

# DNCC adapts the "NORM" model for normalising mask use

WHILE lockdowns may be necessary when the number of Covid 19 cases soar, they have proven to be prohibitively expensive and economically unsustainable. Lockdowns are estimated to cost almost 10 per cent of Bangladesh's GDP. Vaccination is a viable solution, but given the rate of roll-out, vaccine hesitancy, and the emergence of new variants, mask-wearing may be the only cost-effective way to halt the spread for the time being.

A team of researchers from Yale University, Stanford Medical School, Innovation for Poverty Action, Access to Information, and BRAC set out to determine what actually works and what does not in terms of mitigating the spread of Covid-19. They carried out a large-scale cluster-randomised trial (RCT) of mask promotion at the community level in rural Bangladesh, involving 341,830 adults from 600 villages.

According to the team's early surveillance studies, while 80 per cent of Bangladeshis reported wearing masks in April 2020, only a quarter did so in June. Despite an increasing body of scientific evidence indicating that masks effectively slow the spread of Covid-19, mask use remains significantly low. The primary objective of this study was to determine which interventions would ensure maximum efficacy in proper face mask use.

In the RCT evaluation, a portfolio of encouragement strategies was applied to identify the precise combination needed to increase mask-wearing. The interventions include free surgical or cloth mask distribution to households, promotion and distribution at markets and mosques, mask advocacy by Imams during Friday prayers, role modelling by local leaders, promoters periodically monitoring passers-by and reminding people to put on masks, village police surveillance, financial incentives or certificates to villages if mask-wearing rates increase, public awareness through signage, text message reminders, messages highlighting either altruistic or self-protective motives for mask-wearing, and eliciting verbal commitments from households.

The findings suggest using a combination of interventions, denoted by the mnemonic NORM: No-cost free masks distribution door-to-door, Offering information on mask-wearing via video and brochures, Reinforcement in-person and in public, and Modelling and endorsement by trusted leaders. The four strategies implemented together showed the highest result in the normalising use of masks in public. Mask

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usage went from 13 per cent to 42 per cent after the NORM intervention, the impact of which was consistent for ten weeks even after the intervention activities ended.

Just the distribution of free masks will not be sufficient to increase mask-wearing was evident in the study. The most effective intervention was the deployment of monitors to gently intervene when someone was not wearing a mask in public. People dressed in ordinary clothes would walk around, and if they spot someone not wearing mask, they would approach politely and ask why he/she was not wearing one. If the individual did not have a mask or was unable to return home to obtain one, the monitor provided a free surgical mask. Interestingly, monitoring by a village police officer was not effective in encouraging mask-wearing. "It is not that the threat of legal sanction that people are worried

about. It is more this informal sanction-the awkwardness of that conversation and people's desire to avoid that little bit of shame that one might feel," said Dr. Mushfiq Mobarak, Professor of Economics, Yale University.

Similarly, a number of other commonly used policies have proved to be ineffective, such as SMS reminders, messages emphasising the altruistic benefits of mask-wearing or rewards for villages with improved mask-wearing rates. Seeking verbal commitments from household members to wear masks or posting signs on the door identifying the household as a "mask-wearing household" had no effect.

During the trial, a video featuring prominent public figures such as Bangladesh's Honorable Prime Minister Sheikh Hasina, the head of the Imam Training Academy, and national cricketer Shakib Al Hasan was shown to emphasise the

importance of mask-wearing. The video and a brochure based on WHO materials depicting proper mask use positively influenced normalising the practice.

Local leaders' endorsement and role modelling had a significant impact on changing people's perceptions of mask-wearing. Modifying interventions to accommodate local culture and aesthetics also contributed to the increase in mask use. Local hires can quickly establish rapport with community members and leaders, making it easier to provide frequent reminders in public spaces.

The trial participants initially preferred cloth masks over surgical masks because they believed surgical masks were single-use only and less durable than cloth masks. The filtration efficiency of the masks manufactured in Bangladesh is, on average, 37 per cent for cloth masks and 95

per cent for surgical masks. However, after ten washes with bar soap and water, the surgical masks retained a filtration efficiency of 76 per cent, which is still higher than that of cloth masks. With the appropriate promotion, surgical masks are just as likely to be accepted as cloth masks with one-third the price and superior filtration.

The results demonstrate the cost-effectiveness of introducing NORM interventions through empirical evidence. Although lockdowns provide approximately four times the value of the NORM-alising mask-wearing programme, it would be at least ten times the expense. Large-scale mask distribution with NORM intervention can potentially decrease the need for lockdowns. Moreover, data suggest that people who wear mask are more likely to adhere to social distance and other hygiene rules.

The NORM intervention illustrates a scalable and cost-effective method for mask adoption and saving lives by identifying the specific intervention activities required. Researchers are already collaborating with governments and NGOs to enact the study's recommendations in Bangladesh, Pakistan, India and Latin America, where there has been an alarming increase in infections since March. Dhaka North City Corporation has already initiated a mass mask-wearing campaign across several locations, led by Mayor Atiqul Islam in partnership with Innovations for Poverty Action, Shakti Foundation for Disadvantaged Women and BRAC Institute of Governance and Development.

With the help of 130 volunteers, BD Clean and Young Bangla have joined the campaign for periodic surveillance in public places to remind people to wear the distributed masks. All the masks are made in Bangladesh and come with a seal of the Bangladeshi flag and a message indicating its reusability. The campaign aims to reach 2.5 million people in Dhaka city.

"Decisive leadership from the mayor of Dhaka-North (DNCC) leads to quick implementation of an evidence-based masking campaign before the Eid rush, in partnership with several local NGOs. This is how policy change happens -- when there is 100 per cent local ownership and action," according to Dr. Mobarak. The research team has already initiated a scale-up project in India and hopes to aid in slowing the rapid spread of the coronavirus in India.

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