**eTable 1.** True and Misclassified Odds Ratios and Sensitivity and Specificity for All Participants, Cases, and Non-Cases for Each Simulated Dataset.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | All | | Cases | | Non-Cases | |
| Dataset | True OR | Misclassified OR | Se | Sp | Se | Sp | Se | Sp |
| Exactly nondifferential | 1.00 | 1.00 | 0.9200 | 0.8767 | 0.9200 | 0.8767 | 0.9200 | 0.8767 |
| Approximately nondifferential | 1.00 | 1.14 | 0.9040 | 0.8957 | 0.9200 | 0.8767 | 0.9022 | 0.8978 |
| Differential A | 1.00 | 0.75 | 0.9070 | 0.9046 | 0.9500 | 0.9489 | 0.9022 | 0.8996 |
| Differential B | 1.00 | 1.42 | 0.9450 | 0.9451 | 0.9300 | 0.8956 | 0.9467 | 0.9506 |
| Exactly nondifferential | 1.29 | 1.12 | 0.9122 | 0.8765 | 0.9120 | 0.8766 | 0.9122 | 0.8765 |
| Approximately nondifferential | 1.29 | 1.28 | 0.9034 | 0.8957 | 0.9120 | 0.8766 | 0.9022 | 0.8978 |
| Differential A | 1.29 | 0.88 | 0.9073 | 0.9045 | 0.9440 | 0.9497 | 0.9022 | 0.8996 |
| Differential B | 1.29 | 1.61 | 0.9434 | 0.9454 | 0.9200 | 0.8960 | 0.9467 | 0.9506 |

Abbreviations: OR, odds ratio; Se, sensitivity; Sp, specificity.

**eTable 2.** Studies Reporting Sensitivity and Specificity of Self-Reported Obesity Status in American Adult Females of Reproductive Age.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Study | Population | Years | N | Se | Sp | Diabetes |
| 1 | Krul et al., 201119 | North American females aged 18-65 participating in CAESAR project | 1999-2000 | 1,248 | 0.885 | 0.996 | No information |
| 2 | Johnson et al., 200920 | Females aged 18-65, participants in the Pennington Center Longitudinal Study | 1992-2008 | 9,797 | EA: 0.912  AA: 0.909 | EA: 0.964  AA: 0.947 | No information |
| 3 | Brunner Huber 200721 | Females 18-45 using birth control, attending suburban Family Medicine clinic in Atlanta | 2004 | 250 | 0.900 | 0.994 | No information |
| 4 | Hussain et al., 200722 | English-speaking, nonpregnant females aged 18-44, predominantly African-American, attending urban community health center for medical appointments | 2003 | 231 | 0.896 | 0.944 | 7.4% diagnosed, population reported to be at high risk |
| 5 | Nieto-Garcia et al., 199023 | Females aged 20-79, participants in Collaborative Lipid Research Clinics Family Study | 1975-1978 | 572 | 0.80 | 0.99a | No information |

Abbreviations: AA, African-American; EA, European-American; N, number; Se, sensitivity; Sp, specificity.

a Estimate includes males, but reported to be similar for all participant subgroups.

**eTable 3.** Triangular Distributions for Sensitivity and Specificity of Obesity Classification for Non-Cases Created From Literature Review.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Sensitivity | | | Specificity | | |
| Source of Estimates | Min | Mode | Max | Min | Mode | Max |
| Krul et al., 201119 | 0.84 | 0.89 | 0.94 | 0.94 | 0.99 | 1.00 |
| Johnson et al., 200920 | 0.86 | 0.91 | 0.96 | 0.91 | 0.96 | 1.00 |
| Brunner Huber, 200721 | 0.85 | 0.90 | 0.95 | 0.94 | 0.99 | 1.00 |
| Hussain et al., 200722 | 0.85 | 0.90 | 0.95 | 0.89 | 0.94 | 0.99 |
| Nieto-Garcia et al., 199023 | 0.75 | 0.80 | 0.85 | 0.94 | 0.99 | 1.00 |

Abbreviations: max; maximum; min, minimum.