Supplemental Tables

S1. Patient Health Questionnaire (PHQ-9)

S2. Unadjusted and adjusted odds ratio1 and design-based 95% CI's complete case, 2007-2012 NHANES

S3. Design based Wald test between unadjusted and adjusted odds ratio\* of depressive states by diabetes status; 2007-2012 NHANES.

Table S1. **Patient Health Questionnaire (PHQ-9)**

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| --- | --- |
|  |  |
| Over the last two weeks, how often have you been bothered by the following problems?Response: Not at all, Several days, More than half the days, and Nearly every day. 1. Little interest in doing things?2. Feeling down, depressed, or hopeless? 3. Trouble sleeping or sleeping too much? 4. Feeling tired or having little energy? 5. Poor appetite or overeating? 6. Feeling bad about yourself? 7. Trouble concentrating or doing things? 8. Moving or speaking slowly or fast? 9. Thought you would be better off dead or of hurting yourself in some way? |  |

TableS2. **Unadjusted and adjusted odds ratio1 and design-based 95% CI's complete case, 2007-2012 NHANES**

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|  |  |  |  |  |  |  |
|  | Subsyndromal Symptomatic depression | Minor depression | Major Depressive Episode |
|  | Unadjusted | Adjusted | Unadjusted | Adjusted | Unadjusted | Adjusted |
|   | OR [95% CI] | OR [95% CI] | OR [95% CI] | OR [95% CI] | OR [95% CI] | OR [95% CI] |
| **Main Exposure** |   |   |   |   |   |   |
| No diabetes | 1·00 REF |  | 1·00 REF |  | 1·00 REF |  |
| Prediabetes | 0·87 [0·62,1·21] | 0·97 [0·68,1·39] | 1·42 [0·98,2·08] | 1·47 [0·95,2·28] | 1·40 [0·99,1·99] | 1·44 [0·91,2·26] |
| Undiagnosed diabetes | 0·99 [0·61,1·60] | 1·10 [0·68,1·78] | 0·89 [0·48,1·68] | 0·82 [0·41,1·61] | **2·07 [1·21,3·54]** | 1·85 [0·84,4·08] |
| Diagnosed diabetes | **1·86 [1·45,2·38]** | **1·91 [1·37,2·68]** | **2·69 [1·80,4·00]** | **2·26 [1·43,3·59]** | **2·54 [1·59,4·04]** | **2·09 [1·17,3·75]** |
| **Covariates** |  |  |  |  |  |  |
| Sex |   |   |   |   |   |   |
| Male |  | 1·00 REF |  | 1·00 REF |  | 1·00REF |
| Female |  | **1·52 [1·07,2·17]** |  | **1·54 [1·07,2·2]** |  | **1·77 [1·12,2·81]** |
| Age groups |   |   |   |   |   |   |
| 20-39 yrs  |  | 1·00 REF |  | 1·00 REF |  | 1·00 REF |
| 40-59 yrs |  | 0·96 [0·69,1·34] |  | 1·43 [0·95,2·13] |  | **1·77 [1·19,2·64]** |
| 60+ yrs |  | 0·69 [0·49,·988] |  | 0·91 [0·56,1·5] |  | 0·52 [0·32,0·83] |
| Education |   |   |   |   |   |   |
| BS or higher  |  | 1·00 REF |  | 1·00 REF |  | 1·00 REF |
| Some college |  | **2·03 [1·41,2·92]** |  | 1·58 [0·87,2·89] |  | 1·93 [0·98,3·83] |
| HS or GED |  | 1·58 [0·98,2·55] |  | **2·17 [1·10,4·25]** |  | 1·88 [0·79,4·50] |
| Less HS |  | **1·69 [1·12,2·54]** |  | **3·23 [1·71,6·09]** |  | 2·39 [0·96,5·95] |
| Race-ethnicity |   |   |   |   |   |   |
| Non-Hispanic -White  |  | 1·00 REF |  | 1·00 REF |  | 1·00 REF |
| Non-Hispanic Black |  | 0·79 [0·60,1·03] |  | 1·34 [0·98,1·85] |  | 0·88 [0·57,1·36] |
| All Hispanics |  | 0·45 [0·30,0·69] |  | 0·76 [0·50,1·16] |  | 0·31 [0·16,0·59] |
| Mexican-American |  | 0·45 [0·30,·069] |  | 0·76 [0·50,1·16] |  | 0·31 [0·16,·59] |
| Poverty Income ratio |   |   |   |   |   |   |
| Middle & High Income |  | 1·00 REF |  | 1·00 REF |  | 1·00 REF |
| Low income |  | **1·61 [1·09,2·39]** |  | **2·29 [1·53,3·44]** |  | **2·7 [1·62,4·48]** |
| Poor |  | **2·58 [1·72,3·88]** |  | **2·42 [1·62,3·61]** |  | **4·32 [2·16,8·66]** |
| Body mass index (BMI) |   |   |   |   |   |   |
| Healthy weight |  | 1·00 REF |  | 1·00 REF |  | 1·00 REF |
| Overweight |  | 1·16 [0·84,1·60] |  | 0·89 [0·56,1·41] |  | 1·79 [0·80,3·99] |
| Obese |   | 0·90 [0·60,1·36] |   | 0·89 [0·56,1·39] |   | 1·12 [0·52,2·35] |
| 1 Adjusted to age, sex education, race-ethnicity, poverty, and BMI· |
| Bold type indicates a significant odds ratio· P value <0·05 for statistical significance·  |
| Exponentiated coefficients; 95% confidence intervals in brackets |
| REF = Referent category |
| Analytical sample n= 5,277 |
| *SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey·* |

Table S3· **Design based Wald test between unadjusted and adjusted odds ratio\* of depressive states by diabetes status; 2007-2012 NHANES·**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  | Unadjusted Odds Ratio | Adjusted Odds Ratio | Wald testP-value (two-tail) |
|  | Subsyndromal Symptomatic Depression (ssD) | Prediabetes | 0·87 | 0·97 | 0·66 |
|  |  | Undiagnosed diabetes | 0·99 | 1·10 | 0·75 |
|  |  | Diagnosed diabetes | 1·86 | 1·91 | 0·89 |
|  |  |  |  |  |  |
|  | Minor Depression (mD) | Prediabetes | 1·42 | 1·47 | 0·90 |
|  |  | Undiagnosed diabetes | 0·90 | 0·82 | 0·83 |
|  |  | Diagnosed diabetes | 2·69 | 2·26 | 0·56 |
|  |  |  |  |  |  |
|  | Major Depressive Episode (MDE) | Prediabetes | 1·40 | 1·44 | 0·92 |
|  |  | Undiagnosed diabetes | 2·07 | 1·85 | 0·81 |
|  |  | Diagnosed diabetes | 2·54 | 2·09 | 0·59 |

\*Adjusted by age, sex, race and ethnicity, education, body mass index, and poverty·