



Public Health Annual Report

2022-2023

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Introduction

It is always a pleasure to introduce the public health annual report. The report covers just some of the activity undertaken from April 2022 to March 2023 primarily by the public health department and covers work undertaken around health protection, screening and health improvement. This period remained one dominated by the COVID-19 pandemic which has affected the lives of so many across the world as well as here in Orkney. We now understand more about the acute phase of the illness and also the longer term effects often referred to as long COVID. Vaccination is offered to those most vulnerable to serious illness as we continue to face new variants of the virus. Within the public health team we remain ready to respond to any significant variant in order to support the national response to any health threat.

The report also highlights the screening programmes and the engagement in general of the population with these important programmes. The challenging times we live in are reflected in the work undertaken in relation to the cost of living crisis and the impact this is having on health and wellbeing. The importance of working with partners, for example in the community planning partnership, has never been greater.

Public health activity is undertaken by many staff across NHS Orkney, and by many other partner organisations. My thanks goes to everyone working to improve and protect the health of the population in these challenging times.

Louise Wilson

Director of Public Health

Chapter 1 Health Protection

This report focuses primarily on health protection activity from April 2022 to March 2023. Health protection is the area of public health that deals with external threats to health, such as infection and environmental issues. It involves:

- Ensuring the safety and quality of food, water, air and the general environment
- Preventing the transmission of communicable diseases
- Managing outbreaks and the other incidents which threaten the public health
- Immunisation

To be effective, health protection is a multi-disciplinary activity. We work with teams in Primary Care, The Balfour, Orkney Islands Council, Scottish Water, and other partner agencies to ensure that we maintain an integrated approach to the health of the public across Orkney.

Infectious Diseases

The Health Protection Team (HPT) receives notifications for a number of notifiable diseases and organisms under the Public Health etc (Scotland) Act 2008. Notifiable diseases are any disease that is required by law to be reported to the health board. Many, but not all, notifiable diseases are infectious diseases. If a registered medical practitioner has a reasonable suspicion that a patient whom they are attending has a notifiable disease, they should not wait until laboratory confirmation of the suspected disease before notifying the health board. If a notifiable organism is identified by a laboratory the laboratory should notify the health board.

Diseases are notified so that the health board is aware of where in the community significant diseases are being found. Having this information lets the public health department take steps to control the spread of infectious diseases and to protect the community.

COVID-19

On the 28th of September 2022, a pause on asymptomatic health and social care testing for COVID-19 was put in place, which has contributed to a significant reduction in the number of reported positive cases of COVID-19 from that date. NHS Orkney HPT have managed around 66% fewer covid cases across the general population than in the 2021-2022 period (Table 1.1).

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
2021-2022 (Care home linked cases)	1	0	20	16	19	9	14	35	34 (3)	8	11 (10)	0 (3)	167 (16)
2022-2023 (Care home linked cases)	1	2	11 (18)	7	4 (2)	6 (3)	0 (25)	4	4 (10)	1 (28)	3	14 (64)	57 (150)

Source: NHS Orkney HP Zone clinical system

Table 1.1: General population confirmed COVID-19 cases reported to NHS Orkney Public Health team for the defined period against (in brackets) those linked to care homes

COVID-19 outbreaks within the care homes have also seen a shift but in the opposite direction – for the 2021-2022 period there were 3 outbreaks, with a total of 16 cases. For 2022-2023, the outbreaks totalled 7, with 136 associated cases (the remaining 14 cases were not linked to outbreaks). This increase within the care homes may be due to recovery of visiting access and, in line with the national recovery, staff and visitors undertaking increased travel across and out with the local community. The HPT work closely with the Infection Prevention and Control team, particularly during periods of outbreak, to ensure all mitigation measures in place have been correctly applied and procedures are being followed. It is also noted that the times of greatest resident cases link to periods when previous vaccination doses may be waning.

Alongside the reduction in reported COVID-19 cases across the general population, there has been an increase in the number and variety of other notifiable infections being seen and managed. During 2022-23 there were 209 individuals with notifiable infectious diseases (excluding COVID-19) reported to the HPT, an increase on the 110 reported the year before.

The data in Table 1.2 below (showing generally lower case numbers during the 2020-21 period) demonstrates the impact of the mitigations used to manage the COVID-19 pandemic on all infectious diseases, with the subsequent increase of many infections, as mitigation measures were lifted.

When compared to the 2021-2022 data, increases have been seen in cases of E.coli (non STEC), Hepatitis B, Invasive Group A Streptococcus (iGAS), Meningococcal Meningitis, Monkeypox, Norovirus, Salmonellosis, Seasonal Influenza and Tuberculosis.

Diagnosis	Case Numbers by year		
	2020-2021	2021-2022	2022-2023
Acute Hepatitis E	0	*	0
Campylobacteriosis	26	31	34
Clostridium difficile associated disease (CDAD)	10	7	*
Cryptosporidiosis	*	8	*
E.coli infection (non STEC)	12	30	35
E.coli STEC	*	7	*
Giardiasis	*	*	0
Hepatitis B	0	0	*
Hepatitis C	*	*	0
iGAS	0	0	*
Legionnaires Disease	0	*	0
Listeriosis	*	0	0
Monkeypox	0	0	*
Measles	0	0	0
Meningococcal Meningitis	0	0	*
Mumps	0	0	0
Neisseria meningitidis	0	*	0
Norovirus	0	0	87
Mycobacterium (Non Tuberculous)	0	*	*
Pertussis	0	0	0
Salmonellosis	0	*	*
Seasonal Influenza	*	*	30
Tuberculosis	*	0	*
Total	58	99	209

Source: NHS Orkney HP Zone clinical system

*denotes fewer than 5

Table 1.2: Numbers of notifications of infectious diseases/organisms reported by financial year 2020-2021 to 2022-23

Group A Streptococcal Infections

Group A Streptococcus (GAS) is commonly found in the throat, skin and anogenital tract and can cause a diverse range of skin, soft tissue and respiratory tract infections. Scarlet fever is a common childhood infectious disease caused by GAS, usually occurring in children under 10 years of age. It presents as a rash, usually accompanied by a sore throat. In Scotland, scarlet fever is not a notifiable infectious disease and is monitored by proxy using laboratory reports of upper respiratory tract samples positive for GAS.

On very rare occasions, the bacteria can present as invasive GAS (iGAS). Invasive GAS is usually found in normally sterile sites, such as blood or cerebrospinal fluid. Under the Public Health (Scotland) Act 2008, cases of iGAS are notifiable.

PHS released an alert on 1st December 2022 regarding unseasonal patterns of group A streptococcal (GAS) infections in Scotland and indicating a significant rise in iGAS cases.

On 6th December, PHS sent a letter to all childcare providers offering advice and pointing to NHS Inform for public guidance. Locally, this was also forwarded on to the Department of Education. The Health Protection Team worked with local GPs, the Department of Education and other to monitor local patterns of infection.

NHS Orkney managed fewer than 5 iGAS cases during 2022-2023, with the last previous case having been reported in August 2019.

Influenza

On the 21st of December 2022, PHS reported national influenza incidence had moved from high to extraordinary. Levels began to decrease nationally throughout late January and February, until reaching baseline the week ending 19th February 2023. Influenza A was the predominant circulating type nationally.

Across NHS Orkney, 30 cases of Influenza A were noted during the reporting period – there had been none during the 2021-2022 period and only 1 in each of the preceding 2 reporting years. The Orkney wave presented later than the national one, with the NHS Orkney increase in cases beginning in January, and all but 9 of the total cases occurring between January and February 2023 (with 2 in May 2022, 5 in July 2022 and the remaining 2 in March 2023).

MPox

Public Health Scotland (PHS) issued an alert on 11th May 2022, following confirmation of a case of Mpox in an English resident. By the 17th May, 7 English cases had been identified and a National Incident Management Team (IMT - a multi-disciplinary and multi-agency group with responsibility for investigating and managing incidents) was formed.

A Chief Medical Officer (CMO) letter describing case definitions for the noted outbreak and assessment and testing arrangements was issued on May 20th 2022, the same day as the

United Kingdom Health Security Agency (UKHSA) issued contact tracing guidance. The first Scottish case was confirmed on 23rd May 2022, with the UK numbers at that time around 60. Mpox is a rare viral infection that usually causes a high temperature and a body rash that lasts several weeks. It does not spread between people very easily but can be transmitted during close personal contact with someone who has the infection by: touching blisters or scabs, or any other skin contact (including sexual), touching clothing, bedding, towels or personal items of an infected person or through coughs or sneezes. The rash lesions go through 4 phases – starting as flat spots, then raised spots, developing into blisters before finally scabbing or crusting over and people can pass mpox on until the last phase, including from any scabs. Symptoms appear within 5 to 21 days of being infected and while most people get better themselves over 2 to 4 weeks, serious illness can occur.

On 5th July, UKHSA confirmed that the current clade of case was to no longer be classified as a High Consequence Infectious Disease (HCID). An HCID is an acute infectious disease with a typically high fatality rate, which can be difficult to detect, has rapid transmissibility and often has no effective treatment or prophylaxis. The clade detected within the UK did not meet these criteria and differed from those cases originating in West Africa or The Congo.

The national IMT was stood down on 7th November 2022, by which time, there were 3712 cases across the UK, with 95 in Scotland.

A vaccination programme was in place nationally for those individuals at highest risk and this was managed, in NHS Orkney, through the Nordhaven clinic.

On November 28th the World Health Organisation recommended phasing in the name Mpox as a new name for monkeypox, given the racist and stigmatising language reported following the most recent outbreak.

Norovirus

Norovirus causes diarrhoea and vomiting and is one of the most common 'stomach bugs' in the UK. It's also called the 'winter vomiting bug' because it's more common in winter, although it can be caught at any time of the year.

Norovirus is able to spread easily through communities and so outbreaks are common in settings where individuals have close contact such as hospitals, care homes, schools and nurseries.

For most people this is an unpleasant, short-lived illness and they make a full recovery within 2 to 3 days without needing any medicine. However, some groups - including young children, the elderly or those with weakened immunity - are at risk of suffering more serious and prolonged illness, which may require medical treatment.

Norovirus is easily transmitted through contact with people with the infection and any surfaces or objects that have been contaminated with the virus. Symptoms include sudden onset of nausea, projectile vomiting and diarrhoea but can also include a high temperature, abdominal pain and aching limbs.

Good hand hygiene is imperative to stop the spread of norovirus. To avoid catching norovirus or passing it on to others hands should be washed frequently and thoroughly with soap and warm water. This is most important following an episode of illness, after using the toilet, before eating or preparing food, as well as cleaning up vomit or diarrhoea. Alcohol-based hand sanitisers are not effective against norovirus. People can get norovirus more than once because the virus is always changing and your body is unable to build up long-term resistance to it.

In the 2022-2023 period, the HPT managed 87 cases of Norovirus, as a result of outbreaks in two different care homes in the county. One outbreak lasted 13 days with a total 43 cases and the other 15 days, with 44 cases. In both homes, staff and residents were affected.

HPT regularly liaised with the managers in each care home throughout the outbreaks and were able to advise on appropriate precautions and testing, as well as appropriate isolation period of each symptomatic individual.

Immunisation

Vaccine-preventable diseases are those that are notifiable for surveillance purposes and for which a vaccine is available. In Orkney and across Scotland the level of vaccine preventable diseases is low (Table 1.3). All vaccine preventable disease under surveillance showed a notable reduction during the COVID-19 pandemic which was most likely due to the social

distancing measures, restrictions, and infection control precautions implemented in response to the pandemic.

Haemophilus influenzae	There have been no cases of confirmed invasive <i>H. influenzae</i> type b infection in Orkney since 2014
Measles	There have been no cases of confirmed measles infection in Orkney since 2014
Meningococcal disease	There have been fewer than 5 confirmed cases in Orkney since 2014
Invasive Pneumococcal disease	There have been no cases of confirmed invasive Pneumococcal infection in Orkney since 2014
Pertussis (whooping cough)	There were 12 cases of confirmed whooping cough in Orkney during 2019 to 2020. Since lockdown no further cases have been seen.
Human Papilloma Virus (HPV)	Surveillance has shown that the HPV vaccine has reduced the highest grade of cervical pre-cancer at age 20 by almost 90% in Scotland
Mumps	There have been 11 cases of laboratory-confirmed mumps in Orkney, most in 2019-2020. Since lockdown no further cases have been seen.
Rotavirus	Following the introduction of the immunisation programme in 2013 there has been a reduction in numbers of hospital admissions in children under 5 years, and numbers of GP consultations for gastrointestinal illness in infants under 1 year in Scotland. The number of reports of confirmed rotavirus in 2021 remained low
Rubella	The last reported case of laboratory-confirmed rubella in Scotland was in 2017.
Shingles	Rates of admissions and GP consultations for shingles show higher rates in the more susceptible older age groups. There seems to be a slight decrease in admissions in Scotland since the introduction of this vaccine in 2013 in the cohorts of eligible individuals
Tetanus	There have been no confirmed cases of tetanus in Orkney since 2014.
Tuberculosis (TB)	Incidence of TB in Orkney is lower than the Scottish average with a very small number of cases since 2014
COVID-19	The first case was seen in Orkney in March 2020. The World Health Organisation (WHO) declared on 5 th May 2023 that COVID-19 was an established and ongoing health issue which no longer constituted a public health emergency of international concern. Circulation of this virus continues across the world
Influenza	During 2021-2022 Influenza season activity remained at baseline or low levels. However, in 2022/23, there were high levels of influenza activity which were concentrated in a relatively short period, and relatively early within the typical seasonal range

Table 1.3: Vaccine preventable diseases

Childhood Immunisation Programme

Children born in Scotland can expect to have 10 injections and 2 oral vaccinations in their first year of life. By the time they reach the age of 18 they will have had 15 separate injections. These injections protect children from a number of potentially life-threatening illnesses including diphtheria, tetanus, Pertussis (whooping cough), polio, *Haemophilus influenzae* type B (Hib), Hepatitis B, pneumococcal disease, rotavirus, Meningococcal type C (Meningitis C), Meningococcal type B (Meningitis B) measles, mumps and rubella.

In addition to the core immunisation programmes targeted vaccination - Bacillus Calmette-Guérin (BCG) -vaccinations are offered to children in relevant at-risk groups.

Uptake rates for childhood immunisation programmes for the last 2 seasons (years ending 31st March 2022 and 2023) in Orkney are available in Table 1.4. Compared with the Scottish average, the uptake rates for vaccinations in Orkney by 24 months and 5 years tend to be higher than the Scottish average. Uptake rates by 12 months in 2022-23 are slightly lower than 2021-22. As models of delivery change, this needs to be followed closely.

Uptake by 12 months	2021-22		2022-23	
	Orkney	Scotland	Orkney	Scotland
Diphtheria, tetanus, pertussis (whooping cough), polio, <i>Haemophilus influenzae</i> type b (Hib) and hepatitis B (DTaP/IPV/Hib/HepB) 6-in-1 primary course	97.8%	96.3%	96.5%	95.7%
Pneumococcal (PVC) primary course	97.3%	96.4%	94.1%	96.2%
Rotavirus primary course	96.8%	94.0%	92.4%	93.1%
Meningococcal B (MenB) primary course	96.8%	95.6%	96.5%	95.2%
Uptake by 24 months				
6-in-1 primary course	98.5%	97.1%	98.9%	96.7%
Measles, mumps & rubella (MMR) 1	96.4%	94.4%	97.3%	94.0%
Hib/MenC	96.4%	94.3%	97.3%	94.2%
PCV Booster	95.4%	94.3%	96.3%	93.8%
MenB booster	95.9%	93.9%	96.8%	93.6%
Uptake by 5 years				
6 in 1	98.6%	97.4%	97.1%	97.0%
MMR 1	97.6%	96.0%	95.6%	95.8%
Hib/MenC	97.6%	95.6%	96.1%	95.3%
Diphtheria, tetanus, pertussis (whooping cough), polio (4 in 1 Booster)	96.7%	92.7%	94.1%	91.5%
MMR2	96.2%	92.2%	94.1%	90.9%
School immunisations (academic year 2021/22)				
Human papillomavirus (HPV) (completed course S3)	78.9%	73.9%	84.1%	85.2%
Tetanus, diphtheria and polio (S4)	77.3%	74.9%	n/a	n/a
Meningococcal types ACWY (S4)	77.3%	73.8%	n/a	n/a

Table 1.4: Childhood vaccination and teenage booster uptake rates for NHS Orkney April to March and Scottish average

Human Papillomavirus Immunisation Programme

Cervical cancer is the most common cancer in women under 35 years of age in Scotland and human papillomavirus (HPV) is the main risk factor. The HPV vaccine helps to protect against the main cause of cervical cancer and has been offered to girls in secondary schools since 2008. Following advice from the Joint Committee on Vaccination and Immunisation (JCVI) the programme was extended to adolescent boys during the 2019/20 academic year.

The HPV vaccine is offered to all S1 pupils in secondary school because it is most effective before they become sexually active.

In previous years, two doses of the vaccine were recommended. Evidence now shows that only one dose is needed to give protection, unless further doses are clinically required. For that

reason, all eligible secondary school-aged children will now be offered one dose. That dose provides them with the same level of protection as the previous two doses.

Research undertaken by a collaboration of researchers from within NHS Scotland, and the Universities of Aberdeen, Edinburgh, Glasgow Caledonian and Strathclyde has shown that the HPV vaccine has reduced the highest grade of cervical pre-cancer by almost 90%.

The school immunisation programme utilises a mixed model delivery approach with young people being invited to attend primary care for vaccinations in the isles practices and the programme being delivered in schools on the mainland. Those who miss the vaccination at the initial offer will be reoffered throughout their school career.

Adult Immunisations

Pertussis (Whooping Cough) Vaccination for pregnant women

Whooping cough is a highly contagious bacterial infection of the lungs and airways. It causes bouts of repeated coughing that can last for two or three months or more and can make babies and young children very ill. Whooping cough is spread in the droplets of the coughs and sneezes of someone with the infection.

A single dose of whooping cough vaccine is offered to all pregnant women during weeks 16 to 32 of pregnancy to maximise the likelihood that the baby will be protected from birth.

Immunisation is timed to boost levels of protective antibodies passing from the pregnant woman to the baby. Women may still be immunised after week 32 of pregnancy but this may not offer as high a level of passive protection to the baby. Vaccination late in pregnancy may protect the mother against whooping cough and thereby reduce the risk of exposure to her infant. New mothers who have not been vaccinated against whooping cough during pregnancy are offered the vaccination up to when their child receives their first vaccinations at eight weeks of age.

This vaccination programme is administered by the NHS Orkney midwifery team.

The uptake rate for 2021/22 was 90.4%, a rate comparable with previous years. The uptake rate for 2022/23 was slightly lower, 89.3%.

Herpes Zoster (Shingles) Immunisation Programme

The Herpes Zoster Immunisation Programme started in 2013. Shingles can be a severe condition. It occurs more frequently and tends to be more severe in older people. Around 7,000 people aged 70 years and above are affected in Scotland each year. Around 1,000 people develop a very painful and long-lasting condition called post-herpetic neuralgia. Roughly 600 people are admitted to hospital each year, and there are around 5 deaths annually. The herpes zoster vaccine can reduce the risk of getting shingles or, if an individual does get shingles, it can make the symptoms milder. The shingles vaccination programme runs from 1st September to 31 August. The vaccine is not offered to anyone aged over 80, even if they have previously been eligible, as the vaccine effectiveness declines with age.

The latest uptake figures are from the 2021/22 campaign for and showed the following rates in Orkney: 51.7% for those age 70 years (Scottish average 45.1%) and 73.3% for the catch up cohort aged 71-79 years (Scottish average 63.08%).

Zostavax®, one dose of a live vaccine, was routinely offered to those eligible and not contraindicated. Since September 2021, Shingrix®, a non-live vaccine, has been available to immunocompromised individuals aged 70 to 79 years, who were contraindicated to receive Zostavax®, as part of the NHS shingles vaccination programme.

From 1 September 2023, all newly eligible individuals will be offered the non-live shingles vaccine Shingrix®, which is a two-dose schedule vaccine. Zostavax® will no longer be used. The shingles vaccine is now recommended for people aged 65 or 70 on 1 September 2023, in addition to the following groups:

- 50 and over with a severely weakened immune system or about to start immunosuppressive therapy
- 71 to 79 (on 1 September 2023) who have not previously had the vaccine
- 18 and over who have received a stem cell transplant or a CAR-T therapy.

HPV Programme MSM

The HPV vaccine is available in Scotland for men who have sex with men (MSM) up to and including 45 years of age. The vaccination is offered to men who attend sexual health and HIV clinics. The HPV vaccine will help prevent infection that can cause genital warts and certain types of cancer.

This programme is delivered through the Nordhaven clinic.

COVID-19 vaccination Programme

The COVID-19 vaccination programme commenced at the end of 2020 in line with advice from the Joint Committee on Vaccination and Immunisation (JCVI) focusing on the protection of health and social care staff and systems. The secondary priorities included vaccination of those at increased risk of hospitalisation and at increased risk of exposure, and to maintain resilience in public services. The vaccination programme was delivered using a phased approach as vaccine supply became available.

In line with the JCVI (Joint Committee on Vaccination and Immunisation) advice, to maximise protection in those most vulnerable to serious illness, COVID-19 vaccines will only be offered to certain priority groups from 25 August 2023.

Autumn- Winter COVID-19 vaccination

Given the ongoing presence of COVID-19, vaccination was again offered in autumn- winter 2022/23 to reduce the impact of infection on those most at risk, through vaccination, key to prevent ill health in the population and minimise further impact on the NHS and social care services as Scotland entered winter. The objectives for the autumn- winter 2022/23 programme were:

- To protect those in society who continue to be more at risk of severe infection.
- To increase immunity in those at higher risk of severe infection during winter 2022, to prevent severe illness, hospitalisation and death.
- To focus on a co-administration model, offering flu and COVID-19 vaccinations at the same appointment where possible.

The response to the COVID-19 vaccination programme across Orkney during the Autumn- Winter Season 2022/23 was good resulting in high uptake rates. All COVID-19 booster uptake rates were above the Scottish average. The percentage uptake of booster vaccinations in different eligible groups can be seen in Table 1.5 and the weekly administered COVID-19 vaccination doses are available in Figure 1.1.

Uptake COVID-19 Booster (Autumn-Winter 2022-23)	Orkney	Scotland
Older Adult Care Home Resident	96.10%	90.50%
65+ Cohort	91.40%	90.60%
50-64 Cohort	79.50%	66.00%
Frontline Health Care Workers	64.30%	57.70%
Frontline Social Care Workers	47.10%	40.50%
At risk individuals aged 5 to 64	73.90%	63.80%
Total COVID-19 Boosters	80.70%	72.60%

Table 1.5: COVID-19 Autumn-Winter booster vaccination uptake rates for Orkney and Scotland (September 2022 to March).

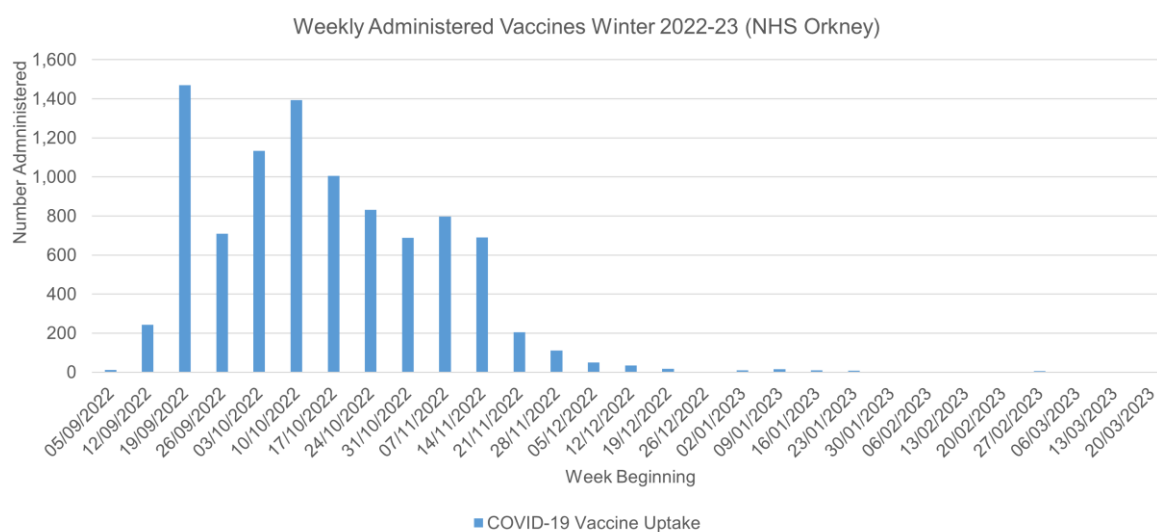


Figure 1.1: Weekly administered booster or dose 3 COVID-19 vaccination across Orkney during Autumn - Winter 2022/23.

Seasonal Influenza Vaccination Campaign

There are 3 types of seasonal influenza viruses – A, B and C. The most effective way to prevent the disease and/or severe complications is vaccination. Safe and effective vaccines have been used for over 60 years. Type C influenza cases occur much less frequently than A and B which is why only Influenza A and B viruses are included in the seasonal influenza vaccines.

The influenza immunisation programme in winter 2022/23 was delivered to provide protection for those at risk of infection with seasonal flu viruses, building on the success of the previous year’s programme to prevent ill health, and minimise further impact on the NHS and social care services.

From 2013, the childhood influenza vaccination programme has been offered to preschool children, primary school children and children aged 6 months to two years of age in clinical risk

groups. From the 2021/22 season, the JCVI has recommended to further extend the childhood influenza vaccination programme to include secondary school pupils. Their advice was that expanding flu vaccination to secondary school pupils would be cost effective and provide further resilience to the NHS and social care services during the winter months, particularly during COVID-19 circulation. Other groups have been offered influenza vaccination since the 2021/22 season, such as frontline staff working in social care, education or custodial institutions.

The response to the influenza vaccination programme across Orkney during the Autumn-Winter Season 2022/23 was good resulting in high uptake rates. All influenza vaccination uptake rates were above the Scottish average. The percentage uptake of flu vaccinations in different eligible groups can be seen in Table 1.6 and the weekly administered doses are available in Figure 1.2.

Uptake Influenza Vaccine (Autumn-Winter 2022-23)	Orkney	Scotland
Older Adult Care Home Resident	96.10%	89.40%
65+ Cohort	85.90%	85.40%
50-64 Cohort	68.80%	55.40%
All Health Care Workers	59.40%	55.70%
All Social Care Workers	42.30%	36.40%
At risk individuals aged 18 to 64	68.20%	56.90%
Total Adult Flu	72.00%	63.70%
Children aged 2-5 years	59%	58%
Primary School Pupils	79%	68%
Secondary School Pupils under 18 years	52%	46%

Table 1.6: Flu vaccination uptake rates for Orkney and Scotland (September 2022 to March).

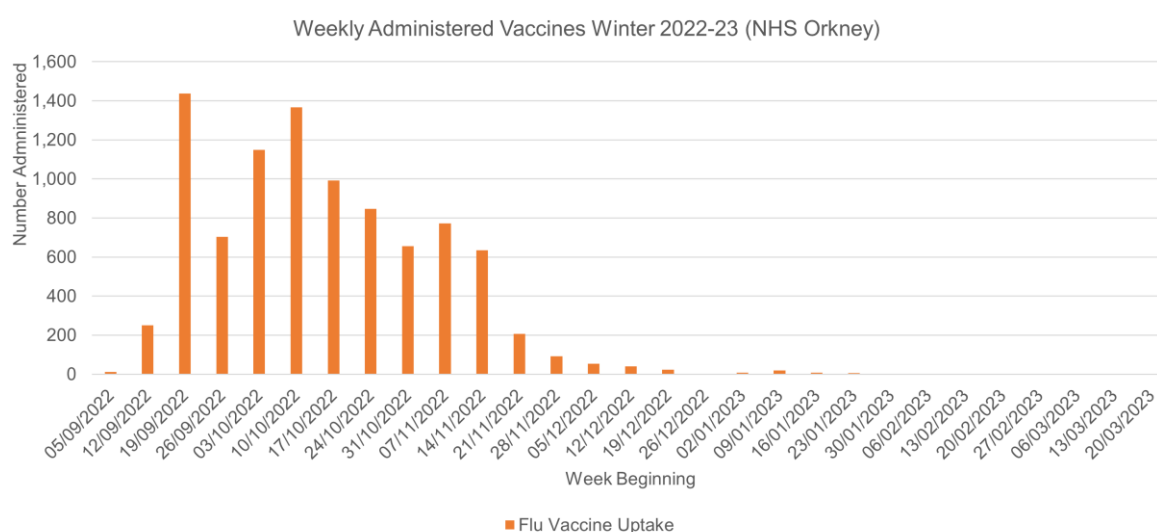


Figure 1.2: Weekly administered influenza vaccination across Orkney during Autumn- Winter 2022/23.

COVID-19 vaccination in Spring 2023

Following advice from the JCVI, an additional spring booster dose of COVID-19 was also be offered to certain high-priority groups which were considered at higher risk of serious illness, boosting their protection.

The response to the COVID-19 Booster vaccination programme across Orkney during Spring 2023 was good resulting in high uptake rates. The percentage uptake of booster vaccinations in different eligible groups can be seen in Table 1.7 and the weekly administered COVID-19 vaccination doses are available in Figure 1.3.

Uptake COVID-19 Booster (Spring 2023)	Orkney	Scotland
Older Adult Care Home Resident	94.0%	90.7%
People aged 75 and over	84.0%	82.5%
12-74 with Weakened Immune Systems	59.9%	57.6%
5-11 with Weakened Immune Systems	0.0%	6.4%
12-74 with Severely Weakened Immune Systems	59.3%	60.0%
Children 6 months to 4 years at risk	11.1%	10.0%
Total Eligible Spring/Summer Boosters	78.3%	76.5%

Table 1.7: COVID-19 Spring booster vaccination uptake rates for Orkney and Scotland (April to July 2023).

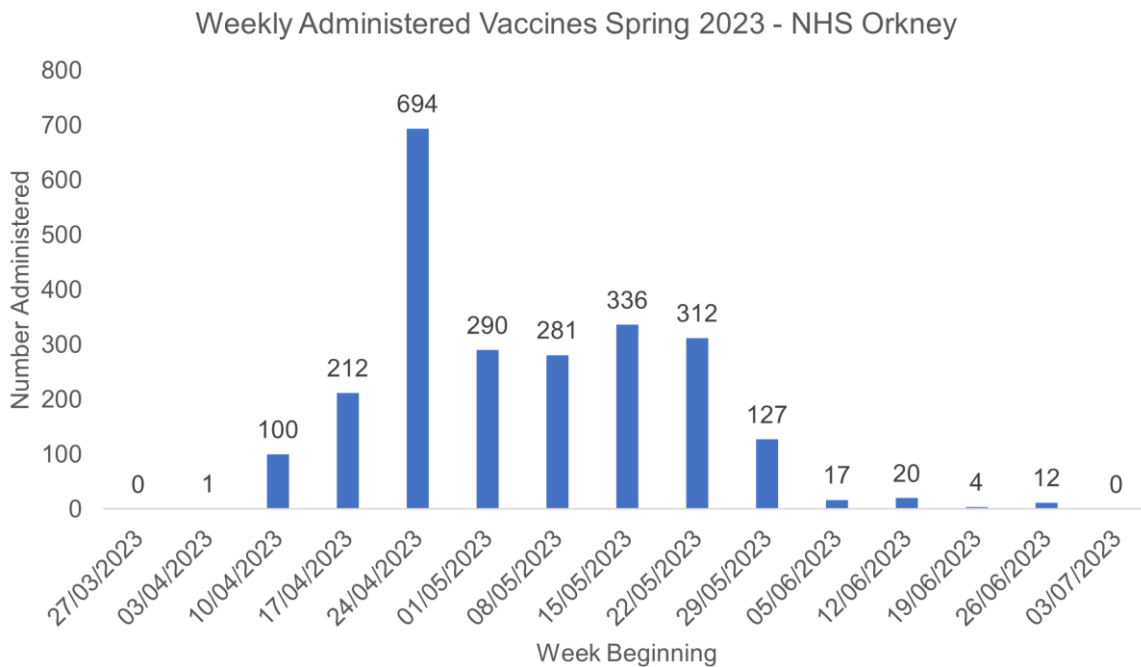


Figure 1.3: Weekly administered booster or dose 3 COVID-19 vaccination across Orkney during Spring 2023.

Conclusions

Vaccination is one of the most cost-effective public health interventions to safeguard present and future health and wellbeing. Immunisation provides both direct individual protection to infectious diseases and indirect protection to the population, including those too young or too ill to be immunised, through herd immunity. The level of uptake at which herd immunity is achieved is the basis for national and international targets.

The high vaccination uptake rates across Scotland and in Orkney correlate with low numbers of outbreaks of vaccine preventable diseases. As uptake improves and vaccine preventable diseases become less common in the population, the need for vaccines becomes less obvious and there is a risk that uptake can fall and diseases re-emerge.

Vaccination delivery across the Scottish immunisation programmes works well. We will focus on increasing vaccine uptake of childhood immunisations at 12 months, seasonal vaccination for those with a clinical risk and pregnant women and frontline staff.

The transfer of responsibility to deliver vaccinations to the NHS Orkney Health Board as a consequence of the Vaccination Transformation Programme offers additional opportunities to improve uptake rates, including harder-to-reach populations. We will work together to ensure that there is a sustainable, resilient and trained workforce to be able to overcome future challenges such as the implementation of a new programmes (RSV for autumn 2024, opportunistic vaccination against gonorrhoea for GBMSMS and high risk individuals), the changes to the childhood immunisation schedule in 2025 (including the addition of a chickenpox programme) or the response required for incidents such as the lower uptake of MMR vaccination in areas of the United Kingdom.

Chapter 2 Screening Programmes

Background

This section of the review provides an overview of the Scottish National Screening Programmes operational in Orkney. National screening programmes are population level services that identify healthy people who may be at increased risk of a disease or condition. If an increased risk of a disease is identified the individual can then be offered information, further tests, and appropriate treatment to reduce their risk and/or any complications arising from the disease or condition. Screening can reduce the risk of developing a condition or its complications, but it cannot offer a guarantee of protection. In any screening programme there is a minimum of false positive results and false negative results.

There are six national screening programmes (Abdominal Aortic Aneurysm (AAA), Bowel, Breast, Cervical, Diabetic Retinopathy (DRS) and Pregnancy & Newborn (PNBS)).

As national screening programmes, oversight is provided by National Services Scotland (NSS), who are accountable to the Scottish Screening Committee and ultimately Scottish Government, but the 14 territorial health boards are responsible for ensuring that their resident population has appropriate access to screening which meets the standards of the national programme(s). The Board Screening Coordinator (BSC) oversees the delivery, quality, and effectiveness of the screening programme for their resident eligible population and is directly accountable to the Director of Public Health.

Operational oversight and assurance of the programmes are provided by the BSC through a number of meeting groups: at a regional level for the Abdominal Aortic Aneurysm (AAA) and Cervical Screening Programmes through the AAA Screening Programme Collaborative and the Cervical Screening Monitoring Group. Local oversight groups have been established for the Diabetic Eye Screening (DES) and Pregnancy and Newborn Screening programmes which report by exception to the Quality Forum and through the Public Health report to the Joint Clinical and Care Governance Committee. Further oversight of the cancer Screening programmes and care pathways, including for the Bowel Screening Programme, is through the NHS Orkney Cancer Care Delivery Group.

Standards

Screening Standards for the programmes are developed by Health Improvement Scotland (HIS). The standards map the screening programme pathway and apply to all services involved in the delivery of the programme within NHS Scotland.

Key Performance Indicators

Key Performance Indicators (KPIs) are a set of measures used to monitor and evaluate programme effectiveness. The KPIs consist of descriptive numbers and percentages that describe key aspects of the performance of the Programme. Where available some KPIs will be included in this report.

Scottish Abdominal Aortic Aneurysm Screening Programme

An abdominal aortic aneurysm is a swelling of the aorta, the main blood vessel that leads away from the heart to the rest of the body. As a person gets older the wall of the aorta in a person's abdomen can become weak and balloon out. A one-off ultrasound examination to measure the width of the aorta is offered to all men in Orkney in their 65th year. Men are only invited for recall if an aneurysm is seen which requires regular monitoring (measures between 3.0cms to 5.4cms).

NHS Orkney is part of an AAA Screening collaborative with NHS Grampian and NHS Shetland. NHS Grampian staff undertake all screening activity. During the time of this report the team visited Orkney three times in July 22, November 22 and March 23.

Standards

The standards for the AAA screening programme cover the following areas:

- leadership and governance
- information
- call–recall
- attendance and uptake
- primary screening
- surveillance
- quality assurance of AAA image
- referral to vascular services
- treatment, and

- postoperative outcomes.

The standards are available at [Abdominal aortic aneurysm \(AAA\) screening standards \(healthcareimprovementscotland.org\)](https://www.healthcareimprovementscotland.org/Abdominal-aortic-aneurysm-(AAA)-screening-standards)

Key Performance Indicators

The key performance indicators for the Scottish AAA Screening Programme are intended to offer a focus on aspects of the patient journey from invitation, through the delivery of the scan and referral for clinical assessment, to outcome of surgical intervention, if this is required. The purpose of reporting achievement of the KPIs is to give a high-level view of the performance of the AAA screening programme, act as a driver for continuous improvement, and to direct specific review of any areas that (from the KPIs) appear to be underperforming. Each KPI has two thresholds (targets):

- Essential: the minimum level of performance that the screening programme is expected to attain.
- Desirable: the screening programme should aspire towards attaining and maintaining performance at this level.

NHS Boards are expected as a minimum to meet the essential thresholds for all key performance indicators.

The latest publication of KPI data is for the year ending 31st March 2022 therefore locally available provisional data has been used for this report.

The uptake target for the AAA screening programme, is the percentage of eligible men tested before age 66 years and 3 months and had a screening result of positive, negative, or non-visualisation, the Essential target is $\geq 75\%$ and Desirable target of $\geq 85\%$. Table 2.1 below shows the uptake has been above the Desirable target since the programme restarted in July 2020.

Financial year	2020-21	2021-22	2022-23
Number men appointed (percentage attended)	133 (83.1%)	129 (90.2%)	161 (88.3%)

Table 2.1: Uptake rates for AAA screening for the periods 2020-21, 2021-22 and 2022-23

Provisional data indicating the percentage of eligible population who are tested before age 66 and 3 months by Scottish Index of Multiple Deprivation (SIMD) using NHS Board level quintiles demonstrates the Essential criteria ($\geq 75\%$) is met for those men in quintile 1, the quintile with those experiencing the highest level of deprivation in Orkney (Table 2.2). The Desirable criteria ($\geq 85\%$) is being met for quintiles 2,3,4 and 5.

	Number	Percentage
Orkney IMD	136	88.3%
1 = most deprived	25	80.6%
2	33	91.7%
3	29	90.6%
4	25	92.6%
5 = least deprived	24	85.7%

Table 2.2: Percentage of eligible population who are tested before age 66 and 3 months; by Scottish Index of Multiple Deprivation using NHS Board level quintiles 2022-2023.

For the period 1 April 2022-31 January 2023 10 annual surveillance appointments were due, of those 70% were tested within six weeks of the due date, the Essential criteria of $\geq 90\%$ was not met. 33.3% of men due to attend quarterly surveillance scans were tested within four weeks of the due date, the Essential threshold of $\geq 90\%$ was not met.

For the KPIs relating to quality assurance the Desirable $<1\%$ threshold was met for the percentage of screening encounters where the aorta could not be visualised (KPI 2.1a), for the percentage of men screened where the aorta could not be visualised (KPI 2.1b) and the percentage of screened images that did not meet the quality assurance audit standard and required immediate recall (KPI 2.2).

For the period 1st April 2022 to 31st March 2023 the men who are eligible to access the programme are men who turned age 66 years in the financial year, those born between 1st April 1956 to 31st March 1957. Provisional data indicates of those screened no men returned a positive screening result.

Audit activity

Standard 7a.1 of the Scottish AAA Standards states that “the screening and surveillance history of men, who died of a ruptured aneurysm, is reviewed and discussed by the collaborative screening centre multidisciplinary team.”

Standard 7a.2 states that “the mortality rate due to ruptured abdominal aneurysm among men who were screened negative and discharged from the programme is recorded and an action plan implemented”.

Across Scotland an audit is being undertaken by the screening collaboratives of all men who have died from an AAA or who have suffered an AAA and survived. The findings of the audit will be reported in due course.

National and local developments

An ultrasound equipment replacement programme has commenced. Health inequalities funding has been secured to introduce text message reminders for screening participants.

Scottish Bowel (Colorectal) Cancer Screening Programme

Bowel cancer is the third most common cancer and the second most common cause of death due to cancer in Scotland. The national bowel screening programme was introduced into Scotland in 2007. The screen involves taking a simple test at home every two years. The test looks for hidden blood in stool. Bowel screening is offered to men and women aged 50 to 74 years to help find and treat bowel cancer early. Bowel screening can also identify pre-cancerous growths (adenomas) that can be removed, preventing cancer occurring in the first place. People aged 75 years and over can request a screening kit.

People can reduce their risk of developing bowel cancer by:

- Eating a healthy diet
- Limiting foods high in sugar and fat, and avoiding sugary drink
- Avoiding processed meat like bacon and sausages and limiting red meat
- Getting to and keeping a healthy weight
- Being more active in everyday life, this includes walking more and sitting less
- Drinking less alcohol
- Stopping smoking
- Telling their GP if they have any worries about their bowel habits.

Standards

The standards for the Bowel screening programme cover the following areas:

- Screening invitation
- Laboratory service

- Screening test result
- Pre-investigation assessment
- Diagnostic investigation
- Histopathology

The standards are available at [Bowel screening standards \(healthcareimprovementscotland.org\)](https://www.healthcareimprovementscotland.org)

Key performance indicators

Key performance indicators for the bowel screening programme include uptake, laboratory, and clinical outcomes of screened individuals. The report is published in two yearly cycles with the latest published data being for the period 1st May 2020 to the 30th of April 2022.

Provisional uptake data for those invited for the calendar year of 2022 was 68%, lower than the previous annual uptake of 71% for Orkney residents, against a national performance of 64%, the national target is 60%.

Of those tested 73 individuals received positive results a similar number to the 74 the previous year. There was an increase in test positivity rate from 2.3% in 2021 to 2.5%, recently we have seen an increasing trend in positivity rate (Table 2.3).

Year	Orkney	Scotland
2019	1.9%	2.7%
2020	2.1%	2.8%
2021	2.3%	2.8%
2022	2.5%	2.9%

Source: Scottish Screening Centre Operational data

Table 2.3: Positivity rates for bowel screening in Orkney and Scotland

For the bowel screening programme, the focus of work is on managing colonoscopy capacity across Scotland. The trends in waiting time from patient referral (due to a positive screening test result) to the first colonoscopy procedure following the referral are monitored. Within Orkney colonoscopy capacity is managed through clinical prioritisation, the Senior Charge Nurse for Theatre makes sure those who are most urgent are prioritised and additional lists are held whenever capacity allows to minimise waiting times.

Risks and Issues

During this time there was ongoing industrial action by Royal Mail workforce which impacted on the time taken for screening kits to reach the laboratory resulting in a higher proportion than would normally be seen having expired before reaching the laboratory. Replacement kits were sent to the relevant individuals. This resulted in an increase in the number of kits being processed and referrals made in January and February of 2023, with February seeing 18 positive results referred for colonoscopy.

Scottish Breast Screening Programme (SBSPP)

Breast screening is a test for breast cancers that are too small to see or feel. Breast cancer is the most common cancer in women. About 1000 women die of breast cancer every year in Scotland. Older women have a higher chance of developing breast cancer, particularly after the menopause. It can also affect younger women. In Scotland women between the ages of 50 and 70 years are invited for breast screening every three years. Women aged over 70 years plus 364 days can continue to be screened if they arrange an appointment with the local screening centre.

There are a number of factors which increase the chance of developing breast cancer, including:

- Being overweight
- Drinking alcohol
- Taking some forms of Hormone Replacement Therapy (HRT)

Women may also have a higher chance of developing breast cancer if members of their family have had breast cancer, particularly at a young age.

The screening service was paused during the COVID-19 pandemic along with the other national adult screening programmes. Due to the need for social distancing the programme recommenced with a soft restart which continued into 2021. However, the ability to self-refer for women aged over 71 years plus 364 days was temporarily paused.

Following the restart, the programme is working to reduce the slippage aiming to reduce the average screening interval to 34 months to maintain the screening offer for women at 36 months. As the slippage in the programme is reducing a phased approach is being taken to the

reintroduction of self-referrals. Self-referral for women aged 71-74 years (up to their 75th birthday) was reintroduced on the 24th of October 2022.

The screening programme for NHS Orkney residents is provided through the Northeast Scotland Breast Screening Service which is hosted by NHS Grampian based in Aberdeen. A mobile unit visits Orkney every three years. The service is supported by the NHS Orkney Surgical team and Breast care Nurses who see breast screening ladies to pass on results, discuss multi-disciplinary team decisions and further treatment. All women recalled for review attend the Breast Screening Centre in Aberdeen.

Standards

The standards for the Breast screening programme cover the following areas:

- leadership and governance
- information and support
- call-recall
- screening process
- recall for assessment
- surgical referral, and
- detection rates.

The standards are available at [Breast screening standards \(healthcareimprovementscotland.org\)](https://www.healthcareimprovementscotland.org)

Key Performance Indicators

The Breast Screening Service did not visit Orkney during the period of this report therefore KPI data has not been included.

Scottish Cervical Screening Programme

The aim of the Scottish Cervical Screening Programme (SCSP) is to reduce the number of women who develop invasive cancer (incidence) and the number of women who die from it (mortality) through a population-based screening programme for eligible women. Screening is offered to all with a cervix aged 25-64 years every five years. Participants on non-routine screening (where screening results have shown changes that need further investigation or follow up) will be invited up to 70 years of age. Cervical screening saves around 5,000 lives in the UK every year and prevents 8 out of 10 cervical cancers from developing.

Cervical cancer is the most common cancer in women aged 25 to 34 years in Scotland.

The risk of developing cervical cancer is increased if a woman

- Is or has been sexually active
- Smokes, as this affects the cells in the cervix

The cervical screening test (smear test) checks cells from the cervix for human papillomavirus (HPV). HPV is very common; four out of five people in Scotland will catch it at some point in their lives. As there are usually no symptoms many people have it for months or years without knowing it. The body fights off HPV infections naturally, but one in ten infections are harder to get rid of. Cervical screening looks for the presence of HPV virus, if virus is found then the same sample will be looked at for cell changes. At this stage, any abnormalities can easily be monitored or treated, and treatment is usually very effective. Without treatment the changes can sometimes develop into cervical cancer in around 10 to 15 years' time.

The diagram below developed by NSS outlines the delivery components and the participant screening pathway for the programme (Figure 2.1).

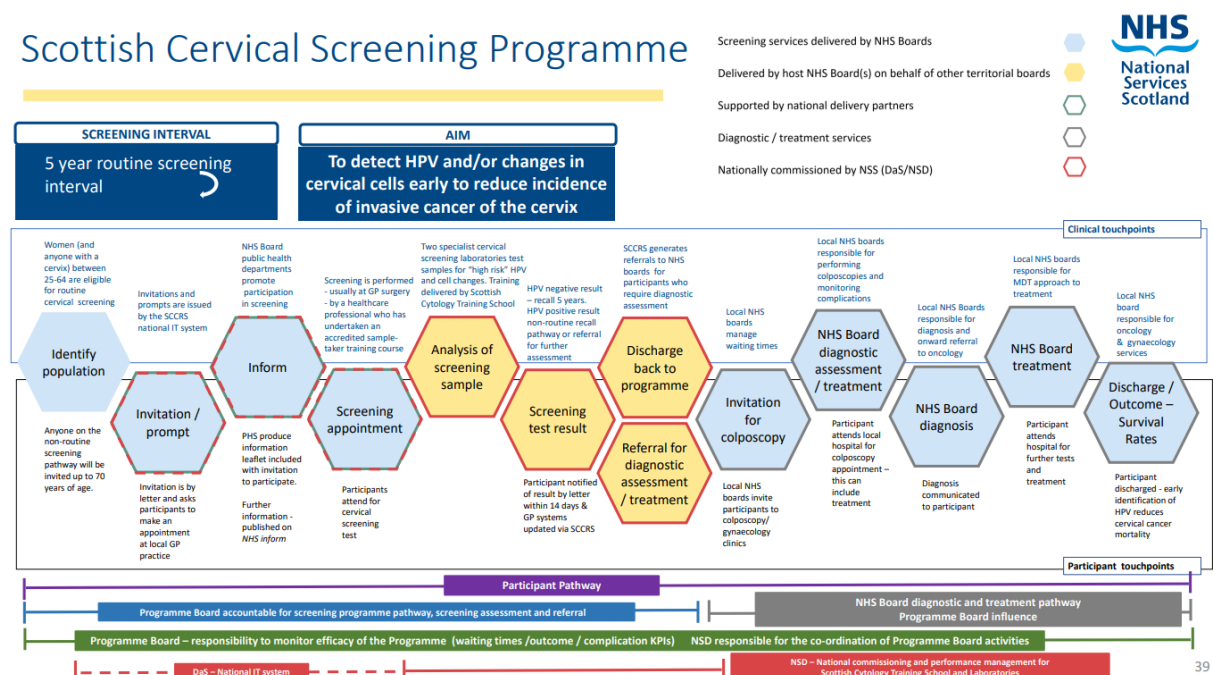


Figure 2.1: The Scottish Cervical Screening Programme

Standards

The standards for the Cervical screening programme cover the following areas:

- leadership and governance
- information and support

- call-recall
- screening process
- recall for assessment
- surgical referral, and
- detection rates.

Key Performance Indicators

The KPIs for the cervical screening programme cover attendance and uptake, laboratory services, the screening process, effectiveness of the screening programme, colposcopy service and colposcopy treatment. A short life working group has been established to review the KPIs for the programme.

The latest published KPI data available for the programme is for the year up to 31st March 2022 therefore Cytology Practitioner Achievement data has been used to provide performance data for this report (Table 2.4)

Cytology Practitioner Achievement Notification- Board Summary				
	Q1	Q2	Q3	Q4
List size	5720	5728	5728	5745
Excluded women	1194	1169	1177	1267
Pregnant	11	11	7	10
Co-morbidity	0	0	0	0
Not clinically appropriate	12	11	10	9
Terminally ill	0	0	0	0
Anatomically impossible	2	2	2	2
No cervix	227	222	222	221
No Further Recall	15	15	14	14
Opted Out	85	85	83	80
Suspended	0	0	0	0
Defaulter	845	826	842	934
Transferred out by SCCRS	0	0	0	0
Eligible Women	4526	4559	4551	4480
Adequately Sampled Eligible Women	4221	4181	4180	4190
Overall Achievement Rate %	93.26	91.71	91.85	93.53
List size excluding No Cervix	5493	5506	5506	5526
Recalculated Adequately Sampled Eligible Women	4368	4350	4346	4363
Overall Achievement Rate (excluding No Cervix) %	79.52	79.00	78.93	78.95
Total adequately sampled Excluded Women	171	193	192	198
Total Adequately Sampled Women with a No Cervix Exclusion	24	24	26	25

Table 2.4: Cervical screening performance data

National Invasive Cervical Cancer Audit

The aim of the cervical screening programme is to reduce the incidence of and mortality from invasive cervical cancer. It is recognised that in order to assess the effectiveness of the cervical screening programme, the audit of the screening histories of women with invasive cervical cancer is fundamental. This audit is an important process that helps to identify changes required to improve the quality of the service. The audit for Orkney is undertaken by the NHS Grampian multidisciplinary team. There is a plan to circulate audit data to Boards moving forward.

Incidents

As reported in the Public Health Annual Review 2021 to 2022 in 2020 instances were identified in which individuals were inappropriately excluded from screening following gynaecological surgery (no-cervix exclusion). Processes have since been implemented to prevent further occurrences, including strengthening verifications that the exclusion has been appropriately added.

A review of all open exclusions was commissioned by Scottish Government to provide assurance on their appropriateness. On 1st April 2022 general practices were notified that they would be required to carry out an audit. A database was developed as a module within the Scottish Cervical Call Recall System (SCCRS) to support the management and monitoring of progress of this national audit across all 14 NHS boards. The purpose of the database is to capture relevant clinical information through a bulk upload of information from patient management systems. The information will be used to enable a team of clinical reviewers within each NHS board to decide on whether the exclusion has been applied correctly. Patients will be separated into cohorts depending on the findings at the health board review stage and then sent a letter explaining the outcome of the review, and the next steps they should take. Stage one of the audit process began in Orkney on 31st March 2023.

The local process for the implementation of exclusions was reviewed utilising the learning from the audit process. The evidence for all proposed exclusions is reviewed by a member of the NHS Orkney Consultant Obstetrician & Gynaecologist team who decide if the exclusion is appropriate or not.

Health Improvement Scotland Review

Following the adverse event (above) Health Improvement Scotland (HIS) was commissioned to undertake a review focussing on the processes, systems and governance for the application of exclusions from the cervical screening programme, with the aim of identifying learning and informing improvements. The review team reviewed over 2000 documents and conducted focus group meetings with a range of individuals with experience of all aspects of the cervical screening programme.

The review, however, found longstanding weaknesses in the management of exclusions over a number of years, and a failure to fully recognise the risks relating to exclusions.

The report's main findings are:

- The systems, processes and governance arrangements for the management of exclusions require significant changes which should be focused on delivering a person-centred cervical screening programme
- There was some confusion amongst the organisations (National Services Scotland, NHS boards and primary care providers) who deliver the cervical screening service regarding who was responsible for monitoring and reporting of exclusions, and this needs to be clarified
- Procedures around the IT system for recalling patients, used by the cervical screening programme, were felt by some healthcare professionals to be confusing and complex, and should be reviewed.

The Screening Programme Board will review the recommendations and identify what work is already underway and any potential next steps.

Scottish Diabetic Eye Screening (DES) Programme

People with type 1 or type 2 diabetes are at higher risk of eye disease due to high blood sugar levels causing damage to the cells in the retina (back of the eye). All people with diabetes aged 12 years and over in Orkney are offered an eye screen. Diabetic Eye Screening (DRS) is a test (photographs of the back of the eyes) to check if the small blood vessels in the retina have leaked or become blocked. When detected early treatment can be provided to reduce or prevent damage to an individual's eyesight. Left untreated diabetic retinopathy can cause blindness or serious damage.

People at high risk of sight loss are offered screening annually or six-monthly. Those at low risk of sight loss are offered screening every two years. A person's previous screening history is used to determine whether they are deemed low risk of sight loss.

An OCT (optical coherence tomography) scan is sometimes needed to detect macular oedema which is the leading cause of moderate sight loss in people with diabetes. OCT is now delivered by the DES team in Orkney, with the scans reviewed by the visiting Ophthalmologist within the following month.

An individual can reduce their chance of developing diabetic retinopathy by:

- Controlling their blood glucose levels
- Getting their blood pressure checked regularly.
- Speaking to their optician if they have a problem with their eyesight.
- Taking medication as prescribed
- Attending DES appointments

NSS commissions the Scottish Diabetic Eye Screening Collaborative which brings together individuals from all NHS boards in Scotland to facilitate the delivery of the DES Screening Programme. It promotes equitable and accessible delivery of care, supporting health professionals.

Standards

The standards for the Breast screening programme cover the following areas:

- leadership and governance
- call-recall
- attendance and uptake
- screening process
- referral, and
- treatment.

The standards are available at [Diabetic retinopathy screening standards \(healthcareimprovementscotland.org\)](https://www.healthcareimprovementscotland.org)

Key Performance Indicators

The KPIs for the diabetic eye screening programme cover attendance and uptake, screening performance, screening outcomes, and ophthalmology performance.

Risks and issues

Following the pause in screening a new database OPTIMIZE was implemented to support the DES programme and performance data will not be available until system verification has been completed. The lack of performance data was identified as a risk for the programme.

Pregnancy and Newborn Screening Programme

Pregnancy screening is offered at various stages of pregnancy to all women in Scotland during their routine antenatal appointments. While pregnancy and newborn screening is often considered as a national programme, it comprises a number of individual programmes, which include:

- Antenatal Down Syndrome Screening;
- Antenatal Haemoglobinopathy Screening;
- Antenatal Infectious Diseases Screening (Hepatitis B, Syphilis, HIV);
- Foetal Anomaly Screening;
- Newborn Bloodspot Screening (NBS); and
- Universal Neonatal Hearing Screening (UNHS).

The aims of the programmes vary, and include: providing information for women so that they can make informed decisions (including whether to continue with the pregnancy); enabling timeous treatment of mother and baby to support a successful pregnancy, reduce transmission of communicable diseases from mother to baby, and reduce the risk of acute/chronic disease in the baby; and provide information to enable early intervention which can improve health and prevent severe disability or even death.

The components of the programme are offered by the midwifery team at an appropriate stage of the antenatal or postnatal period (Table 2.5).

STAGE OF PREGNANCY WHEN TEST PERFORMED	CONDITION SCREENED FOR	MODE OF TESTING
First Trimester	Haemoglobinopathies (Sickle cell and Thalassaemia)	Blood test
First Trimester	Infectious diseases (Hepatitis B, Syphilis and HIV)	Blood test
First Trimester	Down's syndrome Edwards' syndrome Patau's syndrome	Blood test and Ultrasound scan
Second Trimester	Fetal Anomaly Scan	Ultrasound scan
Second Trimester	Down's syndrome (if not able to be carried out in first trimester, eg due to late presentation)	Blood test

Table 2.5: Pregnancy and newborn screening

AGE OF BABY	CONDITION(S) SCREENED FOR	MODE OF TESTING
96 hours after birth	<ol style="list-style-type: none"> 1. Congenital hypothyroidism (CHT) 2. Cystic Fibrosis (CF) 3. Sickle Cell Disorders(SCD) 4. Phenylketonuria (PKU) 5. Medium chain Acyl-CoA Dehydrogenase Deficiency (MCADD) 6. Maple Syrup Urine Disease (MSUD) 7. Isovaleric Acidemia (IVA) 8. Glutaric Aciduria Type 1 (GA1) 9. Homocystinuria (HCU) 	Heel prick – drops of blood collected on card and sent via Royal Mail to Scottish Newborn Screening Lab at QEUH, Glasgow.
Ideally prior to discharge from hospital after birth but should be done within 4 weeks. Variable models across country.	Hearing loss	2 methods used in Scotland: AABR (automated auditory brainstem response) and OAE (otoacoustic emission)

Table 2.6: Newborn

The screening tests are mainly offered as part of routine clinical care, and unlike most of the other national screening programmes, have much less resource in terms of dedicated IT

systems and staff (especially at health board level). National resources commissioned by National Services and Screening Division (NSD), NHS National Services Scotland include the three pregnancy screening laboratories (first trimester Down's syndrome, Edwards' syndrome and Patau's syndrome screening in Edinburgh, 2nd trimester Down's syndrome screening in Bolton and Non-invasive prenatal testing (NIPT) in Dundee) and the Scottish Newborn Screening Laboratory (SNSL) in Glasgow. Blood samples for haemoglobinopathy screening and infectious diseases screening are analysed in local laboratories.

Governance

In NHS Orkney, oversight is provided by the BSC and the Lead Midwife and Interim Deputy Director of Nursing (LM&IDDN) through chairmanship of a local group. The BSC is the main point of contact with the national programme and attends quarterly national Pregnancy & Newborn Screening Board Coordinator meetings the LM&IDDN receives the papers for the meetings and deputises for the BSC if required. Information is then relayed back to the Board's Pregnancy and Newborn Screening Oversight Group which includes representatives from midwifery, obstetrics, audiology, and health intelligence.

Unlike in the other national screening programmes, there are no national groups for other professionals involved in Pregnancy and Newborn Screening, e.g. midwives, obstetricians, sonographers, although the Programme Board and its sub-groups do include representation from these professions. The Pregnancy & Newborn Screening Board Coordinator group is to become more interactive; the group name is to be changed to Board Coordination Group and membership increased to include each Board having their Senior Midwife attend the group so both strategy and delivery elements would be represented.

The Pregnancy and Newborn Screening Programme Board (chaired by a Director of Public Health) is the programme's overarching governance group and reports to the National Screening Oversight Board which in turn reports to the Scottish Screening Committee and

Board Chief Executives. The Programme Board has four sub-groups, as shown below

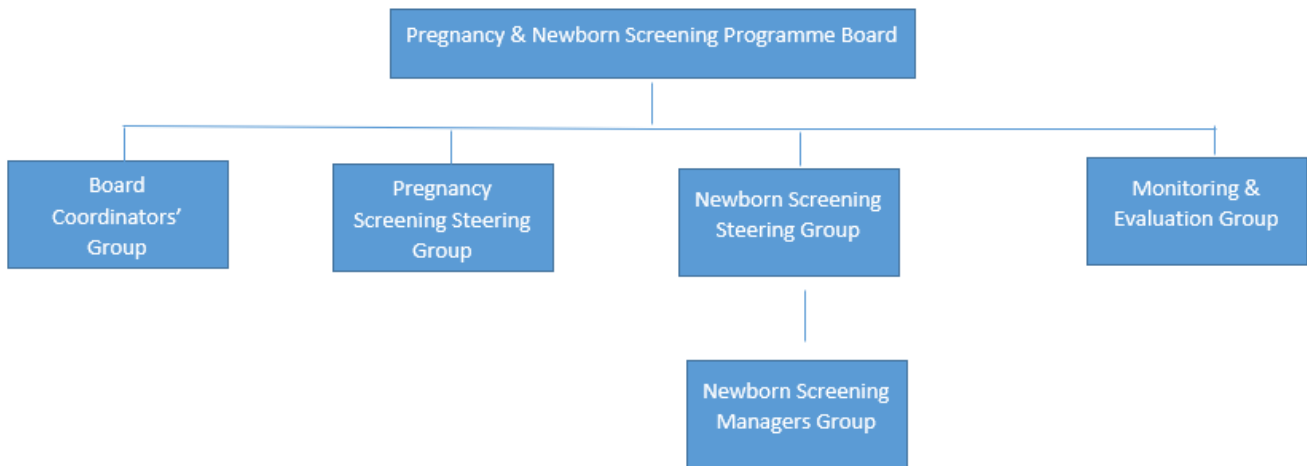


Figure 2.2:

Quality measures

There is a lack of consistent data collection and monitoring within/across health boards, for (many of the different parts of) each element of Pregnancy and Newborn Screening. Where there is dedicated resource which can support the collection and collation of data, several national reports are provided to support local/national monitoring including quarterly and annual reports from the UNHS programme lead clinician, the Down's Syndrome screening laboratory and SNSL. The UNHS lead clinician requests quarterly reports from each health board to aid monitoring across Scotland, and the Paediatric Audiology National managed clinical network supports this process.

The national review of screening programmes and development of standards for each programme by Healthcare Improvement Scotland (HIS) should clarify governance arrangements for all screening programmes, including the analysis of relevant quantitative and qualitative indicators. A suite of Key Performance Indicators has been produced – this data is not currently routinely collected at local or national level.

Risks

The key risks included on the National Screening Programme Risk Register:

- There is a risk that without a written low chance result, there is no prompt for women to ask the midwife if there was an issue if the sample did not arrive in the timescales expected, helping them to identify if there had been an issue with the screen sooner. It is also considered best practice to provide written low chance results.

- There is a risk regardless of the transport mode used (internal transport, Royal Mail, courier, SNBTS) that a trisomy screening sample may be too late in getting to Laboratories (Lothian, Bolton or Tayside) for analysis despite these transport methods being effective for the vast majority of samples.

Adverse events and incidents

The local programme routinely manages minor issues and service challenges, assesses the risks associated with these, and continuously seeks to improve systems and processes to reduce them. Examples of these include: the potential impact of the Royal mail postal strike, with couriers used as contingency. Monitoring numbers of blood samples rejected by the national Down Syndrome Screening lab and putting measures in place to reduce these; monitoring 2nd trimester Down Syndrome Screening rates and taking steps to improve these; and monitoring/reducing rejection rates of Newborn Blood Spot (NBS) samples, and putting safeguarding mechanisms in place to ensure appropriate follow-up.

Performance

Newborn Hearing Screening Programme (NHSP)

Universal Neonatal Hearing Screening consists of a simple test that looks for a clear response from both of a baby's ears. The test is usually done in the first few weeks after the baby is born, often before leaving the maternity unit. The test doesn't hurt and isn't uncomfortable. It's quick and can take place while a baby sleeps.

The latest data available is for the calendar year 2022. The data demonstrates

- 97.5% of babies were offered and completed screening by four weeks (corrected age), below the essential target of $\geq 98\%$.
- 5% required onward referral to audiology for a diagnostic assessment.
- 100% of babies were offered and attended for diagnostic audiology assessment within four weeks.
- No babies were identified with confirmed moderate or greater permanent hearing loss in better ear.
- No babies were identified with confirmed unilateral hearing loss, mild bilateral loss, temporary conductive loss or auditory neuropathy spectrum disorder.

A Scotland wide review of Audiology services for children and adults is being undertaken.

Newborn Blood Spot Screening

Newborn blood spot screens for nine different rare but potentially serious inherited diseases. It's usually carried out around five days after the baby is born. Performance data for the period 2022/23 is outlined below:

- 179 samples were submitted.
- Declines for screening were <5
- No babies screened were too old for Cystic Fibrosis (CF) screening, this screen can only be performed until the baby is eight weeks old.
- No samples were submitted from babies who had moved into Orkney, children remain eligible for screening until they reach one year of age.
- 19 (3.26% below the Scottish average of 5.61%) samples required to be repeated for avoidable reasons; 10 (3.76%) insufficient sample, 2 (0.36%) the sample was unsuitable, 5 (0.91) Community Health Index (CHI) was missing and 2 (0.36%) were too long in transit, too old for analysis.

At 97.2% the percentage of samples received with a valid CHI number was below the essential key performance indicator threshold of $\geq 98\%$.

- 4 (2.23%) samples had missing data, the gestation at birth was missing. This was above the Scottish average of 1.53%.
- 88.1% of samples were taken between 4-5 completed days of life, below the Scottish average of 90.3% and the Essential criteria level of $\geq 90\%$. (There can be a clinical indication for taking samples out with the usual time frame)
- 75.6% of samples were received by the laboratory in Glasgow within the ideal time of no later than three working days after the sample was taken. This was below the Scottish average of 84.1% and the Essential criteria level of $\geq 95\%$
- If a sample has a Thyroid-stimulating hormone (TSH) result of between 8mU/L and 19.9mU/L a repeat sample is required. This sample should be taken 7-10 days after the initial sample. All repeat samples were taken within the time frame above the Desirable criteria level of $\geq 99\%$

Screening for Down's syndrome, Edwards' syndrome and Patau's syndrome

A screening test for Down's syndrome, Edwards' syndrome and Patau's syndrome is available between weeks 10 and 14 of pregnancy. It is a combined test because it combines an

ultrasound scan with a blood test. The blood test can be carried out at the same time as the 12 week scan.

Blood tests combined with scans which measure the fluid at the back of the baby's neck to determine the "nuchal translucency". The woman's age and the information from the two tests are used to work out the chance of the baby having one of the syndromes. Obtaining a nuchal translucency measurement depends on the position of the baby and is not always possible. If this is the case a blood test called the quadruple test will be offered between weeks 14 and 20 of pregnancy.

During the period April 2022 to March 2023 9 quadruple tests were offered.

Of the samples submitted 22.2% were unacceptable this could be due to; delays in transit, inadequately labelled or contaminated samples, request cards that have insufficient information to calculate a chance result. None of the samples from Orkney were delayed in transit.

From September 2020 women who have received a higher-chance result that their baby may have Down's syndrome, Edwards' syndrome or Patau's syndrome were offered a choice of having:

- No further tests
- Non-Invasive Prenatal Screening Test (NIPT)
- Diagnostic tests: chorionic villus sampling (CVS) or amniocentesis

NIPT provides an opportunity to examine foetal DNA by taking a sample of blood from pregnant women. NIPT can be used to detect where an abnormal number of chromosomes is present in each cell, if NIPT returns a positive result woman will be offered a diagnostic test or they can choose to have no further testing.

During 2022/23 fewer than 5 samples were submitted for NIPT.

The national evaluation of NIPT as a second line screening test is continuing.

National and local developments

1. The three vessel and trachea (3VT) view has now been incorporated as part of the cardiac protocol of the 20-week ultrasound foetal examination as recommended by the National Screening Committee.
2. Two midwifery ultrasonographers have successfully completed their training and a further midwife has commenced training.

Chapter 3 Health Improvement

Background

The Health Improvement team in NHS Orkney aims to improve the health of the population and reduce health inequalities in Orkney by supporting the people of Orkney to improve their health. The focus of much of this work moves beyond individual behaviours to the wider social and environmental factors which can influence the health of the population. This is balanced with the NHS's unique opportunities to influence and support people on an individual basis through time of health crisis or at points of routine preventative health intervention. Public Health is a broad and diverse profession. The department's work in 2022/23 has been developed in relation to the Scottish Government's Public Health Priorities in order to prioritise public health action (Figure 3.1). Broadly, the main departmental activities undertaken within 2022/23 relate to service improvement and service delivery, developing and implementing projects, developing and delivering training and working with communities and our partners.

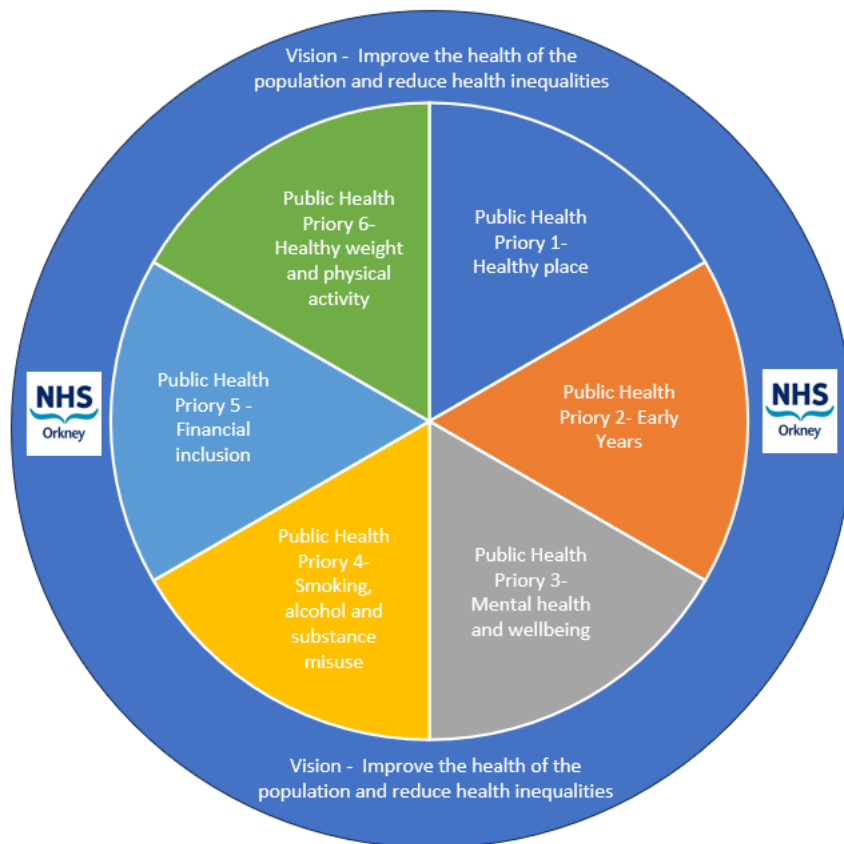


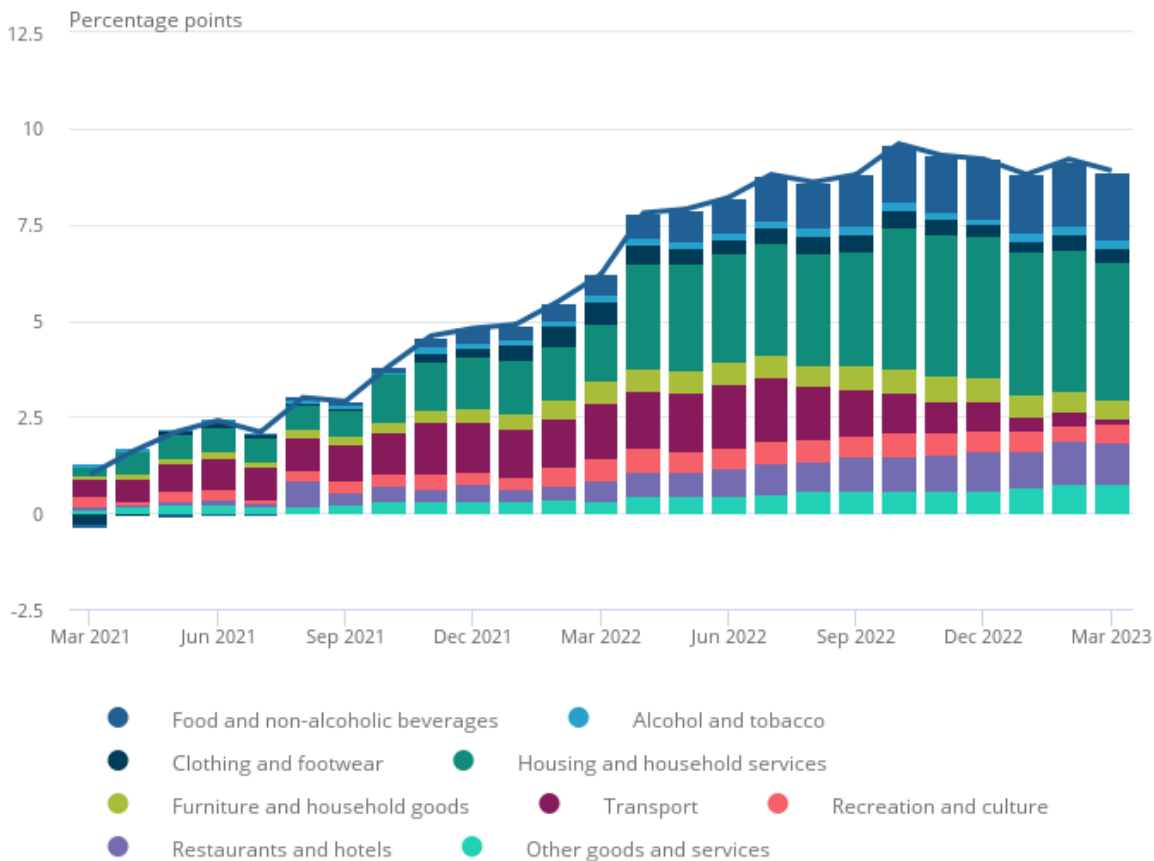
Figure 3.1: NHS Orkney Health Improvement 2022/23 Framework

Cost of living crisis

During 2022, the economy in Scotland experienced high levels of inflation which contributed to a cost crisis, the ‘Cost of Living Crisis’. Consumer price inflation is defined as the rate at which the price of goods and services bought by households rise or fall. Figure 3.2 is a graph from the Office for National Statistics March 2023 data release on the consumer price inflation in the UK. The figure demonstrates the rise in the rate at which goods and services (including owner occupiers’ housing costs) have risen since March 2021 as well as which goods and services have contributed to this increase¹.

Contribution to the CPIH annual rate from food and non-alcoholic beverages largest since start of National Statistics series in 2006

Contributions to the annual CPIH inflation rate, UK, March 2021 to March 2023



Source: Consumer price inflation from the Office for National Statistics

¹ Office for National Statistics (2022b) Consumer Price Inflation, UK: March 2023. [Consumer price inflation, UK - Office for National Statistics](https://www.ons.gov.uk/economy/inflationandcosts/articles/consumerpriceinflationintheuk/march2023)

Figure 3.2: Consumer Price Inflation including owner occupiers' housing costs from March 2021 to March 2023

During 2022, both the Scottish Government and Public Health Scotland recognised that the 'Cost of Living Crisis' could have an impact on the population's health and increase health inequalities^{2 3}. Mitigating the potential impact of this Crisis in Orkney became an important priority for developing work within the Health Improvement Team in NHS Orkney throughout 2022/23.

Service Improvement and Service Delivery

Tobacco Smoking (PHP4)

In 2020, Orkney's population was estimated to be 22,540 persons, of which 18,987 are 16 years old or older⁴ and between 2015-2018 (the most recent available data), the smoking prevalence in Orkney among adults aged 16 years and over was 12%⁵. If the identified prevalence has persisted, there would be currently approximately 2,278 smokers in Orkney aged 16 or over. Smoking rates are highest in the most deprived areas of Scotland and therefore represented a health inequality. A child who is born in a more socially deprived area is more likely to grow up around smokers and therefore be at increased risk of second-hand smoke exposure⁶. Therefore, support to stop smoking which is targeted to at risk groups is important for both adults and children's health. In the 'Cost of Living Crisis' stopping smoking can present an opportunity not only to gain health benefits for the individual and their families, but also can be an opportunity to reduce outgoing costs.

Towards a Tobacco-free Generation

NHS Orkney Health Improvement Team are working with local partners across sectors to develop multi-agency action towards achieving a tobacco free generation (defined as 5% or

² Scottish Government (2022) The Cost of living Crisis in Scotland: An Analytical Report. Scottish Government: Edinburgh. [The Cost of Living Crisis in Scotland: An Analytical Report \(www.gov.scot\)](https://www.gov.scot)

³ Douglas M, McCartney G., Richardson E., Taulbut M, Craig N. (2022) Population health impacts of the rising cost of living in Scotland: a rapid health impact assessment. Public Health Scotland: Edinburgh. [Population health impacts of the rising cost of living in Scotland \(publichealthscotland.scot\)](https://publichealthscotland.scot)

⁴ National Records of Scotland (2022) Mid-2021 Population Estimates Scotland. [Mid-2021 Population Estimates Scotland | National Records of Scotland \(nrscotland.gov.uk\)](https://www.nrscotland.gov.uk)

⁵ Scottish Health Survey (2020) Scottish Health Survey Dashboard. [Scottish Health Survey \(shinyapps.io\)](https://shinyapps.io)

⁶ Public Health Scotland (2021) Smoking. [Smoking prevention - Smoking - Health topics - Public Health Scotland](https://www.healthscotland.com)

lower prevalence of adults' tobacco smoking) by 2034⁷. Partners were invited to comment on a long list of options of smoking cessation service delivery models based on criteria relating to the desirability of the model, the viability and sustainability of the model, the feasibility of the model for implementation and the patient centeredness of the model, to ensure safe, patient centered care that does not increase inequalities. From this discussion, two proposals for mixed models of delivery in Orkney were presented to the group, with the preferred option to be implemented in 2023/24. Similar work relating to preventing young people from starting smoking and relating to second hand smoke is due to be considered by the partner agencies involved in 2023/24.

Stop Smoking Service

Quit Your Way Orkney – stop smoking service is NHS Orkney's smoking cessation service. It is a free, specialist stop smoking service offering one to one support including support to stop smoking during pregnancy. The service is delivered includes:

- Help to develop a personal 12-week quit plan
- Support to develop plans to change your habit and control cravings
- Regular contact with a specialist stop smoking advisor
- Encouragement and advice on maintaining your quit
- Advice on using stop smoking medications
- Free access to a range of stop smoking medication
- Telephone or video call appointments (using NHS Near Me).

The Local Delivery Plan (LDP) target for NHS Orkney in 2022/23 is to sustain and embed 31 successful smoking quits at 12 weeks post quit in the 60% most deprived SIMD areas within Orkney. Over the year there were 61 quit attempts of which 38 were in the three most deprived SIMD areas. The final published NHS stop smoking services LDP standard data shows the progress made to LDP targets in Quarter 4 of 2022/23 – outcomes of quit attempts made over the year⁸ (Figure 3.3). This shows that Orkney's performance at Quarter 4 was at 61.3% of the LDP standard.

⁷ Scottish Government (2018) Raising Scotland's tobacco-free generation: our tobacco control action plan 2018. [Raising Scotland's tobacco-free generation: our tobacco control action plan 2018 - gov.scot \(www.gov.scot\)](https://www.gov.scot/resources/documents/2018/06/raising-scotland-s-tobacco-free-generation-our-tobacco-control-action-plan-2018/)

⁸ Public Health Scotland (2023) NHS Stop Smoking Services Quarterly: Local Delivery Plan Standards 2022/23 (Quarter 4). [NHS stop smoking services - local delivery plan standard 2022/23 \(quarter 4\) - NHS stop smoking services quarterly - Publications - Public Health Scotland](https://www.gov.scot/resources/documents/2023/04/nhs-stop-smoking-services-quarterly-local-delivery-plan-standards-2022-23-quarter-4/)

This is an improvement in NHS Orkney’s performance compared to the previous year as seen in Figure 4.3 which shows NHS Orkney’s performance at the end of Quarter 4 in 2021/22⁹ where Orkney had achieved approximately 54.8% of the LDP target.

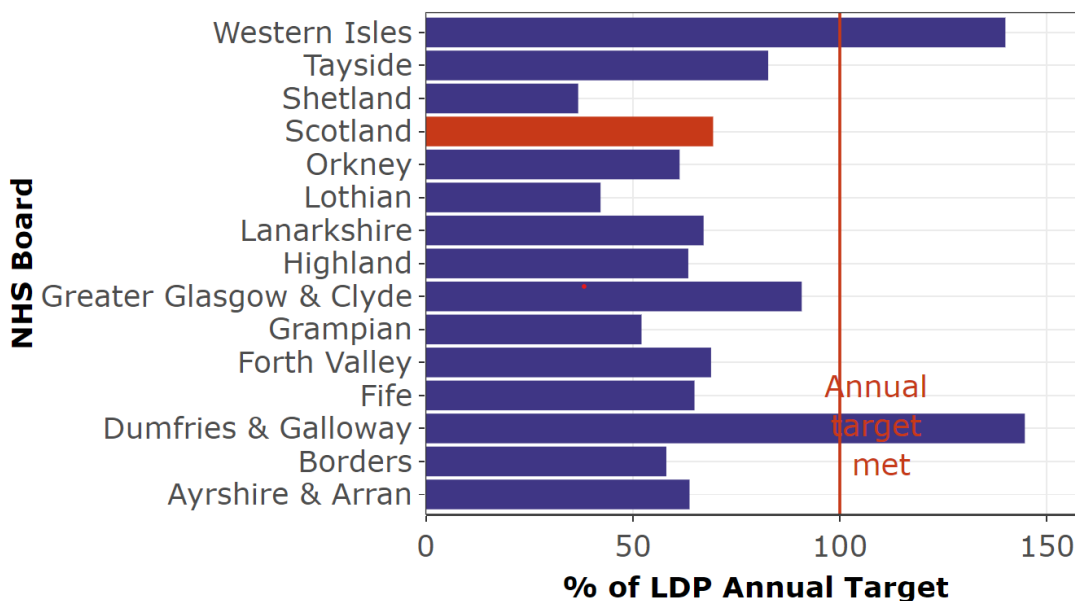


Figure 3.3: 2022/2023 Q4 LDP Target Performance across Health Boards⁸

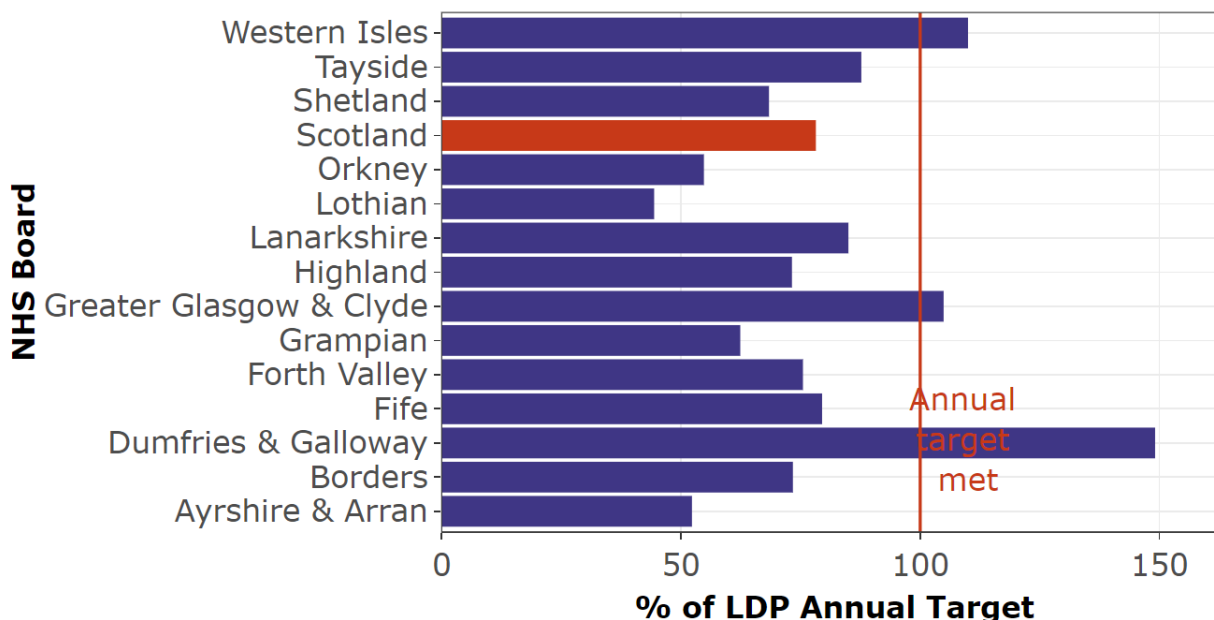


Figure 3.4: 2021/2022 Q4 LDP Target Performance across Health Boards⁹

⁹ Public health Scotland (2022) NHS Stop Smoking Services Quarterly: Local Delivery Plan Standards 2021/22 (Quarter 4). [NHS stop smoking services - Local Delivery Plan Standard, 2021/22 \(Quarter 4\) - NHS stop smoking services quarterly - Publications - Public Health Scotland](#)

This increase in performance against the LDP target is reflective of ongoing work in the Health Improvement Team to improve the service delivery including development of local advisor training to support service capacity and development of service administrative functions to increase efficiency. However further focused work is required to improve performance.

Health and Work (PHP3 and PHP5)

The 'Cost of Living Crisis' has led to a significant rise in business costs including energy, material and labour which is particularly impacting costs of production with the businesses reporting the most concerns being accommodation and food, manufacturing, arts, entertainment and recreation and construction². The Office for National Statistics report on the business energy spending found that in 2019 'micro' businesses with 0-9 employees were likely to have more than 20% of their total company purchases spent on energy¹⁰. As most businesses in Orkney are small with 90% having fewer than 10 employees¹¹, rising energy prices may have a significant impact on business in Orkney. Additionally, more of Orkney's jobs were in arts, entertainment and recreation with 3.6% of jobs compared to 2.5% in Scotland as well as construction with 7.3% of jobs compared to 6.12% in Scotland¹² suggestive of a higher potential impact across the county from these business types experiencing concerns than at a national level. Businesses in Orkney are not only impacted by the rising costs of energy and goods, but with the increase in cost of living reducing people's disposable income there is a downturn in business activity². Reduction in business in Orkney could have impacts on job security, employment opportunities and earning power within Orkney, in turn impacting on a person's mental health and wellbeing as well as their ability to take action to improve physical health. Financial insecurity may also increase risk of suicide.

Healthy Working Lives

Healthy Working lives services offer support to employers in making the health and wellbeing of their workers a priority. This is under the Scottish Government priorities of addressing economic inactivity, the 'Cost of Living Crisis' and increasing health inequalities in Scotland. The service aims to increase access to good quality, fair work, increase retention in work, increase

¹⁰ Office for National Statistics (2022) Business energy spending: experimental measures from the Office for National Statistics' business surveys. [Business energy spending: experimental measures from the Office for National Statistics' business surveys - Office for National Statistics \(ons.gov.uk\)](https://www.ons.gov.uk/businessenergy/businessenergy/experimentalmeasuresfromtheofficefornationalstatistics/businesssurveys)

¹¹ Fraser of Allander Institute (2020) Orkney Islands Economic Review. University of Strathclyde, Fraser of Allander Institute: Glasgow. [2020-09-18-Orkney-islands-review.pdf \(fraserofallander.org\)](https://www.fraserofallander.org/2020-09-18-Orkney-islands-review.pdf)

¹² Office for National Statistics (2022) *Labour Market Profile – Orkney Islands*. [Labour Market Profile - Nomis - Official Labour Market Statistics \(nomisweb.co.uk\)](https://www.nomisweb.co.uk/labour-market-profile)

progression through work and prevent absenteeism. This is to be supported through provision of health information, access to online information on improving health, safety and wellbeing and national level support for workers with health conditions and provision of training both remotely and in person¹³.

During 2022/23, a workplace health needs assessment in Orkney was started. This work was to prepare a plan for this work including for stakeholder engagement in line with information governance procedures. An online survey was prepared and published and further interviews are planned for 2023/24. As Healthy Working Lives is in a period of change nationally, and a new advisor in Orkney was only recruited in October 2022, this new advisor has reconnected to the national work and undergone appropriate training where possible through the last six months of 2022/23.

Healthy Weight and Physical Activity (PHP6 and PHP2)

At Primary 1, 74% of Orkney’s children are considered to have a healthy weight, this is slightly below the national average (74.7%) currently¹⁴ (See Figure 3.5).

Primary 1 Body Mass Index in NHS Orkney
School Year: 2021/22

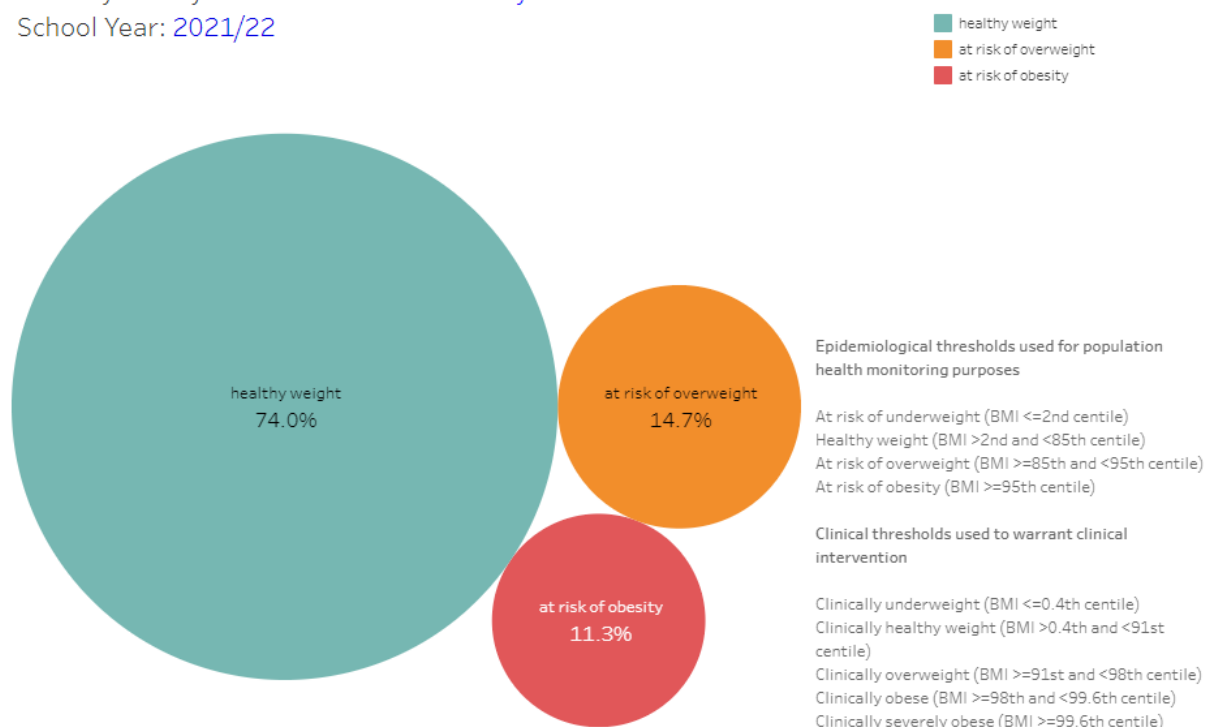


Figure 3.5: Primary 1 Body Mass Index in NHS Orkney: School year 2021/22¹⁴

¹³ Public Health Scotland (2022) Healthy Working Lives Services. <https://www.healthyworkinglives.scot/workplace-guidance/Pages/Healthy-Working-Lives-services.aspx>

¹⁴ Public Health Scotland (2022) Primary 1 Body Mass Index (BMI) Statistics Scotland: School Year 2021 to 2022. [Dashboard - Primary 1 Body Mass Index \(BMI\) statistics Scotland - School year 2021 to 2022 - Primary 1 Body Mass Index \(BMI\) statistics Scotland - Publications - Public Health Scotland](#)

In terms of adult healthy weight, no further Orkney level data has been published since the 2021-22 annual report which indicated that 75% of the population are either overweight or obese compared with the Scottish average of 65%⁵.

Obesity represents a health inequality as people who are socioeconomically deprived are at greater risk of obesity in Scotland¹⁵. People who have the most financial resources also tend to be more able to make positive health-related changes to their lifestyle and immediate environment which supports the maintenance of a healthy weight¹⁶. As financial resources are impacted through the 'Cost of Living Crisis', more people may find it increasingly difficult to make positive lifestyle choices relating to healthy weight and physical activity. The wider influences on healthy weight, such as impacts of financial constraints, on diet and physical activity were reflected within both parents/carers and children and young people engagement activities reported in a recent child healthy weight needs assessment.

Implementation of the Child and Adult Healthy Weight Standards

During 2022/23, NHS Orkney Health Improvement team focused on work relating to child and adult healthy weight and physical activity and implementation of the national standards for weight management services and the Type 2 Diabetes Framework. This work is overseen by a combined multi-disciplinary steering group which meets bi-monthly.

A Physical Activity Pilot Project was developed in partnership with Orkney Islands Council and the Pickaquoy Centre for adults referred to weight management to explore working with local exercise and leisure providers to ensure physical activity is firmly embedded within weight management services as per the standards. This involved Active Life staff across Orkney who were trained by the Trainee Health Psychologist, Dietitian and Public Health Dietitian, as well as completing online Public Health Scotland (PHS) Challenging Weight Stigma training. The project commenced in January 2023 with 10 weight management patients opting into the programme. Those patients were given a free six-month Active Life membership with access to OIC leisure facilities across Orkney (including the ferry-linked isles). Additionally, patients received support from the Public Health Dietitian, the Trainee Health Psychologist as well as from the sports centre's Fitness Advisors as appropriate, with progress check-ins, a clear focus around goal setting and answering any queries or concerns. The project is being evaluated on an ongoing basis and a summary report will be available in 2023/24.

¹⁵ Scottish Health Survey (2023) Scottish Health Survey Dashboard <https://scotland.shinyapps.io/sg-scottish-health-survey/>

¹⁶ ScotPHO (2017) Obesity and health inequalities in Scotland: Summary Report. [Obesity and health inequalities in Scotland - summary report \(scotpho.org.uk\)](https://www.scotpho.org.uk/obesity-and-health-inequalities-in-scotland-summary-report)

Over the course of the year the Trainee Health Psychologist treated 26 patients using Motivational Interviewing, Acceptance and Commitment Therapy, Compassion Focused Therapy and Behaviour Change Techniques to support effective weight management. Tier 2 Group Health Psychology input was delivered as part of the Active Life Physical Activity Pilot Programme. The Trainee Health Psychologist worked closely with other departments, including Dietetics, and arranged for onwards referral to Physiotherapy or Psychological Therapies where appropriate.

Appropriate Tier 2 weight management patients in Orkney were given access to the 'Second Nature' app in the latter half of 2022/23. Second Nature is an online weight management programme at Tier 2 level of intervention. The app supports patients to track their daily changes in weight, steps and sleep, gives access to a dietitian and a peer support group as well as the opportunity to review short daily articles that cover educational content such as nutrition, exercise, sleep, stress and wellbeing. Access to this in Orkney allows patients, who are offered this service following triage by a Dietitian, to obtain weight management support anywhere in Orkney that allows for digital access to the app at any time of the day. Initial results from 'Second Nature' in Orkney reported in April 2023, suggest an average weight loss of 4.5% of the individual's initial body weight for participants who remain in the programme for six weeks. At the time of reporting this was a small number of patients.

A systematic review focusing on successful weight management interventions in rural and remote locations was completed in 2022/23, as well as a mixed-methods research project to feed into the adult healthy weight needs assessment which will be completed in 2023-4. A child healthy weight needs assessment was also completed in 2022/23. This work will support the ongoing prioritisation of this work within this programme.

Implementation of the Type 2 Diabetes Framework

Due to COVID-19, there has been a period with no face-to-face delivery of education in Orkney for people who have been newly diagnosed with Type 2 Diabetes. In 2022/23 work began to develop the training programme in line with the national standards, ready for commencement of delivery of 'Control It' sessions in 2023/24.

To promote remote access to education for people at risk of developing Type 2 Diabetes, those with type 2 Diabetes and those with Gestational Diabetes, the My DESMOND diabetes app is

available in Orkney. In 2022/23, the Health Improvement team in NHS Orkney promoted the app with GPs and maternity ward staff.

Developing and Implementing Projects

NHS Orkney Polytunnel Project (PHP1)

Across research greenspace has been shown to positively impact an individual's physical, mental and social health. However not everyone has access to safe, accessible and high-quality greenspaces. They are often unavailable to those with a disability, long-term health conditions and individuals from a more deprived background are less likely to visit greenspaces. The NHS Orkney Polytunnel Project aimed to produce a safe, accessible and high-quality greenspace within the NHS Orkney estate that is open to everyone. This is achieved by ensuring the space is wheelchair accessible and, as it is within hospital grounds, it enables patients with long-term health conditions to attend and participate in outside activities they may otherwise not have access too. As it is situated in the hospital grounds, the polytunnel facility also supports the physical and mental wellbeing of staff.

The majority of the planning for this project was completed in 2021/22 but the build, stakeholder survey, polytunnel open day and promotion of the use of this facility as a green health promoting area were completed in 2022/23. The construction of the NHS Orkney polytunnels began in early April following successful planning permission. The weather initially delayed construction progress, which extended the construction length to 3 months and the polytunnels were successfully completed at the start of July 2022. Figure 3.6 and Figure 3.7 shows the progress of the build over this timeframe.



Figure 3.6: Polytunnel build progress from April 2022 to start of July 2022.



Figure 3.7: Polytunnel build progress, solar panels and internal structure.

To promote the polytunnel facility and celebrate the projects progress, an open day was organised on the 20th of July 2022. This was to enable positive discussions around the benefits of greenspace as a health promoting asset, provide opportunity to engage with the community across all islands to embed and promote the social, economic and environmental benefits of the greenspace facility and showcase the project's exemplar sustainable practices. There was a

good turnout of both staff and the general public and at the open day individuals were encouraged to give written feedback on a flipchart (Figure 3.8) which demonstrated very positive feedback. The media were in attendance to promote the project and conduct interviews. The completed polytunnels were officially open to the public from the 20th July 2022.

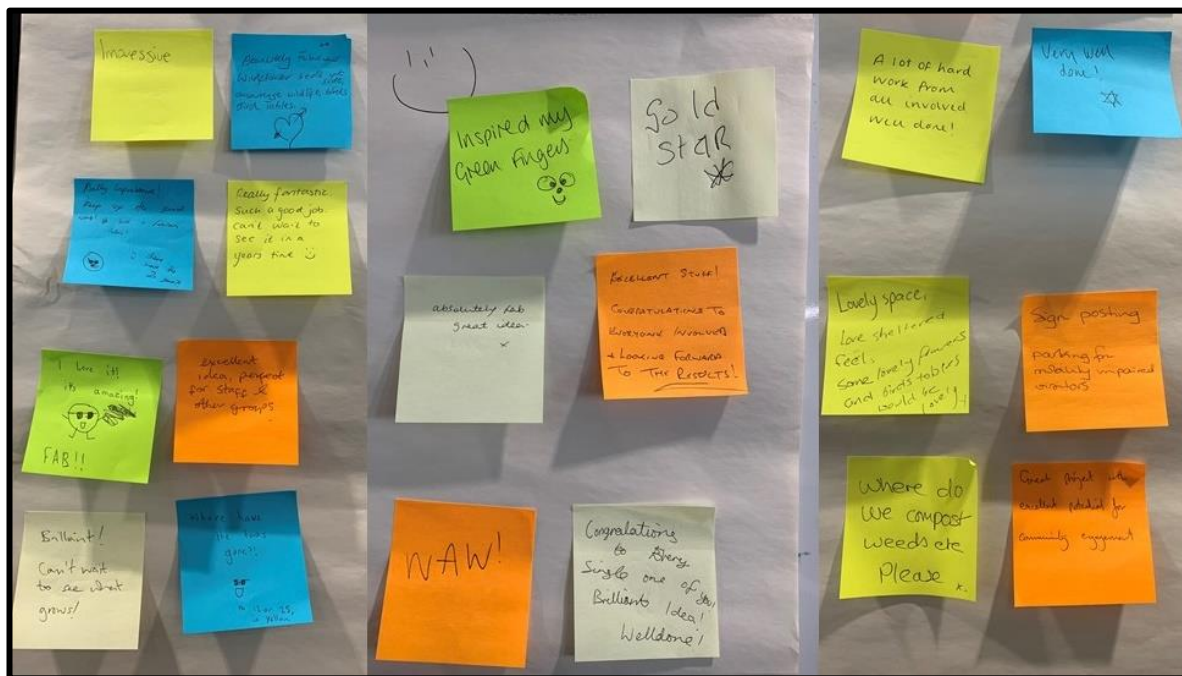


Figure 3.8: Written feedback from the polytunnel open day

NHS staff, patients and the wider community were involved influencing the polytunnels future use and management. This was to ensure that the project considered a ‘bottom up’ management approach. A survey was distributed in May 2022. The survey aimed to gain stakeholder feedback, inform future use and management of the polytunnels, support the understanding of the relationship between nature and health and further understand how the polytunnels could be used to improve health and wellbeing.

To increase the survey momentum and raise public awareness of the benefits of greenspace as a health promoting asset, several bespoke NHS Orkney images were created for social media promotion across green health week (Figure 3.9).



Figure 3.9: Green health week promotion

In total 133 participants completed the survey. It was important to understand how participants felt they would utilise the polytunnels to help inform future management and utilising the facility ‘to relax’ was the most selected option (22.7%), followed by ‘gardening and growing’ (20.4%) and ‘for a break from work’ third (17.7%). The participants were asked as to whether having the option to book a polytunnel would be useful and participants identified ideas of ways in which this facility could be further used as seen in Figure 3.10.

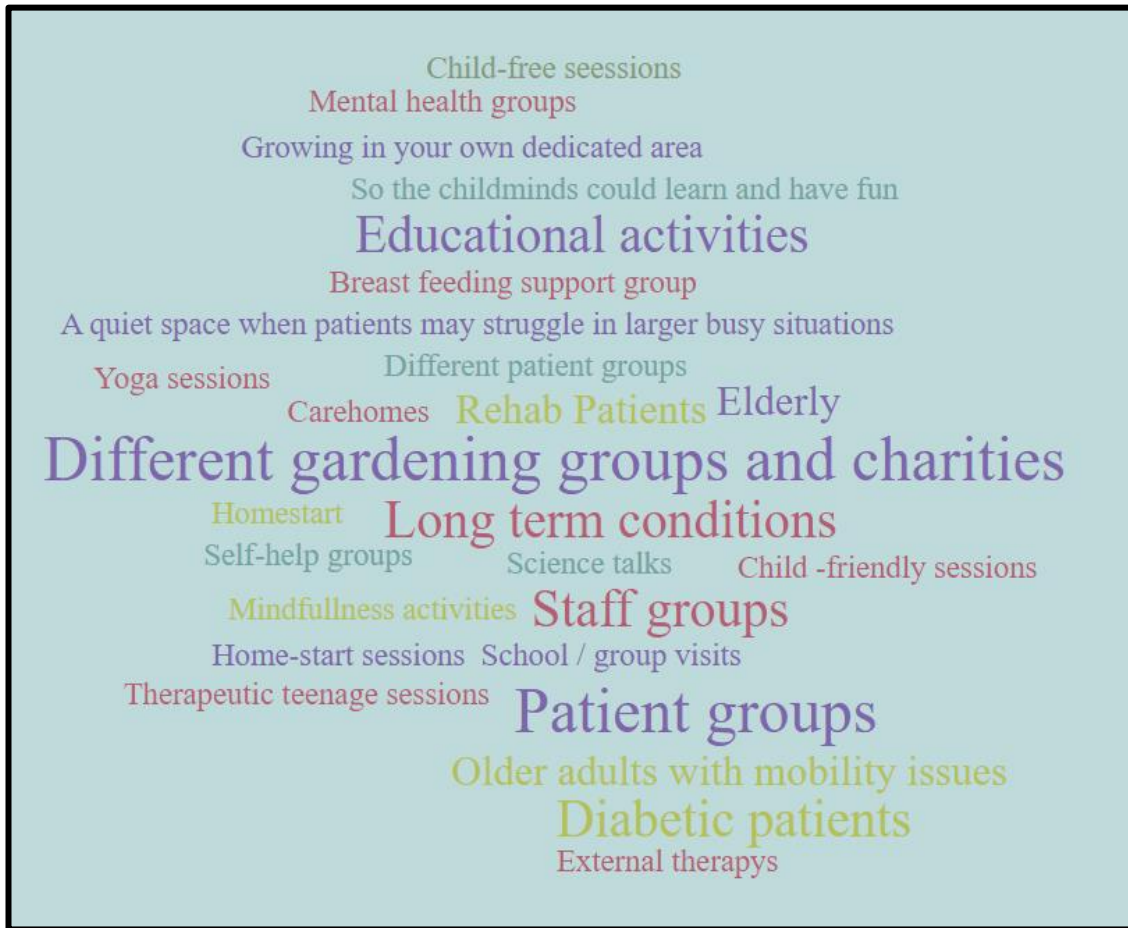


Figure 3.10: Examples of how survey participants believed the polytunnels could be booked out.

Greenspace as a health promoting asset was promoted through this project and green social prescribing pathways were to be developed in collaboration with stakeholders. In total there were 42 prescribers/providers that completed the survey. They were asked some additional questions to understand their opinion and understanding of green social prescribing which was used to contribute to the development of green social prescribing pathways. To develop green social prescribing pathways that will utilise the polytunnel facility, feedback discussions with several stakeholder groups such as the Area Clinical Forum, GP Cluster and Community Link Workers were conducted to gain an insight to their thoughts on a green social prescribing model and to understand the barriers to utilising the facility for green social prescribing in the future. After considering the feedback from stakeholders, a greenspace pathways model was finalised which demonstrates the interconnectedness of greenspace pathways which can be applied to all greenspaces in Orkney (Figure 3.11).

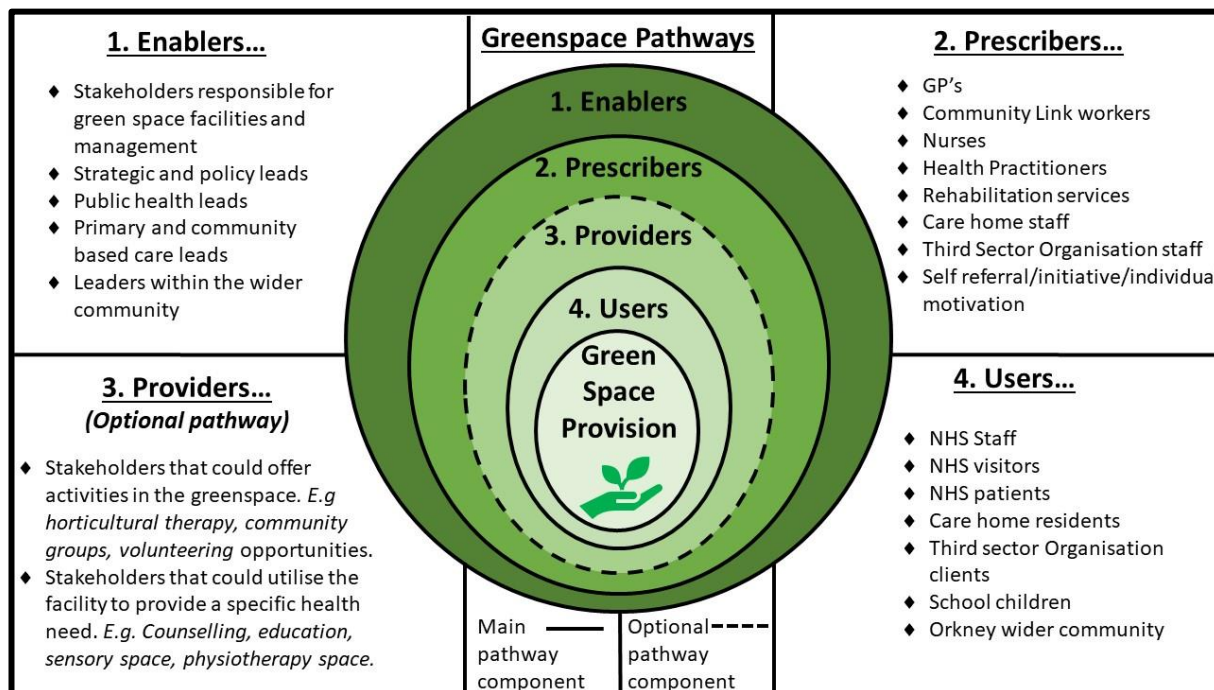


Figure 3.11: Greenspace pathways for NHS Orkney

The facility as a whole has been positively received by NHS staff and the wider community, with a wide range of utilisation ideas and interest from a variety of demographics. The polytunnel information was sent out to a variety of groups who could use the facility for green health reasons as well as being advertised through internal and external NHS Orkney communications channels to ensure maximum potential for use of the polytunnels.

The polytunnels showcase exemplar sustainability practices and positively contribute to the NHS Orkney climate and sustainability agenda. The project fulfils several health and environmental policies and positively impacts social, economic and environmental streams, supporting our ambitions as an influential anchor institution and contributing to reducing health inequalities.

Screening Inequalities (PHP1)

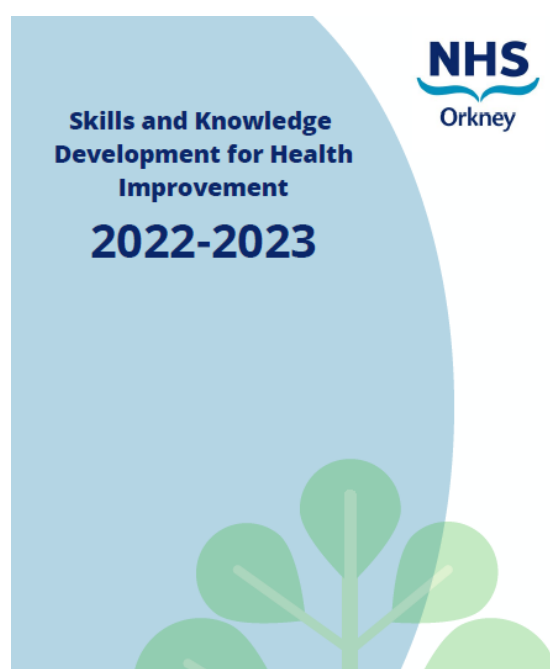
NHS Orkney Health Improvement Team currently have two projects ongoing throughout 2022/23 which aim to reduce health inequalities in screening. The first is a project in collaboration with Women's Aid Orkney, Orkney Rape and Sexual Assault Service and is focused primarily on cervical screening for women who have experienced intimate partner or personal violence. The project is running alongside a similar project in NHS Dumfries and Galloway. Throughout this year, the pressures on services have impacted on the delivery of this project. Training was offered to NHS cervical screeners relating to domestic abuse as well

as information relating to cervical screening shared with staff in support services to increase their confidence in discussing the screening and process. It is hoped that further training which can support NHS staff to attend can be offered in 2023/24. Additionally, due to COVID-19 ongoing issues, the originally proposed methodology to gain an insight into barrier and facilitators to screening from women who have experienced sexual violence was not able to be used. A new approach was devised based around interview questions which could be applied individually at sessions with clients or virtually via email. The results will be reported in 2023/24 alongside the development of an action plan before the close of the project.

The second project involved NHS Orkney Health Improvement staff supporting the national development of a strategy focused on equity in screening during 2022/23. This strategy was published in 2023/24.

Developing and Delivering Training

Health Improvement Training



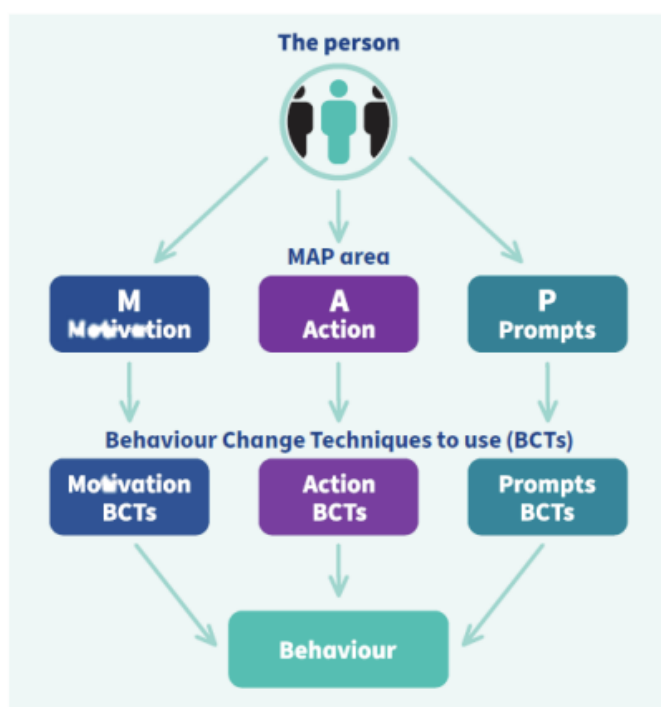
In 2022/23, the Health Improvement Team updated and distributed 'Skills and Knowledge Development for Health Improvement' eLearning information leaflet to share with partners. This document gives information relating to accessible Public Health related e-learning opportunities such as an 'Introduction to Public Health', 'Health Inequalities', 'Health Behaviour Change', 'Mental Health', 'Sexual health', 'Poverty and Childhood' and 'Gambling Harm'. This work is important as access to learning around these topics remains relevant for the workforce who support people across Orkney in the backdrop of the 'Cost of living Crisis'. The eLearning information leaflet is distributed virtually internally and externally, twice a year.

Health Behaviour Change Training (PHP2)

The MAP of Behaviour Change Learning Programme has been created by NHS Education for Scotland (NES) and is designed to build knowledge, skills and confidence in practitioners working in any service where behaviour change could help a person's health and wellbeing. It

takes a behavioural science approach to developing key components for behaviour change, Motivation, Action and Prompts and cues (MAP), supporting practitioners to effectively structure their behaviour change conversations. The training supports a person-centred approach to motivating people to initiate and maintain behaviour change through having the skills and choosing the right techniques to use at the right time for the person¹⁷ (see Figure 3.12 for the MAP model). NHS Practitioners being enabled through this training to have behaviour change conversations with their patients can support people to be empowered to make health promoting behavioural change and gain early access to support services, potentially mitigating some of the negative impact of the ‘Cost of Living Crisis’.

MAP Model



STEP 1: Gather information for each of the 3 MAP areas

STEP 2: Decide the MAP area person needs most help with

STEP 3: Use the specific BCTs for the area

Figure 3.12: MAP of Health Behaviour Change Model: A framework for deciding which Behaviour Change Technique (BCTs) to use and when to use them.

¹⁷ NES (2023) MAP of Health Behaviour Change Learning Programme: Info for Practitioners, Managers and Commissioners. [MAP Brochure 2023 \(Final\).pdf](#)

Following successful delivery of MAP Healthy Beginnings training in 2021/22, which was aimed specifically at practitioners working in the early years, in 2022/23 the Health Improvement Team worked with NES to develop the capacity in the team to deliver MAP training. This included basic MAP and Healthy Beginnings MAP to support ongoing training within NHS Orkney beginning in 2022/23.

Suicide Prevention Training (PHP3)

The 'Cost of Living Crisis' may increase pressure on people, increasing the risk of mental ill health and suicide. The Health Improvement Team is represented on the National Suicide Prevention Network and the local Suicide Prevention Taskforce lead by Orkney Islands Council. The focus of work in the department under Public Health Priority 3 during 2022/23 has been on establishing the provision of relevant suicide prevention training across Orkney. A proposal for a sustained training approach based around the informed, skilled and enhanced levels of the National Mental Health Improvement and Suicide Prevention Framework. This sets out that the informed level provides all staff working in health and social care the knowledge and skills required to contribute to mental health improvement and the prevention of self-harm and suicide with this level being more broadly applied in any workplace, workforce or community. The skilled level provides 'non-specialist' frontline staff working in health, social care, the wider public and other services who have direct and/or substantial contact with people who may be at risk of mental ill health, self-harm or suicide with the knowledge and skilled required to make a contribution to mental health improvement and self-harm and suicide prevention. This level is recommended as an add on to the informed level. The enhanced level is for staff working in health and social care, and wider public services, who have regular and intense contact with people experiencing mental distress, mental ill-health, and may be at risk of self-harm or suicide and whose job role means they can provide direct interventions. The knowledge and skills required for practitioners at this level can vary dependant on role and context¹⁸. The proposal set out a training offer which could support this, but the training offer for NHS Orkney was designed to ensure comprehensive coverage and acquisition of the knowledge and skills set out in the framework as necessary at each level. It is the responsibility of individuals and their employers to ensure sufficient acquisition of the knowledge and skills required for their role. As part of training provision, a comprehensive risk assessment was carried out to support the online delivery of 3-hour informed-level 'Save A Life' suicide prevention and awareness training, which was adapted from a package developed by NHS Shetland based on Public Health

¹⁸ NES (2019) Mental health improvement and suicide prevention framework. [Mental health improvement and suicide prevention framework | Turas | Learn \(nhs.scot\)](#)

Scotland's Ask, Tell, 'Save A Life' suicide prevention animations. Within the department there are two facilitators who co-deliver the sessions, a co-facilitator to support the technical aspects of the training, and administrative support to manage bookings.

Four informed-level sessions were delivered in 2022-23 and 27 staff were trained across the NHS Orkney Public Health department and two third sector partners. These sessions are evaluated after each delivery and feedback is reviewed and incorporated into the sessions as appropriate.

A sub-group of the Strategic Community Learning Group was established to help strengthen training delivery capacity across local partners and NHS Orkney's Health improvement Team attend this. A scoping exercise has been carried out into the provision of Scottish Mental Health First Aid training and capacity to deliver this within Orkney. Online training for trainers is now available and will be explored in 2023-4 as a way of reducing reliance on external trainers and the associated cost burden.

Money Counts Training (PHP5)

The current 'Cost of Living Crisis' has made it more acutely important that practitioners in Orkney who support people are confident to raise the issue of finances and able to sign post individuals to appropriate support. The Money Counts leaflet and associated training is designed to enable practitioners to have these conversations with their clients and patients. The Money Counts work began in 2020/21 when NHS Orkney Public Health department received numerous requests for training on the topic of money worries. This training need was identified through increasing incidences of patients disclosing to staff their financial difficulties. Simultaneously the COVID-19 pandemic had produced a level of economic insecurity and the cost of living was rising. Highland Money Counts Partnership gave permission for local Orkney stakeholders, including Orkney Citizen's Advice Bureau and Social Security Scotland, to adapt and adopt 'Money Counts' training for delivery as well as the associated 'Worrying About Money?' cash-first referral leaflet co-designed with the Independent Food Aid Network (IFAN) which responds to an individual's food insecurity and reduces the need for charitable food aid. As of 28th July 2022, the 'Worrying About Money?' leaflet had been downloaded 257 times and the associated poster had been downloaded 158 times. This doesn't include the number of times the leaflet was viewed and not downloaded. In addition, the total number of free printed copies requested by 28th July 2022 was almost 4000 (3,935). A variety of organisations from across Orkney, including the ferry-linked isles, have requested printed copies of the leaflet.

Money Counts (Level 1) in Orkney is a 1-hour session designed to help frontline staff and volunteers to best use the 'Worrying About Money?' leaflet to support people struggling with money worries or financial crisis. The training aims to increase the participants understanding of poverty and its impact, understanding of the financial advice and support services available locally and nationally and confidence to support people to access advice and support services. Money Counts (Level 1) sessions in Orkney were delivered between May 2022 and October 2022. During this period there were seven trainers involved in the training delivery (one from Citizens Advice Bureau, two from Social Security Scotland and four from NHS Orkney Public Health). Each session was 1 hour and delivered by two of the trainers via Microsoft Teams. NHS Orkney Public Health took responsibility for the administrative elements of planning and coordinating the training delivery, including handling, storing and controlling the participant's personal information.

The training was open to all frontline staff and volunteers in Orkney and was advertised via email to key NHS Orkney, Orkney Islands Council and third sector colleagues who were asked to distribute the advert onwards, to appropriate staff. Adverts were also included in the NHS Orkney staff bulletins. Advertisement emails were sent to previous registrants who consented to hearing about future Money Counts sessions.

Between May 2022 and October 2022 nineteen 'open sessions' were advertised and sixteen were delivered. The causes of the three sessions not going ahead were staff shortages and a low number of participants registered, with participants from these sessions re-booked onto alternative sessions. The 'open sessions' were open for all frontline staff and volunteers to attend. Additionally, over this period, two 'closed sessions' were delivered to two staff groups who requested a session for their team/department. For the sessions offered between May 2022 and October 2022 106 people registered to attend Money Counts (Level 1) and 76 people attended sessions, representing a 72% attendance rate. Participants that attended the May - October 2022 sessions worked at a range of organizations and locations, including the ferry-linked isles. Both confidence to talk to someone about money and awareness of how to access support services for money worries were reported to have increased through participation in the training.

A 12-month post-attendance survey was created to gather the longer-term impact of the training as well as to gather feedback from the participants and provide an opportunity for them to suggest ideas for the future. Of the 126 participants who attended Money Counts between

February and October 2022, 92 consented to receiving an evaluation survey 12 months after their attendance at the training session, with approximately two thirds responding currently. Almost all respondents felt that the Money Counts training was relevant to their role and had used the ‘Worrying About Money?’ leaflet and/or poster in their role. Many responded positively to affirm the helpfulness of the leaflet in their work-based conversations about money worries.

Money Counts Training

The infographic features two stylized human figures. The figure on the left is purple and has two speech bubbles: one asking 'How can I help people access advice and support for money worries?' and another asking 'What advice and support on money worries is available to people?'. The figure on the right is teal and has a speech bubble stating 'Attending Money Counts training helped me feel more confident to ask about money worries!'.

Training Outline

Money Counts is a 1 hour session designed to help frontline workers and volunteers best use the [‘Worrying About Money?’ leaflet](#) to support people struggling with money worries or financial crisis

Learning Outcomes

- Increased understanding of poverty and its impact
- Increased understanding of the financial advice and support services available locally and nationally
- Increased confidence to support people to access financial advice and support services

Money Counts is delivered on Microsoft Teams

To book a space [click here](#) or scan the QR code (right)

For more information or if you have difficulties registering contact:
ork.healthimprovement@nhs.scot

Figure 3.13:

Working with Communities and our Partners

Alcohol (PHP4)

A study conducted by Public Health Scotland into alcohol sales and harm in Scotland during the COVID-19 pandemic found that between the start of the COVID-19 restrictions in March 2020 and May 2021, there were 17 units of alcohol sold per adult each week (16 of which were from off-trade premises). The authors of this study highlight that this level of alcohol represents enough to put every adult in Scotland over the low-risk weekly drinking guidelines¹⁹. The Cost of Living Crisis may have further changed and potentially exacerbated harmful alcohol related behaviours due to the pressure on individuals and changes in purchasing choices due to cost. Within Orkney, the Alcohol and Drugs Partnership leads the work relating to alcohol and drugs. NHS Orkney Public health Team remained a member of this group within 2022/23, contributing to the needs assessment work. Additionally, NHS Orkney Public health Team have continued in this time to give requested health related data to the Alcohol licensing Board in Orkney to allow data-informed decision making.

Cost of Living Crisis (PHP5)

The cost of living can be defined as the sum of money which is spent on a range of goods and services which are deemed as necessary for maintaining a lifestyle similar to the average in the rest of society. An analysis of the Cost of Living in Scotland completed in 2017 by the Community Analysis Division in the Scottish Government considered a number of factors as for impact on household income with a focus on low-income households. This work recognised the issue that people on low incomes are more likely to experience higher costs for goods and services than the rest of the population and that people living in rural and remote areas can face additional or increased cost for goods and services. This analysis reported that households in rural and remote areas:

- Spend more on a shopping basket including food, household goods and clothing.
- Are more reliant on car use to access jobs, supermarkets and shopping centres, leisure and social activities, as public transport options are more expensive and less frequent.
- Pay more for petrol and delivery costs.
- Pay more for energy consumption and live in houses with characteristics related to increased likelihood of fuel poverty.

¹⁹ Richardson E., Giles L. and Fraser C. (2022) Alcohol sales and harm in Scotland during the Covid-19 pandemic. *Public Health Scotland* [Alcohol sales and harm in Scotland during the COVID-19 pandemic \(publichealthscotland.scot\)](https://publichealthscotland.scot)

- Experience insufficient broadband speeds and coverage which may restrict online purchasing, access to online public services and payment methods²⁰.

As rural island living can increase the cost of living generally, the 'Cost of Living Crisis' could be more acutely impactful within Orkney and further increases in costs for goods and services, and the potential economic impacts this could have across the county, could reduce a person's ability to engage in health promoting behaviours as well as have an impact on mental health and wellbeing. Due to this, Orkney could experience a widening of health inequalities through the 'Cost of Living Crisis' which could impact on the population's health and the demand for health services in years to come. NHS Orkney, as a main employer and health service provider in Orkney has some opportunities to mitigate the impact of this crisis. NHS Orkney Public Health Team have worked with senior leaders in Orkney to raise awareness of the 'Cost of Living Crisis' potential impacts for health and wellbeing and the position that the health board is in to mitigate some of the impacts.

In addition, NHS Orkney Health Improvement Team have worked throughout 2022/23 with the Orkney Community Planning Partnership. Throughout this time, the Team have been an active member of the 'Cost of Living' multi-agency delivery group which sits under the Community Planning Partnership.

Community Engagement for Adult Healthy Weight Needs Assessment (PHP6)

Work is ongoing to improve weight management services available in Orkney. To do this, the importance of understanding what adults living with overweight or obesity in Orkney need and want was recognised. NHS Orkney's Health Improvement Team undertook a population survey and focus group discussions aiming to understand the potential service user's perspective. The survey focused on population attitudes towards a weight management service provided by NHS Orkney and information on the attitude towards weight management currently present in the Orkney population. Participants of the survey could indicate whether they would also like to participate in focus group discussions around this topic. These focus groups provided a more in-depth understanding of thoughts people in this community hold around weight management and the involvement of the NHS in this. This work informed an Adult Healthy Weight Needs Assessment which will be completed in 2023/24.

²⁰ Scottish Government (2017) Cost of Living in Scotland. Communities Analysis Division. [Cost of living analysis - gov.scot \(www.gov.scot\)](https://www.gov.scot/cost-of-living-analysis).

Health Improvement Team

As the COVID-19 pandemic was ongoing throughout 2022/23 the contact tracing workforce remained in place until September 2022. This brought additional members of staff in to the Health Improvement Team to support health improvement work when there were fewer outbreak situations occurring. The year 2022/23, was a recovery phase for the Health Improvement Team following the cessation of a lot of work during the heaviest pressures on health protection during the pandemic. The additional staff supported this recovery phase, and the team has worked hard to develop strategy and action plans to support the restarting and re-prioritising of workstreams in the wake of the pandemic. This was a difficult time in which staff were required to continue to support the health protection response whilst recover and renew health improvement work and re-ignite relationships with partners.

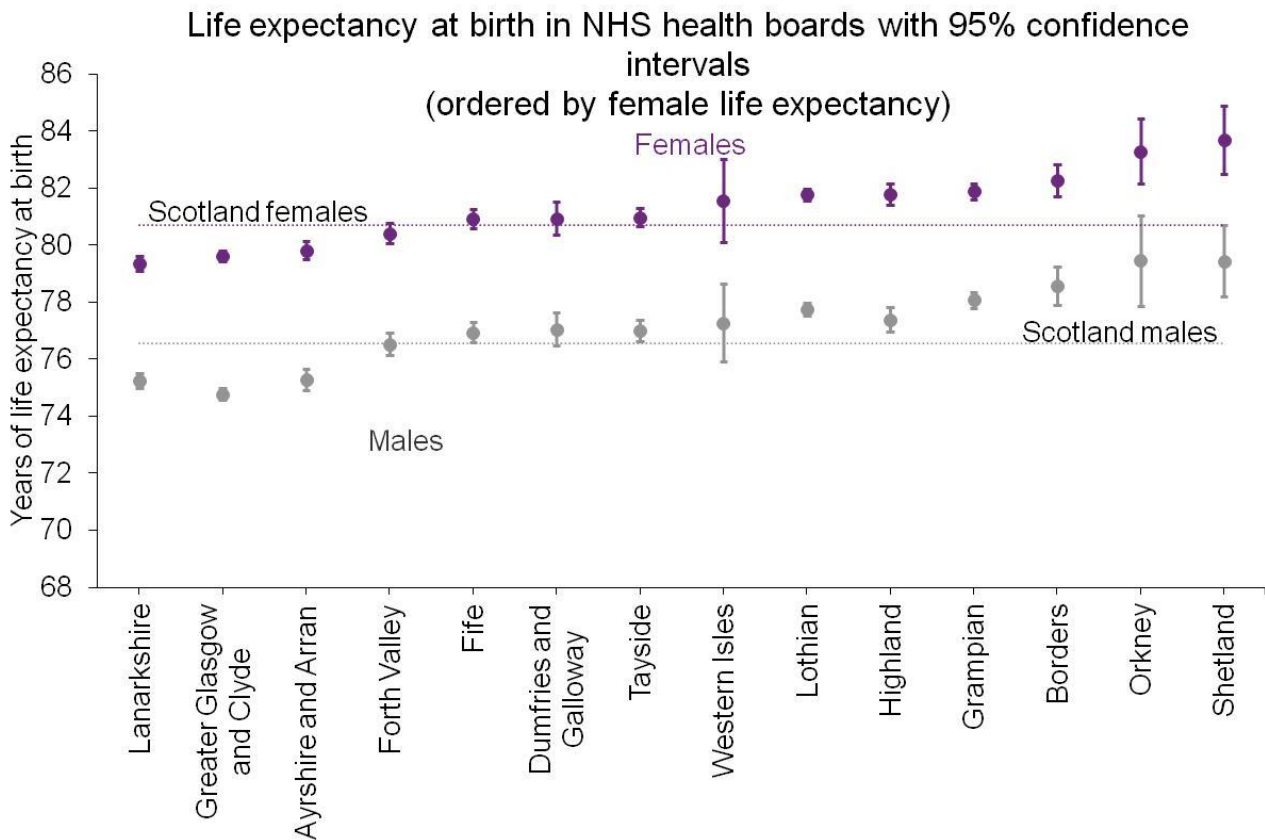
It is important that Orkney, as a small island board, is cognisant of sustainability pressures. The COVID-19 pandemic has highlighted the need for the Health Improvement Team to be able to flex to support the Health Protection Team in Orkney. The appropriate levels of staff within the Health Improvement Team have engaged in health protection training nationally and in an ongoing format locally. These staff are able to develop and maintain health protection skills through engagement in the health protection service both in and out of hours on a rota basis. Hannah Casey Public Health Manager commented “Leading on Health Improvement, I am truly grateful to everyone working within the health improvement remit for their collaborative team working, perseverance through a challenging time and dedication to improving the health of the population of Orkney”.

Chapter 4 Population health indicators

A number of key indicators are used at a population level when considering the overall health of the county.

Life expectancy in Orkney

The number of live births in Orkney in 2022 was 163 with 278 deaths occurring. In Scotland, life expectancy at birth for 2020-2022 was 76.5 years for males and 80.7 years for females. This is a decrease of 3 weeks for males and 5.7 weeks for females since 2019-2021. Until 2012-2014 life expectancy had been increasing in Scotland, but then the trend changed and life expectancy stopped increasing and began to plateau. Since 2018-2020, life expectancy has fallen each year. There are a number of likely reasons including the impact of COVID-19 and factors linked to poverty. Life expectancy at birth in Orkney is 83.3 years for females and 79.5 for males and remains higher than the Scottish average (80.7 for females and 76.5 for males) (Figure 4.1). Life expectancy was highest in Shetland at 83.7 (± 1.2) years for females and in Orkney at 79.5 (± 1.6) years for males.



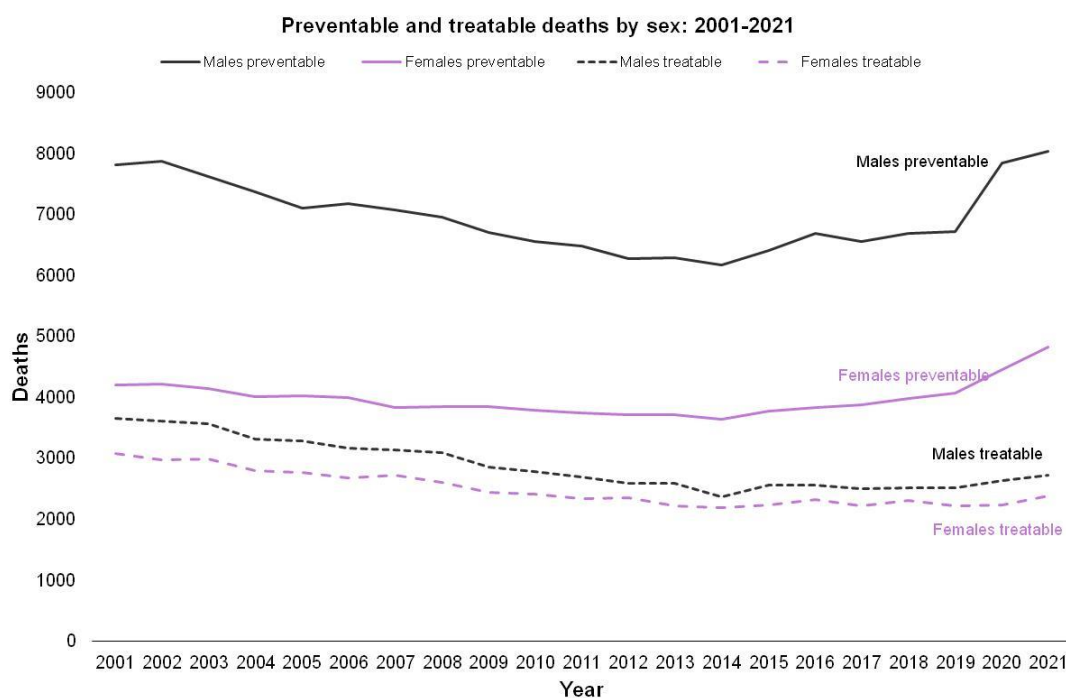
Source: NRS Scotland

Figure 4.1: Life expectancy at birth in health boards

Avoidable Mortality

Avoidable Mortality looks at deaths which are considered either preventable or treatable through public health interventions or timely and effective healthcare.

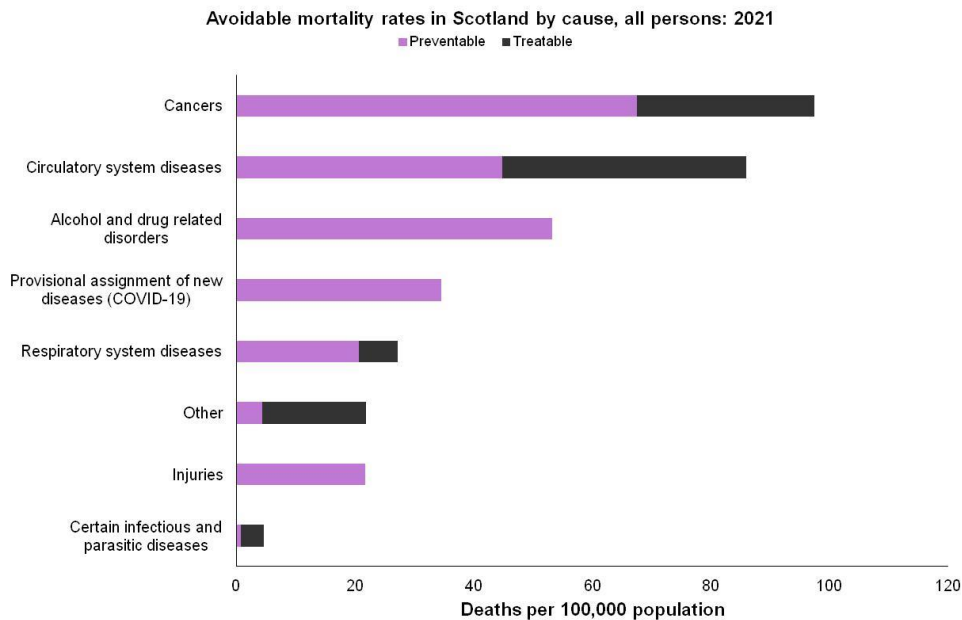
When discussing avoidable deaths, two main terms are used preventable and treatable mortality. Preventable mortality refers to deaths that can be mainly avoided through effective public health and primary prevention interventions. Treatable mortality refers to deaths that can be mainly avoided through timely and effective healthcare interventions, including secondary prevention and treatment. Avoidable mortality includes deaths defined as either preventable or treatable. In Scotland there is a rise in avoidable death in 2020 and 2021 (Figure 4.2).



Source: National Records Scotland

Figure 4.2: Preventable and treatable deaths over time

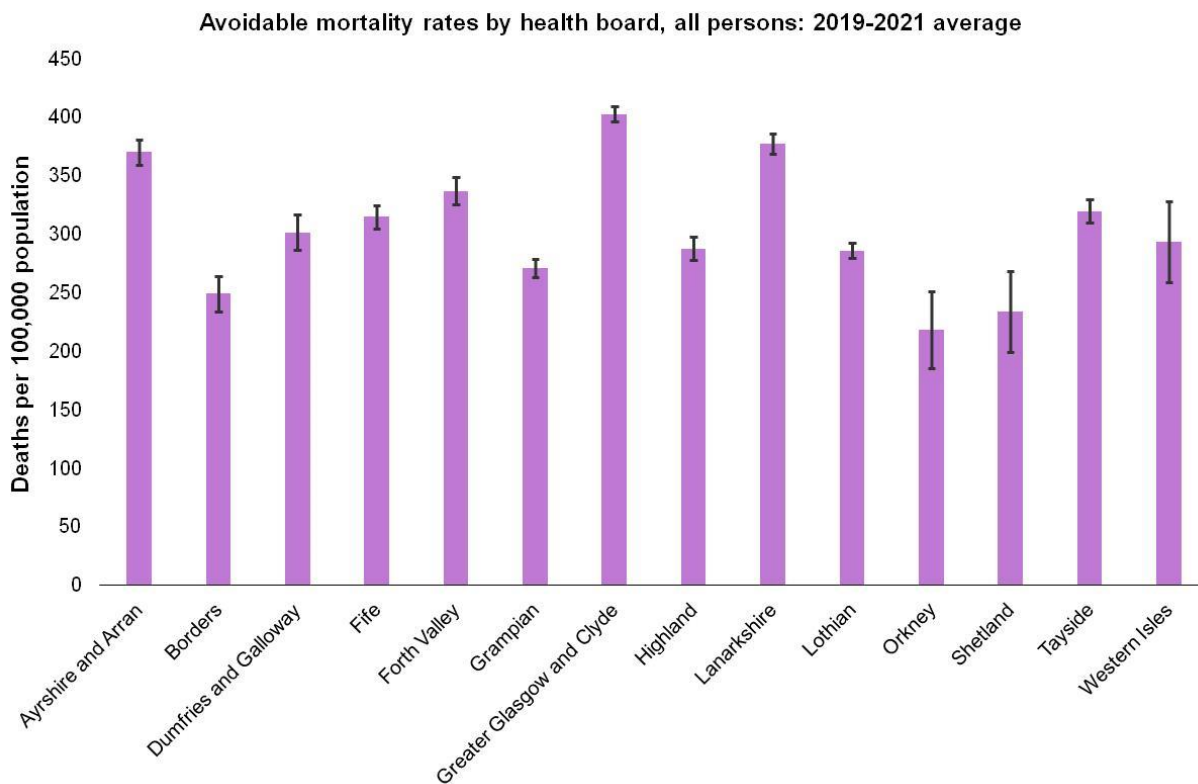
Cancers and circulatory system are the leading causes of avoidable mortality but COVID-19 has also played a significant role (Figure 4.3).



Source: National Records Scotland

Figure 4.3: Avoidable mortality rates in Scotland by cause

Orkney and Shetland had the lowest avoidable mortality rates of the health boards (Figure 4.4).



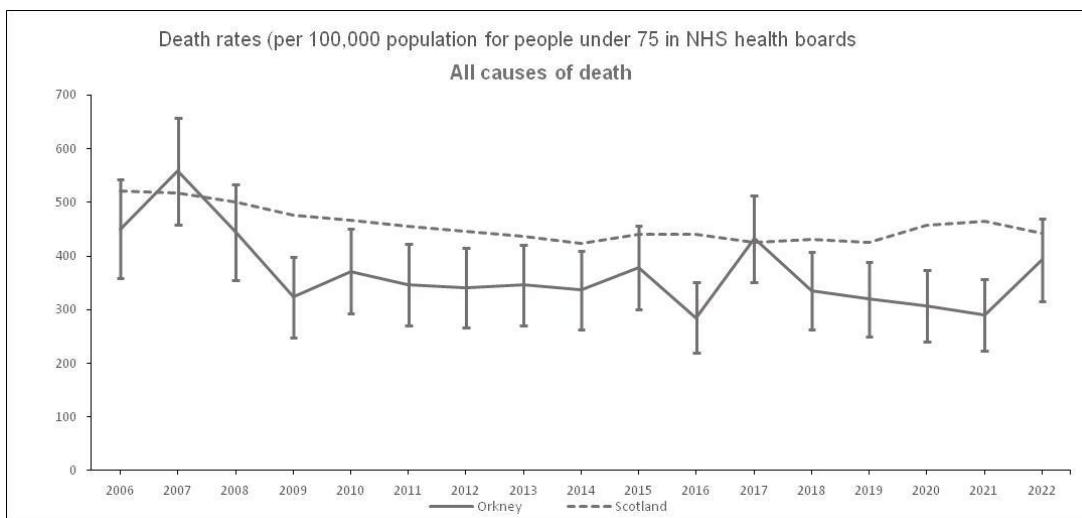
Source: National Records Scotland

Figure 4.4: Avoidable mortality rates by health board

Premature mortality

In 2022 there were 278 deaths at all ages recorded for Orkney, an increase of 9.4% from 2021. The leading cause of death for males in 2022 was ischaemic heart diseases (13.3% of all male deaths), followed by lung cancer and cerebrovascular disease (each 7.4%). The leading cause of death for females in 2022 was dementia and Alzheimer's disease (13.3% of all female deaths), followed by ischaemic heart diseases (8.4%).

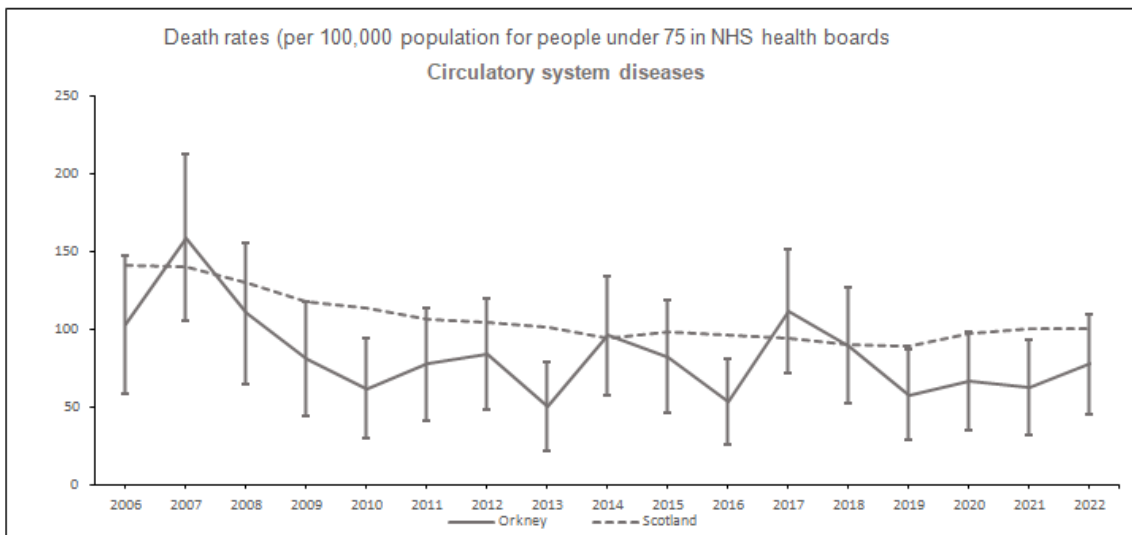
One quality indicator for the NHS focuses on addressing premature mortality. This is usually measured by looking at the death rates for people aged under 75. In general, the under 75 age-standardized death rate for all causes of death in Orkney has been lower than the Scottish rate (Figure 4.5).



Source: National Records Scotland

Figure 4.5: Under 75 death rate per 100,000 population for NHS Orkney and Scotland (dotted line)

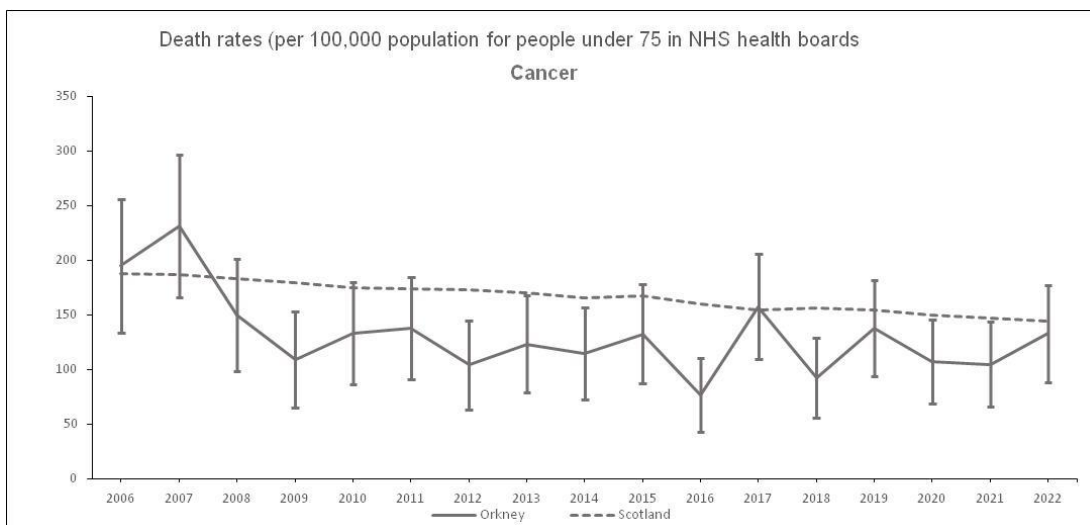
When we look at mortality for under 75 year olds for specific diseases we can see that in general the mortality rate from all heart disease in Orkney is lower than the Scottish rate (Figure 4.6).



Source: National Records Scotland

Figure 4.6: Under 75 death rate for circulatory disease per 100,000 population for NHS Orkney and Scotland (dotted line)

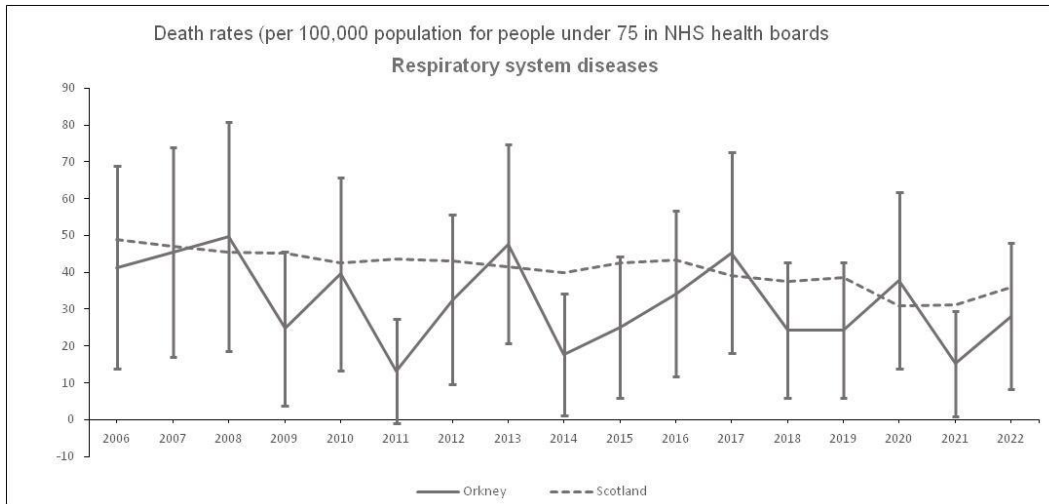
When we look at the mortality rate from all types of cancer we see a year to year variability for Orkney in recent years, but with the rate below the Scottish rate (Figure 4.7).



Source: National Records Scotland

Figure 4.7: Under 75 death rate for cancer per 100,000 population for NHS Orkney and Scotland (dotted line)

When we look at the mortality rate from respiratory system disease we see a year to year variability for Orkney with the rate generally below the Scottish rate (Figure 4.8).



Source: National Records Scotland

Figure 4.8: Under 75 death rate for respiratory disease per 100,000 population for NHS Orkney and Scotland (dotted line)

In general, the under 75 mortality rate is in general better than for Scotland, but needs to be monitored particularly in light of the pandemic.

Acknowledgements

My thanks to everyone in the public health department who contributed to this report and for all those who play a part in delivering public health services across the organisation and beyond. Special thanks goes to Ms Sara Lewis for her work in leading the department for part of the year.