## Supplementary Materials

TABLE S1: Goodness of fit test results

| Alternative Hypothesis | p -value |
| :--- | :---: |
| GLM-NB > Poisson | 0.000 |
| ZIP > Poisson | 0.000 |
| ZINB > GLM-NB | 0.660 |
| GLM-NB > HNB | 0.046 |

GLM-NB = generalized linear model with negative binomial distribution
Poisson $=$ generalized linear model with Poisson distribution
ZIP $=$ zero-inflated poisson model
ZINB = zero-inflated negative binomial model
$\mathrm{HNB}=$ negative binomial hurdle model

TABLE S2: Complete adjusted negative binomial model with interaction terms

|  | Coefficient | Standard Error | Z Value | p-value | CR (95\% CI) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| HDP | 0.208 | 0.345 | 0.604 | 0.546 | $1.231(0.627,2.419)$ |
| T Alleles $=1$ | -0.027 | 0.268 | -0.102 | 0.918 | $0.973(0.575,1.645)$ |
| T Alleles $=2$ | 0.099 | 0.307 | 0.322 | 0.747 | $1.104(0.605,2.016)$ |
| AFB | 0.008 | 0.017 | 0.498 | 0.619 | $1.008(0.975,1.043)$ |
| Age | -0.041 | 0.008 | -5.232 | 0.000 | $0.96(0.945,0.975)$ |
| Family History | 0.372 | 0.185 | 2.008 | 0.045 | $1.451(1.009,2.086)$ |
| BMI | -0.022 | 0.011 | -1.918 | 0.055 | $0.979(0.957,1.000)$ |
| Parity | 0.334 | 0.107 | 3.132 | 0.002 | $1.396(1.133,1.720)$ |
| Menarche | -0.102 | 0.058 | -1.763 | 0.078 | $0.903(0.806,1.011)$ |
| HDP $\times \mathrm{T}$ alleles $=1$ | -0.310 | 0.417 | -0.743 | 0.457 | $0.734(0.324,1.661)$ |
| HDP $\times \mathrm{T}$ alleles $=2$ | -0.740 | 0.482 | -1.536 | 0.124 | $0.477(0.185,1.227)$ |

T alleles are treated as factor variables. HDP compares HDP+ to HDP- women. The reference for T alleles is no T alleles $(\mathrm{T}$ alleles $=0)$. The reference for family history is no family history.

TABLE S3: Complete adjusted negative binomial models stratified by HDP status

|  | For HDP+ women only |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Coefficient | Standard Error | Z Value | p-value | CR (95\% CI) |
| T Alleles $=1$ | -0.500 | 0.326 | -1.536 | 0.124 | $0.606(0.320,1.148)$ |
| T Alleles $=2$ | -0.760 | 0.386 | -1.967 | 0.049 | $0.468(0.219,0.997)$ |
| AFB | -0.045 | 0.028 | -1.628 | 0.104 | $0.956(0.905,1.009)$ |
| Age | -0.023 | 0.013 | -1.793 | 0.073 | $0.978(0.954,1.002)$ |
| Family History | 0.071 | 0.303 | 0.235 | 0.814 | $1.074(0.593,1.946)$ |
| BMI | -0.027 | 0.018 | -1.522 | 0.128 | $0.973(0.940,1.008)$ |
| Parity | -0.048 | 0.179 | -0.267 | 0.790 | $0.953(0.671,1.354)$ |
| Menarche | -0.224 | 0.095 | -2.360 | 0.018 | $0.799(0.663,0.963)$ |
|  |  |  |  |  |  |
|  |  |  | For | HDP- women only |  |
|  | Coefficient | Standard Error | Z Value | p-value | CR (95\% CI) |
| T Alleles $=1$ | 0.013 | 0.260 | 0.052 | 0.959 | $1.014(0.608,1.689)$ |
| T Alleles $=2$ | 0.080 | 0.302 | 0.264 | 0.792 | $1.083(0.600,1.955)$ |
| AFB | 0.022 | 0.021 | 1.022 | 0.307 | $1.022(0.980,1.065)$ |
| Age | -0.043 | 0.010 | -4.302 | 0.000 | $0.958(0.940,0.977)$ |
| Family History | 0.441 | 0.229 | 1.924 | 0.054 | $1.554(0.992,2.435)$ |
| BMI | -0.020 | 0.014 | -1.369 | 0.171 | $0.98(0.953,1.009)$ |
| Parity | 0.398 | 0.131 | 3.028 | 0.002 | $1.489(1.151,1.927)$ |
| Menarche | -0.041 | 0.073 | -0.556 | 0.578 | $0.96(0.831,1.109)$ |
| T alles are |  |  |  |  |  |

T alleles are treated as factor variables. The reference for T alleles is no T alleles. The reference for family history is no family history.

TABLE S4: Complete adjusted negative binomial models stratified by HDP status with alleles treated linearly for trend

|  | For HDP+ women only |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Coefficient | Standard Error | Z Value | p-value | CR (95\% CI) |
| T Alleles | -0.380 | 0.194 | -1.960 | 0.050 | $0.684(0.468,1.000)$ |
| AFB | -0.046 | 0.028 | -1.645 | 0.100 | $0.955(0.904,1.009)$ |
| Age | -0.022 | 0.013 | -1.767 | 0.077 | $0.978(0.954,1.002)$ |
| Family History | 0.103 | 0.300 | 0.342 | 0.733 | $1.108(0.615,1.996)$ |
| BMI | -0.028 | 0.018 | -1.560 | 0.119 | $0.973(0.939,1.007)$ |
| Parity | -0.032 | 0.178 | -0.182 | 0.856 | $0.968(0.684,1.371)$ |
| Menarche | -0.220 | 0.093 | -2.375 | 0.018 | $0.802(0.669,0.962)$ |

For HDP- women only

|  | Coefficient | Standard Error | Z Value | p-value | CR (95\% CI) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| T Alleles | 0.041 | 0.151 | 0.270 | 0.787 | $1.042(0.775,1.400)$ |
| AFB | 0.022 | 0.021 | 1.031 | 0.303 | $1.022(0.981,1.065)$ |
| Age | -0.043 | 0.010 | -4.308 | 0.000 | $0.958(0.940,0.977)$ |
| Family History | 0.436 | 0.228 | 1.911 | 0.056 | $1.547(0.989,2.419)$ |
| BMI | -0.020 | 0.014 | -1.348 | 0.178 | $0.981(0.953,1.009)$ |
| Parity | 0.402 | 0.131 | 3.071 | 0.002 | $1.495(1.157,1.933)$ |
| Menarche | -0.039 | 0.072 | -0.550 | 0.582 | $0.961(0.836,1.106)$ |

T alleles are treated linearly. The reference for T alleles is no T alleles. The reference for family history is no family history.

