

Gloucestershire Health and Wellbeing Board

Health Protection Strategy (2023-2025)

Introduction	Page 3
Strategic aims	4
<ul style="list-style-type: none"> Protect the population against key vaccine-preventable diseases by maximising immunisation uptake (children) 	5
<ul style="list-style-type: none"> Protect the population against key vaccine-preventable diseases by maximising immunisation uptake (adults) 	8
<ul style="list-style-type: none"> Minimise the spread of common infections through infection, prevention and control (including hand and respiratory hygiene) 	11
<ul style="list-style-type: none"> Minimise the transmission of Tuberculosis and Blood Borne Viruses (BBV) including Hepatitis B (HBV) and Hepatitis C (HCV) 	13
<ul style="list-style-type: none"> Minimise the harm caused by outbreaks and incidents 	16
<ul style="list-style-type: none"> Ensure that no harm is caused by preventable health and social care associated infections 	18
<ul style="list-style-type: none"> Reduce harms and long-term risks from antimicrobial resistance 	21
<ul style="list-style-type: none"> Enable people to live and work in areas with good air quality 	23
Areas of Focus for 2023/24	26
Appendix One – Outcome Matrix	29

Introduction

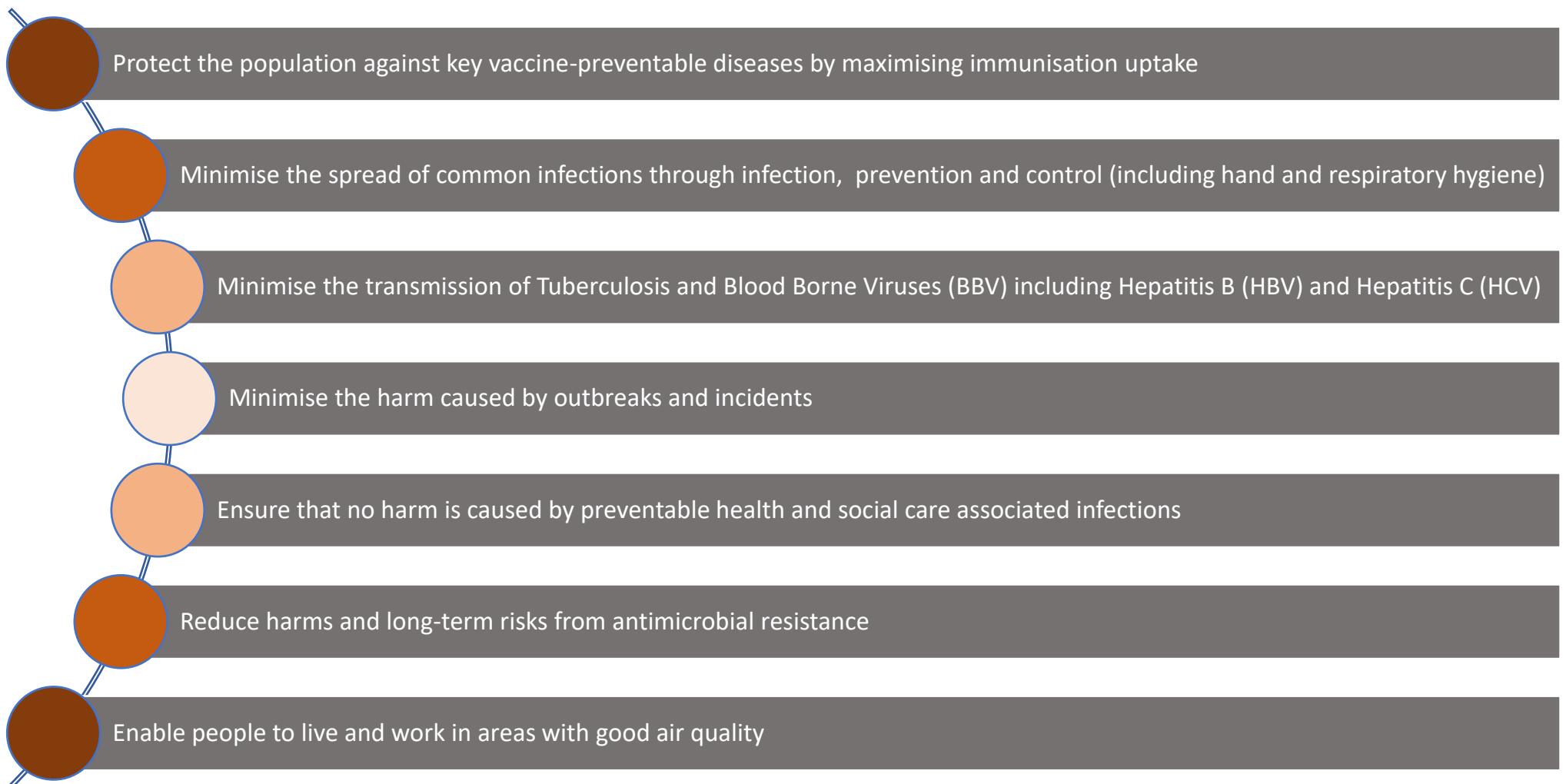
It is well reported that people in Gloucestershire generally have good health outcomes. However, it is also clear that inequalities exist amongst different groups and neighbourhoods. It is important that these inequalities are acknowledged when implementing Health Protection interventions to ensure that resources are targeted in the most appropriate areas. The Covid-19 pandemic has strengthened partnership arrangements around Health Protection and highlighted the importance of collaboration to achieve positive outcomes. Gloucestershire works closely as a system, with coterminous boundaries for members of the Integrated Care Partnership (ICB) and the Local Resilience Forum.

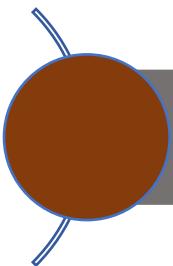
The Gloucestershire Health Protection Assurance Board (HPAB), chaired by the Director of Public Health (DPH) is currently part of this system and provides assurance to the DPH that there are safe and effective plans in place to protect population health, for communicable disease control, infection prevention and control, emergency planning, environmental health and immunisation programmes.

In 2022, a review of Health Protection activity took place against the [What Good Looks Like framework](#) for Health Protection and was presented to the HPAB in September 2022. This framework was developed by the Association of Directors of Public Health and Public Health England (now UKHSA). It sets out a series of strategic outcomes for Health Protection. In Summer 2023, the review was updated to include the latest data and activity in Gloucestershire against those outcomes.

All data herein sourced from Office of Health Improvement and Disparities (OHID) Fingertips unless otherwise stated. All data herein is shown within the HP Strategy dashboard (see Appendix 1. [Public health profiles - OHID \(phe.org.uk\)](#))

Strategic aims





Protect the population against key vaccine-preventable diseases by maximising immunisation uptake (children)

Key insights

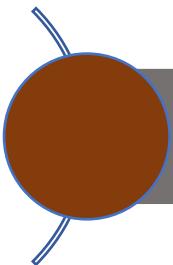
- Vaccination uptake in Gloucestershire is comparable or higher than the England average across all childhood immunisations. However, in 2020/21 uptake was lower than the 95% NHS England target uptake for all childhood vaccinations except for:
 - DTaP/IPV/Hib (2yrs) 95.5%,
 - MMR (1st dose, age 2yrs) 95.4% and
 - DTaP/IPV/Hib (age 5 yrs) 97.0% (2020/21)
- Nationally, immunisations uptake and delivery was impacted by the pandemic and periods of high infection rates. Nationally and regionally the decrease in MMR uptake has led to NHS England increasing MMR uptake is a key priority and a further analysis of data has identified Primary Care Networks and populations groups where uptake is lower than the county average.
- MMR vaccination (one dose by age 2 years) uptake exceeded (or was equal to) 95% in 46 of 73 GP practices in the county in 2020/21, an increase from 31 the previous year. Four GP practices are below the England uptake with three GP practices significantly below the England uptake.

- 87.6% of Children, aged 5, in Gloucestershire received a booster dose of DTaP/IPV and at least 2 doses of an MMR vaccine between the ages of 1 and 5 yrs, which is greater than the England uptake (80.6%) and 62 of 71 GP practices had uptake greater than the England average.

What are we doing locally?

- Health visitors deliver universal checks to all families as well as targeted support for vulnerable families. Health visitors work with families to promote vaccination ([Health Visiting > Glos Health & Care NHS Foundation Trust \(ghc.nhs.uk\)](https://www.ghc.nhs.uk))
- Pre-school vaccinations are delivered in primary care with support to practices with lower uptake through Gloucestershire ICB 'Access for All Team' vaccination team. This team works with practices to support audit of their data, improve data quality and work with patients of all ages to increase uptake. This has included activity such as contacting those on the Learning Disabilities GP register with incomplete immunisations to arrange appointments or outreach and ensuring that children living in migrant hotels are offered vaccination in line with the UK Schedule.
- The schools aged immunisations programme, currently delivered by Gloucestershire NHS Health and Care Trust (GHC), offers a mix of in-school and catch-up clinics across the county, with targeted activity undertaken in populations and schools with lower uptake.
- Gloucestershire Healthy Living and Learning (GHLL) (a commissioned team that support schools to achieve the Healthy Schools Award) promotes infection, prevention and control. This includes delivering teaching modules on vaccination programmes.

- To monitor uptake and consider targeted approaches, Gloucestershire Maximising Uptake of Immunisation Group (MUIG) has been established. This group is chaired by NHS England's Vaccination And Screening Team (VAST). The strategic aim for the group is to ensure that vaccine coverage of two doses of MMR and 4-in-1 pre-school booster is above 95% by the time the child is 5. To enable this there is;
 - Targeted work with GPs in support with the Improving Immunisation Uptake Team.
 - National project on vaccine confidence to support Healthcare professionals in helping patients making decisions about vaccines and the tools to use in conversations to address vaccine concerns.
 - Training for Health Visitors re promotion of vaccines.
 - Demonstrator site for delivery of vaccines and targeting of GP practice lists through specialist team, now commissioned for 23/24 with a focus on increasing MMR uptake. Working with GP surgeries to ensure that vaccination records are recorded correctly.
- Gloucestershire specific dataset is now available/ through South, Central and West Commissioning Support Unit (SCWCSU) to aid understanding of geographical inequalities and understand progress of the strategic aims of the group.



Protect the population against key vaccine-preventable diseases by maximising immunisation uptake (adults)

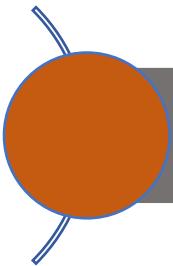
Key insights

- Gloucestershire currently significantly exceeds the benchmark standard for uptake of flu vaccine in at risk groups (58.2% against benchmark of 55%) and significantly exceeds the England uptake (49.1%).
- Pneumococcal vaccination uptake for the whole population (age 65+) for 2020/2021 is statistically similar, but slightly below the benchmark (73.1% against benchmark of 75%), however further noting Gloucestershire uptake significantly exceeds the England uptake (70.6%). Gloucestershire currently significantly exceeds the expected uptake levels for flu vaccination (age 65+) 84.8% against benchmark of 75% and England rate of 82.3%. Uptake amongst at risk groups also significantly exceeds the England rate and expected benchmark.
- Current collated data shows uptake of Shingles vaccine (age 71 years) meets the expected benchmark of 50-60% at 50.4% and statistically exceeds the SW and England uptake, 45.5% and 44.0% respectively.
- However, shingles vaccination uptake for those age 80, who received a shingles vaccination between age 70 and 79 years is 62.1%, higher than the England uptake (56.6%). All PCNs have uptake similar or higher than England. Six GP Surgeries have uptake statistically lower than England.
- Covid vaccination uptake of the Spring Booster (2023) which was for those Age 75+, was 77.5%, similar to the SW (77.6%) and higher than the England uptake (70.2%). (See maximising uptake)

What are we doing locally?

- Flu and Covid-19 vaccine plans for roll out in care settings is overseen by ICB Flu and Covid-19 vaccine planning groups.
- Established during the covid-pandemic, there is a Care Home Infection Prevention and Control (CHIPC) team in place providing support and advice to care homes. This includes promoting vaccination schedules to care home residents and staff through webinars and on-site visits.
- Led by UK HSA, an annual winter preparedness review takes place with care homes and the focus for 2023/4 has been Led by UK HSA, an annual winter preparedness review takes place with local agencies including NSH commissioners, providers and the local authority leads for public health and adult social care. During these sessions systems review their procedures for mass vaccinations and response to outbreaks in a range of settings.
- To support preparedness for outbreaks a mass vaccinations action card is being developed by Gloucestershire ICB.
- Within Gloucestershire ICB there are Flu and Covid vaccination planning groups to coordinate delivery of vaccine programme to patients, care home residents, eligible members of the public and health and social care staff, as well as to identify inequalities in uptake and any targeted action required as a result.
- A range of methods of delivery are commissioned for both vaccines including a mobile vaccination and community 'pop up' clinics, pharmacies, drive through clinics at fire stations for health and social care workers as well as delivery through primary care. There is a dedicated covid-19 vaccination outreach team, as well as Primary Care Network led activity to vaccinate those that are housebound within their own homes.
- There is a range of translated materials and easy read documents available within the system with communications support to the programme to tailor and respond to public and professional queries.

- Occupational health vaccination programmes are available to NHS and GCC employees. Wider frontline health and social care staff are eligible as per current JCVI guidance through the NHS programmes.
- Gloucestershire ICB's 'Access for All' team and GHC's outreach team undertake activity to increase uptake in a range of communities including homeless, migrant hotels, people with learning disabilities or serious mental health issues, and areas of rurality.



Minimise the spread of common infections in children through infection, prevention and control (including hand and respiratory hygiene)

Key insights

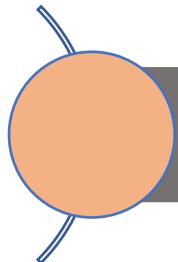
- Gloucestershire undertakes a biennial Pupil Well Being survey (last survey Jan – April 2022¹) with all schools which includes the following questions relating to hygiene:
 - Do you wash your hands after going to the toilet?
 - 76.5% of students reported always, 13.6% frequently, 4.8% occasionally, 3.1% rarely, 1.2% never (0.9% not answered)
 - Do you wash your hands before eating a meal?
 - 28.1% of students reported always, 25.3% frequently, 20.7% occasionally, 15.9% rarely, 8.9% never (1.1% not answered)
- During 2023 (to 19th October 2023) there were 6 health protection cases and/or outbreaks in schools logged by the GCC Public Health Team. It is important to note that only cases and outbreaks which are deemed to require significant public health actions are reported to Gloucestershire County Council.

¹ <https://www.goucestershire.gov.uk/inform/children-and-young-people/pupil-wellbeing-survey-formerly-online-pupil-survey/>

What are we doing locally?

- In line with NICE public health guideline NG63 (Antimicrobial stewardship: changing risk-related behaviours in the general population) infection, prevention and control support and education is undertaken in educational settings.
 - Gloucestershire Healthy Living and Learning (GHLL) are a commissioned team that support schools to achieve the Healthy Schools Award, this includes delivering teaching modules on hand hygiene and infections prevention (e-Bug).
 - e-Bug is a health education programme promoted by GHLL (operated by UK HSA). e-Bug aims to promote positive behaviour change among children and young people to support infection prevention control. E-Bug provides free resources for educators, community leaders, parents and care givers to educate children and young people and ensure they are able to play their role in preventing infection outbreaks ([Home \(e-bug.eu\)](http://Home (e-bug.eu))).
 - Statutory Relationship and Sex Education and Health Education (RSE) includes a suite of resources aimed at infection prevention.
- Promotion of Infection Prevention Control (IPC) guidance to schools, developed by UK HSA, occurs annually through established school and early years communications channels. Additionally, Gloucestershire County Council Safety Health and Environment (SHE) team is available to schools for expert Infection Prevention Control and Health & Safety advice as required.
- Funded by Contain Outbreak Management Funding (COMF) held by Gloucestershire County Council, Gloucestershire ICB provide a specialist IPC resource to care homes and Special Educational Needs Settings (SEND) in the county. Their primary role is to work with settings to help them prevent infections and put in place appropriate mitigations to minimise the risk of transmission in the setting, as well

as provide on the ground support to setting in response to outbreaks of infectious diseases. This team is currently in place until March 2024 when COMF funding ends.



Minimise the transmission of Tuberculosis and Blood Borne Viruses (BBV) including Hepatitis B (HBV) and Hepatitis C (HCV)

Key insights

- Gloucestershire is a low Tuberculosis (TB) incidence county with a prevalence of 3.4% compared to 8.0% in England during the period 2019-2021². However, increasing migration to the area from people seeking asylum and/or employment from countries where TB incidence (and drug resistant TB incidence) is high has led to an increase in the numbers of people requiring treatment for latent TB within local respiratory services.
- The proportion of drug sensitive TB cases who have completed a full course of treatment by 12 months was 82.4% in 2020, which is higher (but statistically similar) to the England and South-West averages (84.2% and 81.7% respectively).
- During 2020 84.2% of people diagnosed with TB were offered an HIV test, this is higher than the national average (65%) but lower than our statistical neighbours (97.8%).

² OHID Fingertips Public Health Outcomes Framework [accessed 01/11/2023]

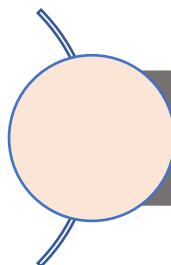
- Rates for HBV/HCV testing in target groups and Hep B vaccination are in line with national averages (although the number of people identified as eligible for Hep B vaccination within the county is very low). However, a reduction in face-to-face contact between drugs and alcohol service users and providers during the Covid-19 pandemic negatively impacted testing and vaccination rates across the country. Service delivery has returned to pre-pandemic levels with a corresponding increase in numbers receiving these interventions.
- Of those tested in 2022/23 for Hepatitis C in Gloucestershire, 24.11% tested positive (against the national average of 22.86%). Source – National Drug Treatment Monitoring System, 2023.
- Since 2015-2017 Gloucestershire has had a statistically significantly higher late HIV diagnosis rate when compared to both the national average and our statistical neighbours. In 2019-2021 this was 56.3% for people first diagnosed with HIV in the UK.

What are we doing locally?

- All babies who are born to parents from high prevalence countries are offered a BGC vaccination as part of their maternity care, with good uptake for those offered.
- A small TB specialist resource is commissioned with GHFT and embedded in their acute respiratory team. This consists of a consultant and one full time nurse equivalent who undertake treatment and contact tracing. Complex TB diagnosis, and larger TB incidents are dealt with on a case-by-case basis with involvement from UK HSA as appropriate.

- Screening for active TB and BBV's takes place through primary care or via a migrant nurse led initial health-check for new migrants (including those living in asylum hotels in the county). A pathway for Latent TB (LTBi) screening and treatment (for people that meet the national LTBi screening criteria) has been agreed and implemented within existing service provision.
- Occupational health screening occurs for new healthcare staff moving to the county and employed by the two main NHS trusts (no equivalent screening occurs for social care staff).
- Prior to the pandemic a review of TB services and strategy was started in the county, reporting to the Integrated Care Board's Respiratory Clinical Programme Board (CPG), and was paused during the pandemic. New Getting It Right First Tim (GIRFT) guidance for low incidence counties is expected in late 2023 and a review of the service specification for TB pathways is planned for 2023/24.
- A UK HSA chaired South-West TB control board and monthly TB cohort reviews are established (and include Gloucestershire) to discuss complex cases.
- GCC commission 'Change Grow Live' (CGL) to provide a Drug and Alcohol service for the county. This service routinely identifies those at risk and offer testing for BBV's.
- In accordance with NICE guidance, specialist needle exchange is commissioned within drug and alcohol treatment hubs across the county, supported by countywide pharmacy-based needle exchanged provision for better access.

- A specialist sexual health service providing Hepatitis B vaccination for key target groups and Hepatitis C testing and counselling (with referral pathways) is commissioned through Gloucestershire Health and Care NHS Foundations Trust.
- It is not clear from routinely available data how many people diagnosed with HCV within the county are offered and complete treatment. The Hepatology Operational Delivery Network (ODV) has worked in partnership with UK HSA to develop an interactive dashboard of hepatitis data and a local evaluation of the pathway is currently taking place.



Minimise the harm caused by outbreaks and incidents

Key insights

- During 2023 (from Jan to Oct) there were 156 number of infections in Gloucestershire residents notified to GCC via UK HSA (with HPZ number). (Source: GCC Health Protection Incident Log)
- The 6 District Councils within Gloucestershire collect data relating to their inspection staffing level, inspections conducted and outcome from inspections.

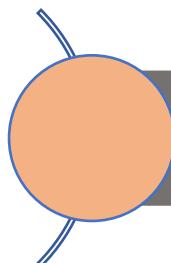
	Cheltenham	Cotswold	Forest of Dean	Gloucester	Stroud	Tewkesbury
FTE Food safety professionals	2.8	2.3	2.3	3	2.2	1.5

Total No of Food Premises (on 01/04/23)	1102	1148	805	1059	1273	808
Inspections due on 1 st April 2023	290	519	462	250	665	250
Inspections overdue on 1 st April 2023	279	4	6	9	227	20
Unrated premises at 1 st April 2023	25	48	14	24	80	26
No of interventions achieved in 22/23	480	583	542	720	602	405
FHRS Total rated establishments May 23	1106	1008	715	1044	925	773
FHRS Establishments with rating of 3+	1064	955	694	1004	897	756
% rated 3+ (Broadly compliant)	96%	95%	97%	96%	97%	98%

What are we doing locally?

- A Local Health Resilience Partnership (LHRP) is in place with clear terms of reference and links to the Local Resilience Forum (LRF). The LHRP workplan has Emergency Preparedness Response and Resilience (EPRR) training across all partners organisations as a priority.
- A template (GAAP) for local systems to review their pathways for key public health actions (such as swabbing and antiviral prescriptions) was developed by UK Health Security Agency. This toolkit has been used to identify gaps in local provision and to take action to clarify roles and responsibilities and resources.
- Gloucestershire LRF's Communicable Disease plan has been reviewed following consultation with system partners. The plan was exercised in October 2023 and has been updated to reflect information gathered during the exercise. Building on the learning undertaken viz the UK HSA GAAP tool analysis, a series of local action cars are being developed for public health actions to sit alongside the communicable disease plan.
- There is a current LRF Animal Health Plan which was tested in November 2022.

- With the ambition of NHS England to delegate immunisations to ICB's conversations are taking place about the path to integrated immunisations in the county, including outbreak response arrangements.
- Each lower tier local authority has a dedicated Environmental Health Officer (EHO) team who conduct food safety inspections of premises and support outbreak management investigation and control as appropriate.
- District Councils have Service Plans in place stating staffing levels within the district teams and inspection plans for all food premises to ensure the safety and wellbeing of the population.
- Gloucestershire Health Protection Assurance Board receive regular updates about the work of Environmental health teams and the work undertaken to prevent outbreaks.



Ensure that no harm is caused by preventable health and social care infections

Key insights

- Rates of AMR hospital on-set infections have decreased between the year to Jul-22 and Jun-23. All rates were below the England rates except C. difficile (community onset-healthcare associated), which was higher.³
 - E. coli bacteraemia counts and 12-month rolling rates of hospital-onset: 8.4 per 100,000 (England: 14.2 per 100,000).
 - Klebsiella spp. bacteraemia counts and 12-month rolling rates of hospital-onset: 4.1 per 100,000 (England: 7.0 per 100,000).

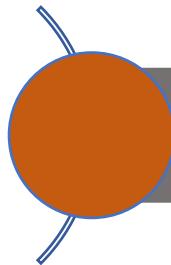
³ OHID Fingertips AMR dashboard [accessed 01/10/2023]

- *P. aeruginosa* bacteraemia counts and 12-month rolling rates of hospital-onset: 2.3 per 100,000 (England: 3.0 per 100,000).
- MRSA cases counts and 12-month rolling rates of hospital-onset: 0.5 per 100,000 (England: 0.5 per 100,000).
- MSSA cases counts and 12-month rolling rates of hospital-onset: 6.1 per 100,000 (England: 6.9 per 100,000).
- *C. difficile* infection counts and 12-month rolling rates community onset-healthcare associated: 5.6 per 100,000 (England: 4.6 per 100,000).

What are we doing locally?

- Both hospital trusts have Directors of Infection, Prevention and Control (DIPC's) in place and dedicated IPC teams (including microbiology and nursing staff) to support prevention and outbreak management. Healthcare associated infections are monitored closely by a multi-agency infection prevention and management operational group with action as required, including a *Clostridium Difficile* (C.Diff) action plan.
- A further example of activity taking place is a pilot project introducing a virtual clinic for C.Diff, led by GHFT, to take a proactive approach to managing the infection and limiting transmission in the community and within healthcare settings. Gloucestershire Heath Protection Assurance Board receives twice yearly HCID reports.
- All IPC leads in the county report into the Integrated Care Board 'Infection Prevention and Management Group. This group has been recently put in place to provide strategic direction to both IPC and AMS sub-groups and activity in the county.
- Gloucestershire ICB employ an IPC lead nurse for primary care. Additionally, they employ a specialist IPC resource for care homes and SEND settings (currently funded by Gloucestershire County Council). Their primary role is to work with settings to help them prevent infections and put in place appropriate mitigations to minimise the risk of transmission in the setting, as well as provide on the ground support to setting in response to outbreaks of infectious diseases. The care home IPC (CHIPC) team is currently funded until March 2024.

- Promotional materials have been developed and distributed by the CHIPC team, including posters for care homes outlining good practice, a suite of films available via YouTube outlining approaches to IPC and regular webinars for care home staff on winter preparedness.
- An IPC audit and a self-assessment tool for care homes on approaches to hydration has been developed to help reduce the incidence of urinary tract infections in care home residents and identify opportunities for reducing transmission of respiratory and other infections in the home.
- A Communication tool for suspected urinary track infections has been developed by the UKHSA primary care team working on identifying UTIs in residential care settings and supporting untrained staff with management of UTI. The tool is being tested in Gloucestershire (3 care homes) and the Midlands. If successful it will be rolled out countywide.
- Point of Care testing for a range of respiratory viruses is provided in primary care and in emergency departments to quickly identify pathogens and enable appropriate treatment and IPC mitigations, such as isolation or cohorting of individuals.
- Point of care testing to care homes for flu is provided by the CHIPC team to enable fast diagnosis of flu amongst residents and to ensure that public health measures can be taken quickly.



Reduce harms and long-term risks from AntiMicrobial Resistance (AMR)

Key insights

- Gloucestershire 9.45%⁴ of prescribed antibiotic items from cephalosporin, quinolone and co-amoxiclav class on a twelve-month rolling percentage compared to 8.76% in England (comparable).
- Gloucestershire has 0.75 per STAR-PU⁵ of prescribed antibiotic items (twelve-month rolling total number), which is better when compared to England at 0.80 per STAR-PU*.
- More insight can be found in our AMS JSNA at <https://www.goucestershire.gov.uk/inform/health-and-wellbeing/>

What are we doing locally?

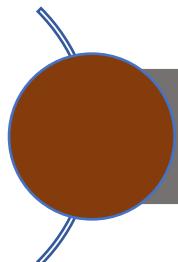
- An anti-Microbial Stewardship (AMS) group has been re-established following a hiatus during the Covid pandemic.

⁴ OHID Public health profiles [accessed 01/09/2023]

⁵ *STAR-PU = Specific Therapeutic group Age-sex Related Prescribing Unit . STAR-PU is an adjusted rate that removes confounding effects of age and sex in the comparison of prescribing between different geographical areas. This method allows for more accurate comparison of prescribing. The aim is to reduce antibiotic use, as overuse and incorrect use are major drivers of antimicrobial resistance (AMR).

- Gloucestershire County Council and Gloucestershire ICB produced a video aimed at young people advising on how to reduce AMR, winning an Antibiotic Guardian award in 2019. Watch [here](#).
- Promotion of e-Bug lesson plans to teach about hygiene, microbes, vaccinations, and antimicrobial resistance from ages 3-16, through our Health Lifestyles and Learning Team (GHLL).
- All Infection Prevention and Control leads in the county report into the Integrated Care Board 'Infection Prevention and Management Board'. This board has been recently put in place to provide strategic direction to both IPC and AMS activity in the county.
- An IPC audit and a self-assessment tool for care homes on approaches to hydration has been developed to help reduce the incidence of urinary tract infections in care home residents and identify opportunities for reducing transmission of respiratory and other infections in the home. Additionally support is being offered to care home on managing oral health which impacts on a huge range of outcomes for an individual including infection and antibiotic use.
- Point of Care testing for a range of respiratory viruses is provided in primary care and in emergency departments to quickly identify pathogens and enable appropriate treatment and help avoid antibiotic prescribing for viral infections.
- To promote good infection, prevention and control eBUG resources and guidance will be shared with schools during a Conference planned in 2024 to work with Education settings around infection prevention and anti-biotic use.
- The Gloucestershire Formulary provides clear guidance to primary and community care, and acute providers on prescribing for common infections Primary Care Antimicrobial Guidelines

- TARGET (which stands for Treat Antibiotics Responsibly, Guidance, Education and Tools). It is a toolkit designed to support primary care clinicians, prescribers and community pharmacy to champion and implement antimicrobial stewardship activities. This toolkit is promoted through the county.



Enable people to live and work in areas with good air quality

Key insights

- Overall air quality in Gloucestershire is good, however there are areas with poorer air quality in the urban centres of Cheltenham and Gloucester. A full summary of current data on air quality in Gloucestershire is available from [Health and Wellbeing | Inform Gloucestershire](#)
- The fraction of mortality attributable to particulate air pollution is 5.3% compared to 5.5% for England. At district level;
 - Gloucester (5.8%) has levels above England (2021),
 - Cheltenham (5.5%) is the same as England (2021), and
 - Tewkesbury (5.4%), Stroud (5.2%) and Cotswold and Forest of Dean (both 5.0%) districts are below the England average.
 - Both Cotswold and the Forest of Dean are also below the SW average of 5.1%

- Nationally, and locally, air quality has improved in 2020 and 2021 due to covid. The ongoing and future trend will be monitored (next updated for 2022 data, due in February 2024).

What are we doing locally?

- Each lower tier local authority regularly monitors air quality in their district to ensure that they are meeting nationally set objectives for air quality.
- For Nitrogen Oxide (NOx) tube monitoring DEFRA guidelines are followed by local authorities. In line with guidance, tubes are located close to sources likely to produce elevated levels of NOx, due to high traffic levels and persistent congestion. Locations must reflect realistic exposure so are generally fixed close to a residential building in an accessible position on street furniture.
- There are Seven Air Quality Management Areas in place in the county in Cheltenham, Gloucester, Forest of Dean and Cotswold districts (these areas are identified because of the risk of national air quality objectives not being achieved). These areas will have a plan developed to improve air quality (called a Local Air Quality Action Plan) by local authorities.

Table 1: Air Quality Management Areas in Gloucestershire 2023

Local Authority	AQMA Name	Description	Pollutants	Data Declared
Cheltenham Borough Council	Cheltenham AQMA 2020	<ul style="list-style-type: none"> • High Street from junction of Gloucester Road and Tewkesbury Road to junction of Burton Street • Poole Way • Swindon Road from junction of Poole Way to St George's Street 	Nitrogen dioxide	15/09/2020

Cotswold	Birdlip AQMA	An area encompassing the junction of the A417 and A436 at the Birdlip Roundabout including nearby properties	Nitrogen dioxide	08/04/2008
Cotswold	Thames Street, Lechlade AQMA	A section of road on Thames Street in Lechlade near the junction of Thames Street (A361) with the High Street (A417). The road is used by a mix of vehicle types (including HGV's) controlled by traffic lights at the busy junction. The traffic controls cause queuing in peak periods alongside the front of cottages.	Nitrogen dioxide	02/04/2014
Forest of Dean	Lydney AQMA	An area in Lydney along parts of the B4231 (High Street, Hill Street and Newerne Street) and parts of Bream Road and Forest Road	Nitrogen dioxide	01/07/2010
Gloucester	Barton Street AQMA	An area encompassing Barton Street, Gloucester from its junction with Trier Way/Bruton Way to the north west and Upton Street to the south east	Nitrogen dioxide	08/08/2005
Gloucester	Priory Road AQMA	An area encompassing the junction of St Oswalds Road and Priory Road	Nitrogen dioxide	08/08/2005
Gloucester	Painswick Road AQMA	An area encompassing a number of properties on either side of Painswick Road, Gloucester	Nitrogen dioxide	05/10/2007

- A [Gloucestershire air quality and health strategy](#) was written in July 2019 which sets out a number of recommendations with updated content being available on the [Gloucestershire Joint Strategic Needs Assessment](#).
- A workshop took place with key stakeholders in October 22 to review progress on the 2019 Air Quality and Health Strategy and bring together key stakeholders. This workshop provided a renewed focus on the agenda recommending that:
 - Behavioural insights approaches were used to inform public engagement in improving air quality

- Ensure funding for air quality monitoring is maximised across the county
- Continue to use the Health and Planning toolkit ([Health and Planning Framework](#)) when reviewing planning applications
- Linking the work on Ultra Low Emission vehicles and introduction of charging points to areas with poorest air quality
- Appropriate links are made to the work of Climate Leadership Gloucestershire

Recommendations for action: 2024-2025 *[action owner]*

General

- Develop an annual assurance statement for Gloucestershire Health and Wellbeing board to provide evidence of the services and pathways in place protecting the population against infectious diseases.
- Health Protection Assurance board to work more closely/through other system groups and networks to avoid duplication and divergent strategy. This will include a 6 monthly HPAB with delegated responsibility for key health protection delivery delegated through existing groups e.g. Food Safety Group, Local Health Resilience Forum, Infection Prevention and Management Group.

Protect the population against key vaccine-preventable diseases by maximising immunisation uptake *[NHS Gloucestershire and NHS England led Maximising Immunisations in Gloucestershire Group]*

- Ensuring vaccination programmes use data and evidence-based approaches to delivering vaccines to areas and groups with low uptake of vaccinations through monitoring uptake data by gender, age group, ethnicity, deprivation and geography, and 'plus' groups such as people with learning disabilities, serious mental illness and new migrants.

- Promotion of MMR vaccination to young adults for those that missed the vaccine through engagement with the three universities in Gloucestershire.
- Develop relationships with Traveller sites in the county to increase uptake of MMR vaccine in all age groups.
- Through the 'Access for All' programme, work with GP surgeries to ensure that vaccination uptake is documented and improve completeness of vaccination recording across the county.

Minimise the spread of common infections through infection, prevention, and control (including hand and respiratory hygiene) [\[GCC Public Health Team\]](#)

- Review the role of Gloucestershire Healthy Living and Learning (GHLL) in promoting infection, prevention control measures and establish a mechanism for understanding activity and impact of this intervention.
- Schools conference focussing on Infection Prevention Control focusing on improving pupil attendance which will cover infection prevention and control targeted at primary, secondary/FE and special school settings to raise awareness

Minimise the transmission of Tuberculosis and Blood Borne Viruses (BBV) including Hepatitis B (HBV) and Hepatitis C (HCV) [\[GCC Public Health and Gloucestershire ICB Clinical Programme Groups\]](#)

- Review local pathways for blood born virus pathway against NICE guidance to understand gaps and coverage.
- Implement recommendations from 'Getting it Right First Time' (GIRFT) for low incidence areas when the report is published later this year.
- Ensure local pathway for treatment of those with no resource to public funds, including safe accommodation during treatment

Minimising harm from incidents and outbreaks

- Develop and implement clear local action cards for core public health response activities in communicable disease incidents and outbreaks, e.g: Swabbing for high-consequence infectious disease in the community, provision of mass vaccination, antibiotics and immunoglobulin [**\[Local Health Resilience Partnership\]**](#)
- Develop a Memorandum of understanding in financial arrangements for responding to a large incident or outbreak [**\[Local Health Resilience Partnership\]**](#)
- Continue to implement and monitor food safety measures via the Gloucestershire Food Safety Group [**\[Gloucestershire Food Safety Group\]**](#)

Ensure that no harm is caused by preventable health and social care associated infections and Reduce harms and long-term risks from antimicrobial resistance [**\[Gloucestershire ICS Infection Prevention and Management Group\]**](#)

- Development of a localised action plan to deliver the strategy ambitions of the NHS England (SW) Infection Prevention Management Strategy once published later this year.

Enable people to live and work in areas with good air quality [**\[Upper and Lower Tier local authorities\]**](#)

- Development of Air Quality Strategy Plans in each of the districts in Gloucestershire bringing together district councils and relevant departments across Gloucestershire County Council including Public Health and Sustainable Transport.

Appendix 1 - Outcome Matrix

WGLL Outcome Matrix - Gloucestershire and Districts (where available).						
Compared to PHOF/other benchmark, where none: SW benchmark, or England were SW not available.						
Date updated: 30/08/2023						
Key	Target Reached	Within 1% of target	Within 2% of target	Target not reached	Comparison to Target	
Metric	Period	Target	Gloucestershire (arrow indicates trend to previous time period)	SW	England	
Protect the population against key vaccine-preventable diseases by maximising immunisation uptake (children)						
DTaP/IPV/Hib (age 1yrs)	2021/22	95%	94.2%	94.8%	92.0%	
DTaP/IPV/Hib (age 2yrs)	2021/22	95%	95.5%	95.8%	93.8%	
HiB/MenC (age 2yrs)	2021/22	95%	93.3%	93.1%	89.0%	
MMR 1 dose benchmark (age 2yrs)	2021/22	95%	93.3%	93.3%	90.3%	
MMR 2 dose benchmark (age 5yrs)	2021/22	95%	91.1%	90.6%	85.7%	
COVER - DTaP/IPV/Hib (age 5yrs) (primary)	2020/21	95%	N/A	97.0%	96.8%	95.2%
Hib-Men C booster (age 5yrs)	2017/18	95%	N/A	94.3%	94.9%	92.4%
DTaP/IPV (age 5yrs) (booster)	2021/22	95%	90.1%	89.0%	85.3%	
Flu (2-3 years old) Population vaccination coverage - Age 2	2022/23	65%	49.8%	56.8%	42.3%	
Flu (2-3 years old) Population vaccination coverage - Age 3	2022/23	65%	N/A	53.5%		45.1%
Primary age children school flu vaccine uptake	2022/23	65%	76.3%	56.8%	55.5%	
Flu eligible secondary school age population vaccination coverage (age 11-14 yrs) (Y7-Y9)	2022/23	65%	N/A	58.9%	50.9%	41.9%
Flu all school age children (age 4-14yrs)	2022/23	65%	N/A	70.7%	58.8%	51.9%
HPV vaccine uptake: 1 dose (12-13 years old, female) Y8	2021/22	90%	76.6%	68.5%	69.6%	
HPV vaccine uptake: 1 dose (12-13 years old, male) Y8	2021/22	90%	68.6%	58.6%	62.4%	
Meningococcal ACWY conjugate vaccine (14-15yrs)	2021/22	90%	77.0%	77.3%	80.9%	
Protect the population against key vaccine-preventable diseases by maximising immunisation uptake (adults)						
Flu vaccination coverage age 65+ (County)	1 Sept 22-28 Feb 23	75.0%	84.8%	85.3%	82.3%	
Shingles vaccination uptake age 71 years	2021/22	60.0%	50.4%	45.5%	44.0%	
Shingles vaccination uptake - patients age 80 who received a shingles vaccine between the ages of 70 and 79 years	2021/22	60.0%	N/A	62.1%	60.3%	56.6%
Covid-vaccination - received Spring Booster 2023 (Age 75+)	to 12/7/23	England	77.5%	77.6%	70.2%	
Flu vaccination uptake under 65 (at risk only)	Prov Sept 22 - 28 Feb 23	55.0%	N/A	58.2%	54.7%	49.1%
Flu vaccination uptake - pregnant	Prov Sept 22 - 28 Feb 23	55.0%	N/A	46.6%	41.4%	35.0%
Pneumococcal vaccination uptake in population (PPV vaccine) - Age 65+	2021/2022	75%	73.1%	71.3%	70.6%	

WGLL Outcome Matrix - Gloucestershire and Districts (where available).

Compared to PHOF/other benchmark, where none: SW benchmark, or England were SW not available.

Date updated: 30/08/2023

Key	Target Reached	Within 1% of target	Within 2% of target	Comparison to Target		
				Gloucestershire (arrow indicates trend to previous time period)	SW	England
Metric	Period	Target				
Minimise the spread of common infections in children through infection, prevention and control (including hand and respiratory hygiene)						
Number of outbreaks in settings (UKHSA notifications - all in log)	Sep-23		●	19		
Migrant health reported outbreaks (UKHSA notifications for hotels)	Sep-23		●	1		
Minimise the transmission of Tuberculosis and Blood Borne Viruses (BBV) including Hepatitis B (HBV) and Hepatitis C (HCV)						
HCV Test offered and accepted (current/former injectors)	Apr21-Mar2022	51.6%	N/A	50.6%		51.6%
TB incidence 3 year average	2019-21	8.0%	●	3.4%	3.3%	8.0%
Proportion of drug sensitive TB cases who had completed a full course of treatment by 12 months	2020	82.0%	●	82.4%	81.7%	82.0%
Reduce harms and long-term risks from antimicrobial resistance						
C. difficile infection counts and 12-month rolling rates community onset-healthcare associated, by CCG and month	May 2022 (12 month rolling rate)			7.70		4.3
Twelve-month rolling total number of prescribed antibiotic items per STAR-PU (indirectly standardised ratio per STAR-PU)	Mar-22	<= England 2015/16	●	0.73		0.80
E. coli bacteraemia counts and 12-month rolling rates of hospital-onset	to Jun23	14.20	●	8.40	12.90	14.20
Klebsiella spp. bacteraemia counts and 12-month rolling rates of hospital-	to Jun23	7.00	●	4.10	4.90	7.00
P. aeruginosa bacteraemia counts and 12-month rolling rates of hospital-onset	to Jun23	3.00	●	2.30	2.30	3.00
MRSA cases counts and 12-month rolling rates of hospital-onset	to Jun23	0.50	●	0.30	0.50	0.50
MSSA cases counts and 12-month rolling rates of hospital-onset	to Jun23	6.90	●	6.10	7.50	6.90
C. difficile infection counts and 12-month rolling rates community onset-healthcare associated	to Jun23	4.60	●	5.60	5.80	4.60
Enable people to live and work in areas with good air quality						
Fraction of mortality attributable to particulate air pollution (new method) (age 30+)	2021	England	●	5.3%	5.1%	5.5%