

areas. For example, a cohort study in London revealed 44% of the frontline health-care workers from a hospital were infected with SARS-CoV-2 (REF. <sup>94</sup>).

The high transmissibility of SARS-CoV-2 may be attributed to the unique virological features of SARS-CoV-2. Transmission of SARS-CoV occurred mainly after illness onset and peaked following disease severity<sup>95</sup>. However, the SARS-CoV-2 viral load in upper respiratory tract samples was already highest during the first week of symptoms, and thus the risk of pharyngeal virus shedding was very high at the beginning of infection<sup>96,97</sup>. It was postulated that undocumented infections might account for 79% of documented cases owing to the high transmissibility of the virus during mild disease or the asymptomatic period<sup>89</sup>. A patient with COVID-19 spreads viruses in liquid droplets during speech. However, smaller and much more numerous particles known as aerosol particles can also be visualized, which could linger in the air for a long time and then penetrate deep into the lungs when inhaled by someone else<sup>98-100</sup>. Airborne transmission was also observed in the laboratory experiments done above. SARS-CoV-2-infected ferrets shed