Witness Name: Dr Simon Cottrell
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UK COVID-19 INQUIRY

WITNESS STATEMENT OF DR SIMON COTTRELL

I, Dr Simon Cottrell care of Public Health Wales, 2 Capital Quarter, Tyndall Street, Cardiff, CF10 4BZ will state:

This statement is provided by me in my capacity as a Senior Principal Epidemiologist at Public Health Wales in response to a request for evidence made by the Inquiry Team to me dated 6 June 2023.

Background

1. I am an epidemiologist working in Public Health Wales Health Protection Directorate, in the Communicable Disease Surveillance Centre (CDSC) and Vaccine Preventable Disease Programme (VPDP). Since April 2020, I have been employed as a Senior Principal Epidemiologist supporting the Heads of CDSC and VPDP to deliver surveillance of vaccine preventable diseases, vaccination programmes and acute respiratory infections.

2. I first joined Public Health Wales (or the National Public Health Service for Wales, as it was at the time) in 2005 in a more junior capacity as an epidemiologist working for CDSC and VPDP on surveillance of vaccine preventable diseases, vaccination programmes and acute respiratory infections. During the interim I have progressed from Epidemiologist to Senior Epidemiologist, to Principal Epidemiologist, to Senior Principal Epidemiologist. Prior to 2005, I had completed a PhD in applied microbiology and two-year post-doctoral post with Cardiff University. As at the start of 2020, I was in the post of Principal Epidemiologist managing a small team of 5 epidemiologists and analysts. In April 2022, I was successful in applying for the post of Senior Principal

Epidemiologist and was responsible for managing the development of a number of key surveillance outputs relating to COVID-19, working with guidance from the Heads of CDSC and VPDP, and Consultants within CDSC. My role also includes ongoing management of development and production of all other routine surveillance outputs relating vaccine programmes (including routine childhood vaccinations and adult vaccination programmes), acute respiratory infections (for example, influenza and respiratory syncytial virus) and vaccine preventable diseases (for example, measles and mumps). I also provide epidemiological support and appropriate advice to senior management within CDSC, VPDP and health protection directorate of Public Health Wales as required. Since 2020, the team which I manage has grown to include 15 analysts and epidemiologists, reflecting the increase in demand for surveillance information relating to vaccine preventable diseases, vaccination programmes and acute respiratory infections.

3. Prior to 2020, the majority of my work on surveillance and epidemiology of acute respiratory infections was focused on influenza, respiratory syncytial virus and enteroviruses. However, the surveillance approach we developed in Wales included testing samples provided from symptomatic patients attending sentinel general practices for a wider range of respiratory pathogens including a number of established, seasonally circulating coronaviruses. I have provided short summaries of published international surveillance data relating to MERS-CoV through routine surveillance reports. I have also provided surveillance and epidemiological support in response to a number of outbreaks within Wales. **[EXHIBIT SC/1 INQ000283311]**

4. My role in relation to COVID-19 within Public Health Wales was to support the Heads of CDSC and VPDP in developing and ensuring availability of timely surveillance and epidemiological information covering COVID-19 cases and COVID-19 vaccinations.

Public Health Wales CDSC and VPDP

5. The Communicable Disease Surveillance Centre of Public Health Wales is the epidemiology and surveillance department of The Health Protection Directorate in Public Health Wales. CDSC provides routine surveillance reports and epidemiological analyses across a range of infectious diseases (including respiratory infections, health care associated infections, gastroenteric infections, zoonoses, sexually transmitting infections and vaccine preventable infections). CDSC also provides field epidemiology

expertise and advice in health protection response to infectious disease outbreaks and incidents.

6. CDSC has grown from a department of approximately 20-30 staff prior to 2020 and currently there are more than 70 staff working within the department. Some CDSC epidemiologists are embedded in other teams (such as Health Protection Teams and Local Health Boards). Some staff are shared between CDSC and associated health protection programmes (for example the Vaccine Preventable Disease Programme and the Health Care Associated and Antimicrobial Resistance Programme). CDSC staff include consultant epidemiologists, senior scientists (e.g., clinical scientists and principal epidemiologists), epidemiologists, analysts and data scientists. The majority of staff from NHS Band 6 and higher are qualified to masters level in an appropriate field of science or public health, and many hold higher level qualifications or professional registrations. During the COVID-19 pandemic it was necessary to bring in support from other analytical teams within Public Health Wales, so that resilient surveillance could be maintained seven days a week.

7. CDSC carried out surveillance of COVID-19 in Wales throughout the pandemic period. This work involved identifying and analysing relevant data from sources in Wales including routine diagnostic testing for COVID-19, sentinel GP surveillance, syndromic surveillance utilising data collected by GPs or the NHS 111 service, and summarising results into information to help guide actions (this is core aim for all surveillances). Key specialists within CDSC attended working groups and meetings with counterparts in other UK nations to discuss surveillance methods, to align as far as possible and understand any key differences within the nations where it was not possible to align methods. Within CDSC, many specialists kept themselves updated of surveillance data published from other countries, and from organisations such as WHO and European Centre for Disease Prevention and Control (ECDC), often feeding this information back to the wider department in team meetings. I am not aware if there was work that CDSC carried out analysing of the effectiveness of containment methods in other countries (this was outside the remit of my post in the surveillance team). This work may have required detailed knowledge of containment strategies employed in each country, information that would not have been generally accessible to staff within CDSC on a real-time basis.

8. Routine verbal summaries of surveillance data from Wales were presented in TAG meetings by Public Health Wales representatives, this is something that I participated

in. Routine summaries of international surveillance data were delivered by colleagues from Welsh Government during TAG meetings. Both of these helped inform discussions in TAG meetings. I was not involved in any work to directly compare effectiveness of country-specific strategies to contain the spread of COVID-19.

9. The Vaccine Preventable Disease Programme (VPDP) of Public Health Wales, provides specialist advice to NHS Wales and Welsh Government on vaccination programmes and vaccine preventable disease issues. VPDP also conducts surveillance of vaccination programmes and vaccine preventable disease (in collaboration with CDSC, utilising shared analysts and epidemiologists), specialist clinical advice, training and information resources for those delivering vaccination services and information resources for the general public on vaccinations.

10. As of 2019, VPDP was headed by a consultant in public health, supported by a nurse consultant, a principal epidemiologist, a lead nurse for influenza and a team of immunisation nurse specialists, epidemiologists/ analysts (shared with CDSC) and project support officers (a combined team of approximately 15). Since this time, VPDP has grown to a team of 45 members, now including specialists in engagement (from a nursing or health practitioner background), operations and administrative support and a larger number of senior lead nurses, epidemiologists and analysts. All epidemiologists and analysts within VPDP are qualified to degree level in a relevant scientific subject, with the majority also holding further post-graduate qualifications in public health or associated areas of science. Clinical team members of VPDP are largely from a registered nurse background, with specialist experience in different areas of delivery (e.g., school nursing, general practice nursing). As of 2020, the head of VPDP was a qualified consultant in public health from a medical and communicable disease control background and the team also contained a senior specialist pharmacist. Currently the head of VPDP is a qualified consultant in public health from a scientific and communicable disease control background.

11. Early on in 2020, epidemiologists and analysts in VPDP (a shared resource with CDSC) were focused on epidemiological support for early case management and contact tracing. From March 2020, the surveillance teams of VPDP, CDSC and attached programmes (within Public Health Wales Health Protection Directorate) developed and began delivering a routine timetable of surveillance situation updates and reports, and from April 2020 a public-facing dashboard publishing case-based and syndromic surveillance data. Early on in 2020, clinical and support staff within VPDP

provided support to general Public Health Wales' response to COVID-19 (including call centre and contact tracing). From mid-2020, VPDP began planning for the COVID-19 vaccination response which commenced in December 2020, working with a multiagency oversight group convened and chaired by Welsh Government.

12. In addition to the information provided in paragraphs 2, 5 to 10, day to day work within CDSC and VPDP changed as non-urgent, non-essential work was deprioritised, reported at reduced frequency or postponed, ensuring capacity for COVID-19 response. Only essential surveillance functions within VPDP (for example, surveillance of childhood vaccinations) and CDSC were maintained alongside COVID-19 surveillance. Within my own job, the vast majority of my time throughout 2020-21 was dedicated to setting up a number of surveillances and surveillance reports on COVID-19 and COVID-19 vaccination, liaising with colleagues in health boards, Digital Health and Care Wales, and in other UK countries on COVID-19 epidemiological issues, and assisting the leadership of CDSC and VPDP on COVID-19 issues as appropriate. Working patterns also changed for myself and most colleagues in CDSC and VPDP, for the majority of 2020-21 there was an expectation that surveillance data would be available seven days a week. This entailed regular weekend working and often working long hours during the week. This is something I was happy to do as required, however these working patterns are unsustainable over a prolonged period of time, with a risk of burnout for teams involved. Although it was important in the early stages of the pandemic, I am not convinced that reporting of case figures 7 days a week was genuinely useful after a year in and there could have been a move to meaningful week-day (and even weekly) reporting earlier than was the case.

My involvement in TAG and its subgroups

13. I was invited to attend weekly TAG meeting from May 2020 to help provide updates on surveillance data from Wales and to offer insights into surveillance of respiratory infections and vaccinations as appropriate. I attended VTTAG mainly in an observer capacity and to help address any questions relating to surveillance data or epidemiology, and not in the capacity of a full member. I was not a member of any other TAG groups.

14. Within TAG meetings, topics for discussion usually included insight from specialists (often in the form of a presentation or report), with subsequent opportunity for meeting members to clarify, question or challenge. My experience was that when decisions

were needed, the opportunity for those with expertise in the particular topic area to discuss or to challenge was particularly useful and in my opinion often facilitated a robust and rounded viewpoint.

15. I am unable to say whether this approach led to delays in communicating advice to Welsh Ministers, as I have no knowledge of alternative approaches or their timeliness.

16. I am unable to give an informed opinion on the relationship between TAG/ subgroups and Welsh politicians, as I have no direct experience in this. My role within TAG was to offer updates and specialist advice on surveillance and epidemiological issues.

17. From a CDSC and VPDP perspective, my experience was that it was very useful to have the opportunity to discuss surveillance data from Wales and offer guidance as to interpretations or limitations of data available at the time. My remit within TAG did not cover assessment of measures taken internationally to limit the spread of COVID-19, and my membership of the group began after the infection had become wide-spread across Europe. The summaries of internationally available data presented at TAG meetings were informatics and helpful.

18. I am unable to give an informed opinion on whether TAG and its subgroups took sufficient account of international perspectives in the early months of the pandemic as my membership in the group only began in May 2020.

19. I am unable to comment on the input that Welsh Government departments had into the process of commissioning of scientific advice, this is beyond the remit of my role within Public Health Wales and I have limited experience in this from a TAG point of view.

20. My experience was that the questions raised and addressed within TAG were usually relevant and informed. I am unable to comment on the process by which commissioned questions arrived in TAG. In my earlier response I mentioned that more involvement of service experts developing questions may have helped ensure that they were as relevant as possible. From my own experience, this was mainly around improving understanding of the limitations of data that were routinely available for surveillance and modelling. I am unable to comment on whether those setting questions to TAG had a sufficiently scientific mindset.

21. During discussions with the relevant specialists/ experts within TAG there was an opportunity to refine questions to ensure that answers would be meaningful. I was not involved in any process of refining commissions to TAG from Welsh Government.

22. In my earlier response I commented on the balance of those in TAG who were invited members from a particular field of expertise, those who were representing an organisation, and those who were there to support the work of TAG but who may not have had a specialist background in subject matter. Although it was important for all members of TAG to have the opportunity to ask questions on and offer comments on evidence that was presented to TAG, my personal reflection is that it would have been helpful to have more of an understanding of where comments were being offered from a position of expertise directly in the subject matter. For similar groups in the future, it may be useful to maintain a short summary/ biography for each member, to help others more easily identify expert viewpoints when given.

23. I feel that the viewpoint expressed by Dr Chris Williams that *"the diversity was sometimes challenging from a surveillance and epidemiology point of view, as experts in other areas could comments on the likely and actual spread of infection in ways that sometimes went beyond their area of expertise"*, is similar to the comments I have made above (paragraph 22). Aside from ensuring awareness of individual members areas of expertise, for future groups, having a chair from a background of significant subject matter expertise may be helpful in moderating comments.

24. At points during the pandemic, there were requests for the surveillance team from CDSC to set up means to provide 'raw data' to stakeholders within Welsh Government (and other organisations) on a 'real-time' bases to set up surveillance reports and dashboards in parallel to those already set up by CDSC. This was challenging as those requesting 'raw' datasets did not always have a background in epidemiology or experience of dealing with the complex health service datasets. Analysts and epidemiologists within CDSC have considerable expertise in quality assessing, assuring, analysing, reshaping and interpreting health service data. It is unreasonable to expect those who do not have the same level of expertise in these datasets to produce surveillance outputs at the same level of quality and reliability. CDSC works closely with other health service experts (for example those who develop and carry out microbiological diagnostic testing, or those who develop information architecture and underlying system codes), to ensure that surveillance outputs are accurate, reliable and meaningful. Part of the core role of CDSC in my opinion is to maintain expertise

in understanding of health service data and where the limitations of interpretation may be. For example, how to deduplicate multiple positive SARS-CoV-2 test results in a single person into meaningful data on how many cases that represents. Another example would be in knowing the limitations of timeliness of data, how reasonable is it to expect central data to be complete for daily numbers of cases with <24 hours turnaround? And how long are the lags inherent in routine NHS diagnostic testing data or other datasets?

25. Although there was free sharing of key updates and evidence within TAG meetings, not all members of TAG had the same level of access to emerging advice from other UK expert groups. Additionally, at times during the pandemic it was challenging to keep fully up to date with scientific literature published internationally. Timely sharing of important reading materials that are not widely available prior to meetings, and links to any key published references, may help keep members more fully up to date in future.

26. Further to 22 and 23, for specific key recommendations within a particular field of expertise, consideration could be given to consensus generation with TAG to those within that particular field (for example, have a system of voting and non-voting members on key specialist decisions). The opportunity to have experts in respiratory virology and epidemiology comment on the plausibility of outputs from models was helpful, an example of this would be in some of the early modelling on how respiratory syncytial virus and influenza could resurge following a period of low transmission during 2020-21. Alternatively, TAG membership could be extended to include a larger number of subject matter experts, although this would depend on availability. Generally, I feel that there was an acceptable breadth of subject matter experts within TAG, however for individual meetings there was a chance that a particular field of expertise could be unrepresented if one TAG member was unavailable for that weekly meeting.

27. My personal reflection is that there was always an opportunity to challenge during TAG meetings, and there was usually a robust level of challenge offered at TAG. However, at times it may have consistently fallen upon a small number of individuals to offer robust scientific challenges, due to the specific area of discussion, this was particularly the case on specialist virological and epidemiological issues.

28. I am unable to comment on the diversity of behavioural scientists within the sub-groups of TAG, as I was not a member of sub-groups. I am aware that colleagues with

expertise in behavioural insights from Public Health Wales, and from Swansea University attended main TAG meetings, however I cannot recall when their attendance began. Possibly it may have been beneficial for representation in this specialist area to have been wider and started sooner.

29. My comment in my earlier statement [INQ000183845] on confusion between TAC and TAG, relates to my understanding of the role of each and the interplay between TAC and TAG. I would have found it useful to have an improved understanding with respect to this. I am unable to offer an informed opinion on alternative structures of TAC and TAG.

30. I was not involved SAGE meetings. I am aware that some members of TAG attended SAGE meetings, although I do not know how many TAG members attended SAGE or its subgroups, or which SAGE meetings they attended. As such, I'm unable to comment on whether involvement of TAG in SAGE was sufficient. There were some opportunities to seek some clarifications from SAGE members who attended TAG on an ad-hoc basis.

31. I have no further comments on TAG structures and its relationship with other advisory sub-structures.

32. I was not part of any WhatsApp or other messaging groups with Welsh Ministers, senior advisors or civil servants.

The early stages of the pandemic

33. I first became aware of COVID-19 through the international surveillance bulletin Promed on 31st Dec 2019 (UNDIAGNOSED PNEUMONIA - CHINA (HUBEI), **[EXHIBIT SC/1 as above]** and subsequently through a Promed update and WHO bulletin on 7th January 2020 (pneumonia of unknown etiology in Wuhan City, Hubei Province of China), which was also covered by a BBC News article at the time. **[EXHIBIT SC/3 INQ000283313, EXHIBIT SC/4 INQ000283314, EXHIBIT SC/5 INQ000283315]**

34. Providing advice to core-decision makers within Welsh Government on emerging infections is beyond the remit of my job. I alerted members of my team, along with the

Head of CDSC to WHO bulletin, in case they had not received it directly and kept them updated of subsequent updates throughout early January 2020.

35. Liaising with surveillance counterparts in other UK nations on surveillance developments and epidemiology is part of my role and this occurred throughout the pandemic. Often these discussions include expectations about what data are needed from Wales for surveillance at UK level.

36. During the early part of the pandemic, I did not have opportunity to liaise directly with WHO, however later I and lead surveillance colleagues were invited to attend webinars to discuss surveillance methodology and issues. My team also provides WHO with routine surveillance data from Wales on a weekly basis, this is not specific to COVID-19 or the period of the pandemic. However, there were COVID-19 specific datasets that were required by WHO during the pandemic, which we were able to provide on a routine basis.

37. The period January to March 2020 predates my involvement with TAG. During this period, I kept myself updated of latest developments in epidemiology of COVID-19 through discussion with colleagues and reading published surveillance or research updates.

38. I was not involved directly with TAG during the period January to March 2020, but provided support to the Head of CDSC for collaborative work with TAG/ Welsh Government by providing routine data for use in modelling.

39. I am unable to comment on approaches within TAG to address divergence of opinion during the early stages of the pandemic. My involvement in TAG started from May 2020. My experience from this point onwards, was that members of TAG were free to express divergent professional opinions and that discussion would follow. Where divergent opinions were based in misunderstanding there was opportunity to address the misunderstandings. There was also opportunity to comment on draft reports from TAG prior to publication. I do not have any experience of how divergence of professional opinions was communicated to Welsh Government outside of this.

40. Discussions about cancelation of the Stereophonics concert and the Scotland Vs Wales Six Nations rugby match were beyond the remit of my role within Public Health Wales and I was not a member of TAG at this point.

41. I am not in a position to offer an opinion on whether events at this time should have been cancelled, as I do not have the evidence that was considered at the time.

The timing of the first national lockdown

42. My personal view is that a national lockdown was a sensible course of action at the time, however I was not involved in the decision making around this and do not have access to the evidence considered by decision makers at the time, so am unable to comment further on this. I was informed about the national lockdown on the same day that the general public was.

43. I was not involved in discussions about a four-nation approach to national lockdown and I do not have access to the evidence considered by decision makers at the time, so am unable to comment further on this.

44. I am unable to offer an informed view on whether advice recommending a national lockdown came from SAGE rather than Welsh Government. Being involved in these decisions and processes were beyond the remit of my role in CDSC and predate my involvement in TAG.

45. I am unable to offer an informed view on the advice of scientific advisors to government around the time of the first national lockdown, or to what extent 'groupthink' affected decisions. This period predates my involvement in TAG, and I do not have access to the evidence upon which decisions would have been based at the time.

46. I am unable to offer informed views on the timeliness of decision-making and implementation of the first national lockdown. This period predates my involvement in TAG, and I do not have access to the evidence upon which decisions would have been based at the time.

47. I am not in a position to offer a robust scientific view on Vaughan Gething's statement on timeliness of the first national lockdown and impact of it being weeks earlier.

April 2020 onwards

48. From my involvement with TAG from May 2020, my personal reflection is that core public aims to limit the spread of COVID-19, reduce avoidable mortality and morbidity and prevent healthcare services becoming overwhelmed were generally understood. These aims were reiterated during meetings by various TAG members.

49. 'Behavioural fatigue' is outside of my area of expertise. However, this was brought up during TAG meetings in the context of potentially explaining non-compliance with NPIs during the later national lockdowns.

50. Discussions on discharge of asymptomatic patients from hospitals into care homes without a COVID-19 test in March and April 2020 predate my involvement in TAG, I was not involved in generation of advice on this. I became aware of this decision when it was communicated to general stakeholders in the NHS. I was not involved in formulating any advice on testing of patients in hospital or on discharge.

51. To the best of my knowledge, I cannot recall consultation within TAG on introduction of the "Eat out to help out" scheme in the summer of 2020. My personal view is that this policy was not inline with public health attempts to limit spread of COVID-19.

52. I did not advise TAG on (a) national lockdowns, (b) local and regional restrictions, (c) working from home, (d) reduction of person to person contact, (e) self isolation, (f) closure of schools or educational settings, (g) use of face coverings, (h) use of border controls. My role within TAG was to summarise surveillance data and help interpret trends in surveillance data on confirmed cases, proportion of those tested who were positive for SARS-CoV-2, syndromic attendances at GPs or mortality, offer general insights into surveillance information and related issues.

53. To the best of my knowledge, modeling of the R number during September 2020 was carried out between Welsh Government and a university team. I was not involved in this work and am unable to comment on comparisons between these outputs and other outputs from modelling teams elsewhere.

54. I consider the statements from TAG were correct that NPIs in place at that time (September 2020) did not have the effect of bringing the reproductive number of SARS-CoV-2 below 1. I am unable to comment on how seriously TAG advice was considered by Welsh Government during September 2020, although I appreciate that

policy decisions at that time needed to factor in a wide range of considerations from both health and non-health perspectives.

55. I was not commissioned to model the effect of the Autumn 2020 firebreak; mathematic modeling is not my area of expertise. I am unable to comment on when TAG commissioned others to carry out this work.

56. An earlier firebreak may have limited the extent of the COVID-19 wave seen during September and October, although the overall impact taking into account the wave which began in November 2020 and in reducing the overall height of this peak in activity is unclear.

57. In my opinion there were many examples of good work throughout the pandemic, including the dedication and selfless working of all those involved in health protection, epidemiological and microbiological response. TAG acted as a vehicle to catalyse some good collaborative work between expert groups, for example partnerships developed between CDSC/ VPDP and the SAIL department of Swansea University. **[EXHIBIT SC/6 INQ000283316, EXHIBIT SC/7 INQ000283317, EXHIBIT SC/8 INQ000283318]** For future learning (not specifically in relation to TAG), building on this approach there is potential to improve efficiency of joint working by acknowledging where expertise lies within an existing service and working with it, rather than seeking to set up parallel analyses and reporting within government. This may also free up capacity to consider a wider number of issues and questions.

Communication of scientific advice

58. From my involvement in TAG, to the best of my knowledge, it's findings and advice were routinely made publicly available, as was the membership list for TAG. I was not involved in TAG sub-groups and am unable to comment on their transparency. I was not involved in the process of translation of advice from groups like TAG into policy, and perhaps this process was less transparent, although I appreciate that scientific advice is only one of a number of factors which politicians have to take into account to ultimately formulate policy, and it is not always possible to be fully transparent with these discussions on a real-time basis.

59. My personal reflections on the boundaries between scientific advice and decision making are that the term 'following the science' became a double-edged sword. Initially

I think it served to reassure people that decisions were being made on the basis of solid scientific reasoning. However, it may have made it less clear to people that government and politicians must take into account a range of factors and perspectives in deciding on policy and there is a risk that this could erode public confidence in advice from expert scientific groups in the longer term.

Statement of Truth

I believe that the facts stated in this witness statement are true. I understand that proceedings may be brought against anyone who makes, or causes to be made, a false statement in a document verified by a statement of truth without an honest belief of its truth.

Signed: Personal Data

Dated: 27 October 2023