**Appendix A: Survey Questions**

Respondents first presented with one of the 3 conditions below. Please note that all observational results are based only on individuals who received the control condition

***Control***

As you may know, some doctors prescribe medicine for their patients for "off-label" use. "Off-label" use refers to situations where doctors prescribe a drug in order to treat a condition not originally targeted by the drug manufacturer or if the manufacturer did not test the drug for that condition in the process of getting the drug approved for prescription.

We'd like to know more about your thoughts on off-label prescribing. Some people think that doctors should have the discretion to determine when they prescribe drugs for off-label purposes. Others think that doctors' abilities to prescribe off-label should be regulated by the federal government.

***Shortage***

As you may know, some doctors prescribe medicine for their patients for "off-label" use. "Off-label" use refers to situations where doctors prescribe a drug in order to treat a condition not originally targeted by the drug manufacturer or if the manufacturer did not test the drug for that condition in the process of getting the drug approved for prescription.

For example, although the drug Ozempic is designed to manage the blood sugar level for people living with diabetes, some doctors are prescribing the drug to stimulate weight loss in people who are overweight. While preliminary research suggests that Ozempic may be effective at helping overweight patients lose weight, Ozempic was not approved for this purpose. Doctors' off-label prescribing of Ozempic may be contributing to supply shortages of the drug, making it more difficult for people with diabetes to get Ozempic.

We'd like to know more about your thoughts on off-label prescribing. Some people think that doctors should have the discretion to determine when they prescribe drugs for off-label purposes. Others think that doctors abilities to prescribe off-label should be regulated by the federal government to prevent supply shortages.

***Safety***

As you may know, some doctors prescribe medicine for their patients for "off-label" use. "Off-label" use refers to situations where doctors prescribe a drug in order to treat a condition not originally targeted by the drug manufacturer or if the manufacturer did not test the drug for that condition in the process of getting the drug approved for prescription.

For example, although the drug Ozempic is designed to manage the blood sugar level for people living with diabetes, some doctors are prescribing the drug to stimulate weight loss in people who are overweight. While preliminary research suggests that Ozempic may be effective at helping overweight patients lose weight, Ozempic was not approved for this purpose. Doctors' off-label prescribing may pose a risk to patient safety by giving patients Ozempic outside its intended and approved use.

We'd like to know more about your thoughts on off-label prescribing. Some people think that doctors should have the discretion to determine when they prescribe drugs for off-label purposes. Others think that doctors abilities to prescribe off-label should be regulated by the federal government to prevent safety issues.

***Outcome Measures:***

What about you? Do you think that:

Doctors' abilities to prescribe drugs "off-label" should be regulated by the federal government

Doctors should have the discretion to prescribe drugs "off-label" whenever they see fit

I am not sure

How concerned are you about supply shortages of the drug Ozempic that might result from off-label prescriptions?

Very concerned

Somewhat concerned

Not too concerned

Not at all concerned

How concerned are you about the safety of off-label use of the drug Ozempic?

Very concerned

Somewhat concerned

Not too concerned

Not at all concerned

***Demographics:***

Have you ever taken the drug Ozempic?

 Yes – for weight loss

 Yes – for diabetes

 No – I have not

What is your age? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is your gender?

 Male

 Female

 Non-binary/third gender

pid1: Generally speaking, do you usually think of yourself as a Republican, a Democrat, and Independent, or what?

1.  Republican

2.  Democrat

3.  Independent

4.  Other party

**IF PID1=2 to PID2a**

pid2a: Would you call yourself a strong Democrat or a not very strong Democrat?

1.     Strong Democrat

2.     Not very strong Democrat

**IF PID1=1 to PID2b**

pid2b: Would you call yourself a strong Republican or a not very strong Republican?

1.     Strong Republican

2.     Not very strong Republican

**IF PID1=3 to PID3**

pid3: Do you think of yourself as closer to the Republican Party or the Democratic Party?

1.     Democratic

2.     Republican

3.     Neither

The next question is about the total income of YOUR HOUSEHOLD for the PAST 12 MONTHS. Please include your income PLUS the income of all members living in your household (including cohabiting partners and armed forces members living at home). Please count income BEFORE TAXES, including income from all sources (such as wages, salaries, tips, net income from a business, interest, dividends, child support, alimony, and Social Security, public assistance, pensions, or retirement benefits). Please round your best guess to the nearest $10,000.

1. Less than $5,000

2. $5,000 to 9,999

3. $10,000 to 14,999

4. $15,000 to 24,999

5. $25,000 to 34,999

6. $35,000 to 49,999

7. $50,000 to 74,999

8. $75,000 to 99,999

9. $100,000 to $149,999

10. $150,000 to 199,999

11. $200,000 to 250,000

12. More than $250,000

Do you consider yourself Spanish, Hispanic, or Latino?

   No

  Yes

What is your race?

  White

  Black or African-American

  American Indian or Alaska Native

  Asian

  Native Hawaiian or Pacific Islander

  Other

How would you classify your level of involvement with your religion or spirituality?

      Very active

     Moderately active

     Neither active nor inactive

     Moderately inactive

     Very inactive

Would you say that in general your health is:

Excellent

Very Good

Good

Fair

Poor

Has a doctor, nurse, or other health professional ever told you that you had any of the following? For each, tell us Yes, No, Or You’re Not Sure.

|  |  |  |  |
| --- | --- | --- | --- |
| Condition | Yes | No | Not Sure |
| Heart Attack |  |  |  |
| Obesity |  |  |  |
| Diabetes |  |  |  |
| Hypertension |  |  |  |
| Cancer |  |  |  |
| Depression |  |  |  |

\*Education data provided by Lucid and included using embedded data. No question on education was asked in our actual survey.

**Appendix B: Additional Results**

**Table S1. Full Model Output Used to Produce Table 3**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Shortage Concerns (Row 1)** | **Safety Concerns (Row 2)** | **Off-Label Support (Rows 3-4)** |
|  |  |  |  |
| Safety Condition | 0.14 | 0.17\* | -0.17\* |
|  | (0.09) | (0.09) | (0.09) |
| Shortage Condition | 0.10 | 0.13 | -0.11 |
|  | (0.09) | (0.09) | (0.09) |
| Past Off-Label Use | 1.87\* | 1.29\* | 0.84\* |
|  | (0.31) | (0.27) | (0.21) |
| Past On-Label Use | 1.32\* | 0.11 | -0.27\* |
|  | (0.26) | (0.21) | (0.17) |
| B0 | 0.23\* | 0.47\* | -0.11 |
|  | (0.06) | (0.06) | (0.06) |
| *N* | *3,312* | *3,309* | *3,304* |

Table S2. Sample Participant Demographic Characteristics

|  |  |
| --- | --- |
| Variable | Sample StatisticsPercent (N) |
| Female |  |
|  Yes | 47.01% (1,606) |
|  No | 52.99% (1,810) |
|  |  |
| Age | Median Age: 43 (N=3,344) |
|  |  |
| Income |  |
|  Less than $5,000 | 7.11% (243) |
|  $5,000 to $9,999 | 2.75% (94) |
|  $10,000 to $14,999 | 5.21% (178) |
|  $15,000 to $24,999 | 10.04% (343) |
|  $25,000 to $34,999 | 13.25% (453) |
|  $35,000 to $49,999 | 16.73% (572) |
|  $50,000 to $74,999 | 21.01% (718) |
|  $75,000 to $99,999 | 9.04% (309) |
|  $100,000 to $149,999 | 8.22% (281) |
|  $150,000 to $199,999 | 3.34% (114) |
|  $200,000 to $250,000 | 1.67% (57) |
|  More than $250,000 | 1.64% (56) |
|  |  |
| College Degree |  |
|  Yes | 44.44% (1,577) |
|  No | 55.56% (1,972) |
|  |  |
| White Non-Hispanic |  |
|  Yes | 63.17% (2,242) |
|  No | 36.83% (1,307) |
|  |  |
| Black Non-Hispanic |  |
|  Yes | 10.59% (376) |
|  No | 89.41% (3,173) |
|  |  |
| Hispanic |  |
|  Yes | 16.00% (545) |
|  No | 84.00% (2,862) |
|  |  |
| Obesity  |  |
|  Yes | 21.26% (723) |
|  No | 78.74% (2,677) |
|  |  |
| Party Identification |  |
|  Strong Democrat | 24.06% (783) |
|  Moderate Democrat | 14.81% (482) |
|  Weak Democrat | 8.29% (270) |
|  Independent | 15.39% (501) |
|  Weak Republican | 6.94% (226) |
|  Moderate Republican | 12.17% (396) |
|  Strong Republican | 18.34% (597) |
|  |  |
| Religiosity |  |
|  Very Inactive | 20.48% (699) |
|  Moderately Inactive | 9.00% (307) |
|  Neither Active Nor Inactive | 24.17% (825) |
|  Moderately Active | 26.19% (894) |
|  Very Active | 20.16% (688) |
|  |  |
| Overall Health |  |
|  Poor | 3.28% (112) |
|  Fair | 16.76% (573) |
|  Good | 36.04% (1,232) |
|  Very Good | 29.46% (1,007) |
|  Excellent | 14.45% (494) |
|  |  |
| Ozempic Use |  |
|  No | 92.39% (3,158) |
|  Yes, For Weight Loss | 3.95% (135) |
|  Yes, for Diabetes | 3.66% (125) |

Table S3. Replication of Table 2 Using a Linear Probability Models

|  |  |  |  |
| --- | --- | --- | --- |
|  | (Model 1) | (Model 2) | (Model 3) |
| VARIABLES | Docs Prescribe Off-Label | Ozempic Shortage Concerns | Ozempic Safety Concerns |
|  |  |  |  |
| Female | 1.03 | 1.11\* | 1.05 |
|  | (0.032) | (0.061) | (0.056) |
| Age | 1.00\*\* | 1.00\*\*\* | 1.00 |
|  | (0.001) | (0.002) | (0.002) |
| Income | 1.02\*\* | 1.02 | 1.02 |
|  | (0.007) | (0.012) | (0.012) |
| College Degree | 0.98 | 1.09 | 1.04 |
|  | (0.032) | (0.063) | (0.058) |
| White Non-Hispanic | 1.11\* | 1.13 | 0.91 |
|  | (0.070) | (0.126) | (0.098) |
| Black Non-Hispanic | 0.99 | 1.18 | 1.05 |
|  | (0.076) | (0.159) | (0.137) |
| Hispanic | 1.04 | 1.18 | 0.93 |
|  | (0.073) | (0.147) | (0.112) |
| Republican | 1.03\*\*\* | 0.96\*\*\* | 0.94\*\*\* |
|  | (0.007) | (0.012) | (0.011) |
| Religiosity | 0.98\*\* | 1.12\*\*\* | 1.11\*\*\* |
|  | (0.011) | (0.023) | (0.022) |
| Overall Health | 0.96\*\* | 1.01 | 1.05\* |
|  | (0.016) | (0.030) | (0.030) |
| Obesity | 1.01 | 0.96 | 0.90 |
|  | (0.040) | (0.067) | (0.062) |
| Oz for Weight (ref: no use) | 0.91 | 1.80\*\*\* | 1.28\* |
|  | (0.073) | (0.257) | (0.177) |
| Oz for Diabetes (ref: no use) | 0.94 | 1.87\*\*\* | 1.31\* |
|  | (0.077) | (0.272) | (0.183) |
| Constant | 1.35\*\*\* | 9.84\*\*\* | 12.15\*\*\* |
|  | (0.142) | (1.830) | (2.183) |
|  |  |  |  |
| Observations | 1,032 | 1,036 | 1,033 |
| R-squared | 0.06 | 0.12 | 0.09 |

Standard Errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.10

Notes: All results based on models using ordinary least squares regression. Model 1’s dependent variable is coded as 1 if individuals believe that doctors should be able to prescribe medication off-label. Model 2’s dependent variable asks respondents how concerned they are about supply shortages of the drug Ozempic that might result from off-label prescriptions. Model 3’s dependent variable asks respondents how concerned they are about the safety of off-label use of the drug Ozempic. All results are based on only the control condition of the randomized control trial embedded in our survey.

Table S4. Replication of Table 2 Using Probit-Based Models

|  |  |  |  |
| --- | --- | --- | --- |
|  | (Model 1) | (Model 2) | (Model 3) |
| VARIABLES | Docs Prescribe Off-Label | Ozempic Shortage Concerns | Ozempic Safety Concerns |
|  |  |  |  |
| Female | 1.09 | 1.12\* | 1.06 |
|  | (0.090) | (0.078) | (0.074) |
| Age | 1.01\*\* | 0.99\*\*\* | 1.00 |
|  | (0.003) | (0.002) | (0.002) |
| Income | 1.04\*\* | 1.02 | 1.02 |
|  | (0.019) | (0.016) | (0.015) |
| College Degree | 0.94 | 1.13 | 1.05 |
|  | (0.081) | (0.081) | (0.076) |
| White Non-Hispanic | 1.33\* | 1.17 | 0.89 |
|  | (0.222) | (0.162) | (0.125) |
| Black Non-Hispanic | 0.97 | 1.23 | 1.07 |
|  | (0.199) | (0.209) | (0.183) |
| Hispanic | 1.10 | 1.22 | 0.91 |
|  | (0.206) | (0.190) | (0.142) |
| Republican | 1.07\*\*\* | 0.95\*\*\* | 0.93\*\*\* |
|  | (0.020) | (0.015) | (0.015) |
| Religiosity | 0.94\*\* | 1.16\*\*\* | 1.15\*\*\* |
|  | (0.029) | (0.030) | (0.030) |
| Overall Health | 0.90\*\* | 1.02 | 1.08\* |
|  | (0.039) | (0.037) | (0.040) |
| Obesity | 1.02 | 0.95 | 0.88 |
|  | (0.106) | (0.084) | (0.078) |
| Oz for Weight (ref: no use) | 0.76 | 2.40\*\*\* | 1.45\*\* |
|  | (0.168) | (0.467) | (0.270) |
| Oz for Diabetes (ref: no use) | 0.86 | 2.45\*\*\* | 1.48\*\* |
|  | (0.187) | (0.485) | (0.283) |
| Constant | 0.60\* |  |  |
|  | (0.166) |  |  |
|  |  |  |  |
| Observations | 1,032 | 1,036 | 1,033 |

Standard Errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.10

Notes: Model 1 relies on binary probit regression and Models 2-3 rely on ordinal probit regression. Model 1’s dependent variable is coded as 1 if individuals believe that doctors should be able to prescribe medication off-label. Model 2’s dependent variable asks respondents how concerned they are about supply shortages of the drug Ozempic that might result from off-label prescriptions. Model 3’s dependent variable asks respondents how concerned they are about the safety of off-label use of the drug Ozempic. All results are based on only the control condition of the randomized control trial embedded in our survey.

Table S5. Re-Estimation of Experimental Treatment Effects (Probit Regression, Linear Probability Modeling)

|  |  |  |
| --- | --- | --- |
|  | **Probit** | **Linear Probability Model** |
|  |  |  |
| Safety Condition | 0.10+ | 0.04+ |
|  | (0.05) | (0.02) |
| Shortage Condition | 0.00 | 0.00 |
|  | (0.05) | (0.02) |
| Past Off-Label Use | 1.02\* | 0.35\* |
|  | (0.14) | (0.05) |
| Past On-Label Use | 0.45\* | 0.17\* |
|  | (0.13) | (0.05) |
| Constant | -0.06 | 0.48\* |
|  | (0.04) | (0.01) |
| *N* | 3307 | 3307 |
| R-Squared |  | 0.02 |

+ p<0.10, \* p<0.05

Table S6. Randomization Checks

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Control** | **Safety Condition** | **Shortage Condition** |
| % College Educated | 44% | 46% | 42% |
|  | [41, 47] | [43, 49] | [40, 46] |
|  |  |  |  |
| % Racial ID: White (Non-Hispanic) | 66% | 68% | 65% |
|  | [63, 69] | [65, 71] | [62, 68] |
|  |  |  |  |
| % Gender ID: Female | 54% | 51% | 52% |
|  | [51, 56] | [48, 54] | [49, 55] |
|  |  |  |  |
| % Prior Oz. Use: Weight Loss | 4% | 4% | 4% |
|  | [3, 5] | [3, 5] | [3, 5] |
|  |  |  |  |
| % Prior Oz. Use: Diabetes | 4% | 3% | 3% |
|  | [3, 5] | [2, 4] | [2, 4] |

Notes. Quantities in brackets reflect 95% confidence intervals.