NHS Ayrshire & Arran

Meeting:	**Ayrshire and Arran NHS Board**
Meeting date:	**Monday 12 August 2024**
Title:	**Joint Health Protection Plan 2024-2026**
Responsible Director:	**Lynne McNiven, Director of Public Health**
Report Author:	**Rachel Cloke, Consultant in Health Protection**

1. Purpose

This is presented to the Board for:
- Decision

This paper relates to:
- Annual Operational Plan (two year period)
- Legal requirement

This aligns to the following NHS Scotland quality ambition(s):
- Safe
- Effective
- Person Centred

2. Report summary

2.1 Situation

The Public Health etc. (Scotland) Act 2008 requires Health Boards to prepare plans relating to the protection of public health in its area. The plan is known as the Joint Health Protection Plan (JHPP) and is required to be updated every two years. The last plan was for the period, 2022 – 2024.

The Ayrshire and Arran Joint Health Protection Plan 2024-2026 has been produced by the Joint Health Protection Planning Group (JHPPG) comprising of representatives from NHS Ayrshire & Arran (Health Protection and Resilience Teams), the three Ayrshire and Arran Local Authorities (Environmental Health Services) and the Ayrshire Civil Contingencies Team.

National guidance was followed in the development of the JHPP.

2.2 Background

The Public Health etc. (Scotland) Bill received Royal Assent on Wednesday 16th July 2008 and is now an Act of the Scottish Parliament.

The Act requires Health Boards to prepare such plans relating to the protection of public health in its area as the Board considers appropriate. The plan is to be known as the Joint Health Protection Plan (JHPP).

Formal guidance states that the JHPP should cover a two year period and be reviewed on a two year basis and that the plan should be formally submitted to the NHS Board and relevant Local Authority committee for sign-off, via clinical governance / risk management committees.

The proposed JHPP for 2024 – 2026 for NHS Ayrshire & Arran has been generated following discussion with the Director of Public Health, local leads for key areas of Health Protection in the Public Health Team, the Emergency Resilience and Response Team, the Vaccination and Immunisation Team and the Environmental Health Officers across Ayrshire and Arran.

Key priorities have been nominated for each lead area to focus activity. The sections and related priorities in this document will be reviewed against the Health Protection work plan. Agreed priorities across the system will be used to generate engagement with the wider public to highlight key Health Protection messages depending on local epidemiology.

2.3 Assessment

The Plan gives an overview of Health Protection priorities, provision and preparedness within Ayrshire and Arran and describes how the Board and Local Authorities deal with the range of Health Protection topics.

Following approval by the NHS Board, the JHPP will be a public document available on the websites of NHS Ayrshire & Arran and the three Local Authorities and on request from the Director of Public Health or the Heads of Environmental Health at each of the Local Authorities.

2.3.1 Quality/patient care

There is no direct impact on quality of care. However, the JHPP will be used to generate the work plan for 2024 -2026 and review how we are doing in regards to the areas of health protection mentioned in the report.

2.3.2 Workforce

There is no direct impact on staff including resources, staff health and wellbeing.

2.3.3 Financial

There are no direct resource implications from the publication of the plan, although copies will be made available on request.

2.3.4 Risk assessment/management

There are no direct risks as a result of the production of this plan.

Any risks associated with the content of this plan are covered by NHS Ayrshire & Arran’s risk management arrangements and will be managed through the Public Health Governance Group.

2.3.5 Equality and diversity, including health inequalities

The 2024 – 2026 JHPP has been written with key stakeholders and the wider public in mind. The approach to the template sections in the JHPP aims to use prompts to promote clarity and key responsibilities for everyone in NHS Ayrshire & Arran.

As part of the work plan and associated review, the group will review the priorities seasonally and in conjunction with communications generate slides/posters of 3 key health protection priorities which incorporate accessible and easily understandable infographics/pictorial advice for the local community.

These will aim to be reviewed by a diversity focus group to ensure accessibility.

2.3.6 Other impacts

- Best value
    - Effective Partnerships
        i. Working with our partners in the three Local Authorities and other external agencies e.g. SEPA, allows for timely responses to any emerging issues. It avoids duplication and ensures that those with expert knowledge are part of any required response.
    - Governance and accountability
        i. The plan ensures that all partners are working to the same standards and legislation/guidance.
    - Use of resources
        i. Working with partners ensures that the workload is shared and that time is used efficiently and effectively. The different skill mix across all partner agencies is utilised.
- Compliance with Corporate Objectives
    - This is outlined within the plan.

2.3.7 Communication, involvement, engagement and consultation

The Board has carried out its duties to involve and engage external stakeholders where appropriate as above.

2.3.8 Route to the meeting

The JHPP has been considered by JHPP Group comprising of: Director of Public Health (DPH), Deputy DPH, Public Health Health Protection Leads, Health Protection Nurses, Emergency Resilience and Response Team, Vaccination and Immunisation Team, Public Health Data and Surveillance Team, Vaccinations and Immunisations Team and the Communications Team.

- The HPP Data and Surveillance Meeting: 29th April 2024
- The JHPP Group Meeting: 22nd May 2024
- Environmental Health JHPP meeting: 4th June 2024
- Data requests for JHPP Meeting: 4th June 2024 and
- Individual Lead Consultant meetings.

2.4 Recommendation

For decision. Members are asked to approve the Joint Health Protection Plan 2024-2026

3. List of appendices

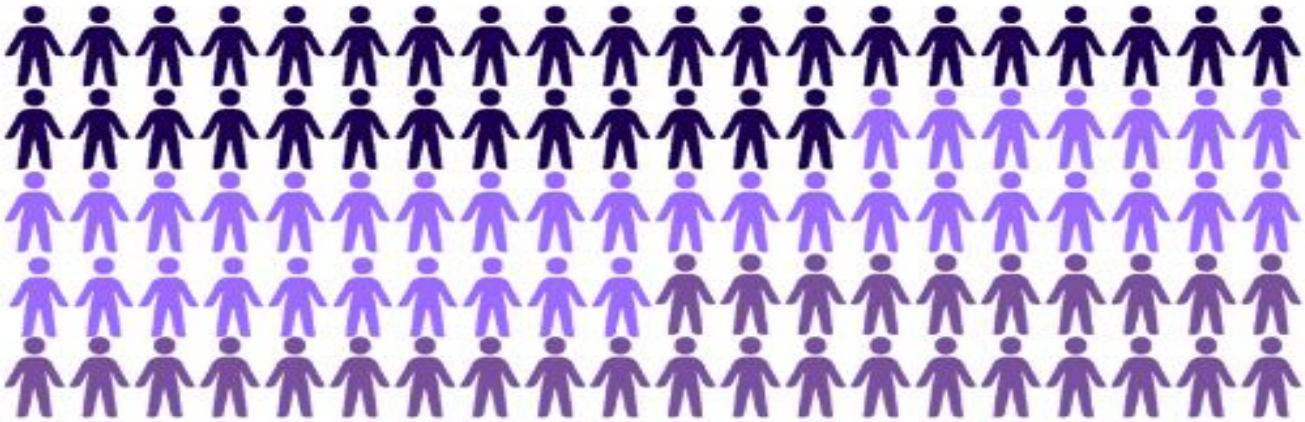
The following appendices are included:

Appendix 1 – Ayrshire and Arran Joint Health Protection Plan 2024-2026

NHS Ayrshire & Arran

Ayrshire and Arran
Joint Health Protection Plan

2024 – 2026



East Ayrshire Council
Comhairle Siorrachd Air an Ear

North Ayrshire Council

South Ayrshire Council
Comhairle Siorrachd Air a Deas

Public Health Scotland is Scotland's lead national body for improving and protecting the health and wellbeing of all of Scotland's people

Foreword:

Welcome to the latest version of the Joint Health Protection Plan (JHPP) for Ayrshire and Arran which we hope will be a valuable and accessible tool for the period covering 2024-2026. This document sets out the supporting legislation for the JHPP and details its remit in conjunction with the responsibilities for the organisations that contribute to ensuring its effective implementation.

This version of the JHPP aims to provide an update on where we are at and where we are going within Health Protection across Ayrshire and Arran. Each section in the document relates to an area of Health Protection. A template for each section aims to provide a supporting structure and a simple understanding of each Health Protection area, what it is, what that means for us locally and what we (in NHS Ayrshire and Arran and the three Local Authority Areas) can do; in conjunction with key stakeholders and members of the public to address and support proactive Health Protection work locally to keep our local community safe and well.

We have been working together to produce a snapshot of local health protection priorities and see this very much as a reference document, which we will refer back to quarterly in conjunction with the Health Protection Work Plan to review where we are at and what we can do to move forward.

As part of that process, we will be regularly summarising 3 key priorities from the sections below into easily understandable slides which will be shared across Ayrshire and Arran and will be accessible to all.

We look forward to working with you all and welcome feedback on the document, positive and negative, to help us in improving our understanding of the needs of the local population and how best we can proactively address and meet health protection need.

?sign Lynne McNiven DPH/?RC

Contents

Introduction

The Public Health (Scotland) Act 2008[1] requires NHS Boards, in conjunction with Local Authorities, to co-operate with each other and with other relevant persons in exercising the functions conferred on them by the Act. This includes the protection of public health, which means the protection of the community from infectious diseases, contamination or other hazards which constitute a danger to health. The front-line officers within Local Authorities and NHS Boards who must meet these challenges are Environmental Health professionals in Local Authorities and the professionals within the Health Boards' Public Health Departments.

As a result of this, the Health Board and Local Authority are required to produce a Joint Health Protection Plan (JHPP) providing an overview of health protection (Communicable disease, Environmental Health and Emergency planning, Resilience and Response) priorities, provision and preparedness for the NHS Board area. This plan has been produced by the Joint Health Protection Planning Group (JHPPG) comprising of representatives from NHS Ayrshire & Arran, the three Ayrshire Local Authorities (Environmental Health Services) and the Ayrshire Civil Contingencies Team (ACCT). The JHPP is a public document available on the websites of NHS Ayrshire & Arran and the three Local Authorities and on request from the Director of Public Health or the Heads of Environmental Health at each of the Local Authorities.

What is Health Protection?

Public health Scotland (PHS) describes Health Protection as the protection of individuals, groups and populations through the effective collaboration of experts in identifying, preventing and mitigating the impacts of infectious diseases and of environmental, chemical and radiological threats.

It is one of the three domains of public health, alongside health improvement and health services.

National priority topics in Scotland include[2]:

- blood borne viruses – such as hepatitis C
- emerging infections – such as Mpox and Ebola
- environmental public health – such as safe water and clean air
- gastrointestinal and zoonotic infections – such as E. coli and campylobacter
- immunisations and vaccine-preventable diseases – such as measles and pertussis
- public health microbiology, including reference laboratories
- respiratory infections – such as COVID-19 and influenza (flu)
- sexually transmitted infections – such as HIV and gonorrhoea

[1] http://www.opsi.gov.uk/legislation/scotland/acts2008/pdf/asp_20080005_en.pdf

[2] What is health protection? - Overview of health protection - Health protection - Our areas of work - Public Health Scotland

- travel and international health – such as Middle East Respiratory Syndrome (MERS) (reference)

Health Protection and Environmental Health:

Locally Health protection is a specialist function within the public health team and is responsible for the investigation and management of communicable diseases and environmental hazards in order to protect population health. In general, NHS boards are responsible for people and Local Authorities (Environmental Health) are responsible for premises.

The roles and responsibilities for Health Protection (Public Health) and the Local Authority Environmental Health Teams are summarised below:

The Health Protection Team in NHS Ayrshire and Arran work with key stakeholders to:

- Advise NHS and its partners on health protection policies and programmes;
- Deliver services and supports the NHS and other agencies to protect people from communicable diseases, poisons, chemical and radiological hazards;
- Respond to new threats to public health; and
- Provide a rapid response to health protection incidents and outbreaks via disease surveillance (lab reporting) and through NOIDs (Notification of Infectious Diseases) from GP Practices.

The Environmental Health Teams across North, East and South Ayrshire work closely with Health Protection and the NHS on a number of areas relating to environmental exposures which have an adverse impact on health. These include:

- Air quality monitoring - provision of automatic air sampling equipment which provides continuous monitoring at locations throughout the area including particulate monitoring/investigation.
- Private water supplies - monitoring, advice and inspection of private water supplies including sampling. Health improvement measures - food law interventions infectious disease investigation and diet and nutrition advice.
- Smoking prohibition checks and checks on the sale of tobacco and nicotine vapour products to under 18s
- Health and wellbeing campaigns, for example noise control and antisocial noise control.
- Healthy Working Lives - health and safety interventions and accident investigations
- Improving the built environment - for example identifying houses below the tolerable standard and using statutory nuisance powers to seek resolution; identifying unlicensed houses in multiple occupation, ~~and~~ houses rented by unregistered landlords and dealing with short term let applications to provide accommodation that is fit for purpose.
- Contaminated land use - identification and remediation strategies.

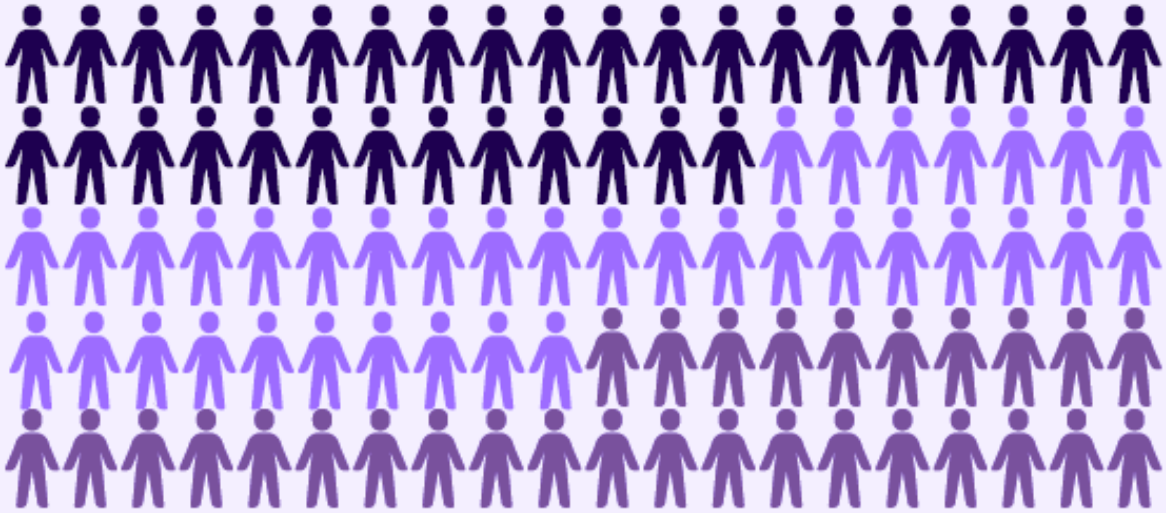
- Regulation of the use of sun beds.
- Regulation of skin piercers and tattooists**.**
- General public health issues - pest control and dog control, litter, fly tipping, dog fouling enforcement, nuisance control and abatement.
- Animal Health issues - including rabies, anthrax, TB, avian flu.

Local Priorities in NHS Ayrshire and Arran:

Understanding our population as it is now and how it is predicted to look is vital to reduce inequalities and improve health outcomes for everyone in Ayrshire and Arran. The following infographics aim to provide an understanding of the Population in Ayrshire an Arran at the mid-year in 2022. We will use the information below and information from our disease surveillance processes to help us understand what is happening in regard to Health Protection in our local population. This ultimately helps us to respond to increasing cases, incidents and outbreaks.

POPULATION DEMOGRAPHICS

AYRSHIRE POPULATION
365,440



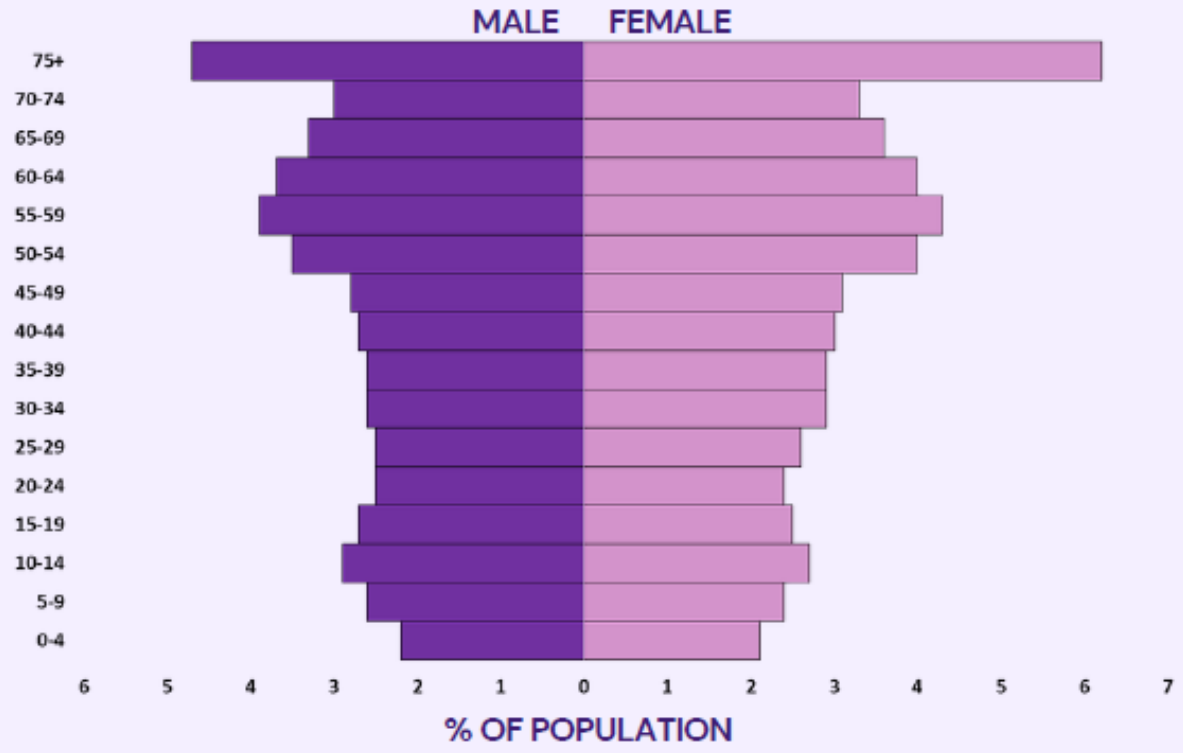
EAST AYRSHIRE NORTH AYRSHIRE SOUTH AYRSHIRE

Ayrshire and Arran's population is 365,440. The local authority profile is illustrated above. 36.5% of Ayrshire and Arran's population live in North Ayrshire, followed by 32.9% living in East Ayrshire.

POPULATION DEMOGRAPHICS

AYRSHIRE POPULATION

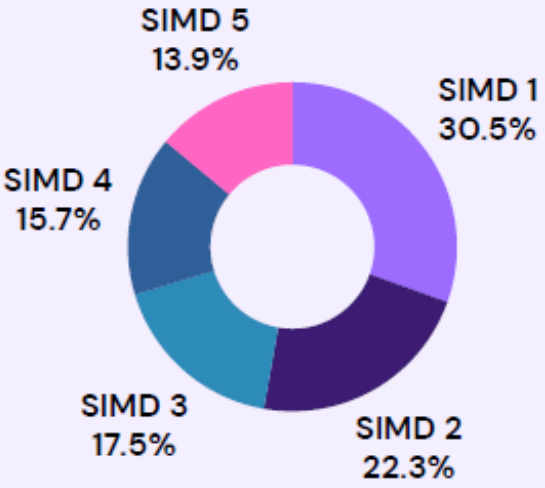
52% Female, 48% Male



Ayrshire and Arran's population is 365,440. The age profile is illustrated above. 52% of Ayrshire and Arran's population is female. 20.1% of the population is aged 19 or under. 55.9% of the population is aged between 20 and 64 years old. 23.9% of the population is aged 65 or above.

POPULATION DEMOGRAPHICS

DEPRIVATION BREAKDOWN



Scottish Index of Multiple Deprivation (SIMD) measures deprivation. SIMD 1 is the most deprived areas and SIMD 5 is the least deprived areas. 30.5% of Ayrshire and Arran live within the most deprived areas in SIMD 1.

POPULATION PROJECTIONS

2024 TO 2029

Ayrshire and Arran
1.3% decrease

East Ayrshire 1.1% decrease

North Ayrshire 1.8% decrease

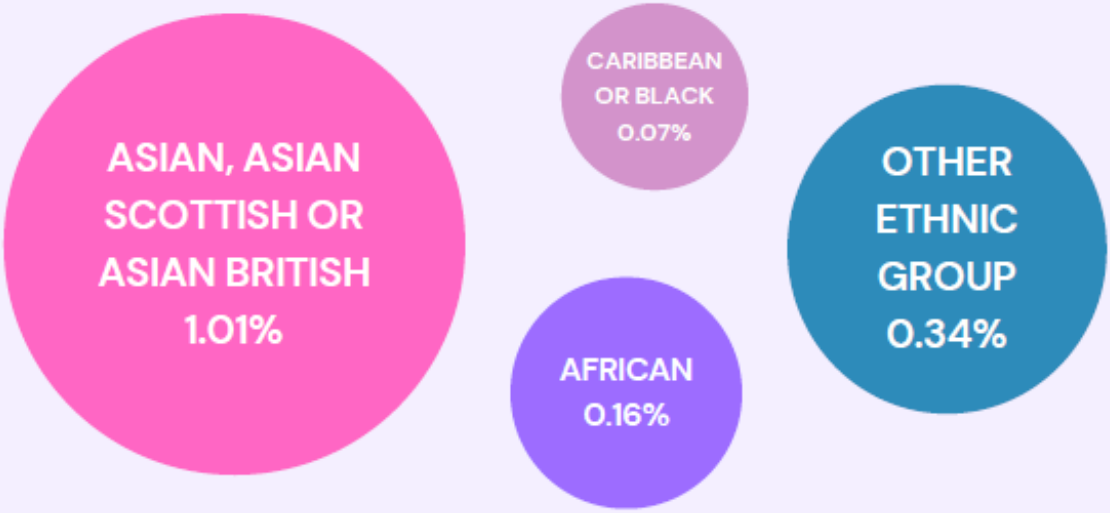
South Ayrshire 1.1% decrease

LIFE EXPECTANCY

75.28 YEARS
MALES

79.82 YEARS
FEMALES

ETHNIC MINORITY GROUPS



Lead Area: Avian Influenza

Priorities for 2024 -2026

1. Continue multiagency Ayrshire Resilience Approach to surveillance and disposal / uplifting of bird carcasses or live birds suspected of being infected with avian influenza.
2. Keep all Standard Operating Procedures up to date
3. Complete two table top resilience multiagency stress tests

Background: What is Avian Influenza?

Avian Influenza – commonly known as bird flu – is a flu virus that spreads among birds.

Avian Influenza (AI) viruses are classified as either:

- Highly pathogenic (HPAI) – which causes more severe disease in birds
- Of low pathogenicity (LPAI) – which causes less severe disease in birds

If you suspect any type of avian influenza in poultry or captive birds you must **report it immediately**.

Transmission:

Although Avian Influenza viruses do not pass easily to people from animals, they have the potential to do so which is a risk for those who have had close contact with infected birds, resulting in a 'flu-like' illness in humans which can become severe.

There are subtypes of avian influenza: H5, H7 and H9. These are most associated with illness in humans.

H5N1 (Avian Influenza) has also been detected in some dead wild mammals. The H5N1 is thought to have been transmitted via dead birds with H5N1, who are then eaten by wild mammals.

In the UK, H5N1 has been isolated from: foxes, otters, seals and dolphins

In other countries, H5N1 has been isolated from other mammals including mink and bears.

The link below provides Scottish Government information on any recent outbreaks.

https://www.gov.scot/publications/avian-influenza-outbreaks/ [3]

Avian influenza infection in birds occurs worldwide. Therefore, human infection from these viruses could occur anywhere in the world.

Nevertheless, most human cases have occurred in Asia and North Africa where birds are normally kept in close proximity to human dwellings.

[3] https://www.gov.scot/publications/avian-influenza-outbreaks/

This means that those most at risk from infection are those in close contact with farmed birds, wild birds, and dead birds.

The largest number of human cases have been reported in:

- China
- Egypt
- Indonesia
- Vietnam

The risk of contracting Avian Influenza through consuming bird products, for example, eggs or meat is currently considered to be very low.

Symptoms
Symptoms of Avian Influenza in humans usually occur three to five days following exposure to sick/dead wild birds infected with Avian Influenza and/or their environment e.g. feathers or faeces.
Symptoms can be similar to those of seasonal influenza, such as a fever, aching muscles and respiratory symptoms (cough, shortness of breath). Some individuals may develop conjunctivitis and gastrointestinal symptoms, such as diarrhoea and stomach pain. In some cases more severe symptoms can develop, such as pneumonia and acute respiratory distress syndrome.

Diagnosis
Diagnosing Avian Influenza requires collecting samples from the respiratory tract. These are sent to a diagnostic laboratory or reference laboratory for initial screening. Samples may be sent to a reference laboratory for subtyping.

Suspected cases
All suspected Avian Influenza in poultry or captive birds must be reported immediately to Scottish Government and APHA. Humans who come into close contact with infected birds should be clinically risk assessed by the health protection team. If humans subsequently develop flu or respiratory like symptoms they should be further risk assessed, swabbed and offered antiviral medication prophylaxis where appropriate.

Where are we now?
As part of pandemic influenza planning and prevention, the wider Ayrshire Local Resilience Partnership (ALRP) have agreed a consistent approach to reporting and managing the disposal of wild birds suspected of being infected with Avian Influenza. There are strong links in place with the Animal and Plant Health Agency (APHA) to ensure rapid access to testing.

A monitoring and reporting system is in place across Ayrshire; for the rapid identification of dead birds who are suspected of being infected with Avian Influenza.

Where do we want to be by 2026 and How are we going to get there?

- We will continue to work extremely closely with ALRP partners, Public Health Scotland and Animal and Plant Health Agency (APHA) to ensure we

have robust planning in place to safeguard the public from this High Consequence Infectious Disease (HCID).

- The Infections Network Executive Group (INEG) will oversee the governance of all related Standard Operating Procedures (SOPs), maintaining up to date information, training and guidance for all relevant colleagues.

- There is a clear communication and reporting route to the NHS Ayrshire and Arran Health Protection team to facilitate rapid human clinical risk assessment, testing and treatment. A Standard Operating Procedure (SOP) is in operation to guarantee role clarity and to ensure a standardised approach is taken by all agencies involved.

What do we need from key stakeholders/how will we work with them

- APHA in particular should continue to inform the health protection team of any suspected or confirmed cases of avian influenza as quickly as possible.
- Continue to strengthen the Ayrshire Local Resilience Partnership (ALRP) approach to ensure timely sharing of all information between partners.
- Continue to provide a pan-Ayrshire approach to identification and disposal of birds / carcasses that are suspected to be infected with avian influenza.
- Participate in regular resilience table top stress tests, education and training.
- Continue surveillance of bird carcasses across Ayrshire.
- Ensure all Standard Operating Procedures are up to date.

What can Members of the Public do to help us and themselves get there.

Members of the Public can help by reporting sick or dead wild birds to DEFRA (Department for Environment, Food and Rural Affairs) and by following the advice below to keep yourselves safe:

If you find at the same time:

- a single dead bird of prey, swan, goose, duck or gull or
- five or more dead wild birds of any other species

you should report them on gov.uk's report dead wild birds page[4]

Alternatively, you can phone the helpline: 03459 33 55 77.

Do not touch or pick up any dead or visibly sick birds that you find. Wild birds can carry several diseases that are infectious to people.

[4] Report dead wild birds - GOV.UK (www.gov.uk)

Lead Area: Blood Borne Viruses (BBVs)

Priorities for 2024 -2026

1 Meet the targets outlined in the national Hepatitis C Elimination by March 2025, and the HIV Transmission Elimination plan by 2030.

2 Further development of person-centred testing and treatment pathways for individuals living with BBVs, to improve patient outcomes, recovery, and reduce inequalities, in both community and prison settings.

3 Address increases in sexually transmitted infections, including gonorrhoea and syphilis.

Background to lead area:

The Scottish Government details the sexual health and blood borne virus (SHBBV) action plan for 2023-2026. The three BBVs are HIV, Hepatitis C (HCV) and Hepatitis B (HBV).

The five high level outcomes outlined in the plan are:

- fewer newly acquired BBVs and Sexually Transmitted Infections and fewer unintended pregnancies
- a reduction in health inequalities
- people living with BBVs live longer, healthier lives with good quality of life
- sexual relationships are free from coercion and harm
- a society where the attitudes of the public, media and professionals are positive, is non stigmatising and supportive

Note: most of the sexual health outcomes (reducing teenage pregnancy, reducing unintended pregnancies, reducing coercion and exploitation) are out with the scope of Health Protection and are not covered here.

Where are we now?

Hepatitis C elimination

The estimated number of people diagnosed and living with HCV in Ayrshire and Arran is 376. This is 9.3% of the estimated diagnosed population living in Scotland. Of the 1,116 cases newly diagnosed in 2021, 77 (7%) were in Ayrshire and Arran. Of the 1,018 cases newly diagnosed in 2022, 60 (6%) resided in Ayrshire and Arran.

The number of treatment initiations has remained static in the last three years as a result of Covid restrictions, but also due to most treatment-ready individuals having already completed treatment. Patients can be offered treatment even if they have active drug issues or complex comorbidities. However, many patients in this situation choose to delay treatment to a more appropriate time.

HCV Treatment Initiations:

Year	Prison	Hospital	**Total**
2021-2022	14	98	**112**
2022-2023	20	86	**106**
2023-2024	7	85	**92**

HIV transmission elimination

NHS Ayrshire & Arran reported 0 new HIV diagnoses in 2021, 7 in 2022, and <5 in 2023. The majority of new cases were among men who have sex with men (MSM). Advanced presentations (CD4<350) were rare. A larger number of patients have arrived as transfers of care, either from other areas of the UK or from overseas.

Over 95% of patients known to be HIV positive and living in NHS Ayrshire & Arran are receiving treatment and have undetectable viral loads, meaning that the risk of transmission is low or zero.

NHS Ayrshire and Arran					
Year 1 (July 2017 – June 2018)	Year 2 (Jul 2018 - Jun 2019)	Year 3 (Jul 2019 - Jun 2020)	Year 4 (Jul 2020 - Jun 2021)	Year 5 (Jul 2021 - Jun 2022)	Year 6 (Jul 2022 - Dec 2022)
50	59	44	61	83	57

Number of individuals prescribed HIV PrEP for the first time by NHS board of clinic, Scotland, 1 July 2017 to 31 December 2022[5].

NHS treatment based on the individual's entry to programme (first prescription given). *Year 6 is an incomplete year and the data are presented for six months from July to December 2022

Syphilis increases

The number of diagnoses of syphilis in NHS Ayrshire & Arran has increased from 23 in 2018, to 47 in 2023. More recent data suggest that this trend is continuing in 2024. There have been 200 cases in total diagnosed between 2018 and 2023, with the majority of cases associated with men who have sex with men (MSM). The local increase corresponds with the national picture across Scotland.

Syphilis has been described as the 'great mimic' and can present with a wide range of symptoms to different services and specialities. It is associated with significant morbidity if left untreated. A number of cases of congenital syphilis (mother to child infection) have also been noted during 2023/24, despite the offer of routine antenatal screening for syphilis infection.

Strategic oversight

Within NHS Ayrshire & Arran there is a BBV Programme Board, a Sexual Health strategic group, and a Genitourinary Medicine/Public Health group. All groups are chaired and led by Public Health, and bring together NHS and non-NHS partners to provide strategic oversight and delivery of BBV and SH pathways.

Where do we want to be by 2026 and How are we going to get there?

The main priorities for the next two years are:

- Deliver on the Scottish Government HCV elimination target by 2025 via improved prison testing and treatment pathways, and delivery of community treatment for HCV.

[5] https://publichealthscotland.scot/publications/hiv-in-scotland/hiv-in-scotland-update-to-31-december-2022/

- Work towards the Scottish Government HIV transmission elimination target by:
- Development of local testing guidance for HIV indicator conditions
- Implementation of a review and learning process for all new HIV diagnoses.
- Enhanced support for people living with HIV working with our third sector partners Terrence Higgins Trust (THT).
- Improve access to high quality safer sex advice and our free condom service via the Ayrshire & Arran Sexual Health website SHAYR.
- Continue to monitor trends in sexually transmitted infections, and develop a local surveillance process for congenital syphilis.

What do we need from key stakeholders/how will we work with them

We will continue to build relationships with our key stakeholders through established structures including the BBV Programme Board, GUM/PH meetings, Sexual Health strategic group, and SHBBV performance meetings. Stakeholders will be invited as new issues or relationships develop. The main actions we require (which are already in progress) are:

- Build on established relationships within recovery services through work carried out by Community Health Addiction Nurses
- Work with Terrence Higgins Trust (THT) Third sector provider contracted to provide Sexual Health & BBV Treatment support
- Engagement with BBV programme board to support development and review of BBV pathways.

What can Members of the Public do to help us and themselves get there

Members of the public can support our work by increased awareness of BBV, how infection can occur, and how they can reduce their risk of infection. Information is available on the SHAYR website STI's & Blood Borne Virus - Sexual Health Ayrshire (shayr.com). We would also like to encourage a non-judgemental approach to BBV and STI, to allow all of our citizens to access the prevention and treatment services they need without fear of stigma and prejudice.

Lead Area: Climate Change

Priorities for 2024 -2026

1. Work with the environmental sustainability, healthy places, and green health team to evaluate health protection team staff knowledge and understanding of the climate emergency
2. Nominate a climate change and sustainability champion to link with the environmental sustainability, healthy places, and green health team to explore and clarify the role of the health protection team in addressing climate change and sustainability, collaborating with resilience and environmental health colleagues
3. Support staff development through the mapping of relevant educational resources that can be used for the lunch time learning sessions and identifying opportunities for quality improvement, research or audit

Background to lead area:

Climate change is defined as the long-term increase in the Earth's average temperature and a large-scale shift in weather patterns.[6] In its most recent synthesis report, the Intergovernmental Panel on Climate Change states that human activities have led to a continued increase in global greenhouse gas emissions and unequivocally caused global warming.[7]

Global warming poses a threat to human and planetary health, the effects are already being seen and will continue to get worse if greenhouse emissions are not reduced and the global temperature continues to rise.[8]

Where are we now?

Public Health Scotland describes the negative health effects from climate change for the population of Scotland, including excess deaths from heat-related illnesses and cardiovascular, respiratory, cerebrovascular and mental health conditions; excess deaths from poor air quality; exacerbations of hay fever and asthma; direct and indirect health effects from flooding; indirect impacts to health and wellbeing; and indirect effects from global movement of money, commodities, migrating populations, changes to water and food supplies (creating a risk of food insecurity), and increased spread of some diseases.[9] The three main risks identified through the NHS Ayrshire and Arran climate change risk assessment and relevant to the health service are: overheating in wards and clinical areas,

[6] "What is Climate Change?," 8 July 2024. [Online]. Available: https://www.metoffice.gov.uk/weather/climate-change/what-is-climate-change.

[7] "AR6 Synthesis Report Climate Change 2023," 8 July 2024. [Online]. Available: https://www.ipcc.ch/report/ar6/syr/

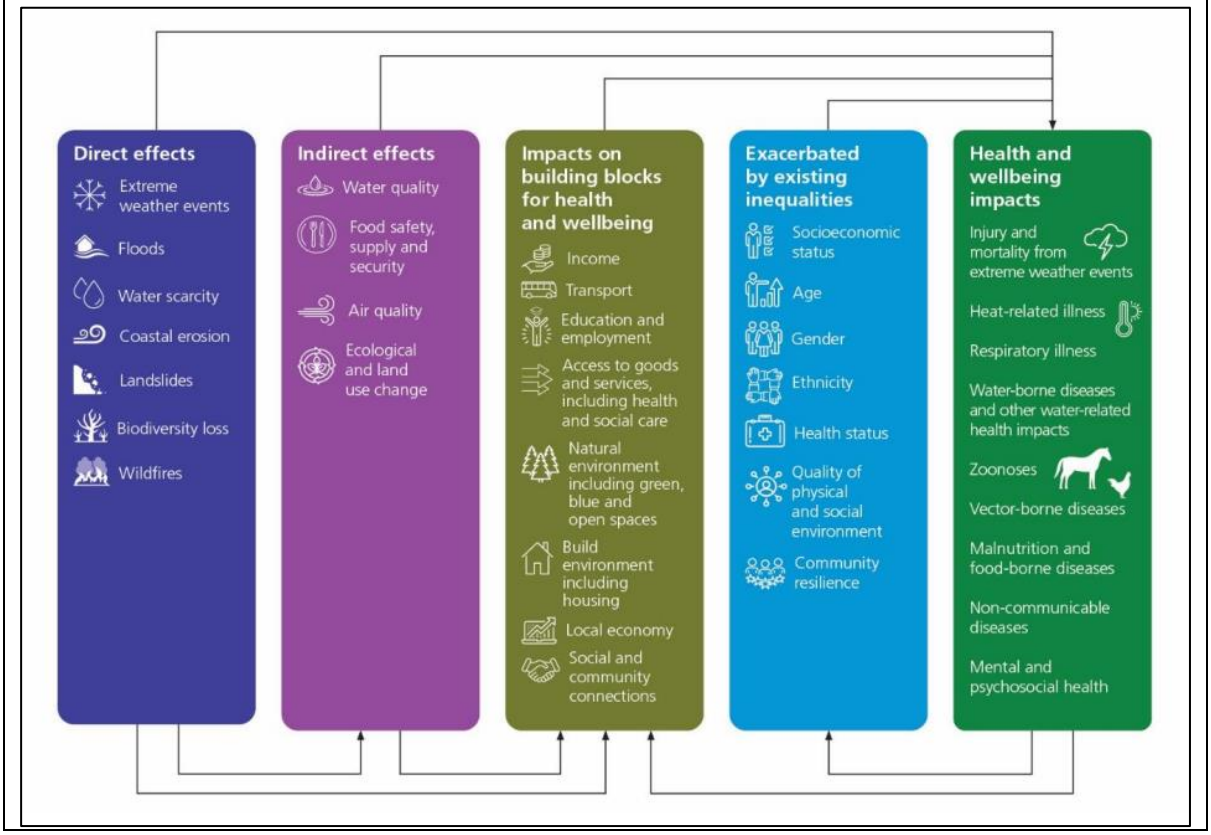
[8] UK Government Effects of Climate Change," UK Government, 20 June 2023. [Online]. Available: https://www.gov.uk/guidance/climate-change-explained

[9] "Public Health Scotland climate change and sustainability strategic approach 2023 - 2026," 26 September 2023. [Online]. Available: https://publichealthscotland.scot/media/22286/phs-climate-change-and-sustainability-strategic-plan_final_english_sept2023.pdf

service disruption due to flooding, and the prioritisation of - and access to - people in the community who are affected by adverse weather events.[10]

Where do we want to be by 2026 and How are we going to get there?
NHS Ayrshire and Arran is committed to address climate change through mitigation activities (things that can be done to help slow down global warming) and adaptation measures (actions that help to protect from the impacts of climate change), as noted in the NHS Ayrshire and Arran Climate Change and Sustainability Strategy 2021 – 2032 [5]. The Environmental Sustainability, Healthy Places, and Green Health Work Plan outlines the key priorities for the public health department to address climate change in 2024 – 2025. Through its role in communicable disease control and close working with the resilience team and environmental health colleagues, the health protection team play a key role in supporting adaptation and mitigation measures within the public health department.

What do we need from key stakeholders/how will we work with them.
The table below is taken from the PHS climate change and sustainability strategic approach 2023 -2026, which fits in well with our local timeline and objectives. The table will focus our joint work with key stakeholders to ensure that we deliver a sustainable and focused action plan which we will facilitate through the 2 subsequent areas as shown beneath the table.



[10] A. K. H Gemmell, "NHS Ayrshire and Arran Climate Emergency and Sustainability Report," 5 February 2024. [Online]. Available: https://www.nhsaaa.net/wp-content/uploads/2024-02-05-BM-P15-Climate-Emergency-and-Sustainability-report.pdf

PHS strategic plan: PHS climate change and sustainability strategic approach 2023–2026 (publichealthscotland.scot)

1. **Increase staff knowledge and awareness of climate change**
   - We will do this by working with the environmental sustainability, healthy places, and green health team to evaluate health protection team staff knowledge and understanding of the climate emergency
   - We will support staff development through the mapping of relevant educational resources and deliver these through the weekly lunch time learning sessions

2. **Support staff action towards a sustainable healthcare system**
   - We will do this through nominating a climate change and sustainability champion to link with the environmental sustainability, healthy places, and green health team to explore and clarify the role of the health protection team in addressing climate change and sustainability, collaborating with resilience and
   - We will identify opportunities for quality improvement, research or audit projects that are relevant to climate change and support sustainability

What can Members of the Public do to help us work towards a more sustainable healthcare system?

Get informed:

There are many resources available that explain climate change and the things we can do as individuals to reduce our greenhouse gas emissions. Many activities that reduce greenhouse gases are also better for our health, such as walking to an appointment rather than driving. Take a look at Home | Net Zero Nation or NatureScot for further information.

Find out what is happening locally:

Spending time outdoors in nature has been shown to improve mental health and wellbeing, perhaps there is a local walking group or gardening hub near you that you could join? For more information take a look at Ayrshire Climate Hub (energyagency.org.uk)

Lead Area: Drug Risks and Harms

Priorities for 2024 -2026

1. Develop and implement a drug risks and harms response that details the issues and responses required
2. Review the current HMP Kilmarnock In Hours SOP for responding to drug risks and harms in light of Public Health Scotland guidance and replicate with adjustments for out of hours and community scenarios.
3. Develop confidence and skills across the Health Protection Team to run PAG/IMT processes with confidence.

Background to lead area:

People use drugs (deemed illicit under current legislation[11]: Misuse of Drugs Act 1971) to differing degrees across income groups, in different settings and for different purposes.

Taking a public health approach to understanding and responding to the associated risks and needs of a predominantly criminal justice response to the supply and use of a wide range of substances brings challenges.

The Public Health Department within NHS Ayrshire and Arran seeks to respond effectively and in a timely manner to drug-related events occurring within the health board, alongside our partners that deliver essential services to people who use drugs within the community.
This process has been developed through a trauma-informed, harm reduction and data-driven lens.

The illicit drug market is known to respond swiftly and creatively to legislative attempts to control the supply side/raw materials used in the production of street drugs. As control measures are introduced new products replace those previously known with risks understood. Recent months have seen significant adjustments to street benzos with bromazolam[12] offsetting Etizolam and the increasing prevalence of Nitazines (synthetic opioids)[13] in street heroin. Both these substances have Public Health Scotland RADAR alerts along with the emergence of Xylazine[14] which also presents risks to drug users.

The presence of new and emergent illicit street drugs requires an adaptive and timely response. A Bromazolam event at HMP Kilmarnock in May 2023 brought this into sharp relief. Work has begun to detail what the Public Health response will involve and the role of Health Protection in response both in and out of hours.

Where are we now?

Priority One:

- Develop and implement a drug risks and harms response that details the issues and responses required

[11] Misuse of Drugs Act 1971 (legislation.gov.uk)
[12] New benzodiazepines – bromazolam (publichealthscotland.scot)
[13] RADAR Alert form (publichealthscotland.scot)
[14] Xylazine – newly detected drug (publichealthscotland.scot)

Priority Two:

- Review the current HMP Kilmarnock In Hours SOP for responding to drug risks and harms in light of Public Health Scotland guidance and replicate with adjustments for out of hours and community scenarios.

Priority Three:

- Develop confidence and skills across the Health Protection Team to run PAG/IMT processes with confidence.

Where do we want to be by 2026 and How are we going to get there?

- To have an embedded awareness of drug related risks and harms and related responses/roles of respective partners.
- To have a knowledgeable and confident Health Protection workforce that can respond to drug related events across closed setting and community scenarios.
- To have a suite of SOPs that support a Health Protection response with partners as indicated.

What do we need from key stakeholders/how will we work with them

- Engagement in the development of SOPs and related scenario planning/exercises.

What can Members of the Public do to help us and themselves get there?

- To understand the risks involved with illicit drug use. In the absence of drug checking there is no safety or certainty over the product being consumed.
- To understand the challenges experienced by people with problematical dependent drug use in their day to day lives and to reduce their use or stop altogether.
- To support and understand the importance of harm reduction messaging and alerts in response to incidents as the present.
- Drug checking can be accessed anonymously through wedinos.org[15]
- Concerns over drug dealing can be reported anonymously on crimestoppers-uk.org[16]

[15] https://www.wedinos.org/about-us
[16] https://crimestoppers-uk.org/give-inf

Lead Area: E Coli Bacteraemia (ECB) in A&A

Priorities for 2024 -2026

1 Explore the factors behind the high healthcare-acquired and community ECB rates in A&A

2 Work with hospital Infection Prevention Control Team (IPCT) and the Care Home Professional Support Team (CHPST) to address some of the issues identified

Background to lead area:

There are high ongoing levels of healthcare-acquired and community E Coli Bacteraemia (ECB) in NHS Ayrshire & Arran (ECB is a Urinary Tract infection with sepsis). Work is ongoing to investigate these cases and review the current practices in acute hospitals and care homes and in primary care to help to address the factors that are identified.

Where are we now?

The data below from Antimicrobial Resistance and Healthcare Associated Infections (ARHAI) indicates high ongoing levels of ECB in NHS Ayrshire & Arran and the outlier status of NHS Ayrshire & Arran regarding healthcare-acquired ECB in the third quarter of 2023/24. We know this because of the higher rate (52.8) in Ayrshire and Arran in comparison to Scotland data which indicates a rate of 34.7 in Quarter 3.

Healthcare acquired ECB numbers and rates A&A and Scotland 2023/24 (ARHAI data)

	Ayrshire and Arran		**Scotland**	
	rate	cases	rate	cases
Quarter 1	44.1	51	37.6	581
Quarter 2	41.5	48	37.8	581
Quarter 3	52.8	61	34.7	544
Quarter 4		49	Available 2 July	Available 2 July

Community-acquired ECB rates and numbers A&A and Scotland 2023/24 (ARHAI data)

	Ayrshire and Arran		**Scotland**	
	rate	cases	rate	cases
Quarter 1	48.0	48	36.7	502
Quarter 2	57.0	54	41.6	574
Quarter 3	45.2	40	32.0	442
Quarter 4		46	Available 2 July	Available 2 July

Where do we want to be by 2026 and How are we going to get there?

- To reduce healthcare-acquired and community ECB rates in A&A
- A look back exercise of healthcare-acquired ECB in the third and fourth quarters of 2023/24
- To improve the joined up working between acute and care homes to address the factors that might contribute to ECB in these settings
- To try to involve primary care in ongoing efforts to improve the effectiveness of diagnosis and prescribing for urinary tract infections and ECB

What do we need from key stakeholders/how will we work with them. • Training for staff in acute settings (catheter management) • Training for staff in care homes (catheter management, commodes, management of urinary pads, promote genital area hygiene). • Primary care role in the diagnosis and treatment of urinary tract infections and ECB • Developing information leaflet for care homes staff and residents' relatives / visitors.
What can Members of the Public do to help us and themselves get there? • Support collaboration across hospital IPCT and the CHPST and primary care in the diagnosis, management, and prevention of urinary tract infections and ECB across NHS Ayrshire & Arran.

Lead Area: Environmental Health and Communicable Disease Control

Priorities for 2024 -2026

Background to lead area:

Health Protection Remit

North, South & East Ayrshire Councils

The health protection remit lies within the Environmental Health and Trading Standards Services of North, South & East Ayrshire Councils and includes:

1. **Food Safety, Standards & Security** (Food Law Inspections, Food Complaint Investigations, Composition, Labelling & Allergens, Food Sampling, Import/Export Food Controls, Port Health, Tobacco Control)
2. **Environmental Public Health** (Communicable Disease, Infection Control, Health Protection, Pest Control, PWS, Swimming Pools, Smoking in Public Places, and Animal Health & Welfare)
3. **Pollution Control** (Statutory Nuisance, Contaminated Land, Bathing Waters, Air Quality, Radiation Monitoring, Working with SEPA)
4. **Occupational Health & Safety** (Investigations of Accidents/Complaints, Inspections, Events, Risk Assessment, Occupational Health)
5. **Waste Management** (Waste Regulation/Disposal/Treatment, Sewage Disposal, Hazardous Waste, Litter Control, Fly Tipping)
6. **Housing & Built Environment** (Building Defects, Tolerable/Repairing Standards, Caravan Sites, Houses in Multiple Occupation (HMOs), Building Disrepair, Consultee)

In the main, this is statute-led with regards to prioritisation.

The Public Health etc. (Scotland) Act 2008 has placed responsibilities on Local Authorities, in the area of mortuaries and the disposal of bodies, it enables Scottish Port Health Authorities to implement the International Health Regulations at ports, it makes provision relating to the use of sunbeds: and it amends the law on statutory nuisances to include insect infestations, artificial light nuisance and water on land. It also enables Local Authorities to offer fixed penalties, as an alternative to prosecution, to persons who fail to comply with abatement notices.

GI Infections

One of the most common health protection issues managed daily is gastro-intestinal infections including food borne infection. These are investigated and managed jointly by the HPT and the three Ayrshire Local Authorities (East Ayrshire Council, North Ayrshire Council and South Ayrshire Council) to identify the source, control the infections, and reduce the risk of further spread. Key to achieving this is joint working in a range of programmes, among which is the investigation, epidemiological follow up and surveillance of gastro-intestinal infections.

Where there is any indication of an outbreak, a multi-disciplinary, multi-agency meeting convened by a CPH(M) will manage any incident. Since the pandemic there has been many issues affecting food businesses that has had major impacts on resources. There continues to be significant financial and staffing constraints within local authorities which has a knock-on effect on service delivery within Environmental Health. Due to these factors, there has been a decrease in compliance with food legislation and a related increase in the risk of gastro-intestinal

infections as a result. This has implications for the workloads of both HPT and Environmental Health services and the prioritisation of work.

Where are we now?

GI Infections

HPT have reviewed and updated the gastro-intestinal standard operating procedure with input from Environmental Health. This was finalised and circulated to relevant parties resulting in some changes to the way notifications of cases of infectious disease are communicated, highlighting priority cases in order to meet agreed timescales. This protocol will be reviewed at least once every 2 years.

Health Protection Remit

Local Authorities have outlined priorities within their recovery plan, setting out goals and expected timescales for completing those priorities.

- Food Law restart programme
- Unable to fully comply with Food Standards Scotland Code of Practice and Practice Guidance due to varying service priorities and demands.
- Other service demands
- Staff shortages due to an aging demographic and lack of skilled workforce.
- Prioritising training programmes due to national shortages of skilled Environmental Health Practitioners.
- Looking at massive budgetary cuts over the next three years, which is causing uncertainty of how and what services will be delivered and what this will look like which makes planning very difficult.

Where do we want to be by 2026 and How are we going to get there?

- Continue to work with HPT and other stakeholders/customers in order to deliver quality Environmental Health Services with dwindling resources.
- Work on delivering quality services over quantity. Redefining what can be done within EH may change over the next 3 years as budgetary cuts start to impact service delivery.

What do we need from key stakeholders/how will we work with them?

- Continue to communicate with all relevant parties, keeping them abreast of any changes that may affect how EH work and how services are prioritised.

What can Members of the Public do to help us and themselves get there.

- Assist the Environmental Health Teams across Ayrshire and Arran by engaging in follow up with the team for example: engaging in requests for completion of health protection questionnaires to enable greater understanding of disease risks and mitigations.

Lead Area: Environmental Hazards

Priorities for 2024 -2026

1 Tobacco and nicotine vapour products including smoking in hospital grounds

Background to lead area:

Environmental Health and Trading Standards have been enforcing controls on indoor smoking since 2006. Workplaces include vehicles. Checks are also made on the sale of Tobacco and Nicotine Vapour products which includes vapes. 2022 saw the commencement of enforcement of smoke-free health board facilities and grounds, within 15m of the building. In the JHPP 2018-20, e-cigs were seen as an alternative to tobacco for those wishing to move away from smoking. The influx of single use vapes, marketed as small and discrete units, with bright colours and flavours saw children as young as primary school age, buying and becoming addicted to the nicotine contained within these products.

Where are we now?

Local Authority teams have been carrying out test purchasing visits to address concerns over the sales of vapes to under age children. Local Authorities and Public Health responded to the UK Government consultation on tobacco and vapes and were supportive of the actions proposed. We continue to act on complaints about indoor smoking in premises and workplaces.

Joint working with the Quit your way team to carry out education visits to schools and to help train youth workers regarding the potential harms of vape use. The new legislation on smoking within 15m of hospital buildings was introduced in 2022. On 'No Smoking Day' in 2023, a joint initiative highlighting the new law was held at Crosshouse Hospital. Enforcement Staff from East Ayrshire Council engaged with individuals smoking within the grounds, with the Quit Your Way team present to support individuals. The findings were discussed and used to inform next steps for NHS.

Where do we want to be by 2026 and How are we going to get there?

By 2026, we would like to see the progressive changes proposed by the previous UK Government in force. This would mean among other things, a ban on single use vapes and a ban on the purchasing of tobacco products for those born after 2009. We would like to see continued compliance with the restrictions on smoking indoors and in workplaces and an improvement in reported instances of smoking in hospital grounds.

What do we need from key stakeholders/how will we work with them?

We need any new UK Government to continue with the proposals to bring forward a bill in the new parliamentary term which addresses the concerns about disposable vapes and introduces a ban on the purchase of tobacco products.

We will continue to work to publicise the health impacts of vape and tobacco use, using Trading Standards and Quit your Way team to get the message out to school children, youth workers and others, targeting the population with the highest increase in vape use.

NHS Ayrshire and Arran will continue to work with LA Environmental Health teams on smoking in hospital grounds.

What can Members of the Public do to help us and themselves get there.

- Local Campaigns to continue in schools.
- Awareness raising using social media

Lead Area: Environmental Health

Priorities for 2024 -2026

1 Proliferation of unregulated non-surgical cosmetic procedures

Background to lead area:

An increasing number of concerns are being raised about non-healthcare professionals providing injectable cosmetic and other treatments with a risk of medical complications.

Non healthcare practitioners, predominantly with beauty backgrounds, are providing treatments which were intended to be provided in a clinical setting and by medically trained personnel. Often these non-healthcare workers have limited or inadequate training provided by companies with a similar lack of knowledge and competence in what they are teaching. Furthermore, they are a popular choice as they are able to provide these treatments at a much lower cost than private clinics who are paying to be regulated to a high standard (by Health Care Improvement Scotland).

At present such procedures and treatments are not regulated in Scotland. The Civic Government (Scotland) Act 1982 (Licensing of Skin Piercing and Tattooing) Order 2006 does not cover them, and premises only require to be registered with Health Care Improvement Scotland as a private clinic if a prescribed health care professional is working there.

Therefore there are a range of invasive treatments that do not receive regulatory oversight. Although the treatments are widely viewed as a work activity covered by health and safety law, use of the Health and Safety at Work Act 1974 to deal with such concerns has limitations and EHOs are not trained in the various novel procedures in use.

Where are we now?

Scottish Government ran a consultation exercise in Jan 2020 requesting views on extending the current skin piercing/tattoo licensing regime to some cosmetic procedures. However subsequent legal changes were put on hold during the pandemic.

Recently, in response to the increasing number of concerns being raised about non-healthcare professionals providing injectable cosmetics and other treatments with a risk of medical complications, the Health and Safety Co-ordinating Group (HASCOG) formed a Short Life Working Group (SLWG) on non-surgical cosmetic interventions.

The SLWG is producing guidance for EHO's required to deal with complaints or issues noted during skin piercing licencing visits (where applicants provide non licensable treatments too). The guidance includes enforcement advice to ensure appropriate action is undertaken in a consistent manner.

In addition to enforcement guidance, the SLWG are producing a leaflet for practitioners aimed at improving standards and legal compliance.

Where do we want to be by 2026 and How are we going to get there? The Scottish Government is actively trying to bring in new legislation to address this, however although this is in progress, it is not expected to be in place until at least 2025. In the meantime, EHO's are having to deal with complaints relating to these premises in terms of S3 of the Health and Safety at Work Act 1974. However this is usually in response to concerns as this type of business is not on the Health and Safety Executive's (HSE) list of priorities, therefore does not generally receive proactive interventions. Proactive engagement with service providers is needed to improve standards and compliance in advance of any legislative changes is required.
What do we need from key stakeholders/how will we work with them? Engage with service providers using resources produced by the SLWG and liaise with Scottish Government to ensure new requirements are fit for purpose and can be implemented without further delays.
What can Members of the Public do to help us and themselves get there. Local campaigns could be considered using nationally agreed promotional resources to ensure the public are aware of the lack of oversight and allow more informed choices by advising clients what to look for before they book unregulated treatments.

Lead Area: Gastrointestinal Infections

Priorities for 2024 -2026

1. E. Coli (0157/STEC)- Responding to national guidance changes and quality improvement of existing pathways
2. Cryptosporidium- Raising Awareness of risks and mitigation measures associated with cryptosporidium
3. General GI Infections- Responding to workforce challenges with EHO teams and ensuring high standard in the prevention of GI infections.

Background to lead area:

Gastrointestinal infections occur from a variety of different organisms, those of primary public health importance include E.Coli (0157 /STEC), salmonella, cryptosporidium, shigella and campylobacter. Many of the notifiable causes of GI infections can spread easily from person to person, which makes the management and prevention of these infections important.

Action across different settings is required to effectively prevent, manage and reduce the spread of GI infections. This includes food businesses, leisure and entertainment settings, and health and social care settings.

Some GI infections can be acquired out with the local area, including through foreign travel, therefore members of the public who develop symptoms during or after travel should seek advice from appropriate healthcare professionals to allow for timely identification of infections.

Where are we now?

The health protection (HPT) and environmental health (EHO) teams across Ayrshire and Arran work together to respond to notifications of GI illness in the population. Investigation of individual cases will help identify possible sources of infections, high risk contacts and provide opportunities to give advice and reduce the risk of further cases.

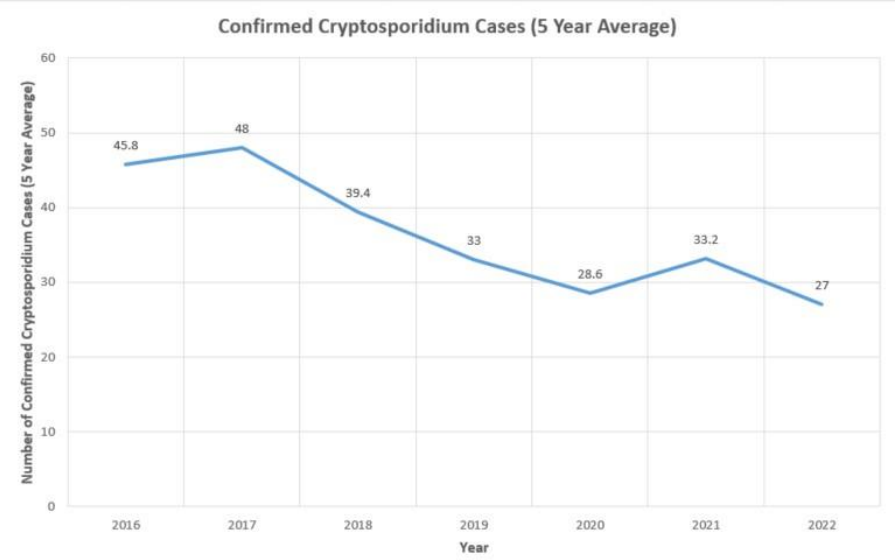
Three priority areas within GI infections have been identified, based on local data, recent outbreaks and current service pressures. These are:

1. Raising awareness of the risks and mitigation measures associated with cryptosporidium
2. Responding to national guidance changes and quality improvement of existing pathways for E. Coli (0157/STEC)
3. Ensuring high standards in the prevention of GI infections in a landscape of workforce challenges for EHO teams.

In 2023, an outbreak of cryptosporidium was identified associated with a farm type setting in Ayrshire. In total 29 primary and 2 secondary cases of cryptosporidium were associated with this outbreak over the course of four weeks. Outbreak investigation identified that poor hand hygiene practices at the setting were likely to have been the primary driver for cases, and that person to person transmission (via household type settings) may also have contributed.

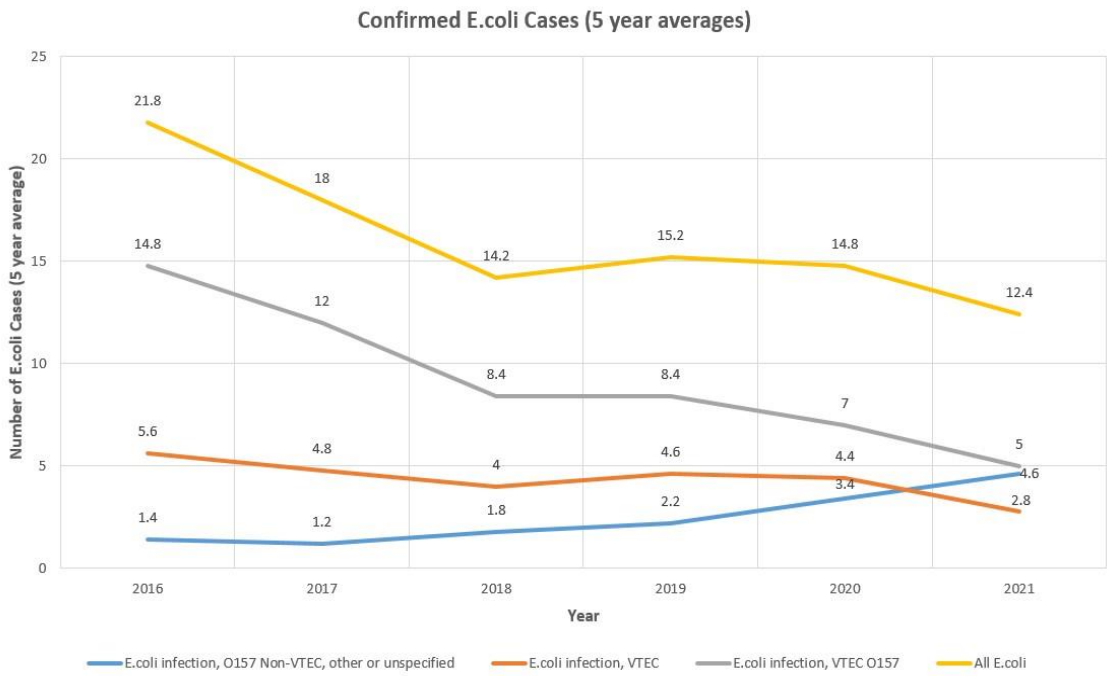
Cryptosporidium shows seasonal peaks in Spring and Autumn, with the spring peak, often driven by exposure to farm animals like lambs. Public awareness of

the risks associated with farm animals is low, therefore seasonal and targeted campaigns may be appropriate to share preventive messages amongst the population. Pre-school and school aged children may be particularly susceptible due to the higher likelihood of contact with animals via farm parks, lamb petting events or other such activities so dissemination via school and childcare settings may be an effective way to promote best practice advice.



The 5-year rolling average of cases of cryptosporidium have shown a downward trend between 2016-2022 and therefore work to continue to promote this trajectory will be important. Data from more recent years, particularly 2023 with the confirmed outbreak may interrupt this trend but this is not yet available to report. This is consistent with the trend noted nationally, and the interruption of activities which may facilitate transmission due to the COVID-19 pandemic in 2020/21 was noted. Gastrointestinal & Zoonoses (publichealthscotland.scot)

Shiga-toxin producing E.Coli (STEC) 0157/non-1057 remains a significant public health concern for the population due to the risk of severe complications of infection and low infective dose which can mean rapid spread in outbreak situations.



Similarly to cryptosporidium, NHS Ayrshire and Arran has seen an overall decrease in the 5 year rolling average of cases across the different categories of STEC infection, although non-0157 cases have seen a gradual increase in recent years. This is in line with the national pattern observed and it is not yet clear why an increasing number of non-1057 cases are being identified, and this is still relatively small numbers overall.
Gastrointestinal & Zoonoses (publichealthscotland.scot)

Guidance disparities exist between the Public Health Scotland and UKHSA approach to public health management of STEC infections. UKHSA guidance has moved to a more in-depth risk assessment process based on more microbiological markers. Similar testing is provided in Scotland via the SERL reference laboratory in Edinburgh, however it is not currently utilised for public health management purposes (except in specific complex cases). A national guidance review is underway in Scotland which is considering the UKHSA approach, alongside lab capacity and local Scottish epidemiology to consider the future direction for STEC management in Scotland.

Environmental Health Officers are a key component in the effective management of gastrointestinal infections. They provide an essential preventive function through the enforcement of food regulations in regulated premises and the provision of advice and guidance to local business and settings. Over a number of years the workforce in EHO teams has reduced with no resultant reduction in workload. A key priority moving forward will be to maintain the current high standards of prevention and response to GI infections in spite of workforce challenges. This will require a partnership approach with HPT to be able to manage the respective functions and prioritise core activities.

Where do we want to be by 2026 and How are we going to get there?

1. Proactive and targeted awareness raising campaigns for members of the public are produced and promoted in response to seasonal GI infection risks, this may include
    a. Spring campaign- risks via farm animal exposures
    b. Travel safety abroad (may also link to vaccination)
    c. Food and hand hygiene
    d. Specific outbreak responses as needed
2. Quality improvement of existing processes for GI infection follow up as a HPT/EHO collaborative which may include, but is not limited to:
    a. Reviewing and improving surveillance questionnaires used by both teams to provide optimal utility for high quality data collection
    b. Reviewing Standard Operating Procedures for the management of GI infections
    c. Working closely with stakeholders such as microbiology, infection control and occupational health to have clear processes and pathways across the organisation
3. Adequate response to guidance changes
4. Continued surveillance of GI infections including data exceedances and changes in local and national patterns
5. Robust responses to outbreak or incidents at both a local, regional and national level.

What do we need from key stakeholders/how will we work with them*

The HPT and EHO teams will continue to utilise the already close working relationships that exist to proactively follow up cases of GI infection to provide support to cases, identify possible sources of infection and interrupt chains of transmission. They will also be key partners in quality improvement of pathways, processes and future developments of proactive work plans.

The EHO teams have an important role in encouraging and enforcing high food hygiene standards in relevant business, such as food production and food sale premises. The owners, operators and employees of these businesses have a responsibility to work with the relevant agencies and maintain high standards in line with best practice guidance.

Additional stakeholders will require to work with both HPT and EHO teams to prevent outbreaks, optimise the response to outbreaks and reduce potential spread of GI infections. This might include settings where animals are present such as farm parks and petting zoos, or areas where food is served or consumed.

What can Members of the Public do to help us and themselves get there.

Have good hand and food hygiene, this is especially important when handling raw ingredients.

Following the advice of the Food Standards Agency on the 4 principles of food hygiene:

1. Cooking
2. Chilling
3. Cleaning
4. Cross-contamination

Food hygiene at home | Food Standards Agency

This is important when cooking or eating in settings outside of the kitchen, such as barbecues, picnics or outside spaces.

Hand hygiene around animals is another important measure that the public can adopt to avoid illness. Many animals can carry the organisms which make humans unwell, and some of these are not removed by using alcohol hand gel. Therefore, it is really important that after coming into contact with animals or their environment that hands are washed using soap and water. This is also important if using raw pet food,

Some people may become ill after travelling abroad, it is important that if you are unwell when returning from a holiday abroad that you adopt good hygiene practices and stay away from work or other high risk activities (such as swimming) until you have recovered for at least 48 hours. If you work in a healthcare and social care environment you may need to stay away from work longer- seek advice from your healthcare professional and employer before returning to work.
Gastroenteritis | NHS inform
Diarrhoea | NHS inform

Lead Area: Viral Haemorrhagic Fevers (VHF)

Priorities for 2024 -2026

1. Continue developing a multiagency Infections Network Executive Group (INEG) approach to maintaining an effective Viral Haemorrhagic Fevers (VHF) plan along with associated training and development for staff.
2. Ensure VHF Plan is up to date
3. Complete two table top resilience multiagency stress tests

Background: What are Viral Haemorrhagic Fevers (VHF)?

Viral haemorrhagic fevers[17] are severe and potentially life-threatening viral diseases that are endemic in parts of Africa, South America, the Middle East and Eastern Europe. Environmental conditions in the UK do not support the natural reservoirs or vectors of any of the haemorrhagic fever viruses. All recorded cases of VHF in the UK have been acquired abroad, with the exception of a laboratory worker who sustained a needle-stick injury. There have been no cases of person-to-person transmission of VHF in the UK to date of publication of this guidance. The incubation period for VHF is usually 5–7 days, but can range from 2-21 days.

Fever is the defining common symptom, other clinical features depend on the specific virus. Severity of illness is variable, but all VHFs are generally regarded as high consequence infectious diseases (HCIDs)[18] due to a low infective dose, high mortality rate and lack of effective specific antiviral treatment.

The risk of imported cases is very low, but it is possible for travellers from an outbreak area to arrive in Ayrshire and Arran while incubating the disease. Fever in persons who have travelled to VHF outbreak areas is most likely due to a more common infection such as malaria or typhoid fever, but clinicians should consider the possibility of VHF in people returning from high risk areas who develop fever.

Transmission of VHF

There is no risk of transmission during the incubation period. Viral load is typically below detectable levels during the asymptomatic phase of illness, and **there is no role for testing of asymptomatic individuals.**

Once symptomatic, infection can spread from person-to-person and all body fluids such as blood, urine, stool, vomit, saliva, cerebrospinal fluid (CSF) and semen are infectious. **Transmission is more likely in the later stages of disease.**
VHF viruses are not thought to be transmitted by the respiratory route and do not penetrate intact skin. VHF viruses are readily inactivated by soap and water or by alcohol-based hand rubs.

Health Care Workers caring for VHF patients are at higher risk of exposure to infective bodily fluids and all staff looking after individuals with suspected or confirmed VHF should wear personal protective equipment (PPE) and be familiar with safe donning and doffing procedures.

[17] Viral haemorrhagic fevers: origins, reservoirs, transmission and guidelines - GOV.UK (www.gov.uk)
[18] High consequence infectious diseases (HCID) - GOV.UK (www.gov.uk)

Anyone handling specimens, e.g. laboratory staff, are also at increased risk of infection, and safe sampling procedures must be followed to minimise exposure risk from clinical samples.

Symptoms of VHF
The illness is characterised by fever defined as a core body temperature ≥37.5ºC. Other symptoms include headache, joint and muscle aches, sore throat, and intense weakness. Stomach cramps, diarrhoea and vomiting may occur. Some individuals develop a rash, red eyes, hiccoughs, and bleeding due to deranged blood clotting (e.g. from nose or mouth, blood in diarrhoea or vomit).
In severe cases, the illness progresses to multi-organ failure and death.

Screening and Monitoring of Returning Travellers
The UK Health Security Agency (UKHSA) provides the Returning Workers Scheme (RWS)[19] which monitors the health of those who travel to areas in which VHF occurs endemically for work. It is available to any business or organisation with staff who travel to the UK from affected areas. This includes humanitarian and healthcare organisations, as well as media and other commercial companies that are sending workers to settings where they might be exposed to VHF.

On return to the United Kingdom (UK) registered workers are screened by UKHSA and put in to one of three risk categories according to their exposure history. The UK Health Security Agency (UKHSA) liaises with Public Health Scotland (PHS) if a registered worker is travelling to Scotland. PHS will make local Health Protection Teams (HPTs) aware of Returning Workers resident in their area, and monitoring arrangements are set up in line with the UKHSA categorisation.

VHF Disease Risk Assessment
The ACDP guidance 'Management of Hazard Group 4 Viral Haemorrhagic Fevers and Similar Human Infectious Diseases of High Consequence'[20] is used to assess febrile individuals returning from a VHF endemic or epidemic country.
Travax[21] provides up to date travel risk information for health professionals (free registration).

Where are we now?
As part of Viral Haemorrhagic Fever (VHF) / High Consequence Infectious Disease (HCID) planning and prevention, the Infections Network Executive Group (INEG) have agreed a consistent approach to managing suspected or confirmed cases of VHF and a multiagency plan is agreed and in place (2024).

Clear communication and reporting routes between the INEG are active and will facilitate rapid, safe clinical risk assessment, testing and treatment is in place and the NHS AA VHF Plan is operational which will guarantee role clarity and a standardised, swift approach is taken by all agencies involved to achieve rapid clinical control of the situation.

[19] https://www.gov.uk/guidance/ebola-returning-workers-scheme
[20] https://www.gov.uk/government/publications/viral-haemorrhagic-fever-algorithm-and-guidance-on-management-of-patients
[21] Home - TRAVAX

Where do we want to be by 2026 and How are we going to get there?
The NHS Ayrshire and Arran Public Health team will continue to strengthen the INEG approach to multidisciplinary working and regularly monitor the effectiveness of the VHF Plan. Regular training and educational sessions including the effective use of Personal Protective Equipment (PPE) along with 'real world' stress tests relating to viral haemorrhagic resilience planning will be part of the health protection training plan over the next 2 years.

- UKHSA and PHS in particular should continue to inform the NHS AA Health Protection team of any returning workers at greater risk of VHF infection as quickly as possible.
- Continue to provide a pan-Ayrshire approach to the safe management of VHF through regular attendance at INEG
- Engage with wider partners to ensure the VHF Plan continues to be effective and up to date.
- All partners should take responsibility to inform the INEG of any relevant, upcoming issues on the horizon.

What do we need from key stakeholders/how will we work with them.

- We will continue to work extremely closely with INEG partners, Public Health Scotland and UKHSA to ensure we have robust planning in place to safeguard the public from High Consequence Infectious Disease (HCID).

- The Infections Network Executive Group (INEG) will oversee the governance the VHF Plan, maintaining up to date information, training and guidance is available to all relevant colleagues.

What can Members of the Public do to help us and themselves get there.

Fit for Travel[22] is a free public access website providing up to date health information for the UK public on avoiding illness and staying healthy when travelling abroad.

[22] Home - Fit for Travel

Lead Area: Environmental Health, Legionella

Priorities for 2024 -2026

1 Legionella in Schools

Background to lead area:

Legionella is a bacteria that causes Legionnaires' disease, a serious lung infection. Legionnaires' disease is caused by inhaling tiny droplets of water that contain the bacteria. It's an uncommon illness but can be very serious when it occurs. The bacteria can thrive in places like hotels, hospitals, or offices where they have entered the water supply.[23]

An emerging issue over the last 12 months has been Legionella found in the water systems of schools within Ayrshire. A small number of schools have been found to have legionella present in samples taken in the school.

This has been an incidental finding in each school. Sampling was carried out by contractors; following works being carried out or following a complaint with regard to discolouration. All water in the system was closed off to allow a clean, flush and disinfect to be carried out. Re-sampling was carried out and a negative result was achieved.

Where are we now?

Contractors carrying out work in schools across Ayrshire are asked to ensure that all sampling is taken following any works, as well as routine samples.

Where do we want to be by 2026 and How are we going to get there?

1. Find out if this is a localised issue or whether there is a common problem within schools. Is there a connection between age of schools, or different storage systems?
2. Creation of a toolkit to help not only Environmental Health Officers respond to future similar events, but also help out colleagues in Education and Maintenance Services.

What do we need from key stakeholders/how will we work with them?

Property Maintenance sections of Local Authorities need to ensure sampling is routinely carried out in Schools (and other areas in the community). Education Services need to ensure they have Plans in place to cover potential school (or part school) closures. Both services to need to work together with Environmental Health and ensure good communication so that all partners are kept updated. Information to be provided on storage systems in the previously affected schools and provide sampling plans.

Liaise with health boards in other areas with regard to good practice and discussion about how they have managed similar Legionella positive water testing in schools.

What can Members of the Public do to help us and themselves get there.

At this point, members of public will not be involved directly. It will be an internal matter requiring agreements with NHS A&A PH teams/ LA Services.

[23] Legionnaires' disease - NHS (www.nhs.uk)

However, LAs may wish to come up with a set of comms that can be issued quickly following any incident. As well as an information sheet for elected members.

Lead Area: Resilience (EPRR)

Priorities for 2024 -2026

1 Review existing internal plans and develop new ones as required by new threats and risks

2 Review existing external plans and develop new ones as required by new threats and risks

3 The development, delivery and planning of a training & exercising programme

Background to lead area:

The Civil Contingencies Act 2004 and the Civil Contingencies Act 2004 (Contingency Planning) (Scotland) Regulations 2005 and accompanying non-legislative measures came into force on the 14th November 2005. This act is aimed to deliver a single framework for civil protection in the United Kingdom capable of meeting the challenges of the twenty-first century. The Act is separated into two substantive parts: Local Arrangements for Civil Protection (Part 1) and Emergency Powers (Part 2).

The Act lists the NHS as a Category 1 responder, and as such, places a number of duties on NHS Ayrshire and Arran including:

- assess the risk of emergencies occurring and use this to inform contingency planning
- put in place emergency plans
- put in place business continuity management arrangements
- put in place arrangements to make information available to the public about civil protection matters and maintain arrangements to warn, inform and advise the public in the event of an emergency
- share information with other local responders to enhance co-ordination
- co-operate with other local responders to enhance co-ordination and efficiency
- train and exercise to allow an appropriate response during emergencies

Where are we now?

During the Covid 19 Pandemic a considerable amount of resilience work was paused. This has caused a backlog of plan reviews along with training and exercising. The risk and threat picture is constantly evolving and plans and procedures need to reflect these new risks as well as recurring risks.

Since late 2022 the site plans held for the various sites within Ayrshire have been exercised including Hunterston, DSM and MoD Beith, as well as non-sites specific plans such as severe weather.

We have responded to a number of incidents and we review our response to each incident to identify good practice and areas for improvement and we review our plans to incorporate our findings.

Where do we want to be by 2026 and How are we going to get there?

- Continue to work with partner agencies in the Ayrshire Local Resilience Partnership to identify and mitigate new and existing risks.
- Continue to hold multi agency training and exercise events to allow cross fertilisation of knowledge of plans and other responders responsibilities and roles in incidents.

- Hold internal and multi-agency debriefs after incidents especially those incidents which posed a challenge by their scale, nature or location.

What do we need from key stakeholders/how will we work with them
We already work closely with other Category 1 and 2 responders as well as other agencies such as the MoD and voluntary sector, through the Ayrshire Local Resilience Partnership and the West of Scotland Regional Resilience Partnership.

What can Members of the Public do to help us and themselves get there
Members of the public can assist during an incident by following the instructions of the emergency services. Information such as 'Go In, Stay In, Tune In' may be broadcast during an emergency.

Being more personally resilient will also assist the emergency responders during incidents. Information on how to be more personally resilient and able to be prepared is available on line on sites such as https://ready.scot/

Lead Area: Respiratory outbreaks in care homes

Priorities for 2024 -2026

1 Progress collaborative working with hospital IPCT and the CHPST and other partners

2 Develop resources to support effective management of care home respiratory outbreaks

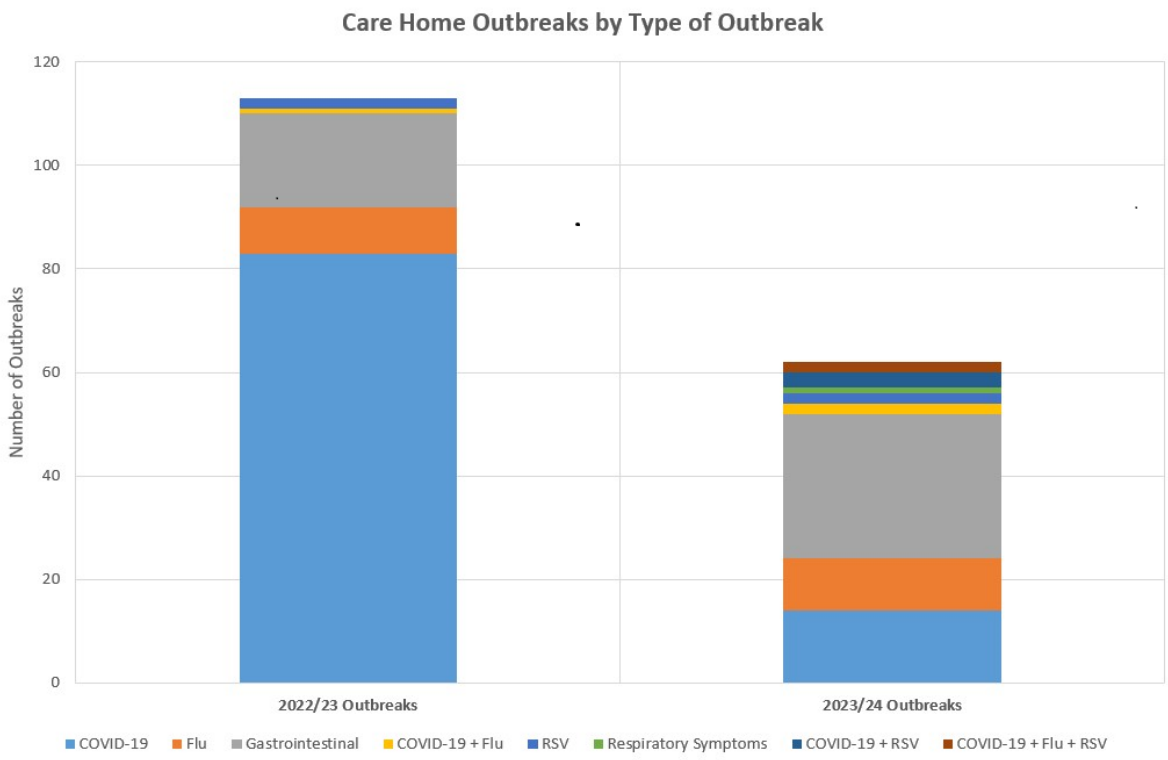
Background to lead area:

Care home respiratory outbreaks have been a significant sources of serious illness and death for care home residents; with a particular spotlight on this issue during the COVID-19 pandemic. Control measures help to manage outbreaks and reduce serious illness and deaths, but these can also be inconvenient and a source of frustration for residents, staff and relatives. Every effort is made to strike an appropriate balance between containing the outbreak, while supporting residents and staff and relatives.

Where are we now?

The adjoining bar chart illustrates the main infectious agents that are responsible for care home outbreaks in Ayrshire and Arran. Ongoing immunisation activities have helped to keep the number of flu outbreaks at a relatively low level and to reduce the number of COVID outbreaks between 2022/23 and 2023/24. Changes in testing practices might account for some of the observed reduction in numbers of outbreaks between 2022/23 and 2023/24.

Care home outbreaks by causal agent in 2022/23 and 2023/24 in Ayrshire and Arran



Where do we want to be by 2026 and How are we going to get there?

- Rationalise the contents of the HPT-led care home outbreak database so that partners find in easier to read and navigate
- Develop relations with the hospital IPCT and a process for involving them in the management of care home outbreaks as appropriate (prolonged, intractable outbreaks but newly at the beginning of each new care home outbreak to ensure early support and minimize prolonged – intractable outbreaks, to liaise regularly with IPCT via online or in person meetings to review our liaison and plan for joint input into care homes – winter preparedness in person visits to care homes to support care homes that previously required additional support)
- Develop a joint approach across the Health Protection Team (HPT), Hospital Infection Prevention Control Team, the Care Home PST and other partners to education and support for care homes with general infection control and outbreak management.

What do we need from key stakeholders/how will we work with them

- To contribute to pre-winter preparedness efforts with care home staff
- Support the dissemination and use of support measures for infection control and outbreak management among care home staff

- Develop and disseminate information leaflets for care home staff and residents' relatives /visitors.
- Support and contribute to compliance with infection control and outbreak management measures among care home staff, residents and relatives.

What can Members of the Public do to help us and themselves get there?

- Contribute to care home training events and winter preparedness
- Support the dissemination and use of an information leaflet for care home relatives on the measures used to control outbreaks
- Simplify the supporting resources used to help manage care home outbreaks
- Attend and contribute to PCOIC meetings
- Lead and contribute to the regular care home enhanced surveillance meetings
- Before closing a care home outbreak situation on HP Zone, add a summary that includes the number of resident cases, number of staff cases, any hospital admissions or deaths, the length of the outbreak, and the care home compliance with HPT advice.

Lead Area: Scabies in care homes

Priorities for 2024 -2026

1 Improve documentation of care home outbreaks on HP Zone

2 Update local SOP after PHS guidance on scabies is updated

Background to lead area:

The scabies mite can be transmitted in closed settings and lead to an unpleasant itchy rash. Effective management requires co-ordinated treatment for cases and contacts and staff in the setting along with effective laundry of clothes and bedding.

Where are we now?

A recent audit of scabies outbreaks/situations as recorded on HP Zone in A&A indicated that there have been 7 outbreaks between 2014 and 2024, 5 were in care homes and 2 in special needs schools. The control measures were mostly implemented effectively, with the exception of one care home where scabies clusters recurred, perhaps due to incomplete eradication the first time around.

Where do we want to be by 2026 and How are we going to get there?

- Finalise the local SOP in light of updated PHS guidance
- Improve the recording of scabies outbreaks on HP Zone
- Develop leaflet for care homes staff and residents' relatives / visitors.
- Scabies cases or clusters in a closed settings should be entered on HP Zone as a situation
- Isolated cases of scabies in the community, outside of closed settings, can be entered on HP Zone as a case
- Helpful to have a brief summary of outbreaks on HP Zone before closing the situation

What do we need from key stakeholders/how will we work with them

- Early notification to the HPT if a scabies outbreak is suspected
- The closed setting to collaborate with dermatology colleagues regarding confirmation of the diagnosis and co-ordinated treatment advice

What can Members of the Public do to help us and themselves get there?

- If you are diagnosed with Scabies, it is important to follow the advice given on NHS inform[24] and from your GP/Health Care Provider.
- If you are part of an outbreak of Scabies and are advised to have treatment it is important that treatment is co-ordinated, so that everyone who needs to be treated, is treated at the same time.

[24] Scabies | NHS inform

Lead Area: Tuberculosis

Priorities for 2024 -2026

1 Build on relationships with key stakeholders to raise awareness of TB and associated symptoms.

2 Develop wider health & wellbeing pathways for individuals living with TB, their households and wider contacts to improve patient outcomes, recovery, and reduce inequalities.

3 Review and development of existing TB pathways to improve service provision, patient outcomes and to reduce the spread of TB infection.

Background to lead area:

Tuberculosis (TB) is caused by the bacteria of the mycobacterium tuberculosis complex and can affect any part of the body. The most common form is pulmonary TB. Symptoms are varied and dependent on site of infection, but generally include fever, loss of appetite, night sweats and in pulmonary TB there is usually a persistent productive cough.

TB is treatable but without treatment it is a slowly progressive disease that can be fatal. Most cases are acquired through the respiratory route, by breathing infected respiratory droplets from a person with infectious pulmonary TB.

People infected with TB may develop TB infection (often referred to as latent TB) or TB disease (active TB). TB is a notifiable disease under the Public Health etc. (Scotland) Act 2008.

Managing active or latent TB cases requires a multi-disciplinary approach, with support from Health Protection, Respiratory team, Paediatrics, Microbiology and Laboratory Teams, Infectious Diseases (if TB is extra pulmonary), Migrant Screening team, Mass Vaccination team, and community based support. To manage the TB Programme there is additional programme management support and coordination provided by Public Health.

Where are we now?

Between 2022 and 2023, Scotland saw an approximate 40% increase in active TB cases nationally. Within Ayrshire & Arran there was a 200% increase in cases over the same time period, notably from a very low starting point. Data from Quarter 1 in 2024 suggests that this trend is continuing, and that there will be a further increase in active TB cases in 2024.

The following data are presented for the financial years 2022/23 and 2023/24.

Table 1: Active and Latent Cases of TB in NHS Ayrshire & Arran 2022/23 & 2023/24

	2022/23	2023/24
Active Cases	4	18
Latent Cases	8	17

Table 1 shows that active TB cases increased from 4 in 2022/23 to 18 in 2023/24. Latent TB notifications also increased from 8 to 17 during the same time period.

Factors contributing to this increase include the implementation of a migrant Screening service offering TB and BBV risk assessments for new asylum seekers, refugees and unaccompanied young people in Ayrshire & Arran; also the increase in active TB cases has led to an increase in contact tracing and a subsequent rise in latent TB notifications.

Table 2: Active TB cases by age range in 2022/23 & 2023/24

Age Range	2022/23	2023/24
Under 15 years	0	5
15 – 64 years	<5	11
65+ years	<5	<5

Table 3: Active TB cases by sex in 2022/23 & 2023/24

Gender	2022/23	2023/24
Male	<5	13
Female	<5	5

Table 4: Place of birth of active TB cases in 2022/23 & 2023/24

Country of Birth	2022/23	2023/24
UK	<5	13
Non-UK	<5	5

Table 5: Local Authority area of active TB cases in 2022/23 & 2023/24

Local Authority	2022/23	2023/24
East	<5	<5
North	0	9
South	<5	<5
Unknown	0	<5

Table 6: SIMD of active TB cases in 2022/23 & 2023/24

SIMD	2022/23	2023/24
1	<5	6
2	<5	7
3	<5	<5
4	0	<5
5	0	<5
Unknown	0	<5

In 2022/23 all active TB cases resided within SIMD areas 1, 2, or 3. In 2023/24 active TB cases were spread across all five SIMD areas, however the majority were within SIMD 1 or SIMD 2. TB is known to disproportionately affect those living in deprivation and with comorbidities or social vulnerabilities. At a local level outreach pathways for wider health and wellbeing needs are being developed and implemented.

Table 7: Average Treatment length of active TB cases in 2022/23 & 2023/24

Average Treatment Length*	2022/23	2023/24
	274.0 days	214.8 days

* Includes patients where treatment start and end date are known.

Table 8: Deaths where the primary cause of death was TB in 2022/23 & 2023/24

Deaths	2022/23	2023/24
	<5	5

Unfortunately Ayrshire & Arran has also seen a small increase in deaths where the primary cause was TB between 2022/23 and 2023/24.

Strategic oversight

Within NHS Ayrshire & Arran there is a TB Programme Board chaired by Public Health and which brings together all partners to provide strategic oversight and delivery of TB pathways. Over the previous two years this programme board has reviewed all TB pathways and implemented refreshed and new pathways to increase collaboration and improve patient experience.

Relationships between Health Protection, Respiratory, Paediatrics and Laboratory Services, both locally and nationally, have flourished with the direction of the Programme Board and provided an opportunity to re-establish TB MDT meetings, Paediatric case discussions (formal MDT is held nationally), cohort reviews, and the development of written resources for patient care. Public Health has a TB Project Group which implements the actions set by the Programme Board and drives forward innovative approaches to improve patient outcomes and reduce the spread of TB. The Health Protection team have developed a local standard operating procedure (SOP) to respond to single cases of TB to ensure consistency in approach to active and latent cases of TB.

A concentrated effort by the Mass Vaccination Team has seen an increase in nurses trained and competent to deliver the BCG vaccination and undertake mantoux testing, which has provided a valuable resource in offering a comprehensive TB screening service. Community phlebotomy also offer T spot testing but restricted to a small number of sites – therefore mantoux offers increased flexibility for some of our underserved populations.

Although an increase in active TB cases has been observed locally and nationally, NHS Ayrshire & Arran has established pathways to monitor surveillance data, and manage new cases and contacts.

Where do we want to be by 2026 and How are we going to get there?

Public Health Scotland have secured funding from Scottish Government for the Getting It Right First Time (GIRFT) approach to be applied in Scottish TB services. This will include a review of TB services nationally, and at a local level the TB Programme Board will participate in the wider review to support identification of gaps in service and develop improvement plans. Areas already identified for improvement include stronger processes around Directly Observed Therapy (DOT), closer links with the Respiratory Specialist Nurse team, broader holistic

support for patients living with TB, and providing clinicians with accessible information on diagnostic pathways. The TB project team are currently working towards resolving these issues, which will feed in to the wider local and national improvement plan in due course.

By 2026, the aim will be to see a downward trend in active TB cases in the UK born population which can be attributed to local case management and contact tracing pathways. This will be achieved by all key stakeholders contributing to the TB programme board and identifying areas of improvement to pathways. This will also be achieved by consistent use of the Health Protection SOP, respiratory case management, and wider health and wellbeing pathways to reduce inequalities. It is accepted that due to these activities that the number of diagnoses of latent TB may temporarily increase.

Robust pathways have been developed and implemented in partnership with Local Authority Resettlement Teams to ensure a consistent approach to migrant screening for new arrivals in Ayrshire & Arran. The pathways ensure that new migrants, refugees, asylum seekers and unaccompanied young people are screened for TB to support identification of active and latent TB. Migrant screening as a topic area is incorporated into the TB Programme Board to provide governance and oversight. By 2026 the aim will be to build upon established relationships with local authority teams and MEARS to ensure prompt communication of new arrivals and review by the migrant screening team. Pathways will continue to be delivered and robust surveillance monitoring will be in place to understand trends and required service developments.

What do we need from key stakeholders/how will we work with them

We will continue to build relationships with our key stakeholders through established structures including the TB Programme Board, TB MDTs, Paediatric case discussion, and cohort review meetings. Stakeholders will be invited as new issues or relationships develop. A TB work plan owned by the TB Project Group and governed through the programme board will provide opportunities to co-produce pathways and interventions to improve patient outcomes and reduce the spread of TB. The main actions we require (which are already in progress) are:

- Build on established relationships with resettlement teams, focusing on awareness of TB symptoms, referral pathways and outreach support for those lost to follow up.
- Engagement with broader stakeholders with a focus on wider determinants of health, inclusion health and risk factors. Including but not exhaustive; homelessness or rooflessness, drug and alcohol use, tobacco use, poverty.
- Engagement with TB programme board to support development and review of TB pathways.

What can Members of the Public do to help us and themselves get there

Members of the Public can support the aims for the TB Programme by:

- Being aware of TB signs and symptoms and speaking to a health professional if they have concerns.
- Engaging with Public Health and/or Respiratory clinical team should assessment and/or treatment be required.

- If diagnosed with active TB, engaging with Health Protection for risk assessment and identifying close contacts to reduce the spread.

Health Protection will support Members of the Public by:

- Working with national and local colleagues, information resources will be developed and promoted through appropriate channels to raise awareness within our local communities.
- Following processes to ensure prompt follow up of cases and contacts, clear information about TB screening and providing a supportive, trauma-informed, and patient-centred service.

Lead Area: Vaccination

Priorities for 2024 -2026

1. Produce local NHS Ayrshire and Arran Immunisation Strategy for 2025-27 by 31st March 2025.

2. Work with key stakeholders to develop a comprehensive screening and vaccination service for TB, delivered by Public Health's Vaccination Service, in 2024/25.

3. Lead on the local planning and implementation of new Respiratory Syncytial Virus (RSV) Vaccination Programme.

Background to lead area:

Vaccination, alongside access to clean water, is the most effective public health intervention in disease prevention. Many life-threatening diseases that persist in other parts of the world are seldom heard of in the United Kingdom (UK) as a result of high uptake of vaccination programmes against diseases such as diphtheria and polio.

Vaccination not only provides direct protection to the individual, but also indirect protection through herd immunity to the wider community, including those too young or too ill to be vaccinated. There are also those who chose not to be vaccinated, or have their children vaccinated, due to, for example, vaccine hesitancy.

The UK immunisation schedule, including selective and non-routine vaccinations, is a large, complex public health programme in terms of policy, planning, implementation and evaluation. It is the largest public health programme in NHSA&A and Scotland.

Vaccination programmes in NHSA&A are coordinated by Public Health; providing leadership, programme management, education and training and support to services who deliver vaccination programmes. In addition, with the creation of a mass vaccination service, initially in response to the COVID-19 pandemic, Public Health's Vaccination Service continues to evolve, with responsibility for the delivery of non-routine, pneumococcal, shingles and travel health vaccination programmes transferred from GP practices to the service as part of the local implementation of the Vaccination Transformation Programme (VTP).

The critical challenge is to maintain and maximise vaccination uptake, striving to achieve uptake in line with WHO (pre-school immunisations) and national targets.

Where are we now?

A continuing slow decline in the uptake of pre-school immunisations has been observed over the last 10 years across all UK countries, with the exception of an upturn in 2020 in Scotland, although following this, rates have continued to slowly decline.

Whilst uptake of pre-school immunisations, by 5 years of age, in Ayrshire and Arran is greater than the Scottish average, excluding the 4-in-1 booster, in many instances in 2022/23 it was short of the 95% WHO target required for herd immunity and associated protection for those unable to be immunised.

In Ayrshire and Arran, uptake of adolescent immunisation programmes delivered in secondary schools is currently below the Scottish average. NHSA&A's School Immunisation Team is taking action to address through strengthening links with Education Departments and sharing learning with other health boards.

In relation to adult vaccinations, uptake of the following programmes continues to be monitored and reported on, with action taken as necessary:

- Pneumococcal
- Shingles
- COVID-19
- seasonal flu

As at 1st April 2023, 62.3% (52,812) citizens aged 65 years and over in Ayrshire and Arran had taken up the offer of pneumococcal vaccination, although vaccination uptake amongst those as they turn 65yrs over recent years has remained low.

In relation to shingles vaccination, in 2022/23 24,257 (60.5%) of 70-79 year olds in Ayrshire and Arran had been vaccinated, compared to 75.6% across Scotland.

Responsibility for the planning and delivery of the pneumococcal and extended shingles vaccination programmes was transferred from the CTAC Service to the Vaccination Service during January 2024.

In 2022/23 through the Winter Vaccinations Programme, 145,209 COVID-19 vaccinations were administered, an uptake of 74.2% in the total eligible population. This is similar to uptake across Scotland (72.6%). At the same time, 139,706 adult flu vaccinations were administered, an uptake of 64.6% in the total eligible population. This again is similar to uptake across Scotland (63.7%).

Where do we want to be by 2026 and How are we going to get there?

The aim of the vaccinations programme is to maximise protection against communicable diseases amongst the population of Ayrshire and Arran. Public Health contribution to this includes:

- Strategic leadership and coordination of the local implementation of amendments to existing and new vaccination programmes, in line with Joint Committee Vaccination and Immunisation (JCVI) recommendations
- Clinical leadership and guidance regarding vaccinations, including provision of workforce training and education, as well as non-routine vaccination schedules
- Monitoring and evaluation, as well as reporting, of vaccination uptake to key stakeholders across all programmes
- Working with partners to plan and deliver vaccination as part of wider outbreak responses.

The following specific priorities for vaccination in Ayrshire and Arran in 2024 – 26 have been agreed by NHS Ayrshire and Arran's Vaccination Programme Board:

1. Produce local NHS Ayrshire and Arran Immunisation Strategy for 2025-27 by 31st March 2025.
2. Work with key stakeholders to develop a comprehensive screening and vaccination service for TB, delivered by Public Health's Vaccination Service, in 2024/25.
3. Lead on the local planning and implementation of new Respiratory Syncytial Virus (RSV) Vaccination Programme.

What do we need from key stakeholders/how will we work with them
Public Health works with a variety of key stakeholder, both local and national, to plan and implement new and changes to existing vaccination programmes.

Effective working relationships and governance structures are well established locally to ensure the efficient and timely planning and implementation of programmes.

Local implementation is dependent on funding provision, CMO letters, publication of new or updated Green Book Chapters, Patient Group Directions (PGDs) and protocols (COVID-19 and seasonal flu) workforce education materials from national partners (Scottish Government and Public Health Scotland). Public Health's Vaccination Management Team are members of key national clinical, planning and delivery groups.

What can Members of the Public do to help us and themselves get there.

To help maximise the protection provided by vaccines to both individuals and the wider population, we ask that members of the public:

- Attend for vaccination when invited to do so, and if you cannot attend contact the service to reschedule your appointment.
- Talk to your healthcare provider, as a trusted source of information, if you have any questions about vaccination.
- When planning a holiday outside the UK, please consider your travel health needs well in advance and visit www.fitfortravel.nhs.uk where you will find lots of useful travel health information, including details of any vaccinations required before you travel.
- Find out more about vaccinations offered in Scotland at www.nhsinform.scot/immunisation

Lead Area: Vaccine Preventable Diseases

Priorities for 2024 -2026

1 Measles

2 Pertussis

Background:

Vaccine Preventable Diseases (VPD) are infectious diseases where there is an effective vaccine available to prevent disease and save lives.

The World Health Organisation states that there are vaccines available to prevent more than 20 life threatening diseases, such as diphtheria, measles, whooping cough (pertussis) and flu. Immunisation currently prevents 3- 3.5 million deaths around the world, from infectious diseases that would have previously been common place.

In Scotland, advice and guidance on Vaccine Preventable Diseases is led nationally by Public Health Scotland's (PHS) VPD team. From the beginning of 2024, the focus has been the rise in cases of Measles and Pertussis. This has led to changes in UKHSA (UK Health Security Agency) and PHS guidance for both diseases and to local activity across Ayrshire to ensure we have the ability to manage and respond effectively to cases of Measles and Pertussis with the aim of reducing transmission in the wider community.

Where are we now?

Measles:

England started to see a rise in measles cases towards the end of 2023 and in early 2024 and actions were taken to prevent onward transmission. There have been far lower numbers of confirmed Measles cases in Scotland due in the main to the high number of people taking up the MMR vaccine in response to the proactive work carried out by other health boards across Scotland and locally by the vaccination and immunisation team in NHS Ayrshire & Arran.

There is ongoing work across NHS Ayrshire and Arran to mitigate the risk of Measles cases. This has resulted in close working across the healthcare sector with key partners in a variety of ways. For example:

- Proactive MMR vaccination to identify individuals who are able to but have not had the MMR vaccine across the wider community via the vaccination and immunisation team and via the hospital occupational health team, which will protect the individual but also protect those who are too young to have the vaccine.
- A variety of training sessions held internally and externally with key partners to raise awareness and changes in guidance.
- Development and sign off of a Measles pathway across healthcare to enable rapid response, in and out of hours for contacts of measles cases who fall into key risk groups (as per Measles Guidance, who are at greater risk of severe diseases and death) and require urgent supportive time limited medical intervention.

The Measles Guidance for Scotland is currently under review by PHS. The guidance was revised in April 2024, as part of UKHSA response to the significant

burden of measles cases in England. PHS have currently adopted this guidance to assist with management of cases and contacts in Scotland.[25]

Pertussis:

Nationally, there has been a significant rise in Pertussis (Whooping Cough) cases. This has been reflected in case numbers seen locally, in NHS Ayrshire & Arran. Pertussis is a significant risk to young babies under the age of 2 months, as it can cause severe illness and death. Pertussis vaccine is part of the routine schedule offered to babies, young children prior to starting school and pregnant women. Antibiotic treatment for pertussis helps reduce transmission and assists in recovery of the individual.

The Health Protection Team in NHS Ayrshire and Arran work closely with GPs and other healthcare providers to ensure cases of Measles, Pertussis and other infectious diseases are followed up to give advice and identify at risk individuals in order to reduce transmission and mitigate against the risk of severe illness in infants.

Pertussis tends to run in cycles, with numbers dipping and then increasing every five years. There has been a sharp rise in Pertussis cases which is also known as Whooping Cough or the 100 day cough; in 2024, as shown by the table below. Noting the case numbers for Scotland as a whole do not include possible or probable cases, which have been included in the NHS Ayrshire and Arran case number total of 361. The reason for this is not all cases will have been tested or will have presented at GP practices or other healthcare settings for testing, for a variety of reasons. Cases are now, in the main being treated on suspicion and/or epidemiological links to other cases. Of note: the 2024 caseload includes cases from the first 6 months of the year, from January to June 2024.

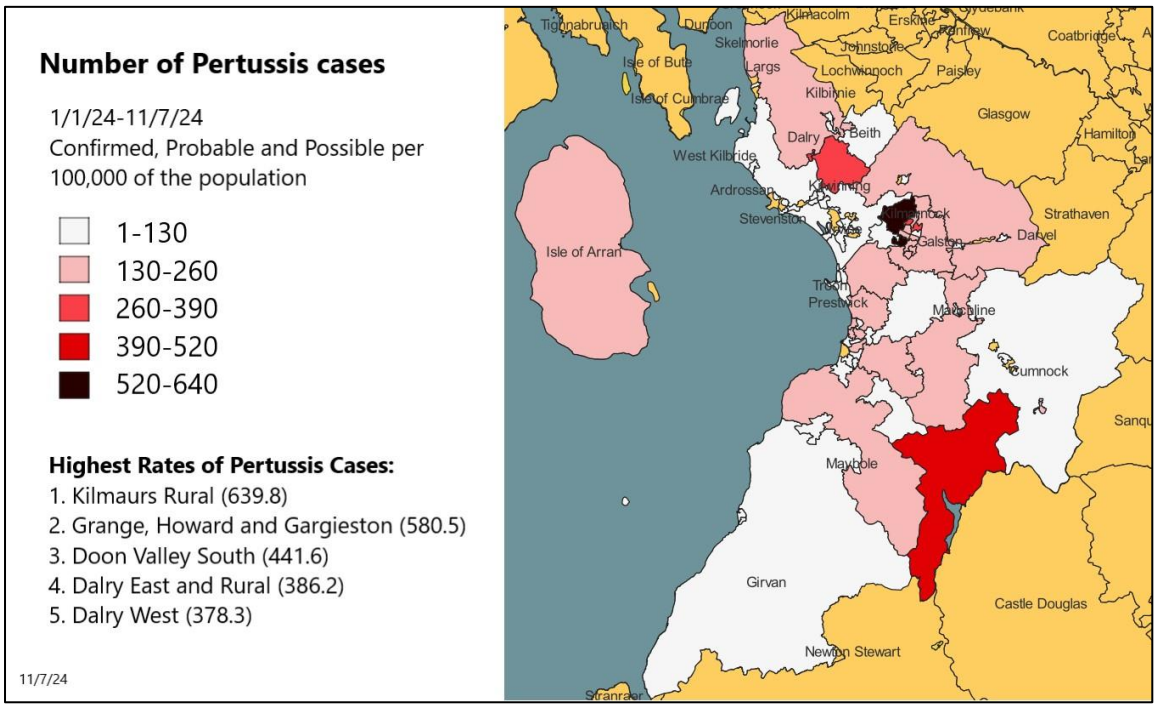
Year	**Pertussis in NHS Ayrshire and Arran by individual cases by year 1/1/ 2020 – 20/6/2024**			**NHS A&A Total**	**Scotland Confirmed cases only (ECOSS report)**
	Confirmed	Probable	Possible		
2020	10	*	*	17	198
2021	0	0	0	0	4
2022	0	0	0	0	3
2023	*	*	*	6	73
2024	185	33	143	361	4091

*Numbers smaller than 5 have been removed.

The distribution of cases across NHS Ayrshire and Arran for the first half of 2024 can be seen in the mapping of cases below. This is a snapshot of cases per 100,000 of population and is a useful way of understanding how an/the 'outbreak' moves across Ayrshire. Of note: Had we picked a different time period the spread of cases may have looked very different geographically due to specific outbreaks which have been followed up by the Health Protection Team alongside key

[25] Health protection guidance - Guidance for professionals - Measles - Infectious diseases - Health protection - Our areas of work - Public Health Scotland

partners. Mapping is a useful tool in understanding the evolving nature of outbreaks and the enables us to target out local resources and response.



There has been updated guidance from PHS[26] to assist with the increase in cases and the subsequent demand on local healthcare services and the health protection team in NHS Ayrshire and Arran. Hospital healthcare services (laboratory and occupational health in particular) and community healthcare services (GPs across NHS A&A) have worked closely with the Vaccination and Immunisation team and Health Protection team to follow up cases, vaccinate where appropriate, implement advice and treatment and share information to enable proactive intervention.

Where do we want to be by 2026 and How are we going to get there?
Measles:

- Continue to work with PHS at National level re: review of the Measles Guidance for Scotland and wider learning from other Health Boards and UKHSA.
- Continue to work with local partners and stakeholders in regard to Measles training and care pathways, including reviewing learning, as and when required.
- Engage with NHS Ayrshire and Arran Vaccinations and Immunisations Team and Occupational Health in regard to MMR vaccination coverage (and immunity for health care workers) for the wider community and for healthcare workers respectively.

[26] Guidelines for the public health management of pertussis - version 2 - Guidelines for the public health management of pertussis - Publications - Public Health Scotland

Pertussis:

- Continue to work with healthcare and other agencies at national and local level to identify and mitigate against the rise in cases, share learning and communicate proactively with members of the public so that they can understand the reasons for the advice they are being given and assist in proactive action to protect those individuals who are most at risk.
- Monitor the rates of Pertussis cases locally and provide regular updates to the team and wider stakeholders so we can better understand and manage our response.

What do we need from key stakeholders/how will we work with them
Measles:

- Proactive notification of a likely Measles cases to facilitate testing and contact tracing to enable urgent public actions to be taken in a timely fashion.
- Engagement with Occupational Health requests for follow up/vaccination for Measles (MMR).
- Engagement in training and Guidance updates re: Measles Case Risk Assessment

Pertussis:

- Proactive notification and follow up of suspected Pertussis cases and facilitation of testing and treatment as appropriate in conjunction with the Health Protection Team.
- Engagement with Occupational Health for Health care workers working with Pregnant Women and infants for review of Pertussis vaccine (if this has not been given in the last 5yrs).
- Engagement with training and guidance updates re: Pertussis.

What can Members of the Public do to help us and themselves get there
Measles:

- Attend for MMR vaccine when requested
- Be aware of the signs and symptoms of Pertussis and when to attend for healthcare advice and support[27].

Pertussis:

- Attend for Pertussis vaccine when requested
- Be aware of the signs and symptoms of Pertussis and when to attend for healthcare advice and support[28].

[27] Measles | NHS inform
[28] Whooping cough | NHS inform

Lead Area: Water (Private and Mains Supply)

Priorities for 2024 -2026

1. Further develop relationships with Environmental Health Teams across Ayrshire, along with partners Scottish Water and SEPA to ensure shared collaborative approaches and responses to water related public health situations with clear governance and accountability for respective roles and actions as required.
2. Detail SOP for lead in water and Cynoe-Bacteria
3. Develop HPZone functionality for water related events/situations to inform health protection oversight and responses as indicated

Background to lead area:

Water and sanitation are central to human life, health, well-being, dignity and sustainable development. Universal and equitable access to sufficient amounts of safe drinking-water and adequate sanitation are basic human rights.[29]

The health protection water portfolio is primarily focused on working with Environmental Health Officer colleagues in East, North and South Ayrshire and national bodies, Scottish Water[30], Scottish Drinking Quality Regulator[31], Scottish Environmental Protection Agency[32] and Public Health Scotland[33] to provide public health management, mitigation and control measures and related expertise to ensure safe water supplies and the management of risk for water-borne illnesses (one off/outbreaks), risks to water quality and environmental incidents. Note related work to respond to and manage incidents of water related infection and outbreaks STEC/Legionnaires/other events.

Alongside public health interest and responsibilities in relation to responding to threats and risks to ensuring a safe water supply There are relationships between environmental risk factors linked to agriculture (fertiliser field run-off), heavy industry (discharge of heavy metals into water courses) on water quality alongside climate change: flooding (housing and community safety) and dam breaching (associated risk of flooding).

In the absence of a safe quality assured water supply there can be significant risks to human health from water born infections (microorganisms considered under STEC) and other contaminants that get into the water supply.

Relationships with partner colleagues with a role in drinking water quality and safety and related consideration of climate adjustments underpin collective endeavour to ensure population health.

Where are we now?

The Water Intended for Human Consumption (Private Supplies) (Scotland) Regulations 2017 and the Private Water Supplies (Scotland) Regulations 2006 require annual sampling of regulated supplies. Local authorities have an annual

[29] WHO-EURO-2020-5606-45371-64926-eng.pdf

[30] Drinking Water Directive - Scottish Water

[31] Ten Key Parameters (dwqr.scot)

[32] Water | Scottish Environment Protection Agency (SEPA)

[33] Publications - Environmental public health - Health protection - Our areas of work - Public Health Scotland

sampling plan for these supplies and can also sample unregulated supplies on request to ensure that wholesome water for human consumption purposes, is water which does not contain any micro-organism, parasite or substance which is present at a concentration which would constitute a potential danger to human health.

The three Ayrshire Environmental Health Teams have a sampling programme and report any failures to the Health Board and issue boil water notice as necessary.

- The Health Protection Water Liaison Group has been refreshed with the resumption of meetings following COVID-19. Partner attendance is good though we have more work to do to ensure representation for SEPA.
- There is a shared understanding of workforce pressures and competing demands, associated risks and pressures.
- A process for standardising EHO communication where Health Protection are alerted of a situation has been developed tested and agreed.
- Public Health Scotland have recently published refreshed guidance on cynae-bacteria that will inform a NHS AA SOP

Where do we want to be by 2026 and How are we going to get there?

The Environmental Health Team, The Health Protection Team in NHS Ayrshire and Arran's Public Health Team, SEPA and Scottish Water already work closely together when there are reports of a water issue/failure and they will continue to do so. There are some key objectives for the period 2024-2026.

- A previous SOP on lead requires updating
- The EHO summary template needs to be further developed to inform HPZone record keeping; linked to the EHO Template above
- Consideration of surveillance options that add value and meaning to the water work-stream.
- Continue to improve the private supplies to reduce the number of failures in the supplies.

What do we need from key stakeholders/how will we work with them?

- Ongoing commitment to meet and collaborate/build relationships
- The Health Protection Team will host four liaison meetings a year and develop a programme of work
- Collective and shared responsibility to progress shared goals in the programme of work.

What can Members of the Public do to help us and themselves get there.

- To continue to work as water partners to sustain safe quality assured water supply.
- To pay attention to advice when bottled or other water measures are required in response to a water incident
- To look after water and value it as a resource, not to be wasteful in its use.

Lead Area: Zoonosis

Priorities for 2024 -2026

1 Joint Communications Campaign to raise Tick awareness

2 Brucella

3 Continue to maintain and strengthen ongoing partnership working and response to National
Zoonosis Incidents

Background to lead area:

Zoonoses are diseases and infections that are naturally transmissible between vertebrate animals and humans. There are believed to be in excess of 250 zoonotic diseases recognised worldwide, and new diseases continue to be identified. Transmission may occur due to direct occupational, recreational or domestic contact with animals, via indirect contact or due to consumption of contaminated food or water. Some zoonotic agents can cause serious disease in humans, but have little or no effect on animals (e.g. Shiga toxin-producing producing E. coli O157), whereas others cause serious disease in both humans and animals (e.g. Rabies)[34].

Where are we now?

Recent work has been carried out in Health Protection to ensure there is a Rabies response pathway. This has now been signed off and though in general the pathway will be covered in house out of hours by NHS Ayrshire and Arran, NHS Lanarkshire have a Service Level Agreement (SLA) with NHS Ayrshire and Arran to deliver Infectious Disease support when there are gaps in the local service.

There is ongoing work at national level in Public Health Scotland (PHS) to understand transmission and the ability to respond to zoonotic disease. PHS sit on the UKHSA funded HAIRS (Human and Animal Infections Risk Assessment and Surveillance Group) which reviews and risk assesses emerging Zoonotic infections.

A Zoonosis Guidance Development Group (GDG) has been set up by PHS to review PHS and UKHSA guidance documents with the intention of combining them into one document with any relevant addenda for Scotland. The GDG members will be asked to identify gaps, provide technical inputs and recommend changes to support the development of revised PHS Zoonotic Guidance. NHS Ayrshire & Arran are engaging as part of this group to increase local knowledge and ensure that we are at the forefront of any recommended changes.

Where do we want to be by 2026 and How are we going to get there?

Better understanding of local Zoonotic risks in NHS Ayrshire and Arran and a commitment to raising awareness about more about specific threats such as:

- Tick Borne Disease (Lyme Disease) and potential surveillance of this disease, which is currently limited, but nevertheless can cause significant illness.

[34] Zoonotic disease in Scotland, 2019 (publichealthscotland.scot)

- As raised above, NHS Ayrshire and Arran's proactive participation in the GDG for Zoonosis in PHS and the potential to influence the subsequent changes and impacts that the revised guidance may have locally.
- Raising awareness (in discussion with key partners) of imported infections such as Brucella and management of this.
- Raising awareness of 'One Health', which is an approach that recognises that the health of the population is closely connected to the health of animals and our shared environment and the relative influence of climate change, biodiversity loss and antimicrobial resistance in this regard[35]

What do we need from key stakeholders/how will we work with them?

- Work with the Health Protection/Public Health Team to raise awareness around zoonotic infections at different times in the year aka Ticks and Lyme Disease.
- Work with the Health Protection team to mitigate the impact of food borne diseases due to pets and handling of pet foods through targeted campaigns.

What can Members of the Public do to help us and themselves get there.

- Members of the Public can assist us in increasing their awareness of campaigns such as 'Handling pet foods can make people unwell' and ensure that they have scrupulous hand hygiene/handwashing, cleaning and storage of pet foods.

- Increased awareness of the signs and symptoms of Lyme Disease following Tick bites[36]

[35] https://www.cdc.gov/one-health/
[36] https://ticks.scot/protect/

Summary

This plan gives an overview of health protection responsibilities and priorities, provision and preparedness within Ayrshire and Arran and describes how the Board and the Local Authorities are responding and will respond to a range of health protection topics.

These topics will be regularly reviewed to ensure that we are on track to deliver as advised and in order that we can monitor the plan for any gaps. This process will be supported by the NHS Ayrshire and Arran Work Plan which is linked to the JHPP.

If you have any feedback for us in regard to the JHPP please do not hesitate to contact us via:

NHS Ayrshire and Arran

hpteam@aapct.scot.nhs.uk

Environmental health

North

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East

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South

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The next review of this document will be due in July 2026 and the regular review highlighted above and feedback will enable us to make any improvements we have identified throughout 2024 -2026.