

# Covid 19: health promotion strategies suited to further global containment of the pandemic

## Abstract

To achieve the combination of increased vaccination rates and broad adherence to infection prevention measures required to ultimately control the Covid-19 virus, greater clarity is needed globally about what knowledge, attitudes and behaviors underlie the ongoing resistance to vaccination, and limit public compliance over prevention. Government agencies and public health providers also need better understanding of their own strengths and weaknesses and to find ways to build public trust. Country-specific initiatives are needed to develop the improved campaigns required to achieve the level of innate and vaccine-induced herd immunity required to contain the pandemic. The World Health Organization has called for innovation, and this commentary explores how proven health promotion approaches that consult, involve, inform, collaborate and empower can be applied in innovative ways globally to enable individual countries to progress further towards Covid containment, so that the health burden of the virus will wane.

**Keywords:** misinformation; public health; safety; trust; vaccine hesitancy; vaccine resistance.

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**Abbreviations:** HIV, Human immunodeficiency virus; WHO, World Health Organization

## Introduction

The goal of the global vaccination strategy against Covid-19 is to minimize deaths, severe disease and overall disease burden, curtail the health system impact, fully resume socio-economic activity, and reduce the risk of new variants of the virus.<sup>1</sup> However, vaccine hesitancy, resistance, misinformation and ignorance continue to collectively impact this goal. In some countries vaccine supply problems and distribution inequities are still a factor also. To improve vaccination rates further requires the health management community globally to identify, understand and act on the issues that the unvaccinated population sees as important. And, while it is in the best interests of all countries to further promote vaccine uptake, vaccination is recognized to only be one part of the combined global health strategy required to contain the pandemic.<sup>2</sup>

Consequently, the first priority is for countries to understand what information, attitudes and behaviors drive resistance to vaccination, and also what factors underlie any ambivalence that exists over other public health measures necessary to contain the virus. What do different sectors of the population see as compelling reasons for and against their coming forward to be vaccinated? How can ways be found to provide information and engage the population so that attitudes and behaviors will change among those who are undecided or misinformed, or lacking the understanding necessary to comply with public health prevention measures, including vaccination? Only when these factors are understood, can we work to create constructive approaches to remedy the situation.

All of us involved in public health and those providing care obviously have to look for effective ways to counter misinformation, mistrust and complacency. But we also need to look at how we have approached the delivery of Covid-related information and policies so far in the pandemic. We have to recognize that some vaccine resistance and reluctance to follow infection control guidelines will be due to mis-guided strategies, poor communication and administrative errors, and so a second priority is to look for ways to modify and improve our approaches.

## Vaccine hesitancy

Resistance to vaccination against infectious diseases is not new. The World Health Organization (WHO) has named vaccine hesitancy as one of the top ten threats to global health.<sup>2</sup> While vaccination against Covid-19 is the current issue, it must be remembered that the challenge of hesitancy was first identified prior to the current pandemic, when falling uptake of vaccines in general became a global health issue during the recent measles epidemic.<sup>3</sup> Research confirms that acceptance and willingness to be vaccinated are highly country-specific.<sup>4</sup> In sub-Saharan Africa for example, attitudes vary between regions and social groups within individual countries. In consequence, we all need a deeper understanding of the issues behind vaccine hesitancy, and must develop specific local approaches to improve vaccine reach.<sup>5</sup>

## Innovation

WHO has called for 'innovative interventions' able to promote health behaviors and empower people to take control of their lives.<sup>6</sup> Creating such interventions is the third priority. Innovative solutions specific to individual countries or sub-groups of the population are fundamental to achieving the combination of public health measures required to contain Covid-19. Approaches encompassing strategies advocated by the Lancet Commission on the future of health in sub-Saharan Africa have been suggested as a way to do this,<sup>7</sup> and any solutions employed should be based on the proven health promotion principles for effectively engaging a target population: namely to consult, involve, inform, collaborate and empower.<sup>8</sup>

## Proven health promotion approaches applicable to Covid-19

### Consult

The reasons why people refuse the Covid-19 vaccine are complex. Greater recognition that individual communities often have unique barriers that need to be heard and discussed is essential, and community engagement through consultation with key stakeholders is a fundamental component for effective health promotion related to the pandemic.<sup>9</sup>

Consulting with sub-populations for whom Covid-19 infection is most severe has obvious benefit, including the elderly, and those with other morbidities like type 2 diabetes, hypertension, heart disease and obesity; conditions that may result in chronic low-grade systemic inflammation that elevates their vulnerability to Covid-19. Among those living with HIV the severity of Covid-19 infection can be increased; carriage of the virus can also be prolonged which increases the risk of infectivity of others and the potential for emergence of new variants.<sup>10</sup> Those living in poverty are also obviously more vulnerable, as are refugees and others displaced by conflict. Special efforts must be made to promote vaccine uptake while avoiding stigmatization among those challenged in these ways.

Consultation with everyone involved in healthcare is essential; healthcare workers knowledge and attitudes impact vaccine uptake,<sup>11</sup> and WHO has warned that unvaccinated front-line healthcare providers put national efforts to control the pandemic at risk. Healthcare workers are key influencers on vaccine decisions in the community; their example and the knowledge they share both have impact, therefore, it is important to ensure that they have access to trusted, evidence-based information. Consultation to identify other individuals in the community who have been vaccinated and can actively 'champion' vaccination has merit; knowing someone who has been vaccinated can convince others to do likewise.

Governments need to consult over policies they plan to make. Intersectoral dialogue between agencies also pools expertise and can help to avoid communication and implementation errors. Whether or not to make vaccination mandatory is an example; measures such as this are controversial and have complex ramifications that need to be evaluated. I believe that working to increase acceptance of voluntary vaccination is preferable, and approaches to achieve compliance with vaccination and other public health policies that people certainly value include those that lead to 1) A greater belief by the population that they are being told the truth, and, 2) A higher degree of confidence in those giving health advice. A great way to improve people's confidence is for those in authority to be prepared to say 'I don't know' when the required facts are not available. Not only is this more honest, it makes what is being said far more likely to be believed.

## Involve

In most communities there are groups or individuals who influence the health-related decisions of others, and hence need to be identified and involved in health promotion initiatives related to vaccination and pandemic behaviors. For example, women are a socio-demographic group identified to have higher levels of vaccine hesitancy,<sup>4</sup> and are disadvantaged where males make major health care decisions for family members. Hence, interventions that involve men may be necessary for women to be able to benefit from vaccination, or follow precautions related to Covid-19 infection. In this context, a recent health promotion strategy that targeted men in Afghanistan as a way to improve maternal access to contraception is relevant. Male only discussion groups were formed where men's misconceptions and fears around birth control were allayed in a 'safe' single gender environment, where the benefits of smaller families achieved by contraception were also shared. Having this information made informed spousal dialogue about family planning possible, and permission for women to access contraception increased significantly.<sup>12</sup>

The involvement of leaders from religious groups and other influential community elders like traditional healers in group discussions like this can be important.<sup>13</sup> The influence of a church community can be a negative factor in the context of decision making

around health, and recent measles outbreaks in southern Africa were linked to religious objections to vaccination.<sup>14</sup> But identifying and involving spiritual leaders who are open to learning how they can lend support to public health messaging, or who are at least open minded enough to give their followers permission to act with freedom of choice, can aid Covid-related health promotion.

WHO has identified the negative impact of mistrust on vaccination, and that lack of trust in government can affect vaccine resistance at a national level. Local mistrust has undoubtedly compromised recognition of pandemic-related issues in many communities, including accurate appraisal of the benefits of the Covid-19 vaccine, openness to consider vaccination, and willingness to comply with infection prevention strategies. Hence the importance of innovative approaches to engage and involve the community to build trust.<sup>9</sup> In any community where health promotion is required, engagement and buy in are more likely where the process begins with dialogue and local individuals are then involved in delivery of the program; these steps also help gain public trust.

## Inform

Experts agree that many people need to be better informed about Covid-19, how they can reduce their risk of catching and transmitting the virus, and about the vaccines available. Surveys show that the more knowledge an individual has, the more likely she/he is to understand and follow health recommendations, including being vaccinated. So that finding novel and socially acceptable ways to share accurate facts that make sense to the target population will potentially lead to changes in attitude and behavior.

Misinformation about vaccines is as dangerous as the disease itself, as it spreads fast and poses an imminent threat to public health.<sup>15</sup> Public reliance on being informed through the internet, and the growing influence of social media opinion are recognized problems. The traditional media used to explain scientific content and limit the spread of misinformation through fact-checking, but that model has broken down, and nowadays good information online is mixed with material that is biased or wrong, and misinformation sourced online undermines public trust in vaccines.<sup>16</sup> There is no simple answer to this, but efforts must be made to improve the situation, and governments should utilize popular online social media platforms to provide accurate information and raise public awareness.

The aim should be that as many people as possible are fully informed about the personal health advantages that vaccination against Covid-19 brings, and what they can do to reduce the risk viral transmission. Importantly, WHO advocates being 'open and honest' about the side effects of vaccination in particular. Fear about vaccine safety is common, and WHO data are available that summarize the scientific evidence that refutes common concerns about vaccine safety.<sup>2</sup> Everyone involved at every level of vaccine rollout has to be fully informed, and prepared to discuss safety and side effects with those they deal with. But, in this context it is important to emphasize that although vaccinated people do contract and spread the Covid virus, unvaccinated people do so at higher rates, and, that hospitalization, the need for intensive care, and death rates are higher among the unvaccinated.

Our ability to inform can be helped by practical training on how to respond to arguments and misinformation in an unprejudiced and receptive manner. One helpful way to do this is through role-play and mock discussions. Similarly, whenever we share any information, we must make every effort to ensure our message is understood and resonates; ways to do this include choosing the best language for

those present, using appropriate wording that respects the culture and roots of our audience, and considering who will be the most effective messenger. For example: informed elders in small communities, peers (rather than teachers or parents) for young people, and celebrities to lead national campaigns.<sup>7</sup>

## Collaborate

Whenever we set out to educate any target population we need to collaborate by first establishing a respectful dialogue. There are marked differences in the facts that various groups view as relevant, and collaboration and dialogue are both necessary to fully understand what the issues are and search for acceptable solutions. Opposition to vaccines is as old as vaccines themselves and, in part, resistance to vaccination against Covid-19 follows the recent surge in opposition to other vaccines, and particularly to the measles, mumps, and rubella vaccine during the recent global outbreaks.<sup>16</sup>

The need to continue to promote vaccine uptake to contain the Covid-19 pandemic remains a global health management priority. But what we learn and achieve at this stage of the pandemic also has the potential to contribute to improving the future health of people in the countries where we live. Through our efforts with the Covid-19 virus, we are in effect ‘collaborating’ with those who will continue to meet the need to vaccinate against the common infectious disease that will remain after Covid. Gaining a better understanding of the factors which influence decision making around vaccine compliance, and learning how to develop effective solutions to Covid-19 vaccination resistance today, will contribute to more effective remediation of resistance to vaccination against other infectious diseases in the future.

Another collaborative role of importance, is to respond to the latest report from WHO calling for improved disposal of the large quantities of waste from Covid virus test kits, immunization supplies and personal protective equipment, and promote adoption of the better, safer, and more environmentally sustainable waste practices WHO now recommends we follow.<sup>17</sup>

## Empower

An Oxford University study suggests up to 10% of Covid vaccine refusal is due to a fear of needles. For this reason, using innovative approaches to empower those affected will likely improve vaccination rates.<sup>18</sup> There are several practical ways we can help. Hand holding while giving verbal reassurance is a simple way to empower those with fear of needles. Another approach is to teach awareness of breathing; when someone consciously focuses on a deep exhalation, an injection given towards the end of the breath often feels relatively painless. The alternative focus this provides empowers them to manage their fear of pain.

For children, blowing a stream of bubbles as the injection is given can reduce their fear; the mechanism being that this allows them to feel in control of something at the time of the injection. Simple and inexpensive devices can also be used which apply vibration close to the injection site; their effect is based on the theory that counter stimulation via touch and vibration triggers inhibition in the spinal cord that modifies the perception of pain.<sup>19</sup>

Young people have growing influence in society, hence the importance of empowering this segment of the population so that they can contribute to the reduction of vaccine resistance and misinformation and understand their role in practicing other Covid containment measures. Young people’s love of music is known to be a powerful avenue for engaging them in health promotion,<sup>20</sup> and is an approach that has been used effectively during the pandemic.

In Singapore, for example, a music video was produced to answer concerns that vaccines might not be safe; this use of ‘informative disco’ boosted Singapore’s Covid inoculation campaign. Evaluated locally to be ‘effective and educationally very informative,’ international commentators have urged other governments to produce similar videos.

## Conclusion

Covid-19 vaccines are an important product of modern science that clearly offer high protection against severe illness and death, and are aiding the delivery of health care and saving lives; other public health measures in parallel have led to containment of the virus. The current view is that the Covid-19 virus will not be eradicated, but that it is possible to alter the hold of this virus from pandemic to endemic status if protective levels of immunity across the population are achieved from a combination of vaccine acquired and innate immunity from infection. Hence, vaccination continues to be a central element among the measures needed to curb the pandemic and keep viral transmission levels low.

To achieve the vaccination rates and public behaviors deemed necessary for the pandemic to abate requires continuing effort from governments and healthcare providers. Greater public trust and more effective communication are key. The information provided and directives issued need to recognize that experience and beliefs vary between age groups and communities and that, as individuals, we each weigh the factors influencing our decision for or against vaccination or a given behavior differently.

Consequently, our priorities must be to inform and educate and be mindful of the many factors that underlie the prevailing beliefs of individual sections of the community. To engage our target population effectively, we must also consult, involve, inform, collaborate and empower. Promotion of the combined measures required to contain the Covid pandemic also has to be inclusive and innovative, and must provide measures to allay fears, recognize the power of misconceptions, and avoid scapegoating if it is to create the awareness and engagement necessary to positively influence public opinion and change behavior.

## Conflict of interest

The author has no conflict of interest to declare.

## Acknowledgments

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