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# PUBLIC HEALTH WALES' WRITTEN EVIDENCE ON COVID-19

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Submitted to Health, Social  
Care and Sport Committee

MAY 6, 2020

# Health, Social Care and Sport Committee

## Public Health Wales evidence session

### Thursday 7 May 2020

#### 1 Introduction

This written submission is made to the Health, Social Care and Sport Committee prior to Public Health Wales' evidence session on Thursday 7 May 2020.

The submission mainly covers the actions undertaken by Public Health Wales in the *delay* phase (from 12 March 2020) and describes the key activities that have taken place, learning from other countries and the wider population health impacts as a result of COVID-19.

#### 2 Current Epidemiology

**Global numbers:** The pandemic has progressed significantly since early March, with over 190 countries now reporting cases. As of the 5 May 2020, there were 3,575,545 confirmed cases and 243,401 deaths worldwide<sup>1</sup>.

**UK numbers:** All four UK countries have seen a rapid increase in both cases and deaths during the months of March and April. As of the 5 May 2020, there were 194,990 cases out of a total of 1,015,138 people tested. The number of people who have sadly died in the UK is 29,427<sup>2</sup>.

**Wales' numbers:** The progression of the pandemic in Wales has closely followed the trend in England and all seven Health Boards and 22 Local Authority areas have reported confirmed cases and deaths. As of the 5 May 2020, there were 10,669 confirmed cases and 1023 deaths. A total of 36,389 individuals have been tested in Wales and 42,346 tests have been performed<sup>3</sup>.

**Epidemiology in Wales:** The main age group affected is the 50-59 years old age range followed by the 40-49 years old age range. Based on the monitoring of a range of data over the last fortnight, it appears that the first peak has passed in Wales. Further details are shown in Appendix 1. Public Health Wales has published an interactive surveillance dashboard that can be accessed [here](#).

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<sup>1</sup> [https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200505covid-19-sitrep-106.pdf?sfvrsn=47090f63\\_2](https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200505covid-19-sitrep-106.pdf?sfvrsn=47090f63_2)

<sup>2</sup> <https://www.gov.uk/guidance/coronavirus-covid-19-information-for-the-public>

<sup>3</sup> <https://public.tableau.com/profile/public.health.wales.health.protection#!/vizhome/RapidCOVID-19virology-Public/Headlinesummary>

### **3 New learning on epidemiology and transmission of COVID-19**

Evidence is now becoming very clear that individuals can test positive without any symptoms of infection and there are atypical presentations of infection.

The period of infectiousness as determined by active viral shedding is now recognised to be up to 2 days before symptom onset, which means there is pre-symptomatic transmission.

The duration of infectiousness is also recognised as extending beyond 7 days, which has implications for the period of isolation especially for vulnerable individuals (e.g. care home residents, immunocompromised) and in high-risk settings.

### **4 Learning from international experience**

Public Health Wales, as a member of the International Association of National Public Health Institutes (IANPHI), hosted a webinar in early March, attended by 11 European national public health institutes including Germany, Italy and France, focusing on public communication. We have also taken part in webinars with the South Korea and China Centres for Disease Control and Prevention. Public Health Wales has also had a bilateral discussion with the Robert Koch Institute in Berlin, the National Health Protection Centre for Germany. The purpose of these is to learn from other countries on how they have approached the pandemic.

Our World Health Organization (WHO) Collaborating Centre on Investment for Health and Well-being is working closely with the WHO Regional Office for Europe, including the Venice Office and the Regions for Health Network. We have gained first hand access to the latest global and European guidance, evidence and learning, related to the wider COVID-19 impacts on people's health and wellbeing, equity, community and system resilience, society and the economy.

Our International Health Coordination Centre (IHCC) has been helping to disseminate and utilise international learning and experience from a range of European and global networks and organisations, and in collaboration with the five nations (including Ireland). A weekly e-bulletin with most recent information and resources is circulated to our Wales' networks.

More recently, in response to the evolving COVID-19 measures, informing Wales' public health response and recovery plans, Public Health Wales has focused on developing an *International Horizon Scanning* work stream (as agreed with Welsh Government). This focuses on international COVID-19 response, wider impact mitigation, transition and recovery approaches.

## 5 Public Health Wales' focus areas in the *delay* phase

Throughout the delay phase Public Health Wales has continued to engage with the other countries in the UK. This includes a daily four nations' conference call led by Public Health England.

In the *delay* phase, Public Health Wales has been working with partners to expand the testing capacity in Wales – despite the challenges of competitive global supply chains. In addition, we have been evaluating a number of commercial antibody (serology/lateral flow) assays and it is hoped to be able to roll out in the coming weeks. This is covered in more detail in section 6 below.

Wales was one of the first UK nations to offer testing for Health Care Workers (commenced on 18 March 2020). Public Health Wales has advised Welsh Government during policy formulation on key worker testing.

Working with the Welsh Government's Technical Advisory Group (TAG), and linking in with other UK nations, Public Health Wales has been involved in the modelling work to produce estimates for Wales based on UK models. This has helped health boards with their capacity planning particularly for critical care capacity and expansion of inpatient care capacity into field hospitals.

Public Health Wales has produced an interactive surveillance dashboard, which is available on the public facing webpage (both in a desktop view and a smartphone view). This is updated on a daily basis and provides information to a range of stakeholders including the public and allows also for easy download of data (see [here](#)).

## 6 Sampling and Testing

Sampling is the process of taking a sample from the body that will then be tested. Currently, samples (swabs) from the back of the throat are taken to detect antigens and whether someone **has** COVID-19. We will also be taking blood samples from people to check for antibodies (serology tests) which show if someone **has had** COVID-19.

Laboratory testing methods available for detection of the virus include PCR (polymerase chain reaction) tests to detect viral RNA (ribonucleic acid) in a sample. The immune response to the virus involves production of antibodies and several methods are available for detection of antibody to the virus. However, it is unknown whether the assays currently available detect immunity, or just previous infection, and they cannot therefore be used for establishing immunity.

In the *delay* phase, Public Health Wales has been working with partners, including the Life Sciences Hub and the Welsh Government, to expand the antigen testing capacity in Wales. Starting off from a baseline capacity of 350 antigen (PCR) tests per day we have now increased it to 2350 per day. The testing capacity will continue to increase over the coming weeks. In addition, we have been evaluating a number of commercial antibody (serology/lateral flow) assays and it is hoped to be able to roll these out in the coming weeks. This will be particularly important as we move into the Recovery phase.

It is important to note that, given that we are in a pandemic, every country worldwide is attempting to secure testing capacity for their country. This therefore means that securing both equipment and chemical reagents for testing is all part of a highly competitive global supply chain and is resulting in delays and changes to orders and deliveries for Wales.

In relation to 'sampling centres' i.e. where swabs are taken, there are currently 20 coronavirus testing units managed by health boards across Wales supporting the sampling of health and social care key workers. In addition, with the support of Welsh Government and UK Government, a number of population sampling centres (mass testing sites) have been developed. The sites recently opened are:

1. Cardiff City Stadium
2. Carmarthen Showground
3. Llandudno
4. Abercynon (currently being developed)

In addition, sites have been developed at Rodney Parade, Newport by Aneurin Bevan University Health Board and Liberty Stadium by Swansea Bay University Health Board. With the exception of Cardiff City Stadium, all sites are managed by health boards.

Public Health Wales has been working closely with the military to support the development of mobile testing units. Eight units are available for Wales, with one unit being provided to each health board. Powys will receive two units. The units will operate from the population sampling centres.

A web portal to enable on-line booking of tests is being developed. This is now live for certain groups of key workers booking into Cardiff City stadium. There is work underway to rapidly open up to all key workers and scaled to all population sampling centres across Wales within the next week. Additionally, work is underway to explore options for home delivery of testing kits. Public Health Wales is working closely with the Welsh Government as we progress these development.

Estimating the demand for testing is based on a number of assumptions such as incidence estimates from modelling data (both for mitigated and unmitigated scenarios), usual background rates of upper respiratory tract infection in the population, the proportion of frontline workers who get exposed that eventually become symptomatic and compliance with mitigation measures.

As we move into recovery it will be important to balance the apportionment of testing capacity at any given time in order to focus on testing priorities.

## **7 Closed settings and care homes**

Public Health Wales established a *closed setting cell* from 23 March 2020 to take a prevention / intervention approach to care and residential homes and prisons. A dedicated team, working with partners, has been delivering a package of interventions including support for management of cases and clusters, infection prevention and control advice, and use of personal protective equipment (PPE).

Public Health Wales continues to prioritise care homes. Activity in the call centre has increased and we have increased the number of people working in the centre. This is partly due to an increasing number of calls from homes with new incidents and also as a result of the new Welsh Government policy to test all symptomatic cases in residents.

Working in partnership with local authority Environmental Health Officers (EHOs), EHO's are now proactively contacting care homes that do not have confirmed cases, as a preventative measure. They will also be following up homes with new outbreaks, to offer enhanced support and to monitor the number of cases and deaths. The specialist Public Health Wales health protection team continues to provide support across all settings.

Public Health Wales has been working with Welsh Government to issue revised guidance for care homes and to provide advice on roles and responsibilities to all organisations. Following the Welsh Government announcement on 3 May 2020, Public Health Wales is working rapidly with Welsh Government and health board leads to ensure clarity and enable implementation.

## **8 Public health services (Screening, Immunisation and Non-Covid)**

**Screening services:** Following the announcement of social distancing rules, Public Health Wales undertook a risk assessment on the ability and safety of delivering screening programmes. A decision was taken to suspend all invitations and cancellation of screening clinics from 18 March

2020 for Diabetic Eye Screening Wales, Wales Abdominal Aortic Aneurysm Screening Programme, Breast Test Wales, Bowel Screening Wales and Cervical Screening Wales. However, for those people who were already screened the pathway would be completed. It was also decided to continue the Antenatal Screening Wales, Newborn Bloodspot Screening and Newborn Hearing Screening programmes, given that they all have short windows of intervention. Some breast and cervical screening staff moved to support the symptomatic service, contributing to symptomatic breast assessment clinics and urgent colposcopy. Screening and clinical colonoscopy has had to be suspended by health boards and this has meant that a different approach has had to be developed to respond to the presentation of symptoms suggestive of bowel cancer, which was introduced at the end of April to support patients and the NHS.

**Immunisation:** Recognising that COVID-19 will result in a fall in uptake of all vaccines due to social distancing measures, school closures, shielding of the high-risk groups and reluctance to receive routine immunisations, Public Health Wales has reviewed the immunisation programme in Wales. Taking into account the Department of Health and Social Care paper 'S7A Programme Assessment in light of Covid-19' (17 March 2020), and Welsh Government guidance issued on 17 March 2020, Public Health Wales has recommended a prioritisation-based approach to delivering immunisation having identified certain vaccination programmes as *very high* and *high* priority. Public Health Wales also recommended to Welsh Government that preparation for the 2020-21 influenza programme is strategically important and should anticipate increased demands for flu vaccination.

**Non-Covid related health protection activities:** Public Health Wales continues to respond to routine non-Covid-19 health protection matters including responding to cases, clusters and outbreaks of notifiable infections. Notably, the ongoing response to TB outbreaks, cluster of Legionnaires disease, increase in mumps notifications and gastro-intestinal infections has continued.

As we move into recovery it will be important to balance the apportionment of testing capacity at any given time in order to focus on testing priorities.

## **9 Intelligence for recovery**

There is an increasing recognition that, in particular, Covid-19 restriction measures on working, education, leisure, culture and travel will have considerable direct and indirect negative impacts on health and well-being, as well as some potential for positive impacts.

Immediate Health, Well-being and Social impacts include issues such as loss of non-Covid-19 related health care and support (including across key

areas such as cardio-vascular disease, cancer, mental health and wellbeing); effects on immunisation and vaccination uptake and; increased risk of levels of Violence Against Women, Domestic Abuse and Sexual Violence (VAWDASV) child abuse and elder abuse (all of which can have long term impacts).

Longer term impacts include issues such as loss of income and increased indebtedness, with associated impact on food security, quality of life, ability to buy essentials and mental health.

Many of the above may have a disproportionate effect on children and young people, disadvantaged communities and groups, and potentially further increase the health inequalities gaps further. To help inform policy options for an optimum balance between virus control measures and potential negative consequences, Public Health Wales is providing support in four main areas.

1. Covid-19 Health Impact Assessments (HIAs)
2. National Public Engagement Survey on well-being and behaviours
3. International Horizon Scanning
4. Dashboard of broader health indicators.

Progress has been made in each of these areas.

1. **Covid-19 Health Impact Assessments (HIAs)**. We are developing a series of rapid HIAs, which will build a picture of the range of impacts (both positive and negative) of Covid-19 and the policy responses on health and well-being for the short, medium and longer term.
2. **The National Public Engagement Survey on well-being and behaviours** is now in its fourth week of data collection. Recent findings include:
  - a. *Strong agreement that the NHS is responding well (96% agree or agree strongly)*
  - b. *People identifying that there are people in their communities who will support them through the pandemic (81% agree or agree strongly)*
  - c. *Changes in everyday behaviours – 37% of people are talking to family and friends more; 42% are using social media more.*
  - d. *67% of people regard the levels of social restrictions as about right*

Weekly reports on the national engagement survey findings are available on the Public Health Wales website.

3. **International Horizon scanning** – this has been covered earlier in this report.



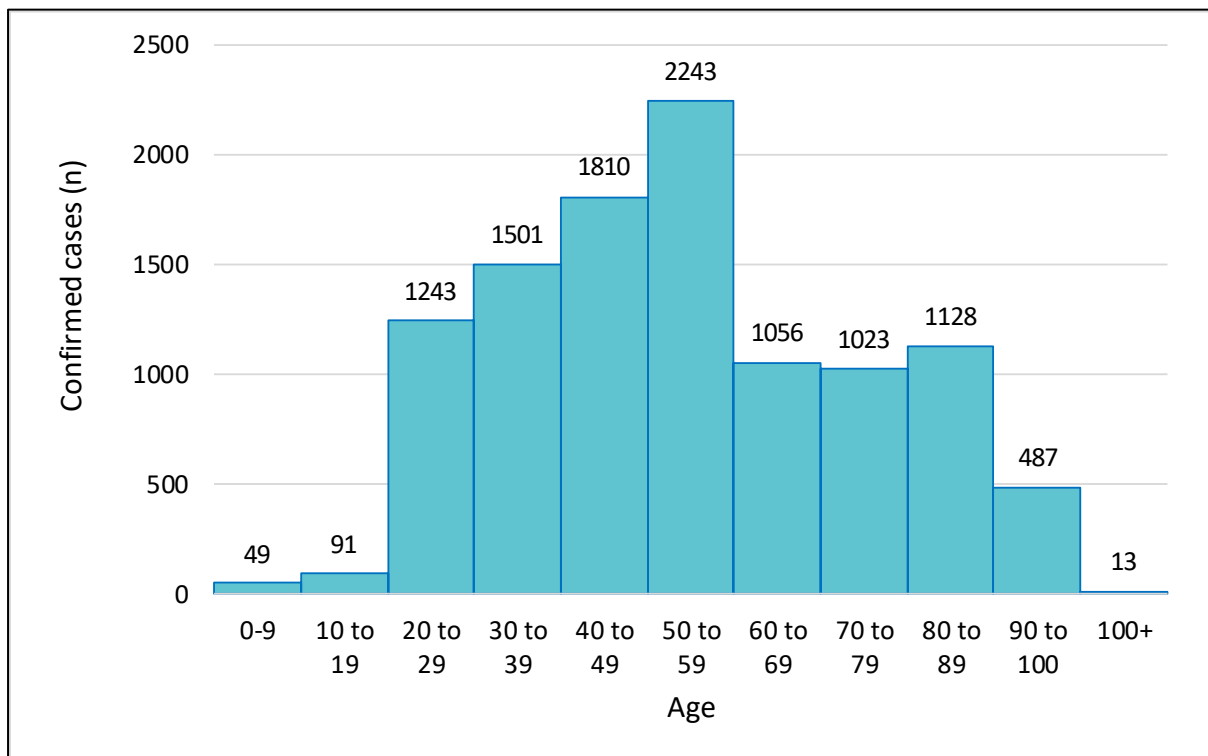
4. **Dashboard of broader health indicators** – The Health Intelligence Division in Public Health Wales are examining routine data sources on health-related issues that may be affected by coronavirus or the restrictions related to its control. These will be incorporated into the Public Health Wales Coronavirus dashboard with other direct measure of infection and testing.

## 10 Planning for the next phase: The Public Health Protection Response Plan

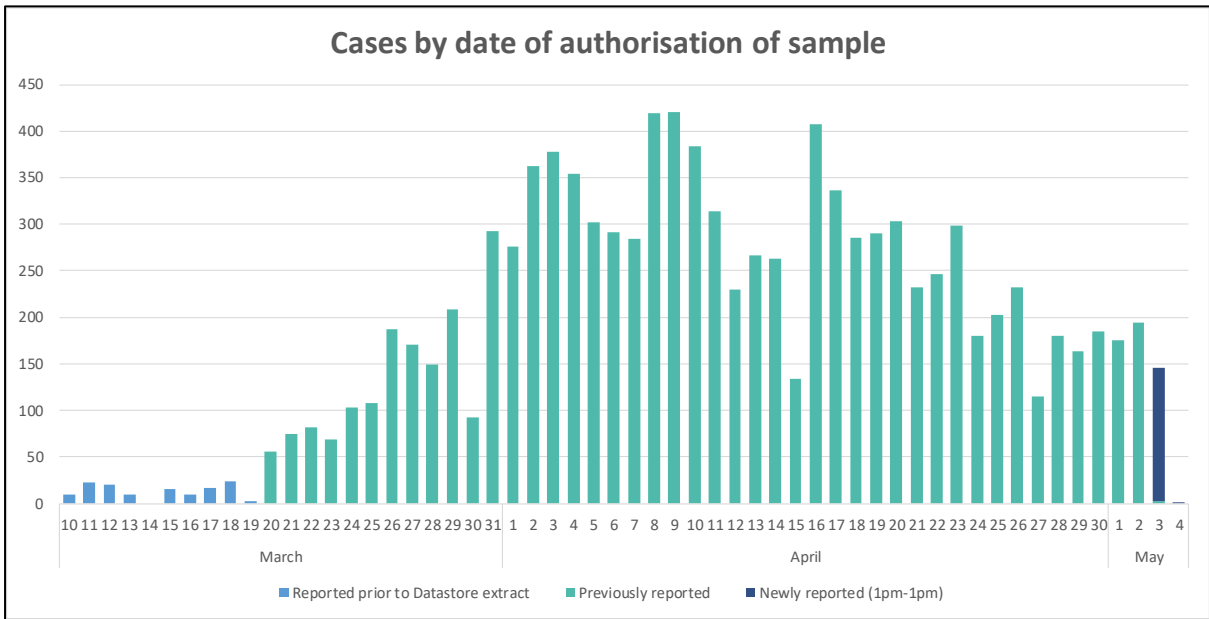
The Chief Medical Officer asked Public Health Wales to prepare a plan for the next phase of the response to the outbreak. This was submitted as expert public health advice to Welsh Government on 4 May 2020. It has been written to support the Welsh Government’s *Leading Wales out of the coronavirus pandemic: A framework for recovery*. The Plan outlines three major activities for concerted public health action at scale. These are: Preventing the spread of disease through contact tracing and case finding; Population surveillance and; Sampling and Testing.

### Appendix: Epidemiological summary of confirmed cases and deaths in Wales

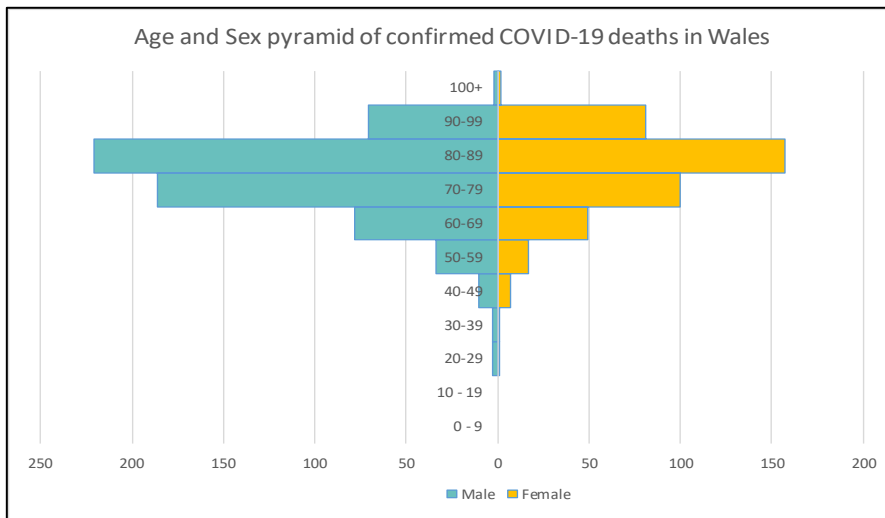
Confirmed cases by age group



### Confirmed cases by date of authorisation of samples



### Age and Sex pyramid of confirmed COVID-19 deaths in Wales



Distribution of confirmed COVID-19 deaths in Wales, by Health Board of residence

Health Board	Frequency	Percent
Aneurin Bevan UHB	242	23.7%
Betsi Cadwaladr UHB	150	14.7%
Cardiff and Vale UHB	191	18.7%
Cwm Taf Morgannwg UHB	210	20.5%
Hywel Dda UHB	45	4.4%
Out of Wales	3	0.3%
Powys THB	9	0.9%
Swansea Bay UHB	173	16.9%
Total	1023	-

Numbers of Deaths reported to Public Health Wales (up to 1700h 4 May 2020)

