S2 Table. The effect of comorbidity on the occurrence of depression and/or angina in GS: SFHS overall and stratified according to gender.

| Exposure | Outcome | Group | Unadjusted |  | Adjusted |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | N | OR [95\% CI] | N | OR [95\% CI] |
| Depression in the presence of chronic pain |  |  |  |  |  |  |
| Chronic Pain | Depression | Overall ${ }^{\dagger}$ | 13,376 | $\begin{gathered} 2.80^{\mathrm{a}} \\ {[2.52 \text { to } 3.11]} \end{gathered}$ | 11,679 | $\begin{gathered} 2.62^{\mathrm{a}} \\ {[2.32 \text { to } 2.96]} \end{gathered}$ |
|  |  | Females only | 7,845 | $\begin{gathered} 2.57^{\mathrm{a}} \\ {[2.27 \text { to } 2.91]} \\ \hline \end{gathered}$ | 6,832 | $\begin{gathered} 2.63^{\mathrm{a}} \\ {[2.28 \text { to } 3.03]} \\ \hline \end{gathered}$ |
|  |  | Males only ${ }^{\ddagger}$ | 5,531 | $\begin{gathered} 2.71^{\mathrm{a}} \\ {[2.21 \text { to } 3.32]} \end{gathered}$ | 4,847 | $\begin{gathered} 2.58^{\mathrm{a}} \\ {[2.04 \text { to } 3.25]} \\ \hline \end{gathered}$ |
| Depression in the presence of angina |  |  |  |  |  |  |
| Angina | Depression | Overall ${ }^{\dagger}$ | 16,224 | $\begin{gathered} 2.18^{\mathrm{a}} \\ {[1.92 \text { to } 2.47]} \end{gathered}$ | 14,121 | $\begin{gathered} 2.10^{\mathrm{a}} \\ {[1.82 \text { to } 2.43]} \end{gathered}$ |
|  |  | Females only | 9,669 | $\begin{gathered} 2.13^{\mathrm{a}} \\ {[1.82 \text { to } 2.48]} \\ \hline \end{gathered}$ | 8,379 | $\begin{gathered} 2.05^{\mathrm{a}} \\ {[1.72 \text { to } 2.45]} \\ \hline \end{gathered}$ |
|  |  | Males only ${ }^{\ddagger}$ | 6,555 | $\begin{gathered} 2.43^{\mathrm{a}} \\ {[1.94 \text { to } 3.03]} \\ \hline \end{gathered}$ | 5,742 | $\begin{gathered} 2.20^{\mathrm{a}, \mathrm{~d}} \\ {[1.71 \text { to } 2.84]} \\ \hline \end{gathered}$ |
| Depression in the presence of chronic pain and angina |  |  |  |  |  |  |
| Chronic pain and angina | Depression | Overall ${ }^{+}$ | 9,461 | $\begin{gathered} 4.36^{\mathrm{a}} \\ {[3.58 \text { to } 5.30]} \end{gathered}$ | 8,297 | $\begin{gathered} 3.78^{\mathrm{a}} \\ {[2.99 \text { to } 4.78]} \end{gathered}$ |
|  |  | Females only* | 5,480 | $\begin{gathered} 3.91^{\mathrm{a}} \\ {[3.10 \text { to } 4.91]} \end{gathered}$ | 4,805 | $\begin{gathered} 3.76^{\mathrm{a}, \mathrm{~b}} \\ {[2.87 \text { to } 4.94]} \end{gathered}$ |
|  |  | Males only ${ }^{\ddagger}$ | 3,981 | $\begin{gathered} 4.77^{\mathrm{a}} \\ {[3.26 \text { to } 6.97]} \end{gathered}$ | 3,492 | $\begin{gathered} 3.86^{\mathrm{a}, \mathrm{c}} \\ {[2.49 \text { to } 5.99]} \\ \hline \end{gathered}$ |
| Angina in the presence of chronic pain |  |  |  |  |  |  |
| Chronic pain | Angina | Overall ${ }^{+}$ | 14,564 | $\begin{gathered} 5.45^{\mathrm{a}} \\ {[4.84 \text { to } 6.14]} \\ \hline \end{gathered}$ | 11,973 | $\begin{gathered} 4.23^{\mathrm{a}} \\ {[3.67 \text { to } 4.86]} \\ \hline \end{gathered}$ |
|  |  | Females only | 8,720 | $\begin{gathered} 6.13^{\mathrm{a}} \\ {[5.26 \text { to } 7.16]} \\ \hline \end{gathered}$ | 7,193 | $\begin{gathered} 4.97^{\mathrm{a}} \\ {[4.16 \text { to } 5.95]} \\ \hline \end{gathered}$ |
|  |  | Males only ${ }^{\ddagger}$ | 5,844 | $\begin{gathered} 4.93^{\mathrm{a}} \\ {[4.06 \text { to } 5.99]} \end{gathered}$ | 4,780 | $\begin{gathered} 3.31^{\mathrm{a}, \mathrm{e}} \\ {[2.63 \text { to } 4.17]} \end{gathered}$ |
| Angina in the presence of depression |  |  |  |  |  |  |
| Depression | Angina | Overall ${ }^{\dagger}$ | 16,224 | $\begin{gathered} 2.18^{\mathrm{a}} \\ {[1.92 \text { to } 2.47]} \end{gathered}$ | 14,121 | $\begin{gathered} 2.20^{\mathrm{a}} \\ {[1.90 \text { to } 2.54]} \end{gathered}$ |
|  |  | Females only ${ }^{\ddagger}$ | 9,669 | $\begin{gathered} 2.13^{\mathrm{a}} \\ {[1.82 \text { to } 2.48]} \end{gathered}$ | 8,379 | $\begin{gathered} 2.11^{\mathrm{a}} \\ {[1.77 \text { to } 2.52]} \end{gathered}$ |
|  |  | Males only | 6,555 | $\begin{gathered} 2.43^{\mathrm{a}} \\ {[1.94 \text { to } 3.03]} \end{gathered}$ | 5,742 | $\begin{gathered} 2.37^{\mathrm{a}, \mathrm{f}} \\ {[1.83 \text { to } 3.06]} \end{gathered}$ |
| Angina in the presence of chronic pain and depression |  |  |  |  |  |  |
| Chronic pain and depression | Angina | Overall ${ }^{\dagger}$ | 9,003 | $\begin{gathered} 9.15^{\mathrm{a}} \\ {[7.43 \text { to } 11.26]} \end{gathered}$ | 7,919 | $\begin{gathered} 7.76^{\mathrm{a}} \\ {[6.05 \text { to } 9.95]} \\ \hline \end{gathered}$ |
|  |  | Females only | 5,120 | $\begin{gathered} 10.19^{\mathrm{a}} \\ {[7.91 \text { to } 13.12]} \end{gathered}$ | 4,506 | $\begin{gathered} 7.77^{\mathrm{a}} \\ {[5.79 \text { to } 10.42]} \\ \hline \end{gathered}$ |


|  | Males <br> only | 3,883 | $9.85^{\text {a }}$ <br> $[6.52$ to 14.88$]$ | 3,413 | $8.45^{\text {a,g }}$ <br> $[5.25$ to 13.59$]$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |

${ }^{\dagger}$ valid data adjusted for age, gender, education, SIMD and smoking status; overall results are also reported in Table 3; ${ }^{\ddagger}$ valid data adjusted for age, education, SIMD and smoking status;
$\mathrm{a}=\mathrm{p}<0.001 ; \mathrm{b}=$ Variable removed from model, SIMD $\mathrm{P}=0.62 ; \mathrm{c}=$ Variable removed from model, Age $\mathrm{P}=0.21 ; \mathrm{d}=$ Variable removed from model: education $\mathrm{P}=0.18 ; \mathrm{e}=$ Variable removed from model: education $\mathrm{P}=0.80 ; \mathrm{f}=$ Variable removed from model: education $\mathrm{P}=0.12 ; \mathrm{g}=$ Variables removed from model: $\mathrm{SIMD} \mathrm{P}=0.45$ and Education $\mathrm{P}=0.30$

