KE A LI D

Assistant Professor College of Public Health and Social Justice Department of Epidemiology and Biostatistics

> 3545 Lafayette Ave. Salus Center, Room 480 St. Louis, MO 63103

> > P: 3149778134 kenan.li@slu.edu

> > > ļ

<u>"#\$%&'()*</u>!

<u>| ''#\$#</u>%&' ()% *+,-./+O1+234%56-1+6178%9/: -7-3+3%52321%; +-, 1.7-2<#%

- ('# 9308/E#5#E#8/d: 8%[#T#8/9-: 8%P#>#8%\$-70: F178%\$#*#8%R13078%=#A#8/! 3618%R#%P#8% C-3+I 8%[#8%E3..38%5#8%: /A! B68%>-3+6" 12218%`#A#8/L3-8%0#8/3+C%W/: 8%9#/@&' (^D#%; +C1.723+C-+I %2" 1%=-77-77-BB-%R-, 1.%\$1423%37%3%6/: B41C%+32: .346": 03+%7<7210a%R1713.6"%012"/C78%6" 3441+I 178%3+C/B./7B1627#%B43%0%(' @^Da%(') V#%
- ((# : /A! BCA%3+C%93O8%E#5#E#%&' (^D#%A%7B32-34%C<+3O-6%O/C14%/H%B/B: 432-/+% 6"3+I 17%-+% 3%, : 4+1.3N41% 6/37234% 1+, -./+O1+2#% =*3%0*43\$1*4#' ;180*4#' 15' C%1904''@\$)4#'=*510243\$1*'()\$%*)%J&@VDa%Q^)GM('#%
- (&# : /A! BCA%3+C%93O8%E#5#E#%@\' (^D#%X1/I .3B"-6344<%\$ 1-I "'21C%*4372-6%E12a%A% , 3.-3N41G714162-/+%3+C%O/C14-+I %O12"/C% +C1.%2"1%B32-344<%+/+7232-/+3.<% 6/+C-2-/+#% **4#+'15'3@%'! 2%0\$\)4*'! ++1\)\$43\$1*'15'C%1904''@%0+%(' ^@QDa%() ^&G(Q' '#%
- (U# W/: 8% 9#8% P1+28% T#8% 93 O 8% E#5# E#8% L3-8% O #8% C-3+ I 8% [#8% 3+C%: /A! B(% @&' (QD#% *, 34: 32-+ I % 3+C%: N7-C1+61% 3217% + C%'' 1-. % O B4-632-/+7% I/. % 3+C%/77% + %'' 1% 9/] 1.%= -77-77-BB-%R-, 1.%>37-+#%B43%0%^@(Da%('#%)
- ()# 9308/E#5#E#8/R13078%=#8%: /A! BC8/9-8/L#8/3+C%= 3238/9#! #%@&' (QD#%= 137: .-+I % 6/00: +-2<% 17-4-1+61%2/%6/37234%' 3_3.C7/34/+I %'' 1%+/.2'' 1.+%X: 4H%/H%= 1\-6/#% F43804#'?4G40&+'6%/\$/H\(M@(Da\(\)(&#%
- (M# : /A! BC8% 930% E#5#E#8% C-3+18% [#8% W/: 8% 9#8% 3+C% L3-8% O#% @&' () D#% A% 6<N1.-+H.372.: 62: .1\h/.\%/\OO: +-2<\%17-4-1+61\%377177\O1+2\%+C\% -7: 34-_32-/+#% A4031904''@: '4*&'C\%1904''@\\$)'=*510243\\$1*'()\\$\%*)\%\&\%5: BB4\(\)Da\UVGU?#\%
- (^# L3-8%N#%%N"/: %c#d#%! 1+18%5#\$ #%3+C%: /A!BC%

' 6892/81=!76E430.!12<!F 43D/2G!, 1E63.@

- (# AC-] -Cg3g38% A#%: /A! BC8%J] 1+78% A#%3+C% S -47/+8%T#! #%@&' &' D#%J! 'A18*3:>
 ! *4#: 3\$)+'7\$#13L'N8\$#&\$*9'4'C%1>A: I%0\$*504+308)380%'510'. 2%09%*): '< 4*49%2%*3'
 15'O04\$#'(:+3%2+'\$*'J1+'! *9%#%+'A18*3: #%5B32-34%56-1+617%K+72-2: 218%; +-, 1.7-2<%
 /H%5/: 2''1.+%L34-H/.+-3#%
- &# C1%3%O3<18%P#8%S -47/+8%T#8%> .: -+1%C1%> .: -+8%S #8%: /A!BC8%9-, -+178%= #8%d: 8%= #8% = -441.8%5#%5/43+F<8%= #8%S 1N1.8%P#8%3+C%>3NN/+-8%= #%@&' & (D#%. *189@'31' . 43L' O@%'=2''4)3'15'APQ=D>

- &' &&% `-O1%71.-17%64: 721.-+I %: 7-+I %714HG/.I 3+-_-+I %O3B7%2/%-C1+2-H<\%/+I -2: C-+34' B/44: 23+2% 1\B/7: .1% B./H-417% @6/G3: 2"/.D#% ! **84#' A1*5%0%*)%' 15' 3@% =*3%0*43\$1*4#'(1)\$%3: '510'. */\$01*2%*34#'. "\$&%2\$1#19: #\A2" 1+78\X.1161#\%
- &' &(% >: -4C-+1 % X 1/GL<N1.-+H. 372.: 62: .17%H/.%*O1.I1+6<% = 3+3I1O1+2%/H%`.3-4' 5<721O7%+%9A#%X0I4*'4*&'6%9\$1*4#'=*510243\$1*'(:+3%2+'!++1)\$43\$1*%C=(>701 TUT, #%>342-O/.18%= \$#%
- 8' &(% 9/+IG21. O% AON-1+2% A-.%! /44: 2-/+% A77/6-321C%] -2"% S 11F4<% LJ ZK\$G(?' = /.234-2<%L/: +27%+%L34-H/.+-3%L1+7: 7% .3627%6/G3: 2"/.D#% **84#'A1*5%0%*)% 15'3@%'=*3%0*43\$1*4#'(1)\$%3: '510'. */\$01*2%*34#'. "\$&%2\$1#19: #%E1] %[/.F#%
- &' &(% = /C14-+I %'' 1%' 1342'' %N1+1H-27%/H%. 3HH-6% 14321C%-. %B/44: 2-/+%N321O1+2%6. /77' 2'' 1%L-2<%/H%9/7%A+I 1417#%

- &' (V% A%O<N.-C%= /C14%/H%L144: 43.%A: 2/O3238%= 3.F/, 8%3+C%9/I-72-6%R1I.177-/+' H/.%93+C%L"3+I1%!.1C-62-/+%-+%2"1%9/]1.%=-77-77-BB-%R-, 1.%>37-+#%O@% ! 2%0\$)4*'!++1)\$43\$1*'15'C%1904''@%0+Y'4**84#'2%%3\$*9#%3OB38%Y9#%
- &' (&% 1OB/.34%L''3+I17%/H%L/37234%L/OO: +-2<%R17-4-1+61%-+%X: 4H%/H%=1\-6/'R1I-/+#%(343%'15'3@%'A14+3'A1*5%0%*)#%E1] %J.413+78%9A#%
- &'((

- &' &(% = /C14-+I % /B: 432-/+%L'' 3+I 17% +C1.%L/37234%O3_3.C%COB3627#%((A='T, _' ?824*'71''8#43\$1*+'4*&'F43804#'?4G40&+'@X: 172%9162: .1DK'5B32-34%56-1+617%

&'&'%

- &' (M% A > = % &' (M% 523.% A] 3.C% + % &' (M% AI $1 + 2G > 371C\% = /C14 + I \% <math>5 < OB/7 : O' 5B/+7/.1C\%N < \%E 32 / + 34\%56 1 + 61\% / : + C32 / + \% > L5\m(QU^VVQD\m)\mathbb{W}$
- &' (M% A > = % &' (M% ! ./H177-/+34% *+"3+61O1+2% A] 3.C% -+% &' (M% AI 1+2G>371C' = /C14-+I %5<OB/7-: O%5B/+7/.1C%N<%E32-/+34%56-1+61%Y/: +C32-/+%@>L5' m(QU^VVQD#%
- &' ()% 5` *= % 52: C1+2% R1713.6"%! /721.% 3] 3.C% -+% 2" 1% &' ()% 95; % >/3.C% /H 5: B1., -7/.7%= 112-+I #%

A\(\text{447}: \in \text{3}. <\(\text{H}\(\text{N} < \text{1}. \text{H}-1 \text{C\(\text{B} \) 11.\(\text{1}, -1 \) 7\(\text{6} \) +\(\text{N} \) 1\(\text{H}/\ : + \text{C\(\text{S} \) 2\(\text{2}'' \) 1\(\text{H}/\ 44/ \) -+ I\(\text{M}-+ \text{Fa}\(\text{8} \) \\ \(\text{22B7abb} \) \] 1\(\text{H}/\ 16-1+61\(\text{H}6/\ \text{Ob} \) 1\(\text{7}\(\text{1} \) 3: 2'' \(\text{.} \text{ b. 16} \) (\(\text{Cb} \) \(\text{Q} \) \(\text{Q} \) \(\text{Q} \) \(\text{C} \) \(\text

O1.1%7%3%4-72%/H%7/○1%/H%2"1%"-I"4-I"21C%g/: .+347%2"32%K%"3,1%71.,1C%37%3+%362-,1%1,-1]1.% H/.a%

 $\begin{array}{l} K^***\% A 6 6 1770 \% *^**\% . 3 + 7362 - / + 7\% + \% \bot < N1. + 12 - 670 \% . 3 + 7362 - / + 7\% + \% \bot K 50 \% 5! \ R5\% \\ K + 21. + 32 - / + 34\% / : . + 34\% / H\% \bot 1 / GK + H / . \bigcirc 32 - / + 0\% + 21. + 32 - / + 34\% / : . + 34\% / H\% \bot - 73721. \% - 75\% \\ R 1 C : 62 - / + 0\% + 21. + 32 - / + 34\% / : . + 34\% / H\% \bot 1 / I . 3B '' - 634 \% + H / . \bigcirc 32 - / + \% - 6 - 1 + 610 \% + 21. + 32 - / + 34\% / H\% \bot 1 . - 32. - 6\% / 7 < 6'' - 32. < 0\% \bot + 347\% / H\%'' 1 \% \bot 0 1. - 63 + \% \bot 7 / / 6 - 32 - / + \% / H\% \bot 1 / I . 3B '' 1. 70\% \\ \triangle BB4 - 1 C \% - 6 - 1 + 6170 \%^* + , - . / + \bigcirc 1 + 234 \% \top 1713. 6'' 0\%^* \bot B1. 2\% < 721 \bigcirc 70\% \bigcirc 1342'' 63. 10 \%^* \times \% + 21. + 12\% / H\%''' - + I 7\% / : . + 340 \%^* \times \% . 3 + 7362 - / + 7\% + \% \bot / \bigcirc B : 232 - / + 34\% / 6 - 34\% < 721 \bigcirc 70\% \triangle BB4 - 1 C\% \\ \times 1 / I . 3B'' < \#\% \\ \end{array}$

<u>' "&%O(* L!"R, "7(" * %" -!</u>

-1/20!: 4; /.!\$2/I 63./0M!

(2.03; 8043@

&'&U%% >5`%)Q''%R%I/.%5B32-34%A+34<7-78%59; %

&' &&%6% >5`%))'' %5232-72-634%913.+-+18%59; %

&' &&%: '(=)OTm/e714I 19@

^{&#}x27;6189/2G!&../.0120@

AC3OW] 1+8%-++1.%H% 5L%52: C1+2%JBB/.2: +-2-17%H/.%A63C1O-6%R1713.6"6%-++1.%H% ; 5L% +C1.I.3C: 321%R1713.6"6A77/6-3217%L./I.3O#%

A4-6-3%AC-] 3g3g38%S-++1.%H% 5L%52: C1+2%JBB/.2: +-2-17%H/.%A63C1O-6%R1713.6"#% #/36806<!L31<; 106!-0; <620.@

d-3+I <-%c-8%= #5#%+%5B32-34%\$ 323%56-1+6178%5B32-34%56-1+617%K+72-2: 218% 5L#%

= 1 + 1 %: $\% = 5\% + \%B32 - 34\% 6 / + / \bigcirc -67\% + C\%S 323\%A + 34 < 7 - 78\%B32 - 34\% 6 - 1 + 617\% + 72 - 2: 218% 5 _ \# / 36806 < \! + 1.063! 96. / . @$

! "-4-B%X.-HH-+8%A: 2/O321C%A77177O1+2%/H%! /21+2-34%L144% /] 1.%5-I +34%(+21.H1.1+61%] -2"% O-I "%A66: .36<%: ., 1<7%+%9/7%A+I 1417%L/: +2<%eL/OO-2211%= 1ON1.D#%

: 4; /./121!-0106!\$2/I 63./0M!

' 6189/2G!&../.0120@

&''?%%\'()\% *EZ5\\(V?\\\$17-I +\%/H*+, -./+\O1+234\\=3+3I1\O1+2\\5<721\O78\\95; #\\
&\''?\\%\'()\% *EZ5\\M')'\\5B32-34\\=/C14-+I\\%/H*+, -./+\O1+234\\\$3238\\95; #\\

, 7) S"--() * &: !-"7Q(%"-!

&' &&G% X1/7B32-34%\$ 323%56-1+2-728%2" 1%O1342" %\$ 323%A+34<2-67%L/.1%/H%(+72-2: 21%/H%

&' &&G% = 1 O N 1.8 K + 72-2: 21 % H K L 4 - + -634 K 3 + C \(\) . 3 + 7432 - \(/ + 34 K 56 - 1 + 617 K 32 K S 37'' - + 12 / + \(/ + 12

; +-, 1.7-2<%+%52#%9/: -7%X1/7B32-34#%

&' &&G% 3<4/%Y144/] 8% 3<4/.%X1/7B32-34%+72-2: 21#%

&' &&G% L/OO-2211%= 1ON1.8% .1G