In the high-income countries that were first to roll out COVID-19 vaccines, older adults have thus far been prioritized for COVID vaccines over younger adults. That was based primarily on the assumptions that what matters most is minimizing COVID-19 deaths, and, based on available evidence at the time, that vaccinating the elderly first would achieve that goal, and also reduce hospitalization rates. We suggest that low and middle income countries that must ration scarce COVID vaccine doses would sometimes be justified in revising this strategy by taking into account new evidence on the effects of vaccines, by challenging some of the ethical assumptions behind priority to the old, and by legitimately considering socioeconomic effects. Taken together, these factors could support prioritizing certain younger persons in some low and middle income countries.