Response to Public Inquiry request for information.

A brief overview of your qualifications, career history, professional expertise and major publications.

Education and Qualifications:

QUALIFICATIONS: MBChB June 1995

MPH (Distinction) November 2006

MFPH November 2007 (by examination)

PhD May 2011

FFPH November 2011 (by nomination)

REGISTRATION: Provisional GMC registration July 1990 (no. 4193838)

Full GMC registration August 1991, MPS (no. 235158)

Entry to Specialist Register (Public Health) September 2009

ORCID - orcid.org/0000-0002-7950-2649

Appointments held

PRESENT APPOINTMENT:

1.0 WTE Clinical Professor of Public Health and Epidemiology and Honorary Consultant in Public Health (OHID), Head of Department of Public Health and Programme Director BSc Public Health/MPH/MRes Public Health and Primary Care Division of Population Health, Health Services Research and Primary Care, School of Health Sciences. 10 PAs with 8 PAs for academic work and 2 PAs for clinical work, 1 PA for Public Health lead GM Clinical Research Network, 2PAs for co-director at policy@manchester for FBMH.

PAST APPOINTMENTS:

- Head of the Division of Population Health, Health Services Research and Primary Care, School of Health Sciences (August 2016-2022, 2 terms)
- Director of the World Health Organisation Collaborating Centre on Health Indicators (WHOCC) February 2015-January 2019
- 3. Lead for the Centre for Epidemiology (CfE), Institute of Population Health January 2015 to July 2016 to become Head of Division after formation of FBMH.
- Senior Clinical Lecturer in Public Health, University of Manchester (September 2009-September 2013) 50% FTE and 80% FTE see below
 - Honorary Consultant in Public Health Salford Royal NHS Trust (September 2012-September 2013) 20% FTE
 - Honorary Consultant in Public Health NHS Bury and Bury Council (September 2009-September 2012) 50% FTE
- 5. SpR in Public Health and Hon Clinical Lecturer, University of Manchester with Salford t-PCT, Full Time October 2005-September 2009

- SpR in Public Health at GMHPU from April 2005 to October 2005 0.5 WTE and EHPU, University of Manchester 2005.
- 7. SpR in Public Health at Trafford PCTs from September 2003 to April 2005
- 8. Prof A K Webb, Adult Cystic Fibrosis Unit 6 years 2months 13 sessions/week Senior SHO from August 1997 to November 1998 and Staff Physician, University Hospital of South Manchester November 1998 to September 2003.
- Cardiothoracic Medical Rotation, University Hospital of South Manchester August 1996-August 1997
- Mr J Noble, Mr H Maxwell and Mr G Ingram, Hope Hospital House Officer in Orthopaedics and General Surgery February 1996-August 1996
- Dr S Waldek, Dr D J O'Donoghue and Dr P K Kalra, Hope Hospital House Officer in Nephrology and General Medicine August 1995-February 1996

Committee memberships and honorary appointments

- Hon Consultant in Public Health OHID and previously PHE
- Hon Consultant Manchester University Foundation Trust for NIHR Clinical Research Network Public Health lead role
- Member of Social Care Working Group (SCWG)

Major peer reviewed or archive server publications

ORCID - orcid.org/0000-0002-7950-2649

https://www.research.manchester.ac.uk/portal/arpana.verma.html

Peer -reviewed Publications

- Donaghy PH, Greenhalgh C, Griffiths J, Verma A. The use of community problem solving in undergraduate nurse education: A literature review. Nurse Education Today . 2022 Jun 23;116. https://doi.org/10.1016/j.nedt.2022.105447
- 2. Wei, H., Daniels, S., Whitfield, C., Han, Y., Denning, D. W., Hall, I., Regan, M., Verma, A., & Van Tongeren, M. (2022). Agility and Sustainability: A Qualitative Evaluation of COVID-19 Non-pharmaceutical Interventions in the UK Logistics Sector. Frontiers in Public Health, 10. https://doi.org/10.3389/fpubh.2022.864506
- Jervis S, Payton A, Verma A, Lowe M, Thomasson R, Poulton K. A Review of the Risk Factors, Pathophysiology, Diagnosis and Treatment of Narcolepsy. Journal of Neurology and Neuroscience. 2022 Mar 31;13(3).
- Brown B, O'Hara RW, Guiver M, Davies E, Birtles A, Farooq H, Verma A, Guo H, Hayden K, Machin N. Evaluation of a novel direct RT-LAMP assay for the detection of SARS-CoV-2 from saliva samples in asymptomatic individuals. J Clin Virol Plus. 2022 Jun;2(2):100074. doi: 10.1016/j.jcvp.2022.100074 Epub 2022
- Williams G, Spencer A, Farragher T, Gittins M, Verma A. Years of Life Lost to COVID-19 in 20 countries. Journal of global health. 2022 Mar 19;11. https://doi.org/10.7189/jogh.12.05007
- Liu X, Spencer A, Greenhalgh C, Steeg S, Verma A. A systematic review and meta-analysis of disease burden of healthcare-associated infections in China: an economic burden perspective from general hospitals. Journal of Hospital Infection. 2022 Feb 16. https://doi.org/10.1016/j.jhin.2022.02.005
- Fujita-Rohwerder N, Beckmann L, Zens Y, Verma A. Diagnostic accuracy of rapid point-of-care tests for diagnosis of current SARS-CoV-2 infections in children: a systematic review and metaanalysis. BMJ evidence-based medicine. 2022 Jan 18. https://doi.org/10.1136/bmjebm-2021-111828

- 8. Donaghy PH, Greenhalgh C, Griffiths J, **Verma A**. Preregistration adult nursing programmes and promotion of a population health agenda: an investigation. British Journal of Community Nursing. 2022 Jan 6;27(1):40-44. https://doi.org/10.12968/bjcn.2022.27.1.40
- 9. Harrison, A, Hall, M, Money, A, Mueller, J, Waterson, H & Verma, A 2021, 'Engaging older people to explore the age-friendliness of a rural community in Northern England: A photo-elicitation study', Journal of Aging Studies, vol. 58, pp. 100936. https://doi.org/10.1016/j.jaging.2021.100936
- 10. Shields GE, Camacho E, Farragher T, Clarkson P, **Verma A**, Davies LM. Acknowledging Patient Heterogeneity in Economic Evaluations in Schizophrenia: A Systematic Review. Value in Health. 2022 Jan 1;25(1):147-156. https://doi.org/10.1016/j.jval.2021.07.001
- 11. Reid A, Highfield F, **Verma A**. Identifying The Best Methods To Report On The Post-Vaccination Surveillance Of Physical Side-Effects Of The Covid-19 Vaccines: A Systematic Review. Systematic Reviews in Pharmacy. 2021 Dec 17. (in press)
- 12. Lowe M., Jervis S., Payton A., Poulton K., Worthington J., Gemmell I., & Verma, A. (2021). Systematic review of associations between HLA and renal function. International Journal of Immunogenetics, 49(1), 46-62. https://doi.org/10.1111/iji.12566
- Daniels, S, Wei, H, Han, Y, Catt, H, Denning, DW, Hall, I, Regan, M, Verma, A, Whitfield, C & Van Tongeren, M 2021, 'Risk factors associated with respiratory infectious disease-related presenteeism: a rapid review', BMC Public Health, vol. 21, no. 1, 1955. https://doi.org/10.1186/s12889-021-12008-9
- 14. Shields GE, Wilberforce M, Clarkson P, Farragher T, Verma A, Davies LM. Factors Limiting Subgroup Analysis in Cost-Effectiveness Analysis and a Call for Transparency. PharmacoEconomics. 2021 Oct 29. https://doi.org/10.1007/s40273-021-01108-4
- 15. Roche, R, Simmons, R, Crawshaw, AF, Fisher, P, Pareek, M, Morton, W, Shryane, T, Poole, K, **Verma, A,** Campos-Matos, I & Mandal, S 2021, 'What do primary care staff know and do about blood borne virus testing and care for migrant patients? A national survey', BMC Public Health, vol. 21, no. 1, pp. 336. https://doi.org/10.1186/s12889-020-10068-x
- Lowe, M, Payton, A, Verma, A, Worthington, J, Gemmell, I, Hamilton, P, Ollier, W, Augustine, T & Poulton, K 2021, 'Associations between human leukocyte antigens and renal function', Scientific Reports, vol. 11, no. 1, 3158. https://doi.org/10.1038/s41598-021-82361-7
- Zhang X, Tan SS, Franse C, Alhambra-Borras T, Verma A, Williams, van Grieken A. Longitudinal association between physical activity and health-related quality of life among community-dwelling older adults: a longitudinal study of Urban Health Centres Europe (UHCE). BMC Geriatrics. 2021 Oct 1. https://doi.org/10.1186/s12877-021-02452-y
- 18. Mueller J, Patterson L, Jakab M, Higgerson J, Steels S, **Verma A**. European-wide policymaking at the urban level: a qualitative study. Eur J Public Health. 2021 Mar 16:ckab016. doi: 10.1093/eurpub/ckab016. Epub ahead of print. PMID: 33724377.
- Fierloos, I, Tan, SS, Williams, G, Alhambra-Borras, T, Koppelaar, E, Bilajac, L, Verma, A, Markaki, A, Mattace Raso, F, Vasiljev, V, Franse, C & Raat, H 2021, 'Socio-demographic characteristics associated with emotional and social loneliness among older adults', BMC Geriatrics, vol. 21, no. 1, 114, pp. 114. https://doi.org/10.1186/s12877-021-02058-4
- 20. Lowe, M, Payton, A, **Verma**, **A**, Gemmell, I, Worthington, J, Hamilton, P, Ollier, W, Augustine, T & Poulton, K 2020, 'Human leukocyte antigen associations with renal function among ethnic minorities in the United Kingdom', HLA, vol. 96, no. 6, pp. 697-708. https://doi.org/10.1111/tan.14078
- Tian Z, Mclaughlin J, Verma A, Chinoy H, Heald AH. The relationship between rheumatoid arthritis and diabetes mellitus: a systematic review and meta-analysis. Cardiovasc Endocrinol Metab. 2021;10(2):125-131. Published 2021 Feb 19. doi:10.1097/XCE.0000000000000244
- 22. Black, D, Bates, G, Gibson, A, Hatleskog, E, Fichera, E, Hatchard, J, Nazmul, HM, Rosenberg, G, Larkin, C, Brierley, R, Kidger, J, Bondy, K, Hickman, M, Pain, K, Hicks, B, Scally, G, **Verma, A**, Carhart, N, Pilkington, P, Hunt, A & Ireland, P 2020, 'Pandemics, vulnerability, and prevention: time to fundamentally reassess how we value and communicate risk?', Cities Health, vol. 0, no. 0, pp. 1-4.https://doi.org/10.1080/23748834.2020.1811480
- Zhang X, Tan SS, Bilajac L, Alhambra-Borrás T, Garcés-Ferrer J, Verma A, Koppelaar E, Markaki A, Mattace-Raso F, Franse CB, Raat H. Reliability and Validity of the Tilburg Frailty Indicator in 5 European Countries. J Am Med Dir Assoc. 2020 Jun;21(6):772-779.e6. doi: 10.1016/j.jamda.2020.03.019. Epub 2020 May 6.
- 24. Stedman, M, Lunt, M, **Verma, A** & Heald, A 2020, 'A phased approach to unlocking during the COVID-19 pandemic Lessons from trend analysis', International Journal of Clinical Practice. https://doi.org/10.1111/ijcp.13528

- 25. Zhang X, Tan SS, Franse CB, Bilajac L, Alhambra-Borrás T, Garcés-Ferrer J, **Verma A**, Williams G, Clough G, Koppelaar E, Rentoumis T, van Staveren R, Voorham AJJ, Mattace-Raso F, van Grieken A, Raat H. Longitudinal Association Between Physical Activity and Frailty Among Community-Dwelling Older Adults. J Am Geriatr Soc. 2020 Jul;68(7):1484-1493. doi: 10.1111/jgs.16391. Epub 2020 Mar 20.
- 26. Franse, C, Zhang, X, van Grieken, A, Rietjens, J, Alhambra-Borras, T, Dura, E, Graces-Ferrer, J, van Staveren, R, Rentoumis, T, Markaki, A, Bilajac, L, Vasiljev Marchesi, V, Rukavina, T, Verma, A, Williams, G, Clough, G, Koppelaar, E, Martijn, R, Mattace Raso, F, Voorham, A & Raat, H (2019). A coordinated preventive care approach for healthy ageing in five European cities: a mixed-methods study of process evaluation components. Journal of Advanced Nursing. DOI: 10.1111/jan.14181
- 27. Villepinte C, Verma A, Dimeglio C, De Boissezon X, Gasq D. Responsiveness of kinematic and clinical measures of upper-limb motor function after stroke: A systematic review and meta-analysis. Ann Phys Rehabil Med. 2021 Mar;64(2):101366. doi: 10.1016/j.rehab.2020.02.005. Epub 2020 Mar 7.
- 28. Zhang, X, Tan, S, Franse, C, Alhambra-Borras, T, Dura-Ferrandis, E, Bilajac, L, Markaki, A, **Verma, A**, Mattace-Raso, F, Voorham, A, & Raat, H (2019). Association between physical, psychological and social frailty and health-related quality of life among older people. European Journal of Public Health, DOI: 10.1093/eurpub/ckz099
- 29. Williams, G, Mueller, J, Mbeledogu, C, Spencer, A, Parry-Harries, E, Harrison, A, Clough, G, Greenhalgh, C, & Verma, A. (2019) The impact of a volunteer-led community cancer awareness programme on knowledge of cancer risk factors and symptoms, screening, and barriers to seeking help. Patient education and counselling. DOI: 10.1016/j.pec.2019.09.025
- 30. Franse, CB, Van Grieken, A, Alhambra-borrás, T, Valía-cotanda, E, Van Staveren, R, Rentoumis, T, Markaki, A, Bilajac, L, Marchesi, VV, Rukavina, T, Verma, A, Williams, G, Koppelaar, E, Martijn, R, Voorham, AJJ, Mattace Raso, F, Garcés-ferrer, J & Raat, H 2018, 'The effectiveness of a coordinated preventive care approach for healthy ageing (UHCE) among older persons in five European cities: A pre-post controlled trial' International Journal of Nursing Studies, vol. 88, pp. 153-162. DOI: 10.1016/j.ijnurstu.2018.09.006
- 31. Katebi R, Williams G, Bourke M, Harrison A, Verma A. What factors are associated with the prevalence of atopic symptoms amongst adolescents in Greater Manchester? Eur J Public Health. 2018 Jun;28(3):576-581. doi: 10.1093/eurpub/ckv139. Epub 2015 Aug 12.
- 32. Baxter J, Verma A, Vilar FJ (2018) Hepatitis C Virus Reinfection after Sustained Virological Response in Those Who Continue To Inject Drugs at the Time of Treatment. J Gastroenterol Metabol 1: 104
- 33. Bakre AT, Chen R, Khutan R, Wei L, Smith T, Qin G, Danat IM, Zhou W, Schofield P, Clifford A, Wang J, **Verma A**, Zhang C, Ni J. Association between fish consumption and risk of dementia: a new study from China and a systematic literature review and meta-analysis. Public Health Nutrition. Cambridge University Press; 2018;1–12. doi:10.1017/S136898001800037X
- 34. Ollier, W, Muir, K, Lophatananon, A, **Verma, A** & Yuille, M 2018, 'Risk biomarkers enable precision in public health' Personalized Medicine. DOI: 10.2217/pme-2017-0068
- 35. Franse, C. B., Voorham, A. J. J., van Staveren, R., Koppelaar, E., Martijn, R., Valía-Cotanda, E., Alhambra-Borrás, T., Rentoumis, T., Bilajac, L., Vasiljev Marchesi, V., Rukavina, T., **Verma, A.**, Williams, G., Clough, G., Garcés-Ferrer, J., Mattace Raso, F. & Raat, H. Evaluation design of Urban Health Centres Europe (UHCE): preventative integrated health and social care for community-dwelling older persons in 5 cities. BMC Geriatrics 17: 209 (2017).
- 36. Goenka, A., Jeena, P., Mlisana, K., Solomon, T., Stephenson, R., Verma, A., Dhada, B. & Griffiths. Rapid Accurate Identification of Tuberculous Meningitis Among South African Children Using a Novel Clinical Decision Tool. Pediatr Infect Dis J. 2018 Mar;37(3):229-234. doi: 10.1097/INF.000000000001726.
- 37. Pope, D., Puzzolo, E., Birt, C. A., Guha, J., Higgerson, J., Patterson, L., van Ameijden, E., Steels, S., Owusu, M. W., Bruce, N. & **Verma, A**. Collecting standardised urban health indicator data at an individual level for adults living in urban areas: methodology from EURO-URHIS 2. European Journal of Public Health. 27, Supp 2, p. 42-49 8
- 38. Koster, E. M., de Gelder, R., Di Nardo, F., Williams, G., Harrison, A., van Buren, L. P., Lyshol, H., Patterson, L., Birt, C. A., Higgerson, J., Achterberg, P. W., **Verma, A**. & van Ameijden, E.J.C. Health status in Europe: comparison of 24 urban areas to the corresponding 10 countries (EURO-URHIS 2). European Journal of Public Health 27 Supp 2 p. 62-67 (2017).

- 39. Ali, O., Di Nardo, F., Harrison, A. & **Verma, A**. The link between perceived characteristics of neighbourhood green spaces and adults' physical activity in UK cities: analysis of the EURO-URHIS 10 2 Study. European Journal of Public Health 27:4 p.761-765 (2017).
- 40. Granger, E., Williams, G., Di Nardo, F., Harrison, A. & **Verma, A**. The relationship between physical activity and self-rated health status in European adolescents: Results of the EURO-URHIS 2 survey. European Journal of Public Health 27: Supp 2 p.107-111 (2017)
- 41. Di Nardo, F., Williams, G., Patterson, L., Harrison, A. & **Verma, A**. Current challenges for urban health. Health policy in non-communicable diseases. 4(1) 10-14 (2017)
- 42. Granger, E., Di Nardo, F., Harrison, A., Patterson, L., Holmes, R. & **Verma, A**. A systematic review of the relationship of physical activity and health status in adolescents. European Journal of Public Health 27: Supp 2 p. 100-106
- 43. Williams, G., Di Nardo, F. & **Verma, A**. The relationship between self-reported health status and signs of psychological distress within European urban contexts. European Journal of Public Health 27: Supp 2 p. 68-73
- 44. de Gelder R; Koster E; van Buren LP; van Ameijden EJC; Harrison A; Birt CA; **Verma A** Differences in adults health and health behaviour between 16 European urban areas and the associations with socio-economic status and physical and social environment The European Journal of Public Health 27: Supp 2 p. 93-99
- 45. Spencer, A., Brabin, L., Roberts, S., Patnick, J., Elton, P., **Verma, A.**, (2015). A qualitative study to assess the potential of the HPV vaccination programme to encourage under-screened mothers to attend for cervical screening. J Fam Plann Reprod Health care 42:2 P119-26 (2016)
- 46. **Verma, A.,** van Ameijden, E., Birt, C., Bocsan, I., Pope, D. & . (2015). Why investigate urban health indicators? Eur J Public Health, 27: Supp 2 p. 1-3 (2017) Editorial
- 47. Torun, P., Heller, R., Harrison, A. & **Verma, A** (2015). Can health indicators help policy-makers? Experience from European system of urban health indicators (EURO-URHIS). Eur J Public Health, 27: Supp 2 p.14-18 (2017)
- 48. Spencer, A., Roberts, S., **Verma, A.**, Patnick, J., Elton, P. & Brabin, L (2015). Effect of Human Papillomavirus vaccination of daughters on the cervical screening uptake of their non-vaccinated mothers. Eur J Public Health, 25:6 P.1097-1100 (2015)
- 49. Pope, D., Tisdall, R., Middleton, J., **Verma, A**., van Ameijden, E., Birt, C. & Bruce, N (2015). Quality of and access to green space in relation to psychological distress: results from a population-based cross-sectional study as part of the EURO-URHIS 2 project. Eur J Public Health, Online: DOI:10.1093/eurpub/ckv094 (2015)
- 50. Pope, D., Katreniak, Z., Guha, J., Puzzolo, E., Higgerson, J., Steels, S., Woode-Owusu, M., Bruce, N., Birt, C., Ameijden, E. & **Verma, A** (2015). Collecting standardized urban health indicator data at an individual level for school-aged children living in urban areas: methods from EURO-URHIS 2. Eur J Public Health, 27: Supp 2 p.36-41
- 51. Pennington, A., Dreaves, H., Scott-Samuel, A., Haigh, F., Harrison, A., **Verma, A**. & Pope, D. Development of an Urban Health Impact Assessment methodology: indicating the health equity impacts of urban policies. Eur J Public Health, 27: Supp 2 p. 56-61 (2017)
- Patterson, L., Heller, R., Robinson, J., Birt, C.A., van Ameijden, E., Bocsan, I., White, C., Skalkidis, Y.,
 Bothra, V., Onyia, I., Hellmeier, W., Lyshol, H., Gemmell, I., Spencer, A., Klumbiene, J., Krampac, I., Rajnicova, I., Macherianakis, A., Bourke, M., Harrison, A. & Verma, A (2015). Developing a European urban health indicator system: results of EURO-URHIS 1. Eur J Public Health, 27: Supp 2 p. 4-8 (2017)
- 53. Higgerson, J., Pope, D., Birt, C., van Ameijden, E. & **Verma, A** Collecting urban health indicators from routinely available sources: development and piloting of a tool for the collection of existing data for EURO-URHIS 2. Eur J Public Health, 27: Supp 2 p. 31-35 (2017)
- 54. Higgerson, J., Birt, C., van Ameijden, E. & **Verma, A** Defining the urban area for cross national comparison of health indicators: the EURO-URHIS 2 boundary study. Eur J Public Health, 27: Supp 2 p. 19-24 (2017)
- 55. Harrison, A., Robinson, C., Williams, G., Clough, G., Owusu, M. & Verma, A Utilizing community and voluntary sector partnerships to survey and compare the health outcomes of hard-to-reach groups to the wider community-the EURO- URHIS 2 Hard-to-Reach Project. Eur J Public Health, 27: Supp 2 p.50-55 (2017)
- Elisaus, P., Williams, G., Bourke, M., Clough, G., Harrison, A. & Verma, A (2015). Factors associated with the prevalence of adolescent binge drinking in the urban areas of Greater Manchester. Eur J Public Health, Online: DOI:10.1093/eurpub/ckv115 (2015)

- 57. Breckenkamp, J., Patterson, L., Scharlach, M., Hellmeier, W. & **Verma, A** Definitions of urban areas feasible for examining urban health in the European Union. Eur J Public Health, 27: Supp 2 p.19-24 (2017)
- 58. Price A, **Verma A**, Welfare W. (2015). Are health education interventions effective for the control and prevention of urogenital schistosomiasis in sub-Saharan Africa? A systematic review. Trans R Soc Trop Med Hyg, 109 p.239-244 (2015)
- 59. Rosenkötter N, Brand H, McKee M, Riley N, Verma A, Verschuuren M. The realisation of a European health information system time to get the politicians involved. Eur J Public Health (2014) 24(2):184-185.
- 60. Spencer AM, Roberts SA, Brabin L, Patnick J, **Verma A**. Sociodemographic factors predicting mother's cervical screening and daughter's HPV vaccination uptake JECH 68 p.571-577 (2014)
- 61. Bourke M, Whittaker P, **Verma A**. Are dietary interventions effective at increasing fruit and vegetable consumption amongst overweight children? A systematic review JECH, 68:485–490.(2014)
- 62. Joseph F, Photiou V, **Verma A**, Goenka N, Davies J, Clement-Jones M, Casson I. Identifying women with persistent abnormal glucose metabolism following gestational diabetes mellitus: changing times, changing populations and changing needs. Diabetes and Vascular Disease, July;13(1):31-3 (2013)
- 63. Spencer (nee Pilkington) Angela M, Brabin L, **Verma A**, Roberts, Stephen A. Mothers' screening histories influence daughters' vaccination uptake: An analysis of linked cervical screening and human papillomavirus vaccination records in the North West of England. European Journal of Cancer, 49(6):1264-1272 (2013)
- 64. Oliver K, Everett M, **Verma A**, de Vocht F. The human factor: Re-organisations in public health policy. Health Policy; 106:97-103.(2012)
- Verma A, Harrison A, Torun P, Vestbo J, Edwards R, Thornton J. Are Pharmacists reducing COPD's impact through Smoking Cessation and assessing inhaled steroid use? Respiratory Medicine, 106(2):230-4 (2012)
- 66. **Verma A**, Torun P, Harris E, Edwards R, Gemmell I, Harrison RA, Buchan IE, Davies L, Patterson L, Heller RF. Population Impact Analysis: a framework for assessing the population impact of a risk or intervention. J.Public Health 34(1):83-89.(2012)
- 67. de Vocht F, Higgerson J, Oliver K, **Verma A**. Incorporating uncertainty in aggregate burden of disease measures: an example of DALYs-averted by a smoking cessation campaign in the UK. J.Epidemiol.Community Health 65:751-6. (2011)
- 68. Gemmell, I., Patterson, L. & **Verma, A** The use of locally based aggregate measures in urban health policy making in European urban areas. 27: Supp 2 p. 9-13 (2017)[IF 2.4, Cited 0]
- 69. Agboado G, Michel E, Jackson E, Verma A. Factors associated with breastfeeding cessation in nursing mothers in a peer support programme in Eastern Lancashire. BMC Paediatrics 10:3 p.1-10.(2010)
- 70. Torun P, Heller RF, **Verma A.** Potential population impact of changes in heroin treatment and smoking prevalence rates: using Population Impact Measures. Eur J Public Health Jan;19(1):28-31 (2009)
- 71. Thornton J, Torun P, Edwards R, Harrison A, Kelly SP, Harrison RA, **Verma A.** Smoking cessation support in community pharmacies: is the association of smoking and eye disease an additional tool to increase uptake? IJPP 16: 251–256 (2008)
- 72. Gemmell I, Harrison RA, **Verma A.** Should we encourage over-the-counter statins? American Journal of Cardiovascular Drugs 7(4);299-302 (2007)
- 73. Heller RF, **Verma A**, Gemmell, I. et al. Critical appraisal for public health: A new checklist. Public Health, 122: 92-98. (2008)
- 74. Patterson L, Jarvis P, **Verma A**, Harrison R, Buchan I. Measuring children and monitoring obesity: Surveys of English Primary Care Trusts 2004-2006 Journal of Public Health 28(4):330-6 (2006)
- 75. Allen D, Evans A, Verma A. Management and the GMC Urology News 2007; 193 (2007)
- 76. Kirkpatrick A, Bell C, Petrovic M, Woodhead M, Barrett A, Duffell E, **Verma A**, Reynolds F. Investigation of a Tuberculosis Cluster at a Job Centre in Manchester, UK. Eurosurveillance 11(11);253-5 (2006)
- 77. **Verma A** et al. An outbreak of E. coli O157 associated with a swimming pool an unusual vehicle of transmission. Epidemiology and Infection;135:989-992 (2007)

Other Publications

78. Whitfield CA, Tongeren MV, Han Y, Wei H, Daniels S, Regan M, Denning DW, **Verma A**, Pellis L & Hall I 2022, Modelling the impact of non-pharmaceutical interventions on workplace transmission

- of SARS-CoV-2 in the home-delivery sector. MedRxiv https://doi.org/10.1101/2022.03.17.22272414
- 79. Fujita-Rohwerder, N, Zens, Y, Beckmann, L & Verma, A 2021, Diagnostic accuracy of rapid point-of-care tests for diagnosis of current SARS-CoV-2 infections in children: A systematic review. PROSPERO . https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42021236313
- Nie X, Williams G, Verma A, Zhu Y, Fu H, Jia J, Dai J Association between alcohol consumption and frailty in three Chinese cities 2020 Preprint Research Square https://doi.org/10.21203/rs.2.20567/v1
- 81. Williams, G, Greenhalgh, C, Fletcher, A, Mitchell, S, Ali, O, Wasiuk, C, **Verma, A**, Connell, S, Scott, D, Vella, G & Pope, D 2020, The Birchwood Junk Food Cafe, Skelmersdale. https://doi.org/10.5281/zenodo.3909442
- 82. Verma A Editorial Urban medicine and public health. Health policy in non-communicable diseases (2017), 4(1); 10-14
- 83. Yuille M, Harrison A, Williams G, **Verma A**. (2015). Research investment disparities in England. The Lancet, 385:9980 p.1830. (2015)
- 84. Rakeeb Patel, Arsa Syed, Arpana Verma. Is there a relationship between alcohol outlet density and alcohol consumption in early and middle adolescence? A systematic review. PROSPERO 2015:CRD42015024260 Available from http://www.crd.york.ac.uk/PROSPERO/display record.asp?ID=CRD42015024260
- 85. Emily Granger, Raphael Holmes, Arpana Verma. A systematic review of the relationship between physical activity and self-reported health status in adolescents. PROSPERO 2015:CRD42015023888 Available from http://www.crd.york.ac.uk/PROSPERO/display record.asp?ID=CRD42015023888
- 86. Rakeeb Patel, Arsa Syed, Arpana Verma. Is solitary drinking in adolescence associated with worse outcomes when compared to social drinking? A systematic review. PROSPERO 2015:CRD42015024159

 Available from http://www.crd.york.ac.uk/PROSPERO/display_record.asp?ID=CRD42015024159
- 87. Zara Hammond, Benjamin Brown, Arpana Verma. Systematic review: the effectiveness of dried blood spot testing for improving the uptake of blood borne virus testing among adults at increased risk of hepatitis B, C and/or HIV infection. PROSPERO 2015:CRD42015015588 Available from http://www.crd.york.ac.uk/PROSPERO/display record.asp?ID=CRD42015015588
- 88. **Verma A**, Clough D, McKenna D, Dodd M, Webb AK. Smoking and CF J R Soc Med 2001;94(Supp.40):29-34
- 89. Verma A, Dodd M, Haworth C S, Webb AK. Holidays and CF J R Soc Med 2000;93(Supp.38);20-26

Book chapters

- 90. van den Berg M., Achterberg P., Hilderink H., **Verma A.**, Verschuuren M. (2019) Structuring Health Information: Frameworks, Models and Indicators. In: Verschuuren M., van Oers H. (eds) Population Health Monitoring. Springer, Cham DOI https://doi.org/10.1007/978-3-319-76562-4 3
- 91. **Verma A.** Megacity Metrics: Current Systems and Developing a Conceptual Framework. In Kahn O A, Pappas G, eds. Megacities and Global Health, pp 107-26. Washington D.C.: American Public Health Association, 2011.

Policy and other reports

- Lewis, C, Johnson, S, Hartwig, A, Coleman, A, Gartland, N, Ubido, J, Gaokar, A, Armitage, CJ, Fishwick, D, Verma, A & Van Tongeren, M 2022, Contributing factors and mitigation strategies for areas of enduring COVID19 prevalence Report 1 – Drivers and regional variations. PROTECT National Core Study Report (HSE).
- 93. Hartwig, A, Johnson, S, Lewis, C, Coleman, A, Gartland, N, Ubido, J, Gaokar, A, Armitage, CJ, Fishwick, D, **Verma, A** & Van Tongeren, M 2022, Contributing factors and mitigation strategies for enduring COVID-19 prevalence. Report 2 Barriers and facilitators to local strategies used to control COVID-19 transmission. PROTECT National Core Study Report (HSE). https://documents.manchester.ac.uk/display.aspx?DocID=62349
- 94. Reports to HSE for PROTECT study https://sites.manchester.ac.uk/covid19-national-project/research-themes/sector-specific-studies/greater-manchester-case-study/

- 95. Reports for SPI-M/SAGE as part of Care Homes working group https://www.gov.uk/government/publications/scientific-advisory-group-for-emergencies-sage-coronavirus-covid-19-response-membership/list-of-participants-of-sage-and-related-sub-groups
- 96. Written evidence https://committees.parliament.uk/writtenevidence/7985/pdf/ 2020
- 97. WHO and UN Habitat The Global Report on Urban Health (2017) (http://www.who.int/kobe_centre/publications/urban_metrics2011/en/index.html
- 98. First Meeting of the European Health Indicators Initiative (2015) http://www.euro.who.int/en/data-and-evidence/news/news/2015/04/first-meeting-of-the-european-health-information-initiative-working-together-to-improve-information-for-better-health
- 99. Muhammad Jehangir Khan Bhatti, **Arpana Verma**. (2015). Self-management of hypertension in people at high risk of cardiovascular events. NICE Eyes on Evidence, eScholarID:265130 https://www.evidence.nhs.uk/document?id=1613394&returnUrl=Search%3fpa%3d7%26ps%3d30%26q%3deyes%2bon&q=eyes+on (2015) [Downloaded 97 times]
- 100. Peter Achterberg, Jose Luis Ayuso-Mateos, Jane Barrett, Romina Boarini, Robert A Cummins, Marleen De Smedt, Nick Fahy, Mike Gissler, Paulo Gomes, Mag Robert Griebler, Matilde Leonardi, Jutta Lindert, Hugh Markowe, Bosse Pettersson, Karen Scott, Alessandro Tinto, Coen van Gool, Arpana Verma, Marieke Verschuuren, Miroslaw Wysocki, Mark Jackson, Daniel O'Connor, Nils Fietje, Enrique Loyola, Claudia Stein, Marco Martuzzi, Somnath Chatterji. (2014). World Health Organization Regional Office for Europe, Second joint meeting of experts on targets and indicators for health and well-being in Health 2020. Copenhagen, Denmark: World Health Organization Regional Office for Europe. eScholarID:228970
- B-Debate Report. Green Cities, Healthy People. Planning Healthy Urban Spaces. 2014 http://www.bdebate.org/en/forum/green-cities-healthy-people-planning-healthy-urban-spaces
- 102. Verma A et al EURO-URHIS 2 final report 2013
- 103. (2012). Developing indicators for the Health 2020 targets. http://www.euro.who.int/__data/assets/pdf_file/0006/172509/Developing-indicators-for-the-Health-2020-targets-Eng.pdf: WHO Euro. eScholarID:223863
- 104. WHO Kobe Centre. (2013). Report of Consultation Meeting on Urban Health Observatories.
- 105. Verma A et al EURO-URHIS 2 second interim report 2012
- 106. Greater Manchester Hepatitis C Strategy. Greater Manchester Commissioning Guidelines for Blood Borne Virus Prevention. 2011. 2-8-0011.
- 107. NHS Manchester. 2011 Public Health Annual Report: Protecting the health of the people of Manchester. 2011. 2-8-0011.
- 108. WHO Kobe Centre. (2011). Report of Consultation Meeting on Urban Health Metrics Research. eScholarID:129106
 - http://www.who.int/kobe_centre/publications/urban_metrics2011/en/index.html http://www.euro.who.int/__data/assets/pdf_file/0006/172509/Developing-indicators-for-the-Health-2020-targets-Eng.pdf
- 109. Verma A et al EURO-URHIS 2 first interim report 2010
- 110. Harrison K, Morton W, and **Verma A**. Greater Manchester Joint Strategic Needs assessment for HCV prevention. 2010. 2-8-0011.
- 111. Morton W, Harrison K, and **Verma A**. Greater Manchester Blood Borne Virus Strategy. 2010. 2-8-0011.
- 112. Harrison K, England H, and **Verma A**. GMHCVS Hepatitis C Health Equity Audit . 2010. 2-8-0011.
- 113. Harrison K, Pilkington A, and **Verma A**. Teaching and Training for Hepatitis C Consultants (2009). 2009. 2-8-0011.
- Harrison K, Pilkington A, Halliday A, and Verma A. Greater Manchester Hepatitis C Dried Blood Spot Programme Evaluation. 2009.
- 115. Morton W, Harrison K and Verma A. Manchester Blood Borne Virus Prevention Health Care Needs Assessment. 2009.
- 116. Morgan P, Halliday A and **Verma A.** Health Needs Assessment of Infection Control in NHS Manchester and a Strategy of the Prevention on Healthcare Acquired Infections. 2009.
- 117. Halliday A, Morgan P and **Verma A**. A Health Needs Assessment of Vaccinations in NHS Manchester and Strategy to Improve Immunisation Rates. 2009.
- Patel M and Verma A. Greater Manchester Hepatitis C Database Scoping Project. 2009. 2-8-0011.

- 119. Harrison K, Pilkington A, and **Verma A**. Hepatitis C Teaching and Training Needs Assessment for Greater Manchester. 2009. 2-8-0011.
- 120. Ameijden E and Verma A. EURO-URHIS 2, WHO. World Health Organisation. 2008.
- 121. Verma A. EURO-URHIS 1, WHO. World Health Organisation. 2008.
- 122. Harrison K, Fahey S, Pilkington A, and **Verma A**. GMHCVC HCV Teaching and Training for Hepatitis C Specialist Nurses . 2009. 2-8-0011.
- 123. **Verma A** et al (2010). *EU Gastein: Urban Health*. eScholarID: 110525 Report and summary http://www.ehfg.org/677.html
- 124. Littlewood, J, et al. Cystic Fibrosis Related Diabetes Consensus Statement. http://www.cftrust.org.uk/scope/documentlibrary/Publications/diabetes.pdf . 2007. CF Trust. 1-1-2006.
- 125. G. Bandesha, J. Hart, Verma A. Academic Public Health 2006 March Issue Faculty of Public Health ph.com
 - $http://www.fph.org.uk/policy_communication/downloads/publications/phcom/phcom06/phcom_march06.pdf$
- 126. **Verma A**, S. McNulty, A. Sahu A. Macherianakis A, Training Innovations 2005 September Issue Faculty of Public Health *ph.com*
 - http://www.fphm.org.uk/policy_communication/publications/phcom/phcom05_sept
- 127. Verma A Microbiology in a Nutshell 2005 GMHPU
- 128. Verma A North West Trainees Report to the Faculty of Public Health October 2005

Blogs/Press Releases

- 129. Policy@manchester (2022) How the digital healthcare revolution leaves the most vulnerable behind https://blog.policy.manchester.ac.uk/posts/2022/01/how-the-digital-healthcare-revolution-leaves-the-most-vulnerable-behind/
- 130. International Women's Day https://documents.manchester.ac.uk/display.aspx?DocID=59098
- 131. Policy@manchester (2020) How inequalities are affecting the response to COVID-19 https://blog.policy.manchester.ac.uk/posts/2020/04/how-inequalities-are-affecting-the-response-to-covid-19/
- 132. Policy@manchester On Digital Inequalities https://www.policy.manchester.ac.uk/publications/on-digital-inequalities/
- 133. Academy Health Global Public Health Systems Innovations: What Can Other Countries Tell Us? 2015 http://www.academyhealth.org/Training/ResourceDetail.cfm?ItemNumber=15983
- 134. MPH blog http://blogs.mhs.manchester.ac.uk/mphblog/
- 135. Policy@Manchester http://blog.policy.manchester.ac.uk/author/arpana-verma/
- 136. Press releases for research WHOCC (http://www.manchester.ac.uk/discover/news/world-health-organization-recognition-for-public-health-centre/), urban health, Michael Borne and Angela Spencer
- 137. ICUH2014 press release appeared on multiple TV channels, radio and newspapers
- 138. EURO-URHIS 2 city profiles (2012) 26 urban area reports to be found at www.urhis.eu
- 139. EURO-URHIS 2 (2012) appeared on Sky News, BBC, local radio stations

A list of the groups (i.e. SAGE and/or any of its sub-groups) in which you have been a participant, and the relevant time periods.

Social Care Working Group – April 2020 to April 2022

An overview of your involvement with those groups between January 2020 and February 2022, including:

- a. When and how you came to be a participant: see above response to Q2 for timing
 - SCWG invited by chair, Prof Ian Hall and participated a SPIM-O subgroup on care home modelling which merged with SAGE commissioned group (becoming social care working group in Sept 2020)
- b. The number of meetings you attended, and your contributions to those meetings: hard to define, I attended all meetings I was called to that I could attend.
- c. Your role in providing research, information and advice.
 - For SCWG this was determined by the chairs facilitating discussion working on responses to commissions, drafting consensus statements for SAGE and DHSC policy teams, as directed.

A summary of any documents to which you contributed for the purpose of advising SAGE and/or its related subgroups on the Covid-19 pandemic. Please include links to those documents where possible.

Output to SAGE

Helped with drafts:-

- SCWG: Care homes analysis, 12 May 2020, Consensus statement the Social Care Working Group
- SCWG: COVID-19 and care homes update paper, 23 September 2020, Consensus statement by the Social Care Working Group.
- SCWG: Consensus statement on family or friend visitor policy into care home settings, 2 November 2020, Consensus statement by the Social Care Working Group.
- SCWG: Estimating the minimum level of vaccine coverage in care home settings, March 2021, Consensus statement by the Social Care Working Group
- SCWG: What are the appropriate mitigations to deploy in care homes in the context of the post vaccination risk landscape?, 26 May 2021, Consensus statement by the Social Care Working Group
- The association between the discharge of patients from hospitals and COVID in care homes, A consensus statement from the Social Care Working Group (Noting declaration of interest and one participant request for removal from consensus)

Output timeline from SCWG (taken from report prepared by Prof Ian Hall)

January - June 2020

Date	Product or decision	Key issue
April		
22 April 2020	Surveillance	A meeting was proposed by Ian Hall to inform SPIM about PHE modelling and potential datasets for capturing outbreak data:
26 April 2020	Outbreaks	The draft of the paper "Rapid increase of Care Homes reporting outbreaks a sign of eventual substantial disease burden" was produced.

26 April 2020		An update report was shared with SPIM members
May		
12 May 2020	Surveillance	SCWG Care Home Analysis
		SCWG: Care homes analysis, 12 May 2020 - GOV.UK (www.gov.uk)
15 May 2020		SAGE Social Care Sub-group provided new advice to DHSC on testing for SARS-CoV-2 in care homes using PCR and LFD testing, specifically focussing on testing mainly for staff (further advice on testing for infection in residents will be provided in early January).

Timeline June 2020 to June 2021

Date	Product or Decision	Key issue	
June 2020			
18 June 2020		The paper "Update on Evidence to Inform Emerging Policy questions for Adult Social Care." Was brought to SAGE.	
July 2020	July 2020		
02 July 2020		The paper "Adverse effects of social isolation and loneliness in care homes during COVID-19" was shared with members of the SCWG for discussion.	
03 July 2020	Testing	Care Homes analysis report was published after being taken to SAGE 12 th May (see above)	
August 2020			
28 August 2020	Health Needs Assessment	Draft Health Needs Assessment on infection prevention and control in care homes and domiciliary care shared with chairs of SWCG.	

September 2020		
23 September 2020	Surveillance	Social Care Working Group update paper published 9 October 2020 SCWG: COVID-19 and care homes - update paper, 23 September 2020 - GOV.UK (www.gov.uk)
25 September 2020	Visiting	SAGE social care subgroup meeting – discussions were held about developing a model around visiting policy considering the risks associated with social isolation
October 2020		
02 October 2020		Draft ToR SAGE Social Care Working Group Sage paper / Feedback, Task list & Research Priorities, Progress Updates (Vivaldi, Discharge & Modelling, Wider impacts/health economics)
November 2020	<u>.</u>	
02 November 2020	Visiting	SCWG Consensus Statement on Family or friend Visitor Policy into Care Home Settings. <u>S0875 Social Care Working Group Consensus statement on visitor policies.pdf</u> (publishing.service.gov.uk)
03 November 2020		SCWG Consensus statement on visiting shared with the wider group.
13 November 2020	Surveillance	The Sage Social Care Working Group met on the 13 th November 2020 to hear presentations from PHE and NHS England on their studies into deaths of people with learning disabilities.
20 November 2020		Meeting of the SAGE SCWG took place, the following topics were discussed: Trends Update, Genomics paper, managing second positive tests, Care workers moving between care settings. Ian Hall informed the group that they were awaiting a formal commission minister on the Learning Disabilities reports.
23 November 2020	Surveillance	DRAFT Sage Care Home Working Group Statement on Mortality Trends in Care Homes 25/11/2020

	Meeting of the SCWG took place. The following topics were discussed: Mortality, Vivaldi, Care home testing, CONDOR, PHE work on testing, Timeline for further modelling insights, Implementation issues.
Testing	SAGE SOCIAL CARE SUBGROUP has been asked by PHE to review the use of the combination of PCR/LFD tests for outbreak/non outbreak testing for staff/visitors/residents.
Testing	SAGE Social Care Sub-group provided new advice to DHSC on testing for SARS-CoV-2 in care homes using PCR and LFD testing , specifically focussing on testing mainly for staff including a consensus statement .
r	
Testing	Meeting of the SAGE SCWG took place, the following topics were discussed: Trends / Forecast, Case Fatality paper, Testing strategy, Vaccination
Testing	Meeting of the SAGE SCWG took place. The following topics were discussed: Trends / Forecasts, Vaccination Update, Testing Update
Testing	SAGE Social Care sub-group have issued advice on testing in care home outbreaks, using LFD and PCR testing for residents and staff- reviewed at meeting on February 5th. Monitoring the extent of the presence of variants presenting within Care Homes now an important consideration;
Administration	A spreadsheet covering the declarations of interest of SAGE SCWG members was created.
Testing	Question put forward to members of the SAGE SCWG to provide feedback on the proposal to move from a weekly PCR testing regime and replace it with a twice weekly LFT testing regime.
	Testing Testing Testing Administration

19 March 2021		Meeting of the SAGE SCWG took place, the following topics were discussed: Trends/Forecast, Vaccination update, Visitor Paper, 90 day paper, Commission updates: Testing in non CH settings & Evaluation, 14 – 28 day rule
26 March 2021		Meeting of the SAGE SCWG took place. The following topics were discussed: Update on 90 day paper, Debrief and next step on vaccine policy paper, Testing in medium risk settings, present on LFD sensitivity/efficacy work, update on network modelling for domiciliary care project trends: (Outbreaks, Mortality, Vaccine coverage).
April 2021		
09 April 2021	Decision; Testing	SAGE social care working group meeting – discussed key scientific issues around possible modifications to care homes testing protocols in light of falling levels of infections and higher vaccinations during the gradual unlock.
23 April 2021		Meeting was held, during the call it was confirmed that Éamonn O'Moore was appointed as interim co-chair of the SCWG.
May 2021		
21 May 2021	IPC mitigations	Meeting of the SCWG took place, it was largely focused on the interventions paper. During the call a gap in visiting data.
21 May 2021	Vaccination	SCWG: Estimating the minimum level of vaccine coverage in care home settings, March 2021 SCWG: Estimating the minimum level of vaccine coverage in care home settings, March 2021 - GOV.UK (www.gov.uk)
26 May 2021	IPC mitigations	SAGE Social Care Working Group paper on mitigations in highly vaccinated populations at SCWG: What are the appropriate mitigations to deploy in care homes in the context of the post vaccination risk landscape? , 26 May 2021 - GOV.UK (www.gov.uk)
June 2021		
18 June 2021		Meeting was held, the following topics were on the agenda: Policy Question on Non - Care home ASC settings, mortality analysis, SCWG paper update: Feedback from MSC&DG, trends. There was also a suggestion to normalise delta VOC in outbreak analysis.

Timeline July 2021 - April 2022

July 2021		
2 July 2021	Vaccination Winter Preparedness	Meeting of the SAGE SCWG took place. The following items were discussed: Vaccination & Outbreak Trends. Winter preparedness: Considerations re Covid and Flu. Post SCWG Interventions paper: Approach to standing down mitigations. Literature Review and Vivaldi next steps.
16 July 2021	Vaccination Coverage	Meeting of the SCWG took place. It covered Trends; Vaccination Coverage; and Consensus statement on hospital discharge impact.
August 2021		
20 August	Visiting	The "Social Care Working Group: Consensus Statement on family or friend visitor policy into care home setting" was <u>published</u> after being made available to SAGE members on 2 nd November 2020.
October 2021		
22 October 2021	Meeting	SCWG meeting - Discussion around modelling and forecasting - focus is understand current data indications
November 2021		
5 th November	Hospital Discharge and trends	Meeting of the SCWG occurred to discuss the hospital discharge consensus statement and forecast concerns for 2022.
December 2021		
3 December 2021	VOC	Meeting of the SCWG took place. It was primarily focused on the possible impact of the Omicron variant. It was felt that earlier discussions about de-escalating testing and focusing on implementing multiplex testing is no longer relevant due to Omicron spreading quickly. Reviewing PPE was recommended.
20 December 2021	Shielding	SCWG Chairs: Summary of role of shielding, 20 December 2021 - GOV.UK (www.gov.uk)
January 2022	<u> </u>	
07 January 2022		Meeting of the SAGE SCWG took place, in it, the recent paper on shielding and its annex on testing was discussed.
February 2022		
04 February		SCWG took place which covered wastewater surveillance and a paper on transmission.
March 2022	•	

18 March		Meeting took place and discussion was around the future arrangements of the SCWG.
April 2022		
01 April 2022		SCWG Meeting took place and discussion covered c19 trends in 4 nations, discussing CH size, A study on Omicron led by Maria Zambon (MZ), the summary of interventions paper being produced by Jackie Cassell (JC), and Research Gaps.
May 2022		
	Health Needs Assessment	Final versions of the HNA in care homes and domiciliary care approved.

A summary of any articles you have written, interviews and/or evidence you have given regarding the work of the above-mentioned groups and/or the UK's response to the Covid-19 pandemic. Please include links to those documents where possible.

Media interviews

I did media interviews but none relating to the work on the SCWG, mostly on testing. These invites were through our Media Team and was in response to the University's Research Rapid Response Group for which I was a member of and led on the Epidemiology, Mental Health, Social Care and Public Health priority. https://www.manchester.ac.uk/coronavirus-response/bmh-coronavirus-projects/rapid-response-group/

Articles in public domain not including SAGE published papers.

Please see above publications

A brief description of documentation relating to these matters that you hold (including soft copy material held electronically).

Please retain all such material. I am not asking for you to provide us with this material at this stage, but I may request that you do so in due course.

- I hold email correspondence on my University of Manchester account.
- Since September 2020, I have been storing research protocols, research data, reports and presentations in a dedicated directory on UoM servers

Your views as to whether the work of the above-mentioned groups in responding to the Covid-19 pandemic (or the UK's response more generally) succeeded in its aims.

This may include, but is not limited to, your views on:

- a. The composition of the groups and/or their diversity of expertise;
- b. The way in which the groups were commissioned to work on the relevant issues;
- c. The resources and support that were available;
- d. The advice given and/or recommendations that were made;
- e. The extent to which the groups worked effectively together;
- f. The extent to which applicable structures and policies were utilised and/or complied with and their effectiveness.

The SCWG was diverse and reflected the need as per the timeline above.

The chairs of the SCWG were excellent at ensuring all views were taken into account for consensus statements.

The support was excellent from PHE/UKHSA and the chairs.

The evidence base evolved over time and the advice given reflected what was known at that time. Thanks to the chairs and the administrative support, the SCWG demonstrated effective working practices.

Your views as to any lessons that can be learned from the UK's response to the Covid-19 pandemic, in particular relating to the work of the above-mentioned groups. Please describe any changes that have already been made, and set out any recommendations for further changes that you think the Inquiry should consider making.

The SCWG was excellently chaired and administered, utilising the best evidence at the time. The expertise of the group reflected the needs required. Consensus statements were well constructed and all members of the SCWG could comment and amend, as required.