|  |
| --- |
| **Table S1: Adjusted≠ all- cause mortality hazards ratios** |
| **Study variable** | **HR (95%CI)** |
|  |  |
| **Demographic variables** |  |
| **Age, years [mean (±SD)]** | 1.051 (1.050-1.053) |
| **Male, %** | 1.11 (1.08-1.15) |
| **Jew, %** | 0.69 (0.65-0.73) |
|  |  |
| **Diagnosis year** |  |
| **1995-1997 (reference)** | 1 |
| **1998-2000** | 1.03 (0.98-1.08) |
| **2001-2003** | 0.92 (0.88-0.97) |
| **2004-2006** | 0.91 (0.86-0.95) |
| **2007-2009** |  0.87 (0.83-0.92) |
| ≠Adjusted for age, sex, ethnicity and districts. |  |
|  |  |
|  **Table S2: Age adjusted mortality rates, stratified to year of diagnosis.** |
| **Variables** | **1995-1997** | **1998-2000** | **2001-2003** | **2004-2006** | **2007-2009** |
| **N** | 4,466 | 5,063 | 5,313 | 5,596 | 5,735 |
| ***Metropolises*** |  |  |  |  |  |
| **Jerusalem** | 0.697 | 0.626 | 0.598 | 0.504 | 0.363 |
| **Tel Aviv** | 0.677 | 0.627 | 0.539 | 0.483 | 0.412 |
| **Haifa** | 0.660 | 0.629 | 0.564 | 0.500 | 0.387 |
| **BeerSheva** | 0.714 | 0.673 | 0.556 | 0.508 | 0.471 |
| ***Center*** |  |  |  |  |  |
| **Rehovot** | 0.661 | 0.627 | 0.550 | 0.469 | 0.358 |
| **Hasharon** | 0.700 | 0.646 | 0.579 | 0.590 | 0.375 |
| **Petach Tikva** | 0.648 | 0.632 | 0.551 | 0.469 | 0.400 |
| **Ramla** | 0.722 | 0.653 | 0.613 | 0.526 | 0.517 |
| ***South*** |  |  |  |  |  |
| **Ashkelon** | 0.749 | 0.695 | 0.602 | 0.559 | 0.435 |
| ***North*** |  |  |  |  |  |
| **Hadera** | 0.748 | 0.706 | 0.615 | 0.529 | 0.481 |
| **Akko** | 0.704 | 0.701 | 0.628 | 0.547 | 0.438 |
| **Izrael** | 0.715 | 0.671 | 0.645 | 0.531 | 0.481 |
| **Tzfat** | 0.725 | 0.635 | 0.584 | 0.563 | 0.495 |
| **Kineret** | 0.704 | 0.723 | 0.605 | 0.472 | 0.539 |

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| **Table S3: Adjusted≠ all- cause mortality hazards ratios, stratified to year of diagnosis.** |
| **Variables** | **All** | **1995-1997** | **1998-2000** | **2001-2003** | **2004-2006** | **2007-2009** |
| **N** | 26,173 | 4,466 | 5,063 | 5,313 | 5,596 | 5,735 |
|  |  |  |  |  |  |  |
| **Age (per year)** | 1.052\*\*\* | 1.055\*\*\* | 1.050\*\*\* | 1.051\*\*\* | 1.051\*\*\* | 1.051\*\*\* |
| **Sex (male)** | 1.11\*\*\* | 1.16\*\*\* | 1.16\*\*\* | 1.16\*\*\* | 1.05 | 1.03 |
| **Ethnicity (Jew)** | 1.76\*\*\* | 0.70\*\*\* | 0.82\*\* | 0.75\*\*\* | 0.76\*\*\* | 0.74\*\*\* |
| **Residential socio-economic position €** | 0.96\*\*\* | 0.97\* | 0.97\* | 0.96\*\* | 0.96\*\* | 0.95\*\*\* |
| **Districts** | 13 df±(p<0.001) | 13 df±p=0.7 | 13 df±p=0.3 | 13 df±p=0.9 | 13 df±p=0.3 | 13 df±(p<0.001) |
| ***Metropolises*** |  |  |  |  |  |  |
| **Jerusalem** | 1 | 1 | 1 | 1 | 1 | 1 |
| **Tel Aviv** | 1.19\*\*\* | 1.09 | 1.05 | 0.98 | 1.11 | 1.45\*\*\* |
| **Haifa** | 1.17\*\* | 0.98 | 0.99 | 0.97 | 1.16 | 1.20\* |
| **BeerSheva** | 1.23\*\*\* | 1.19 | 1.21\* | 0.96 | 1.23\* | 1.65\*\*\* |
| ***Center*** |  |  |  |  |  |  |
| **Rehovot** | 1.13\*\* | 1.03 | 1.11 | 1.00 | 1.11 | 1.19 |
| **Hasharon** | 1.11\* | 1.11 | 1.00 | 0.86 | 1.37\*\* | 1.12 |
| **Petach Tikva** | 1.20\*\* | 1.07 | 1.05 | 1.00 | 1.08 | 1.40\*\* |
| **Ramla** | 1.09 | 1.11 | 1.05 | 1.12 | 1.20 | 1.59\*\* |
| ***South*** |  |  |  |  |  |  |
| **Ashkelon** | 1.19\*\*\* | 1.18 | 1.17 | 1.04 | 1.29\*\* | 1.24\* |
| ***North*** |  |  |  |  |  |  |
| **Hadera** | 1.08 | 1.14 | 1.16 | 0.98 | 1.17 | 1.49\*\* |
| **Akko** | 1.06 | 1.03 | 1.24 | 0.99 | 1.19 | 1.18 |
| **Izrael** | 1.12\* | 1.10 | 1.05 | 1.03 | 1.13 | 1.28\* |
| **Tzfat** | 1.01 | 0.91 | 0.90 | 0.77 | 1.08 | 1.53\* |
| **Kineret** | 1.19 | 1.09 | 1.29 | 1.02 | 1.09 | 1.38 |
| ≠Adjusted for age, sex, ethnicity and districts.\*p<0.05 \*\*p<0.01 \*\*\*p<0.0001± degree of freedom€ based on the town/city of residence, according to a national classification of 10 clusters by geographical units |

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| **Table S4: Adjusted≠ all- cause mortality hazards ratios, stratified to year of diagnosis, including screening associated cancers.** |
| **Variables** | **All** | **1995-1997** | **1998-2000** | **2001-2003** | **2004-2006** | **2007-2009** |
| **N** | 44,878 | 7,673 | 8,680 | 9,028 | 9,501 | 9,996 |
|  |  |  |  |  |  |  |
| **Age (per year)** | 1.055 (1.054-1.056)\*\*\* | 1.055 (1.052-1.057)\*\*\* | 1.053 (1.051-1.056)\*\*\* | 1.053 (1.051-1.056)\*\*\* | 1.054 (1.051-1.057)\*\*\* | 1.060 (1.057-1.063)\*\*\* |
| **Sex (male)** | 1.12 (1.09-1.15)\*\*\* | 1.16 (1.01-1.23)\*\*\* | 1.24 (1.17-1.31)\*\*\* | 1.13 (1.07-1.12)\*\*\* | 1.04 (0.98-1.11) | 1.03 (0.96-1.10) |
| **Ethnicity (Jew )** | 0.71 (0.68-0.75)\*\*\* | 0.70 (0.62-0.78)\*\*\* | 0.74 (0.66-0.83)\*\*\* | 0.67 (0.60-0.75)\*\*\* | 0.70 (0.93-0.79)\*\*\* | 0.71 (0.62-0.80)\*\*\* |
| **Districts** | 13 df±(p<0.001) | 13 df±(p=0.001) | 13 df±(p=0.001) | 13 df±(p=0.001) | 13 df±(p=0.001) | 13 df±(p<0.001) |
| ***Metropolises*** |  |  |  |  |  |  |
| **Jerusalem** | 1  | 1 | 1 | 1 | 1 | 1 |
| **Tel Aviv** | 1.02 (0.97-1.08) | 0.95 (0.85-1.06) | 1.00 (0.89-1.11) | 0.96 (0.85-1.08) | 1.02 (0.90-1.14) | 1.21 (1.05-1.38)\*\* |
| **Haifa** | 1.03 (0.97-1.09) | 0.94 (0.83-1.06) | 1.00 (0.89-1.14) | 1.00 (0.88-1.14) | 1.11 (0.98-1.26) | 1.01 (0.94-1.28) |
| **BeerSheva** | 1.21 (1.12-1.30)\*\*\* | 1.17 (1.00-1.37) | 1.12 (1.03-1.34)\* | 1.06 (0.90-1.25) | 1.18 (1.00-1.39)\* | 1.53 (1.27-1.83)\*\*\* |
| ***Center*** |  |  |  |  |  |  |
| **Rehovot** | 1.01 (0.95-1..09) | 1.04 (0.90-1.21) | 1.03 (0.89-1.12) | 0.98 (0.84-1.14) | 0.95 (0.81-1.11) | 1.06 (0.88-1.27) |
| **Hasharon** | 1.06 (0.98-1.15) | 0.95 (0.81-1.12) | 1.09 (0.93-1.29) | 0.97 (0.81-0.16) | 1.13 (0.95-1.35) | 1.16 (0.95-1.42) |
| **Petach Tikva** | 1.04 (0.97-1.11) | 0.97 (0.84-1.12) | 1.08 (0.94-1.24) | 1.03 (0.90-1.19) | 1.00 (0.86-1.17) | 1.09 (0.92-1.30) |
| **Ramla** | 1.31 (1.12-1.45)\*\*\* | 1.25 (1.02-1.53)\* | 1.12 (0.97-1.48) | 1.29 (1.06-1.57)\* | 1.39 (1.12-1.73)\*\* | 1.44 (1.12-1.84)\*\* |
| ***South*** |  |  |  |  |  |  |
| **Ashkelon** | 1.24 (1.16-1.33)\*\*\* | 1.26 (1.08-1.46)\*\* | 1.20 (1.04-1.34)\* | 1.25 (1.08-1.46)\*\* | 1.24 (1.06-1.45)\*\* | 1.24 (1.03-1.49)\* |
| ***North*** |  |  |  |  |  |  |
| **Hadera** | 1.21 (1.11-1.32)\*\*\* | 1.17 (0.97-1.42) | 1.32 (1.09-1.58) \*\* | 1.10 (0.91-1.32) | 1.20 (0.99-1.47) | 1.26 (1.02-1.59)\* |
| **Akko** | 1.16 (1.08-1.26)\*\*\* | 1.04 (0.88-1.22) | 1.17 (1.00-1.37) | 1.18 (0.99-1.39) | 1.24 (1.05-1.47)\* | 1.19 (0.98-1.44) |
| **Izrael** | 1.22 (1.13-1.33)\*\*\* | 1.22 (1.02-1.45)\* | 1.13 (0.94-1.34) | 1.17 (0.98-1.39) | 1.15 (0.96-1.38) | 1.54 (1.26-1.88)\*\*\* |
| **Tzfat** | 1.08 (0.93-1.25) | 1.00 (0.72-1.38) | 1.21 (0.89-1.66) | 0.92 (0.67-1.27) | 1.00 (0.71-1.42) | 1.34 (0.93-1.94) |
| **Kineret** | 1.30 (1.13-1.51)\*\*\* | 1.22 (0.86-1.74) | 1.38 (1.04-1.82)\* | 1.12 (0.83-1.73) | 1.26 (0.93-1.72) | 1.45 (1.04-2.03)\* |
| ≠Adjusted for age, sex, ethnicity and districts.\*p<0.05 \*\*p<0.01 \*\*\*p<0.0001± degree of freedom |

**Table S5: Adjusted≠ all-cause mortality hazards ratios**

|  |  |  |
| --- | --- | --- |
| **Study variable** | **HR** | **(95% CI)** |
|  |  |  |
| **Demographic variables** |  |  |
| Age, years [mean (±SD)] | 1.051 | (1.050-1.053) |
| Male, % | 1.11 | (1.08-1.15) |
| Jew, % | 0.69 | (0.65-0.73) |
|  |  |  |
| **Diagnosis years** |  |  |
| 1995-1997 (reference) | 1 |  |
| 1998-2000 | 1.03 | (0.98-1.08) |
| 2001-2003 | 0.92 | (0.88-0.97) |
| 2004-2006  | 0.91 | (0.86-0.95) |
| 2007-2009  | 0.87 | (0.83-0.92) |
|  |  |  |
| **Districts**  |  |  |
| Jerusalem (reference) | 1 |  |
| Tzfat | 0.93 | (0.60-1.44) |
| Kineret | 1.1 | (0.69-1.76) |
| Izrael | 1.12 | (0.90-1.40) |
| Akko | 1.05 | (0.85-1.29) |
| Haifa | 0.94 | (0.80-1.10) |
| Hadera | 1.13 | (0.89-1.44) |
| Hasharon | 1.08 | (0.88-1.34) |
| Petach-Tikvah | 0.98 | (0.82-1.17) |
| Ramla | 1.14 | (0.88-1.47) |
| Rehovot | 0.96 | (0.80-1.16) |
| Tel-Aviv | 1.01 | (0.88-1.17) |
| Ashkelon | 1.21\* | (1.00-1.45) |
| Beer-Sheva | 1.19 | (0.98-1.45) |
| **Districts \* year** |  |
| Jerusalem\*1998-2000 (reference) | 1 |  |
| Tzfat\*1998-2000 | 1.01 | (0.56-1.83) |
| Kineret\*1998-2000 | 1.19 | (0.68-2.10) |
| Izrael\*1998-2000 | 0.94 | (0.69-1.29) |
| Akko\*1998-2000 | 1.18 | (0.90-1.56) |
| Haifa\*1998-2000 | 1.03 | (0.83-1.27) |
| Hadera\*1998-2000 | 1.01 | (0.73-1.41) |
| Hasharon\*1998-2000 | 0.91 | (0.68-1.22) |
| Petach-Tikvah\*1998-2000 | 1.03 | (0.80-1.31) |
| Ramla\*1998-2000 | 0.97 | (0.67-1.39) |
| Rehovot\*1998-2000 | 1.11 | (0.86-1.44) |
| Tel-Aviv\*1998-2000 | 0.99 | (0.81-1.20) |
| Ashkelon\*1998-2000 | 1.02 | (0.79-1.31) |
| Beer-Sheva\*1998-2000 | 1.04 | (0.80-1.36) |
| Jerusalem\*2001-2003 (reference) | 1 |  |
| Tzfat\*2001-2003 | 0.85 | (0.47-1.54) |
| Kineret\*2001-2003 | 0.97 | (0.51-1.82) |
| Izrael\*2001-2003 | 0.95 | (0.70-1.29) |
| Akko\*2001-2003 | 0.97 | (0.74-1.29) |
| Haifa\*2001-2003 | 0.97 | (0.78-1.20) |
| Hadera\*2001-2003 | 0.86 | (0.62-1.19) |
| Hasharon\*2001-2003 | 0.77 | (0.57-1.03) |
| Petach-Tikvah\*2001-2003 | 0.91 | (0.71-1.17) |
| Ramla\*2001-2003 | 1.03 | (0.73-1.46) |
| Rehovot\*2001-2003 | 0.95 | (0.73-1.24) |
| Tel-Aviv\*2001-2003 | 0.87 | (0.72-1.06) |
| Ashkelon\*2001-2003 | 0.90 | (0.70-1.17) |
| Beer-Sheva\*2001-2003 | 0.81 | (0.62-1.07) |
| Jerusalem\*2004-2006 (reference) | 1 |  |
| Tzfat\*2004-2006 | 1.20 | (0.66-2.18) |
| Kineret\*2004-2006 | 1.02 | (0.55-1.87) |
| Izrael\*2004-2006 | 1.04 | (0.76-1.41) |
| Akko\*2004-2006 | 1.17 | (0.88-1.54) |
| Haifa\*2004-2006 | 1.16 | (0.94-1.44) |
| Hadera\*2004-2006 | 1.03 | (0.73-1.43) |
| Hasharon\*2004-2006 | 1.23 | (0.92-1.64) |
| Petach-Tikvah\*2004-2006 | 1.00 | (0.78-1.29) |
| Ramla\*2004-2006 | 1.11 | (0.77-1.59) |
| Rehovot\*2004-2006 | 1.06 | (0.81-1.37) |
| Tel-Aviv\*2004-2006 | 1 | (0.82-1.21) |
| Ashkelon\*2004-2006 | 1.12 | (0.86-1.45) |
| Beer-Sheva\*2004-2006 | 1.05 | (0.80-1.38) |
| Jerusalem\*1998-2000 (reference) | 1.00 |  |
| Tzfat\*2007-2009 | 1.69 | (0.94-3.04) |
| Kineret\*2007-2009 | 1.33 | (0.73-2.43) |
| Izrael\*2007-2009 | 1.20 | (0.87-1.66) |
| Akko\*2007-2009 | 1.16 | (0.87-1.56) |
| Haifa\*2007-2009 | 1.19 | (0.95-1.51) |
| Hadera\*2007-2009 | 1.31 | (0.93-1.85) |
| Hasharon\*2007-2009 | 1.00 | (0.73-1.37) |
| Petach-Tikvah\*2007-2009 | 1.25 | (0.96-1.62) |
| Ramla\*2007-2009 | 1.47\* | (1.00-2.15) |
| Rehovot\*2007-2009 | 1.09 | (0.83-1.45) |
| Tel-Aviv\*2007-2009 | 1.26\* | (1.02-1.56) |
| Ashkelon\*2007-2009 | 1.08 | (0.82-1.43) |
| Beer-Sheva\*2007-2009 | 1.42\* | (1.07-1.88) |

≠Adjusted for age, sex, ethnicity districts and districts\*year.

\*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001.

**Table S6: Adjusted≠ all-cause mortality hazards ratios**

|  |  |  |
| --- | --- | --- |
| **Study variable** | **HR** | **(95% CI )** |
|  |  |  |
| **Sex (male)** | 1.11\*\*\* | (1.08-1.15) |
| **Ethnicity (Jew)** | 0.72\*\*\* | (0.67-0.76) |
| **Age (per year)** | 1.05\*\*\* | (1.05-1.05) |
|  |  |  |
| Jerusalem \* 1995-1997 (reference) | 1 |  |
| Jerusalem \* 1998-2000 | 1.01 | (0.85-1.21) |
| Jerusalem \* 2001-2003 | 1.01 | (0.85-1.21) |
| Jerusalem\* 2004-2006 | 0.86 | (0.72-1.02) |
| Jerusalem \* 2007-2009 | 0.73\*\* | (0.60-0.88) |
| Tzfat \* 1995-1997  | 0.93 | (0.60-1.44) |
| Tzfat \* 1998-2000 | 0.96 | (0.64-1.43) |
| Tzfat \* 2001-2003 | 0.80 | (0.54-1.20) |
| Tzfat \* 2004-2006 | 0.96 | (0.64-1.44) |
| Tzfat \* 2007-2009 | 1.14 | (0.77-1.69) |
| Kineret \* 1995-1997 | 1.10 | (0.69-1.76) |
| Kineret \* 1998-2000 | 1.33 | (0.96-1.85) |
| Kineret \* 2001-2003 | 1.08 | (0.70-1.65) |
| Kineret \* 2004-2006 | 0.96 | (0.65-1.42) |
| Kineret \* 2007-2009 | 1.07 | (0.73-1.55) |
| Izrae l\* 1995-1997 | 1.12 | (0.90-1.34) |
| Izrael \* 1998-2000 | 1.07 | (0.86-1.33) |
| Izrael \* 2001-2003 | 1.08 | (0.87-1.34) |
| Izrael \* 2004-2006 | 0.99 | (0.79-1.24) |
| Izrael \* 2007-2009 | 0.98 | (0.78-1.23) |
| Akko \* 1995-1997 | 1.05 | (0.85-1.29) |
| Akko \* 1998-2000 | 1.26\* | (1.04-1.52) |
| Akko \* 2001-2003 | 1.03 | (0.85-1.25) |
| Akko \* 2004-2006 | 1.05 | (0.86-1.27) |
| Akko \* 2007-2009 | 0.88 | (0.72-1.08) |
| Haifa \* 1995-1997 | 0.94 | (0.80-1.10) |
| Haifa \* 1998-2000 | 0.98 | (0.84-1.14) |
| Haifa \* 2001-2003 | 0.92 | (0.79-1.09) |
| Haifa \* 2004-2006 | 0.93 | (0.80-1.09) |
| Haifa \* 2007-2009 | 0.81\* | (0.69-0.96) |
| Hadera \* 1995-1997 | 1.13 | (0.89-1.44) |
| Hadera \* 1998-2000 | 1.16 | (0.92-1.47) |
| Hadera \* 2001-2003 | 0.99 | (0.79-1.24) |
| Hadera \* 2004-2006 | 0.99 | (0.78-1.26) |
| Hadera \* 2007-2009 | 1.08 | (0.85-1.37) |
| Hasharon \* 1995-1997 | 1.08 | (0.88-1.34) |
| Hasharon \* 1998-2000 | 1.00 | (0.81-1.23) |
| Hasharon \* 2001-2003 | 0.84 | (0.68-1.04) |
| Hasharon \* 2004-2006 | 1.14 | (0.92-1.34) |
| Hasharon \* 2007-2009 | 0.79\* | (0.62-0.99) |
| Petach-Tikvah \* 1995-1997 | 0.98 | (0.82-1.17) |
| Petach-Tikvah \* 1998-2000 | 1.02 | (0.85-1.21) |
| Petach-Tikvah \* 2001-2003 | 0.90 | (0.76-1.08) |
| Petach-Tikvah \* 2004-2006 | 0.84 | (0.70-1.01) |
| Petach-Tikvah \* 2007-2009 | 0.88 | (0.73-1.07) |
| Ramla \* 1995-1997 | 1.14 | (0.88-1.47) |
| Ramla \* 1998-2000 | 1.11 | (0.86-1.44) |
| Ramla \* 2001-2003 | 1.19 | (0.94-1.50) |
| Ramla \* 2004-2006 | 1.08 | (0.84-1.39) |
| Ramla \* 2007-2009 | 1.21 | (0.92-1.59) |
| Rehovot \* 1995-1997 | 0.96 | (0.80-1.16) |
| Rehovot \* 1998-2000 | 1.08 | (0.90-1.29) |
| Rehovot \* 2001-2003 | 0.92 | (0.76-1.12) |
| Rehovot \* 2004-2006 | 0.87 | (0.72-1.05) |
| Rehovot \* 2007-2009 | 0.76\*\* | (0.63-0.93) |
| Tel-Aviv \* 1995-1997 | 1.01 | (0.88-1.17) |
| Tel-Aviv \* 1998-2000 | 1.01 | (0.88-1.17) |
| Tel-Aviv \* 2001-2003 | 0.89 | (0.77-1.03) |
| Tel-Aviv \* 2004-2006 | 0.86\* | (0.75-0.99) |
| Tel-Aviv \* 2007-2009 | 0.93 | (0.80-1.08) |
| Ashkelon \* 1995-1997 | 1.21\* | (1.00-1.45) |
| Ashkelon \* 1998-2000 | 1.24\* | (1.04-1.49) |
| Ashkelon \* 2001-2003 | 1.11 | (0.92-1.33) |
| Ashkelon \* 2004-2006 | 1.16 | (0.96-1.40) |
| Ashkelon \* 2007-2009 | 0.95 | (0.78-1.16) |
| Beer-Sheva \* 1995-1997 | 1.19 | (0.98-1.45) |
| Beer-Sheva \* 1998-2000 | 1.26\* | (1.04-1.52) |
| Beer-Sheva \* 2001-2003 | 0.98 | (0.81-1.20) |
| Beer-Sheva \* 2004-2006 | 1.07 | (0.88-1.31) |
| Beer-Sheva \* 2007-2009 | 1.23\* | (1.01-1.49) |

≠Adjusted for age, sex, ethnicity districts and districts\*year.

\*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001.