Article:
Hrzic, Rok, Davidovitch, Nadav, Barros, Henrique et al. (12 more authors) (2022) ASPHER Statement:Facing the Fourth Winter of the COVID-19 Pandemic. Public health reviews. 1605395. ISSN: 0301-0422

https://doi.org/10.3389/phrs.2022.1605395

PHR | SSPH+ SWISS SCHOOL OF PUBLIC HEALTH

Public Health Reviews
SOCIETY STATEMENT
published: 03 October 2022
doi: 10.3389/phrs.2022.1605395

ASPHER Statement: Facing the Fourth Winter of the COVID-19 Pandemic

Rok Hrzic[1], Nadav Davidovitch[2], Henrique Barros[3], Henrique Lopes[4], Jose M. Martin Moreno[5], Amanda J. Mason-Jones[6], Alison McCallum[7], John Reid[8], Ralf Reintjes[9], Mohamud Sheek-Hussein[10], Judit Simon[11], Brian Li Han Wong[1,12], Lore Leighton[13], Robert Otok[13], John Middleton[13] and ASPHER*

[1]Department of International Health, Care and Public Health Research Institute – CAPHRI, Maastricht University, Maastricht, Netherlands, [2]School of Public Health, Ben Gurion University of the Negev, Beersheba, Israel, [3]Institute of Public Health, University of Porto, Porto, Portugal, [4]Unit of Public Health, Institute of Health Sciences, Catolica University, Lisbon, Portugal, [5]Department of Preventive Medicine and Public Health, Medical School and INCLIVA, University of Valencia, Valencia, Spain, [6]Department of Health Sciences, University of York, York, United Kingdom, [7]Centre for Population Health Sciences, Usher Institute, University of Edinburgh, Edinburgh, Scotland, [8]Department of Public Health and Wellbeing, University of Chester, Chester, United Kingdom, [9]Department of Public Health, Hamburg University of Applied Sciences, Hamburg, Germany, [10]Institute of Public Health — College of Medicine and Health Sciences, United Arab Emirates University, Al Ain, United Arab Emirates, [11]Department of Health Economics, Center for Public Health, Medical University of Vienna, Vienna, Austria, [12]The International Digital Health and AI Research Collaborative (I-DAIR), Geneva, Switzerland, [13]Association of Schools of Public Health in the European Region (ASPHER), Brussels, Belgium

Keywords: COVID-19 pandemic, winter planning, equity, vaccination policy, evidence informed policy, trust, enhanced surveillance

THE FOURTH WINTER OF THE PANDEMIC—WHAT HAVE WE LEARNED?

The coming winter is the fourth since the COVID-19 pandemic started in late 2019. The rapidity with which novel variants of the virus are emerging and eroding the effectiveness of established tools for the detection, prevention, and treatment of the illness poses an ongoing challenge to healthcare systems, on top of emerging threats such as the MPVX and polio as well as preparations for seasonal influenza, all within the context of pandemic fatigue both for the general public and health workforce [1]. At the same time, policymakers worldwide now possess the experience necessary to stage effective and equitable responses to the pandemic. In this statement, we reflect on the key lessons for managing the ongoing COVID-19 pandemic in the context of multiple intersecting global threats [2].

THE PANDEMIC RESPONSE SHOULD PRIORITIZE EQUITY

The first lesson is that this is an inequitable pandemic. Most outcomes relevant to COVID-19 follow a social gradient, ranging from contracting the disease [3], experiencing a severe course of the disease [4] and death [5], vaccine hesitancy [6] and not having received a full course of vaccination [7], or experiencing economic hardship [8] and poorer mental health as a result of the pandemic [9]. Any response, therefore, necessitates a strong consideration of equity effects and entails a combination of tailored information dissemination, vaccination campaigns targeted at different levels of the social hierarchy, providing adequate ventilation, encouraging wearing masks in public places like on public transport [10], ensuring that frequent testing and quarantining are financially accessible for all, and welfare policies ameliorating social and economic deprivation.

VACCINES ARE NECESSARY BUT NOT SUFFICIENT

The availability of COVID-19 vaccines has been a turning point in the pandemic and has resulted in fewer new infections, hospital admissions, and severe courses of disease [11]. However, vaccination alone is not

OPEN ACCESS

Approved by:
Sarah Mantwill,
University of Lucerne, Switzerland

****Correspondence:***
Nadav Davidovitch
nadavd@bgu.ac.il

Received: *14 September 2022*
Accepted: *20 September 2022*
Published: *03 October 2022*

Citation:
Hrzic R, Davidovitch N, Barros H, Lopes H, Moreno JMM, Mason-Jones AJ, McCallum A, Reid J, Reintjes R, Sheek-Hussein M, Simon J, Wong BLH, Leighton L, Otok R, Middleton J and ASPHER (2022) ASPHER Statement: Facing the Fourth Winter of the COVID-19 Pandemic. Public Health Rev 43:1605395. doi: 10.3389/phrs.2022.1605395

sufficient to prepare for the months ahead. Large sections of the population—often those at the bottom of the social hierarchy—will likely remain unvaccinated in light of their vaccine hesitancy and distrust of the government [6, 7, 12]. Globally, the distribution of COVID-19 vaccines remains unequal as wealthy nations stockpile the vaccine at the expense of easy access in lower- and middle-income countries; this not only hinders the effective response in those countries but also perpetuates the worldwide risk of emergent variants [13–17]. In absence of other preventive strategies, the rapid emergence of novel variants in combination with waning immunity after vaccination [18], necessitates the constant development and rollout of booster doses in the absence of other preventive strategies, which is not sustainable over the long term.

TRANSPARENT EVIDENCE-INFORMED DECISION-MAKING ENGENDERS TRUST

An effective response to the pandemic fundamentally requires a relationship of trust and cooperation between governments and their citizens. This relationship is greatly enhanced if key stakeholders and the public are engaged in a fair process for decision-making involving publicity, relevance, revisability, and enforcement [10]. Given the evidence available on the likely effects of various non-pharmacological interventions on the course of the pandemic [19–21] and the availability of reflections on how best to incorporate scientific evidence in political decision-making during the pandemic [22–24], this moment presents an opportunity for governments to restore much-needed confidence in their ability to handle the pandemic and act decisively to protect the public's health.

EFFECTIVE SURVEILLANCE IS THE KEY TO AN EFFECTIVE RESPONSE

Throughout the pandemic, COVID-19 surveillance systems played a key role in shaping effective responses to the pandemic [25]. Nevertheless, differences between countries, regions, and over time in how COVID-19 cases are defined, tested for, and reported have made the consistent and reliable tracking of the COVID-19 burden challenging [26–28]. To support an effective public health response going into the winter, countries will need to do more and more varied surveillance. Various techniques and tactics are available to provide insight into the prevalence of COVID-19 in a population [29], including wastewater surveillance [30]. There is also an ongoing need for genomic surveillance to detect emerging viral variants [31], as well as for monitoring for COVID-19 in healthcare and other occupational settings [32], inequalities in COVID-19 burden between ethnic groups [33], and the prevalence of long COVID [34]. The ECDC and WHO Europe suggest a good standard for surveillance of respiratory viruses—including COVID-19—consists of representative sentinel surveillance systems in primary and secondary care, the targeted surveillance of vulnerable groups, gathering data on illness severity such as hospitalisations, admissions to ICU, and mortality, and genomic monitoring; the data gathered should be sufficiently disaggregated to accurately follow virus- and variant-specific disease incidence by severity, age, and place [35]. Investing in sustainable surveillance systems will not only help us with COVID-19 but also enable effective public health responses to other emerging health threats.

THE COVID-19 PANDEMIC WILL NOT BE FOUGHT IN ISOLATION

An effective response to COVID-19 this winter will be critical to preserve the capacities of healthcare and public health institutions as they fend off other threats. Overlapping with the COVID -19 pandemic is the global circulation of MPVX [36], and experts warn of a resurgent seasonal influenza after 2 years suppression by public health measures and travel restrictions [37]. The context is also made more challenging by rising geopolitical uncertainty, high inflation driving up costs of living, extreme weather conditions including heatwaves and floods, and other threats [2]. COVID-19 pandemic is still here, yet we learned many lessons. We must take a balanced, sustainable, and holistic perspective to guide us in our interventions [2]. This requires collaboration and solidarity, both within and between countries.

AUTHOR'S NOTE

The Association of Schools of Public Health in the European Region (ASPHER) is the key independent European organization dedicated to improving and protecting public health by strengthening education and training of public health professionals for practice and research. www.aspher.org.

AUTHOR CONTRIBUTIONS

RH prepared the first draft. ND and JM contributed extensively to further drafts. All authors made substantial contributions to the conception of the work and to the acquisition, analysis, or interpretation of data for the work; and revising it critically for important intellectual content; and final approval of the version to be published; and agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

CONFLICT OF INTEREST

JM is an elected, unpaid official of ASPHER, a membership organisation. ND and RH are unpaid in their work for ASPHER. LL and RO are paid officials of ASPHER.

The remaining authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

EDITORIAL NOTE

ASPHER is responsible and liable for all contents of ASPHER statements. ASPHER statements are approved by an Editor-in-Chief but not externally peer reviewed.

REFERENCES

1. Fernandes Q, Inchakalody VP, Merhi M, Mestiri S, Taib N, Moustafa Abo El-Ella D, et al. Emerging COVID-19 Variants and Their Impact on SARS-CoV-2 Diagnosis, Therapeutics and Vaccines. *Ann Med* (2022) 54(1):524–40. doi:10.1080/07853890.2022.2031274
2. Middleton J, Davidovitch N, Barros H, Lopes H, Martin-Moreno JM, Mason-Jones AJ, et al. ASPHER Statement: Planning for Winter 2022-23. *Public health Rev.* (2022) 43:1605394. doi:10.3389/phrs.2022.1605394
3. Baena-Díez JM, Barroso M, Cordeiro-Coelho SI, Díaz JL, Grau M. Impact of COVID-19 Outbreak by Income: Hitting Hardest the Most Deprived. *J Public Health* (2020) 42(4):698–703. doi:10.1093/pubmed/fdaa136
4. Gustafsson PE, San Sebastian M, Fonseca-Rodriguez O, Fors Connolly AM. Inequitable Impact of Infection: Social Gradients in Severe COVID-19 Outcomes Among All Confirmed SARS-CoV-2 Cases during the First Pandemic Wave in Sweden. *J Epidemiol Community Health* (2022) 76(3):261–7. doi:10.1136/jech-2021-216778
5. Woodward M, Peters SAE, Harris K. Social Deprivation as a Risk Factor for COVID-19 Mortality Among Women and Men in the UK Biobank: Nature of Risk and Context Suggests that Social Interventions Are Essential to Mitigate the Effects of Future Pandemics. *J Epidemiol Community Health* (2021) 75(11):1050–5. doi:10.1136/jech-2020-215810
6. Bajos N, Spire A, Silberzan LEPICOV study group. The Social Specificities of Hostility toward Vaccination against Covid-19 in France. *PLoS ONE* (2022) 17(1):e0262192. doi:10.1371/journal.pone.0262192
7. Saban M, Myers V, Ben-Shetrit S, Wilf-Miron R. Socioeconomic Gradient in COVID-19 Vaccination: Evidence from Israel. *Int J Equity Health* (2021) 20(1):242. doi:10.1186/s12939-021-01566-4
8. Witteveen D. Sociodemographic Inequality in Exposure to COVID-19-Induced Economic Hardship in the United Kingdom. *Res Soc Stratif Mobil* (2020) 69:100551. doi:10.1016/j.rssm.2020.100551
9. Witteveen D, Velthorst E. Economic Hardship and Mental Health Complaints during COVID-19. *Proc Natl Acad Sci U S A* (2020) 117(44):27277–84. doi:10.1073/pnas.2009609117
10. Hrzic R, Peixoto VR, Mason-Jones AJ, McCallum AASPHER COVID-19 Task Force. Is it Really Time to Ditch the Mask? *BMJ* (2022) 377:o1186. doi:10.1136/bmj.o1186
11. Català M, Li X, Prats C, Prieto-Alhambra D. The Impact of Prioritisation and Dosing Intervals on the Effects of COVID-19 Vaccination in Europe: an Agent-Based Cohort Model. *Sci Rep* (2021) 11(1):18812. doi:10.1038/s41598-021-98216-0
12. Nafilyan V, Dolby T, Razieh C, Gaughan CH, Morgan J, Ayoubkhani D, et al. Sociodemographic Inequality in COVID-19 Vaccination Coverage Among Elderly Adults in England: a National Linked Data Study. *BMJ Open* (2021) 11(7):e053402. doi:10.1136/bmjopen-2021-053402
13. Binagwaho A, Mathewos K, Davis S. Time for the Ethical Management of COVID-19 Vaccines. *Lancet Glob Health* (2021) 9(8):e1169–e1171. doi:10.1016/S2214-109X(21)00180-7
14. Wagner CE, Saad-Roy CM, Morris SE, Baker RE, Mina MJ, Farrar J, et al. Vaccine Nationalism and the Dynamics and Control of SARS-CoV-2. *Science* (2021) 373(6562):eabj7364. doi:10.1126/science.abj7364
15. Wagner CE, Saad-Roy CM, Grenfell BT. Modelling Vaccination Strategies for COVID-19. *Nat Rev Immunol* (2022) 22(3):139–41. doi:10.1038/s41577-022-00687-3
16. Wouters OJ, Shadlen KC, Salcher-Konrad M, Pollard AJ, Larson HJ, Teerawattananon Y, et al. Challenges in Ensuring Global Access to COVID-19 Vaccines: Production, Affordability, Allocation, and Deployment. *Lancet* (2021) 397(10278):1023–34. doi:10.1016/S0140-6736(21)00306-8
17. World Federation of Public Health Associations. Statement on COVID-19 Immunization and Equitable Access to Vaccines (2021). Available at: https://www.wfpha.org/statement-on-covid-19/ (Accessed September 23, 2022).
18. Goldberg Y, Mandel M, Bar-On YM, Bodenheimer O, Freedman L, Haas EJ, et al. Waning Immunity after the BNT162b2 Vaccine in Israel. *N Engl J Med* (2021) 385(24):e85. doi:10.1056/NEJMoa2114228
19. Flaxman S, Mishra S, Gandy A, Unwin HJT, Mellan TA, Coupland H, et al. Estimating the Effects of Non-pharmaceutical Interventions on COVID-19 in Europe. *Nature* (2020) 584(7820):257–61. doi:10.1038/s41586-020-2405-7
20. Haug N, Geyrhofer L, Londei A, Dervic E, Desvars-Larrive A, Loreto V, et al. Ranking the Effectiveness of Worldwide COVID-19 Government Interventions. *Nat Hum Behav* (2020) 4(12):1303–12. doi:10.1038/s41562-020-01009-0
21. Sharma M, Mindermann S, Rogers-Smith C, Leech G, Snodin B, Ahuja J, et al. Understanding the Effectiveness of Government Interventions against the Resurgence of COVID-19 in Europe. *Nat Commun* (2021) 12(1):5820. doi:10.1038/s41467-021-26013-4
22. de Campos-Rudinsky TC, Undurraga E. Public Health Decisions in the COVID-19 Pandemic Require More Than 'follow the Science. *J Med Ethics* (2021) 2020:107134. doi:10.1136/medethics-2020-107134
23. Hodges R, Caperchione E, van Helden J, Reichard C, Sorrentino D. The Role of Scientific Expertise in COVID-19 Policy-Making: Evidence from Four European Countries. *Public Organiz Rev* (2022) 22(2):249–67. doi:10.1007/s11115-022-00614-z
24. Vickery J, Atkinson P, Lin L, Rubin O, Upshur R, Yeoh EK, et al. Challenges to Evidence-Informed Decision-Making in the Context of Pandemics: Qualitative Study of COVID-19 Policy Advisor Perspectives. *BMJ Glob Health* (2022) 7(4):e008268. doi:10.1136/bmjgh-2021-008268
25. Baker MG, Wilson N, Anglemyer A. Successful Elimination of Covid-19 Transmission in New Zealand. *N Engl J Med* (2020) 383:e56. doi:10.1056/NEJMc2025203
26. Alwan NA. Surveillance Is Underestimating the burden of the COVID-19 Pandemic. *Lancet* (2020) 396(10252):e24. doi:10.1016/S0140-6736(20)31823-7
27. Rocco P, Rich JAJ, Klasa K, Dubin KA, Béland D. Who Counts where? COVID-19 Surveillance in Federal Countries. *J Health Polit Pol L* (2021) 46(6):959–87. doi:10.1215/03616878-9349114
28. Karanikolos M, McKee M. How Comparable Is COVID-19 Mortality across Countries? *Eurohealth* (2020) 26(2):45–50.
29. Mina MJ, Andersen KG. COVID-19 Testing: One Size Does Not Fit All. *Science* (2021) 371(6525):126–7. doi:10.1126/science.abe9187
30. Shah S, Gwee SXW, Ng JQX, Lau N, Koh J, Pang J. Wastewater Surveillance to Infer COVID-19 Transmission: A Systematic Review. *Sci Total Environ* (2022) 804:150060. doi:10.1016/j.scitotenv.2021.150060
31. Robishaw JD, Alter SM, Solano JJ, Shih RD, DeMets DL, Maki DG, et al. Genomic Surveillance to Combat COVID-19: Challenges and Opportunities. *Lancet Microbe* (2021) 2(9):e481–e484. doi:10.1016/S2666-5247(21)00121-X
32. Wee LE, Sim XYJ, Conceicao EP, Aung MK, Goh JQ, Yeo DWT, et al. Containment of COVID-19 Cases Among Healthcare Workers: The Role of Surveillance, Early Detection, and Outbreak Management. *Infect Control Hosp Epidemiol* (2020) 41(7):765–71. doi:10.1017/ice.2020.219
33. Harawa NT, Amani B, Abotsi-Kowu C, Nwankwo E, Ford CL. Using COVID-19 Surveillance Systems to Identify and Monitor Disparities: Best Practices and Recommendations. *Ethn Dis* (2022) 32(2):151–64. doi:10.18865/ed.32.2.151
34. Ward H, Flower B, Garcia PJ, Ong SWX, Altmann DM, Delaney B, et al. Global Surveillance, Research, and Collaboration Needed to Improve Understanding and Management of Long COVID. *Lancet* (2021) 398(10316):2057–9. doi:10.1016/S0140-6736(21)02444-2
35. World Health Organization Regional Office for Europe, European Centre for Disease Prevention and Control. Operational Considerations for Respiratory Virus Surveillance in Europe (2022). Available at: https://www.ecdc.europa.eu/sites/default/files/documents/Operational-considerations-respiratory-virus-surveillance-euro-2022.pdf (Accessed September 23, 2022).

36. Martín-Delgado MC, Martín Sánchez FJ, Martínez-Sellés M, Molero Garcia JM, Moreno Guillen S, Rodriguez-Artalejo FJ, et al. Monkeypox in Humans: a New Outbreak. *Rev Esp Quimioter* (2022) 2022:martin06jul2022. doi:10.37201/req/059.2022
37. Dhanasekaran V, Sullivan S, Edwards KM, Xie R, Khvorov A, Valkenburg SA, et al. Human Seasonal Influenza under COVID-19 and the Potential Consequences of Influenza Lineage Elimination. *Nat Commun* (2022) 13(1):1721. doi:10.1038/s41467-022-29402-5

PHR is edited by the Swiss School of Public Health (SSPH+) in a partnership with the Association of Schools of Public Health of the European Region (ASPHER)+