



ECDC Advisory Forum

**Minutes of the Seventy-third meeting of the ECDC Advisory Forum
Stockholm, 19-20 May 2023**

Contents

Opening and adoption of the programme	1
Adoption of the draft minutes from the 72nd meeting of the Advisory Forum, 21-22 February 2023	1
Identifying lessons from the COVID-19 pandemic.....	1
ECDC Prevention Framework	4
Foresight, modelling, research	5
ECDC’s increased international role.....	6
Results of the ECDC stakeholder survey.....	6
ECDC proposal for assessment of SARS-CoV-2 burden of disease	7
Revised categorisation of ECDC scientific outputs	9
Targeted country support – live presentation of the Country Overview Dashboard	9
Invitation to provide feedback on challenges in sharing personal data.....	10
ECDC proposal to strengthen EU/EEA surveillance to detect severe sporadic cases of avian influenza in humans.....	12
Feedback from WG Sessions on the use of Artificial Intelligence in infectious disease surveillance, response, prevention and control	13
Update from ECDC Director	14
Presentation of ECDC crowdsourcing project	14
Any other business/adjournment	15
Annex: List of participants.....	16

Opening and adoption of the programme

1. Andrea Ammon, Director, ECDC, welcomed the participants to the 73rd meeting of the Advisory Forum which was taking place both in person and via videoconference.
2. Mike Catchpole, Chief Scientist, ECDC, also welcomed the participants to the meeting, in particular Kärt Sõber, the newly appointed member for Estonia and Anne Vergison, the newly appointed alternate for Luxembourg. Apologies had been received from Cyprus, Italy, Ireland, Poland, Slovakia, Slovenia, EUPHA, ASPHER and Norway. He also welcomed Laura Gillini, Dirk Meusel and Marta Valenciano, joining the meeting online from DG Santé.
3. The draft programme was adopted with no changes and there were no conflicts of interest declared.

Adoption of the draft minutes from the 72nd meeting of the Advisory Forum, 21-22 February 2023

4. Amendments had been requested by Norway on Points 30, 48, 110 and 117 of the draft minutes from the 72nd meeting and these had been incorporated. There were no other changes proposed and the minutes were duly adopted.

Identifying lessons from the COVID-19 pandemic

5. Vicky Lefevre, Head of Unit, Public Health Functions, ECDC gave a short presentation of the report on lessons from the COVID-19 pandemic (published online on 2 May 2023) and the floor was opened for discussion.
6. Sotirios Tsiodras, Member, Greece, said that he had read several papers from other sources which reached similar conclusions – that in Area 1 the workforce had been underprepared, understaffed and underfunded. During the pandemic, it had been very difficult to reorganise primary healthcare and the delays in healthcare (e.g. cancer surgeries) had also been problematic. It was important for strategies addressing problems among the workforce to include mental health support and work-life balance. Advocating for sustained funding for public health activities was also important. In Area 2, it had to be possible to ensure that plans could be scaled up or down and public health expertise had to be integrated into decision-making. He agreed with the idea of engaging multiple sectors and creating a specific set of indicators for preparedness planning. He suggested that training and mobilisation of healthcare workers and public health staff in advance of a crisis would be a way to improve the response. Assessment of preparedness plans every three years was necessary, but ambitious. In Area 3, the coordination of messages at local level had been a real challenge, without even taking EU-level coordination into account. Inconsistent and unclear communication had affected public confidence with significant side effects, such as a subsequent decline in childhood vaccination rates. In Area 4, adaptation of technology methods needed to be linked to actionable information for policy makers and the public, and adherence to data protection regulations was also critical.
7. Henrik Ullum, Member, Denmark, said that the dilemma in Area 1 was that a larger workforce would always be needed during a public health crisis than in a non-crisis period and it was therefore important to find ways to retain some capacity. The report did not state that more international collaboration (and improved EU coordination) was required. In Denmark, during the pandemic they had looked to the EU to ensure that they were taking an appropriate approach. The overlap between the two agencies, ECDC and HERA, was not always clear and needed to be clarified.
8. Jurijs Perevoščikovs, Member, Latvia, said that ideally the report should take the form of a set of recommendations addressed to politicians and policy makers in the Member States. He disagreed that clinical samples were a good way to obtain new information because in his country the number of samples was very small and some were not appropriate for sequencing. He suggested that the collection of sewage

samples was much more effective than clinical sampling and that there ought to be more integration of clinical and sewage sampling, especially when the capacity for testing was limited.

9. Birgitta Lesko, Alternate, Sweden, agreed with the multi-sectoral approach and suggested adding a review of the proportionality of NPIs. She also wondered how it might be possible to better identify vulnerable groups.

10. Carlos Matias Dias, Member, Portugal, said that the report was timely and detailed, and it was good to hear that there were plans to update and expand it to other areas. He suggested that public health experts were still in the early phase of learning lessons post-pandemic. Preparations for any future pandemic needed to take into account the whole healthcare system and include a number of economic sectors. He also suggested that there should be a recommendation for the lessons learned from the COVID-19 pandemic to be included in the future curricula of public health training courses.

11. Koen Blot, Alternate, Belgium, referring to surge capacity plans for human resources, pointed out that during the pandemic, those with experience took on larger roles and those with less experience ended up having to step up and fill the gaps which, in both cases, risked ending in burn-out. This fact needed to be taken into account in the surge capacity planning. Referring to the digitisation of systems, he pointed out that the linking of systems had provided a great deal of information (e.g. on vaccine effectiveness) but that this depended on the quality of external databases and systems which was outside of their control. He also suggested that digitisation could incorporate a review of national registries, data policy and privacy, in order to see what type of data was being collected and how it was being used.

12. Isabel De La Fuente Garcia, Member, Luxembourg, pointed out that there was no mention of the new European Task Force in the report. Although it was important to have this type of document, she wondered whether there were plans for other, more scientific outputs – e.g. effect of NPIs, school closures, immunity gaps, delayed treatment, restricted access to health – which would all provide useful information for future planning.

13. Adriana Pistol, Member, Romania, said that it was important to invest in the entire public health workforce because it was so difficult to employ public health personnel and train them. In Romania, they were considering recruiting more primary healthcare GPs because they were a basic element in the system that could help with surveillance, prevention, protection, etc. She therefore wondered if the report should take into account this large and important element of the healthcare system and their need for training. With regard to communication, she pointed out that to increase people's confidence in public health officials it might be useful to have short courses on communication skills.

14. Rebecca Moore, Member, European Institute of Women's Health, said that Area 1 of the report was comprehensive, however it was important to have consultations with staff and take into account gender issues, given that over 80% of nurses in Europe were women and therefore childcare became a very important issue during a crisis situation. Vulnerable groups (e.g. migrants) and clinically vulnerable groups had also been disproportionately affected by the pandemic and therefore it was necessary to include them in any review. Community communication was another important element, with different age groups having differing needs. She also asked whether the planned expert consultations on NPIs would include any public participation or patient groups.

15. Jurgita Pakalniškiene, Member, Lithuania, said that during a crisis, there would always be an issue with staff recruitment and the training of new recruits which was why it would be good to have as many training courses as possible available online so that they could quickly obtain some basic training. She agreed with comments by the AF Member for Denmark regarding international cooperation and the fact that the process was ongoing, noting that initiatives by HERA should ideally be in line with ECDC rapid risk assessments. Referring to Area 4, she pointed out that although it was important to collect data it was also important to collect evidence, in order to determine what was known and what could be assumed, on the basis of the evolution of communicable diseases, as this would help achieve better proportionality in any future pandemic.

16. Osamah Hamouda, Member, Germany, said that it was unclear how the recommendations in the document were to be implemented. One of the biggest problems that he had experienced was the implementations of recommendations. During the first year of the pandemic politicians had listened to

public health experts, however, the situation then became increasingly political and communication was taken over by politicians and public health experts no longer had any control over what was said. Referring to the important point of having an intersectoral body which could be active during a crisis, although they had had such a body in Germany's pandemic plan, in the end the strongest ministries had taken over and the weaker ones had had to cede. With regard to training, he pointed out that the pandemic had created significant interest in public health among young people (e.g. field epidemiology training programmes) however at national level, the capacity was limited. He therefore agreed with the comment about arranging more training online. He also agreed with the points made about digitisation although he pointed out that the operation and maintenance of technical systems was critical. For example, the installation of a new contact tracing system during the pandemic had doubled the workload for public health experts at local level. Another example was wastewater surveillance, for which a new system had been installed in Germany during the crisis, diverting resources from other more important areas. In Germany they had employed 1 000 students to help at local public health offices (later expanded to 1 500) and they had provided significant support to the workforce at local level, so this was a positive example of surge capacity.

17. Henrik Ullum, Member, Denmark, responding to comments about individual sequencing versus wastewater monitoring, said that there were advantages and disadvantages with both systems. He recognised the challenges of having timely individual sequencing, however with sewage monitoring it was difficult to find new variants as it only recognised existing ones. With regard to the coordination of wastewater monitoring, he pointed out that a new proposal 'EU Wastewater Integrated Surveillance for Public Health' was being presented to the Commission that day and therefore there was a likelihood that funding would be available to coordinate this at some point in the future.

18. Fernando Simón Soria, Member, Spain, said that in most countries there was a hospital system, a primary healthcare system and a public health system and they should all be part of a single system. It was necessary to increase the efficiency of the whole system, rather than supplementing with extra manpower during a pandemic and also to take into account the roles played by other partners (e.g. technical, agricultural, etc.) He was also in favour of including behavioural science experts and attempting to counter misinformation, however this had to be done by providing appropriate information, taking a consistently professional approach and building up public trust. He also pointed out that it was important to understand the role of a public health expert, as decisions were often taken at a higher level for reasons other than public health.

19. Jaap van Dissel, Member, Netherlands, said that in order for the recommendations to be implemented, more attention needed to be given to political commitment. In the Netherlands during the pandemic they had been limited by the questions that politicians needed to answer first before the public health experts could step in – for example mandatory vaccination, personal freedoms, documentation and personal data exchange, etc. He suggested that this could be included in the report, along with some of the behavioural science elements.

20. Mike Catchpole, Chief Scientist, ECDC, thanked the team for the report, noting that the themes which came up repeatedly were the role of primary care, collaboration between ECDC, HERA and WHO, the complexity of the multi-dimensional technical environment and the problem of dealing with surge capacity.

21. Vicky Lefevre, Head of Unit, Public Health Functions, ECDC, reflecting on the feedback, said that the report was the result of a lessons-learned exercise, which is why it had not covered some areas, however these would be taken into account for future exercises. She noted the point about sequencing and wastewater surveillance. The European Health Task Force was not mentioned as it had not come up in discussions, however it would feature in future plans. In current discussions on the pandemic, there was a lot of feedback on workforce capacity. ECDC was setting up a working group on this topic and welcomed any AF members who would be interested in joining the group. With regard to Article 8 assessments, she explained that in 2023 the Commission was planning to launch an Article 8 survey and, based on the countries' responses, during 2024–2026 ECDC would carry out assessments of prevention and planning. The Agency was currently working with the Commission on methodology but many of the issues raised could be useful for this procedure. Responding to comments on EU-level coordination, she pointed out that there were many players (HERA, WHO, DG SANTE, JRC, etc.) and ECDC was making efforts to coordinate with all of them, by being involved in their work and sharing

information with them in an open and transparent manner, to ensure there was no duplication. She thanked the AF members for their input.

22. Andrea Ammon, Director, ECDC, thanked the AF members for their broad engagement in the opening discussion. She pointed out that the document was only based on the After-Action Reviews of six countries but it had already shown how diverse the reactions were. ECDC's approach would be to look at individual countries and then synthesise the results for all countries. The workforce issue was not just a matter of training but also political commitment, which was already fading as the pandemic came to an end. She therefore reassured the AF members that, whenever she had the opportunity, she reiterated the importance of investing now for the future. She also pointed out that it was important to maximise the possibilities available via the Commission for funding the digitisation of surveillance. At the Africa CDC they had a ministerial training programme for public health in order to raise awareness, which could possibly be extrapolated and adapted for use in Europe. Preparing awareness of public health during 'peace time' was an important issue. The issue of NPIs and proportionality was also very interesting and the ethical considerations needed to be examined more closely. At ECDC they were hoping to develop a stakeholder engagement framework in order to map all those involved and then make plans to engage them more regularly in the future.

ECDC Prevention Framework

23. Piotr Kramarz, Deputy Chief Scientist/Deputy Head of Unit, Disease Programmes Unit (DPR), ECDC, and Charlotte Deogan, Expert Communicable Diseases Prevention and Control, DPR, ECDC, gave a short presentation and the floor was opened for discussion. They specifically described how the amended ECDC mandate in the area of prevention has been translated into a vision. The vision is of strong, effective and evidence-based prevention of communicable disease in the EU/EEA, which, in addition to applying expertise in epidemiology and microbiology, will be achieved by leveraging social and behavioural sciences, health promotion, health literacy, health education, behaviour change, and taking into account social and economic risk factors.

24. Bruno Coignard, Member, France, suggested that EFSA should be added as a collaborative partner.

25. Carlos Matias Dias, Member, Portugal, noting that the framework would lead to cooperation between different agencies and institutions, wondered whether ECDC had a predefined map of these stakeholders at European level. He also pointed out that the organisation of public health in Europe appeared to be changing and wondered whether this would have an effect on the next phase of ECDC's development under the new mandate.

26. Fernando Simón Soria, Member, Spain, noting that there was work involving other sectors, asked whether ECDC was establishing links with the Commission's Directorates-General working in these sectors.

27. Sotirios Tsiodras, Member, Greece, said that in order to increase the effectiveness of prevention, it was important to identify populations at risk and in need of targeted prevention and to look at health equity, systemic factors contributing to health disparities, stigma, racism, community engagement and the need to engage with different stakeholders in order to bring new voices to the table and also to look at prevention from a syndemic point of view.

28. Jurijs Perevoščikovs, Member, Latvia said that, when addressing this issue it was important to involve children and young people, by providing them with a basic knowledge of disease prevention.

29. Piotr Kramarz thanked the participants for their feedback which would be consolidated in the document. He confirmed that when ECDC began to work on objectives involving more specific disease and special health issue areas and EFSA would be one of the stakeholders it would engage with. The plan was to do a mapping of stakeholders specifically for prevention and to try and involve them through an informal community of practice rather than a formalised network as part of the overall CCB structure. He confirmed that the Agency would also be looking at prevention from a more syndemic point of view, moving upstream in the cycle of and addressing the drivers and risk factors of several diseases at the same time.

30. Charlotte Deogan, Expert, Communicable Diseases Prevention and Control, DPR, ECDC, said that an exercise was being carried out to map prevention actors in the EU/EEA. The Prevention and Behaviour Change team at ECDC also works on the definition of prevention in ECDC context and on the other elements related to prevention in ECDC's extended mandate. A pilot mapping had been carried out involving four countries to try and identify prevention actors e.g. NGOs at the grassroots level and at the national level.

31. Andrea Ammon, Director, ECDC, confirmed that the Agency was working on a stakeholder framework, which was very important for this area because not everyone working in prevention was based in the ministries, so it was necessary to find a way to reach them. It is also important for ECDC to know where it could help most and make the biggest difference in this field. She promised to keep the AF updated on progress in the area of prevention.

Foresight, modelling, research

32. Mike Catchpole, Chief Scientist, ECDC, gave a short presentation and the floor was opened for discussion.

33. Carlos Matias Dias, Member, Portugal, asked whether ECDC would only use the established lines of communication with national competent authorities or whether there would be any other way of disseminating these initiatives and opportunities.

34. Fernando Simón Soria, Member, Spain, asked whether ECDC had established a connection with WHO's Pandemic Hub in Berlin because they were carrying out many activities in this area involving the countries.

35. Koen Blot, Alternate, Belgium, said that modelling activities in Belgium mainly took place in academic institutions and therefore he wondered how it would be possible to identify the appropriate people.

36. Henrik Ullum, Member, Denmark, wondered if the mathematical modelling should be more network-based.

37. Mike Catchpole pointed out that modelling was quite a network-based activity anyway, with a strong modelling community. Some public health institutes had modelling resources and some did not, while there were also a number of modelling centres based in academic institutes. ECDC had been reaching out through modelling networks and the establishment of forecasting and scenario hubs in the belief that a collaborative approach to modelling provided more robust and sustainable answers. ECDC also wanted to help with capacity building in this area through training and therefore suggested that participants could share their thoughts on how to engage with modellers.

38. Sotirios Tsiodras, Member, Greece, asked whether ECDC had any evidence of how often modelling was used to support public health action during the pandemic.

39. Alexandar Šimunović, Alternate, Croatia, said that he had checked ECDC's website for information on *Legionella* and European surveillance of drinking water, however the resources available were slightly out-of-date (technical guidelines from 2017 and a toolbox from 2012).

40. Fernando Simón Soria, Member, Spain, said that it was important to be able to assess the quality of any model, for modelling groups to have access to good-quality data and for them to be creating models based on the questions that actually needed answering. He believed that there should be modelling groups in national institutions and that, from a political point of view, they might be more trusted than those in academia.

41. Rebecca Moore, European Institute of Women's Health said that she was working on a new Horizon 2020 'Real for Reg' project where they were modelling artificial data for pharmaceutical purposes and the Commission was organising a stakeholder network meeting on 14 June, which could also be of interest to the AF members.

42. Koen Blot, Alternate, Belgium, said that in Belgium there had been a push at higher political levels to integrate public health and academia with the focus on modelling. At the beginning of the COVID-19 pandemic it had been easier for modellers to do work, due to the push for open data and the granularity of data. However, this was not necessarily the case for other infectious diseases (e.g.

SARI/ILI) where there was a lower level of granularity and complications with data ownership, availability and privacy, which was not conducive for modelling outside of a crisis setting.

43. Mike Catchpole, Chief Scientist, ECDC said that the work of ECDC's modellers had been essential to several of ECDC's COVID-19 outputs, which had also been used by Commission. With regard to funding, he explained that ECDC did not receive funding for research. The greatest effect was in influencing the funding towards the most important issues affecting Member States' ability to provide guidance. With regard to drinking water, he promised to inform the team responsible, he pointed out that at the previous AF meeting they had discussed the idea of developing protocols and sharing them, looking at the resources and skills sets required. For ECDC, this would mainly involve training in the area of methodologies. He believed strongly that all public health institutes should have modelling capacity, if at all possible. With regard to quality of data and ownership of data, he acknowledged the problem and pointed out that modelling could help identify the data and parameters which were most important for reducing uncertainty in the model.

44. Andrea Ammon, Director, ECDC, referring to the impact of modelling on policy-making, said that one of ECDC's most recent publications 'Interim public health considerations for COVID-19 vaccination roll-out during 2023' was an example of an output based on modelling. She reiterated that the combination of modelling and health economics modelling was very important for politicians to see how it was possible to save money in the long-term. With ECDC's Foresight programme, the scenarios were based on a broad range of drivers, and it was important to look at what could be done now to influence these scenarios for the purposes of preparedness.

ECDC's increased international role

45. Antonis Lanaras, Head of Section, European and International Cooperation, Director's Office, ECDC, gave a short presentation and the floor was opened for discussion.

46. Henrik Ullum, Member, Denmark, asked whether ECDC collaborated with European Neighbourhood Policy countries, such as Ukraine.

47. Sotirios Tsiodras, Member, Greece, referring to collaboration with major CDCs, asked whether there were any criteria for selecting the CDCs that ECDC collaborated with – e.g. data on emerging and infectious diseases, data on responding to crises, etc.

48. Carlos Matias Dias, Member, Portugal, asked why South America was not included as there was at least one country in that region with a large population that had a good surveillance network.

49. Antonis Lanaras explained that the Agency had been working directly with Ukraine before the crisis and since the Russian aggression had begun, the Agency had been cooperating closely with the five countries bordering Ukraine to offer assistance. A total of 15 technical guidance documents had been produced and translated into Czech, Hungarian, Polish, Romanian, Slovakian and Ukrainian and experts had also been deployed in Poland and Romania. There had also been regular meetings with all five of the Member States involved. Since December 2022, ECDC had been in direct contact with Ukraine to offer support, particularly in the area of workforce capacity building, and was hoping to be able to move to the next phase (assessment of public health capacity) very soon. In addition, the Ukrainian Minister of Health had attended the most recent EU Health Council meeting. ECDC collaborates with several CDCs across the globe and in some cases it has bilateral relations but no signed Memorandum of Understanding (e.g. Singapore). With regard to South America, ECDC has been in contact and was hoping to formalise relations with Brazil soon and during the pandemic, ECDC had had contact with Chile. Although not part of South America, a Memorandum of Understanding had also been concluded with Mexico in June 2021.

Results of the ECDC stakeholder survey

50. Andrea Ammon, Director, ECDC, gave a short presentation and the floor was opened for discussion.

51. Adriana Pistol, Member, Romania, said that she was surprised to hear that some Member States had not responded to the survey and suggested that the differences in response rates for various regions might be linked to the political situation, understanding or limited resources.
52. Jaap van Dissel, Member, the Netherlands, noted that it was a positive evaluation although it was negative in terms of the low response rate. He wondered if the Agency had any insight as to why the response rate was so low.
53. Sotirios Tsiodras, Member, Greece thought that it would probably be useful to update the survey and also to present the results at a higher level, as well as keeping those at local level in the loop. He suggested that the problem was linked to the fact that in many countries those in the CCBs were appointed at the political level, changing when the government changed, which meant there was no continuity.
54. Bernhard Benka, Alternate, Austria, said that the local public health authorities in Austria often asked the national public health agency to translate ECDC documents into German although it did not have the resources for this. He therefore wondered if other countries had similar issues with language at the local level which might explain the low response rate.
55. Jan Kynčl, Member, Czech Republic, suggested that when extending to other countries, it was necessary to discuss this internally and externally. As had already been mentioned before at AF meetings, in order to consult with colleagues at national level and for ECDC to obtain better feedback, it was important for AF members to receive the documents well in advance.
56. Fernando Simón Soria, Member, Spain, said that in Spain they did not translate ECDC documents, only excerpts if they were included in official national reports and publications. Although he did not know the reason for the low response rate to the survey, he suggested it was because in some countries people had many roles and very little time. In addition, sometimes there could be two people in similar roles who expected one another to respond and neither did.
57. Kamilla Jósefsdóttir, Member, Iceland, said that she had received seven copies of the survey which was a good illustration of the point about people having different roles. In some cases, ECDC communications went to different people but it was not possible to see who had received them and therefore people did not respond because they thought that someone else would. This could explain the reason for the low response rate.
58. Jurijs Perevoščikovs, Member, Latvia, said that they often took ECDC recommendations, which were very general, and made them more specific by adapting them to the local situation, taking into account local legislation and circumstances. As this was quite a long and complicated process they did not have the capacity to adapt all ECDC documents, just the most important ones (one recent example had been with an outbreak of diphtheria). He suggested that it might be useful to have a barometer to assess the main epidemiological issues in each country.
59. Andrea Ammon, Director, ECDC, agreed, that ECDC need to be able to differentiate its guidance more, for example with sets of optimal and minimal recommendations. She understood that 'translation' of documents into practical guidance for use at national level was an issue and was in favour of the idea of a barometer to measure the epidemiological situation in each country.
60. Maarit Kokki, Head of Executive Office, Director's Office, ECDC, thanked the AF members for their responses. She pointed out that the survey was only one part of the work and that ECDC had also arranged focus groups and interviews. She understood that people were very busy during the period when the survey was carried out, due to the mpox, COVID-19 and hepatitis crises and she was aware that there was also a certain amount of survey fatigue. The reason that people had received different questionnaires was that each questionnaire contained role-specific questions. She explained that ECDC would like to continue with the survey every other year, however with ECDC's upcoming external evaluation in 2024, it would probably not be necessary to repeat the exercise in the near future.

ECDC proposal for assessment of SARS-CoV-2 burden of disease

61. Frank Sandmann, Expert, Mathematical Modelling, Scientific Methods and Standards Unit, ECDC and Ajibola Omokanye, Expert, Epidemic Prone Diseases, Disease Programmes Unit, ECDC gave a short presentation and the floor was then opened for discussion.

62. Sotirios Tsiodras, Member, Greece, said that there was currently a lot of discussion about immunosenescence, inflammation, interaction with comorbidities, etc. and this was an important area that had not yet been fully researched. Given that there were so many factors influencing the interpretation of results, he wondered how all of these were being addressed.
63. Jan Kynčl, Member, Czech Republic said that it was difficult to validate the data as there was a wide spectrum of variabilities. It was therefore necessary to be cautious when presenting it, and to make it clear that the situation being described was only valid as a projection for that particular year.
64. Rebecca Moore, Member, European Institute of Women's Health, asked about the rationale for using DALYs instead of QALYs and for having age but not sex as a variable. She also suggested that it could be interesting to look at different socio-economic groups as data were available to do so.
65. Henrik Ullum, Member, Denmark, complimented the team on their work which was very relevant at European level but he pointed out that it could also be useful to study at national level and therefore wondered whether the coding was freely available. He noted that it had been very well documented that sex had played a role and therefore thought that it should be included. He asked for clarification of the DALYs and how they were calculated for the age groups 15-64 years and 55-79 years.
66. Osamah Hamouda, Member, Germany, asked about the assumptions made for the models and in particular, he was puzzled by the large confidence intervals shown in the bubble chart. If the work was to be presented to politicians, he wondered what message was being conveyed.
67. Fernando Simón Soria, Member, Spain, recommended not publishing the modelling results until it was clear what they meant. ECDC's modellers had used the definition for the post COVID-19 condition as it appeared in literature and studies and these were usually reliable since they were done by doctors, mainly with long-stay hospitalised patients. He was therefore interested in understanding the process for selecting symptoms when defining the post-COVID-19 condition since there were around 250 associated symptoms. He asked whether the life expectancy used for defining DALYs was the mean European life expectancy based on each country's specific life expectancy for each of the age groups since this could have an impact on the DALYs lost. He also asked if the modellers used results from sero surveys to assess the under-ascertainment since there was a huge correlation between incidence and mortality. He pointed out that data from 2020 were much less exhaustive than data for 2021 or 2022, which could also have had an impact.
68. Isabel De La Fuente Garcia, AF Member, Luxembourg, asked whether sex should be included in the variables, whether the same frequency had been used for all age groups, and how this was weighted in the model. She pointed out that 'long COVID' and 'post-COVID-19 condition' were a huge melting pot and it was difficult to make diagnoses with no biological markers. Therefore the assumptions being made for the model were dynamic over time. She also wondered how the model could be applied.
69. Adriana Pistol, Member, Romania, asked about the definition used for post-COVID 19 condition and the duration and whether these had been taken from literature. Given that there were strains of SARS-CoV-2 with high mortality rates and others which were of lesser concern it was important to look at the strains or waves individually. She also suggested that it might be dangerous to make comparisons with influenza.
70. Koen Blot, Alternate, Belgium, said that this type of analysis provided a different perspective and was useful for long-term planning. He asked about the specifics of the disability referred to in the bubbles as there could be a significant difference depending on age. For the bubble plot, because of the assumptions and the variants, it would be interesting to see a minimum or maximum situation for the DALY as this would help with future planning at national level.
71. Jaap van Dissel, Member, the Netherlands, asked whether he was correct in understanding that the post-COVID condition was not influenced by prior infections, referring to recent reports from the UK which had shown a 30% decrease in secondary infection and a significant influence depending on age (lower incidence in children).
72. Frank Sandmann, Expert, Mathematical Modelling, Scientific Methods and Standards Unit, ECDC, thanked the AF participants for their feedback. With regard to quantifying the burden related to the post COVID-19 condition, the approach used was a baseline with scenarios to try and capture a

reasonable range of what the burden could be. The same was true of the bubble plot, it was a good visualisation to remind people that there was still a substantial problem even though it was not ready for publication yet, and was just a means of stimulating discussion. To save time he would write up and circulate responses to all other questions.

73. Ajibola Omokanye, Expert, Epidemic Prone Diseases, Disease Programmes Unit, ECDC, said that the assumptions used were an attempt to capture the complexity already known to experts. It was known that different variants were associated with different severities, but by using scenarios built into the model they had attempted to identify the key drivers over time. In response to the question about differences for each sex, he was aware that this needed to be factored in. With regard to the confidence intervals in the bubble charts, he agreed that it was misleading to show them as a simple circle. They had tried to focus on WHO's clinical case definition and, when trying to extract parameter estimates, they had tried to focus on studies that used large prospective cohorts and to have close control over the types of studies that informed the parameters used.

74. Mike Catchpole, Chief Scientist, ECDC, thanked the participants for their input and confirmed that written feedback would be provided.

Revised categorisation of ECDC scientific outputs

75. Barbara Albiger, Principal Expert, Scientific Methods and Standards Unit, ECDC, gave a short presentation which was followed by a discussion.

76. Sotirios Tsiodras, Member, Greece, asked whether ECDC colleagues had thought about having research updates for the purposes of providing information on innovative initiatives, facilitating knowledge exchange and collaboration among researchers, and promoting the translation of research findings into public health policies and interventions.

77. Barbara Albiger confirmed that they were looking at where there were research gaps, by consulting, doing systematic reviews and monitoring. The objective and impact would be to influence policy and practices which in turn might influence funding for research.

78. Mike Catchpole, Chief Scientist, ECDC, noted that there seemed to be broad acceptance of the categorisation of ECDC outputs.

Targeted country support – live presentation of the Country Overview Dashboard

79. Svens Henkuzens, Country Support Officer, Director's Office, ECDC, gave a short demonstration of the dashboard.

80. Fernando Simón Soria, Member, Spain, asked for the presentation and link to be shared in Extranet for further review after the meeting.

81. Sotirios Tsiodras, Member, Greece, said that ECDC needed to be cautious about the validity of the datasets shared as there were many available and they were not all reliable.

82. Isabel De La Fuente Garcia, Member, Luxembourg, giving an example of data validity, pointed out that data on hospital capacity might not reflect the actual number of beds available, but rather staff capacity or shortages.

83. Carlos Matias Dias, Member, Portugal, asked whether the data and information was updated automatically or by means of human intervention, whether it was built to work all year round and whether it was adaptable to crisis situations or more contextualised analysis. He agreed that in general it was always good to show data from different sources and, as far as possible, to be sure about the data quality.

84. Jaap van Dissel, Member, the Netherlands asked whether a target group had been identified for the dashboard.

85. Fernando Simón Soria asked whether other agencies were working on similar projects with comparable indicators and obtaining similar results.

86. Adriana Pistol, Member, Romania asked if any datasets other than Eurostat and TESSy had been used and pointed out that ECDC should indicate the data sources to make them clear.

87. Jurijs Perevočškiovs, Member, Latvia, pointed out that public health workforce capacity and immunisation coverage were also basic indicators.

88. Andrea Ammon, Director, ECDC said that the origin of the dashboard was a discussion two years previously at the Joint Strategy Meeting in the Working Group on Targeted Country Support where it was suggested that it would be useful to have an overview of the infectious disease situation for each of the countries. Six of the seven areas (Country and health governance; Diseases and health issues; Surveillance systems; Microbiology; Preparedness and response to public health emergencies; Workforce capacity; and Digital public health) were proposed by ECDC and the seventh (digital element) was proposed by the Working Group. The target audience was the Competent Bodies and ECDC itself. The primary starting point had been to determine areas for improvement and where ECDC could support the countries. Therefore, there was no intention to publish and the data was not being made publicly available. ECDC could not have any influence over data validity as most data used for the overviews stem from public sources where MS report to. She confirmed that workforce capacity and immunisation coverage were included in the dashboard. Although the dashboard was still in its initial development phase, she hoped that it would be possible to share it at a later date.

89. Svens Henkuzens, Country Support Officer, Director's Office, ECDC, responding to the question about updating information, said that the dashboard was being updated on a daily basis. With regard to adaptability in times of crisis, he pointed out that the dashboard had been created using an out-of-the-box tool, and it was possible to tailor it by adding further datasets. The air travel data was annual Eurostat data although in the future it might be possible to find another data source with more frequent updates. The indicators were selected based on the seven areas, the validity of the data source, frequency of updates and availability of information. Sometimes when the best indicators were not available, it was necessary to use proxy indicators. With regard to the referencing of data, they aimed to reference each source and the table used from each source. For the data on staff capacity in public health workforces, he explained that they were using Eurostat data and also data from ECDC's workforce capacity survey (epidemiologists and microbiologists) but the response rate was currently still quite low. For the vaccine coverage rates, they were using WHO data.

Invitation to provide feedback on challenges in sharing personal data

90. Christian Schultheiss, Head of Section, Legal Services and Riccardo Malcalza, Data Protection Officer, ECDC, explained the background to ECDC's offer to reach out to national lawyers in the Member States for the purposes of consultation in connection with the challenges associated with data sharing. The floor was then opened for discussion.

91. Osamah Hamouda, Member, Germany thanked ECDC for the offer of help with personal data issues and explained that at their institute the data protection officer saw problems in the legal basis for reporting data with pseudonymised identifiers to TESSy. However, the German Ministry of Health did not see any need to make a change to the law and therefore they were 'stuck' between two legal opinions and needed help in resolving this dilemma.

92. Adriana Pistol, Member, Romania, believed that the data provided from Romania was solely based on age and sex. Although she fully agreed that personal data should not be identifiable, in Romania they had not had any problems to date. It was important to be clear who to talk to in each country and suggested that this was probably the national authority for data protection.

93. Carlos Mathias Dias, Member, Portugal, said that ECDC colleagues might end up talking to different people in each country, depending on the structure. In Portugal, it would be helpful to talk to the national authority for data protection or a specific data protection officer at the Ministry of Health. As he was unsure, he had passed the question on to his superiors.

94. Sotirios Tsiodras, Member, Greece said that in Greece national legislation covering GDPR provided sufficient legal basis for collecting and processing personal data, including data on health which was covered by a specific article. National legislation fully reflected the possibility to share data – e.g. special provisions for COVID-19, and a national patient registry – and therefore transmission of anonymised data by the national authority to ECDC was not only possible, but also enabled by the Greek Ministry of Health.

95. Koen Blot, Alternate, Belgium, said that the situation in Belgium was complex –the federated authorities were responsible for infectious disease prevention and control, however the surveillance element had been sub-delegated to the public health institute. The federated instances had the legal mandate to collect personal data pertaining to infectious diseases with mandatory notification, but the public health institute did not. The legal mandate of the public health institute is vague, stating that they were allowed to collect personal information in a crisis situation, yet the data collection had to be approved by the Information Security Committee, meaning that they were often only allowed to collect data for research rather than for public health purposes. This would require information security committee approval which was limiting due to its long process before approval (generally longer than one year). However, he hoped that these difficulties would be cleared up in the next couple of years by either developing clear contracts with the federated authorities on data ownership and processing – or through adaptation of the public health institute’s legal mandate to collect data through surveillance systems that already exist for multiple decades.

96. Jurijs Perevočškiovs, Member, Latvia, said that it would be very useful to collaborate in this area. In his institute there was a data protection officer and there had been a great deal of discussion in recent years about being cautious when sending data to ECDC. There had also been questions that the data protection officer was unable to answer.

97. Henrik Ullum, Member, Denmark, said that his institute had been challenged as to whether they should share microbial sequences at all and similarly, there had been questions raised on the reporting of the information required for contract tracing. Although the question of who to approach might need to be discussed with the national agencies for data protection, it was probably best to start with stakeholders in the public health agencies as they would know the challenges and the rules.

98. Bruno Coignard, Member, France, said that they had had discussions about sharing sequences and associated metadata with GISAID. Another issue during the COVID-19 pandemic had involved the national public health agency not having access to unique identifiers when they wanted to match different databases. He therefore welcomed ECDC’s offer to liaise with the appropriate national data protection officers.

99. Jurgita Pakalniškiene, Member, Lithuania said that Lithuania had recently been undertaking a project to digitise the surveillance system and there had been many discussions on the collection and transfer of data and the type of data that could be collected. Recently the national data protection agency had started an investigation after PrEP vaccinations had been offered to MSM which involved the collection of sensitive information. She therefore agreed that it would be good to have direct communication between ECDC and national data protection officers but that this should be via the data protection officers at the public health institute in the first instance as they were much more aware of the challenges involved.

100. Vicky Lefevre, Head of Unit, Public Health Functions, ECDC, said that the proposal was being made because ECDC wanted to understand the challenges relating to GDPR, mentioned during previous discussions on long-term surveillance strategy. ECDC did not intend to collect anything other than age, gender, sexual orientation if relevant and underlying conditions. The appropriate person would probably be the data protection officer counterpart at national level in the Ministry or the public health institute.

101. Riccardo Malacalza, Data Protection Officer, ECDC noted that there seemed to be a common issue with a lack of legal basis in processing certain personal data. He suggested that this could be discussed with the Commission when discussing the implementing acts with a view to possibly including a legal basis for processing in the acts. With regard to GISAID, he explained that ECDC had consulted its supervisory authority (EDPS) regarding use of GISAID and then shared the opinion with colleagues at Member State level and would be pleased to continue with activities of this nature, if useful.

ECDC proposal to strengthen EU/EEA surveillance to detect severe sporadic cases of avian influenza in humans

102. Vicky Lefevre, Head of Unit, Public Health Functions and Cornelia Adloch, Principal Expert, Respiratory Viruses, Disease Programmes Unit, ECDC, gave a short presentation and the floor was opened for discussion.

103. Bruno Coignard, Member, France, said that in France they had two surveillance protocols (active, to be tested as a pilot during the summer, and passive, with reinforcement of partners' awareness) that they could share

104. Jurijš Perevočškišvs, Member, Latvia, said that this year Latvia had had its first outbreaks in birds and, in addition to type A, they had been doing sequencing and analysis and sending specimens to their national laboratory. However, as they had little experience, some guidance or a set of external recommendations from ECDC would be useful.

105. Jaap van Dissel, Member, the Netherlands, asked whether surveillance was confined to human surveillance. In the Netherlands they had looked at the prevalence of avian influenza in animals (15%) which was quite high. Another area in which they had tried to start surveillance was pig farming and he wondered if this type of 'One-Health' surveillance should be included.

106. Bruno Coignard, Member, France said that it was important to remember wild birds and take into consideration people who had had contact with wild birds and/or animals.

107. Isabel De La Fuente Garcia, Member, Luxembourg, said that they were behind in surveillance for severe respiratory infections because surveillance was mainly based on ambulatory patients and not patients in hospitals. There was also no sub typing, just influenza A and this also needed to be expanded.

108. Henrik Ullum, Member, Denmark, referring to the suggestion to have enhanced active surveillance in humans, said that this would provide a better idea of the true severity of the disease. He also agreed that it was important to take a more 'One-Health' approach.

109. Fernando Simón Soria, Member, Spain, said that they were trying to improve hospital surveillance in Spain and that they had active surveillance in the form of a protocol available online, addressing workers at poultry farms and those who might have been exposed to wild birds as a result of their work and needing to be tested for A(H5N1). With regard to testing for encephalitis, he suggested that it could be linked to the testing for West Nile Virus, which was about to begin. There was a vaccine available for A(H5N1) but producers were reluctant to use it as there were restrictions on poultry exports for birds that had been vaccinated and he wondered if anything was being done about this.

110. Laura Gillini, DG Santé, European Commission, said that they had been working on more coordination with G2 on surveillance in the animal field and had had the first joint Health Security Council (HSC) meeting with veterinarian services two months previously and as a follow up, avian flu was being included in the next in presence high-level HSC meeting in June to discuss what actions could be taken to prevent spill-over. On 24 May 2023, the Netherlands would be presenting details of their surveillance protocol at the HSC meeting after which it was hoped that more concrete actions could be proposed.

111. Sotirios Tsiodras, Member, Greece, supported the actions proposed. He asked how good surveillance was outside the EU and about the status of genomic sequencing to monitor virus evolution. He was also interested in the status of targeted education campaigns to raise awareness of A(H5N1) among the general public, healthcare workers and individuals at high risk of exposure. He also asked about vaccine development for the new strains. He agreed that a 'One-Health' approach was necessary as it was necessary to integrate human, animal and environmental data to better address the complex dynamics of A(H5N1). He also pointed out that post COVID-19 fatigue would probably affect political commitment to tackling the issue.

112. Bernhard Benka, Alternate, Austria, said that the A(H5N1) was also affecting Austria and that they had already issued recommendations for those handling dead birds and poultry. They had also implemented a work package to try and establish active surveillance for those working with poultry.

113. Vicky Lefevre, Head of Unit, Public Health Functions, ECDC thanked the AF members for their feedback, noting that most appeared to be in favour of strengthening hospital surveillance and active surveillance among poultry workers. She noted the issue of surveillance in pigs in terms of reassortment and wild animals and said this would be discussed again with EFSA and the Commission. With regard to pre-pandemic vaccines, she was aware that HERA colleagues had been discussing production of a pre-pandemic vaccine for stockpiling (600 000 doses) with various pharmaceutical companies.

114. Cornelia Adloch, Principal Expert, Respiratory Viruses, Disease Programmes Unit, ECDC thanked the members for their feedback. Referring to active surveillance, she made the point that the detections would end up amplifying reported numbers, so it was important to separate detections from real cases. According to the IHR and EU case definition, any detection of the A(H5N1) would determine a case and this would end up in the overall line list, which in turn would stigmatise those countries making detections as a result of studies or because they were looking into outbreaks with active surveillance. WHO was working on an updated protocol for the confirmation of true infection rather than just detection, however this was still in the pipeline. EFSA had a mandate to publish the 'One-Health' 10 priorities for animal health diseases and ECDC had asked for the addition of swine influenza surveillance and avian influenza surveillance in other mammals. She fully agreed that pig farms were critical but for the moment pigs appeared to be hard for the virus to infect. With regard to vaccination for animals, France had been moving forward on taking a decision to vaccinate their duck population and there was an A(H5N1) vaccination in the pipeline with the EMA which was to be released in Europe. For human use, there was a vaccine being developed which could possibly be available later in 2023. EFSA would be publishing opinions on vaccines for animals, one in September and one in 2024. With regard to surveillance in other regions, in Asia they had SARI surveillance systems to test and detect for A(H5N1) and were collaborating with WHO and FAO colleagues on market screening. There were also a number of different players working in field sampling and the US CDC was also actively participating in the region. This meant that a great deal of genomic sequencing had been done and information made available. Although there had been some mutations, so far there was nothing to indicate that A(H5N1) was becoming a human-adapted virus.

115. Laura Gillini, DG Santé, European Commission, said that EFSA was actively working on vaccinations for animals. The Commission was involving OSHA in its discussions and had recently had a meeting with EMA, HERA, and ECDC on developments with human vaccines.

116. Fernando Simón Soria, Member, Spain, agreed that those countries carrying out surveillance might be more likely to be stigmatised but he was ready to accept this risk. He advised caution against any proposal to use antivirals as a prophylaxis, as this might encourage resistance.

117. Bruno Coignard, Member, France, said that in his country several hundred poultry farms had been recently affected and that 10-20 workers should be screened at each of these farms (if an active surveillance protocol should be implemented), which represented a huge workload. Therefore an active surveillance protocol would depend on the resources available and political commitment would be required to obtain such resources.

118. Jaap van Dissel, Member, the Netherlands agreed with the AF Member for Spain regarding the use of antivirals, however he pointed out that in the Netherlands they had been using antivirals in a prophylactic manner for the last 15 years without any negative effects.

Feedback from WG Sessions on the use of Artificial Intelligence in infectious disease surveillance, response, prevention and control

119. Kamilla Jósefsdóttir, Member, Iceland, gave a short presentation on behalf of Working Group A.

120. Henrik Ullum, Member, Denmark said that the feeling in the group had been that AI was an important subject and that needed to be addressed. However it was important to understand that it was a moving target and would be changing all the time. The group had also discussed that AI could possibly be used for general administrative purposes (writing speeches and letters, undertaking translations) and that it might be useful to look at what other public institutions were doing in this area, as well as looking at more specific health-related areas, although the two needed to be separated.

121. Adriana Pistol, Member, Romania, gave a short presentation on behalf of Working Group B.
122. Sotirios Tsiodras, Member, Greece, gave a short presentation on behalf of Working Group C.
123. Koen Blot, Alternate, Belgium said that there were three application points for AI in a public health context – 1) to decrease workload, synthesise medical dossiers for data extraction and prompt responses to questions in the public health sector; 2) for analysis of big data – e.g. the application of machine learning, and 3) for social profiling, which was murky from an ethical point of view.
124. Fernando Simón Soria, Member, Spain said that AI offered huge potential for the future, although it was really just the further development of the automatised processes that had been established to date, with better tools. However, he pointed out that it was important to be careful when using tools that were possibly not fully understood to express the position of an institution (e.g. public health agency or ECDC) or to evaluate opinions.
125. Mike Catchpole, Chief Scientist, ECDC, noted that there had been several comments about the sources used by AI machines, and he was interested in the idea of using bespoke systems to retain more control. He suggested that it would be necessary to learn more of the vocabulary surrounding AI in order to be able to better understand its uses and implications.
126. Andrea Ammon, Director, ECDC, thanked the AF members for the interesting discussion. She agreed that public health experts needed to increase their general level of literacy in this area to understand it better (especially since they did not steer developments in AI, which would move forward with or without them). She suggested that the next step for ECDC would be to compile a document with information on what public health professionals needed to know about AI.
127. Dirk Meusel, DG Santé, European Commission, said that it was necessary to exercise caution as AI was a buzzword. It was important to clearly spell out which components of AI were being discussed - statistical learning from existing data could be very helpful – for this it was necessary to have trusted, good data, however there was also a component of AI which related to automated decision-making, which could be problematic in the field of public health (ethical aspects), so he suggested spelling out which components were being discussed, and identifying those which public health experts wanted to use and in which way.

Update from ECDC Director

128. Andrea Ammon, Director, ECDC gave a short update on recent activities.

Presentation of ECDC crowdsourcing project

129. Helena de Carvalho Gomes, Head of Section, Scientific Process and Methods, Scientific Methods and Standards Unit gave a short presentation which was followed by a short discussion.
130. Jaap van Dissel, Member, the Netherlands, said that they had started a similar project at the beginning of the COVID-19 pandemic. Around 15 000 people had applied to participate and were now sending samples. They also had SARI surveillance and found that this was an interesting way of getting citizens involved.
131. Henrik Ullum, Member, Denmark said that they had run similar activities, both by sending questionnaires and swabbing kits. If another pandemic occurred, they would then build on this self-testing capacity.
132. Fernando Simón Soria, Member, Spain, said that in Spain they were using citizen science for vector-borne disease projects although there was no register, they were just using spontaneous information from citizens. They were also looking at how to use citizen science for other issues – mainly in the area of surveillance. He asked whether ECDC colleagues already had an idea of what topics would be included at the beginning and confirmed that he would be happy to support.

133. Osamah Hamouda, Member, Germany, said that in Germany they had also run a similar citizen science project for influenza/acute respiratory infection. He asked whether ECDC was planning to use the crowdsourcing as scoping for systematic reviews, for screening or for citizen science projects.

134. Helena de Carvalho Gomes said that there were many activities similar to this using citizen science or crowdsourcing. ECDC's platform was slightly different in that it did not allow the crowd to input data or submit mosquitoes or samples. ECDC did not want to repeat projects that were already underway which was why they had decided to start with a simple approach, using a clone of the Cochrane crowd platform,. The plan was to start with review tasks and then to explore other areas such as for foresight activities, communication activities, etc. One of the aims was to complement collaboration with Cochrane and the idea was to make the platform available for use by ECDC and, if successful, to open it up to other users. It was hoped that, with help from the countries, ECDC would be able to 'grow a crowd' and run consultations through the platform, before making it available to the Member States.

Any other business/adjournment

135. Mike Catchpole, Chief Scientist, ECDC, thanked the AF members for their input and informed them that the next meeting would take place in Stockholm on 19-20 September 2023.

136. Andrea Ammon, Director, ECDC also thanked the AF members for their input and engagement and wished them a good summer. She looked forward to seeing them all again in September.

Annex: List of participants

Member State	Representative	Status	Participation Mode
Austria	Bernhard Benka	Alternate	In person
Belgium	Koen Blot	Alternate	In person
Croatia	Aleksandar Šimunović	Alternate	In person
Czech Republic	Jan Kynčl	Member	In person
Denmark	Henrik Ullum	Member	In person
Estonia	Kärt Sõber	Member	In person
France	Bruno Coignard	Member	In person
Germany	Osamah Hamouda	Member	In person
Greece	Sotirios Tsiodras	Member	In person
Hungary	Zsuzsanna Molnár	Member	In person
Latvia	Jurijs Perevoščikovs	Member	In person
Lithuania	Jurgita Pakalniškienė	Member	In person
Luxembourg	Isabel De La Fuente Garcia	Member	In person
	Anne Vergison	Alternate	WebEx
Malta	Tanya Melillo Fenech	Alternate	WebEx
The Netherlands	Jaap van Dissel	Member	In person
Portugal	Carlos Matias Dias	Member	In person
Romania	Adriana Pistol	Member	In person
Spain	Fernando Simón Soria	Member	In person
Sweden	Anneli Carlander	Member	In person
	Birgitta Lesko	Alternate	In person
Observers			
Iceland	Kamilla Jósefsdóttir	Member	In person

European Commission Non-Governmental Organisations (NGOs)			
European Institute of Women's Health	Rebecca Moore	Member	In person
European Commission			
DG SANTÉ	Dirk Meusel		WebEx
DG SANTÉ	Laura Gillini		WebEx
DG SANTÉ	Marta Valenciano		WebEx