**Supplemental Digital Content 1. Odds Ratios for Positive Screens for Chronic Multisymptom Illness/Gulf War Illness Stratified by Sex, Millennium Cohort Study, 2001–2016.**a

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| --- | --- | --- | --- |
|  |  | **Male**  **(N = 56,093)**  **OR (95% CI)** | **Female**  **(N = 20,482)**  **OR (95% CI)** |
| Deployment status | Gulf War veteran (reference) | 1.00 | 1.00 |
|  | Era personnel | 0.75 (0.69, 0.82) | 0.73 (0.61, 0.88) |
|  | Non-era personnel | 0.70 (0.64, 0.78) | 0.74 (0.61, 0.90) |
| Time(in 5-yr increments) | Time | 1.75 (1.68, 1.82) | 1.57 (1.44, 1.72) |
|  | Time x era personnel | 1.06 (1.01, 1.10) | 1.06 (0.97, 1.17) |
|  | Time x non-era personnel | 1.03 (0.98, 1.08) | 0.98 (0.89, 1.07) |
| Age (at study baseline) | 0–34 (reference) | 1.00 | 1.00 |
|  | 35–44 | 1.01 (0.95, 1.07) | 1.08 (0.98, 1.19) |
|  | >44 | 0.86 (0.80, 0.93) | 0.96 (0.84, 1.09) |
| Race/Ethnicity | White non-Hispanic (reference) | 1.00 | 1.00 |
|  | Black non-Hispanic | 1.14 (1.06, 1.22) | 1.16 (1.06, 1.26) |
|  | Other race/ethnicity | 1.22 (1.13, 1.31) | 1.09 (0.98, 1.21) |
| Service branch | Army (reference) | 1.00 | 1.00 |
|  | Navy/Coast Guard | 0.47 (0.44, 0.51) | 0.67 (0.61, 0.74) |
|  | Marine Corps | 0.66 (0.60, 0.73) | 0.79 (0.63, 0.98) |
|  | Air Force | 0.43 (0.41, 0.46) | 0.54 (0.50, 0.59) |
| Component | Active duty (reference) | 1.00 | 1.00 |
|  | Reserves/National Guard | 0.65 (0.62, 0.69) | 0.61 (0.56, 0.65) |
| Baseline chemical exposure | No exposure (reference) | 1.00 | 1.00 |
|  | Baseline exposure | 1.83 (1.72, 1.95) | 1.70 (1.51, 1.92) |
| Time-varying chemical exposure | No exposure (reference) | 1.00 | 1.00 |
|  | Time-varying exposure | 1.20 (1.14, 1.27) | 1.29 (1.16, 1.43) |
| Pesticide exposure | No exposure (reference) | 1.00 | 1.00 |
|  | Time-varying reported | 1.54 (1.49, 1.59) | 1.53 (1.45, 1.62) |
| Anthrax vaccine | None reported at baseline (reference) | 1.00 | 1.00 |
|  | Reported at baseline | 1.15 (1.09, 1.21) | 1.11 (1.02, 1.21) |
| OEF/OIF deployment | Never deployed (reference) | 1.00 | 1.00 |
|  | Previously deployed | 1.44 (1.38, 1.50) | 1.46 (1.36, 1.56) |
| PTSD screen | Negative screen (reference) | 1.00 | 1.00 |
|  | Positive screen | 17.46 (15.82, 19.26) | 10.59 (9.13, 12.30) |
| Depression screen | Negative screen (reference) | 1.00 | 1.00 |
|  | Positive screen | 20.79 (17.87, 24.19) | 18.14 (14.73, 22.33) |
| Panic disorder screen | Negative screen (reference) | 1.00 | 1.00 |
|  | Positive screen | 6.72 (5.74, 7.87) | 5.90 (4.88, 7.13) |
| Anxiety screen | Negative screen (reference) | 1.00 | 1.00 |
|  | Positive screen | 15.27 (12.40, 18.79) | 16.27 (12.56, 21.07) |
| Random person-level varianceb |  | 3.69 | 3.09 |

Abbreviations:CI, confidence interval; OEF, Operation Enduring Freedom; OIF, Operation Iraqi Freedom; OR, odds ratio; PTSD, post-traumatic stress disorder. aOdds ratios were estimated using the NLMIXED procedure in SAS software, version 9.4.bThese results were not exponentiated.