## Estimated first-wave (top) and second-wave (bottom) fatality rates associated with SARS-CoV-2 for states in India Wave 1: April 1, 2020 - January 31, 2021. Wave 2: February 1, 2021 - June 30, 2021. Maharashtra-IFR1: 0.460 ( 0.444 - 0.480) IFR2: 0.968 ( 0.955 - 0.985) CFR: 2.521 ( 2.499 - 2.542) Punjab-IFR1: 0.362 ( 0.331 - 0.397) IFR2: 1.010 ( 0.991 - 1.031) CFR: 3.240 ( 3.157 - 3.324) West Bengal-IFR1: 0.322 ( 0.289- 0.356) IFR2: 0.675 ( 0.665- 0.686) CFR: 1.785 ( 1.750- 1.819) Gujarat-IFR1: 0.284 ( 0.267 - 0.302) IFR2: 0.592 ( 0.579 - 0.606) CFR: 1.677 ( 1.628 - 1.726) 0.129 (0.125-0.134) Uttar Pradesh-IFR1: 0.226 ( 0.210- 0.243) IFR2: 0.514 ( 0.504- 0.523) CFR: 1.442 ( 1.412- 1.472) Tamil Nadu-IFR1: 0.207 ( 0.199- 0.216) IFR2: 0.505 ( 0.499- 0.511) CFR: 1.474 ( 1.448- 1.500) India State/Union territory Karnataka-IFR1: 0.168 ( 0.153- 0.186) IFR2: 0.428 ( 0.415- 0.443) CFR: 1.301 ( 1.278- 1.324) Rajasthan-IFR1: 0.163 ( 0.154- 0.173) IFR2: 0.328 ( 0.319- 0.338) CFR: 0.871 ( 0.839- 0.904) Madhya Pradesh-IFR1: 0.148 ( 0.131 - 0.172) IFR2: 0.428 ( 0.411 - 0.453) CFR: 1.494 ( 1.447 - 1.541) 1.435 (1.428-1 **CFR** for India Haryana-IFR1: 0.137 ( 0.117 - 0.160) IFR2: 0.351 ( 0.333 - 0.367) CFR: 1.127 ( 1.087 - 1.167) Odisha-IFR1: 0.122 ( 0.094- 0.156) IFR2: 0.238 ( 0.226- 0.252) CFR: 0.585 ( 0.559- 0.610) Jharkhand-IFR1: 0.099 ( 0.065- 0.165) IFR2: 0.261 ( 0.250- 0.273) CFR: 0.903 ( 0.850- 0.957) 0.461 (0.455-0.468 Telangana-IFR1: 0.099 ( 0.089- 0.110) IFR2: 0.211 ( 0.202- 0.220) CFR: 0.544 ( 0.517- 0.571) Bihar-IFR1: 0.086 ( 0.073- 0.103) IFR2: 0.204 ( 0.191- 0.219) CFR: 0.576 ( 0.547- 0.605) **IFR2** for India Uttarakhand-IFR1: 0.078 ( 0.062- 0.104) IFR2: 0.404 ( 0.390- 0.426) CFR: 1.710 ( 1.628- 1.792) IFR1: 0.069 ( 0.060- 0.081) IFR2: 0.168 ( 0.160- 0.177) CFR: 0.501 ( 0.471- 0.531) Assam<sup>-</sup> Kerala-IFR1: 0.061 ( 0.057- 0.067) IFR2: 0.144 ( 0.140- 0.148) CFR: 0.403 ( 0.390- 0.416) Delhi-IFR1: 0.060 ( 0.060 - 0.061) IFR2: 0.380 ( 0.377 - 0.383) CFR: 1.709 ( 1.677 - 1.741) IFR1: 0.051 ( 0.049- 0.053) IFR2: 0.320 ( 0.311- 0.329) CFR: 1.438 ( 1.337- 1.539) Goa-IFR1: 0.019 ( 0.019- 0.019) IFR2: 0.168 ( 0.167- 0.170) CFR: 0.806 ( 0.787- 0.824) Andhra Pradesh-0.8 2.0 2.2 2.4 0.6 1.2 3.0 3.2 3.4 1.4 1.6 1.8 3.6 3.8 Estimated fatality rate (%) Goa-IFR1: 0.171 ( 0.168-0.174) IFR2: 0.551 ( 0.538-0.564) CFR: 2.019 (1.937-2.101) 0.095 (0.086-0.109) Maharashtra-IFR1: 0.120 ( 0.116-0.126) CFR: 1.758 ( 1.746-1.771) IFR2: 0.453 ( 0.448-0.460) Uttarakhand-IFR1: 0.117 ( 0.107–0.130) CFR: 2.325 ( 2.266-2.385) IFR2: 0.563 ( 0.548-0.580) Punjab-IFR1: 0.101 ( 0.093-0.112) CFR: 2.474 ( 2.427-2.521) IFR2: 0.555 ( 0.545-0.569) for India 342) Delhi-IFR1: 0.098 ( 0.098-0.099) CFR: 1.768 (1.739-1.797) IFR2: 0.432 ( 0.429–0.436) Jharkhand-IFR1: 0.095 ( 0.081-0.108) IFR2: 0.431 ( 0.414-0.446) CFR: 1.780 (1.726-1.834) State/Union territory 316-0. Bihar-IFR1: 0.082 ( 0.072-0.095) IFR2: 0.402 ( 0.391-0.417) CFR: 1.754 ( 1.716-1.792) India Gujarat-IFR1: 0.062 ( 0.058-0.068) IFR2: 0.254 ( 0.248-0.262) CFR: 1.010 ( 0.984-1.036) Haryana-IFR1: 0.061 ( 0.056-0.068) IFR2: 0.301 ( 0.294–0.311) CFR: 1.283 ( 1.252-1.315) IFR2 for 9 Madhya Pradesh-IFR1: 0.061 ( 0.055-0.070) IFR2: 0.243 ( 0.234-0.254) CFR: 0.967 ( 0.941-0.993) 326 .243-1Karnataka-IFR1: 0.061 ( 0.057-0.066) IFR2: 0.285 ( 0.281-0.291) CFR: 1.201 (1.186-1.217) **CFR** for India Uttar Pradesh-IFR1: 0.055 ( 0.049-0.061) IFR2: 0.276 ( 0.271-0.281) CFR: 1.261 (1.240-1.282) Tamil Nadu-IFR1: 0.050 ( 0.047-0.054) IFR2: 0.268 ( 0.264-0.273) CFR: 1.237 (1.220-1.254) 1.248 (1. Kerala-IFR1: 0.040 ( 0.040-0.040) IFR2: 0.128 ( 0.126-0.129) CFR: 0.479 ( 0.469-0.488) Rajasthan-IFR1: 0.037 ( 0.032-0.045) IFR2: 0.215 ( 0.208-0.223) CFR: 0.970 ( 0.945-0.994) Assam-IFR1: 0.034 ( 0.030-0.039) IFR2: 0.249 ( 0.244-0.256) CFR: 1.189 (1.150-1.228) West Bengal-IFR1: 0.031 ( 0.028-0.035) IFR2: 0.178 ( 0.174–0.183) CFR: 0.812 (0.794-0.830) Telangana-IFR1: 0.025 ( 0.022-0.031) IFR2: 0.140 ( 0.135-0.147) CFR: 0.627 ( 0.600-0.654) Andhra Pradesh-IFR1: 0.023 ( 0.022-0.025) IFR2: 0.125 ( 0.122–0.127) CFR: 0.556 ( 0.541-0.571) Odisha-IFR1: 0.011 ( 0.010-0.012) IFR2: 0.076 ( 0.074-0.077) CFR: 0.373 ( 0.358-0.389) 8.0 1.0 2.2 2.4 2.6 2.8 3.0 3.2 3.6 1.2 1.4 1.6 1.8 2.0 3.8 Estimated fatality rate (%) Type | IFR1 | IFR2 | CFR © COV-IND-19 Study Group

© COV-IND-19 Study Group Source: covid19india.org Note:

<sup>-</sup> Owing to lack of sufficient data, estimates for only twenty states with highest case counts have been presented.

<sup>-</sup> Coloured blue for IFR1, red for IFR2 and green for CFR values.