Appendix

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/* For Stata versions 11 and later */

* Logistic regression adjusting for confounders
* Outcome is "bmi3" – overweight/obese BMI at wave 3
* Exposure is low physical activity (inactive = 1)

**********************************************************************
/* Method 1 – Marginal standardization (standard = TOTAL population) */

        * First run logistic regression
        logit bmi3 i.inactive age18 female white diet bmi2, or

        * Estimate prevalence difference for inactive = 1 vs. inactive = 0
        margins inactive, contrast(effects)
        * Alternative syntax
        margins inactive, dydx(inactive)

        * Predicted probabilities by exposure level
        margins inactive, post

        * Estimate prevalence ratio for inactive = 1 vs. inactive = 0
        margins, coeflegend
        nlcom (ratio1: _b[1.inactive]/_b[0bn.inactive]), post
        test ratio1 = 1
                /* Gives appropriate p value for comparing ratio1 to 1 */

**********************************************************************
/* Method 1 – Marginal standardization (standard = EXPOSED population) */

        * First run logistic regression
        logit bmi3 i.inactive age18 female white diet bmi2, or

        * Estimate prevalence difference for inactive = 1 vs. inactive = 0
        margins if inactive==1, dydx(inactive)

        * Predicted probabilities by exposure level
        margins inactive, subpop(inactive) post
                /* subpop option calculates weights based on inactive = 1 (exposed group) */

        * Estimate prevalence ratio for inactive = 1 vs. inactive = 0
        margins, coeflegend
        nlcom (ratio1: _b[1.inactive]/_b[0bn.inactive]), post
        test ratio1 = 1
                /* Gives appropriate p value for comparing ratio1 to 1 */
```

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****************************************
/* Method 2 – Prediction at the Modes */
/* Note: User must calculate the mode for each confounder */

        logit bmi3 i.inactive age18 female white diet bmi2, or

        margins inactive, at(age18=1 female=1 white=1 diet=0 bmi2=0) contrast(effects)

        margins inactive, at(age18=1 female=1 white=1 diet=0 bmi2=0) post
        margins, coeflegend
        nlcom (ratio1: _b[1.inactive]/_b[0bn.inactive]), post
        test ratio1 = 1

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/* Method 3 – Prediction at the Means */

        logit bmi3 i.inactive age18 female white diet bmi2, or

        * atmeans option sets each confounder to its mean value
        margins inactive, atmeans contrast(effects)

        margins inactive, atmeans post

        margins, coeflegend
        nlcom (ratio1: _b[1.inactive]/_b[0bn.inactive]), post
        test ratio1 = 1
```