**Table 1. Premature deaths in Hong Kong 2005-2009**

| **Premature mortality** | **all** | **%** | **male** | **%** | **female** | **%** |
|---|---|---|---|---|---|---|
| Type I (infectious, maternal, perinatal and nutritional conditions) | 6,711 | 8.3 | 4,838 | 9.0 | 1,873 | 6.9 |
| Type II (non-communicable conditions) | 66,844 | 82.8 | 44,067 | 82.0 | 22,777 | 84.3 |
| Type III (injuries) | 7,215 | 8.9 | 4,835 | 9.0 | 2,380 | 8.8 |
| All causes | 80,770 | 100.0 | 53,740 | 100.0 | 27,030 | 100.0 |

For classification of mortality into categories of death causes, see WHO 2008. Source: Authors' calculations on data from Hong Kong Census and Statistics Department.

**Table 2. Factors describing small area characteristics, used as control variables in models**

| Variables from HK Census Department[a)] | n'hood affluence | housing instability | elderly residents | social fragmen-tation (reversed) |
|---|---|---|---|---|
| age < 15 | -.055 | -.106 | -.772 | .312 |
| age ≥ 65 | -.336 | .038 | .809 | .001 |
| median income [b)] | .756 | -.292 | -.118 | .276 |
| high status occupations | .888 | -.164 | -.150 | -.070 |
| unemployment | -.627 | .423 | -.097 | -.078 |
| high education | .969 | -.208 | -.073 | .064 |
| single household | -.025 | -.288 | .240 | -.570 |
| single elderly household [c)] | -.594 | .101 | .335 | -.233 |
| household size ≥ 5 | .219 | -.254 | -.080 | .910 |
| rented accommodation | -.197 | .706 | .042 | -.044 |
| crowding [b)] | -.375 | .906 | .172 | .052 |
| Eigenvalue | 3.39 | 1.82 | 1.51 | 1.40 |
| Proportion Variance | .308 | .166 | .137 | .127 |
| Cumulative Variance | .308 | .474 | .611 | .738 |

| HK Lands Department[e)] | centrality (reversed) | HK Lands Department[f)] | land use intensity |
|---|---|---|---|
| d. to clinics | .911 | floor area ratio | .998 |
| d. to hospitals | .752 | surface coverage ratio | .941 |
| d. to markets | .912 | open space ratio | -.999 |
| d. to supermarkets | .934 | net population density | .593 |
| d. to recreation centres | .905 | | |
| d. to parks | .853 | | |
| d. to restgardens | .766 | | |
| d. to sports grounds | .840 | | |
| Eigenvalue | 5.94 | Eivenvalue | 3.23 |
| Proportion Variance | .742 | Proportion Variance | .808 |

| Other variables from HK Census Department | |
|---|---|
| n'hood daily fluctuation [d)] | control variable (not used in factor analysis) |
| public housing [c)] | exposure of interest (not used in factor analysis) |

a) all variables transformed to z score of location quotient, except where noted • b) z score of absolute values • c) z score of log-transformed location quotient • d) defined as people not working in the same neighbourhood • e) all variables z score of log-transformed distance value • f) z scores of absolute values

**Table 3. Contextualisation of premature mortality by type of risk in Hong Kong (2005-2009) [a)]**

| | | FEMALE unadjust. | | | adjusted | | | MALE unadjusted | | | adjusted | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mean | lower | upper | mean | lower | upper | mean | lower | upper | mean | lower | upper |
| | **TYPE I PMR** | (n=1,873) | | | | | | (n=4,838) | | | | | |
| 1 | n'hood affluence | -.140 | -.241 | -.043 | -.234 | -.359 | -.106 | -.205 | -.315 | -.097 | -.283 | -.423 | -.140 |
| 2 | housing instability | .032 | -.045 | .110 | -.015 | -.139 | .110 | .071 | -.016 | .160 | .054 | -.099 | .211 |
| 3 | elderly residents | .115 | .018 | .211 | .099 | .008 | .189 | .046 | -.061 | .150 | -.003 | -.107 | .098 |
| 4 | social fragmentation | .100 | -.005 | .207 | .055 | -.062 | .173 | .079 | -.026 | .184 | .002 | -.115 | .119 |
| 5 | land use intensity | .127 | .007 | .249 | .054 | -.110 | .216 | .087 | -.032 | .209 | -.062 | -.255 | .129 |
| 6 | centrality | .207 | .083 | .332 | .146 | -.030 | .324 | .200 | .083 | .322 | .246 | .052 | .444 |
| 7 | n'hood daily fluctuation | -.036 | -.117 | .044 | .064 | -.048 | .178 | -.085 | -.174 | .003 | .059 | -.066 | .184 |
| 8 | public housing | .015 | -.048 | .079 | -.026 | -.116 | .065 | .021 | -.055 | .099 | -.107 | -.225 | .008 |
| 9 | Intercept | | | | -.100 | -.183 | -.021 | | | | -.152 | -.232 | -.074 |
| | **TYPE II PMR** | (n=22,777) | | | | | | (n=44,067) | | | | | |
| 1 | n'hood affluence | -.082 | -.139 | -.026 | -.129 | -.207 | -.051 | -.169 | -.246 | -.095 | -.183 | -.273 | -.092 |
| 2 | housing instability | .089 | .039 | .140 | .150 | .056 | .246 | .147 | .083 | .211 | .167 | .056 | .279 |
| 3 | elderly residents | .018 | -.042 | .077 | .003 | -.055 | .061 | .049 | -.027 | .125 | .018 | -.049 | .084 |
| 4 | social fragmentation | .047 | -.010 | .105 | .031 | -.031 | .093 | .031 | -.040 | .102 | -.021 | -.089 | .046 |
| 5 | land use intensity | .043 | -.020 | .109 | -.114 | -.224 | -.004 | .053 | -.028 | .138 | -.189 | -.316 | -.063 |
| 6 | centrality | .127 | .060 | .197 | .161 | .052 | .272 | .195 | .114 | .280 | .273 | .149 | .399 |
| 7 | n'hood daily fluctuation | -.038 | -.088 | .013 | .115 | .041 | .188 | -.118 | -.181 | -.056 | .064 | -.020 | .148 |
| 8 | public housing | .043 | -.002 | .089 | -.064 | -.133 | .005 | .088 | .028 | .149 | -.098 | -.182 | -.014 |
| 9 | Intercept | | | | -.115 | -.161 | -.070 | | | | -.160 | -.214 | -.108 |
| | **TYPE III PMR** | (n=2,380) | | | | | | (n=4,835) | | | | | |
| 1 | n'hood affluence | -.188 | -.289 | -.094 | -.328 | -.439 | -.216 | -.311 | -.411 | -.219 | -.404 | -.513 | -.293 |
| 2 | housing instability | .101 | .026 | .178 | .123 | .006 | .242 | .129 | .049 | .211 | .100 | -.020 | .222 |
| 3 | elderly residents | .133 | .043 | .223 | .078 | -.006 | .161 | .217 | .119 | .313 | .149 | .071 | .226 |
| 4 | social fragmentation | .128 | .030 | .227 | .066 | -.043 | .175 | .113 | .012 | .216 | .108 | .011 | .207 |
| 5 | land use intensity | .175 | .069 | .287 | .035 | -.112 | .182 | .070 | -.042 | .190 | -.025 | -.172 | .121 |
| 6 | centrality | .273 | .159 | .391 | .164 | .005 | .325 | .199 | .089 | .314 | .134 | -.012 | .281 |
| 7 | n'hood daily fluctuation | -.098 | -.176 | -.022 | .076 | -.026 | .178 | -.168 | -.249 | -.088 | .071 | -.027 | .169 |
| 8 | public housing | .006 | -.055 | .068 | -.140 | -.224 | -.056 | .092 | .021 | .163 | -.067 | -.156 | .021 |
| 9 | Intercept | | | | -.145 | -.223 | -.071 | | | | -.180 | -.246 | -.115 |
| | **model fits[b)]** TYPE I | ΔDIC= | -1.3 | ΔpD= | -18.8 | Var= | .685 | ΔDIC= | 3.1 | ΔpD= | -6.27 | Var= | .256 |
| | TYPE II | ΔDIC= | -2.8 | ΔpD= | -5.41 | Var= | .218 | ΔDIC= | 4.9 | ΔpD= | -6.0 | Var= | .350 |
| | TYPE III | ΔDIC= | -21.8 | ΔpD= | -28.4 | Var= | .756 | ΔDIC= | -6.5 | ΔpD= | -30.6 | Var= | .612 |

a) Authors' calculations based on data from Hong Kong Census & Statistics Department – Vital Events Register • b) Model fits were assessed by comparison to models without covariates (ΔDIC=DIC difference, ΔpD = difference of effective number of parameters) and estimation of variance accounted for (Var).