**Legalization of Recreational Marijuana and association with marijuana use and cannabis use disorder: United States, 2008 - 2016**

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**NSDUH RML paper base code and models**

**data** data2;

set ah.nsduhcombvars04\_16;

where stname ^= "DISTRICT OF COLUMBIA";

rage = round(age);

if **12**<= rage <= **17** then RMLage=**1**;

else if **18**<=rage<=**25** then RMLage=**2**;

else if rage>=**26** then RMLage=**3**;

if IMMBORNUS =**1** or BORNINUS =**1** then USborn = **1**;

else if IMMBORNUS =**2** or BORNINUS =**2** then USborn = **0**;

if cbsa2 in (**1**,**2**) then inMSA = **1**; \*double check but I think this means it IS in a CBSA/MSA;

else if CBSA2 in (**3**,**4**) then inMSA = **2**; \*not in.;

if RSKMJOCC in (**1**,**2**) then pRiskMonth = **0**;

else if RSKMJOCC in (**3**,**4**) then pRiskMonth = **1**;

if RSKMRJMON in (**1**,**2**) then pRiskMonth = **0**;

else if RSKMRJMON in (**3**,**4**) then pRiskMonth = **1**;

if RSKMJREG in (**1**,**2**) then pRisk2xwk = **0**;

else if RSKMJREG in (**3**,**4**) then pRisk2xwk = **1**;

if RSKMRJWK in (**1**,**2**) then pRisk2xwk = **0**;

else if RSKMRJWK in (**3**,**4**) then pRisk2xwk = **1**;

\*lowMJWrongComb = low perceived wrongfulness of posession including "no penalty" as an answer.;

if MXMJPNLT in (**1**,**2**,**6**) then lowMJWrongComb = **1**;

else if MXMJPNLT in (**3**,**4**,**5**, **94**) then lowMjWrongComb = **0**;

if MXMJPENL in (**1**,**2**) then lowMJWrongcomb = **1**;

else if MXMJPENL in (**3**,**4**,**5**, **94**) then lowMjWrongcomb = **0**;

\*lowMJWrong\_noNoPen = low perceived wrongfulness of posession without including "no penalty" as an answer.;

if MXMJPNLT in (**1**,**2**) then lowMJWrong\_noNoPen = **1**;

else if MXMJPNLT in (**3**,**4**,**5**, **94**) then lowMJWrong\_noNoPen = **0**;

if MXMJPENL in (**1**,**2**) then lowMJWrong\_noNoPen = **1**;

else if MXMJPENL in (**3**,**4**,**5**, **94**) then lowMJWrong\_noNoPen = **0**;

if **20**<=IRMJFM<=**30** then dailyPMMJ = **1**;

else if **0**<IRMJFM<**20** then dailyPMMJ = **0**;

else if IRMJFM in (**91**,**93**) then dailyPMMJ =**0**;

if **1**<=IRMJFM<=**30** then PMMJ = **1**;

else if IRMJFM in (**91**,**93**) then PMMJ =**0**;

if **1**<=IRMJFY<=**365** then PYMJ = **1**;

else if IRMJFY in (**991**,**993**) then PYMJ =**0**;

if MJAGE<**100** then mjuseage = mjage;

IF MJAGE =**991** then MJinit24m = **0**;

else if rage-MJuseAGE <=**2** then MJinit24m = **1**;

else if rage-MJuseAGE >**2** then MJinit24m = **0**;

if mjage in (**985**, **994**,**997**,**998**) then mjinit24m = **.**;

if pmmj =**1** then dailypmmjPM=dailypmmj;

else dailypmmjPM =**.**;

if **200**<=IRMJFY<=**365** then dailypymjPY = **1**;

else if **0**<IRMJFY<**200** then dailypymjPY = **0**;

else if IRMJFY in (**991**,**993**) then dailypymjPY =**.**;

\*\*\*5/11/18 mj abuse or dependence in the past year;

if DEPNDMRJ =**1** or ABUSEMRJ=**1** then MJabDepPY =**1**;

else if DEPNDMRJ=**0** and ABUSEMRJ =**0** then MJabDepPY=**0**;

**RUN**;

**Data** ah.data\_rml\_sens;

set data2;

if year<**2008** then delete;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* SENSITIVITY FOR YEAR OF PASSING\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

\*\*\*\*\*\*\*\*\*\* If MML or RML passed before july 1, then before is year of passing, if it was after july 1st then before is year after = what we used in the final set of results;

\*\*\*\*\*\*\* medical marijuana laws;

ever\_passMMLyS = **0**;

if stname in ("ALASKA", "ARIZONA","ARKANSAS", "CALIFORNIA", "COLORADO", "CONNECTICUT",

/\*"DISTRICT OF COLUMBIA"\*/ "DELAWARE", "FLORIDA", "HAWAII", "ILLINOIS", "MAINE", "MARYLAND",

"MASSACHUSETTS", "MICHIGAN", "MINNESOTA", "MONTANA", "NEVADA", "NEW HAMPSHIRE",

"NEW JERSEY", "NEW MEXICO", "NEW YORK","NORTH DAKOTA", "OHIO", "OREGON","PENNSYLVANIA", "RHODE ISLAND", "VERMONT",

"WASHINGTON") then ever\_passMMLyS = **1**;

law\_status1MMLyS = ever\_passMMLyS;

if stname = "ALASKA" and year<**2004** then law\_status1MMLyS= **0**;

else if stname = "ARIZONA" and year<**2011** then law\_status1MMLyS= **0**;

else if stname = "ARKANSAS" and year<**2017** then law\_status1MMLyS= **0**;

else if stname = "CALIFORNIA" and year<**2004** then law\_status1MMLyS= **0**;

else if stname = "COLORADO" and year<**2004** then law\_status1MMLyS= **0**;

else if stname = "CONNECTICUT" and year<**2012** then law\_status1MMLyS= **0**;

/\*else if stname = "DISTRICT OF COLUMBIA" and year<2010 then law\_status1MMLyS= 0;\*/

else if stname = "DELAWARE" and year<**2011** then law\_status1MMLyS= **0**;

else if stname = "FLORIDA" and year<**2017** then law\_status1MMLyS= **0**;

else if stname = "HAWAII" and year<**2004** then law\_status1MMLyS= **0**;

else if stname = "ILLINOIS" and year<**2014** then law\_status1MMLyS= **0**;

else if stname = "MAINE" and year<**2004** then law\_status1MMLyS=**0**;

else if stname = "MARYLAND" and year<**2003** then law\_status1MMLyS=**0**; \*cm changed ;

else if stname = "MASSACHUSETTS" and year<**2013** then law\_status1MMLyS=**0**;

else if stname = "MICHIGAN" and year<**2009** then law\_status1MMLyS=**0**;

else if stname = "MINNESOTA" and year<**2014** then law\_status1MMLyS=**0**;

else if stname = "MONTANA" and year<**2005** then law\_status1MMLyS=**0**;

else if stname = "NEVADA" and year<**2004** then law\_status1MMLyS=**0**;

else if stname = "NEW HAMPSHIRE" and year<**2014** then law\_status1MMLyS=**0**;

else if stname = "NEW JERSEY" and year<**2010** then law\_status1MMLyS=**0**;

else if stname = "NEW MEXICO" and year<**2007** then law\_status1MMLyS=**0**;

else if stname = "NEW YORK" and year<**2015** then law\_status1MMLyS=**0**;

else if stname = "NORTH DAKOTA" and year<**2017** then law\_status1MMLyS=**0**;

else if stname = "OHIO" and year<**2016** then law\_status1MMLyS=**0**;

else if stname = "OREGON" and year<**2004** then law\_status1MMLyS=**0**;

else if stname = "PENNSYLVANIA" and year<**2016** then law\_status1MMLyS=**0**;

else if stname = "RHODE ISLAND" and year<**2006** then law\_status1MMLyS=**0**;

else if stname = "VERMONT" and year<**2004** then law\_status1MMLyS=**0**;

else if stname = "WASHINGTON" and year<**2004** then law\_status1MMLyS=**0**;

earlypassMMLyS = **0**;

if stname in ("CALIFORNIA", "OREGON", "WASHINGTON", "ALASKA", "MAINE",

"COLORADO", "NEVADA", "HAWAII", "MARYLAND") then earlypassMMLyS=**1**; \*cm added maryland;

MMLySpass = **2**;\* "After";

if ever\_passMMLyS = **1** and law\_status1MMLyS =**0** then MMLySpass = **1**;\*"Before";

if earlypassMMLyS = **1** then MMLySpass = **2**;\*"After";

if ever\_passMMLyS = **0** then MMLySpass = **0**;\*"Never";

ever\_passRMLyS = **0**;

if stname in ("ALASKA", "CALIFORNIA", "COLORADO","MAINE",

"MASSACHUSETTS", "NEVADA", "OREGON","WASHINGTON") then ever\_passRMLyS = **1**;

law\_status1RMLyS = ever\_passRMLyS;

if stname = "ALASKA" and year<**2015** then law\_status1RMLyS= **0**;

else if stname = "CALIFORNIA" and year<**2017** then law\_status1RMLyS= **0**;

else if stname = "COLORADO" and year<**2013** then law\_status1RMLyS= **0**;

else if stname = "MAINE" and year<**2017** then law\_status1RMLyS=**0**;

else if stname = "MASSACHUSETTS" and year<**2017** then law\_status1RMLyS=**0**;

else if stname = "NEVADA" and year<**2017** then law\_status1RMLyS=**0**;

else if stname = "OREGON" and year<**2015** then law\_status1RMLyS=**0**;

else if stname = "WASHINGTON" and year<**2013** then law\_status1RMLyS=**0**;

RMLySpass = **2**;\* "After";

if ever\_passRMLyS = **1** and law\_status1RMLyS =**0** then RMLySpass = **1**;\*"Before";

if ever\_passRMLyS = **0** then RMLySpass = **0**;\*"Never";

**run**;

/\* drop projected state level covariates to use 2000/2010 estimates only ...

right now 2000 estimates are really 2004 projectsions \*\*/

**data** DATA\_RMLs;

set AH.data\_rml\_sens;

drop

white

male

pop

unempl

housinc

HSP

PCTN;

**run**;

**data** state\_cov;

set ah.state\_covariates\_final;

rename year= yr\_census;

instatecov=**1**;

**run**;

**data** DATA\_RMLs;

set DATA\_RMLs;

if year<=**2005** then yr\_census=**2000**;

else yr\_census=**2010**;

**run**;

**proc** **sort** data=state\_cov;

by abbrev yr\_census;

**run**;

**proc** **sort** data=DATA\_RMLs;

by abbrev yr\_census;

**run**;

**data** DATA\_RMLs2;

merge DATA\_RMLs state\_cov; by abbrev yr\_census;

if abbrev = "DC" then delete;

if yr\_census = **2000** then delete;

**run**;

/\*\* setting up time as cubic spline \*\*/

**data** DATA\_RMLs2;

set DATA\_RMLs2;

yearcont = year - **2007**; \*calculate year count;

yearsp = max (yearcont-**4**, **0**); \*define spline knot as 2011 - ie years since 2011;

**run**;

/\*

proc export data=DATA\_RML2

outfile="H:\CM\final\_data\_06\_19.sav"

dbms=SAV replace;

run;

\*MORE DATA MANIPULATION;

PROC IMPORT OUT=mml\_final

DATAFILE='H:\CM\final\_data\_07\_31.sav'

DBMS=sav REPLACE;

run;

quit; \*/

**data** rml\_finals;

set DATA\_RMLs2;

where Abbrev^=" ";

**run**;

**data** ah.rml\_final\_sense;

set rml\_finals;

if dailypmmj = **1** then dailypmmj12 = **1**;

if dailypmmj = **0** then dailypmmj12 = **2**;

if newrace2=**.** then newrace2\_col=**.**;

else if newrace2=**1** then newrace2\_col=**1**;

else if newrace2=**2** then newrace2\_col=**2**;

else if newrace2=**3** or newrace2=**4** then newrace2\_col=**3**;

else if newrace2=**5** then newrace2\_col=**4**;

else if newrace2=**6** then newrace2\_col=**5**;

else if newrace2=**7** then newrace2\_col=**6**;

if newrace2=**.** then newrace2\_col2=**.**;

else if newrace2=**1** then newrace2\_col2=**1**;

else if newrace2=**2** then newrace2\_col2=**2**;

else if newrace2=**3** or newrace2=**4** or newrace2=**5** then newrace2\_col2=**3**;

else if newrace2=**6** then newrace2\_col2=**4**;

else if newrace2=**7** then newrace2\_col2=**5**;

if newrace2=**.** then newrace2\_col3=**.**;

else if newrace2=**1** then newrace2\_col3=**1**;

else if newrace2=**2** then newrace2\_col3=**2**;

else if newrace2=**3** or newrace2=**4** or newrace2=**5** or newrace2=**6** then newrace2\_col3=**3**;

else if newrace2=**7** then newrace2\_col3=**4**;

format newrace2\_col race. newrace2\_col2 racetwo. newrace2\_col3 racethree. RMLage rmlage. MMLpass mmlpass. RMLpass rmlpass.

MMLsenspass mmlsenspass. RMLsenspass rmlsenspass. MMLySpass mmlySpass. RMLySpass rmlySpass.;

**run**;

**proc** **freq** data= AH.rml\_final\_sense;

table ever\_passMMLsens law\_status1RML\*ever\_passRML\*RMLpass\*state/list missing;

**run**;

\*\*\*\*\*\*2/22/18 christine updated code: ;

**proc** **format**;

value race **1**="NH White"

**2**="NH Black"

**3**="NH Native American/HI/PI"

**4**="NH Asian"

**5**="NH Mixed"

**6**="Hispanic";

value racetwo **1**="NH White"

**2**="NH Black"

**3**="NH NA/HI/PI/ASIAN"

**4**="NH Mixed"

**5**="Hispanic";

value racethree **1**="NH White"

**2**="NH Black"

**3**="NH Other"

**4**="Hispanic";

value RMLage **1**="12-17"

**2**="18-25"

**3**="26+";

value RMLsenspass **0**="0 never"

**1**="1 before"

**2**="2 after" ;

value MMLsenspass **0**="0 never"

**1**="1 before"

**2**="2 after" ;

value RMLySpass **0**="0 never"

**1**="1 before"

**2**="2 after" ;

value MMLySpass **0**="0 never"

**1**="1 before"

**2**="2 after" ;

**run**;

**TABLE 1**

**\*\*\* Past month MJ use among ALL respondents\*\*\***

**proc** **glimmix** data= AH.rml\_final\_sense ic=q maxopt= **100** pconv=**0.00003**;

class abbrev rmlage RMLySpass(ref='0 never') irsex newrace2\_col2

(ref='NH Mixed') USBORN INMSA income;

model PMMJ /\*(event = '1')\*/ = rmlage RMLySpass rmlage\*RMLySpass

yearcont yearcont\*yearcont yearcont\*yearcont\*yearcont yearsp\*yearsp\*yearsp

rmlage\*yearcont rmlage\*yearcont\*yearcont rmlage\*yearcont\*yearcont\*yearcont rmlage\*yearsp\*yearsp\*yearsp

irsex newrace2\_col2 income USBORN INMSA

PCT10\_24 MALE\_PCT Unemp\_rate Median\_inco PCT\_NoHS

/dist= binomial /\* changed from binary \*/ link=logit solution;

random int /subject=abbrev s;

lsmeans rmlage\*RMLySpass /pdiff cl;

estimate "Before vs. Never - Age 12-17" RMLySpass **1** **0** -**1** rmlage\*RMLySpass **1** **0** -**1** **0** **0** **0** **0** **0** **0** / exp cl;

estimate "Before vs. Never - Age 18-25" RMLySpass **1** **0** -**1** rmlage\*RMLySpass **0** **0** **0** **1** **0** -**1** **0** **0** **0** / exp cl;

estimate "Before vs. Never - Age 26+" RMLySpass **1** **0** -**1** rmlage\*RMLySpass **0** **0** **0** **0** **0** **0** **1** **0** -**1** / exp cl;

estimate "After vs. Never - Age 12-17" RMLySpass **0** **1** -**1** rmlage\*RMLySpass **0** **1** -**1** **0** **0** **0** **0** **0** **0** / exp cl;

estimate "After vs. Never - Age 18-25" RMLySpass **0** **1** -**1** rmlage\*RMLySpass **0** **0** **0** **0** **1** -**1** **0** **0** **0** / exp cl;

estimate "After vs. Never - Age 26+" RMLySpass **0** **1** -**1** rmlage\*RMLySpass **0** **0** **0** **0** **0** **0** **0** **1** -**1** / exp cl;

estimate "After vs. Before - Age 12-17" RMLySpass -**1** **1** **0** rmlage\*RMLySpass -**1** **1** **0** **0** **0** **0** **0** **0** **0** / exp cl;

estimate "After vs. Before - Age 18-25" RMLySpass -**1** **1** **0** rmlage\*RMLySpass **0** **0** **0** -**1** **1** **0** **0** **0** **0** / exp cl;

estimate "After vs. Before - Age 26+" RMLySpass -**1** **1** **0** rmlage\*RMLySpass **0** **0** **0** **0** **0** **0** -**1** **1** **0** / exp cl;

title "4/27/18 sense year anal adjusted-Past Month MJ use";

**run**;

**\*\*\* Frequent MJ use among ALL respondents\*\*\***

**proc** **glimmix** data= AH.rml\_final\_sense ic=q maxopt= **100** pconv=**0.00003**;

class abbrev rmlage RMLySpass(ref='0 never') irsex newrace2\_col2

(ref='NH Mixed') USBORN INMSA income;;

model dailypmmj /\*(event = '1')\*/ =rmlage RMLySpass rmlage\*RMLySpass

yearcont yearcont\*yearcont yearcont\*yearcont\*yearcont yearsp\*yearsp\*yearsp

rmlage\*yearcont rmlage\*yearcont\*yearcont rmlage\*yearcont\*yearcont\*yearcont rmlage\*yearsp\*yearsp\*yearsp

irsex newrace2\_col2 income USBORN INMSA

PCT10\_24 MALE\_PCT Unemp\_rate Median\_inco PCT\_NoHS

/dist= binomial /\* changed from binary \*/ link=logit solution;

random int /subject=abbrev s;

lsmeans rmlage\*RMLySpass /pdiff cl;

estimate "Before vs. Never - Age 12-17" RMLySpass **1** **0** -**1** rmlage\*RMLySpass **1** **0** -**1** **0** **0** **0** **0** **0** **0** / exp cl;

estimate "Before vs. Never - Age 18-25" RMLySpass **1** **0** -**1** rmlage\*RMLySpass **0** **0** **0** **1** **0** -**1** **0** **0** **0** / exp cl;

estimate "Before vs. Never - Age 26+" RMLySpass **1** **0** -**1** rmlage\*RMLySpass **0** **0** **0** **0** **0** **0** **1** **0** -**1** / exp cl;

estimate "After vs. Never - Age 12-17" RMLySpass **0** **1** -**1** rmlage\*RMLySpass **0** **1** -**1** **0** **0** **0** **0** **0** **0** / exp cl;

estimate "After vs. Never - Age 18-25" RMLySpass **0** **1** -**1** rmlage\*RMLySpass **0** **0** **0** **0** **1** -**1** **0** **0** **0** / exp cl;

estimate "After vs. Never - Age 26+" RMLySpass **0** **1** -**1** rmlage\*RMLySpass **0** **0** **0** **0** **0** **0** **0** **1** -**1** / exp cl;

estimate "After vs. Before - Age 12-17" RMLySpass -**1** **1** **0** rmlage\*RMLySpass -**1** **1** **0** **0** **0** **0** **0** **0** **0** / exp cl;

estimate "After vs. Before - Age 18-25" RMLySpass -**1** **1** **0** rmlage\*RMLySpass **0** **0** **0** -**1** **1** **0** **0** **0** **0** / exp cl;

estimate "After vs. Before - Age 26+" RMLySpass -**1** **1** **0** rmlage\*RMLySpass **0** **0** **0** **0** **0** **0** -**1** **1** **0** / exp cl;

title "4/27/18 adjusted -Past month Daily MJ Use";

**run**;

**\*\*\* Past year cannabis use disorder among all respondents \*\***

**proc** **glimmix** data= AH.rml\_final\_sense ic=q maxopt= **100** pconv=**0.00003**;

class abbrev rmlage RMLySpass(ref='0 never') irsex newrace2\_col2

(ref='NH Mixed') USBORN INMSA income ;

model MJabDepPY /\*(event = '1')\*/ = rmlage RMLySpass rmlage\*RMLySpass

yearcont yearcont\*yearcont yearcont\*yearcont\*yearcont yearsp\*yearsp\*yearsp

rmlage\*yearcont rmlage\*yearcont\*yearcont rmlage\*yearcont\*yearcont\*yearcont rmlage\*yearsp\*yearsp\*yearsp

irsex newrace2\_col2 income USBORN INMSA

PCT10\_24 MALE\_PCT Unemp\_rate Median\_inco PCT\_NoHS

/dist= binomial /\* changed from binary \*/ link=logit solution;

random int /subject=abbrev s ;

lsmeans rmlage\*RMLySpass /pdiff cl;

estimate "Before vs. Never - Age 12-17" RMLySpass **1** **0** -**1** rmlage\*RMLySpass **1** **0** -**1** **0** **0** **0** **0** **0** **0** / exp cl;

estimate "Before vs. Never - Age 18-25" RMLySpass **1** **0** -**1** rmlage\*RMLySpass **0** **0** **0** **1** **0** -**1** **0** **0** **0** / exp cl;

estimate "Before vs. Never - Age 26+" RMLySpass **1** **0** -**1** rmlage\*RMLySpass **0** **0** **0** **0** **0** **0** **1** **0** -**1** / exp cl;

estimate "After vs. Never - Age 12-17" RMLySpass **0** **1** -**1** rmlage\*RMLySpass **0** **1** -**1** **0** **0** **0** **0** **0** **0** / exp cl;

estimate "After vs. Never - Age 18-25" RMLySpass **0** **1** -**1** rmlage\*RMLySpass **0** **0** **0** **0** **1** -**1** **0** **0** **0** / exp cl;

estimate "After vs. Never - Age 26+" RMLySpass **0** **1** -**1** rmlage\*RMLySpass **0** **0** **0** **0** **0** **0** **0** **1** -**1** / exp cl;

estimate "After vs. Before - Age 12-17" RMLySpass -**1** **1** **0** rmlage\*RMLySpass -**1** **1** **0** **0** **0** **0** **0** **0** **0** / exp cl;

estimate "After vs. Before - Age 18-25" RMLySpass -**1** **1** **0** rmlage\*RMLySpass **0** **0** **0** -**1** **1** **0** **0** **0** **0** / exp cl;

estimate "After vs. Before - Age 26+" RMLySpass -**1** **1** **0** rmlage\*RMLySpass **0** **0** **0** **0** **0** **0** -**1** **1** **0** / exp cl;

title "5/11/18 past year MJ abuse or dependence";

**run**;

**TABLE 2**

**\*\*\* Frequent MJ use among Past month users respondents\*\*\***

**proc** **glimmix** data= AH.rml\_final\_sense ic=q maxopt= **100** pconv=**0.00003**;

class abbrev rmlage RMLySpass(ref='0 never') irsex newrace2\_col2

(ref='NH Mixed') USBORN INMSA income;;

model dailypmmjPM /\*(event = '1')\*/ =rmlage RMLySpass rmlage\*RMLySpass

yearcont yearcont\*yearcont yearcont\*yearcont\*yearcont yearsp\*yearsp\*yearsp

rmlage\*yearcont rmlage\*yearcont\*yearcont rmlage\*yearcont\*yearcont\*yearcont rmlage\*yearsp\*yearsp\*yearsp

irsex newrace2\_col2 income USBORN INMSA

PCT10\_24 MALE\_PCT Unemp\_rate Median\_inco PCT\_NoHS

/dist= binomial /\* changed from binary \*/ link=logit solution;

random int /subject=abbrev s;

lsmeans rmlage\*RMLySpass /pdiff cl;

estimate "Before vs. Never - Age 12-17" RMLySpass **1** **0** -**1** rmlage\*RMLySpass **1** **0** -**1** **0** **0** **0** **0** **0** **0** / exp cl;

estimate "Before vs. Never - Age 18-25" RMLySpass **1** **0** -**1** rmlage\*RMLySpass **0** **0** **0** **1** **0** -**1** **0** **0** **0** / exp cl;

estimate "Before vs. Never - Age 26+" RMLySpass **1** **0** -**1** rmlage\*RMLySpass **0** **0** **0** **0** **0** **0** **1** **0** -**1** / exp cl;

estimate "After vs. Never - Age 12-17" RMLySpass **0** **1** -**1** rmlage\*RMLySpass **0** **1** -**1** **0** **0** **0** **0** **0** **0** / exp cl;

estimate "After vs. Never - Age 18-25" RMLySpass **0** **1** -**1** rmlage\*RMLySpass **0** **0** **0** **0** **1** -**1** **0** **0** **0** / exp cl;

estimate "After vs. Never - Age 26+" RMLySpass **0** **1** -**1** rmlage\*RMLySpass **0** **0** **0** **0** **0** **0** **0** **1** -**1** / exp cl;

estimate "After vs. Before - Age 12-17" RMLySpass -**1** **1** **0** rmlage\*RMLySpass -**1** **1** **0** **0** **0** **0** **0** **0** **0** / exp cl;

estimate "After vs. Before - Age 18-25" RMLySpass -**1** **1** **0** rmlage\*RMLySpass **0** **0** **0** -**1** **1** **0** **0** **0** **0** / exp cl;

estimate "After vs. Before - Age 26+" RMLySpass -**1** **1** **0** rmlage\*RMLySpass **0** **0** **0** **0** **0** **0** -**1** **1** **0** / exp cl;

title "4/27/18 sense year anal adjusted -Past month Daily MJ Use among past month users";

**run**;

**\*\*\* Past year cannabis use disorder among past year MJ users respondents \*\***

**proc** **glimmix** data= AH.rml\_final\_sense ic=q maxopt= **100** pconv=**0.00003**;

class abbrev rmlage RMLySpass(ref='0 never') irsex newrace2\_col2

(ref='NH Mixed') USBORN INMSA income ;

model MJabDepPY /\*(event = '1')\*/ = rmlage RMLySpass rmlage\*RMLySpass

yearcont yearcont\*yearcont yearcont\*yearcont\*yearcont yearsp\*yearsp\*yearsp

rmlage\*yearcont rmlage\*yearcont\*yearcont rmlage\*yearcont\*yearcont\*yearcont rmlage\*yearsp\*yearsp\*yearsp

irsex newrace2\_col2 income USBORN INMSA

PCT10\_24 MALE\_PCT Unemp\_rate Median\_inco PCT\_NoHS

/dist= binomial /\* changed from binary \*/ link=logit solution;

random int /subject=abbrev s ;

lsmeans rmlage\*RMLySpass /pdiff cl;

where PYMJ =**1**;

estimate "Before vs. Never - Age 12-17" RMLySpass **1** **0** -**1** rmlage\*RMLySpass **1** **0** -**1** **0** **0** **0** **0** **0** **0** / exp cl;

estimate "Before vs. Never - Age 18-25" RMLySpass **1** **0** -**1** rmlage\*RMLySpass **0** **0** **0** **1** **0** -**1** **0** **0** **0** / exp cl;

estimate "Before vs. Never - Age 26+" RMLySpass **1** **0** -**1** rmlage\*RMLySpass **0** **0** **0** **0** **0** **0** **1** **0** -**1** / exp cl;

estimate "After vs. Never - Age 12-17" RMLySpass **0** **1** -**1** rmlage\*RMLySpass **0** **1** -**1** **0** **0** **0** **0** **0** **0** / exp cl;

estimate "After vs. Never - Age 18-25" RMLySpass **0** **1** -**1** rmlage\*RMLySpass **0** **0** **0** **0** **1** -**1** **0** **0** **0** / exp cl;

estimate "After vs. Never - Age 26+" RMLySpass **0** **1** -**1** rmlage\*RMLySpass **0** **0** **0** **0** **0** **0** **0** **1** -**1** / exp cl;

estimate "After vs. Before - Age 12-17" RMLySpass -**1** **1** **0** rmlage\*RMLySpass -**1** **1** **0** **0** **0** **0** **0** **0** **0** / exp cl;

estimate "After vs. Before - Age 18-25" RMLySpass -**1** **1** **0** rmlage\*RMLySpass **0** **0** **0** -**1** **1** **0** **0** **0** **0** / exp cl;

estimate "After vs. Before - Age 26+" RMLySpass -**1** **1** **0** rmlage\*RMLySpass **0** **0** **0** **0** **0** **0** -**1** **1** **0** / exp cl;

title "5/11/18 past year MJ abuse or dependence among past year users";

**run**;

title;

**Figures 1, 2, 3**

**\*\*\* Age\*year\*RML status for figures \*\***

**proc** **surveyfreq** data= AH.rml\_final\_sense;

STRATA vestr;

CLUSTER verep ;

WEIGHT weight8;

table RMLAGE\*year\* (PMMJ dailypmmj dailypmmjpm MJabDepPY)/row nofreq nowt nocellpct;

where ever\_passMMLSENS =**0** and ever\_passRMLSENS=**0**;

title '"4/4/18 SENS ANALYSIS by age, RML outcomes never pass states';

**run**;

**proc** **surveyfreq** data= AH.rml\_final\_sense;

STRATA vestr;

CLUSTER verep ;

WEIGHT weight8;

table RMLAGE\*year\* (PMMJ dailypmmj dailypmmjpm MJabDepPY)/row nofreq nowt nocellpct;

where ever\_passMMLSENS =**1** and ever\_passRMLSENS=**0**;

title '"4/4/18 SENS ANALYSIS by age, RML outcomes- states MML pass, no RML';

**run**;

**proc** **sort** data= AH.rml\_final\_sense; by state;**run**;

**proc** **surveyfreq** data= AH.rml\_final\_sense;

STRATA vestr;

CLUSTER verep ;

WEIGHT weight8;

table RMLAGE\*year\* (PMMJ dailypmmj dailypmmjpm MJabDepPY)/row nofreq nowt nocellpct;

where ever\_passRMLSENS =**1**;

by state;

title '"4/4/18 SENS ANALYSIS by age, RML outcomes RML states';

**run**;