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Although pivotal aflibercept trials used a fixed-dose regimen,¹² most retinal specialists favour a variable-dose method,⁹ suggesting that trials reflecting the real-world use of aflibercept are needed. Despite many unanswered questions, these trials present a promising step forward for the millions of patients reliant on vision-preserving anti-VEGF medications.

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COVID-19 in Europe: new challenges for addressing vaccine hesitancy



The COVID-19 pandemic and the roll-out of multiple new COVID-19 vaccines worldwide has brought global attention to the challenge of vaccine hesitancy, and it has also exposed new dynamics around routine vaccine confidence. European populations were recognised as being among the least vaccine confident in the world in 2016, with France being identified as the most vaccine sceptical.¹ Although trends over the past 5 years have shown that some countries have become more vaccine confident over time, other countries, such as Hungary and Romania, have become less confident over time.² Although some of these trends can explain the varying levels of confidence in COVID-19 vaccines,³ the issues around the acceptance of COVID-19 vaccines present new challenges.

There was already a volatile landscape of public sentiment around vaccines before COVID-19,⁴ but public sentiment around COVID-19 vaccines has been even more dynamic and rapidly changing than they have been around other vaccines,⁵ reflecting the

evolving epidemiological context and the multiple waves of infection, anxieties about the newness of the COVID-19 vaccines, the reported risks of side-effects, misinformation circulating on (social) media,

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and distrust of government and pharmaceutical industries. Against this backdrop, there have been protests in several European countries against not only COVID-19 vaccination, but broader pandemic control measures.

Although some strategies can successfully improve vaccine confidence, the context of the COVID-19 global pandemic is a challenging environment. The emergence of new variants such as omicron, for instance, has highlighted the unpredictability of the situation, leading both vaccinated and unvaccinated individuals to question the effectiveness of vaccination, creating a communication challenge for decision makers, the media, experts, and front-line health professionals.⁶ The pandemic and the multiple control measures—ranging from masking, physical distancing, SARS-CoV-2 testing, lockdowns, and quarantines, to the various vaccine requirements and mandates—have contributed to increasing societal polarisation around the limits of acceptable government controls and have had a role in widening the divide between those with differing ideologies, political opinions, or levels of compliance with control measures.^{7,8} This polarisation is particularly visible in relation to political influence on vaccine confidence. In some countries, such as Poland and the UK, political discourse has damaged public trust and reinforced division between those who vaccinate, wear masks, or respect physical distancing and those who do not, with political interests influencing policies and recommendations.^{9–11} The uncertain context of the global pandemic makes collaborative and consistent communication especially important across the political spectrum, with a united national and scientific voice providing clarity, guidance, and reassurance to populations.

Countries that worked to build confidence and address vaccine hesitancy before the pandemic were better equipped to respond to the challenges that arose during the COVID-19 pandemic. For example, the implementation of mandatory childhood vaccination in France in 2018 (pentavalent or hexavalent; measles, mumps, and rubella; meningococcal conjugate type-C; and 13-valent pneumococcal conjugate vaccines), combined with public engagement efforts, increased both uptake and public confidence in vaccination.^{12,13} Furthermore, the process generated consensus among medical societies in France, providing much-needed

endorsement to health professionals recommending vaccination to hesitant patients.

The use of top-down approaches and national vaccination or communication campaigns have done little to address specific concerns raised by specific communities, such as the mistrust of national health-care systems and authorities reported among Roma populations across Europe,¹⁴ lower health literacy in migrant populations,¹⁵ and concerns about fertility raised among some communities.¹⁶ Reaching remaining unvaccinated populations needs personal engagement and strengthening of the COVID-19 information environment by sharing positive information directly relevant to populations adapted to the social and cultural norms.¹⁷ Health professionals have a central role in providing tailored and targeted support to address vaccine hesitancy at a community level. In the UK, an organisation of general practitioners from the Black Women in Health group successfully addressed COVID-19 vaccine hesitancy and increased vaccine uptake among racially minoritised communities by organising webinars, group discussions, podcasts, and videos in different languages and dialects.¹⁸ Additionally, it has been shown in large cities in Europe that bringing the vaccine closer to specific communities, such as offering vaccines in shopping malls and easing the access to local vaccination centres, can help overcome obstacles and increase trust.¹⁹

The coming months will be crucial as we navigate a pandemic in the context of omicron and any future SARS-CoV-2 variants. Politicians across the region are making different choices in terms of policies around vaccine mandates, health passes, and other COVID-19 control measures—each weighing the limits of their health system to cope, the socioeconomic impacts of the high number of people infected with omicron who, although not hospitalised, are still unable to go to work or school, and the implications for their already worn trust relationships with the public. Ward and colleagues' study on the French health pass found it "encouraged vaccination of many who were hesitant or reluctant, but it has not reduced hesitancy itself", and highlights important considerations, particularly relating to longer-term public trust and vaccine confidence.²⁰ A UK study showed that vaccine passports were supported by those who were already positive about vaccination but hardened vaccine hesitancy and resistance among those for whom confidence-building

was especially important.²¹ Concerted efforts are needed to encourage vaccine uptake and reach those who are hesitant. Vaccine mandates should be handled with care to avoid alienating those who most need to be reached.

It is important to acknowledge that immunisation is only one element of a wider package of control measures to address COVID-19. Communication with the general public should avoid overemphasising the role of vaccination in ending the pandemic without acknowledging that other measures such as use of masks, ventilation, or physical distancing are also needed.²² In the early stages of the pandemic, optimism around rapid vaccine delivery in some European countries turned to distrust among some people when vaccine delivery was delayed, highlighting the importance of managing expectations,²³ which is particularly relevant as new variants are identified and campaigns for vaccine booster doses are implemented.

Efforts to increase vaccine confidence should be transnational. COVID-19 can easily spread between countries, and regular travel and the movement of returning diaspora can further contribute to the spread of the virus. Rumours, misinformation, and concerns about COVID-19 vaccination can travel across borders even faster than the virus, especially when facilitated by online social and digital media platforms. Coordinated approaches across European countries such as the [European Joint Action on Vaccination](#) are essential in providing consistent and harmonious communication. Increased efforts should also be placed on developing mechanisms for sharing lessons learnt about strategies that have successfully increased confidence in vaccination in Europe and globally, both for the uptake of routine vaccines and for future pandemic preparedness.

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