**Supplementary file**



Figure A1. Number of TSP and PM2.5 stations by cities of Kazakhstan in 2017

*Measured TSP and PM2.5 concentration in 2017*



Figure A.2 - *Measured TSP and PM2.5 concentration in 2017*

Table A1. Population by ages by cities in 2017

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60-64 | 65-69 | 70-74 | 75-79 | 80-84 | 85+ |
| Nur-Sultan | 111491 | 106662 | 83479 | 65109 | 53640 | 48669 | 40441 | 26360 | 18871 | 8079 | 8778 | 3664 | 2446 |
| Zhezkazgan | 7858 | 7337 | 6504 | 6232 | 5742 | 5695 | 5655 | 4246 | 3437 | 1653 | 2176 | 929 | 511 |
| Temirtau | 16054 | 14989 | 13287 | 12731 | 11731 | 11635 | 11553 | 8674 | 7022 | 3377 | 4446 | 1898 | 1045 |
| Shymkent | 78086 | 68799 | 57613 | 53479 | 48746 | 45495 | 38307 | 26276 | 18066 | 8760 | 9158 | 3863 | 2350 |
| Balkhash | 6795 | 6344 | 5624 | 5388 | 4965 | 4924 | 4889 | 3671 | 2972 | 1429 | 1882 | 803 | 442 |
| Almaty | 222315 | 168973 | 135038 | 116581 | 102293 | 94500 | 88028 | 67274 | 54566 | 25969 | 31920 | 15328 | 11550 |
| Aktau | 16845 | 15894 | 12989 | 10985 | 9894 | 8969 | 7608 | 5247 | 3510 | 1607 | 1436 | 572 | 330 |
| Atyrau | 29875 | 26599 | 21953 | 18934 | 18443 | 18328 | 15191 | 10328 | 6546 | 2900 | 3544 | 1860 | 1005 |
| Taraz | 28665 | 26387 | 23192 | 22250 | 20224 | 18807 | 16063 | 10954 | 7860 | 3931 | 3818 | 1486 | 710 |
| Pavlodar | 30800 | 29330 | 25659 | 25486 | 24401 | 25044 | 23945 | 17123 | 13621 | 6292 | 9124 | 3885 | 2253 |
| Ekibastuz | 13076 | 12452 | 10893 | 10820 | 10359 | 10632 | 10166 | 7269 | 5782 | 2671 | 3874 | 1649 | 956 |
| Karaganda | 43279 | 40406 | 35820 | 34320 | 31623 | 31366 | 31143 | 23383 | 18930 | 9104 | 11985 | 5117 | 2817 |
| Semipalatinsk | 29829 | 26971 | 24357 | 23754 | 22055 | 22830 | 23382 | 18689 | 14071 | 6211 | 9195 | 4113 | 2777 |
| Ust-Kamonogorsk | 29295 | 26488 | 23921 | 23329 | 21660 | 22421 | 22963 | 18354 | 13819 | 6100 | 9031 | 4040 | 2727 |
| Taldykorgan | 14597 | 14197 | 11964 | 11175 | 10021 | 9776 | 8487 | 6329 | 4507 | 2308 | 2489 | 1192 | 742 |
| Kokshetau | 12675 | 12064 | 11088 | 10850 | 10340 | 10833 | 10733 | 7926 | 5906 | 2731 | 3748 | 1578 | 846 |
| Petropavlovsk | 15268 | 16232 | 15250 | 14736 | 14135 | 15567 | 16696 | 13100 | 9392 | 4077 | 6503 | 2987 | 1889 |
| Uralsk | 27175 | 24042 | 20651 | 19266 | 19157 | 20102 | 18530 | 13062 | 9085 | 4133 | 6361 | 2991 | 1779 |
| Kyzylorda | 23718 | 21833 | 19189 | 18410 | 16734 | 15562 | 13291 | 9063 | 6503 | 3253 | 3159 | 1230 | 587 |
| Aktobe | 48483 | 39716 | 32587 | 29701 | 28458 | 28499 | 25107 | 17254 | 12325 | 5272 | 7002 | 3105 | 1888 |
| Kostanay | 22307 | 20201 | 17135 | 15668 | 15494 | 16580 | 16858 | 12179 | 9117 | 4323 | 6779 | 3159 | 1858 |

Table A2. Baseline mortality by ages by cities in 2016 (estimated from the regional mortality by ages)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60-64 | 65-69 | 70-74 | 75-79 | 80-84 | 85+ |
| Nur-Sultan | 74 | 105 | 124 | 180 | 194 | 310 | 347 | 391 | 415 | 283 | 514 | 327 | 411 |
| Zhezkazgan | 13 | 18 | 29 | 32 | 38 | 53 | 77 | 88 | 99 | 72 | 145 | 92 | 110 |
| Temirtau | 27 | 38 | 59 | 66 | 78 | 109 | 158 | 180 | 202 | 147 | 296 | 187 | 224 |
| Shymkent | 84 | 104 | 142 | 163 | 226 | 300 | 394 | 428 | 520 | 378 | 647 | 387 | 531 |
| Balkhash | 11 | 16 | 25 | 28 | 33 | 46 | 67 | 76 | 85 | 62 | 125 | 79 | 95 |
| Almaty | 134 | 211 | 257 | 352 | 408 | 606 | 813 | 978 | 1188 | 717 | 1628 | 1182 | 1933 |
| Aktau | 15 | 19 | 30 | 40 | 47 | 61 | 70 | 83 | 88 | 62 | 79 | 51 | 67 |
| Atyrau | 37 | 45 | 66 | 75 | 97 | 151 | 186 | 168 | 189 | 131 | 255 | 226 | 242 |
| Taraz | 34 | 45 | 62 | 96 | 98 | 135 | 177 | 196 | 226 | 178 | 307 | 162 | 172 |
| Pavlodar | 49 | 74 | 108 | 123 | 149 | 225 | 297 | 340 | 383 | 237 | 601 | 349 | 441 |
| Ekibastuz | 21 | 31 | 46 | 52 | 63 | 96 | 126 | 144 | 163 | 101 | 255 | 148 | 187 |
| Karaganda | 72 | 102 | 158 | 177 | 211 | 294 | 425 | 484 | 544 | 397 | 799 | 504 | 604 |
| Semipalatinsk | 54 | 78 | 102 | 124 | 135 | 207 | 296 | 355 | 386 | 254 | 552 | 379 | 545 |
| Ust-Kamonogorsk | 53 | 77 | 101 | 121 | 133 | 203 | 290 | 349 | 379 | 250 | 542 | 373 | 535 |
| Taldykorgan | 23 | 26 | 34 | 49 | 58 | 79 | 101 | 115 | 125 | 91 | 149 | 109 | 136 |
| Kokshetau | 27 | 29 | 45 | 48 | 65 | 99 | 136 | 155 | 171 | 123 | 269 | 169 | 202 |
| Petropavlovsk | 32 | 55 | 66 | 76 | 94 | 149 | 216 | 262 | 271 | 181 | 441 | 313 | 393 |
| Uralsk | 43 | 45 | 74 | 94 | 116 | 178 | 231 | 235 | 256 | 159 | 437 | 305 | 389 |
| Kyzylorda | 28 | 37 | 51 | 80 | 81 | 112 | 146 | 162 | 187 | 147 | 254 | 134 | 142 |
| Aktobe | 59 | 78 | 104 | 132 | 159 | 221 | 259 | 301 | 276 | 201 | 493 | 305 | 413 |
| Kostanay | 38 | 52 | 70 | 86 | 101 | 145 | 216 | 224 | 260 | 175 | 442 | 284 | 351 |

Table A3. GEMM model parameters used for the estimates of mortality (Burnett et al., 2018)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Cause of Death | Age Range | θ | St. Err θ | α | µ | ν |
| NCD+LRI | >25 | 0.143 | 0.01807 | 1.6 | 15.5 | 36.8 |
| 27.5 | 0.1585 | 0.01477 | 1.6 | 15.5 | 36.8 |
| 32.5 | 0.1577 | 0.0147 | 1.6 | 15.5 | 36.8 |
| 37.5 | 0.157 | 0.01463 | 1.6 | 15.5 | 36.8 |
| 42.5 | 0.1558 | 0.0145 | 1.6 | 15.5 | 36.8 |
| 47.5 | 0.1532 | 0.01425 | 1.6 | 15.5 | 36.8 |
| 52.5 | 0.1499 | 0.01394 | 1.6 | 15.5 | 36.8 |
| 57.5 | 0.1462 | 0.01361 | 1.6 | 15.5 | 36.8 |
| 62.5 | 0.1421 | 0.01325 | 1.6 | 15.5 | 36.8 |
| 67.5 | 0.1374 | 0.01284 | 1.6 | 15.5 | 36.8 |
| 72.5 | 0.1319 | 0.01234 | 1.6 | 15.5 | 36.8 |
| 77.5 | 0.1253 | 0.01174 | 1.6 | 15.5 | 36.8 |
| 85 | 0.1141 | 0.01071 | 1.6 | 15.5 | 36.8 |
| IHD | >25 | 0.2969 | 0.01787 | 1.9 | 12 | 40.2 |
| 27.5 | 0.507 | 0.02458 | 1.9 | 12 | 40.2 |
| 32.5 | 0.4762 | 0.02309 | 1.9 | 12 | 40.2 |
| 37.5 | 0.4455 | 0.0216 | 1.9 | 12 | 40.2 |
| 42.5 | 0.4148 | 0.02011 | 1.9 | 12 | 40.2 |
| 47.5 | 0.3841 | 0.01862 | 1.9 | 12 | 40.2 |
| 52.5 | 0.3533 | 0.01713 | 1.9 | 12 | 40.2 |
| 57.5 | 0.3226 | 0.01564 | 1.9 | 12 | 40.2 |
| 62.5 | 0.2919 | 0.01415 | 1.9 | 12 | 40.2 |
| 67.5 | 0.2612 | 0.01266 | 1.9 | 12 | 40.2 |
| 72.5 | 0.2304 | 0.01117 | 1.9 | 12 | 40.2 |
| 77.5 | 0.1997 | 0.00968 | 1.9 | 12 | 40.2 |
| 85 | 0.1536 | 0.00745 | 1.9 | 12 | 40.2 |
| Stroke | >25 | 0.272 | 0.07697 | 6.2 | 16.7 | 23.7 |
| 27.5 | 0.4513 | 0.11919 | 6.2 | 16.7 | 23.7 |
| 32.5 | 0.424 | 0.11197 | 6.2 | 16.7 | 23.7 |
| 37.5 | 0.3966 | 0.10475 | 6.2 | 16.7 | 23.7 |
| 42.5 | 0.3693 | 0.09752 | 6.2 | 16.7 | 23.7 |
| 47.5 | 0.3419 | 0.0903 | 6.2 | 16.7 | 23.7 |
| 52.5 | 0.3146 | 0.08307 | 6.2 | 16.7 | 23.7 |
| 57.5 | 0.2872 | 0.07585 | 6.2 | 16.7 | 23.7 |
| 62.5 | 0.2598 | 0.06863 | 6.2 | 16.7 | 23.7 |
| 67.5 | 0.2325 | 0.0619 | 6.2 | 16.7 | 23.7 |
| 72.5 | 0.2051 | 0.05418 | 6.2 | 16.7 | 23.7 |
| 77.5 | 0.1778 | 0.04695 | 6.2 | 16.7 | 23.7 |
| 85 | 0.1368 | 0.03611 | 6.2 | 16.7 | 23.7 |
| COPD | >25 | 0.251 | 0.06762 | 6.5 | 2.5 | 32 |
| LC | >25 | 0.2942 | 0.06147 | 6.2 | 9.3 | 29.8 |
| LRI | >25 | 0.4468 | 0.11735 | 6.4 | 5.7 | 8.4 |

Table A4. Morbidity effects of 1 μg m−3 change in PM10 (central estimate from the World Bank, 2012)

|  |  |  |
| --- | --- | --- |
| Impact on health PM10 | Unit | Impact  on 1 μg m-3 |
| Chronical bronchitis | 100,000 adults | 0.9 |
| Hospital admissions | 100,000 population | 1.2 |
| Emergency room visits | 100,000 population | 23.5 |
| Restricted activity days | 100,000 adults | 5750 |
| Lower respiratory illness in children | 100,000 children | 169 |
| Respiratory symptoms | 100,000 adults | 18300 |

*Analysis of the correlation between PM10, NO2 and SO2*



Figure A.3 - Correlation between annual average concentration of PM10 and NO2 (2015-2017), µg m-3



Figure A.4 - Correlation between annual average concentration of PM10 and SO2 (2015-2017), µg m-3



Figure A.5 - Correlation between annual average concentration of NO2 and SO2 (2015-2017), µg m-3

Table A5. Additionally morbidity cases per 100 000 people due to exposure to PM10 in the major cities (annually over the 2015-2017)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Chronic bronchitis (>16 years) | Hospital admissions (all population) | Emergency room visits (all population) | Restricted activity days (>16 years) | Lower respiratory illness in children (0-15 years) | Respiratory symptoms (>16 years) |
| Nur-Sultan | 111 | 148 | 2891 | 707336 | 20790 | 2251175 |
| Zhezkazgan | 108 | 145 | 2830 | 692415 | 20351 | 2203686 |
| Temirtau | 104 | 139 | 2726 | 666971 | 19603 | 2122709 |
| Shymkent | 79 | 106 | 2075 | 507754 | 14924 | 1615982 |
| Balkhash | 64 | 86 | 1684 | 411930 | 12107 | 1311012 |
| Almaty | 61 | 81 | 1584 | 387694 | 11395 | 1233878 |
| Aktau | 53 | 71 | 1392 | 340601 | 10011 | 1084001 |
| Atyrau | 44 | 59 | 1146 | 280485 | 8244 | 892674 |
| Taraz | 42 | 56 | 1098 | 268669 | 7897 | 855068 |
| Pavlodar | 42 | 56 | 1089 | 266513 | 7833 | 848205 |
| Ekibastuz | 40 | 53 | 1032 | 252626 | 7425 | 804011 |
| Karaganda | 35 | 46 | 907 | 222008 | 6525 | 706563 |
| Semipalatinsk | 33 | 44 | 865 | 211744 | 6223 | 673898 |
| Ust-Kamenogorsk | 27 | 36 | 701 | 171551 | 5042 | 545981 |
| Taldykorgan | 24 | 33 | 638 | 156026 | 4586 | 496571 |
| Uralsk | 23 | 31 | 611 | 149500 | 4394 | 475800 |
| Kokshetau | 23 | 30 | 588 | 143750 | 4225 | 457500 |
| Petropavlovsk | 11 | 15 | 296 | 72536 | 2132 | 230855 |
| Kyzylorda | 0 | 0 | 0 | 0 | 0 | 0 |
| Aktobe | 0 | 0 | 0 | 0 | 0 | 0 |
| Kostanay | 0 | 0 | 0 | 0 | 0 | 0 |

Table A6. Additional IHD mortality cases by age ranges due to exposure to PM2.5 in the major cities of Kazakhstan (annually over the 2015-2017) (SE-standard error; SE for parameter obtained from Burnett et al., 2018)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 25-29 | | 30-34 | | 35-39 | | 40-44 | | 45-49 | | 50-54 | | 55-59 | | 60-64 | | 65-69 | | 70-74 | | 75-79 | | 80-84 | | 85+ | | Total |
| City/Age range | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE |
| Nur-Sultan | 11 | 1 | 20 | 2 | 23 | 2 | 32 | 3 | 33 | 3 | 50 | 4 | 53 | 4 | 56 | 4 | 55 | 4 | 34 | 2 | 54 | 0 | 32 | 2 | 36 | 2 | 491 |
| Zhezkazgan | 2 | 0 | 4 | 0 | 5 | 0 | 6 | 0 | 6 | 1 | 9 | 1 | 12 | 1 | 12 | 1 | 13 | 1 | 9 | 1 | 15 | 0 | 9 | 1 | 9 | 1 | 111 |
| Temirtau | 4 | 0 | 7 | 1 | 11 | 1 | 12 | 1 | 13 | 1 | 17 | 1 | 24 | 2 | 25 | 2 | 26 | 2 | 17 | 1 | 30 | 0 | 18 | 1 | 19 | 1 | 223 |
| Shymkent | 10 | 1 | 18 | 1 | 23 | 2 | 26 | 2 | 34 | 2 | 42 | 3 | 52 | 4 | 53 | 4 | 59 | 4 | 39 | 3 | 58 | 0 | 32 | 2 | 39 | 2 | 483 |
| Balkhash | 1 | 0 | 3 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 6 | 0 | 8 | 1 | 8 | 1 | 9 | 1 | 6 | 0 | 10 | 0 | 6 | 0 | 6 | 0 | 75 |
| Almaty | 15 | 1 | 32 | 2 | 38 | 3 | 49 | 3 | 54 | 4 | 75 | 5 | 94 | 6 | 105 | 7 | 117 | 8 | 64 | 4 | 125 | 1 | 84 | 5 | 121 | 7 | 972 |
| Aktau | 2 | 0 | 3 | 0 | 4 | 0 | 5 | 0 | 6 | 0 | 7 | 0 | 8 | 0 | 8 | 1 | 8 | 1 | 5 | 0 | 6 | 0 | 3 | 0 | 4 | 0 | 69 |
| Atyrau | 3 | 0 | 6 | 0 | 8 | 1 | 9 | 1 | 11 | 1 | 16 | 1 | 18 | 1 | 15 | 1 | 16 | 1 | 10 | 1 | 17 | 0 | 13 | 1 | 13 | 1 | 156 |
| Taraz | 3 | 0 | 6 | 0 | 8 | 1 | 11 | 1 | 11 | 1 | 14 | 1 | 17 | 1 | 18 | 1 | 18 | 1 | 13 | 1 | 19 | 0 | 9 | 1 | 9 | 0 | 157 |
| Pavlodar | 4 | 0 | 10 | 1 | 13 | 1 | 14 | 1 | 17 | 1 | 23 | 2 | 29 | 2 | 30 | 2 | 31 | 2 | 17 | 1 | 38 | 0 | 20 | 1 | 22 | 1 | 270 |
| Ekibastuz | 2 | 0 | 4 | 0 | 6 | 0 | 6 | 0 | 7 | 0 | 10 | 1 | 12 | 1 | 13 | 1 | 13 | 1 | 7 | 0 | 16 | 0 | 8 | 1 | 9 | 0 | 111 |
| Karaganda | 6 | 0 | 12 | 1 | 18 | 1 | 19 | 1 | 21 | 1 | 28 | 2 | 38 | 2 | 39 | 2 | 40 | 3 | 26 | 2 | 46 | 0 | 26 | 2 | 28 | 1 | 349 |
| Semipalatinsk | 2 | 0 | 4 | 1 | 5 | 1 | 6 | 1 | 6 | 1 | 9 | 1 | 13 | 2 | 16 | 2 | 17 | 2 | 11 | 1 | 25 | 0 | 17 | 1 | 25 | 1 | 156 |
| Ust-Kamonogorsk | 2 | 0 | 3 | 1 | 4 | 1 | 5 | 1 | 5 | 1 | 8 | 1 | 12 | 1 | 14 | 2 | 15 | 2 | 10 | 1 | 22 | 0 | 15 | 1 | 22 | 1 | 138 |
| Taldykorgan | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 3 | 0 | 4 | 0 | 4 | 0 | 5 | 0 | 3 | 0 | 6 | 0 | 4 | 0 | 5 | 0 | 42 |
| Uralsk | 2 | 0 | 2 | 0 | 3 | 0 | 4 | 1 | 4 | 1 | 7 | 1 | 9 | 1 | 9 | 1 | 10 | 1 | 6 | 1 | 16 | 0 | 12 | 1 | 15 | 1 | 97 |
| Kokshetau | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 3 | 0 | 5 | 1 | 5 | 1 | 6 | 1 | 4 | 0 | 10 | 0 | 6 | 0 | 7 | 0 | 54 |
| Petropavlovsk | 1 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 3 | 0 | 4 | 1 | 6 | 1 | 7 | 1 | 7 | 1 | 5 | 0 | 12 | 0 | 9 | 1 | 11 | 1 | 70 |
| Kyzylorda | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 3 | 0 | 2 | 0 | 4 | 0 | 2 | 0 | 2 | 0 | 23 |
| Aktobe | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 2 | 0 | 6 | 0 | 3 | 0 | 5 | 0 | 34 |
| Kostanay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 73 |  | 137 |  | 179 |  | 216 |  | 243 |  | 337 |  | 417 |  | 445 |  | 471 |  | 292 |  | 534 |  | 329 |  | 406 |  | 4080 |

Table A7. Additional stroke mortality cases by age ranges due to exposure to PM2.5 in the major cities of Kazakhstan (annually over the 2015-2017) (SE-standard error; SE for parameter obtained from Burnett et al., 2018)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 25-29 | | 30-34 | | 35-39 | | 40-44 | | 45-49 | | 50-54 | | 55-59 | | 60-64 | | 65-69 | | 70-74 | | 75-79 | | 80-84 | | 85+ | | Total |
| City/Age range | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE | Mean | SE |
| Nur-Sultan | 6 | 2 | 9 | 3 | 10 | 3 | 14 | 5 | 14 | 5 | 21 | 7 | 22 | 7 | 23 | 7 | 22 | 7 | 14 | 4 | 22 | 8 | 13 | 5 | 14 | 4 | 202 |
| Zhezkazgan | 1 | 0 | 2 | 1 | 2 | 1 | 2 | 1 | 3 | 1 | 4 | 1 | 5 | 2 | 5 | 2 | 5 | 2 | 3 | 1 | 6 | 2 | 4 | 1 | 4 | 1 | 45 |
| Temirtau | 2 | 1 | 3 | 1 | 5 | 2 | 5 | 2 | 5 | 2 | 7 | 2 | 10 | 3 | 10 | 3 | 10 | 3 | 7 | 2 | 12 | 4 | 7 | 2 | 7 | 2 | 91 |
| Shymkent | 5 | 2 | 7 | 2 | 9 | 3 | 10 | 3 | 14 | 4 | 17 | 5 | 21 | 6 | 21 | 6 | 23 | 7 | 15 | 4 | 22 | 8 | 12 | 4 | 15 | 4 | 191 |
| Balkhash | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 1 | 2 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 2 | 1 | 4 | 1 | 2 | 1 | 2 | 1 | 28 |
| Almaty | 7 | 2 | 13 | 4 | 15 | 5 | 19 | 6 | 21 | 6 | 29 | 9 | 36 | 11 | 39 | 12 | 44 | 13 | 24 | 7 | 46 | 16 | 31 | 11 | 44 | 12 | 367 |
| Aktau | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 1 | 2 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 2 | 1 | 2 | 1 | 1 | 0 | 1 | 0 | 25 |
| Atyrau | 2 | 1 | 2 | 1 | 3 | 1 | 3 | 1 | 4 | 1 | 6 | 2 | 7 | 2 | 5 | 2 | 6 | 2 | 3 | 1 | 6 | 2 | 5 | 2 | 4 | 1 | 55 |
| Taraz | 1 | 0 | 2 | 1 | 3 | 1 | 4 | 1 | 4 | 1 | 5 | 1 | 6 | 2 | 6 | 2 | 6 | 2 | 4 | 1 | 7 | 2 | 3 | 1 | 3 | 1 | 55 |
| Pavlodar | 2 | 1 | 3 | 1 | 5 | 1 | 5 | 2 | 6 | 2 | 8 | 2 | 10 | 3 | 11 | 3 | 11 | 3 | 6 | 2 | 13 | 4 | 7 | 2 | 8 | 2 | 95 |
| Ekibastuz | 1 | 0 | 1 | 0 | 2 | 1 | 2 | 1 | 2 | 1 | 3 | 1 | 4 | 1 | 4 | 1 | 4 | 1 | 2 | 1 | 5 | 2 | 3 | 1 | 3 | 1 | 39 |
| Karaganda | 3 | 1 | 4 | 1 | 6 | 2 | 7 | 2 | 7 | 2 | 10 | 3 | 13 | 4 | 13 | 4 | 13 | 4 | 9 | 2 | 15 | 5 | 9 | 3 | 9 | 3 | 118 |
| Semipalatinsk | 2 | 1 | 3 | 1 | 4 | 1 | 4 | 1 | 5 | 1 | 7 | 2 | 9 | 2 | 9 | 3 | 9 | 3 | 5 | 2 | 10 | 3 | 6 | 2 | 8 | 2 | 82 |
| Ust-Kamonogorsk | 2 | 1 | 3 | 1 | 3 | 1 | 4 | 1 | 4 | 1 | 6 | 2 | 7 | 2 | 8 | 2 | 8 | 2 | 5 | 1 | 9 | 3 | 5 | 2 | 7 | 2 | 70 |
| Taldykorgan | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 0 | 2 | 1 | 1 | 0 | 2 | 0 | 22 |
| Uralsk | 1 | 0 | 1 | 0 | 2 | 1 | 3 | 1 | 3 | 1 | 4 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 3 | 1 | 6 | 2 | 4 | 1 | 4 | 1 | 48 |
| Kokshetau | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 2 | 1 | 4 | 1 | 2 | 1 | 2 | 1 | 27 |
| Petropavlovsk | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 1 | 3 | 1 | 4 | 1 | 3 | 1 | 2 | 1 | 4 | 1 | 3 | 1 | 3 | 1 | 31 |
| Kyzylorda | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 9 |
| Aktobe | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 1 | 0 | 1 | 0 | 13 |
| Kostanay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 40 |  | 60 |  | 77 |  | 92 |  | 102 |  | 139 |  | 170 |  | 178 |  | 184 |  | 112 |  | 197 |  | 119 |  | 143 |  | 1613 |