

S10 Table. For cumulative mortality, calibration for U.S.

| Quantile | Mean | Median | Ensemble | Sym trim | Exterior trim | Interior trim | Envelope | Inv score | Inv score tuning | Previous best |
|-----------------|-------------|---------------|-----------------|-----------------|----------------------|----------------------|-----------------|------------------|-------------------------|----------------------|
| <i>1</i> | 16.0 | 0.0 | 0.6 | 1.3 | 16.3 | 0.0 | 0.0 | 1.6 | 0.0 | 0.0 |
| <i>2.5</i> | 17.0 | 0.0 | 0.6 | 1.3 | 17.3 | 0.0 | 0.0 | 2.9 | 0.3 | 0.0 |
| <i>5</i> | 18.3 | 0.0 | 0.6 | 1.6 | 18.6 | 0.0 | 0.0 | 5.5 | 1.0 | 1.9 |
| <i>10</i> | 18.9 | 1.6 | 1.9 | 3.6 | 19.9 | 0.0 | 0.0 | 7.5 | 2.6 | 10.1 |
| <i>15</i> | 21.9 | 3.6 | 4.9 | 6.5 | 22.2 | 2.3 | 0.0 | 10.4 | 5.2 | 11.7 |
| <i>20</i> | 22.5 | 6.8 | 7.1 | 7.8 | 24.2 | 4.5 | 0.0 | 12.4 | 8.8 | 14.3 |
| <i>25</i> | 25.8 | 8.8 | 9.4 | 9.4 | 25.8 | 6.2 | 0.0 | 13.7 | 12.7 | 18.3 |
| <i>30</i> | 27.8 | 13.0 | 14.3 | 12.4 | 28.1 | 10.4 | 0.0 | 18.3 | 15.0 | 22.5 |
| <i>35</i> | 30.4 | 16.0 | 17.6 | 17.6 | 32.4 | 15.0 | 0.0 | 21.2 | 17.6 | 23.8 |
| <i>40</i> | 34.7 | 19.6 | 20.5 | 19.3 | 35.3 | 19.6 | 0.0 | 23.8 | 20.2 | 26.4 |
| <i>45</i> | 37.9 | 23.8 | 24.5 | 25.2 | 38.9 | 24.5 | 0.6 | 27.4 | 24.8 | 32.3 |
| <i>50</i> | 43.5 | 29.4 | 30.4 | 32.4 | 41.5 | 30.1 | 1.0 | 31.4 | 28.8 | 38.5 |
| <i>55</i> | 48.1 | 35.0 | 36.0 | 37.0 | 43.2 | 48.4 | 91.9 | 38.3 | 35.9 | 43.8 |
| <i>60</i> | 51.0 | 38.9 | 40.2 | 40.6 | 45.2 | 51.7 | 92.5 | 43.9 | 43.9 | 46.4 |
| <i>65</i> | 54.3 | 41.2 | 43.5 | 42.5 | 49.4 | 55.0 | 93.2 | 47.4 | 47.1 | 47.1 |
| <i>70</i> | 58.3 | 44.9 | 45.2 | 46.8 | 53.1 | 58.3 | 93.8 | 51.4 | 52.7 | 50.0 |
| <i>75</i> | 61.2 | 51.4 | 51.1 | 52.7 | 56.0 | 63.2 | 95.5 | 58.0 | 56.0 | 54.0 |
| <i>80</i> | 64.8 | 57.3 | 56.9 | 57.9 | 59.9 | 67.8 | 96.8 | 63.5 | 60.9 | 60.2 |
| <i>85</i> | 71.7 | 62.9 | 62.2 | 66.1 | 66.8 | 76.2 | 97.7 | 70.1 | 68.4 | 65.7 |
| <i>90</i> | 76.9 | 69.1 | 69.1 | 75.6 | 74.3 | 81.5 | 99.0 | 77.9 | 77.3 | 71.6 |
| <i>95</i> | 84.7 | 79.5 | 78.5 | 84.4 | 82.1 | 87.3 | 99.7 | 85.1 | 88.0 | 89.9 |
| <i>97.5</i> | 89.3 | 84.4 | 82.4 | 87.0 | 85.7 | 91.9 | 100.0 | 91.6 | 92.9 | 89.3 |
| <i>99</i> | 92.3 | 87.7 | 85.4 | 89.6 | 89.0 | 94.5 | 100.0 | 95.2 | 95.5 | 95.5 |