

Preliminary Findings from the Young Adult Health Survey

Community Prevention and Wellness Initiative
Prevention Learning Community Meeting

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Jason R. Kilmer, Ph.D.

Mary E. Larimer, Ph. D.

Isaac C. Rhew, Ph.D.

Department of Psychiatry & Behavioral Sciences
University of Washington

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Young Adult Health Survey

Method and Procedures

- **UW Center for the Study of Health and Risk Behaviors (CSHRB) partnered with DBHR to conduct internet survey**
- **Survey developed using existing validated measures when possible, with input from multiple experts, stakeholder groups, and state offices**
- **Cohorts:**
 - **2014, Cohort 1:** Internet based survey conducted May through early July 2014 (N=2101)
 - **2015, Cohort 2, Year 1 AND Cohort 1, Year 2:** Internet based survey conducted late May through October 2015 (N=1677 new participants, N = 1203 cohort 1 one-year follow up)
 - **2016, Cohort 3, Year 1 AND Cohort 1, Year 3 AND Cohort 2, Year 2:** Internet based survey conducted late June through November 2016 (N=2493 new participants, N = 1005 cohort 1 two-year follow up, N=1180 cohort 2 one-year follow-up)

Young Adult Health Survey

Method and Procedures

- **Participants recruited using a combination of direct mail advertising to a random sample from DOL, as well as online advertising (Facebook, Craigslist, Amazon Mechanical Turk, study website, Facebook fan page)**
 - **COHORT 3 (collected in 2016)**

| | |
|------------------------|-------|
| • DOL letter | 53.8% |
| • Facebook | 31.0% |
| • Craigslist | 7.7% |
| • Friend/family member | 3.1% |
| • Other | 4.4% |
- **Assessed demographics on an ongoing basis and modified strategies to recruit under-represented groups**
- **Convenience sample, not a random sample**
- **To improve generalizability, used state census data to conduct post-stratification weighting to more accurately reflect demographic/geographic diversity of WA**
- **Weighted results closely mirror the unweighted results**

Distribution of demographic characteristics in the general Washington State young adult population according to the US Census and YAHS study samples

| Characteristic | Census % | Cohort 1 % | Cohort 2 % | Cohort 3 % |
|--------------------------------|----------|------------|------------|------------|
| Female sex | 48.5 | 59.3 | 67.6 | 69.1 |
| Race/ethnicity | | | | |
| White, non-Hispanic | 66.2 | 68.6 | 68.5 | 63.9 |
| Black, non-Hispanic | 4.0 | 2.1 | 1.5 | 1.6 |
| Asian, non-Hispanic | 7.7 | 11.7 | 12.3 | 12.2 |
| Native American, non-Hispanic | 1.6 | 1.0 | .9 | .9 |
| Pacific Islander, non-Hispanic | .8 | .9 | .6 | .4 |
| Multiracial, non-Hispanic | 4.6 | 5.9 | 6.7 | 7.3 |
| Other race, non-Hispanic | .2 | .7 | .9 | .9 |
| Hispanic, any race | 14.9 | 9.1 | 8.7 | 12.8 |
| Washington State DSHS Region | | | | |
| 1: East | 25.1 | 19.5 | 16.7 | 21.3 |
| 2: Northwest | 44.7 | 54.8 | 59.0 | 52.5 |
| 3: Southwest | 30.2 | 25.7 | 24.4 | 26.2 |

Weighted Analyses of DBHR Young Adult Health Survey

Main Findings

Cohort 1, Year 1 (2014)

vs.

Cohort 2, Year 1 (2015)

vs.

Cohort 3, Year 1, 2016

Medical marijuana

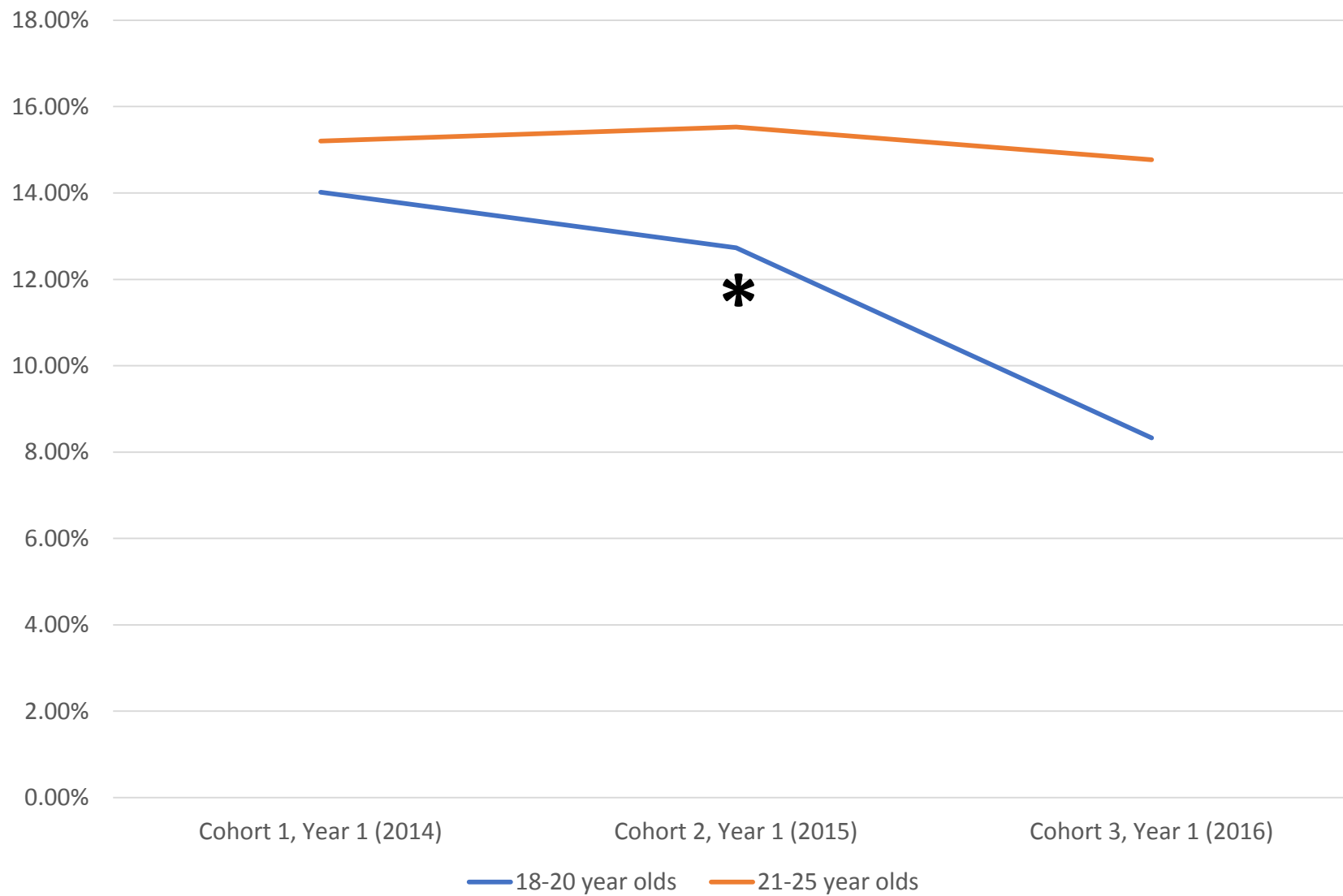
Any Medical Marijuana, past year

| | |
|------------------|--------|
| Cohort 1 (2014): | 14.74% |
| Cohort 2 (2015): | 14.54% |
| Cohort 3 (2016): | 12.68% |

No significant overall trend, nor differences across cohorts

No significant differences in frequency of use

MEDICAL MARIJUANA USE – ANY PAST YEAR USE BY AGE



Recreational marijuana

Any Recreational Marijuana, past year

Cohort 1 (2014): 43.51%

Cohort 2 (2015): 46.29%

Cohort 3 (2016): 44.76%

No significant overall trend, nor differences across cohorts

No significant differences in frequency of use

Perception remains that the typical person uses:

Percentage of cohort who perceive typical person to use 1x/year or more:

Cohort 1 (2014): 97.59%

Cohort 2 (2015): 97.58%

Cohort 3 (2016): 98.39%

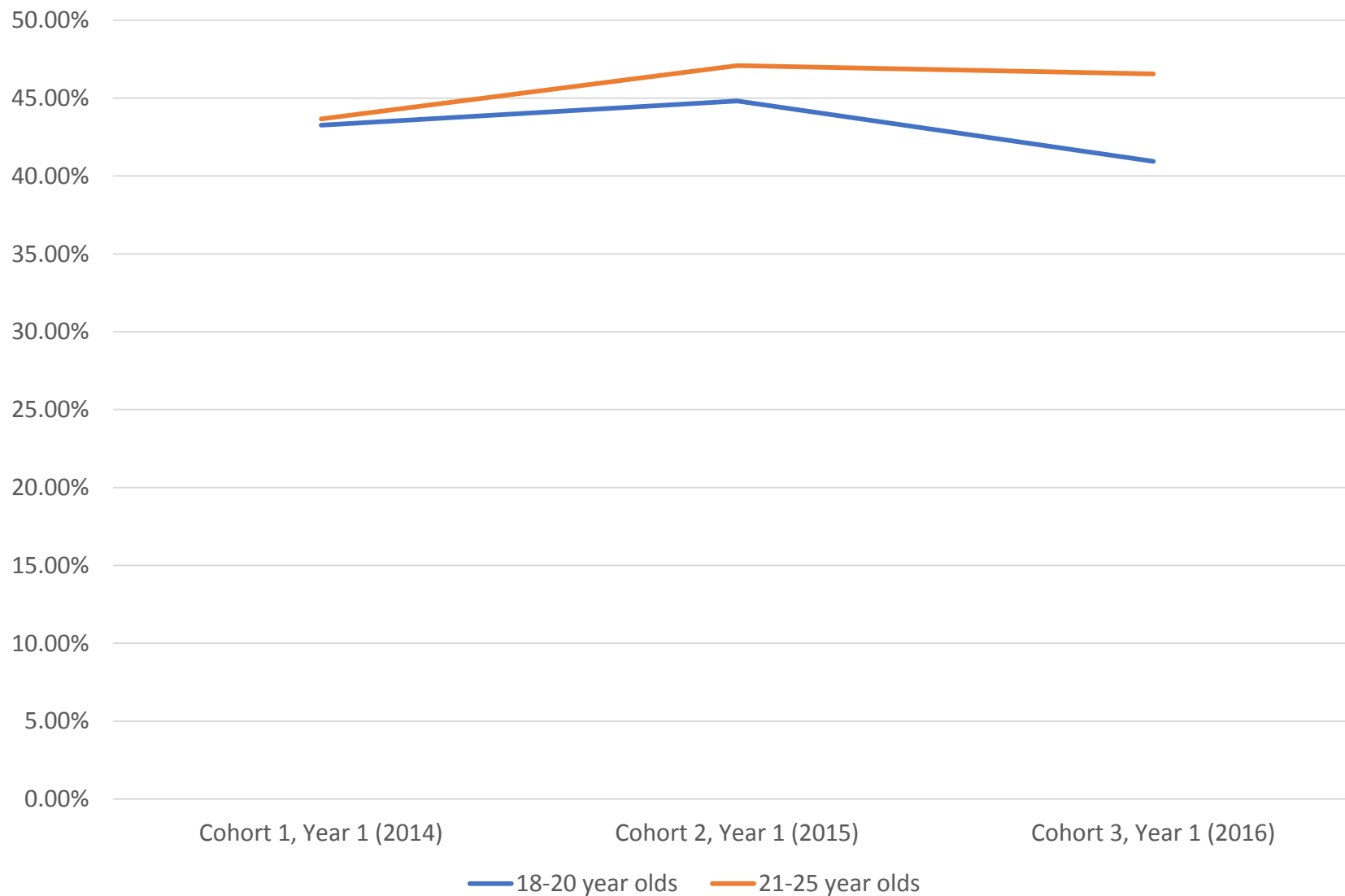
Percentage of cohort who perceive typical person to use 1x/week or more:

Cohort 1 (2014): 52.84%

Cohort 2 (2015): 47.24%

Cohort 3 (2016): 54.37%

RECREATIONAL MARIJUANA USE – ANY PAST YEAR USE BY AGE



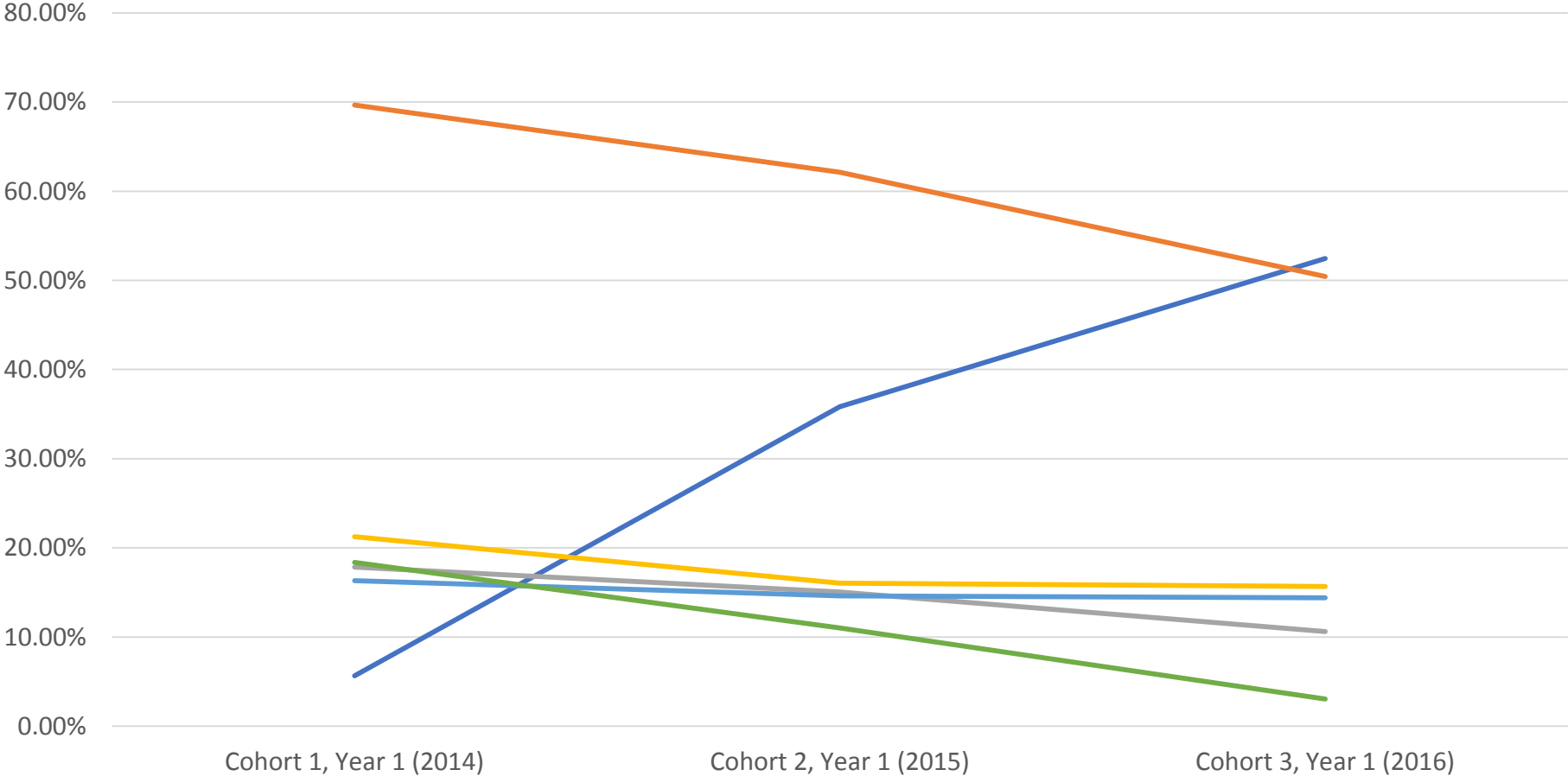
How used

How marijuana was used

(comparison only among cohorts 2 and 3, since dabbing was not asked at cohort 1)

| | Cohort 2 (2015) | Cohort 3 (2016) |
|------------------------|----------------------------|----------------------------|
| Smoked it | 76.36% | 73.92% |
| Ate | 6.51% | 9.54% |
| Vaporized | 8.56% | 6.90% |
| Dabbing | 6.33% | 6.90% |
| Used it some other way | 1.74% | 2.12% |
| Drank it | 0.49% | 0.62% |

WHERE PEOPLE GET MARIJUANA



Significant: overall, 1 vs. 2, and 1 v. 3

— Retail store

— From friends

Significant: overall, 1 vs. 2, and 1 v. 3

Significant: overall, 1 v. 3

— Medical dispensary

— Gave \$ to someone

Significant: overall, 1 v. 3

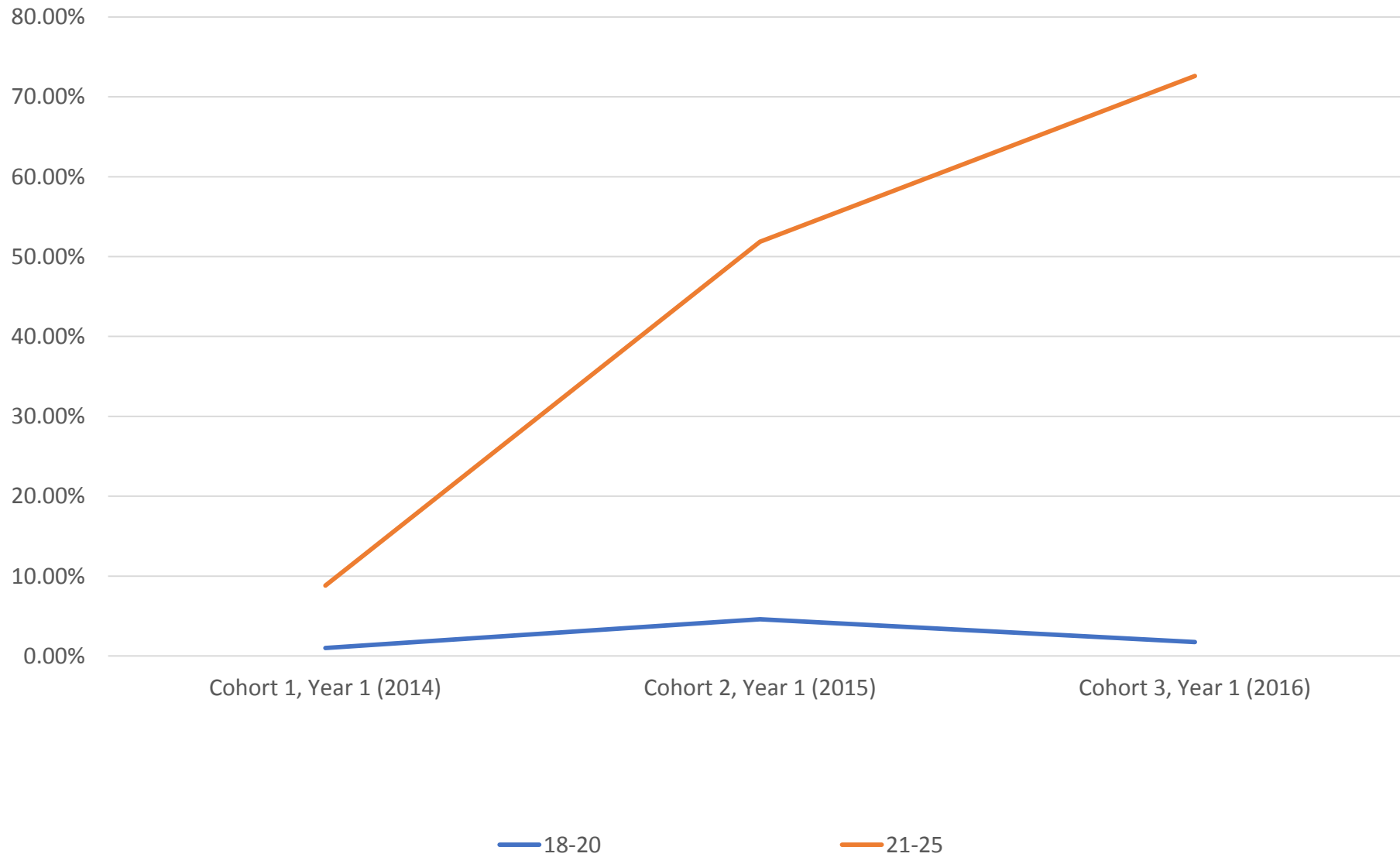
Significant: none

— Got it at a party

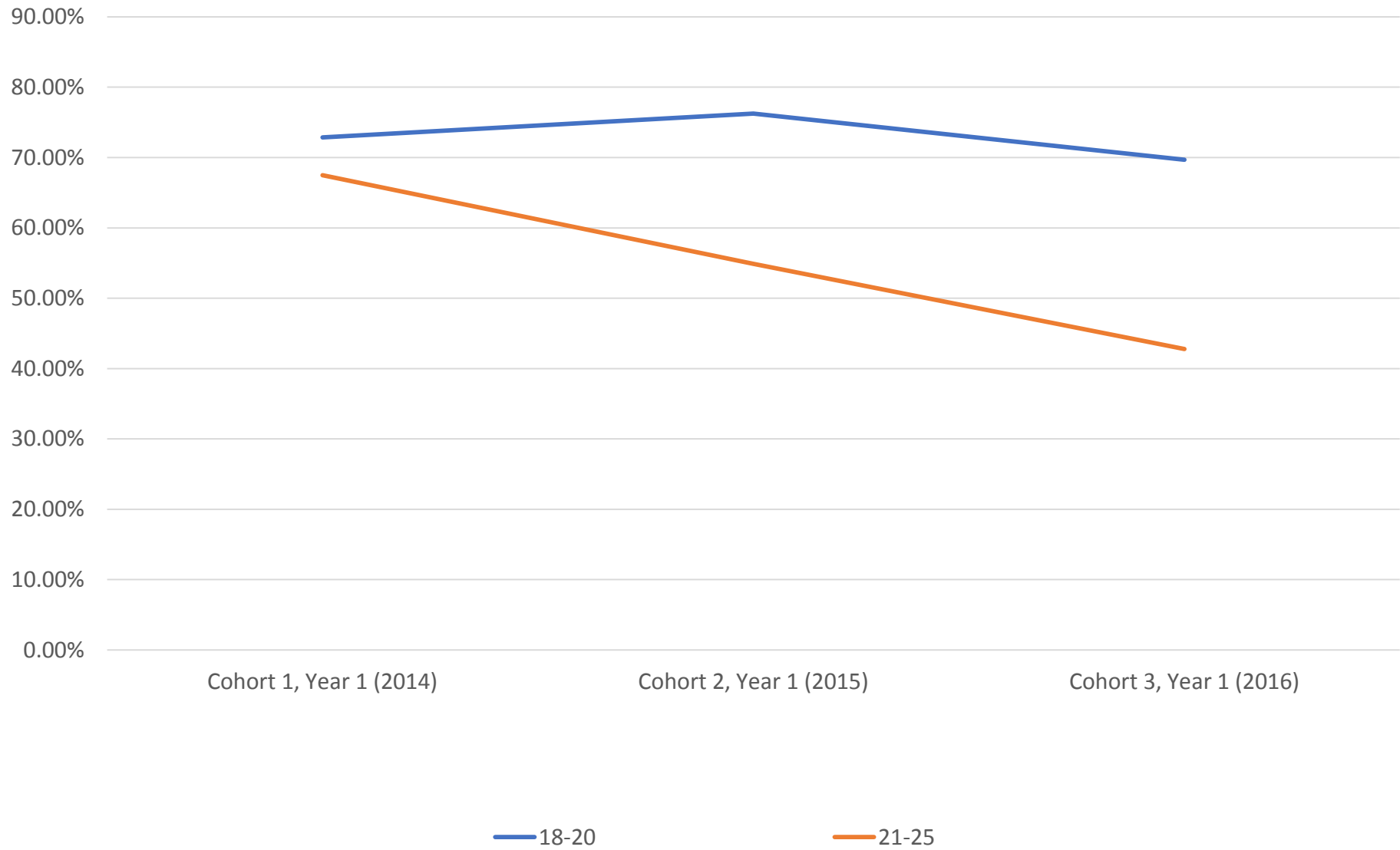
— Someone w/Medical card

Significant: overall, 1 vs. 2, and 1 v. 3

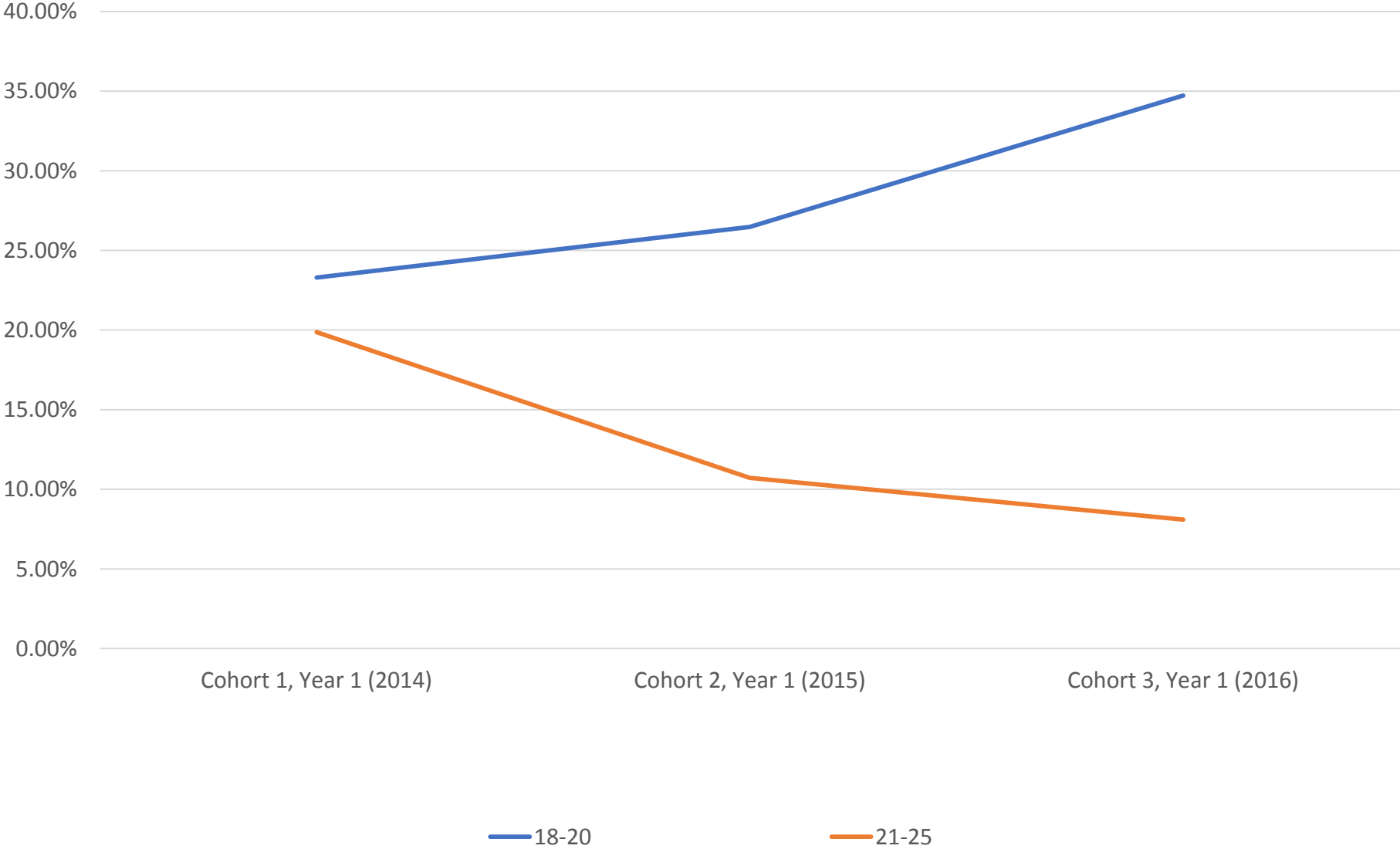
BOUGHT FROM A RETAIL STORE



FROM FRIENDS



GAVE MONEY TO SOMEONE



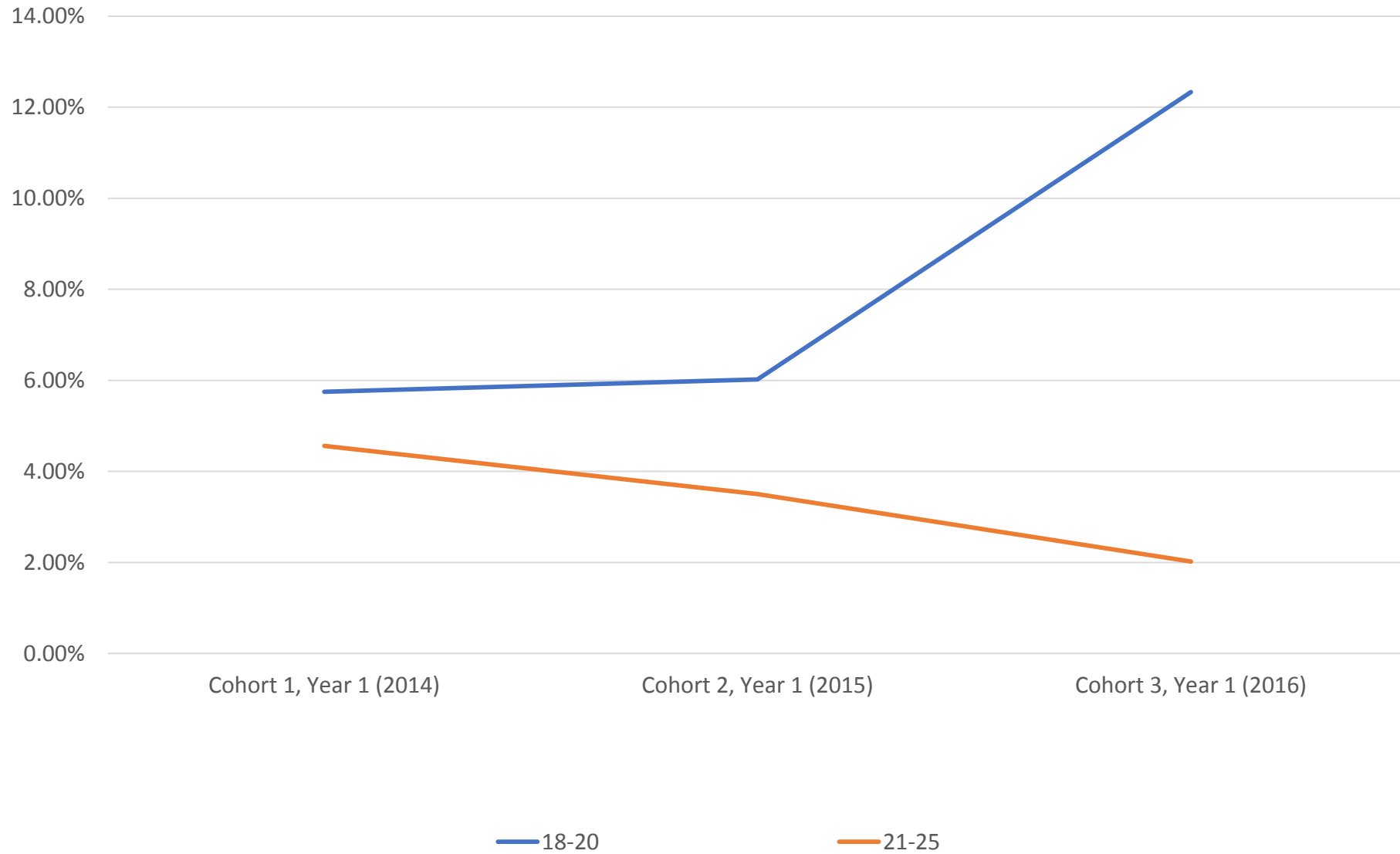
WHETHER IT'S CLEANING THEIR ROOM OR
USING MARIJUANA, TEENS NEED TO KNOW
THEIR FAMILY'S RULES AND CONSEQUENCES.

Launched February 2017

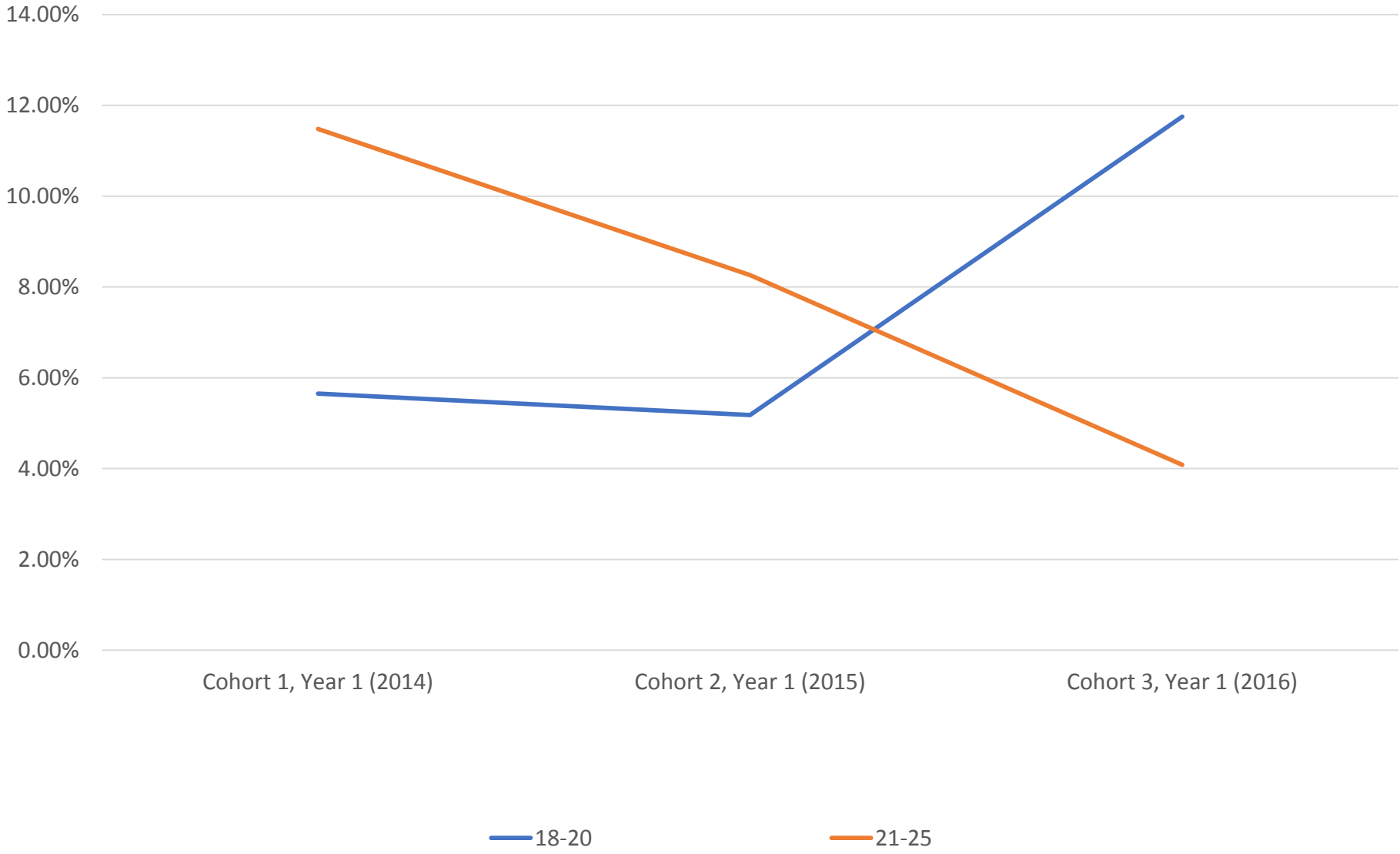
TEENS ARE UNDER THE INFLUENCE...OF YOU.
LEARN MORE AT STARTALKINGNOW.ORG



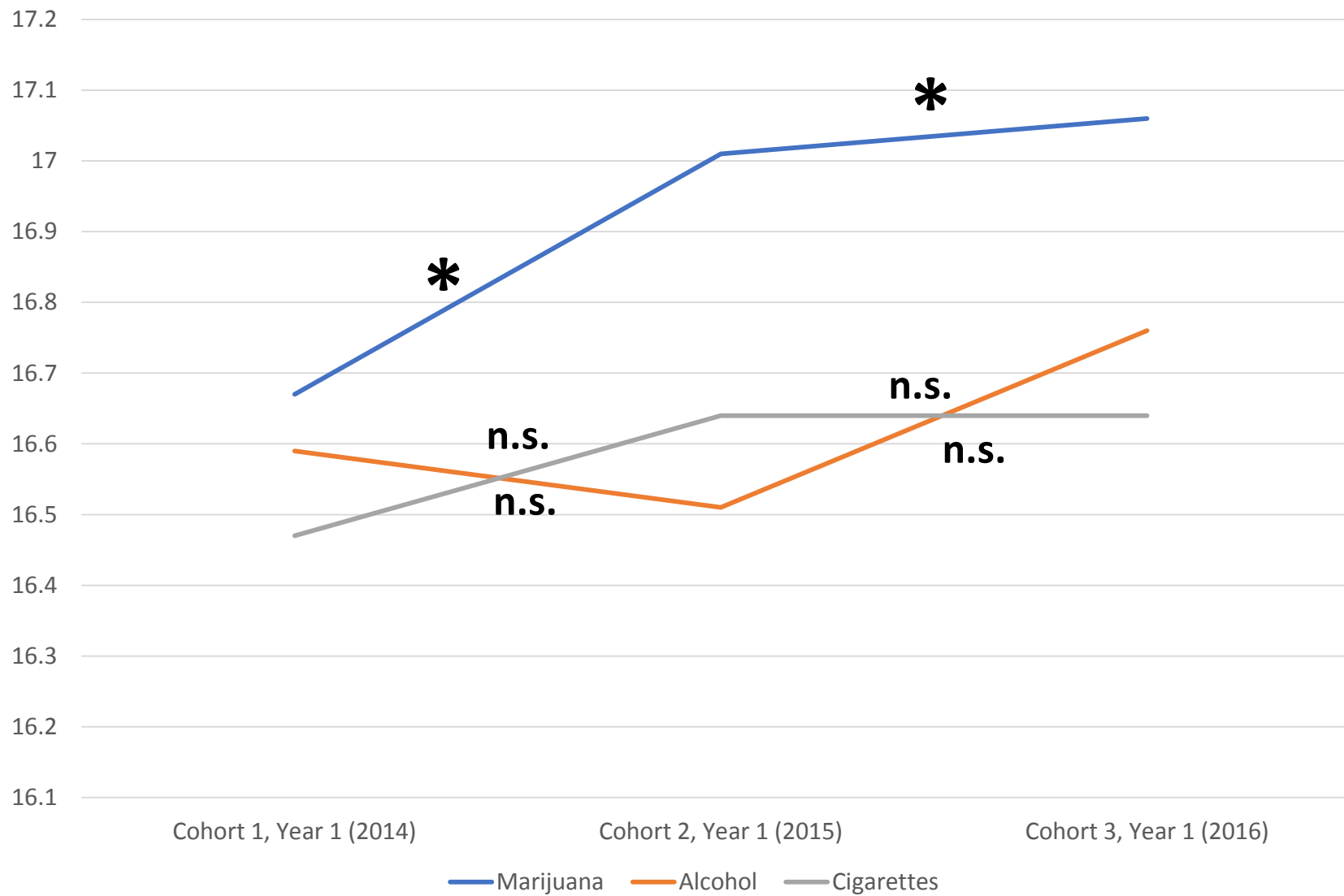
GOT IT FROM PARENTS WITH THEIR PERMISSION



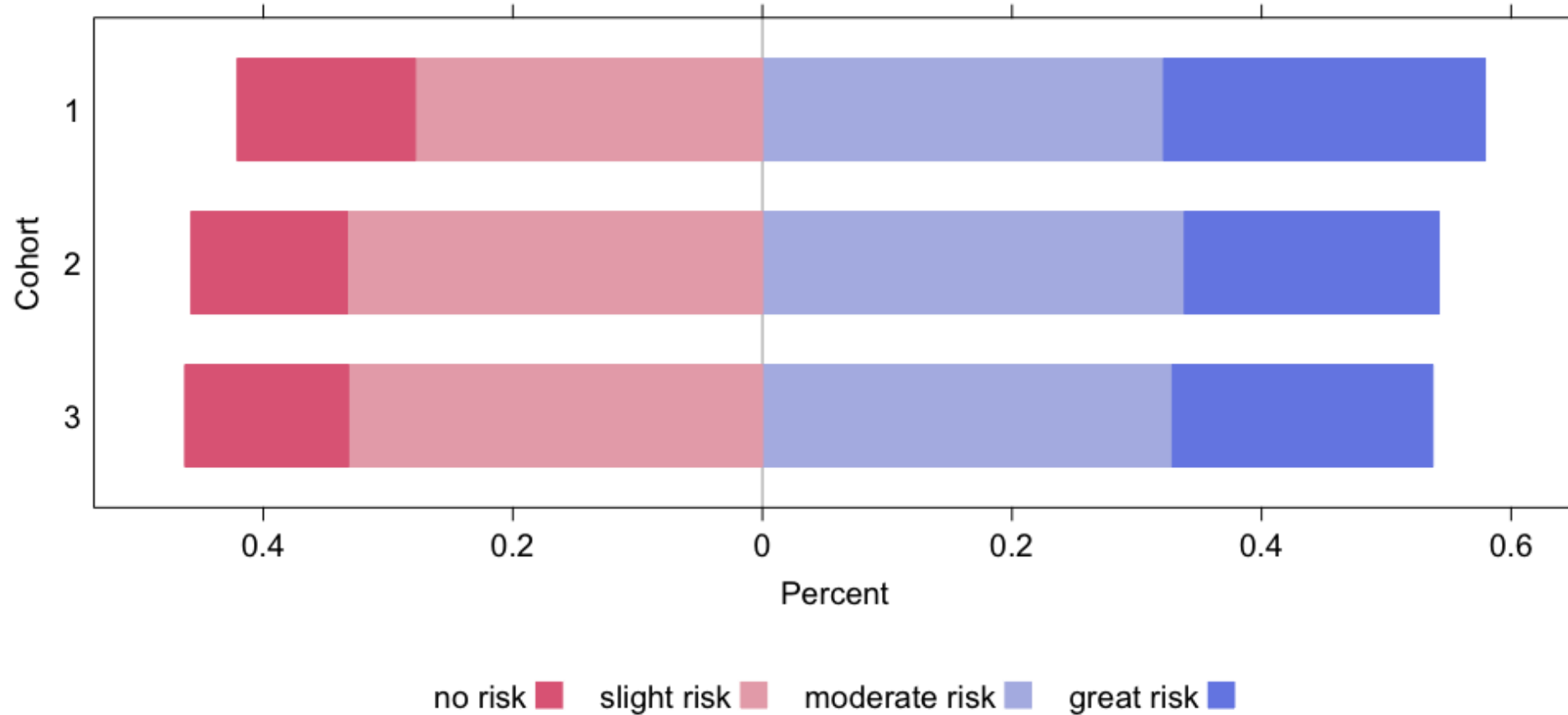
GOT IT FROM FAMILY



AGE OF INITIATION

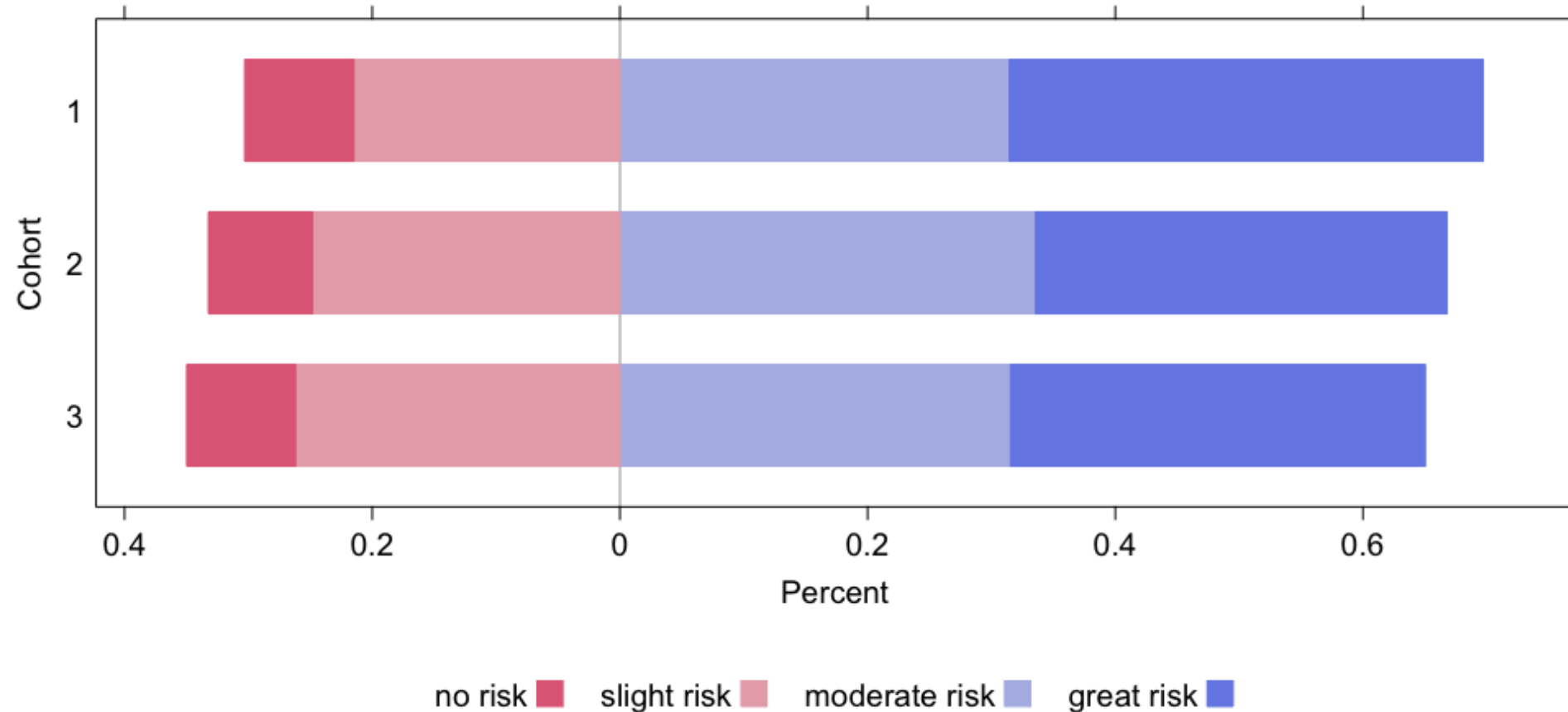


Perceived physical risk due to regular marijuana use by cohort



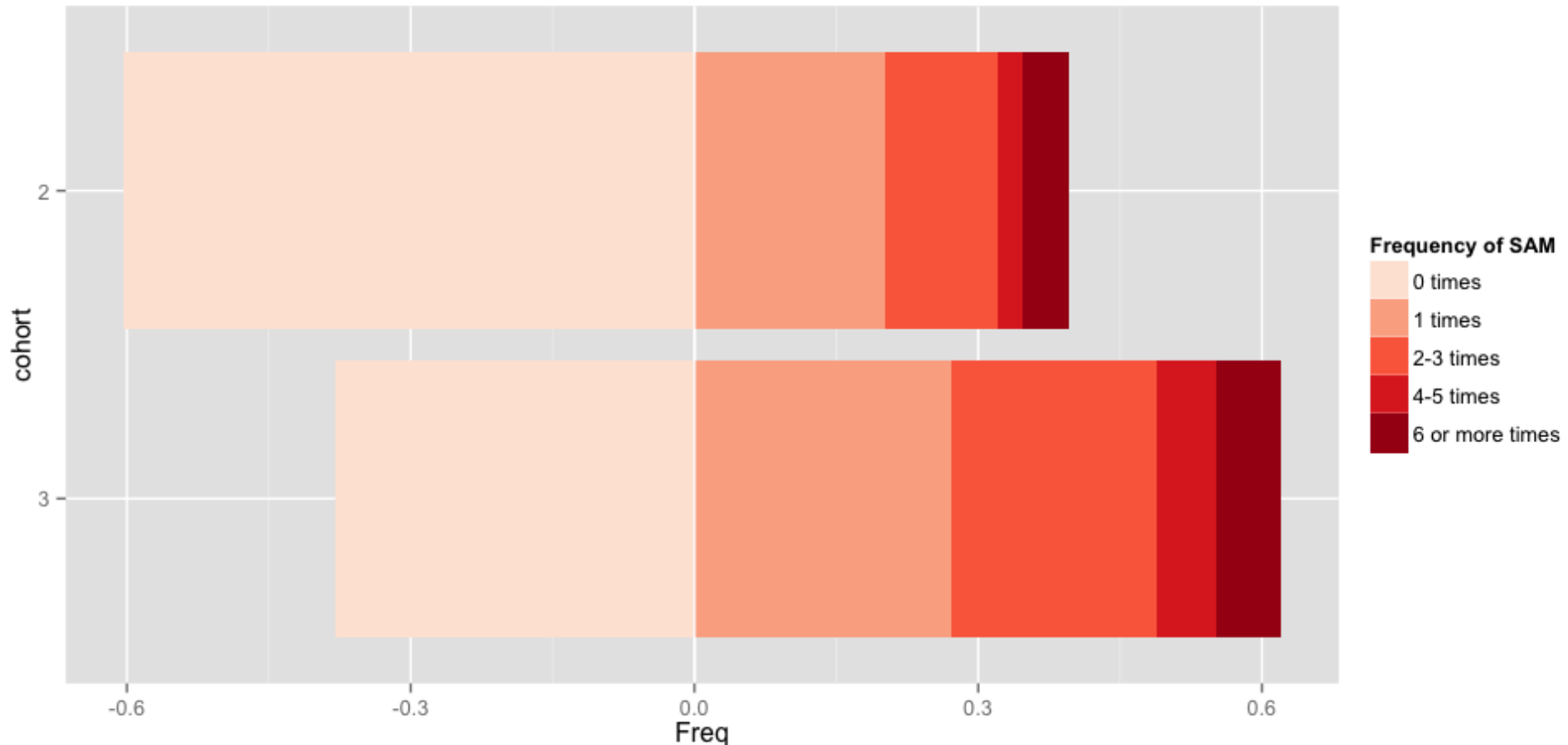
There were statistically significant differences for a linear trend across time/cohort ($p=.012$), between cohort 1 and cohort 2 ($p=.029$), and between cohort 1 and cohort 3 ($p=.010$).

Perceived psychological risk of regular marijuana use by cohort



There were statistically significant differences for a linear trend across time/cohort ($p=.002$), between cohort 1 and cohort 2 ($p=.018$), and between cohort 1 and cohort 3 ($p=.002$).

Past month simultaneous alcohol + marijuana frequency among marijuana users by cohort



There was a statistically significant difference between cohorts 2 and 3 ($p < .001$)

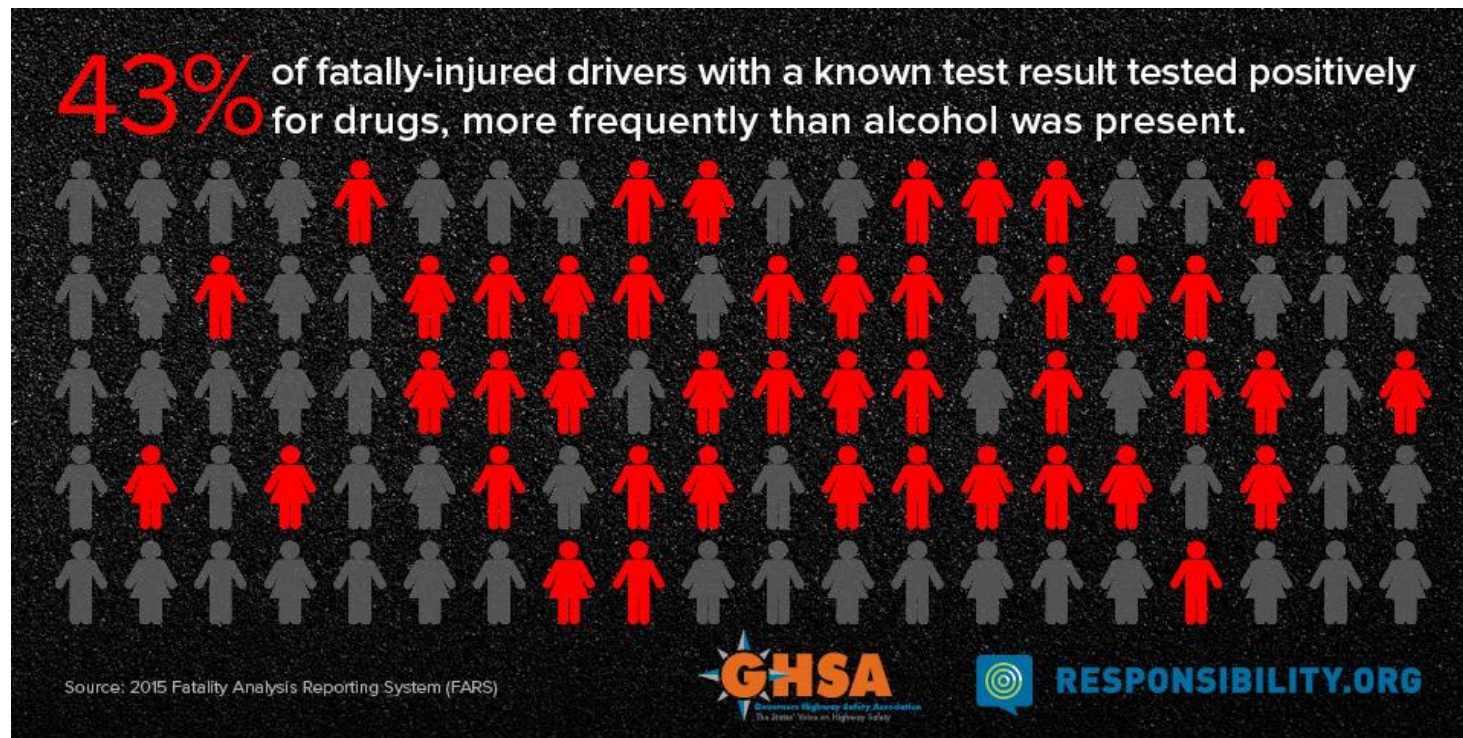
Transportation

Drugged driving eclipses drunken driving in tests of motorists killed in crashes

By Ashley Halsey III April 26 at 12:01 AM

For the first time, statistics show that drivers killed in crashes are more likely to be on drugs than drunk.

Forty-three percent of drivers tested in fatal crashes in 2015 had used a legal or illegal drug, eclipsing the 37 percent who tested above the legal



Released today, 4/26/17: <http://www.ghsa.org/resources/drugged-driving-2017>

DRIVING AFTER MARIJUANA USE

DRIVING WITHIN 3 HOURS OF MARIJUANA USE, PAST 30 DAYS

| | Cohort 1 (2014) | Cohort 2 (2015) | Cohort 3 (2016) |
|-----------------|----------------------------|----------------------------|----------------------------|
| 0 times | 50.59% | 55.29% | 58.19% |
| 1 time | 14.13% | 13.13% | 12.50% |
| 2-3 times | 13.28% | 12.34% | 11.97% |
| 4-5 times | 6.43% | 4.35% | 3.48% |
| 6 or more times | 15.57% | 14.88% | 13.85% |

There was a statistically significant difference over time/cohort (p=.029).

No significant difference between cohort 1 and cohort 2 (p=.226)

Significant difference between cohort 1 and cohort 3 (p=.028).

Weighted Analyses of DBHR Young Adult Health Survey Cohort 1 change from Year 1 (2014) to Year 3 (2016)

Select findings that demonstrate potential shifts within cohort over time

ODDS RATIOS:

Predicting Year 3 marijuana use by five factors at time 1

- ANY MARIJUANA USE, YEAR 3

| <u>Predictor</u> | <u>OR</u> | <u>p-value</u> |
|---|-----------|----------------|
| • Physical risk of regular marijuana | 0.71 | p<.001 |
| • <i>The more risky they see regular marijuana use, the less likely they are to use</i> | | |
| • Psychological risk of regular marijuana | 0.59 | p<.001 |
| • <i>The more risky they see regular marijuana use, the less likely they are to use</i> | | |
| • Perceived ease of access | 0.65 | p=.001 |
| • <i>The more difficult to obtain marijuana, the less likely they are to use</i> | | |
| • Injunctive norms for regular marijuana | 0.64 | p<.001 |
| • <i>The more they see marijuana use as unacceptable, the less likely they are to use</i> | | |
| • Descriptive norms for marijuana | 1.08 | p=.047 |
| • <i>The higher they perceive norms to be, the more likely they are to use</i> | | |

All models adjusted for age, sex, and baseline level of the outcome

ODDS RATIOS:

Predicting Year 3 marijuana use by five factors at time 1

- AT LEAST WEEKLY MARIJUANA USE, YEAR 3

| <u>Predictor</u> | <u>OR</u> | <u>p-value</u> |
|---|-----------|----------------|
| • Physical risk of regular marijuana | 0.58 | p<.001 |
| • <i>The more risky they see regular marijuana use, the less likely they are to use</i> | | |
| • Psychological risk of regular marijuana | 0.45 | p<.001 |
| • <i>The more risky they see regular marijuana use, the less likely they are to use</i> | | |
| • Perceived ease of access | 0.54 | p=.001 |
| • <i>The more difficult to obtain marijuana, the less likely they are to use</i> | | |
| • Injunctive norms for regular marijuana | 0.51 | p<.001 |
| • <i>The more they see marijuana use as unacceptable, the less likely they are to use</i> | | |
| • Descriptive norms for marijuana | 1.12 | p=.022 |
| • <i>The higher they perceive norms to be, the more likely they are to use</i> | | |

All models adjusted for age, sex, and baseline level of the outcome

ODDS RATIOS:

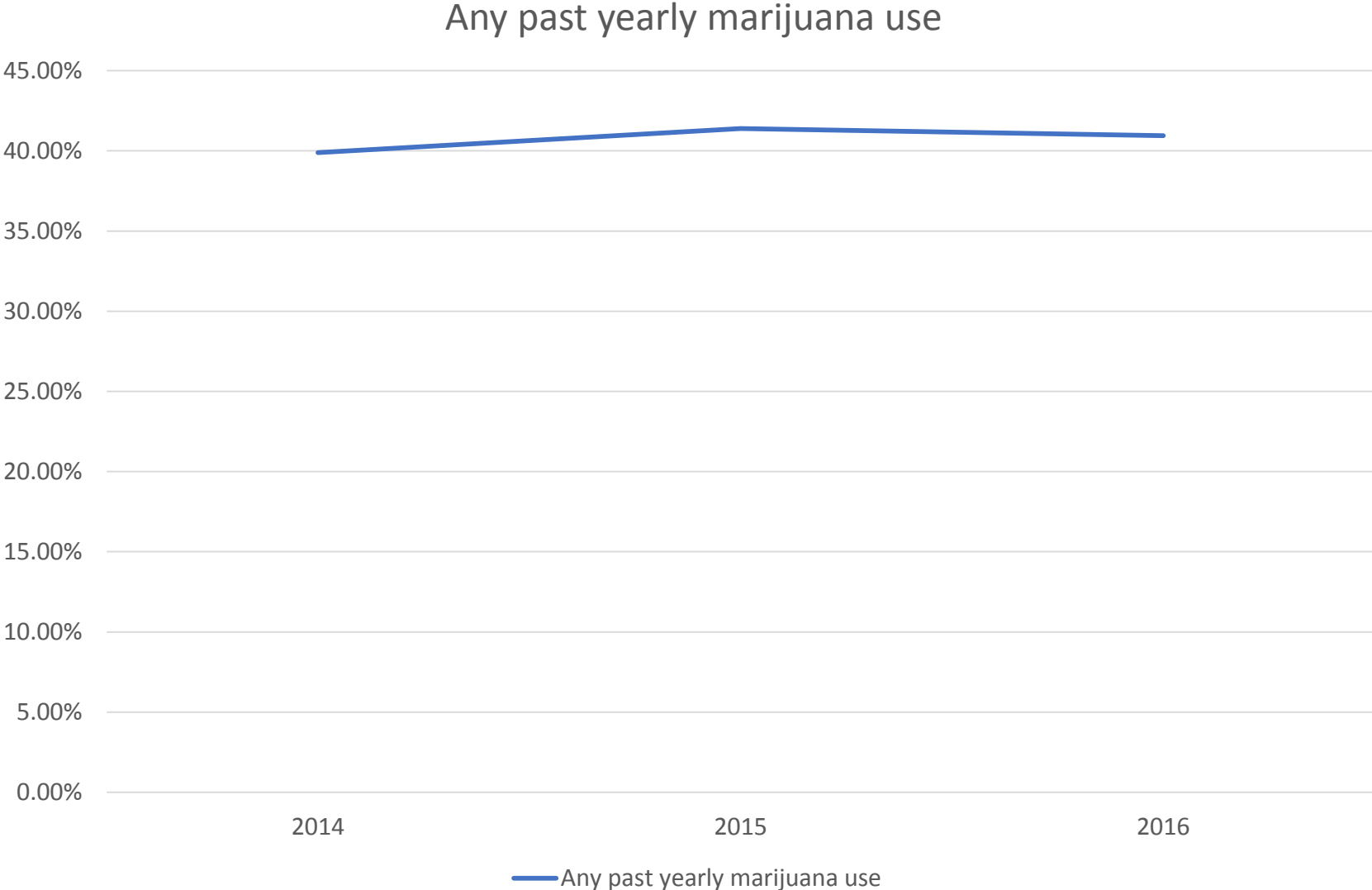
Predicting Year 3 marijuana use by five factors at time 1

• NUMBER OF MARIJUANA-RELATED CONSEQUENCES, YEAR 3

| <u>Predictor</u> | <u>OR</u> | <u>p-value</u> |
|---|-----------|----------------|
| • Physical risk of regular marijuana | 0.76 | p=.001 |
| • <i>The more risky they see regular marijuana use, the less likely they are to experience consequences</i> | | |
| • Psychological risk of regular marijuana | 0.61 | p<.001 |
| • <i>The more risky they see regular marijuana use, the less likely they are to experience consequences</i> | | |
| • Perceived ease of access | 0.53 | p<.001 |
| • <i>The more difficult to obtain marijuana, the less likely they are to experience consequences</i> | | |
| • Injunctive norms for regular marijuana | 0.69 | p<.001 |
| • <i>The more they see marijuana use as unacceptable, the less likely they are to experience consequences</i> | | |
| • Descriptive norms for marijuana | 1.1 | p=.004 |
| • <i>The higher they perceive norms to be, the more likely they are to experience consequences</i> | | |

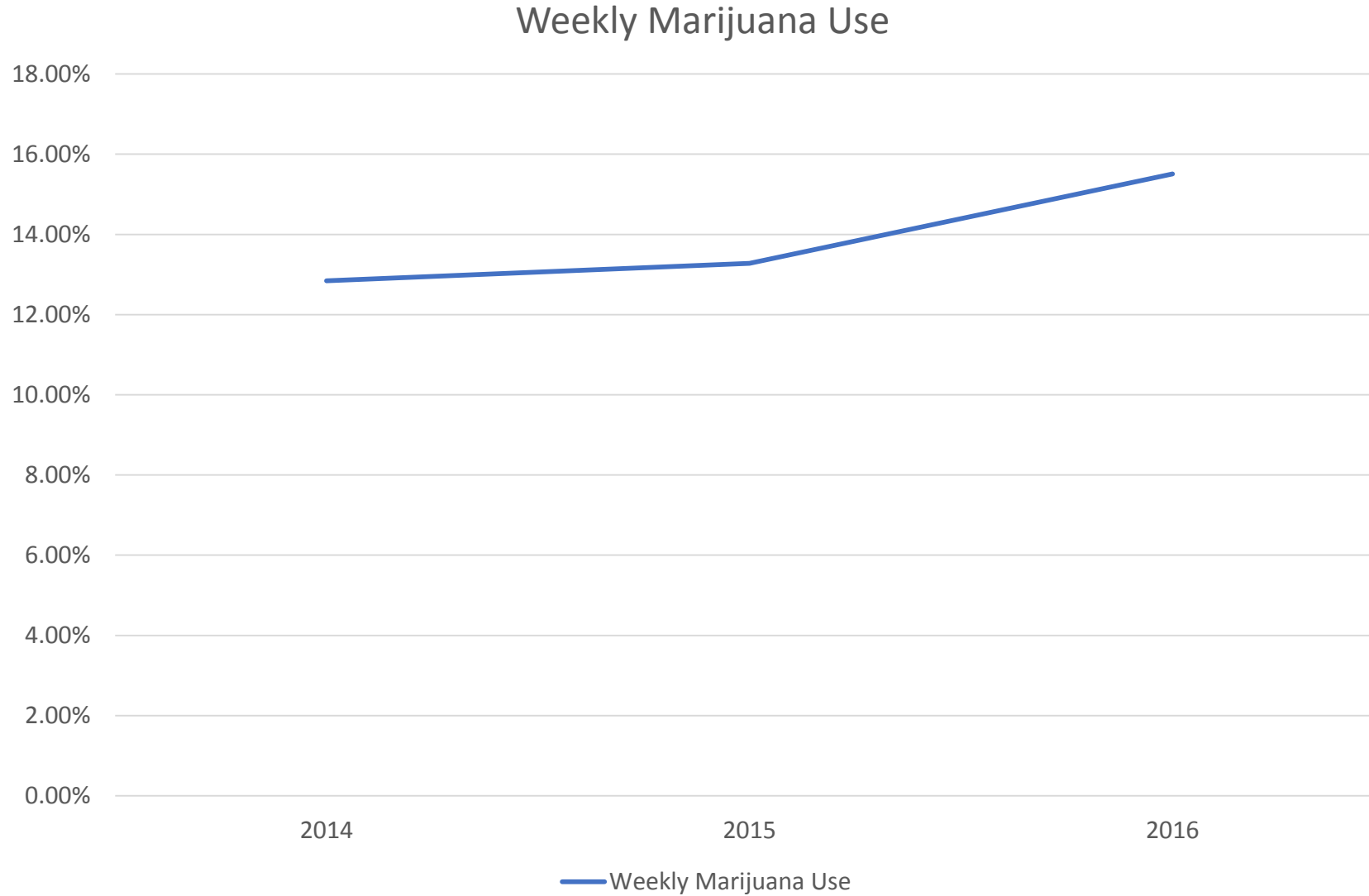
All models adjusted for age, sex, and baseline level of the outcome

COHORT 1: RECREATIONAL MARIJUANA USE – YEARLY USE



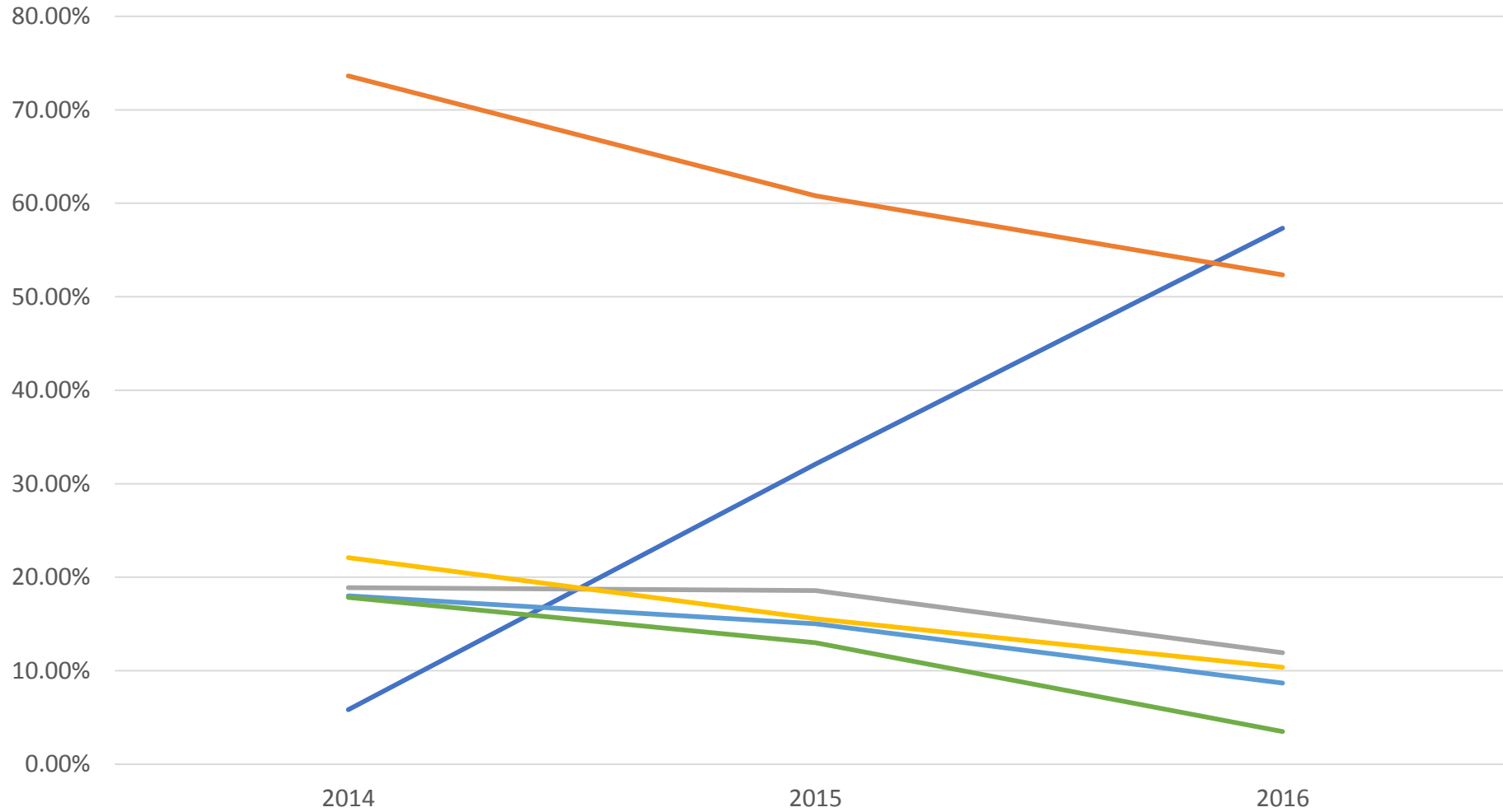
Overall, no significant change in past year use.

COHORT 1: RECREATIONAL MARIJUANA USE – WEEKLY USE



More frequent use is going up within Cohort 1 (p=.026)

COHORT 1: WHERE PEOPLE GET MARIJUANA



Significant: overall, 1 vs. 2, and 1 v. 3

— Retail store

— From friends

Significant: overall, 1 vs. 2, and 1 v. 3

Significant: overall, 1 v. 3

— Medical dispensary

— Gave \$ to someone

Significant: overall, 1 v. 3

Significant: overall, 1 v. 3

— Got it at a party

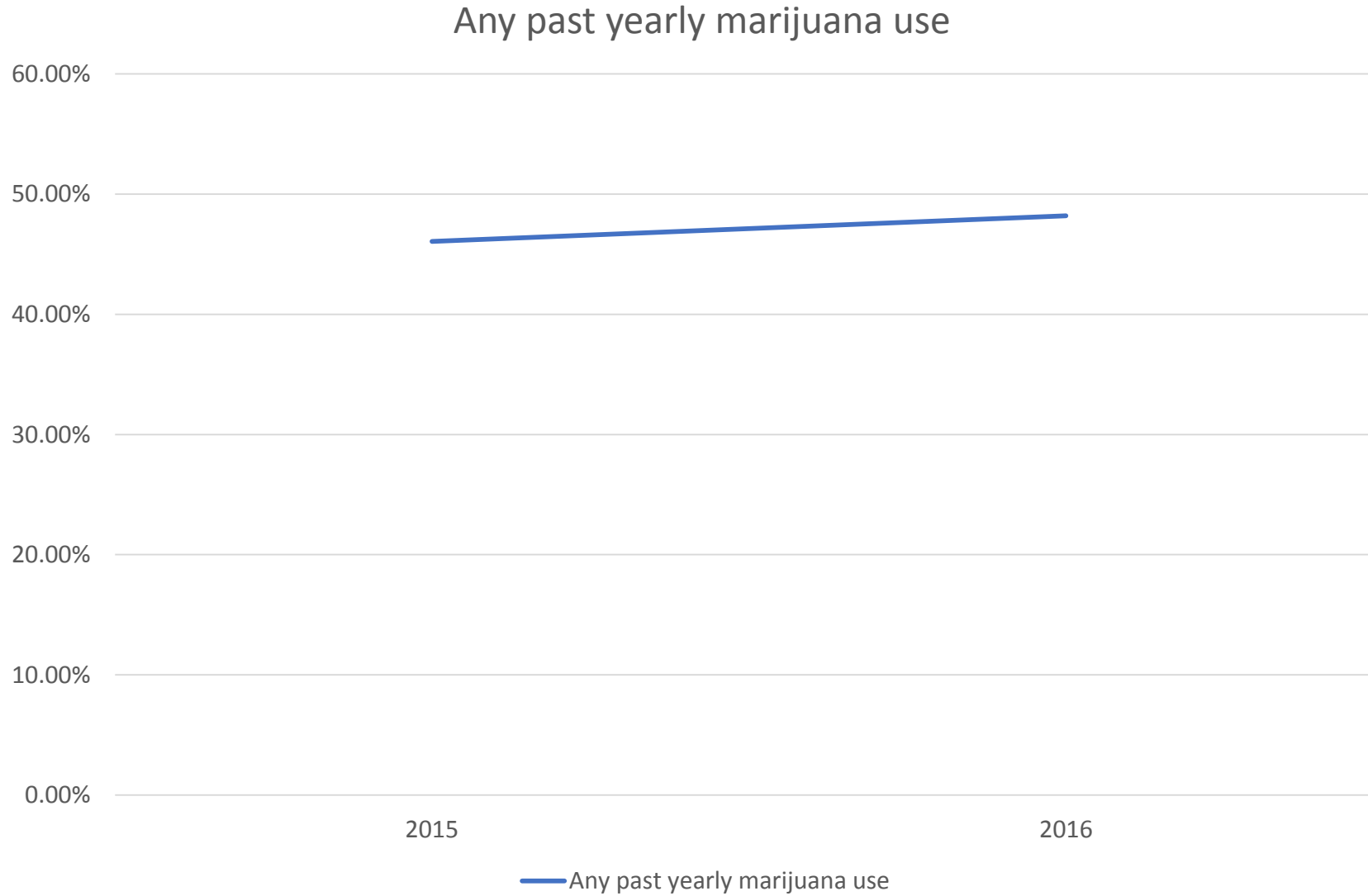
— Someone w/Medical card

Significant: overall, 1 v. 3

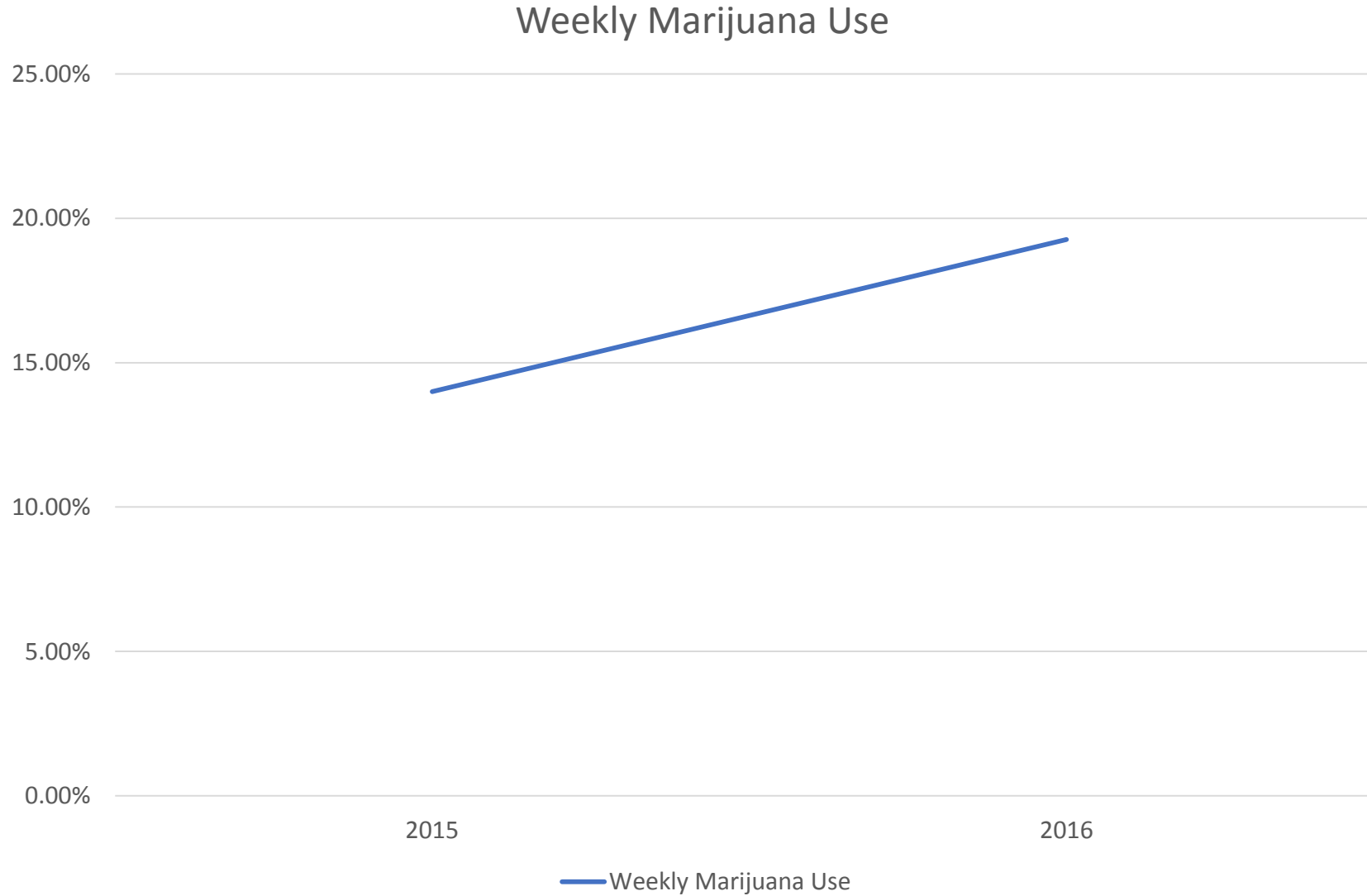
Weighted Analyses of DBHR Young Adult Health Survey Cohort 2 change from Year 1 (2015) to Year 2 (2016)

Select findings that demonstrate potential shifts within cohort over time

RECREATIONAL MARIJUANA USE – YEARLY USE



RECREATIONAL MARIJUANA USE – WEEKLY USE



Statistically significant, $p < .001$

Thank You!

- **Lucy Mendoza**
- **DBHR for their funding and leadership, with special thanks to:**
 - Rebecca Grady, Can Du, Grace Hong, Sarah Mariani, Michael Langer
- **Washington Young Adult Health Survey Team Members**
 - Jason Kilmer (PI), Mary Larimer, Jessica Cronic, Isaac Rhew, Theresa Walter, Tim Pace, and Jack Yeh