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3.5

Winter Planning 2021/22 (Health Protection and Microbiology Services)

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Business Executive Team (2 November 2021)
Quality, Safety and Improvement Committee

Purpose

To provide a summary briefing on planning, preparation and progress for Winter 2021/22 from a Health Protection and Microbiology service perspective. This paper was also considered by the Quality, Safety and Improvement Committee on the 10 November and is provided to Board for assurance.

Recommendation:

APPROVE

CONSIDER

RECOMMEND

ADOPT

ASSURANCE

The Board is asked to:

- **Receive** and take **assurance** from the update on planning, preparation and progress for Health Protection and Microbiology Services for Winter 2021/22
- **Note** the publication of key Welsh Government Plans for Winter 2021/22

- **Note** that this work forms part of an organisational wide approach to Winter 2021-22 (on which a presentation will be provided at the Board meeting).

Link to Public Health Wales [Strategic Plan](#)

Public Health Wales has an agreed strategic plan, which has identified seven strategic priorities.

This report contributes to the following:

Strategic Priority	5 - Protecting the public from infection and environmental threats to health
Strategic Priority	Choose an item.
Strategic Priority	Choose an item.

Summary impact analysis

Equality and Health Impact Assessment	An Equality and Health Impact Assessment is not required.
Risk and Assurance	This paper relates to Risk 1 on the Strategic Risk Register.
Health and Care Standards	This paper supports and/or takes into account the Health and Care Standards for NHS Wales Quality Themes Theme 1 - Staying Healthy Theme 3 - Effective Care Theme 7 - Staff and Resources
Financial implications	Addressed within the overall budget process for the Health Protection and Screening Services Directorate
People implications	Addressed within the overall workforce plans for Health Protection and Microbiology including the Health Protection Business Case process.

1. Introduction

Over the last few months our teams have been actively engaged in providing advice in relation to and planning for the winter of 2021/22.

The winter of 2021/22 will present a number of challenges in relation to the delivery of health protection and microbiology services, which require consideration in relation to the ongoing prevention, management and response to infection, communicable disease and environmental hazard response.

This paper provides an update briefing on the relevant aspects of planning, response, priorities and progress for Health Protection and Microbiology services.

Following the publication of a number of strategy and planning documents by Welsh Government at the end of October, this activity now also needs to be framed in the context of the:

- Welsh Government Coronavirus Control Plan (Updated 8 October 2021 <https://gov.wales/coronavirus-control-plans>)
- Welsh Government Public health response to respiratory illness Plan: winter 2021-22 (published on 21 October 2021). **Appendix 1.**
- Welsh Government Health and Social Care Winter Plan 2021-22 (published on 21 October 2021) [Winter Protection Plan 2021-2022](#)

2. Background

Public Health Wales has an important system leadership and service delivery role as we approach the winter of 2021/22. Over the last few months, Health Protection and Microbiology divisions have continued to provide acute response in relation to the prevention and management of COVID-19, other respiratory viruses and the control of other infectious disease/environmental hazards.

In addition they have provided a range of support to Welsh Government and partners in developing a planned approach to Winter 2021/22.

This has specifically included involvement in:

- Initial preparation for a system wide workshop on Covid-19/winter virus preparedness and response
- CMO Division led working group focused on winter respiratory illness,
- Commenting on a variety of documents and proposals including CMO Health Protection Advisory Group priorities and
- Submitting Public Health Wales specialist Advice Notes to CMO Wales for consideration as part of policy making related to COVID-19 and wider respiratory virus response.

This year, modelling suggests that we can anticipate significantly higher numbers of people to become unwell with winter viruses. This increased demand is anticipated to place a significant burden on our already-stretched health and social care services.

Public Health Wales services had been undertaken a range of activity to plan and deliver our winter service response.

On 21 October CMO Wales issued a *Public Health response to respiratory illness – Winter 2021/2022 plan* for adoption and implementation

The 'Respiratory response' plan (**Appendix 1**) is confirmed to be set in the context of:

- Welsh Government's updated Coronavirus Control Plan published on 8 October and
- A broader Health and Social Care Winter Plan for 2021-22, also published on 21 October which sets out the principles and wider priorities for Winter 2020/21.

The plan sets out the strategic aims and immediate and future priorities for action. Public Health Wales will now review its current response and address these as appropriate.

3. Assessment

3.1 Assessment of Health Protection Threats - Winter 2021/22

As the Covid-19 pandemic transitions to endemic transmission, the policy and strategic direction is moving towards accepting Covid-19 as a vaccine-preventable disease where immunisation is the most critical first line of defence, complemented by: isolation and testing of symptomatic individuals; surveillance and risk-based response to incidents and outbreaks of the infection. Ongoing monitoring of new variants will remain critical.

The Public Health Wales response and the Welsh Government 'Respiratory Response plan' is therefore specifically targeted at the health protection system's contribution towards meeting the challenge of a winter in which seasonal influenza virus and other respiratory viruses will co-circulate alongside Covid-19 and other infectious diseases and environmental hazards.

In the situation where social mixing and social contact return towards pre-pandemic norms, it is expected that winter 2021 to 2022 will be the first winter in the UK when seasonal influenza virus and other respiratory

viruses will co-circulate alongside Covid-19. There is already emerging evidence to support this as through the ICU surveillance [reports](#).

Seasonal influenza and Covid-19 viruses have the potential to add substantially to the winter pressures usually faced by the NHS, particularly if infection waves from both viruses coincide. The timing and magnitude of potential influenza and Covid-19 infection waves for winter 2021 to 2022 are currently unknown, but some mathematical modelling indicates the 2021 to 2022 influenza season could be up to 50% greater than that seen in previous seasons.

Modelling data also suggests that SARS CoV-2 will continue to be in circulation throughout this autumn and winter. Even though Wales has a very good coverage of COVID-19 vaccination, there are cohorts of susceptible populations who will be at risk. It is also recognised that there is waning immunity following primary course of vaccination and therefore that is also likely to contribute to susceptible cohorts. Risk of importation of new variants including importation through arriving travellers also continues.

In addition to SARS CoV-2, other seasonal winter pathogens will be in circulation, notably, Influenza, parainfluenza, RSV and Rhinovirus. Norovirus, meningococcal meningitis and invasive Group A Streptococcus are all known to have higher incidence in the winter months

Non-infectious environmental hazards including ill-health due to poor air quality, flooding and cold waves remain endemic threats.

There has been a noticeable increase in other infectious disease incidents following the introduction of Level 0 restrictions.

3.2 Health Protection and Microbiology Services Response

Public Health Wales services had been undertaken a range of activity to plan our winter service response.

Our activity is now being framed within the context of the published Welsh Government plans.

The Strategic aim of the Welsh Government Respiratory Response plan is to reduce harm of Covid-19 and influenza infections, including by reducing cases where possible. This to be achieved through:

- Effective and timely vaccination programmes and other pharmaceutical interventions.

- Comprehensive surveillance programme that provides timely intelligence and supports the public health system to take action to reduce harm.
- Sampling and testing strategy supported by prioritised whole genome sequencing
- Contact-tracing model which covers warning and informing and targets high-risk settings
- Guidance on management of respiratory outbreaks for vulnerable settings such as health and social care.
- Effective communication, supporting the public to reduce personal risk

To complement the plan narrative and ongoing we have summarised below the PHW Health Protection and Microbiology activity for these objectives:

a) Vaccination and Immunisation

As part of the annual influenza programme, previously Public Health Wales have been responsible for the delivery of an annual influenza campaign. This has been delivered over the last several years under the '*Beat Flu*' brand. This media campaign runs from October to March including a six week intensive focus on promoting vaccination delivered through television, radio and online materials, with a later phase focussed on preventative measures (e.g. catch it, kill it, bin it).

As we anticipated COVID-19 and flu both circulating this winter, to enable more efficient working and joined up public information, planning has been to incorporate both these respiratory virus vaccine programmes into one campaign as much as possible. The overall aim of this campaign is to protect the health of the public in Wales by reducing the impact of flu and COVID-19. It will aim to do this by targeting multiple elements, including by highlighting the dangers of both flu and COVID-19, and encouraging eligible individuals to be vaccinated.

For 2021/22 the traditional seasonal flu campaign has been brought under the umbrella of the Vaccination Saves Lives (VSL) campaign, to ensure consistency with other vaccine programmes, and to capitalise on the public awareness of this brand generated from COVID-19. This is being run as a joint respiratory campaign covering flu and COVID-19 vaccinations across the autumn and winter.

Now that all vaccines are being promoted under the same brand identity in Wales, it is important that there is an overarching strategy for co-ordinating different elements under the brand, and for prioritising investment.

Funding for the annual flu programme is within Welsh Government core funding, and for 2021/22 significant additional funding has been provided to Public Health Wales by Welsh Government to support activities around the COVID-19 vaccination programme. Investment of these funds in public communications is being co-ordinated and prioritised within an overall approach to be most effective.

In order to protect individual and population health from mortality and morbidity from vaccine preventable diseases, it is necessary to maximise vaccination uptake, especially in those who are more vulnerable.

The most recent vaccine equity report shows a clear gradient based on age and social deprivation, with uptake of vaccine 3.8% lower, for adults aged over 80 in the most deprived communities, increasing to 11.4% lower for adults aged 18-29 and 17.3% for the newly added 16-17 years cohort in the most deprived communities, compared to people of the same age living within the least deprived.

It also highlights a similar gap by ethnicity with those reporting that they were Black, Asian, Mixed or Other ethnic groups. Vaccine uptake in these groups is 8.6% lower for those over 80, rising to 15.4% lower for 18-29, compared to white ethnic groups.

Provisional data on coverage in pregnant women who delivered throughout July 2021 (latest data available) shows uptake is low. At the point of delivery 14.9% of women who gave birth during July 2021 had received one dose and 5.8% had received two doses of vaccine.

The proposed co-ordinated strategy for 21/22 was successfully launched on 28 September 2021:

<https://nhswales365.sharepoint.com/sites/PHW/SitePages/Public-Health-Wales-launches-its-biggest-ever-flu-and-COVID-19-booster-vaccinations-campaign.aspx> and has three stated aims:

- To maximise COVID-19 and flu vaccine availability, awareness and acceptability in the population of Wales in order to promote maximise vaccine uptake.
- To reduce inequalities in COVID-19 and flu vaccine uptake through public and professional engagement to understand barriers to vaccine uptake and targeted interventions to address these.
- To ensure, wherever possible, that targeted communications address all appropriate vaccines within the VSL brand.

A dedicated 'Communication plan' for the Winter respiratory campaign has also been put in place.

The annual winter flu programme has a budget of approximately £170,000, and is aimed at promoting vaccination uptake through maximising campaign messaging to the widest possible audience across the population. The associated media spend is approximately £80,000.

This year, as described, the programme combined flu and COVID-19 vaccination messaging under the Vaccination Saves Lives brand. The broad theme of this year's campaign is 'keeping your life open' and highlights how vaccines can help you do the things you love doing by keeping you healthy this winter. This campaign has broad reach including

- A 30 second TV advert (for use on linear channels ITV and S4C)
- A 30 second radio advert for use on a range of commercial stations across Wales
- Influencer videos
- Paid for Social Media
- Organic Social Media
- Out of home advertising (bus rears, on key routes across Wales).
- Public Relations and stakeholder engagement
- Refinement and development of the VSL brand

Initial feedback in relation to the "*keep your life open*" campaign has been impressive with good reach and engagement levels being reported for the initial 2 week period 28 September to 11 October (**Appendix 2**).

b) Surveillance and Information Sharing

Public Health Wales currently produces and will continue to publish a wide range of outputs covering the following areas:

- Community surveillance indicators of influenza-like illness (ILI) and acute respiratory infections (ARI)
- Surveillance of community acquired severe acute respiratory infection (SARI) and hospital in-patients
- Community and hospital surveillance of Covid-19 and suspected Covid-19 hospital and care home deaths
- Surveillance of severe outcomes of acute respiratory infections
- Intelligence on typing, sequencing and genomic analysis for surveillance of ARI and Covid-19
- Surveillance of Covid-19 and influenza vaccinations • Surveillance of population susceptibility

The COVID-19 pandemic has highlighted the importance of systematic and robust surveillance of respiratory infections. SARS-CoV-2 is now one of a number of endemic causes of respiratory infections in Wales. As respiratory infections often present in similar ways, and circulate concurrently, we proposed that the existing surveillance strategy for influenza-like illnesses (ILI), acute respiratory infections (ARI) and severe acute respiratory infections (SARI), should be updated to include SARS-CoV-2 and COVID-19. This will be of greater utility and efficiency than separate surveillance streams, whilst still allowing pathogen-specific analyses.

Surveillance of influenza remains a priority, even with the advent of SARS-CoV-2, as the overall burden of morbidity and mortality is comparable, with epidemics occurring on an annual basis. Without robust influenza surveillance, decisions around triggering use of antivirals for treatment and prophylaxis of flu in the community may be delayed. Timely detection to type and clade level is important in alerting to specific influenza viruses and associated impact on different settings (e.g. the impact of drifted influenza A (H3N2) clades on residential care homes) and informing future vaccine composition.

Public Health Wales has therefore identified and advised that community surveillance for influenza and other respiratory viruses needs to be strengthened. This has been reflected in the WG Respiratory Response Plan.

The aims of Public Health Wales' respiratory infection surveillance and further details of surveillance programmes are outlined in **Appendix 3**.

c) Role of whole genome sequencing to support Covid-19 and Influenza programme

Surveillance support will also be complimented by our whole genome sequencing services. This is also recognised in the WG Respiratory Response plan.

Genome sequencing is the only way to characterise new SARS-CoV-2 variants, and to unambiguously track and identify their arrival and spread in Wales. Wales will maintain SARS-CoV-2 variant surveillance and outbreak support, seeking to dynamically target sequencing capacity to where it is most needed. This winter, other pathogens (such as influenza) will also be an increasingly important pressure on the NHS, and the considerable benefits from sequencing these other key pathogens are being considered alongside the allocation of capacity for sequencing SARS-CoV-2.

As such, an approach will be adopted that seeks to use genomics to support the NHS this winter, whatever the pathogen.

Essentially, a prudent and prioritised approach to genomic sequencing will be adopted. We will begin the winter by aligning to sequencing targets now recommended by the UK Variant Technical Group, standardising surveillance sequencing to a UK-wide baseline with clear prioritisation of SARS-CoV-2 cases.

This means that sequencing capacity is likely to be made available to either cope with surges in testing, for example as part of a Covid-urgent scenario, and/or to enhance the surveillance for other pathogens of critical importance notably influenza.

d) Health Protection Response 'Operating Model'

The Health Protection team continue to provide acute response support to a very high volume of COVID-19 and other infectious disease and environmental hazards (that have increased since the policy move to Level 0)

The Health Protection team continues to engage with partners in redesigning the operating model to ensure it is proportionate to the risk, sustainable and takes into account the wider pressures in the system around returning to business as usual.

Until 15 November the team operated separate national acute response arrangements for COVID-19 (COVID-AWAre) and all other communicable disease/ environmental hazard (non-COVID AWAre). These have now been merged into a single all hazards service including engagement with Local Authority Public Protection services. The national model will be complimented by local delivery and leadership on management of incidents and outbreaks. An exercise workshop is being held with partners during November to run through a number of winter response scenarios

Cross boundary health risks and COVID specific international travel requirements are managed collaboratively. The legislative and policy context is set by Welsh Government, with frequent updates to requirements. At risk level 0 international travel is permitted with a complex arrangement of testing and information sharing requirements dependant on the country travelled from and purpose of travel. On day 2 after arrival in Wales, Lateral Flow Device testing is the requirement, with fully vaccinated travellers being exempt from isolation requirements. These arrangements can change at very short notice. Professional advice to TTP teams and others on international travel arrangements are managed within AWAre, with support from a lead Consultant within the Health Protection Team. The lead also supports regional PHW and other

resources should there be an incident on-board an arriving ship or aircraft.

The team are engaging particularly with Local Authority Directors of Public Protection (DPPW) / Environmental Health practitioners and a joint workshop is proposed in November.

The proposed operation model will also now be further assessed in the context of the WG Respiratory Response plan. In particular collaborative joint working with Environmental Health practitioners is planned to review current Standard Operating procedures e.g. for health and social care and other priority settings.

A number of wider PHW staff will return to their substantive roles (from their mobilisation to the COVID-19 response) at the end of October. Recruitment is continuing in relation to the Health Protection Business Case and Business Executive Team (BET) has recently also approved use of underspend resources on a fixed term basis, to seek to further add temporary staff capacity to enhance the health protection response until the end of the financial year.

e) Microbiology (Testing and Infection Management of Respiratory Disease)

The division has previously provided written advice to the CMO on testing approaches (*CMO Advice Note 21: Respiratory Virus Testing for the Winter. 16 September 2021*). This winter, the Welsh Government 'Respiratory Response plan' has required that we will maintain widespread community testing.

The Welsh Government testing strategy for Winter is outlined in the Respiratory Response Plan (page 10).

Our Public Health Wales laboratories are continuing to experience their highest ever level of sample volumes - in the past 12 months undertaking 1m COVID tests and ~1.3m non-COVID testing whilst maintaining turnaround times across all specimen types. For COVID testing, in-lab Turn Around Time has averaged 5 hours across all platforms for 70%+ of samples.

NHS Wales COVID standing testing capacity i.e. can be delivered without surge and redirection of resources is 8,100 tests per day. There is the option to increase this to up to 15,000 tests per day but this would require cessation of other testing services including screening.

Whilst focus has been on the testing for SARS-CoV-2, there are additional risks posed this winter from influenza and other respiratory pathogens,

and as such there will be an increase in testing for some high-risk groups by using tests which can detect a range of viruses including influenza and Covid-19 (known as multiplex testing whereas a test for a single target is known as a singleplex). Roughly half of our standing testing capacity can test for minimum of SARS-CoV-2, FluA, FluB and RSV.

The PHW laboratory services will continue to come under pressure. Modelling indicates that if there is a very high levels of respiratory disease circulating, there is a risk that testing demand could exceed lab capacity in Wales and across the UK.

In this context, the team are continuing to work with partners and Welsh Government to consider how to, for example, prioritise the use of PCR testing and look at how best to utilise Lateral Flow Tests. Tried and tested business continuity plans are in place to manage the impact on the wider laboratory network.

The PHW Microbiology teams across Wales, also continue to provide support for the management of respiratory virus within healthcare settings, along with all other infections.

f) Prevention & Control (IP&C)

Throughout the pandemic the Healthcare Associated Infections, Antimicrobial Resistance and Prescribing Programme (HARP) has provided expert IP&C advice and guidance to the health and care sectors in Wales, as well as being drawn into guidance development and discussions regarding the application of IP&C measures in other sectors such as education, sport and hospitality. The IP&C expert leads within the team have also been key members of the UK COVID-19 IP&C guidance cell throughout the pandemic. Dr Eleri Davies is currently the Chair of the UK group and has worked extensively to help shape and gain approval for updated guidance.

In preparation for Winter 2021-22 an updated UK COVID-19 IP&C guidance document has been produced and circulated for consultation and engagement. The aim of the updated guidance is to transition towards management of SARS CoV-2 alongside other respiratory viruses and to move towards embedding the IP&C measures shown to benefit our system in managing COVID into "routine" IP&C approaches. The HARP team IP&C leads will continue to contribute to the UK work and will also then support the NHS and care sector in Wales with implementation. We will also continue to attend and report to the Nosocomial Transmission Group chaired by DCMO and CNO Wales, also aiming to link and align IP&C guidance and advice with SARS CoV-2 testing strategy in Wales and specific sector WG policy and guidance.

In addition to development guidance, the team have also been engaged in providing advice to 'front line' services. The new CNO Wales has also requested support for Health Board "walk through exercises" and IP&C expert advice as we transition through this Winter. The team are actively supporting this work in collaboration with colleagues Improvement Cymru.

g) Public Health Wales COVID-19 Guidance Group

The PHW Guidance Group evolved during the pandemic to rapidly develop and manage COVID specific guidance, initially for closed settings, which then expanded to cover other sectors such as education and to produce SOPs and support documents for partners across the system dealing with the emergency response.

The Guidance group, now forms part of the ongoing response to COVID-19 and is being developed a key divisional wide function.

As we move into Winter 2021-22 the guidance group is focussing on updating care home guidance and all the associated SOPs and supplementary information linked to this guidance, to support the care home sector in managing SARS CoV-2 infection alongside the other respiratory viruses and winter pressures. Also updating education sector related guidance; and TTP related SOPs

3.3 Response to Wider Harms in Winter 2021- 22

In addition to the specific approach to health protection, Public Health Wales also continues to consider and plan for services to address wider harms.

Welsh Government have recently published a Health and Social Care Winter Plan 2021-22. The purpose of this winter plan is to ensure patient safety and the provision of social care for people in most need.

In doing so the plan references the need to focus on managing and mitigating against the **five harms** associated with Coronavirus, both direct and indirect.

- Harm from Covid-19 itself
- Harm from an overwhelmed health and social care system
- Harm from reduced non-Covid activity
- Harm from wider societal actions/ lockdown etc
- Harm from existing or new inequalities in health

Public Health Wales are also engaged in wider actions in relation to this plan and other plans relevant to the wider determinants of health.

Current activity includes:

- The Information and Knowledge Directorate have summarised the current position on Health Harming behaviours showing the change over the pandemic and potential ongoing harms over the winter period. This is being considered in the wider context of prevention and early intervention as part of Winter Response (**Appendix 4**).
- A review and update of the 'Improving winter health and well-being and reducing winter pressures in Wales: A preventative approach publication (2019). (**Appendix 5**)

4. Recommendation

The Committee is asked to:

- **Receive** and take **assurance** on the update on planning, preparation and progress for Health Protection and Microbiology Services for Winter 2021/22
- **Note** the publication of key Welsh Government Plans for Winter 2021/22
- **Note** that this work forms part of an organisational wide approach to Winter 2021-22 (on which a presentation will be provided at the Board meeting).