

# Suggestions to minimise hesitancy and promote vaccination of children in Hong Kong

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*To the Editor*—Coronavirus disease 2019 (COVID-19) vaccine hesitancy was high initially<sup>1</sup> but persists in Hong Kong. As of 2 January 2023, 93.0% and 83.3% of the population had received the second and third doses of the COVID-19 vaccine, respectively.<sup>2</sup> However, vaccination uptake for the third dose was only 77.06% for age-group of 12-19 years and 30.92% for those aged 3-11 years.<sup>2</sup> The government intends to lower the vaccine pass age limit to 5 years and allow schools to hold full-day face-to-face classes only if 90% of students have received three doses of vaccine before 1 November 2022. According to one study,<sup>3</sup> there are four reasons for parental vaccine refusal: religious beliefs, personal beliefs or philosophical reasons, safety concerns, and a desire for more information from healthcare providers. Clearly the reason for the low vaccination rate in Hong Kong is mainly due to safety concerns. The Centre for Health Protection of the Department of Health publishes public health recommendations for the Hong Kong Childhood Immunisation Programme. Advised vaccines from birth onwards include Bacillus Calmette-Guérin, hepatitis B, and diphtheria, tetanus, acellular pertussis and inactivated poliovirus vaccines. Although the side-effects of these vaccines, such as low fever, redness, and a sore arm, are well known, parents do not oppose their administration. We recommend that the Department of Health collaborate with the Education Bureau to implement measures that can improve vaccine uptake. These include: provision of more scientific information, educational and on-site vaccination interventions to schools with a low vaccination rate,<sup>4</sup> measures to enhance the biological literacy of school children to encourage vaccination, rapid response by healthcare professionals to dispel rumours and conspiracy theories, education of parents about the benefits of vaccination, and provision of educational seminars via Zoom as continued regular education has been shown to improve the success of vaccination programmes.<sup>5</sup> In addition, the Centre for Health Protection may consider other options such as delivering a fractional dose to minimise the side-effects. Another study<sup>6</sup> suggests that using an intradermal fractional dose (10-20% the amount of the original dose) vaccination using a microneedle patch can result in better immunogenicity. Side-effects are the most common concern among those who are hesitant or opposed to vaccination. As the safety profile of fractional doses is comparable to that of a regular dose,<sup>7</sup> fractional dosages may help

combat such hesitancy.

## Author contributions

All authors contributed to the drafting of the letter and critical revision for important intellectual content. All authors approved the final version for publication, and take responsibility for its accuracy and integrity.

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