**Supplemental Table 1:** Adjusted survey-weighted logistic regression models investigating predictors of vitamin D deficiency (serum 25-hydroxyvitamin D concentrations <50 nmol/L) in Australian Aboriginal adults aged ≥18 years participating in the 2012-13 Australian Aboriginal and Torres Strait Islander Health Survey and included in the current study, stratified by sex: sensitivity analysis excluding underweight participants from the reference category (healthy weight) (men, *n*=1,166; women, *n*=1,716)

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristics** | **Men: Adjusted Odds Ratio\* (95% CI)** | **Women: Adjusted Odds Ratio\* (95% CI)** | |
| **Age categories, years** |  |  |
| 18-34 | Ref | Ref |
| 35-54 | 0.53 (0.30, 0.93) | 1.18 (0.79, 1.76) |
| 55 and over | 0.77 (0.40, 1.51) | 0.93 (0.53, 1.61) |
| **Season** |  |  |
| Summer (December-February) | Ref | Ref |
| Autumn (March-May) | 0.53 (0.21, 1.31) | 1.24 (0.65, 2.35) |
| Winter (June-August) | 5.66 (2.17, 14.79) | 2.12 (1.21, 3.71) |
| Spring (September-November) | 3.25 (1.40, 7.54) | 2.61 (1.49, 4.55) |
| **Remoteness area** |  |  |
| Non-remote | Ref | Ref |
| Remote | 1.45 (0.92, 2.30) | 1.99 (1.36, 2.92) |
| **BMI** |  |  |
| Healthy weight | Ref | Ref |
| Overweight | 1.55 (0.80, 2.99) | 2.24 (1.34, 3.76) |
| Obese | 2.60 (1.23, 5.48) | 4.15 (2.62, 6.56) |
| **Smoking** |  |  |
| Ex/non-smoker | Ref | Ref |
| Current | 2.12 (1.23, 3.64) | 1.10 (0.76, 1.59) |
| **Education** |  |  |
| High/primary/no school | Ref | Ref |
| Certificate/diploma | 0.87 (0.47, 1.61) | 0.95 (0.64, 1.40) |
| University | 0.48 (0.13, 1.82) | 2.22 (1.23, 4.38) |
| **Socioeconomic status** |  |  |
| Lowest quintile | Ref | Ref |
| Second quintile | 0.59 (0.27, 1.27) | 0.95 (0.59, 1.54) |
| Third quintile | 0.56 (0.24, 1.31) | 0.52 (0.25, 1.08) |
| Fourth quintile | 0.61 (0.20, 1.85) | 0.81 (0.42, 1.55) |
| Highest quintile | 1.28 (0.30, 5.40) | 0.57 (0.21, 1.51) |

\*Adjusted for all other variables