

Supplementary material to  
*A Family Affair? Long-term Economic and Mental  
Health Effects of Spousal Cancer*

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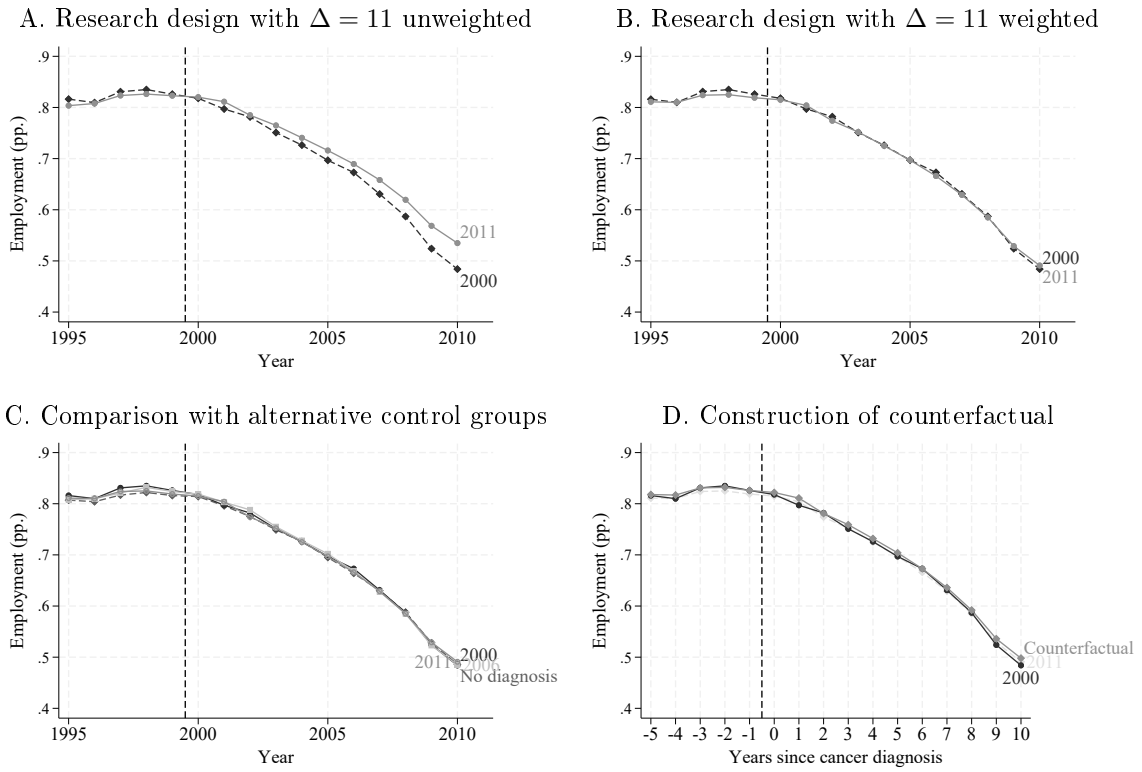
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**Figure A1:** Illustrations of the FN DiD design showing the probability of being employed. Panel A compares the treatment group to similar cohorts who experienced a cancer diagnosis 11 years later. Panel B includes the behavior of households that experienced the same shock but in different years, alongside matched controls without any cancer diagnosis. Panel C illustrates the construction of the counterfactual, based on the differences in outcomes before the onset of cancer. Outcomes for potential control groups are weighted according to the age-sex distribution of the treatment group.

## A1 Comparison of different event study estimators

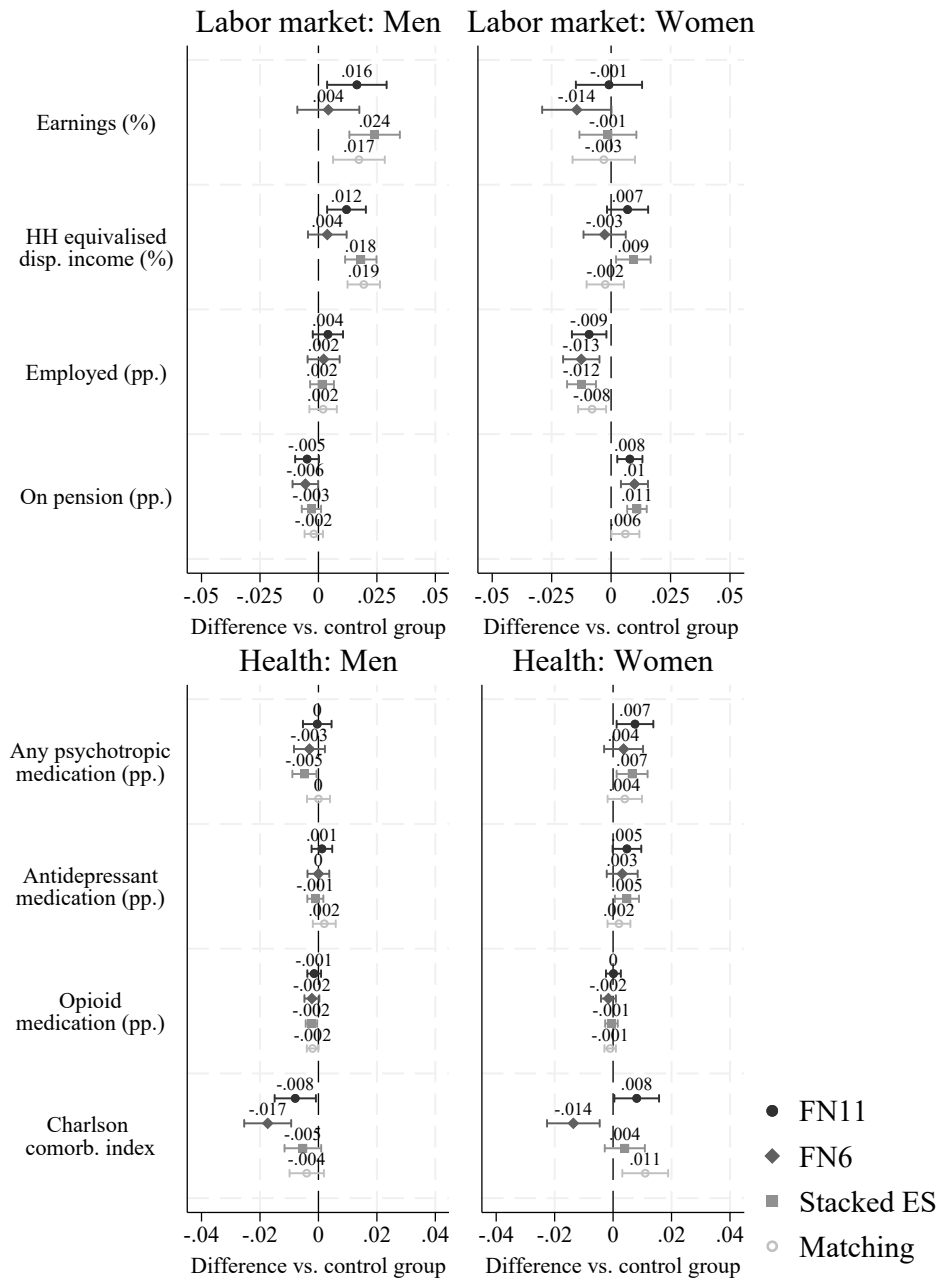
In this appendix, we evaluate different event study designs, focusing on their treatment selection and point estimates.

Key to our analysis is ensuring that the control group is a viable counterfactual for the treatment group. In Figure A2, we assessed pre-event health metrics such as drug purchases and Charlson comorbidity index using hospital data from 1996 until the year before the index diagnosis. Despite some statistically significant differences between the groups in these pre-event indicators, their overall impact is minor. Additionally, using a variety of difference-in-difference approaches, we found no substantial differences in baseline characteristics across these methods, including our preferred approach. Surprisingly, a shorter cancer diagnosis timeframe (6 years vs. 11 years) did not yield smaller baseline differences. The stacked event study design, using all potential controls from later-treated groups and ensuring at least a 10-year effect window, resulted in more pronounced differences between treatment and control groups. Matching based on birth year and sex also led to larger differences in baseline characteristics than our preferred strategy. We did not perform matching regarding pre-cancer levels of outcomes as this may introduce bias when using unit fixed effects in differences-in-differences models (??).

Previously, the standard for dynamic difference-in-differences with staggered treatment was the two-way fixed effects (TWFE) specification. However, recent studies (??) have criticized this method for potentially assigning non-intuitive weights to treated units, leading to biased estimates. The TWFE method uses earlier-treated units as controls, which can bias estimates if units treated at different times show varied effects. Alternatives like the stacked event study (?), imputation estimator (?), Callaway & Sant’Anna estimator (?), and Sun & Abraham estimator (?) have been proposed, each differing in assumptions and control group construction.

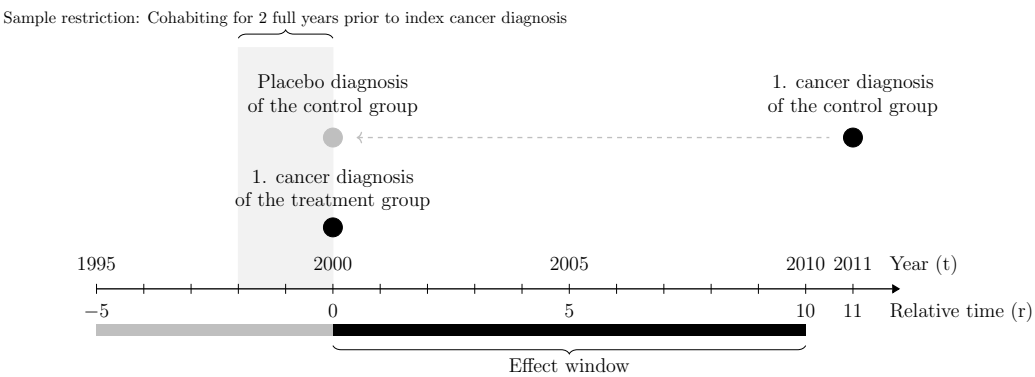
We opted for the stacked event study design due to its suitability in our context, where we include spouses with at least two years of cohabitation prior to the index diagnosis. While treated spouses are clearly identified, control individuals require a distinct index diagnosis year for spouse identification. In this design, we construct event year-specific datasets, like the year 2000 dataset, where the treatment group consists of spouses of patients diagnosed in 2000, and the control group includes spouses of patients diagnosed between 2011 and 2020, based on the 1998-1999 cohabitation criterion. Similarly, for the 2003 cohort, control groups are determined based on diagnoses between 2014 and 2020, with a focus on 2001-2002 for cohabitation. As index years shift, so do the inclusion criteria, leading to different spouse pairings in control groups. Our approach aligns more naturally with the stacked event study design than with the methods in ? and ?, which do not use dataset stacking.

**Figure A2:** Baseline differences between the treatment and control groups when adjusting for birth year and age.

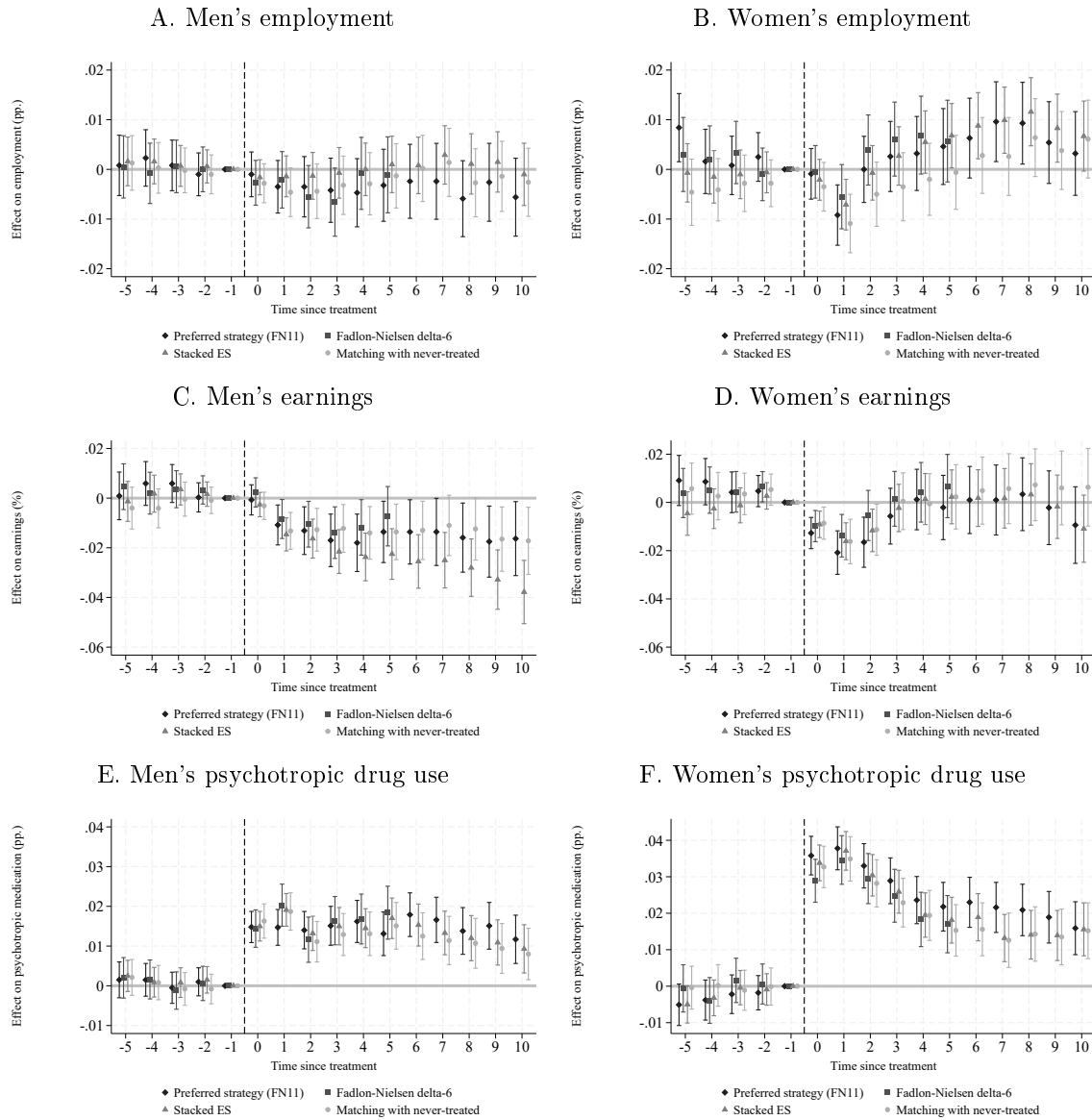


Note: These figures illustrate baseline differences in economic and health characteristics between the treatment and control groups, adjusted for when for birth year and age, using different event study designs. Differences in earnings and household equivalized disposable income are scaled to the mean value of the control group. We contrast the comparisons from this study, which employs Fadlon-Nielsen DiD approach with diagnosis distance with  $\Delta=11$ , against the Fadlon-Nielsen DiD approach with  $\Delta=6$  (a five-year effect window), the stacked event study approach, and matching with households that were never treated.

Figure A3: Data construction and sample inclusion criteria



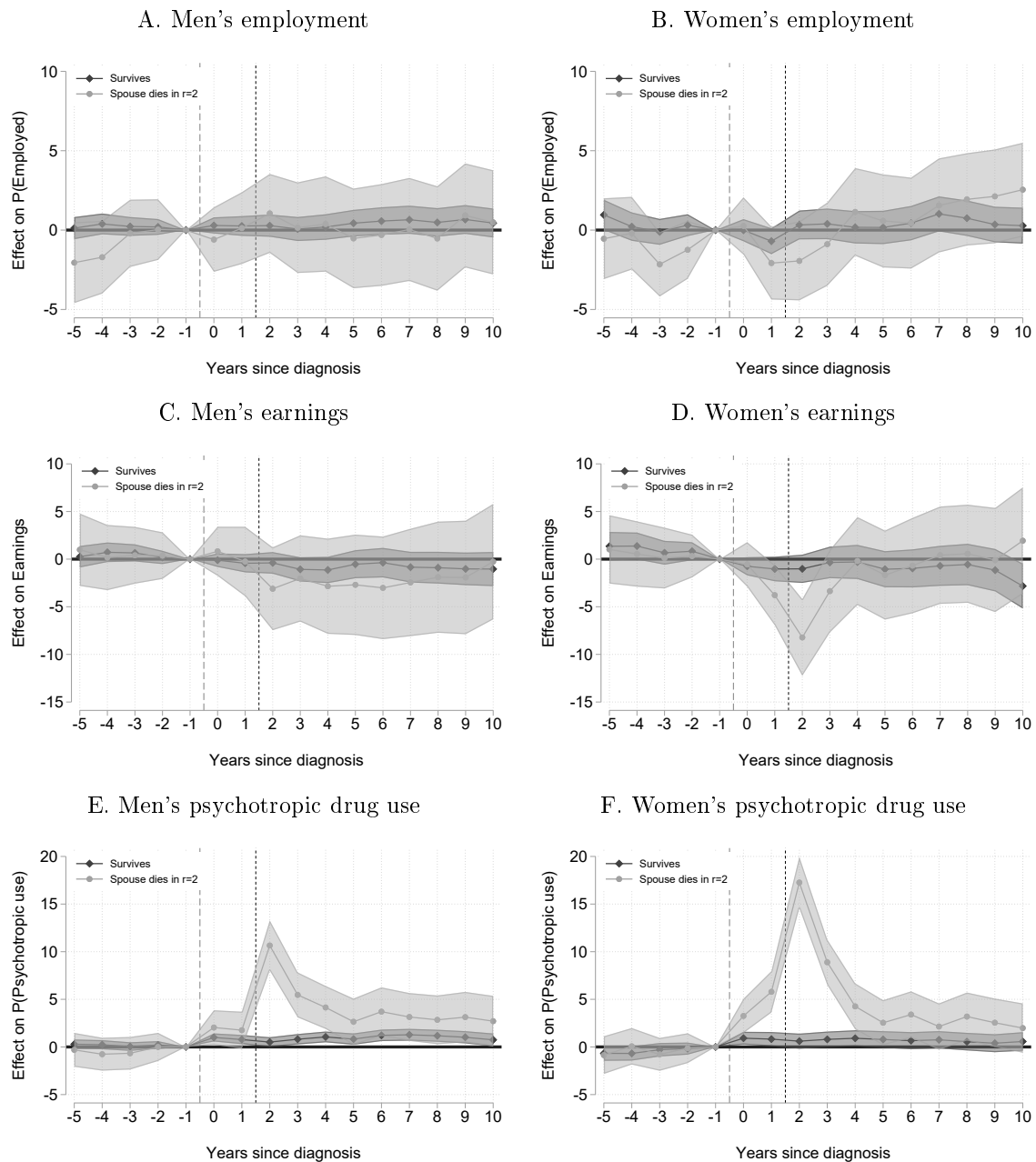
**Figure A4:** Robustness of main event study results using different approaches



Note: These figures illustrate the impacts of a spouse's cancer diagnosis using different event study approaches. We compare the results from this study, which utilizes the Fadlon-Nielsen approach with a diagnosis distance of  $\Delta=11$ , against those obtained using the Fadlon-Nielsen approach with  $\Delta=6$  (a five-year effect window), the stacked event study approach (see, for example, ?), and matching with households that were never treated.

## A2 Dynamic effects of non-fatal and fatal health shocks on labor supply and psychotropic drug use

**Figure A5:** Visualization of outcomes by survival when death of a spouse occurs at period  $r=2$



Note: These figures illustrate the dynamics surrounding two significant health events of the spouse: cancer diagnosis and death. The event study analysis is conducted using the main event study specification, applied separately for individuals whose spouse survives cancer (remaining alive 10 years post-diagnosis) and for those whose spouse dies exactly two years after the initial cancer diagnosis. The control group remains the same for both analyses.

Table A1: Socioeconomic effects of spousal cancer: Men

| Years since diagnosis       | Earnings (%)        | HH Annual income (%) | HH Disposable income (%) | Eq. disposable income (%) | P(employed)         | P(pension)          | P(marriage)         | P(Owner-occupier)   |
|-----------------------------|---------------------|----------------------|--------------------------|---------------------------|---------------------|---------------------|---------------------|---------------------|
| -5                          | 0.0009<br>[0.0049]  | -0.0025<br>[0.0027]  | -0.0048<br>[0.0029]      | -0.0061<br>[0.0027]       | 0.0008<br>[0.0031]  | -0.0023<br>[0.0022] | 0.0044<br>[0.0019]  | 0.0001<br>[0.0025]  |
| -4                          | 0.0059<br>[0.0045]  | 0.0012<br>[0.0025]   | 0.0005<br>[0.0027]       | -0.0009<br>[0.0025]       | 0.0023<br>[0.0029]  | -0.0008<br>[0.0021] | 0.0030<br>[0.0016]  | 0.0031<br>[0.0023]  |
| -3                          | 0.0059<br>[0.0039]  | 0.0002<br>[0.0022]   | -0.0001<br>[0.0024]      | 0.0000<br>[0.0023]        | 0.0008<br>[0.0026]  | -0.0004<br>[0.0018] | 0.0020<br>[0.0012]  | 0.0008<br>[0.0019]  |
| -2                          | 0.0003<br>[0.0030]  | 0.0009<br>[0.0018]   | -0.0004<br>[0.0021]      | -0.0005<br>[0.0020]       | -0.0010<br>[0.0022] | 0.0023<br>[0.0014]  | 0.0019<br>[0.0007]  | 0.0016<br>[0.0015]  |
| -1                          | 0.0000<br>[.]       | 0.0000<br>[.]        | 0.0000<br>[.]            | 0.0000<br>[.]             | 0.0000<br>[.]       | 0.0000<br>[.]       | 0.0000<br>[.]       | 0.0000<br>[.]       |
| 0                           | -0.0007<br>[0.0031] | -0.0229<br>[0.0019]  | -0.0201<br>[0.0022]      | -0.0106<br>[0.0021]       | -0.0010<br>[0.0023] | 0.0006<br>[0.0016]  | 0.0015<br>[0.0010]  | -0.0027<br>[0.0015] |
| 1                           | -0.0108<br>[0.0041] | -0.0436<br>[0.0023]  | -0.0356<br>[0.0026]      | -0.0113<br>[0.0025]       | -0.0035<br>[0.0027] | 0.0018<br>[0.0022]  | 0.0026<br>[0.0015]  | -0.0028<br>[0.0018] |
| 2                           | -0.0131<br>[0.0049] | -0.0504<br>[0.0027]  | -0.0459<br>[0.0028]      | -0.0153<br>[0.0027]       | -0.0035<br>[0.0031] | 0.0045<br>[0.0025]  | 0.0011<br>[0.0019]  | -0.0055<br>[0.0021] |
| 3                           | -0.0170<br>[0.0054] | -0.0523<br>[0.0029]  | -0.0492<br>[0.0030]      | -0.0177<br>[0.0029]       | -0.0042<br>[0.0033] | 0.0041<br>[0.0028]  | 0.0014<br>[0.0021]  | -0.0047<br>[0.0023] |
| 4                           | -0.0180<br>[0.0059] | -0.0561<br>[0.0031]  | -0.0520<br>[0.0032]      | -0.0169<br>[0.0031]       | -0.0047<br>[0.0035] | 0.0027<br>[0.0030]  | 0.0004<br>[0.0023]  | -0.0055<br>[0.0024] |
| 5                           | -0.0136<br>[0.0063] | -0.0571<br>[0.0032]  | -0.0557<br>[0.0033]      | -0.0180<br>[0.0032]       | -0.0032<br>[0.0037] | 0.0036<br>[0.0031]  | 0.0010<br>[0.0024]  | -0.0056<br>[0.0025] |
| 6                           | -0.0136<br>[0.0066] | -0.0579<br>[0.0033]  | -0.0566<br>[0.0034]      | -0.0195<br>[0.0033]       | -0.0024<br>[0.0038] | 0.0014<br>[0.0032]  | -0.0009<br>[0.0026] | -0.0052<br>[0.0026] |
| 7                           | -0.0136<br>[0.0069] | -0.0563<br>[0.0034]  | -0.0539<br>[0.0035]      | -0.0156<br>[0.0034]       | -0.0024<br>[0.0039] | 0.0014<br>[0.0033]  | 0.0006<br>[0.0027]  | -0.0059<br>[0.0027] |
| 8                           | -0.0159<br>[0.0071] | -0.0584<br>[0.0035]  | -0.0580<br>[0.0035]      | -0.0212<br>[0.0035]       | -0.0059<br>[0.0039] | 0.0019<br>[0.0033]  | -0.0002<br>[0.0028] | -0.0060<br>[0.0027] |
| 9                           | -0.0175<br>[0.0073] | -0.0576<br>[0.0035]  | -0.0583<br>[0.0036]      | -0.0194<br>[0.0036]       | -0.0026<br>[0.0040] | 0.0002<br>[0.0033]  | 0.0006<br>[0.0029]  | -0.0059<br>[0.0028] |
| 10                          | -0.0163<br>[0.0076] | -0.0583<br>[0.0036]  | -0.0591<br>[0.0037]      | -0.0214<br>[0.0036]       | -0.0056<br>[0.0040] | 0.0024<br>[0.0034]  | -0.0010<br>[0.0029] | -0.0077<br>[0.0029] |
| Obs                         | 924592              | 921780               | 921780                   | 921780                    | 924592              | 924592              | 827113              | 924592              |
| N                           | 57787               | 57784                | 57784                    | 57784                     | 57787               | 57787               | 51837               | 57787               |
| DD-estimate                 | -0.0169<br>[0.0049] | -0.051<br>[0.0024]   | -0.0482<br>[0.0023]      | -0.0144<br>[0.0023]       | -0.0045<br>[0.0024] | 0.003<br>[0.0021]   | 0.0014<br>[0.0021]  | -0.0052<br>[0.002]  |
| Pre-shock period joint test | 0.1802              | 0.3587               | 0.1401                   | 0.0364                    | 0.7804              | 0.0826              | 0.0548              | 0.2432              |
| DD (short)                  | -0.0083<br>[0.0039] | -0.0331<br>[0.002]   | -0.0268<br>[0.0021]      | -0.0093<br>[0.002]        | -0.003<br>[0.0023]  | 0.0017<br>[0.0019]  | 0.001<br>[0.0015]   | -0.0036<br>[0.0017] |
| DD (medium)                 | -0.018<br>[0.0051]  | -0.0539<br>[0.0026]  | -0.0496<br>[0.0025]      | -0.0153<br>[0.0024]       | -0.0047<br>[0.0028] | 0.0043<br>[0.0024]  | 0.0004<br>[0.0022]  | -0.006<br>[0.0021]  |
| DD (long)                   | -0.0178<br>[0.0063] | -0.0576<br>[0.003]   | -0.056<br>[0.0029]       | -0.0176<br>[0.0029]       | -0.0046<br>[0.0031] | 0.0021<br>[0.0026]  | 0.0002<br>[0.0027]  | -0.0066<br>[0.0025] |
| Pre-trend est               | -0.0007<br>[0.0012] | 0.0005<br>[0.0007]   | 0.0009<br>[0.0007]       | 0.0013<br>[0.0007]        | -0.0005<br>[0.0008] | 0.0008<br>[0.0006]  | -0.001<br>[0.0005]  | -0.0002<br>[0.0006] |
| Control mean                | 29782               | 70484                | 57001                    | 31722                     | 0.6513              | 0.2717              | 0.8699              | 0.8714              |
| Treated mean                | 30205               | 71266                | 57553                    | 32078                     | 0.6515              | 0.2716              | 0.8806              | 0.8721              |

Notes: This analysis examines the impact of spousal cancer on the socioeconomic outcomes of men (husbands of cancer patients). The regression specification follows Equation ???. Income-related variables are scaled to the predicted level of the control group. Standard errors are clustered at the individual level.

Table A2: Socioeconomic effects of spousal cancer: Women

| Years since diagnosis       | Earnings (%)        | HH Annual income (%) | HH Disposable income (%) | Eq. disposable income (%) | P(employed)         | P(pension)          | P(marriage)         | P(Owner-occupier)   |
|-----------------------------|---------------------|----------------------|--------------------------|---------------------------|---------------------|---------------------|---------------------|---------------------|
| -5                          | 0.0091<br>[0.0053]  | 0.0016<br>[0.0029]   | -0.0016<br>[0.0030]      | 0.0002<br>[0.0028]        | 0.0084<br>[0.0035]  | -0.0108<br>[0.0022] | 0.0016<br>[0.0020]  | -0.0028<br>[0.0025] |
| -4                          | 0.0086<br>[0.0049]  | 0.0005<br>[0.0026]   | 0.0021<br>[0.0029]       | 0.0017<br>[0.0027]        | 0.0016<br>[0.0033]  | -0.0075<br>[0.0021] | 0.0022<br>[0.0017]  | -0.0013<br>[0.0022] |
| -3                          | 0.0042<br>[0.0043]  | -0.0014<br>[0.0023]  | -0.0010<br>[0.0026]      | -0.0008<br>[0.0024]       | 0.0008<br>[0.0030]  | -0.0065<br>[0.0019] | 0.0017<br>[0.0012]  | -0.0002<br>[0.0019] |
| -2                          | 0.0047<br>[0.0033]  | 0.0013<br>[0.0019]   | -0.0008<br>[0.0023]      | -0.0021<br>[0.0021]       | 0.0025<br>[0.0025]  | -0.0033<br>[0.0015] | 0.0012<br>[0.0008]  | 0.0010<br>[0.0015]  |
| -1                          | 0.0000<br>[.]       | 0.0000<br>[.]        | 0.0000<br>[.]            | 0.0000<br>[.]             | 0.0000<br>[.]       | 0.0000<br>[.]       | 0.0000<br>[.]       | 0.0000<br>[.]       |
| 0                           | -0.0127<br>[0.0033] | -0.0550<br>[0.0023]  | -0.0479<br>[0.0026]      | -0.0275<br>[0.0023]       | -0.0009<br>[0.0026] | 0.0011<br>[0.0016]  | 0.0038<br>[0.0012]  | -0.0081<br>[0.0016] |
| 1                           | -0.0208<br>[0.0046] | -0.0958<br>[0.0028]  | -0.0879<br>[0.0031]      | -0.0412<br>[0.0027]       | -0.0092<br>[0.0031] | 0.0053<br>[0.0023]  | 0.0057<br>[0.0017]  | -0.0167<br>[0.0021] |
| 2                           | -0.0165<br>[0.0053] | -0.1121<br>[0.0031]  | -0.1062<br>[0.0033]      | -0.0483<br>[0.0030]       | 0.0000<br>[0.0034]  | -0.0001<br>[0.0027] | 0.0062<br>[0.0020]  | -0.0215<br>[0.0023] |
| 3                           | -0.0057<br>[0.0059] | -0.1156<br>[0.0033]  | -0.1101<br>[0.0035]      | -0.0473<br>[0.0032]       | 0.0026<br>[0.0036]  | -0.0025<br>[0.0029] | 0.0065<br>[0.0023]  | -0.0266<br>[0.0025] |
| 4                           | 0.0012<br>[0.0064]  | -0.1148<br>[0.0035]  | -0.1150<br>[0.0036]      | -0.0492<br>[0.0033]       | 0.0032<br>[0.0038]  | -0.0078<br>[0.0031] | 0.0063<br>[0.0024]  | -0.0260<br>[0.0027] |
| 5                           | -0.0021<br>[0.0068] | -0.1173<br>[0.0036]  | -0.1200<br>[0.0038]      | -0.0525<br>[0.0035]       | 0.0046<br>[0.0039]  | -0.0138<br>[0.0032] | 0.0052<br>[0.0026]  | -0.0264<br>[0.0028] |
| 6                           | 0.0010<br>[0.0071]  | -0.1199<br>[0.0037]  | -0.1217<br>[0.0038]      | -0.0493<br>[0.0036]       | 0.0063<br>[0.0041]  | -0.0147<br>[0.0033] | 0.0047<br>[0.0028]  | -0.0295<br>[0.0028] |
| 7                           | 0.0010<br>[0.0074]  | -0.1208<br>[0.0038]  | -0.1263<br>[0.0039]      | -0.0544<br>[0.0036]       | 0.0096<br>[0.0041]  | -0.0180<br>[0.0034] | 0.0041<br>[0.0029]  | -0.0306<br>[0.0029] |
| 8                           | 0.0034<br>[0.0077]  | -0.1186<br>[0.0039]  | -0.1258<br>[0.0040]      | -0.0537<br>[0.0037]       | 0.0093<br>[0.0042]  | -0.0181<br>[0.0034] | 0.0046<br>[0.0030]  | -0.0335<br>[0.0030] |
| 9                           | -0.0022<br>[0.0078] | -0.1164<br>[0.0040]  | -0.1238<br>[0.0041]      | -0.0519<br>[0.0038]       | 0.0054<br>[0.0042]  | -0.0141<br>[0.0034] | 0.0051<br>[0.0031]  | -0.0350<br>[0.0030] |
| 10                          | -0.0094<br>[0.0081] | -0.1197<br>[0.0040]  | -0.1318<br>[0.0041]      | -0.0598<br>[0.0038]       | 0.0032<br>[0.0043]  | -0.0117<br>[0.0034] | 0.0045<br>[0.0032]  | -0.0333<br>[0.0031] |
| Obs                         | 897728              | 895888               | 895888                   | 895888                    | 897728              | 897728              | 754583              | 897728              |
| N                           | 56108               | 56105                | 56105                    | 56105                     | 56108               | 56108               | 47243               | 56108               |
| DD-estimate                 | -0.0072<br>[0.0052] | -0.1069<br>[0.0027]  | -0.1088<br>[0.0026]      | -0.046<br>[0.0024]        | 0.0004<br>[0.0027]  | -0.0039<br>[0.0021] | 0.0069<br>[0.0023]  | -0.0248<br>[0.0021] |
| Pre-shock period joint test | 0.3113              | 0.512                | 0.4377                   | 0.5363                    | 0.06                | 0                   | 0.5752              | 0.5799              |
| DD (short)                  | -0.0219<br>[0.0042] | -0.0758<br>[0.0023]  | -0.0676<br>[0.0023]      | -0.0341<br>[0.0021]       | -0.008<br>[0.0025]  | 0.0092<br>[0.0019]  | 0.0047<br>[0.0016]  | -0.0113<br>[0.0018] |
| DD (medium)                 | -0.011<br>[0.0056]  | -0.1154<br>[0.0029]  | -0.1125<br>[0.0029]      | -0.049<br>[0.0026]        | -0.0006<br>[0.003]  | 0.0001<br>[0.0024]  | 0.0067<br>[0.0023]  | -0.0238<br>[0.0023] |
| DD (long)                   | -0.0061<br>[0.0068] | -0.1196<br>[0.0034]  | -0.1255<br>[0.0033]      | -0.0532<br>[0.003]        | 0.0034<br>[0.0033]  | -0.0089<br>[0.0026] | 0.0059<br>[0.0029]  | -0.0307<br>[0.0027] |
| Pre-trend est               | -0.0022<br>[0.0013] | -0.0002<br>[0.0007]  | 0<br>[0.0008]            | -0.0004<br>[0.0007]       | -0.0016<br>[0.0009] | 0.0026<br>[0.0006]  | -0.0004<br>[0.0005] | 0.0008<br>[0.0006]  |
| Control mean                | 19762               | 68489                | 55396                    | 31503                     | 0.6288              | 0.2612              | 0.8862              | 0.8635              |
| Treated mean                | 19797               | 68422                | 55448                    | 31687                     | 0.6167              | 0.274               | 0.8949              | 0.8637              |

Notes: This analysis examines the impact of spousal cancer on the socioeconomic outcomes of women (wives of cancer patients). The regression specification follows Equation ???. Income-related variables are scaled to the predicted level of the control group. Standard errors are clustered at the individual level.

Table A3: Health-related effects of spousal cancer: Men

| Years since diagnosis       | P(Psychotropic drug) | P(Antidepressant drug) | P(Antipsychotic drug) | P(Anxiolytic drug)  | P(Hypnotic/sedative drug) | P(Psychiatric inp. stay) | P(Psychiatric outp. visit) |
|-----------------------------|----------------------|------------------------|-----------------------|---------------------|---------------------------|--------------------------|----------------------------|
| -5                          | 0.0010<br>[0.0022]   | -0.0009<br>[0.0018]    | -0.0004<br>[0.0007]   | 0.0018<br>[0.0013]  | 0.0009<br>[0.0014]        | 0.0004<br>[0.0006]       | -0.0008<br>[0.0009]        |
| -4                          | 0.0009<br>[0.0021]   | 0.0013<br>[0.0017]     | -0.0009<br>[0.0007]   | 0.0012<br>[0.0012]  | -0.0007<br>[0.0014]       | -0.0004<br>[0.0006]      | -0.0010<br>[0.0009]        |
| -3                          | -0.0002<br>[0.0020]  | -0.0002<br>[0.0016]    | -0.0012<br>[0.0006]   | -0.0007<br>[0.0012] | 0.0001<br>[0.0013]        | -0.0008<br>[0.0006]      | -0.0013<br>[0.0009]        |
| -2                          | 0.0005<br>[0.0018]   | 0.0002<br>[0.0014]     | -0.0006<br>[0.0005]   | -0.0001<br>[0.0010] | 0.0009<br>[0.0012]        | -0.0001<br>[0.0006]      | -0.0009<br>[0.0008]        |
| -1                          | 0.0000<br>[.]        | 0.0000<br>[.]          | 0.0000<br>[.]         | 0.0000<br>[.]       | 0.0000<br>[.]             | 0.0000<br>[.]            | 0.0000<br>[.]              |
| 0                           | 0.0156<br>[0.0019]   | 0.0091<br>[0.0015]     | 0.0005<br>[0.0006]    | 0.0050<br>[0.0011]  | 0.0080<br>[0.0013]        | 0.0007<br>[0.0006]       | 0.0015<br>[0.0009]         |
| 1                           | 0.0154<br>[0.0022]   | 0.0096<br>[0.0018]     | 0.0008<br>[0.0007]    | 0.0052<br>[0.0012]  | 0.0064<br>[0.0015]        | 0.0013<br>[0.0006]       | 0.0019<br>[0.0009]         |
| 2                           | 0.0142<br>[0.0023]   | 0.0065<br>[0.0019]     | 0.0016<br>[0.0008]    | 0.0062<br>[0.0013]  | 0.0084<br>[0.0016]        | 0.0016<br>[0.0007]       | 0.0020<br>[0.0010]         |
| 3                           | 0.0156<br>[0.0024]   | 0.0075<br>[0.0020]     | 0.0015<br>[0.0008]    | 0.0052<br>[0.0013]  | 0.0099<br>[0.0018]        | 0.0011<br>[0.0007]       | 0.0009<br>[0.0010]         |
| 4                           | 0.0163<br>[0.0025]   | 0.0093<br>[0.0021]     | 0.0011<br>[0.0009]    | 0.0047<br>[0.0014]  | 0.0088<br>[0.0018]        | 0.0011<br>[0.0007]       | 0.0026<br>[0.0011]         |
| 5                           | 0.0135<br>[0.0026]   | 0.0057<br>[0.0021]     | 0.0013<br>[0.0009]    | 0.0035<br>[0.0014]  | 0.0095<br>[0.0019]        | 0.0009<br>[0.0007]       | 0.0012<br>[0.0011]         |
| 6                           | 0.0176<br>[0.0027]   | 0.0078<br>[0.0022]     | 0.0011<br>[0.0010]    | 0.0027<br>[0.0014]  | 0.0115<br>[0.0020]        | 0.0014<br>[0.0007]       | 0.0010<br>[0.0011]         |
| 7                           | 0.0178<br>[0.0028]   | 0.0065<br>[0.0022]     | 0.0007<br>[0.0010]    | 0.0042<br>[0.0015]  | 0.0112<br>[0.0020]        | 0.0011<br>[0.0007]       | 0.0007<br>[0.0011]         |
| 8                           | 0.0146<br>[0.0028]   | 0.0078<br>[0.0022]     | 0.0013<br>[0.0011]    | 0.0043<br>[0.0015]  | 0.0071<br>[0.0020]        | 0.0010<br>[0.0007]       | 0.0009<br>[0.0011]         |
| 9                           | 0.0148<br>[0.0028]   | 0.0084<br>[0.0023]     | 0.0014<br>[0.0012]    | 0.0040<br>[0.0015]  | 0.0091<br>[0.0021]        | 0.0017<br>[0.0007]       | 0.0008<br>[0.0011]         |
| 10                          | 0.0128<br>[0.0029]   | 0.0062<br>[0.0023]     | 0.0021<br>[0.0012]    | 0.0036<br>[0.0015]  | 0.0067<br>[0.0021]        | 0.0019<br>[0.0007]       | 0.0001<br>[0.0011]         |
| Obs                         | 924592               | 924592                 | 924592                | 924592              | 924592                    | 924592                   | 924592                     |
| N                           | 57787                | 57787                  | 57787                 | 57787               | 57787                     | 57787                    | 57787                      |
| DD-estimate                 | 0.0122<br>[0.0017]   | 0.0061<br>[0.0013]     | 0.0017<br>[0.0006]    | 0.0031<br>[0.0009]  | 0.0073<br>[0.0012]        | 0.0013<br>[0.0003]       | 0.0016<br>[0.0006]         |
| Pre-shock period joint test | 0.9602               | 0.588                  | 0.3271                | 0.2843              | 0.5515                    | 0.2807                   | 0.6882                     |
| DD (short)                  | 0.015<br>[0.0017]    | 0.0093<br>[0.0014]     | 0.0012<br>[0.0005]    | 0.0046<br>[0.0009]  | 0.0069<br>[0.0011]        | 0.0012<br>[0.0004]       | 0.0025<br>[0.0007]         |
| DD (medium)                 | 0.0143<br>[0.0019]   | 0.0072<br>[0.0015]     | 0.002<br>[0.0007]     | 0.0044<br>[0.001]   | 0.0089<br>[0.0014]        | 0.0013<br>[0.0004]       | 0.0025<br>[0.0007]         |
| DD (long)                   | 0.0149<br>[0.0022]   | 0.0072<br>[0.0017]     | 0.0019<br>[0.0009]    | 0.0032<br>[0.0011]  | 0.0088<br>[0.0016]        | 0.0016<br>[0.0004]       | 0.0015<br>[0.0007]         |
| Pre-trend est               | -0.0003<br>[0.0005]  | 0.0001<br>[0.0004]     | 0.0001<br>[0.0002]    | -0.0005<br>[0.0003] | 0<br>[0.0003]             | -0.0001<br>[0.0001]      | 0.0002<br>[0.0002]         |
| Control mean                | 0.0939               | 0.0513                 | 0.0117                | 0.0246              | 0.039                     | 0.0027                   | 0.0077                     |
| Treated mean                | 0.0943               | 0.0519                 | 0.0116                | 0.0251              | 0.0393                    | 0.0025                   | 0.0082                     |

Notes: This analysis examines the impact of spousal cancer on the health outcomes of men (husbands of cancer patients). The regression specification follows Equation ???. Income-related variables are scaled to the predicted level of the control group. Standard errors are clustered at the individual level.

Table A4: Health-related effects of spousal cancer: Women

| Years since diagnosis       | P(Psychotropic drug) | P(Antidepressant drug) | P(Antipsychotic drug) | P(Anxiolytic drug)  | P(Hypnotic/sedative drug) | P(Psychiatric inp. stay) | P(Psychiatric outp. visit) |
|-----------------------------|----------------------|------------------------|-----------------------|---------------------|---------------------------|--------------------------|----------------------------|
| -5                          | -0.0048<br>[0.0029]  | -0.0031<br>[0.0024]    | -0.0005<br>[0.0009]   | -0.0019<br>[0.0017] | -0.0035<br>[0.0019]       | -0.0009<br>[0.0015]      | -0.0029<br>[0.0011]        |
| -4                          | -0.0041<br>[0.0028]  | -0.0001<br>[0.0024]    | -0.0013<br>[0.0008]   | 0.0006<br>[0.0016]  | -0.0042<br>[0.0018]       | -0.0011<br>[0.0015]      | -0.0024<br>[0.0011]        |
| -3                          | -0.0023<br>[0.0026]  | -0.0021<br>[0.0022]    | -0.0001<br>[0.0008]   | 0.0005<br>[0.0015]  | -0.0019<br>[0.0017]       | 0.0009<br>[0.0015]       | -0.0015<br>[0.0011]        |
| -2                          | -0.0028<br>[0.0023]  | -0.0013<br>[0.0019]    | 0.0006<br>[0.0007]    | 0.0020<br>[0.0014]  | -0.0027<br>[0.0016]       | -0.0005<br>[0.0015]      | -0.0000<br>[0.0010]        |
| -1                          | 0.0000<br>[.]        | 0.0000<br>[.]          | 0.0000<br>[.]         | 0.0000<br>[.]       | 0.0000<br>[.]             | 0.0000<br>[.]            | 0.0000<br>[.]              |
| 0                           | 0.0355<br>[0.0026]   | 0.0179<br>[0.0021]     | 0.0001<br>[0.0007]    | 0.0152<br>[0.0016]  | 0.0169<br>[0.0019]        | 0.0002<br>[0.0016]       | 0.0044<br>[0.0011]         |
| 1                           | 0.0393<br>[0.0029]   | 0.0281<br>[0.0025]     | 0.0005<br>[0.0008]    | 0.0149<br>[0.0017]  | 0.0137<br>[0.0021]        | -0.0006<br>[0.0018]      | 0.0054<br>[0.0012]         |
| 2                           | 0.0329<br>[0.0030]   | 0.0229<br>[0.0026]     | 0.0012<br>[0.0009]    | 0.0120<br>[0.0017]  | 0.0146<br>[0.0022]        | 0.0026<br>[0.0020]       | 0.0056<br>[0.0013]         |
| 3                           | 0.0289<br>[0.0031]   | 0.0170<br>[0.0026]     | 0.0011<br>[0.0010]    | 0.0097<br>[0.0017]  | 0.0159<br>[0.0023]        | 0.0009<br>[0.0021]       | 0.0049<br>[0.0013]         |
| 4                           | 0.0250<br>[0.0032]   | 0.0152<br>[0.0027]     | 0.0010<br>[0.0010]    | 0.0057<br>[0.0017]  | 0.0129<br>[0.0024]        | -0.0005<br>[0.0023]      | 0.0033<br>[0.0013]         |
| 5                           | 0.0231<br>[0.0033]   | 0.0122<br>[0.0028]     | 0.0021<br>[0.0011]    | 0.0061<br>[0.0018]  | 0.0138<br>[0.0025]        | -0.0006<br>[0.0024]      | 0.0036<br>[0.0014]         |
| 6                           | 0.0220<br>[0.0034]   | 0.0107<br>[0.0028]     | 0.0005<br>[0.0011]    | 0.0048<br>[0.0018]  | 0.0166<br>[0.0026]        | 0.0031<br>[0.0025]       | 0.0023<br>[0.0014]         |
| 7                           | 0.0213<br>[0.0034]   | 0.0105<br>[0.0028]     | 0.0022<br>[0.0012]    | 0.0047<br>[0.0018]  | 0.0125<br>[0.0026]        | 0.0027<br>[0.0026]       | 0.0013<br>[0.0014]         |
| 8                           | 0.0207<br>[0.0035]   | 0.0086<br>[0.0029]     | 0.0030<br>[0.0012]    | 0.0037<br>[0.0018]  | 0.0116<br>[0.0027]        | 0.0043<br>[0.0027]       | 0.0008<br>[0.0014]         |
| 9                           | 0.0200<br>[0.0035]   | 0.0104<br>[0.0029]     | 0.0029<br>[0.0013]    | 0.0051<br>[0.0019]  | 0.0114<br>[0.0027]        | 0.0059<br>[0.0028]       | 0.0001<br>[0.0014]         |
| 10                          | 0.0161<br>[0.0036]   | 0.0101<br>[0.0030]     | 0.0036<br>[0.0014]    | 0.0031<br>[0.0019]  | 0.0058<br>[0.0027]        | 0.0065<br>[0.0028]       | 0.0011<br>[0.0014]         |
| Observations                | 897728               | 897728                 | 897728                | 897728              | 897728                    | 897728                   | 897728                     |
| N                           | 56108                | 56108                  | 56108                 | 56108               | 56108                     | 56108                    | 56108                      |
| DD-estimate                 | 0.0214<br>[0.0021]   | 0.013<br>[0.0017]      | 0.0019<br>[0.0007]    | 0.0043<br>[0.0011]  | 0.012<br>[0.0016]         | 0.0025<br>[0.0012]       | 0.0033<br>[0.0007]         |
| Pre-shock period joint test | 0.5019               | 0.4226                 | 0.2314                | 0.1685              | 0.1741                    | 0.6523                   | 0.0674                     |
| DD (short)                  | 0.0401<br>[0.0022]   | 0.0243<br>[0.0019]     | 0.0005<br>[0.0006]    | 0.0148<br>[0.0012]  | 0.0176<br>[0.0016]        | 0.0001<br>[0.0012]       | 0.0063<br>[0.0009]         |
| DD (medium)                 | 0.0301<br>[0.0023]   | 0.0181<br>[0.002]      | 0.0016<br>[0.0008]    | 0.0081<br>[0.0012]  | 0.0165<br>[0.0018]        | 0.0009<br>[0.0013]       | 0.0057<br>[0.0009]         |
| DD (long)                   | 0.0223<br>[0.0026]   | 0.0113<br>[0.0022]     | 0.0026<br>[0.001]     | 0.0038<br>[0.0013]  | 0.0137<br>[0.002]         | 0.0048<br>[0.0017]       | 0.0025<br>[0.0009]         |
| Pre-trend est               | 0.0011<br>[0.0007]   | 0.0005<br>[0.0006]     | 0.0003<br>[0.0002]    | 0.0005<br>[0.0004]  | 0.0008<br>[0.0005]        | 0.0002<br>[0.0004]       | 0.0008<br>[0.0003]         |
| Control mean                | 0.1475               | 0.0871                 | 0.0147                | 0.0383              | 0.0605                    | 0.0476                   | 0.0105                     |
| Treated mean                | 0.156                | 0.0922                 | 0.0167                | 0.0383              | 0.0653                    | 0.0472                   | 0.0121                     |

Notes: This analysis examines the impact of spousal cancer on the health outcomes of women (wives of cancer patients). The regression specification follows Equation ???. Income-related variables are scaled to the predicted level of the control group. Standard errors are clustered at the individual level.

Table A5: Effects of cancer on male spouse: Selected cancer diagnoses

| Years since diagnosis       | Earnings (%)        | HH Eq. Disp. income (%) | P(Employed)         | P(pension)          | P(Psychotropic drug purchase) | P(Antidepressant drug purchase) | P(Antipsychotic drug purchase) | P(Anxiolytic drug purchase) | P(Hypnotics/sedative drug purchase) |
|-----------------------------|---------------------|-------------------------|---------------------|---------------------|-------------------------------|---------------------------------|--------------------------------|-----------------------------|-------------------------------------|
| -5                          | 0.0055<br>[0.0058]  | -0.0060<br>[0.0034]     | 0.0061<br>[0.0039]  | -0.0060<br>[0.0026] | 0.0038<br>[0.0028]            | -0.0004<br>[0.0009]             | 0.0029<br>[0.0016]             | 0.0001<br>[0.0018]          | 0.0011<br>[0.0023]                  |
| -4                          | 0.0106<br>[0.0053]  | 0.0003<br>[0.0032]      | 0.0060<br>[0.0036]  | -0.0050<br>[0.0024] | 0.0032<br>[0.0026]            | -0.0012<br>[0.0008]             | 0.0013<br>[0.0015]             | 0.0003<br>[0.0017]          | 0.0033<br>[0.0022]                  |
| -3                          | 0.0055<br>[0.0046]  | 0.0001<br>[0.0029]      | 0.0036<br>[0.0033]  | -0.0030<br>[0.0021] | 0.0012<br>[0.0025]            | -0.0014<br>[0.0008]             | 0.0001<br>[0.0014]             | 0.0008<br>[0.0016]          | 0.0011<br>[0.0021]                  |
| -2                          | 0.0016<br>[0.0035]  | 0.0007<br>[0.0025]      | -0.0016<br>[0.0027] | 0.0015<br>[0.0017]  | 0.0019<br>[0.0022]            | -0.0007<br>[0.0007]             | 0.0007<br>[0.0013]             | 0.0011<br>[0.0015]          | 0.0006<br>[0.0018]                  |
| -1                          | 0.0000<br>[.]       | 0.0000<br>[.]           | 0.0000<br>[.]       | 0.0000<br>[.]       | 0.0000<br>[.]                 | 0.0000<br>[.]                   | 0.0000<br>[.]                  | 0.0000<br>[.]               | 0.0000<br>[.]                       |
| 0                           | 0.0004<br>[0.0037]  | -0.0120<br>[0.0026]     | 0.0003<br>[0.0028]  | -0.0020<br>[0.0019] | 0.0132<br>[0.0024]            | 0.0003<br>[0.0007]              | 0.0049<br>[0.0014]             | 0.0063<br>[0.0016]          | 0.0087<br>[0.0019]                  |
| 1                           | -0.0058<br>[0.0049] | -0.0134<br>[0.0030]     | -0.0029<br>[0.0034] | 0.0017<br>[0.0026]  | 0.0110<br>[0.0027]            | 0.0005<br>[0.0008]              | 0.0046<br>[0.0015]             | 0.0022<br>[0.0018]          | 0.0080<br>[0.0023]                  |
| 2                           | -0.0063<br>[0.0058] | -0.0131<br>[0.0033]     | -0.0015<br>[0.0038] | 0.0046<br>[0.0030]  | 0.0121<br>[0.0029]            | 0.0012<br>[0.0009]              | 0.0072<br>[0.0016]             | 0.0071<br>[0.0020]          | 0.0044<br>[0.0024]                  |
| 3                           | -0.0087<br>[0.0065] | -0.0167<br>[0.0036]     | -0.0021<br>[0.0041] | 0.0052<br>[0.0034]  | 0.0179<br>[0.0031]            | 0.0007<br>[0.0010]              | 0.0067<br>[0.0017]             | 0.0103<br>[0.0022]          | 0.0088<br>[0.0025]                  |
| 4                           | -0.0102<br>[0.0070] | -0.0180<br>[0.0038]     | -0.0041<br>[0.0044] | 0.0048<br>[0.0036]  | 0.0175<br>[0.0032]            | -0.0002<br>[0.0011]             | 0.0055<br>[0.0017]             | 0.0088<br>[0.0023]          | 0.0101<br>[0.0026]                  |
| 5                           | -0.0056<br>[0.0075] | -0.0180<br>[0.0041]     | -0.0035<br>[0.0046] | 0.0051<br>[0.0038]  | 0.0160<br>[0.0033]            | 0.0002<br>[0.0012]              | 0.0039<br>[0.0018]             | 0.0101<br>[0.0024]          | 0.0066<br>[0.0027]                  |
| 6                           | -0.0038<br>[0.0080] | -0.0213<br>[0.0042]     | -0.0018<br>[0.0048] | 0.0017<br>[0.0039]  | 0.0185<br>[0.0034]            | 0.0009<br>[0.0012]              | 0.0031<br>[0.0018]             | 0.0124<br>[0.0025]          | 0.0097<br>[0.0027]                  |
| 7                           | -0.0063<br>[0.0083] | -0.0190<br>[0.0044]     | -0.0024<br>[0.0049] | 0.0023<br>[0.0040]  | 0.0172<br>[0.0035]            | 0.0002<br>[0.0013]              | 0.0043<br>[0.0019]             | 0.0112<br>[0.0025]          | 0.0071<br>[0.0028]                  |
| 8                           | -0.0074<br>[0.0086] | -0.0221<br>[0.0045]     | -0.0045<br>[0.0050] | 0.0014<br>[0.0041]  | 0.0143<br>[0.0035]            | 0.0010<br>[0.0014]              | 0.0035<br>[0.0019]             | 0.0062<br>[0.0026]          | 0.0080<br>[0.0028]                  |
| 9                           | -0.0084<br>[0.0089] | -0.0221<br>[0.0046]     | -0.0013<br>[0.0050] | 0.0015<br>[0.0041]  | 0.0144<br>[0.0036]            | 0.0010<br>[0.0015]              | 0.0029<br>[0.0019]             | 0.0067<br>[0.0026]          | 0.0110<br>[0.0029]                  |
| 10                          | -0.0060<br>[0.0093] | -0.0238<br>[0.0047]     | -0.0045<br>[0.0051] | 0.0029<br>[0.0042]  | 0.0116<br>[0.0037]            | 0.0017<br>[0.0015]              | 0.0029<br>[0.0019]             | 0.0044<br>[0.0026]          | 0.0071<br>[0.0029]                  |
| Observations                | 558000              | 556345                  | 558000              | 558000              | 558000                        | 558000                          | 558000                         | 558000                      | 558000                              |
| N                           | 34875               | 34874                   | 34875               | 34875               | 34875                         | 34875                           | 34875                          | 34875                       | 34875                               |
| DD-estimate                 | -0.0108<br>[0.0058] | -0.0158<br>[0.0029]     | -0.0053<br>[0.003]  | 0.0059<br>[0.0025]  | 0.011<br>[0.0021]             | 0.0012<br>[0.0008]              | 0.0028<br>[0.0011]             | 0.0064<br>[0.0015]          | 0.0057<br>[0.0017]                  |
| Pre-shock period joint test | 0.2128              | 0.0781                  | 0.1668              | 0.0131              | 0.6314                        | 0.2985                          | 0.3826                         | 0.9519                      | 0.5506                              |
| DD (short)                  | -0.0073<br>[0.0046] | -0.0117<br>[0.0025]     | -0.0042<br>[0.0028] | 0.0025<br>[0.0022]  | 0.0099<br>[0.002]             | 0.0011<br>[0.0006]              | 0.0037<br>[0.0011]             | 0.0037<br>[0.0014]          | 0.0071<br>[0.0017]                  |
| DD (medium)                 | -0.0123<br>[0.0061] | -0.0154<br>[0.0031]     | -0.0057<br>[0.0034] | 0.0077<br>[0.0029]  | 0.0136<br>[0.0024]            | 0.0012<br>[0.0008]              | 0.0048<br>[0.0012]             | 0.0085<br>[0.0017]          | 0.0062<br>[0.0019]                  |
| DD (long)                   | -0.0109<br>[0.0076] | -0.0205<br>[0.0038]     | -0.0057<br>[0.0039] | 0.0047<br>[0.0032]  | 0.0128<br>[0.0027]            | 0.0016<br>[0.0011]              | 0.0023<br>[0.0014]             | 0.0076<br>[0.002]           | 0.0073<br>[0.0021]                  |
| Pre-trend est               | -0.002<br>[0.0015]  | 0.0012<br>[0.0008]      | -0.002<br>[0.001]   | 0.0019<br>[0.0007]  | -0.0009<br>[0.0007]           | 0.0001<br>[0.0002]              | -0.0006<br>[0.0004]            | 0<br>[0.0004]               | -0.0005<br>[0.0006]                 |
| Control mean                | 32301               | 32572                   | 0.6908              | 0.2367              | 0.0892                        | 0.0104                          | 0.0237                         | 0.0356                      | 0.0501                              |
| Treated mean                | 32225               | 32863                   | 0.6839              | 0.2416              | 0.09                          | 0.0113                          | 0.0236                         | 0.0366                      | 0.0511                              |

Notes: This analysis presents event study estimates of the effects of spousal cancer on men, focusing on selected diagnoses of a more 'exogenous' nature. These cancers include 1) Gallbladder (C23), 2) Breast (C50), 3) Ovary (C56), 4) Prostate (C61), 5) Testis (C62), 6) Thyroid (C73), 7) Myeloma (C90), 8) Non-Hodgkin (C82-85, C96), 9) Leukaemia (C91-C95), and 10) Brain & other CNS (C70-72). Breast and prostate cancers account for approximately 75% of these cases.

Table A6: Effects of cancer on female spouse: Selected cancer diagnoses

| Years since diagnosis       | Earnings (%)        | HH Eq. Disp. income (%) | P(Employed)         | P(pension)          | P(Psychotropic drug purchase) | P(Antidepressant drug purchase) | P(Antipsychotic drug purchase) | P(Anxiolytic drug purchase) | P(Hypnotics/sedative drug purchase) |
|-----------------------------|---------------------|-------------------------|---------------------|---------------------|-------------------------------|---------------------------------|--------------------------------|-----------------------------|-------------------------------------|
| -5                          | 0.0263<br>[0.0082]  | 0.0047<br>[0.0045]      | 0.0084<br>[0.0035]  | -0.0108<br>[0.0022] | -0.0048<br>[0.0029]           | -0.0005<br>[0.0009]             | -0.0019<br>[0.0017]            | -0.0035<br>[0.0019]         | -0.0031<br>[0.0024]                 |
| -4                          | 0.0201<br>[0.0076]  | 0.0063<br>[0.0042]      | 0.0016<br>[0.0033]  | -0.0075<br>[0.0021] | -0.0041<br>[0.0028]           | -0.0013<br>[0.0008]             | 0.0006<br>[0.0016]             | -0.0042<br>[0.0018]         | -0.0001<br>[0.0024]                 |
| -3                          | 0.0099<br>[0.0066]  | 0.0059<br>[0.0038]      | 0.0008<br>[0.0030]  | -0.0065<br>[0.0019] | -0.0023<br>[0.0026]           | -0.0001<br>[0.0008]             | 0.0005<br>[0.0015]             | -0.0019<br>[0.0017]         | -0.0021<br>[0.0022]                 |
| -2                          | 0.0071<br>[0.0050]  | -0.0003<br>[0.0034]     | 0.0025<br>[0.0025]  | -0.0033<br>[0.0015] | -0.0028<br>[0.0023]           | 0.0006<br>[0.0007]              | 0.0020<br>[0.0014]             | -0.0027<br>[0.0016]         | -0.0013<br>[0.0019]                 |
| -1                          | 0.0000<br>[.]       | 0.0000<br>[.]           | 0.0000<br>[.]       | 0.0000<br>[.]       | 0.0000<br>[.]                 | 0.0000<br>[.]                   | 0.0000<br>[.]                  | 0.0000<br>[.]               | 0.0000<br>[.]                       |
| 0                           | -0.0108<br>[0.0052] | -0.0128<br>[0.0036]     | -0.0009<br>[0.0026] | 0.0011<br>[0.0016]  | 0.0355<br>[0.0026]            | 0.0001<br>[0.0007]              | 0.0152<br>[0.0016]             | 0.0169<br>[0.0019]          | 0.0179<br>[0.0021]                  |
| 1                           | -0.0166<br>[0.0070] | -0.0289<br>[0.0042]     | -0.0092<br>[0.0031] | 0.0053<br>[0.0023]  | 0.0393<br>[0.0029]            | 0.0005<br>[0.0008]              | 0.0149<br>[0.0017]             | 0.0137<br>[0.0021]          | 0.0281<br>[0.0025]                  |
| 2                           | -0.0139<br>[0.0081] | -0.0376<br>[0.0046]     | 0.0000<br>[0.0034]  | -0.0001<br>[0.0027] | 0.0329<br>[0.0030]            | 0.0012<br>[0.0009]              | 0.0120<br>[0.0017]             | 0.0146<br>[0.0022]          | 0.0229<br>[0.0026]                  |
| 3                           | -0.0045<br>[0.0090] | -0.0398<br>[0.0049]     | 0.0026<br>[0.0036]  | -0.0025<br>[0.0029] | 0.0289<br>[0.0031]            | 0.0011<br>[0.0010]              | 0.0097<br>[0.0017]             | 0.0159<br>[0.0023]          | 0.0170<br>[0.0026]                  |
| 4                           | 0.0016<br>[0.0098]  | -0.0420<br>[0.0052]     | 0.0032<br>[0.0038]  | -0.0078<br>[0.0031] | 0.0250<br>[0.0032]            | 0.0010<br>[0.0010]              | 0.0057<br>[0.0017]             | 0.0129<br>[0.0024]          | 0.0152<br>[0.0027]                  |
| 5                           | 0.0043<br>[0.0104]  | -0.0421<br>[0.0055]     | 0.0046<br>[0.0039]  | -0.0138<br>[0.0032] | 0.0231<br>[0.0033]            | 0.0021<br>[0.0011]              | 0.0061<br>[0.0018]             | 0.0138<br>[0.0025]          | 0.0122<br>[0.0028]                  |
| 6                           | 0.0061<br>[0.0109]  | -0.0403<br>[0.0056]     | 0.0063<br>[0.0041]  | -0.0147<br>[0.0033] | 0.0220<br>[0.0034]            | 0.0005<br>[0.0011]              | 0.0048<br>[0.0018]             | 0.0166<br>[0.0026]          | 0.0107<br>[0.0028]                  |
| 7                           | 0.0133<br>[0.0115]  | -0.0453<br>[0.0057]     | 0.0096<br>[0.0041]  | -0.0180<br>[0.0034] | 0.0213<br>[0.0034]            | 0.0022<br>[0.0012]              | 0.0047<br>[0.0018]             | 0.0125<br>[0.0026]          | 0.0105<br>[0.0028]                  |
| 8                           | 0.0185<br>[0.0120]  | -0.0452<br>[0.0059]     | 0.0093<br>[0.0042]  | -0.0181<br>[0.0034] | 0.0207<br>[0.0035]            | 0.0030<br>[0.0012]              | 0.0037<br>[0.0018]             | 0.0116<br>[0.0027]          | 0.0086<br>[0.0029]                  |
| 9                           | 0.0126<br>[0.0123]  | -0.0421<br>[0.0060]     | 0.0054<br>[0.0042]  | -0.0141<br>[0.0034] | 0.0200<br>[0.0035]            | 0.0029<br>[0.0013]              | 0.0051<br>[0.0019]             | 0.0114<br>[0.0027]          | 0.0104<br>[0.0029]                  |
| 10                          | 0.0028<br>[0.0128]  | -0.0529<br>[0.0061]     | 0.0032<br>[0.0043]  | -0.0117<br>[0.0034] | 0.0161<br>[0.0036]            | 0.0036<br>[0.0014]              | 0.0031<br>[0.0019]             | 0.0058<br>[0.0027]          | 0.0101<br>[0.0030]                  |
| Observations                | 339984              | 339371                  | 897728              | 897728              | 897728                        | 897728                          | 897728                         | 897728                      | 897728                              |
| N                           | 21249               | 21247                   | 56108               | 56108               | 56108                         | 56108                           | 56108                          | 56108                       | 56108                               |
| DD-estimate                 | -0.007<br>[0.0081]  | -0.042<br>[0.0038]      | 0.0004<br>[0.0027]  | -0.0039<br>[0.0021] | 0.0214<br>[0.0021]            | 0.0019<br>[0.0007]              | 0.0043<br>[0.0011]             | 0.012<br>[0.0016]           | 0.013<br>[0.0017]                   |
| Pre-shock period joint test | 0.0222              | 0.3391                  | 0.06                | 0                   | 0.5019                        | 0.2314                          | 0.1685                         | 0.1741                      | 0.4226                              |
| DD (short)                  | -0.0264<br>[0.0065] | -0.0241<br>[0.0033]     | -0.008<br>[0.0025]  | 0.0092<br>[0.0019]  | 0.0401<br>[0.0022]            | 0.0005<br>[0.0006]              | 0.0148<br>[0.0012]             | 0.0176<br>[0.0016]          | 0.0243<br>[0.0019]                  |
| DD (medium)                 | -0.016<br>[0.0086]  | -0.0435<br>[0.0041]     | -0.0006<br>[0.003]  | 0.0001<br>[0.0024]  | 0.0301<br>[0.0023]            | 0.0016<br>[0.0008]              | 0.0081<br>[0.0012]             | 0.0165<br>[0.0018]          | 0.0181<br>[0.002]                   |
| DD (long)                   | -0.0021<br>[0.0106] | -0.0479<br>[0.0048]     | 0.0034<br>[0.0033]  | -0.0089<br>[0.0026] | 0.0223<br>[0.0026]            | 0.0026<br>[0.001]               | 0.0038<br>[0.0013]             | 0.0137<br>[0.002]           | 0.0113<br>[0.0022]                  |
| Pre-trend est               | -0.0066<br>[0.0021] | -0.0016<br>[0.0011]     | -0.0016<br>[0.0009] | 0.0026<br>[0.0006]  | 0.0011<br>[0.0007]            | 0.0003<br>[0.0002]              | 0.0005<br>[0.0004]             | 0.0008<br>[0.0005]          | 0.0005<br>[0.0006]                  |
| Control mean                | 20798               | 33113                   | 62888               | 0.2612              | 0.1475                        | 0.0147                          | 0.0383                         | 0.0605                      | 0.0871                              |
| Treated mean                | 20640               | 33459                   | 6167                | 0.274               | 0.156                         | 0.0167                          | 0.0383                         | 0.0653                      | 0.0922                              |

Notes: This analysis presents event study estimates of the effects of spousal cancer on women, focusing on selected diagnoses of a more 'exogenous' nature. These cancers include 1) Gallbladder (C23), 2) Breast (C50), 3) Ovary (C56), 4) Prostate (C61), 5) Testis (C62), 6) Thyroid (C73), 7) Myeloma (C90), 8) Non-Hodgkin (C82-85, C96), 9) Leukaemia (C91-C95), and 10) Brain & other CNS (C70-72). Breast and prostate cancers account for approximately 75% of these cases.

Table A7: Effects of cancer on male spouse: Sample of spouse with minimum of 5 years of cohabitation

| Years since diagnosis       | Earnings (%)        | HH Eq. Disp. income (%) | P(Employed)         | P(pension)          | P(Psychotropic drug purchase) | P(Antipsychotic drug purchase) | P(Anxiolytic drug purchase) | P(Hypnotics /sedative drug purchase) | P(Antidepressant drug purchase) |
|-----------------------------|---------------------|-------------------------|---------------------|---------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------------------|---------------------------------|
| -5                          | 0.0010<br>[0.0050]  | -0.0051<br>[0.0027]     | 0.0003<br>[0.0032]  | -0.0022<br>[0.0023] | 0.0011<br>[0.0023]            | -0.0002<br>[0.0007]            | 0.0017<br>[0.0013]          | 0.0011<br>[0.0015]                   | -0.0014<br>[0.0019]             |
| -4                          | 0.0054<br>[0.0046]  | -0.0010<br>[0.0026]     | 0.0029<br>[0.0030]  | -0.0011<br>[0.0021] | 0.0003<br>[0.0022]            | -0.0008<br>[0.0007]            | 0.0012<br>[0.0013]          | -0.0008<br>[0.0014]                  | 0.0010<br>[0.0018]              |
| -3                          | 0.0056<br>[0.0040]  | 0.0003<br>[0.0024]      | 0.0013<br>[0.0027]  | -0.0004<br>[0.0019] | -0.0003<br>[0.0020]           | -0.0011<br>[0.0006]            | -0.0007<br>[0.0012]         | -0.0002<br>[0.0014]                  | -0.0003<br>[0.0017]             |
| -2                          | -0.0003<br>[0.0031] | -0.0005<br>[0.0021]     | -0.0012<br>[0.0022] | 0.0026<br>[0.0015]  | 0.0004<br>[0.0018]            | -0.0004<br>[0.0005]            | -0.0001<br>[0.0011]         | 0.0008<br>[0.0012]                   | -0.0002<br>[0.0015]             |
| -1                          | 0.0000<br>[.]       | 0.0000<br>[.]           | 0.0000<br>[.]       | 0.0000<br>[.]       | 0.0000<br>[.]                 | 0.0000<br>[.]                  | 0.0000<br>[.]               | 0.0000<br>[.]                        | 0.0000<br>[.]                   |
| 0                           | 0.0003<br>[0.0032]  | -0.0110<br>[0.0022]     | -0.0010<br>[0.0023] | 0.0004<br>[0.0017]  | 0.0152<br>[0.0020]            | 0.0004<br>[0.0006]             | 0.0051<br>[0.0011]          | 0.0076<br>[0.0014]                   | 0.0088<br>[0.0016]              |
| 1                           | -0.0107<br>[0.0043] | -0.0122<br>[0.0025]     | -0.0042<br>[0.0028] | 0.0016<br>[0.0023]  | 0.0153<br>[0.0022]            | 0.0007<br>[0.0007]             | 0.0054<br>[0.0012]          | 0.0064<br>[0.0016]                   | 0.0098<br>[0.0019]              |
| 2                           | -0.0137<br>[0.0051] | -0.0167<br>[0.0028]     | -0.0041<br>[0.0032] | 0.0046<br>[0.0026]  | 0.0139<br>[0.0024]            | 0.0016<br>[0.0008]             | 0.0059<br>[0.0013]          | 0.0085<br>[0.0016]                   | 0.0062<br>[0.0020]              |
| 3                           | -0.0171<br>[0.0057] | -0.0194<br>[0.0030]     | -0.0055<br>[0.0034] | 0.0043<br>[0.0029]  | 0.0156<br>[0.0025]            | 0.0014<br>[0.0008]             | 0.0052<br>[0.0014]          | 0.0100<br>[0.0018]                   | 0.0072<br>[0.0021]              |
| 4                           | -0.0178<br>[0.0062] | -0.0185<br>[0.0032]     | -0.0047<br>[0.0037] | 0.0025<br>[0.0031]  | 0.0161<br>[0.0026]            | 0.0008<br>[0.0009]             | 0.0040<br>[0.0014]          | 0.0087<br>[0.0019]                   | 0.0090<br>[0.0021]              |
| 5                           | -0.0134<br>[0.0066] | -0.0196<br>[0.0033]     | -0.0027<br>[0.0038] | 0.0037<br>[0.0032]  | 0.0128<br>[0.0027]            | 0.0012<br>[0.0010]             | 0.0030<br>[0.0014]          | 0.0092<br>[0.0020]                   | 0.0056<br>[0.0022]              |
| 6                           | -0.0114<br>[0.0069] | -0.0213<br>[0.0034]     | -0.0016<br>[0.0039] | 0.0017<br>[0.0033]  | 0.0178<br>[0.0028]            | 0.0009<br>[0.0010]             | 0.0030<br>[0.0015]          | 0.0117<br>[0.0021]                   | 0.0076<br>[0.0022]              |
| 7                           | -0.0126<br>[0.0072] | -0.0167<br>[0.0035]     | -0.0028<br>[0.0040] | 0.0015<br>[0.0034]  | 0.0180<br>[0.0028]            | 0.0009<br>[0.0010]             | 0.0045<br>[0.0015]          | 0.0110<br>[0.0021]                   | 0.0060<br>[0.0022]              |
| 8                           | -0.0150<br>[0.0074] | -0.0226<br>[0.0036]     | -0.0050<br>[0.0041] | 0.0012<br>[0.0034]  | 0.0142<br>[0.0029]            | 0.0011<br>[0.0011]             | 0.0043<br>[0.0015]          | 0.0069<br>[0.0021]                   | 0.0073<br>[0.0023]              |
| 9                           | -0.0167<br>[0.0076] | -0.0201<br>[0.0037]     | -0.0017<br>[0.0041] | -0.0005<br>[0.0035] | 0.0147<br>[0.0029]            | 0.0012<br>[0.0012]             | 0.0046<br>[0.0016]          | 0.0089<br>[0.0021]                   | 0.0083<br>[0.0023]              |
| 10                          | -0.0151<br>[0.0079] | -0.0227<br>[0.0037]     | -0.0047<br>[0.0041] | 0.0020<br>[0.0035]  | 0.0128<br>[0.0030]            | 0.0016<br>[0.0012]             | 0.0038<br>[0.0016]          | 0.0068<br>[0.0022]                   | 0.0061<br>[0.0024]              |
| Observations                | 864902              | 864902                  | 864902              | 864902              | 864902                        | 864902                         | 864902                      | 864902                               | 864902                          |
| N                           | 54194               | 54194                   | 54194               | 54194               | 54194                         | 54194                          | 54194                       | 54194                                | 54194                           |
| DD-estimate                 | -0.0162<br>[0.005]  | -0.0159<br>[0.0023]     | -0.0044<br>[0.0025] | 0.0029<br>[0.0021]  | 0.0123<br>[0.0017]            | 0.0014<br>[0.0006]             | 0.0031<br>[0.0009]          | 0.0073<br>[0.0013]                   | 0.0061<br>[0.0014]              |
| Pre-shock period joint test | 0.2262              | 0.1248                  | 0.5566              | 0.0752              | 0.9726                        | 0.2891                         | 0.3323                      | 0.4626                               | 0.5817                          |
| DD (short)                  | -0.0074<br>[0.004]  | -0.0102<br>[0.002]      | -0.0035<br>[0.0023] | 0.0015<br>[0.0019]  | 0.0149<br>[0.0017]            | 0.001<br>[0.0005]              | 0.0048<br>[0.0009]          | 0.0068<br>[0.0012]                   | 0.0095<br>[0.0014]              |
| DD (medium)                 | -0.0177<br>[0.0053] | -0.0172<br>[0.0025]     | -0.0052<br>[0.0029] | 0.0044<br>[0.0025]  | 0.0142<br>[0.0019]            | 0.0017<br>[0.0007]             | 0.004<br>[0.001]            | 0.0088<br>[0.0014]                   | 0.0072<br>[0.0016]              |
| DD (long)                   | -0.0162<br>[0.0066] | -0.0191<br>[0.003]      | -0.004<br>[0.0032]  | 0.0018<br>[0.0027]  | 0.015<br>[0.0022]             | 0.0016<br>[0.0009]             | 0.0035<br>[0.0011]          | 0.0088<br>[0.0017]                   | 0.0072<br>[0.0017]              |
| Pre-trend est               | -0.0008<br>[0.0013] | 0.0011<br>[0.0007]      | -0.0005<br>[0.0008] | 0.0008<br>[0.0006]  | -0.0002<br>[0.0005]           | 0.0001<br>[0.0002]             | -0.0005<br>[0.0003]         | -0.0001<br>[0.0004]                  | 0.0002<br>[0.0005]              |
| Control mean                | 29631               | 31788                   | 0.6456              | 0.2798              | 0.0935                        | 0.0111                         | 0.0245                      | 0.0395                               | 0.0507                          |
| Treated mean                | 30063               | 32097                   | 0.6462              | 0.2798              | 0.0943                        | 0.011                          | 0.0253                      | 0.0398                               | 0.0515                          |

Notes: Event study estimates of the effects of spousal cancer on men in a sample comprising spouses with a minimum of 5 years of cohabitation.

Table A8: Indirect effects of cancer on female spouse: Sample of spouse with minimum of 5 years of cohabitation

| Years since diagnosis       | Earnings (%)        | HH Eq. Disp. income (%) | P(Employed)         | P(pension)          | P(Psychotropic drug purchase) | P(Antipsychotic drug purchase) | P(Anxiolytic drug purchase) | P(Hypnotics/sedative drug purchase) | P(Antidepressant drug purchase) |
|-----------------------------|---------------------|-------------------------|---------------------|---------------------|-------------------------------|--------------------------------|-----------------------------|-------------------------------------|---------------------------------|
| -5                          | 0.0081<br>[0.0054]  | 0.0001<br>[0.0028]      | 0.0088<br>[0.0036]  | -0.0112<br>[0.0023] | -0.0030<br>[0.0030]           | -0.0006<br>[0.0009]            | -0.0015<br>[0.0017]         | -0.0039<br>[0.0019]                 | -0.0011<br>[0.0025]             |
| -4                          | 0.0063<br>[0.0050]  | 0.0010<br>[0.0027]      | 0.0023<br>[0.0033]  | -0.0077<br>[0.0022] | -0.0024<br>[0.0028]           | -0.0010<br>[0.0009]            | 0.0012<br>[0.0016]          | -0.0045<br>[0.0019]                 | 0.0017<br>[0.0024]              |
| -3                          | 0.0031<br>[0.0044]  | -0.0004<br>[0.0025]     | 0.0023<br>[0.0031]  | -0.0070<br>[0.0020] | -0.0010<br>[0.0027]           | 0.0001<br>[0.0008]             | 0.0004<br>[0.0015]          | -0.0025<br>[0.0018]                 | -0.0005<br>[0.0023]             |
| -2                          | 0.0034<br>[0.0033]  | -0.0019<br>[0.0022]     | 0.0046<br>[0.0026]  | -0.0040<br>[0.0016] | -0.0017<br>[0.0024]           | 0.0007<br>[0.0007]             | 0.0021<br>[0.0014]          | -0.0032<br>[0.0016]                 | -0.0004<br>[0.0020]             |
| -1                          | 0.0000<br>[.]       | 0.0000<br>[.]           | 0.0000<br>[.]       | 0.0000<br>[.]       | 0.0000<br>[.]                 | 0.0000<br>[.]                  | 0.0000<br>[.]               | 0.0000<br>[.]                       | 0.0000<br>[.]                   |
| 0                           | -0.0138<br>[0.0034] | -0.0279<br>[0.0024]     | 0.0001<br>[0.0026]  | 0.0009<br>[0.0017]  | 0.0358<br>[0.0027]            | 0.0001<br>[0.0007]             | 0.0154<br>[0.0016]          | 0.0169<br>[0.0019]                  | 0.0186<br>[0.0022]              |
| 1                           | -0.0221<br>[0.0047] | -0.0412<br>[0.0028]     | -0.0096<br>[0.0031] | 0.0054<br>[0.0024]  | 0.0403<br>[0.0030]            | 0.0003<br>[0.0008]             | 0.0149<br>[0.0017]          | 0.0139<br>[0.0021]                  | 0.0291<br>[0.0025]              |
| 2                           | -0.0170<br>[0.0054] | -0.0486<br>[0.0030]     | 0.0008<br>[0.0035]  | -0.0004<br>[0.0028] | 0.0336<br>[0.0031]            | 0.0012<br>[0.0009]             | 0.0121<br>[0.0017]          | 0.0144<br>[0.0022]                  | 0.0232<br>[0.0026]              |
| 3                           | -0.0064<br>[0.0061] | -0.0474<br>[0.0032]     | 0.0030<br>[0.0037]  | -0.0029<br>[0.0030] | 0.0286<br>[0.0032]            | 0.0007<br>[0.0010]             | 0.0095<br>[0.0018]          | 0.0155<br>[0.0024]                  | 0.0173<br>[0.0027]              |
| 4                           | 0.0025<br>[0.0066]  | -0.0498<br>[0.0034]     | 0.0046<br>[0.0039]  | -0.0082<br>[0.0032] | 0.0252<br>[0.0033]            | 0.0009<br>[0.0010]             | 0.0056<br>[0.0018]          | 0.0123<br>[0.0024]                  | 0.0159<br>[0.0028]              |
| 5                           | -0.0004<br>[0.0070] | -0.0524<br>[0.0035]     | 0.0064<br>[0.0040]  | -0.0146<br>[0.0033] | 0.0238<br>[0.0034]            | 0.0021<br>[0.0011]             | 0.0053<br>[0.0018]          | 0.0140<br>[0.0026]                  | 0.0129<br>[0.0028]              |
| 6                           | 0.0028<br>[0.0073]  | -0.0495<br>[0.0036]     | 0.0077<br>[0.0042]  | -0.0156<br>[0.0034] | 0.0221<br>[0.0034]            | 0.0006<br>[0.0011]             | 0.0043<br>[0.0018]          | 0.0168<br>[0.0026]                  | 0.0107<br>[0.0029]              |
| 7                           | 0.0012<br>[0.0077]  | -0.0554<br>[0.0037]     | 0.0109<br>[0.0042]  | -0.0185<br>[0.0035] | 0.0211<br>[0.0035]            | 0.0021<br>[0.0012]             | 0.0044<br>[0.0018]          | 0.0119<br>[0.0027]                  | 0.0106<br>[0.0029]              |
| 8                           | 0.0034<br>[0.0079]  | -0.0551<br>[0.0038]     | 0.0105<br>[0.0043]  | -0.0186<br>[0.0035] | 0.0197<br>[0.0035]            | 0.0025<br>[0.0012]             | 0.0033<br>[0.0019]          | 0.0110<br>[0.0027]                  | 0.0081<br>[0.0029]              |
| 9                           | -0.0027<br>[0.0081] | -0.0531<br>[0.0038]     | 0.0060<br>[0.0043]  | -0.0141<br>[0.0035] | 0.0198<br>[0.0036]            | 0.0026<br>[0.0013]             | 0.0053<br>[0.0019]          | 0.0112<br>[0.0028]                  | 0.0112<br>[0.0030]              |
| 10                          | -0.0100<br>[0.0084] | -0.0615<br>[0.0039]     | 0.0035<br>[0.0044]  | -0.0117<br>[0.0035] | 0.0170<br>[0.0037]            | 0.0036<br>[0.0014]             | 0.0039<br>[0.0020]          | 0.0060<br>[0.0028]                  | 0.0106<br>[0.0030]              |
| Observations                | 849669              | 849669                  | 849669              | 849669              | 849669                        | 849669                         | 849669                      | 849669                              | 849669                          |
| N                           | 53196               | 53196                   | 53196               | 53196               | 53196                         | 53196                          | 53196                       | 53196                               | 53196                           |
| DD-estimate                 | -0.006<br>[0.0054]  | -0.0466<br>[0.0024]     | 0.0003<br>[0.0027]  | -0.0038<br>[0.0021] | 0.0207<br>[0.0021]            | 0.0017<br>[0.0007]             | 0.004<br>[0.0011]           | 0.0121<br>[0.0016]                  | 0.0123<br>[0.0017]              |
| Pre-shock period joint test | 0.5713              | 0.7762                  | 0.0424              | 0                   | 0.8513                        | 0.3284                         | 0.2031                      | 0.1375                              | 0.6304                          |
| DD (short)                  | -0.022<br>[0.0043]  | -0.0342<br>[0.0022]     | -0.0087<br>[0.0026] | 0.0095<br>[0.002]   | 0.0396<br>[0.0023]            | 0.0003<br>[0.0006]             | 0.0147<br>[0.0013]          | 0.0181<br>[0.0016]                  | 0.0239<br>[0.0019]              |
| DD (medium)                 | -0.0094<br>[0.0057] | -0.0492<br>[0.0027]     | -0.0004<br>[0.0031] | 0<br>[0.0025]       | 0.0293<br>[0.0024]            | 0.0014<br>[0.0008]             | 0.0077<br>[0.0013]          | 0.0167<br>[0.0018]                  | 0.0174<br>[0.002]               |
| DD (long)                   | -0.0048<br>[0.007]  | -0.0543<br>[0.0031]     | 0.0034<br>[0.0034]  | -0.0089<br>[0.0027] | 0.0211<br>[0.0027]            | 0.0024<br>[0.001]              | 0.0036<br>[0.0014]          | 0.0139<br>[0.0021]                  | 0.0102<br>[0.0022]              |
| Pre-trend est               | -0.0019<br>[0.0014] | -0.0003<br>[0.0007]     | -0.0015<br>[0.0009] | 0.0026<br>[0.0006]  | 0.0007<br>[0.0007]            | 0.0003<br>[0.0002]             | 0.0004<br>[0.0004]          | 0.0009<br>[0.0005]                  | 0<br>[0.0006]                   |
| Control mean                | 19682               | 31561                   | 6268                | 0.2672              | 0.1464                        | 0.0144                         | 0.0375                      | 0.0599                              | 0.0865                          |
| Treated mean                | 19701               | 31706                   | 0.6132              | 0.28                | 0.1541                        | 0.0163                         | 0.0371                      | 0.0652                              | 0.0907                          |

Notes: Event study estimates of the effects of spousal cancer on women in a sample comprising spouses with a minimum of 5 years of cohabitation.