2010	2019	2020
Orkney	*	*	10
Scotland	2,518	2,580	2,654

Key Risk Areas

- Declining percentage of children registered with an NHS dentist
- Possible increase in Mental Health referrals due to pandemic

Children and Young People Benchmarking Table by local authority peer group

Figure	Indicators	Data Type	Time Period	Orkney Islands	Argyll & Bute	Aberdeen shire	Dumfries & Galloway	Highland	Na h- Eileanan Siar	Scottish Borders	Shetland Islands	Scotland
YP1	Rate of WTE Health Visitors per 1,000 of aged 0-5 popn	Rate	Mar-21	7.5	**	**	7.6	2.6	9.4	6.3	9.5	6.7
YP2	Rate of WTE School Nurses per 1,000 of aged 5-17 popn	Rate	Mar-21	1.3	**	**	0.7	0.4	1.1	0.9	0.8	0.5
YP3	Rate of Midwives per 1,000 popn	Rate	Mar-21	0.8	**	**	0.6	1	0.7	0.5	0.9	0.6
YP4	Rate of CAMHS Clinical Staff per 1,000 of aged 0-18 popn	Rate	Mar-21	0.4	**	**	1.4	0.9	1.2	0.8	0.9	1
YP5	CYP Social Care Workforce per 1,000 of aged 0-`18 popn	Ratio	2019	11.8	9.1	2.4	9.1	7.1	7.9	2.7	16.3	5.3
YP6	4-5 Reviews - % with a vision concern	%	2019/20	4.5%	**	**	5.4%	6.9%	4.5%	1.1%	0.5%	3.2%
YP7	27-30 Month Reviews Numbers & Uptake Rates	%	2019/20	84.1%	80.5%	86.6%	95.2%	92.2%	91.7%	91.3%	87.7%	88.2%
Figure YP8	13-15 month Review Numbers and Uptake Rates	%	2019/20	91.4%	85.5%	88.1%	95.3%	96.1%	90.9%	94.4%	93.4%	87.5%
Table YP8	Rate of Authorised of Best Start payments	%	May-20	64%	68%	66%	72%	70%	66%	73%	65%	66%
Table YP9	Primary immunisation uptake rates by 12 months of age (Average)	%	2019/20	93.1%	**	**	96.9%	93.8%	93.0%	95.3%	95.3%	95.5%
Table YP9	Primary and booster immunisation uptake rates by 24 months of age	%	2019/20	94.1%	**	**	97.0%	93.7%	95.1%	96.9%	82.4%	94.6%
Table YP9	MMR1 and booster immunisation uptake rates by 5 years of age	%	2019/20	96.5%	**	**	96.1%	93.9%	93.4%	96.2%	88.7%	94.0%
Table YP9	MMR1 and booster immunisation uptake rates by 6 years of age	%	2019/20	95.5%	**	**	95.7%	93.6%	94.4%	96.3%	89.2%	94.3%
Figure YP9	Teenage booster uptake rates (S4) (Td/IPV / MenACWY)	%	2019/20	82.8% / 83.3%	76.5% / 77.4%	89.1% / 89.3%	84.2% / 84.8%	75.8% / 75.9%	91.5% / 91.9%	88.4% / 88.2%	80.2% / 80.6%	86.7% / 86.8%
YP10	Orkney HPV immunisation uptake rates (S4 females)	Rate	2019/20	82%	84.7%	90.2%	86.3%	81.3%	81.4%	89.7%	89.5%	87.3%
YP11	Emergency hospital admission	Count	2019/20	138	692	3175	2443	2113	263	1826	191	74307
YP12	Elective hospital admissions	Count	2019/20	40	170	539	363	510	55	145	55	12828
YP13	% of children emergency admissions outwith the HB	%	2019/20	44%	**	**	5%	55%	17%	9%	26%	N/A
YP14	Daycase Admissions children	Count	2019/20	271	1195	5393	3481	5887	410	2509	379	120892
YP15	Percentage of children registered with an NHS dentist	%	Sep-20	89.3%	**	**	89.7%	88.9%	87.8%	87.8%	95.6%	89.9%
YP16	CAMHS Referral rates per 1000 of population	Rate	Mar-21	0.0	**	**	3.4	2.4	2.9	2.7	1.5	3.1
YP17	% of CYP seen within 18 weeks	%	Jan-21 to Mar- 21	81.0%	**	**	84.3%	75.2%	81.0%	48.0%	81.0%	72.0%
YP18	Rate of OOH contacts per 1,000 aged 0-19 popn	Rate	Mar-20	6.8	**	**	9.0	11.1	3.6	7.5	4.9	11.3
YP19	% of children looked after in community	%	2020	77%	81%	82%	91%	83%	86%	82%	64%	90%
YP20	Children looked after as % of 0-17 popn	Rate	2020	7.7	11.1	7.4	13.9	11.12	10.4	8.8	6	14
YP21	Rates per 1000 popn aged 0-15 on CP Register	Rate	2020	2.8	3.8	2.3	1.1	3.3	С	1.8	С	2.9

COVID-19 Impact

Introduction

In late December 2019, an outbreak of pneumonia with an unknown cause was reported in Wuhan City, Hubei Province of the People's Republic of China. Early in January 2020, the cause of the outbreak was identified as a new coronavirus, COVID-19. Since then, ongoing human-to-human transmission has occurred globally. COVID-19 can cause respiratory illness of variable severity.

On 30 January 2020 the World Health Organization declared the coronavirus outbreak constituted a Public Health Emergency of International Concern. COVID-19 is mainly spread between people who are in close contact with one another and a person can be infected when aerosols or droplets containing the virus are inhaled or come directly into contact with the eyes, nose, or mouth. With the inherent ease of contagion, the decision to restrict human interaction via lockdown across the United Kingdom was taken on 23 March 2020.

As cases increased, the prospect of health services being overwhelmed came into a sharp focus. In addition to the legal requirement to remain at home, politicians of varying stripe encouraged people across the country to "Stay home. Protect the NHS. Save Lives." The desire to shield the NHS resulted in patients being able to utilise face-to-face services at general practice or hospital in emergency circumstances only. This, coupled with patients experiencing the effects of 'long COVID' is likely to have a lasting impact on the population and health services. While the vaccination programme rolled out at the beginning of January 2021 has contributed to a reduction in hospitalisations and deaths, cases can rise and there is a risk of additional variants which current inoculation may not provide sufficient protection. This chapter will explore available data and likely impacts of COVID-19 in Orkney.

Orkney remained broadly unaffected by localised outbreaks of COVID-19 until the autumn of 2021. As at 28 August 2021, NHS Orkney had a recorded total of 195 COVID-19 cases, the equivalent to 870.5 cases per 100,000 population; the lowest proportional rate in Scotland. By 15th of November 2021 following an outbreak of COVID-19, the total number of cases increased to 830. Despite this sharp increase, as a rate per head of population Orkney still reported the lowest level proportionally across Scotland at 3705 per 100,000 population.

Figure CI1: Cumulative COVID-19 cases by Day NHS Orkney 7/03/2020 – 15/11/2021



Data Source: Scottish Government: Trends in Daily Data

Planned Admissions

One of the more immediate impacts on NHS activity was the postponement of all but the most urgent surgeries. The curtailing of planned admissions across Scotland around the lockdown instigated on 23 March 2020 is evidenced in Figure Cl2 below where the reduction in planned admissions from spring 2020 is noticeably lower than the average number for corresponding weeks in 2018 and 2019. Figure Cl3 shows a similarly sustained reduction in planned admissions for Orkney residents during the late spring and summer period of 2020. Thereafter, through to the most recently available figures, witnessed a greater fluctuation in numbers which is perhaps to be expected, as the numbers recorded are relatively low.



Figure Cl2: Planned Admissions (Scotland)

Data Source Public Health Scotland – Wider Impacts Dashbaord/ RAPID Datamart

Figure CI3: Planned Admissions (NHS Orkney)



Data Source Public Health Scotland – Wider Impacts Dashbaord/ RAPID Datamart

Emergency Admissions

Figure CI4 below shows an initial downturn in recorded numbers for emergency admissions during the first weeks of the lockdown period, compared to the average weekly figures from corresponding weeks in the two years prior. After this, emergency admissions fluctuated somewhat, but remained broadly comparable with the previous two year average. Between week ending 29 March 2020 and week ending 25 July 2021, there were eleven weeks where emergency admissions in Orkney totalled 25 or fewer; five of these were the first five weeks of lockdown.

Figure CI4: Emergency Admissions (NHS Orkney)



Data Source Public Health Scotland – Wider Impacts Dashbaord/ RAPID Datamart

Outpatient Appointments

Both new and return outpatient appointments have witnessed a marked reduction since April 2020. Appointments did pick up in the latter half of 2020 however, by the end of the year remained at lower than average levels. New appointments reduced on average by 48% a month in terms of the variation between 2020 and 2018/19 and return appointments reduced on average by 116% a month. The impact of this is clear when considering the waiting times for outpatient appointments. There is a risk that because less people are being treated in a planned and timely manner their conditions may worsen, resulting in more complex conditions requiring emergency care. This then can impact on the ability to provide planned care resulting in potential worsening of the situation.





Data Source Public Health Scotland – Wider Impacts Dashbaord/ RAPID Datamart



Figure C16: New Outpatient Appointments

Data Source Public Health Scotland – Wider Impacts Dashbaord/ RAPID Datamart

Figure C17: Return Outpatient Appointments



Data Source Public Health Scotland – Wider Impacts Dashbaord/ RAPID Datamart

Waiting Times

The forced delay and rescheduling of hospital activity has had a pronounced impact on waiting times across the NHS as a whole and NHS Orkney is no exception. The Local Delivery Plan (LDP) Standards are guaranteed under legislation via The Patient Right's (Scotland) Act 2011, placing "a legal requirement on health boards that once planned inpatient and day case treatment has been agreed with the patient the patient must receive that treatment within 12 weeks".

It is accepted major adjustments to the way health care is provided may be required across the NHS and that, prior to the pandemic, there was physical capacity and workforce resource issues. The backlogs many boards face may well get worse before they get better as they will take time to clear. Achieving this may involve different partners within a variety of sectors. The restrictions put in place as a consequence of the pandemic has resulted in patients not accessing services across the NHS in a timely manner. This increases the likelihood of patients presenting in an unscheduled context, often with more advanced severity of disease, resulting in services being overwhelmed with unplanned care. Any surge in emergency care means less capacity to manage treatment in a timely and planned manner. The six charts below display the performance of NHS Orkney regarding waiting list treatment times pre pandemic and in the period since to which data is available.

Waiting Times (Outpatients)

Figure CI8 below shows comparable numbers of outpatients waiting over 12 weeks in the early periods of 2019 and 2020 before a noticeable discrepancy in the years from mid-May onwards. 2019 ended with 189 outpatients waiting over 12 weeks for their procedure, compared to 485 at the end of 2020; an increase of 296 (156.6%).



Figure CI8: Outpatients waiting over 12 Weeks

Data Source: Trakcare NHS Orkney

Figure CI9 below shows the acute variation in numbers of outpatients waiting over 26 weeks for their procedure between pre and pandemic times. The number of outpatients waiting over 26 weeks for their procedure was less than 60 for fifteen weeks of 2019; since the beginning of the first lockdown in March 2020, the same figure has dropped below 120 only six times.

Figure CI9: Outpatients waiting over 26 Weeks



Data Source: NHS Orkney-Trakcare

Figure CI20 shows the percentage of waiting list breaches by corresponding weeks in 2019, 2020, and for data available in 2021. Perhaps unsurprisingly, the ten weeks with the lowest percentage of breaches were all in 2019. Conversely, the ten weeks with the highest percentage of breaches all came in a consecutive period between June and August 2020, peaking at 78.6% of outpatients on the waiting list breaching in the third week of June 2020.



Figure CI20: Percentage of Waiting List Breaching (Outpatients)

Data Source: NHS Orkney - Trakcare

Waiting Times (Treatment Time Guarantee)

Figure CI21 below shows the number of Orkney patients with a Treatment Time Guarantee (TTG) waiting over 12 weeks during 2019, 2020 and available data for 2021, by corresponding week. Figures in early 2020 are broadly comparable with the same period the year before. This similarity ceases with the advent of the first lockdown in March 2020 where figures surged to a peak of 128 patients in the middle of May 2020. Numbers reduced toward the end of the 2020, even dipping below numbers recorded at the end of 2019. The same figure increased again in 2021, but at the time of extract, no weekly total had exceeded three figures.



Figure CI21: Treatment Time Guarantee Patients waiting over 12 Weeks

Data Source: NHS Orkney-Trakcare

Figure CI22 shows the number of NHS Orkney patients waiting more than 26 weeks for treatment in corresponding weeks throughout 2019 and 2020, as well as those in 2021 for which data is available. Between January 2019 and the onset of lockdown, the number of Orkney patients awaiting treatment longer than 26 weeks did not exceed 15 in any week. Since the initial lockdown until the time of writing (09 July 2021), a period of 68 weeks, the number of Orkney patients awaiting treatment for over 26 weeks remained higher than 30 patients a week for 62 of those weeks. Perhaps unsurprising, the peak of 75 patients awaiting treatment for over 26 weeks was recorded in the 26th week since the beginning of lockdown. Since that high, numbers have reduced, but are still some distance from pre pandemic levels.



Figure CI22: Treatment Time Guarantee Patients waiting over 26 Weeks

Data Source: NHS Orkney-Trakcare

Figure CI23 below shows the percentage of patients breaching the waiting list Treatment Time Guarantee. As with Figure CI10, the highest proportion of patients breaching occurred in ten consecutive weeks between mid-June and mid-August 2020. While the percentage of patients on the waiting list breaching in July 2021 is comparable with corresponding weeks in 2019, this is indicative of relatively fewer numbers on the waiting list from August 2020 until the year end. Since the beginning of February 2021, the weekly total for numbers on the waiting list has been largely increasing, with the ten highest weekly figures since 2019 all being recorded in the ten most recent weeks of available data to early July 2021, peaking at 300 patients.



Figure CI23: Percentage of Waiting List Breaching (Treatment Time Guarantee)

Data Source: NHS Orkney - Trakcare

Accident and Emergency Attendances

Figure CI24 below shows a sharp drop in Accident and Emergency attendances coinciding with the onset of lockdown in late March 2020. These lower attendances at Accident and Emergency remained a feature throughout the period with little exception. Indeed, the weeks ending 25 October 2020 and 18 July 2021 are the only two in the period where 2020 or 2021 attendances exceed those of the 2018-2019 average in corresponding weeks.





Data Source: PHS Wider COVID-19 Impacts Dashboard

Mental Health

A widely reported feature of the lockdown is the negative impact of placing restrictions on regular, healthy behaviours. 'Stay at home' orders impacted the frequency of physical activity but furthermore prevented face-to-face social interaction, which can be crucial to the preservation of mental wellbeing. While restrictions on travel and gathering in numbers were largely universal, the ability to mitigate and withstand their mental impact is not. Figure CI25 below shows the number of patients beginning a new treatment course for selected health medicines. For the available data in 2020 and 2021, numbers peaked at 71 in the week ending 22 March 2020, the day before the first UK lockdown was confirmed.

Figure Cl25: Number of NHS Orkney patients starting new treatment course for mental health medicines; selected medicines (Anxiolytic, Hypnotic, SSRI SNRI)



Data Source: PHS Wider COVID-19 Impacts Dashboard

Excess Mortality

The case numbers noted at the beginning of this chapter offer a suggestion that Orkney was relatively protected from the effects of the COVID-19 pandemic. Figure CI26 below contradicts such a view with the number of deaths recorded on Orkney during the pandemic to the most recent data available. A higher number of deaths in 2020 and 2021 compared to 5 year average of corresponding weeks (Excess Mortality) were particularly noticeable in the first few weeks of the initial lockdown in spring 2020 and again at the end of January 2021 during a further period of restriction. It is not possible to identify the circumstances of these deaths, however it may be that people delayed seeking life-saving treatment.



Figure CI26: Number of Deaths (NHS Orkney)

Data Source: PHS Wider COVID-19 Impacts Dashboard

Cancer

Further indications of patients delaying seeking treatment can be seen in the number of cancer registrations recorded across Orkney. Figure Cl27 below shows a cumulative count of individuals diagnosed with cancer in 2019 and 2020, with partial figures for 2021. Throughout 2019, a total of 175 individuals on Orkney were diagnosed with a cancer, compared to 184 diagnoses in 2020. By the time of the first lockdown beginning 23 March 2020 there was a slight variance in cumulative numbers between 2019 and 2020. This discrepancy widened further in the following corresponding weeks. As with excess mortality detailed above, it is not possible to be definitive these periods of restriction prevented early detection of cancer.



Figure CI27: Total Count of Individuals with a Cancer*

*All cancers confirmed on a pathological specimen since January Data Source: Scottish Cancer Registry/ PHS Wider COVID-19 Impacts Dashboard

Key Risk Areas

Backlog of planned admissions, reduced outpatient capacity reflected waiting lists and lower than average appointments:

The reduction in Outpatient appointments and associated waiting times for treatment presents a major risk to OHAC. There is a risk, which has not born out fully yet, that because more people are waiting for longer to start treatment their conditions could worsen. This could result in an increase in demand on unscheduled care services where patients seek treatment in an unplanned way for more complicated levels of disease. This applies both to wider primary care as well as emergency services such as Accident and Emergency. Furthermore, if the level of emergency admission increases the capacity to treat patients in a planned manner will be further reduced. Moreover, there may be challenges around access given many services are provided by other health boards, namely NHS Grampian.

Patients reluctant to access services:

Despite the above risk, the level of attendance to services such as A and E and cancer diagnosis has remained broadly below average. This may well change in the future as the backlog associated with planned care increases and demand further exceeds capacity. The key risk associated with this is that these trends suggest there is unmet need in the population. If this is the case then this will feed in to the possible challenge above resulting in more people presenting to services in an unplanned way with more advanced disease.

Impact of COVID-19 on Mental Health:

As outlined in previous chapters there was already an increase in mental health conditions in Orkney. While prescribing levels were broadly consistent in 2020, May 2021 saw a marked increase in the number of people prescribed drugs for mental health conditions. This may be a reflection of wider impacts of COVID-19 related to employment and the social mitigation measures in place. It suggests there is a risk of a sharp rise in demand in a short period of time, particularly on primary care in terms of prescribing. Moreover, as highlighted in the community chapter, the level of referrals for psychological therapies declined significantly in 2020.

Conclusion

This report has taken a global approach to reviewing the wider social determinants of health as well service utilization. Orkney faces many health and social care provision challenges across the life course over the short and longer term. This chapter aims to summarise these challenges and highlight why they are potentially key priority areas for Orkney Health and Care. Many of the issues facing Orkney are not specifically unique to the Islands but key challenges facing Scotland as a whole. That being said, some areas are felt much more acutely due to the remote and rural nature of Orkney and relatively limited access to services.

Population Change

It is well known population demographics are evolving. Considering trends over recent years provides some initial insight into the beginnings of this impact. In the five year period between 2014 and 2019 the proportion of males aged 75+ increased by 30% and the number of females increased by 22%. In that same period, there has been an increase in home care waiting lists and the level of emergency admission associated with people aged 65+ has remained constant. It is estimated that by 2035, Orkney residents aged 65+ could increase by 30%, while the number of people aged between 18 and 64 years is forecast to decrease 10%, with a 15% reduction in the number of children and young people (those aged under 18 years). The increase in cohort size is estimated to be most acute in those aged 85+; males aged 85+ are set to increase by 114% in this period and females 75%.

This is relevant to OHAC because the increase in demand associated with population change requires careful long term planning in order to avoid the impact of potential backlogs and unmet need. Population change presents resourcing implications given there will be less people available to care for an increasingly dependent population. This is a whole system challenge facing community care, primary care, social care, secondary care as well as third sector. There are already signs that the wider health and social care system is being impacted by population change. Managing this challenge requires a strategic and joined up approach across all services.

The health and social care needs of older people is already a key challenge facing Orkney Health and Care. There are numerous indications highlighted throughout the report. One such indication is the level - and associated cost - related to emergency hospital admission. The level of emergency hospital admission is a long standing issue remaining unchanged across the decade. It is in part, a reflection of the strain associated with the wider health and social care system. In particular, older people living with multiple complex long term conditions account for an exceptionally high proportion of unplanned hospital care. It is the unplanned nature of this activity which ties it to the wider health and social care system. This is relevant to Orkney health and care because current levels of demand associated with this model of care are unsustainable. The unplanned nature of emergency care diverts resource away from a more controlled approach associated with community and planned secondary care.

The wider determinants of health and wellbeing

The wider determinants of health and wellbeing cut across all issues facing Orkney. There are well known and established links between deprivation, negative health outcomes and risk related health behaviour. This has been highlighted throughout the report in terms of negative health outcomes such as: premature death, chronic disease and psychiatric hospital admission. Continually, the relationship between deprivation and lifestyle associated risk related behaviours indicates there are challenges associated with wider societal issues Orkney Health and Care must mitigate against. These range from smoking prevalence, healthy lifestyle as well as substance misuse. Interventions should aim to mitigate against the negative health impacts of deprivation.

This should be of high importance to Orkney Health and care given the associated costs of unplanned care related to long term conditions and unplanned hospital care.

Analysis of relative SIMD in Orkney indicate deprivation is concentrated in a number of areas in Kirkwall. Identifying specific areas of deprivation provides opportunity to target both lifestyle based interventions as well as health and social care services. Furthermore, there are specific issues facing people such as fuel poverty and the current energy price crisis as well as an increase in food and job insecurity due to the fallout from the COVID-19 pandemic. Moreover, there is a noted increase in the number of children living in poverty which is exacerbated by the pandemic and the additional strain it has placed on families. Failure to mitigate against the impacts of these areas will inevitably result in poor health outcomes for disadvantaged groups. There is an opportunity to plan resources in a targeted strategic way in order to mitigate against the associated health harms of these wider social issues.

Mental Health

Common mental health conditions such as depression and anxiety are areas that stand out as being increasingly problematic for the people of Orkney. Upon review of any measure, there has been an increase in demand over the past decade and services are struggling to meet this. A review of data surrounding the wider determinants of health indicate there are stresses in the wider population influencing people's mental health and wellbeing. From financial stability and uncertainty to social isolation as well as the impacts associated with the COIVD-19 impact, timely access to mental health services has never been as important as it is now. There are many negative health outcomes associated with a lack of access services. This has been a longstanding challenge throughout Scotland however, set within the context of the remote and rural context presents challenges of access not faced elsewhere. This requires a strategic approach to plan a sustainable long term solution to managing this demand. Failing to do so will inevitably result in increase in demand on unscheduled care to primary care as well as substance use services. It is, as with other conditions discussed, a whole system challenge facing Orkney Health and Care.

COVID-19 Impact

There are stark short term challenges facing Orkney Health and Care related to the unintended consequences of efforts to mitigate against the COVID-19 pandemic. In particular, the dynamic between emergency hospital admissions, planned hospital admissions and the wider health and social care system. With the backlog of waiting lists for planned treatment as well as the lower than expected referral rates to services over 2020 to 2021 comes the associated risk of higher demand from patients presenting in an unplanned way with more complex levels of disease. This applies to the whole system from primary care to unscheduled care, secondary care as well as wider community care and social care. Service redesign in unscheduled care and hospital at home may go some way to mitigating the impact of increasing waits and a reduced capacity to provide timely treatment. Given the reliance on cross boundary treatment there is also a vulnerability associated with wider planning partners such as NHS Grampian. Prior to the COVID-19 pandemic levels of emergency admission associated with older cohorts were already unsustainable. The impact of the backlog of waiting lists has not been born out as yet however, this deserves a strategic approach.