**Supplementary Material**

**Part 1, variable lists.**

**Outcome variable:**

Q85. During the past 12 months, have you been tested for a sexually transmitted disease (STD) other than HIV, such as

chlamydia or gonorrhea?

A. Yes

B. No

C. Not sure

Variable label: STD testing

**Exposure variable:**

age,

sex,

grade,

race4,

bmi,

qnothhpl- Used birth control pills; an IUD (such as Mirena or

ParaGard) or implant (such as Implanon or

Nexplanon); or a shot (such as Depo-Provera), patch

(such as OrthoEvra), or birth control ring (such as

NuvaRing) before last sexual intercourse,

Q17. During the past 12 months, how many times were you in a physical fight?

A. 0 times B. 1 time C. 2 or 3 times D. 4 or 5 times E. 6 or 7 times F. 8 or 9 times G. 10 or 11 times H. 12 or more times

QN17

Q20. During the past 12 months, how many times did anyone force you to do sexual things that you did not want to do? (Count such things as kissing, touching, or being physically forced to have sexual intercourse.)

A. 0 times B. 1 time C. 2 or 3 times D. 4 or 5 times E. 6 or more times

Q21. During the past 12 months, how many times did someone you were dating or going out with force you to do sexual things that you did not want to do? (Count such things as kissing, touching, or being physically forced to have sexual intercourse.)

A. I did not date or go out with anyone during the past 12 months B. 0 times C. 1 time D. 2 or 3 times E. 4 or 5 times F. 6 or more times

Q23. During the past 12 months, have you ever been bullied on school property? A. Yes B. No

Q26. During the past 12 months, did you ever seriously consider attempting suicide? A. Yes B. No

Q30. Have you ever tried cigarette smoking, even one or two puffs? A. Yes B. No

Q41. During the past 30 days, on how many days did you have at least one drink of alcohol?

A. 0 days B. 1 or 2 days – light drinker

C. 3 to 5 days D. 6 to 9 days E. 10 to 19 days - moderate drinker

F. 20 to 29 days G. All 30 days - heavy drinker

Q47. During the past 30 days, how many times did you use marijuana?

A. 0 times B. 1 or 2 times

C. 3 to 9 times D. 10 to 19 times

E. 20 to 39 times F. 40 or more times

Q49. During your life, how many times have you taken prescription pain medicine without a doctor's prescription or differently than how a doctor told you to use it? A. 0 times B. 1 or 2 times C. 3 to 9 times D. 10 to 19 times E. 20 to 39 times F. 40 or more times

Q50. During your life, how many times have you used any form of cocaine, including powder, crack, or freebase? A. 0 times B. 1 or 2 times C. 3 to 9 times D. 10 to 19 times E. 20 to 39 times F. 40 or more times

Q52. During your life, how many times have you used heroin (also called smack, junk, or China White)? A. 0 times B. 1 or 2 times C. 3 to 9 times D. 10 to 19 times E. 20 to 39 times F. 40 or more times

Q53. During your life, how many times have you used methamphetamines (also called speed, crystal meth, crank, ice, or meth)? A. 0 times B. 1 or 2 times C. 3 to 9 times D. 10 to 19 times E. 20 to 39 times F. 40 or more times

Q56. During your life, how many times have you used a needle to inject any illegal drug into your body? A. 0 times B. 1 time C. 2 or more times

Q58. Have you ever had sexual intercourse? A. Yes B. No

Q61. During the past 3 months, with how many people did you have sexual intercourse? A. I have never had sexual intercourse B. I have had sexual intercourse, but not during the past 3 months C. 1 person D. 2 people E. 3 people F. 4 people G. 5 people H. 6 or more people

Q63. The last time you had sexual intercourse, did you or your partner use a condom? A. I have never had sexual intercourse B. Yes C. No

Q65. During your life, with whom have you had sexual contact? A. I have never had sexual contact B. Females C. Males D. Females and males

Q66. Which of the following best describes you? A. Heterosexual (straight) B. Gay or lesbian C. Bisexual D. Not sure

Q84. Have you ever been tested for HIV, the virus that causes AIDS? (Do not count tests done if you donated blood.) A. Yes B. No C. Not sure

Q87. Has a doctor or nurse ever told you that you have asthma? A. Yes B. No C. Not sure

Q89. During the past 12 months, how would you describe your grades in school? A. Mostly A's B. Mostly B's C. Mostly C's D. Mostly D's E. Mostly F's F. None of these grades G. Not sure

**Part 2, accuracy and its 95% CI, use “postResample” function**

|  |  |  |
| --- | --- | --- |
| Accuracy and 95% CI for States data |  |  |
|  | Accuracy | 95% CI |
| multinom | 0.4979 | 0.4819, 0.5139 |
| random forest | 0.9995 | 0.9981, 0.9999 |
| SVM | 0.4829 | 0.4669, 0.4989 |
| lasso | 0.7489 | 0.7348, 0.7627 |
| ridge | 0.7511 | 0.737, 0.7647 |
| elastic net | 0.4921 | 0.4761, 0.5081 |
| classification tree | 0.6217 | 0.6061, 0.6372 |
| Accuracy and 95% CI for loca school district data |  |  |
|  | Accuracy | 95% CI |
| multinom | 0.5300 | 0.5111, 0.5489 |
| random forest | 0.9996 | 0.998, 1 |
| SVM | 0.5201 | 0.5012, 0.539 |
| lasso | 0.7167 | 0.6994, 0.7335 |
| ridge | 0.7160 | 0.6986, 0.7328 |
| elastic net | 0.6325 | 0.6141, 0.6506 |
| classification tree | 0.6387 | 0.6204, 0.6568 |