**Supplementary Table 1**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Hospital | | | Tianmen | | | Wuhan | | | Hubei | | |
|  | Cases | Deaths | CRF (%) | Cases | Deaths | CRF (%) | Cases | Deaths | CRF (%) | Cases | Deaths | CRF (%) |
| 27/1 | 41 | 7a | 17·07317 | 23 | 2 | 8·69565 | 1590 | 85 | 5·34591 | 2714 | 100 | 3·684598 |
| 28/1 | 43 | 7 | 16·27907 | 34 | 3 | 8·82353 | 1905 | 104 | 5·45932 | 3554 | 125 | 3·517164 |
| 29/1 | 44 | 7 | 15·90909 | 44 | 3 | 6·81818 | 2261 | 129 | 5·70544 | 4586 | 162 | 3·53249 |
| 30/1 | 63 | 8 | 12·69841 | 67 | 6 | 8·95522 | 2639 | 159 | 6·02501 | 5806 | 204 | 3·513607 |
| 31/1 | 82 | 10 | 12·19512 | 82 | 7 | 8·53659 | 3215 | 192 | 5·97201 | 7153 | 249 | 3·481057 |
| 1/2 | 91 | 11 | 12·08791 | 99 | 7 | 7·07071 | 4109 | 224 | 5·45145 | 9074 | 294 | 3·240026 |
| 2/2 | 95 | 11 | 11·57895 | 115 | 10 | 8·69565 | 5142 | 265 | 5·15364 | 11177 | 350 | 3·131431 |
| 3/2 | 96 | 11 | 11·45833 | 117 | 10 | 8·54701 | 6384 | 313 | 4·90288 | 13522 | 414 | 3·061677 |
| 4/2 | 114 | 11 | 9·649123 | 128 | 10 | 7·8125 | 8351 | 362 | 4·33481 | 16678 | 479 | 2·872047 |
| 5/2 | 127 | 11 | 8·661417 | 138 | 10 | 7·24638 | 10117 | 414 | 4·09212 | 19665 | 549 | 2·791762 |
| 6/2 | 162 | 12 | 7·407407 | 163 | 10 | 6·13497 | 11618 | 478 | 4·11431 | 22112 | 618 | 2·794863 |
| 7/2 | 175 | 12 | 6·857143 | 179 | 10 | 5·58659 | 13603 | 545 | 4·00647 | 24953 | 699 | 2·801266 |
| 8/2 | 181 | 12 | 6·629834 | 197 | 10 | 5·07614 | 14982 | 608 | 4·0582 | 27013 | 780 | 2·887499 |
| 9/2 | 194 | 12 | 6·185567 | 217 | 10 | 4·60829 | 16902 | 681 | 4·02911 | 29631 | 871 | 2·939489 |
| 10/2 | 202 | 12 | 5·940594 | 261 | 10 | 3·83142 | 18454 | 748 | 4·05332 | 31728 | 974 | 3·069844 |
| 11/2 | 233 | 13 | 5·579399 | 293 | 10 | 3·41297 | 19558 | 820 | 4·19266 | 33366 | 1068 | 3·200863 |
| 12/2 | 246 | 13 | 5·284553 | 362 | 10 | 2·76243 | 32994 | 1036 | 3·13996 | 48206 | 1310 | 2·717504 |
| 13/2 | 270 | 13 | 4·814815 | 416 | 10 | 2·40385 | 35991 | 1104 | 3·06743 | 51986 | 1426 | 2·743046 |
| 14/2 | 272 | 13 | 4·779412 | 422 | 10 | 2·36967 | 37914 | 1123 | 2·96197 | 54406 | 1457 | 2·678013 |
| 15/2 | 273 | 13 | 4·761905 | 447 | 10 | 2·23714 | 39462 | 1233 | 3·12452 | 56249 | 1596 | 2·837384 |
| 16/2 | 287 | 13 | 4·529617 | 485 | 10 | 2·06186 | 41152 | 1309 | 3·18089 | 58182 | 1696 | 2·914991 |
| 17/2 | 302 | 13 | 4·304636 | 486 | 11 | 2·26337 | 42752 | 1381 | 3·23026 | 59989 | 1789 | 2·982213 |
| 18/2 | 308 | 13 | 4·220779 | 486 | 11 | 2·26337 | 44412 | 1497 | 3·37071 | 61682 | 1921 | 3·114361 |
| 19/2 | 312 | 13 | 4·166667 | 488 | 12 | 2·45902 | 45027 | 1585 | 3·52011 | 62457 | 2029 | 3·248635 |
| 20/2 | 316 | 13 | 4·113924 | 492 | 12 | 2·43902 | 45346 | 1684 | 3·71367 | 63088 | 2144 | 3·398428 |
| 21/2 | 323 | 13 | 4·024768 | 493 | 12 | 2·43408 | 45660 | 1774 | 3·88524 | 63454 | 2250 | 3·545876 |
| 22/2 | 331 | 13 | 3·927492 | 494 | 13 | 2·63158 | 46201 | 1856 | 4·01723 | 64084 | 2346 | 3·66082 |
| 23/2 | 337 | 13 | 3·857567 | 494 | 13 | 2·63158 | 46607 | 1987 | 4·26331 | 64287 | 2495 | 3·881033 |
| 24/2 | 341 | 13 | 3·812317 | 495 | 13 | 2·62626 | 47071 | 2043 | 4·34025 | 64786 | 2563 | 3·956102 |
| 25/2 | 341 | 13 | 3·812317 | 496 | 13 | 2·62097 | 47441 | 2085 | 4·39493 | 65187 | 2615 | 4·011536 |
| *Note.* aDue to the lack of RT-PCR kits and the existence of test time in the early epidemic stage, the death data of the hospital and Tianmen city did not match (PT-PCR positive deaths were reported only). With the detection efficiency improved and the return of results from early samples, the later cases were consistent. Therefore, The CFR of the hospital could better reflect the real situation early in transmission. | | | | | | | | | | | | |

**Supplementary Table 2**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Infection cases (per 10,000 population) | | | CFR (%) | | |
| Date | Tianmen | Wuhan | Hubei | Tianmen | Wuhan | Hubei |
| 27/1 | 0·180774974 | 1·434888548 | 0·458678384 | 8·695652174 | 5·34591195 | 3·684598379 |
| 28/1 | 0·267232571 | 1·719158921 | 0·600642217 | 8·823529412 | 5·459317585 | 3·517163759 |
| 29/1 | 0·345830386 | 2·040429564 | 0·775054926 | 6·818181818 | 5·705440071 | 3·532490188 |
| 30/1 | 0·52660536 | 2·381554011 | 0·981240493 | 8·955223881 | 6·025009473 | 3·513606614 |
| 31/1 | 0·644502083 | 2·901362693 | 1·20888964 | 8·536585366 | 5·972006221 | 3·481056899 |
| 1/2 | 0·778118368 | 3·708149084 | 1·533547406 | 7·070707071 | 5·451448041 | 3·240026449 |
| 2/2 | 0·903874872 | 4·640375417 | 1·888964002 | 8·695652174 | 5·153636717 | 3·131430616 |
| 3/2 | 0·919594435 | 5·761212887 | 2·285279703 | 8·547008547 | 4·902882206 | 3·061677267 |
| 4/2 | 1·006052032 | 7·536323437 | 2·818658104 | 7·812500000 | 4·334810202 | 2·872047008 |
| 5/2 | 1·084649847 | 9·130042415 | 3·323474734 | 7·246376812 | 4·092122171 | 2·791762014 |
| 6/2 | 1·281144384 | 10·4846133 | 3·7370289 | 6·134969325 | 4·114305388 | 2·794862518 |
| 7/2 | 1·406900888 | 12·27596787 | 4·217170864 | 5·586592179 | 4·006469161 | 2·801266381 |
| 8/2 | 1·548376955 | 13·52044039 | 4·565320264 | 5·076142132 | 4·058203177 | 2·887498612 |
| 9/2 | 1·705572585 | 15·253136 | 5·00777421 | 4·608294931 | 4·029108981 | 2·939489049 |
| 10/2 | 2·051402971 | 16·65373161 | 5·362176779 | 3·831417625 | 4·053321773 | 3·069843671 |
| 11/2 | 2·302915979 | 17·65003159 | 5·639006253 | 3·412969283 | 4·192657736 | 3·200863154 |
| 12/2 | 2·845240902 | 29·77529104 | 8·14703397 | 2·762430939 | 3·139964842 | 2·717504045 |

**Supplementary Table 3**

|  |  |  |  |
| --- | --- | --- | --- |
| Health-care resources | Tianmen | Wuhan | Hubei |
| Beds of Medical Institution Per 1000 Population (n) | 3·31 | 7·48 | 6·65 |
| Number of Doctors per 1000 Population (n) | 2·00 | 3·42 | 2·57 |
| Number of Nurses per 1000 Population (n) | 2·87 | 4·79 | 3·22 |
| *Note.* Data from the 2018 government report. | | | |