Supplementary Figure 1. Forest plots of odds ratios and 95\% confidence intervals of population-based studies for risk associations between established epidemiological risk factors and breast cancer:
I. Age at menarche (per 2 years)


## II. Ever use of oral contraceptives (yes/no)

| Study | Odds Ratio | OR $\quad 95 \%-\mathrm{Cl}$ W(fixed) |  |  |
| :---: | :---: | :---: | :---: | :---: |
| ABCFS | - |  | [0.81; 1.56] | 4.9\% |
| CECILE | $\square!$ |  | [0.64; 1.01] | 10.4\% |
| CPSII | I | $\mp 2.56$ | [2.16; 3.03] | 17.9\% |
| ESTHER |  | 0.95 | [0.72; 1.26] | 6.5\% |
| GENICA | 1 | 1.05 | [0.77; 1.42] | 5.5\% |
| KBCP |  |  | [0.61; 1.42] | 2.9\% |
| MARIE | 1 |  | [0.88; 1.18] | 22.9\% |
| MCCS | 1 |  | [0.69; 1.22] | 6.5\% |
| PBCS |  | 1.18 | [0.76; 1.83] | 2.7\% |
| SASBAC | 4 |  | [0.72; 1.03] | 15.8\% |
| UKBGS |  | 0.96 | [0.66; 1.38] | 3.9\% |
| Fixed effect model | $\stackrel{\rightharpoonup}{4}$ | 1.13 | [1.06; 1.22] | 100\% |
| Heterogeneity: 1 -squared $=91.29$ | $\text { tau-squated }=0$ | $16, p<0.0001$ |  |  |
| 0.5 | 1 |  |  |  |

III. Ever had a full-term pregnancy (yes/no)

IV. Age at first full-term pregnancy (per 5 years)

V. Number of full-term pregnancies (among parous, per pregnancy)


## VI. Ever breastfed (no/yes)

| Study | Odds Ratio | OR | 95\%-CI W(fixed) |  |
| :---: | :---: | :---: | :---: | :---: |
| ABCFS | H | 0.77 | [0.53; 1.12] | 7.3\% |
| CECILE | + |  | [0.71; 1.08] | 22.4\% |
| GENICA | + |  | [0.53; 1.01] | 10.2\% |
| KBCP |  | 0.33 | [0.09; 1.17] | 0.6\% |
| MARIE | $+$ | 0.87 | [0.73; 1.04] | 34.3\% |
| MCCS |  | 0.90 | [0.56; 1.42] | 4.8\% |
| PBCS | - | 0.79 | [0.55; 1.13] | 8.0\% |
| SASBAC | 1 | 0.96 | [0.63; 1.47] | 5.7\% |
| UKBGS | + | 0.88 | [0.60; 1.30] | 6.7\% |
| Fixed effect model | $\langle$ | 0.84 | [0.76; 0.93] | 100\% |
| Heterogeneity: 1-squared= | squal ¢ $^{\text {d }}=0, p$ |  |  |  |
| 0.1 | $\begin{array}{lll}0.5 & 1 & 2\end{array}$ |  |  |  |

VII. Current use of any menopausal hormone therapy (yes/no)

| Study | Odds Ratio | OR | 95\%-Cl | (fixed) |
| :---: | :---: | :---: | :---: | :---: |
| CECILE | $1+$ | 1.18 | [0.83; 1.69] | 6.0\% |
| CPSII |  | 1.75 | [1.47; 2.09] | 24.3\% |
| GENICA | + - | 0.89 | [0.59; 1.33] | 4.6\% |
| MARIE | +1 | 1.48 | [1.26; 1.74] | 29.4\% |
| MCCS |  | 1.65 | [1.15; 2.36] | 5.9\% |
| PBCS | 1 |  | [1.29; 4.45] | 2.0\% |
| SASBAC | + | 1.26 | [1.06; 1.50] | 24.5\% |
| UKBGS | + |  | [1.39; 3.59] | 3.4\% |
| Fixed effect model | $\stackrel{ }{4}$ | 1.47 | [1.35; 1.61] | 100\% |
| Heterogeneity: 1 -squared=64.9\%, tau-squared $=0.0325, p=0.005$ |  |  |  |  |
|  | 1 |  |  |  |

VIII. Current use of estrogen-only therapy (yes/no)

IX. Current use of combined estrogen-progesterone therapy (yes/no)

Study Odds Ratio OR 95\%-CI W(fixed)
CECILE
CPSII
GENICA
MARIE
PBCS
SASBAC
Fixed effect model

1.22 [0.81; 1.85] 8.4\%
$3.40[2.67 ; 4.34] \quad 23.9 \%$
$1.19[0.70 ; 2.04] \quad 4.9 \%$
1.58 [1.32; 1.90] 42.1\%
$\begin{array}{lr}2.39[1.25 ; 4.58] & 3.4 \% \\ 1.73[1.30 ; 2.31] & 17.4 \%\end{array}$
$1.89[1.68 ; 2.13] \quad 100 \%$
Heterogeneity: 1-squared $=85.2 \%$, tau-sq4ared $=d .1468, p<0.0001$
0.512
X. BMI, premenopausal women (per $5 \mathbf{k g} / \mathbf{m}^{2}$ )

| Study | Odds Ratio | OR | 95\%-CI W(fixed) |  |
| :---: | :---: | :---: | :---: | :---: |
| ABCFS | $\stackrel{\square}{\square}$ |  | [0.81; 1.05] | 66.3\% |
| CECILE |  | 0.66 | [0.55; 0.78] | 33.7\% |
| Fixed effect model |  | 0.82 | [0.74; 0.91] | 100\% |
| Heterogeneity: 1 -squared $=89.4 \%$, tau-squared $=0.0521, p=0.0021$ |  |  |  |  |
|  | 1 |  |  |  |

XI. BMI, postmenopausal women2 (per $5 \mathbf{k g} / \mathbf{m}^{2}$ )

| Study | Odds Ratio | OR | 95\%-CI W(fixed) |  |
| :---: | :---: | :---: | :---: | :---: |
| CECILE | $\dagger$ | 1.08 | [0.95; 1.23] | 16.6\% |
| CPSII | $\square$ | 0.90 | [0.78; 1.03] | 12.7\% |
| ESTHER | , | 1.53 | [1.24; 1.89] | 5.9\% |
| MARIE | +1 | 0.99 | [0.89; 1.10] | 23.6\% |
| MCCS | $1 \%$ | 1.13 | [0.97; 1.30] | 12.1\% |
| PBCS |  | 1.06 | [0.82; 1.38] | 3.8\% |
| SASBAC | T | 1.07 | [0.97; 1.19] | 25.2\% |
| Fixed effect model | r | 1.06 | [1.00; 1.11] | 100\% |
| Heterogeneity: 1-squar | tau-squdred=0 |  |  |  |
|  | 51 |  |  |  |

## XII. Adult height (per 5 cm )

| Study | Odds Ratio | OR | 95\%-Cl | (fixed) |
| :---: | :---: | :---: | :---: | :---: |
| ABCFS |  | 1.07 | [0.99; 1.16] | 9.6\% |
| CECILE |  | 1.06 | [0.99; 1.15] | 10.8\% |
| CPSII |  | 1.08 | [1.02; 1.15] | 17.5\% |
| ESTHER |  | 1.12 | [1.00; 1.25] | 5.1\% |
| GENICA |  | 1.00 | [0.90; 1.12] | 5.3\% |
| KBCP |  | 1.10 | [0.96; 1.27] | 3.3\% |
| MARIE | , | 1.01 | [0.96; 1.07] | 20.2\% |
| MCCS |  | 1.05 | [0.94; 1.16] | 6.0\% |
| PBCS |  | 1.10 | [0.97; 1.24] | 4.3\% |
| SASBAC |  |  | [1.04; 1.20] | 12.3\% |
| UKBGS |  |  | [1.06; 1.30] | 5.6\% |
| Fixed effect model | < | 1.07 | [1.04; 1.10] | 100\% |
| Heterogeneity: 1 -squared $=9.4 \%$, tau-squared $\frac{1}{\frac{1}{1} 0.0002, ~} p=0.3542$ |  |  |  |  |
|  | 1 |  |  |  |

## XIII. Current smoking (yes/no)

| Study | Odds Ratio | OR | 95\%-CI W(random) |  |
| :---: | :---: | :---: | :---: | :---: |
| ABCFS | + | 1.03 | [0.77; 1.37] | 13.8\% |
| CECILE |  | 0.91 | [0.69; 1.20] | 14.4\% |
| CPSII | + | 0.88 | [0.63; 1.24] | 11.1\% |
| ESTHER |  | 0.78 | [0.52; 1.17] | 8.6\% |
| GENICA | , | 0.84 | [0.60; 1.17] | 11.5\% |
| KBCP |  | 1.30 | [0.78; 2.18] | 5.8\% |
| MARIE | - | 1.23 | [1.02; 1.48] | 21.8\% |
| PBCS | 1 | 1.26 | [0.93; 1.71] | 12.9\% |
| Random effects model | $\rightarrow$ | 1.03 | [0.90; 1.17] | 100\% |
| Heterogeneity: 1 -squared $=34.2 \%$, | $\text { squaredit } 0.0124$ |  |  |  |
| 0.5 | 1 |  |  |  |

XIV. Pack-years of smoking (per 10 pack-years)

| Study | Odds Ratio | OR | 95\%-CI W(fixed) |  |
| :---: | :---: | :---: | :---: | :---: |
| ABCFS | 4 | 1.06 | [0.96; 1.16] | 13.2\% |
| CECILE |  |  | [0.94; 1.12] | 16.2\% |
| CPSII |  | 1.03 | [0.91; 1.16] | 8.6\% |
| GENICA | $\square$ | 0.93 | [0.84; 1.02] | 13.6\% |
| KBCP | 1 | 1.10 | [0.85; 1.42] | 1.9\% |
| MARIE | $\vdots$ | 1.07 | [1.01; 1.13] | 39.2\% |
| PBCS |  | 0.99 | [0.87; 1.12] | 7.3\% |
| Fixed effect model | r | 1.03 | [0.99; 1.07] | 100\% |
| Heterogeneity: $l$-squared $=10.8$ | $\text { tau-squdred }=0$ | . 3473 |  |  |
| 0.8 | 1 |  |  |  |

## XV. Lifetime intake of alcohol (per $10 \mathrm{~g} /$ day)

| Study | Odds Ratio | OR $95 \%-\mathrm{Cl}$ | (fixed) |
| :---: | :---: | :---: | :---: |
| CECILE | -' | 0.95 [0.84; 1.07] | 7.1\% |
| CPSII | 1 | 1.15 [1.08; 1.22] | 26.2\% |
| MARIE | $\square$ | 1.06 [1.01; 1.10] | 48.8\% |
| MCCS | 7 | 1.05 [0.94; 1.18] | 7.1\% |
| PBCS |  | 1.04 [0.88; 1.24] | 3.3\% |
| UKBGS |  | 1.08 [0.97; 1.22] | 7.4\% |
| Fixed effect model | $\sim$ | 1.07 [1.04; 1.11] | 100\% |

Heterogeneity: 1 -squared $=48.7 \%$, tau-squared $\frac{1}{1} 0.0018, p=0.0828$

$$
\begin{array}{lll}
0.9 & 1 & 1.1
\end{array}
$$

