

BRITTANY ANNE CHOZINSKI, PHD, MPH

"##!\$%!&"!"!\$'(!) *+, !- . //!&01!2!\$. 3!43'*35*(!67!89&08!
! "#\$%&'() *'+%,-)"/0-11

4: , . ;!*<, =>, : '5; , ?!@5*/, 3A, (!B, 3C, :D\$, =E. /5'+(!FBG6H!\$'EC5, ; (!I :5'5A. /!I :5J 53/*K+(!\$*A5/*K+I*<
) , C5A53, (!I / . ;;5A. /!\$*A5. /!6L, *:+(!I *J J E35'+MG. ; , C!N, ; , :AL(!HE. /5'. '50, !N, ; , :AL!

23231

/!\$", %*!, &
. 3!43'*35*(!67!

23421

!" #\$\$*1" , , 0\$-,)\$*, 1'/0\$)#*#/)1"

P, Q!R*:S!I 5'+(!PR!
\$*A5/*K+!

T5; ; , : '5*3?T5K5' . !) 5J , ;5;?!U>*AL. /!\$L5' ;!53!\$EVW, A'50, !! *3; '5'E'5*3!'L: *EKL!6*EALMG. ; , C!
T, 05A, ;!

!

23421

!" #\$\$*1" , , 0\$-,)\$*, 1'/0\$)#*#/)1"

P, Q!R*:S!I 5'+(!PR!
\$*A5/*K+!

!

23441

!" #\$/!/!', &/0\$2/)\$1, 00#3#\$, -\$! " #\$/!/!', &/0\$4#-#&*#\$
%&'(#)*'!+

%. ;L53K'*3(!TXI X!

P. '5*3. !; , AE:5'+(!; : ' , K+(!. 3C!53' , //5K, 3A, !

!

23351

!" #\$\$*1" , , 0\$-,)\$*, 1'/0\$)#*#/)1"

P, Q!R*:S!I 5'+(!PR!
\$*A5/*K+!

!

23361

5/)+5, %&!\$5/&" /!!/&\$1, 00#3#

P, Q!R*:S!I 5'+(!PR!
Y*/5'5A. /!\$A5, 3A, !

234517819: ;<;=71
, %) \$0/4+\$, -\$! " # \$0/6#%&' (#)*'! +

\$. 3!43'*35*(!67!
TE. /!. >>*53' J , 3'!53!\$*A5*/*K+!. 3C!I :5J53*/*K+!

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%&' (#)*'!+\$, -\$!#. /*\$/!\$*/&\$/&! , & ,

\$. 3!43'*35*(!67!
Y. 'LQ. +!*!'L, !- , . /'L!Y: * <, ; ; 5*3; !Z<E3C, C!V+! [\$!T, >'X!* < !- , . /'L! \!- EJ . 3!\$, :05A, ;]!
1

234?178123451

I L*b53; S5(!G!Zc*:LA*J 53K!&O&1]X!dI . >5'*!/Y*/5A, Xe!^3!aX!-X!%. ''; !\!TX! . :J , 3. '+!ZUC;](!: ; #(<"2#(3%
! 7#+"*.=#' (63."+"1\$("1(/; #(>1"/#" (! /*/#2X!P, Q!R*:S?F53E;!F, . :353K!
!

I L*b53; S5(!G(!\!B*3b. /, b(!4X!Z&O&O]X! [;53K!K, *:, <, :, 3A, C!>L**M, /5A5'. '5*3!>: *W, A'; !'*!E3C, :;'. 3C!
;E:050*:!:; *E:A, ;?!. !J , 'L*C!<*:!' . EJ . M63<*:J , C!>: A'5A, !53!L5KL, :!, CEA. '5*3X!?3, &1*. (3%@9#&"+*1
83..#\$#(A#*. /; X!Tf"?#0X#090D08""9"9#&O&O#9"+"&1!
!

I L*b53; S5(!G!Z&O#9]X!d - . b53K!e!3!aX!P5A*/ , ''5(!\$X!\$, 3A, :M6L*J . ;(!\!X!G*/53K, :!ZUC; X](IB"3.#1+(C3#2/(3/
83..#\$#-(: ; #(@, /; 3&"/"D#(C, " "#/(3(6#D#1/"31(*1' (E1/#D#1/"31X!\$:53K5, /C(!^F?!L . :/, ;!X!6L*J . ;X!
!

I L*b53; S5(!G!Z&O#g]X!\$A5, 3A, !c5A'5*3!. ;!I :5'5_E, !*<\$A5, 3A, ?!F:K. 3!6:. 3;>/ . 3'. '5*3!. 3C!L, !G*C+X!F, ..#/"(1
3%!+"#1+#+(: #:; 13.3\$G(H(! 3+"#/G(!1gZ#](!h9MggX!
!

I L*b53; S5(!G!Z&O09]X!) *:, !%*:S!<*:!F, ;;!Y. +?6L, !\$>, A'. ' *<53!L, !4K, !*<IP, Q!6, /, 05; E. !) , C5. X!8*131X!

I L*b53; S5(!G(!\!I L*b53; S5(!aX!Z&O#h]X!dG*'L!\$C, ;!*<'L, !\$', 'L*;A*>, ?!Y:*05C, :MY. '5, 3'!3', :. A'5*3!. 3C!
) , . 353K!53!L, !4K, !*<, -, ./'Lxe!433E. /!J , , '53K!*<6L, !\$*A5, '+!<:\$*A5. /!\$'EC5, ;!*<\$A5, 3A, X!T, 30, :(I fX!
!

I L*b53; S5(!G(!\!I L*b53; S5(!aX!Z&O#1]X!d [3AL. 5353K!L, !- , ./'L!N, A*:C?16*Q. :C!Y. '5, 3'MI , 3', :, C!! . :, Xe!
433E. /!J , , '53K!*<6L, !\$*A5, '+!<:\$*A5. /!\$'EC5, ;!*<\$A5, 3A, X!\$. 3!T5, K*(!I 4X!
!

I L*b53; S5(!G!Z&O##]X!dT5K5'. !) 5J , ;5;?16*EAL;A: , 3;(!\$EVW, A'505'+(!. 3C!L, !YE, :!4, ' , :3E;Xe!433E. /!
J , , '53K!*<6L, !\$*A5, '+!<:\$*A5. /!\$'EC5, ;!*<\$A5, 3A, X!I /, 0, /. 3C(!f-X!

I L*b53; S5(!G(!\!B*3b. /, b(!4X!Z&O&O]X!d [;53K!K, *:, <, :, 3A, C!>L**M, /5A5'. '5*3!>: *W, A'; !'*!E3C, :;'. 3C!
;E:050*:!:; *E:A, ;?!. !J , 'L*C!<*:!' . EJ . M63<*:J , C!>: A'5A, !53!L5KL, :!, CEA. '5*3Xe!433E. !) , , '53K!*<!L, !
4A. C, J +!*<I :5J 53. /!aE; '5A, !\$A5, 3A, ;X!\$. 3!43'*35*(!67XIZI *3<, :, 3A, !A. 3A, /, C]X!
!

I L*b53; S5(!G!Z&O&O]X!6L53S53K!fE';5C, !'L, !B, 3C, :!L, ASV*=?I : , . '53K!^3A/E;50, !\$>. A, ;!<*:!6: . 3;(!P*3M

I L*b53; S5(!GX!Z&O#8]!d-EJ . 3M3M'L, MF**>!6, . AL53K?\$.L.>53K'L, !!. ;: **J ;!*<!L, !cE'E:, Xe!P*: 'L, . ;'!
F. S, 05, Q!I *//, K, !Y, C. K*K+!I *3<, : , 3A, X!. 3!43'*35*(!67X!Z` , +3*, !;>, . S, :]!
!

I L*b53; S5(!GX!Z&O#g]!d[3C, ;:'. 3C53K!B, 3C, :!. 3C!, =E. /5'+?!Y: . A'5A. /!\$*A5/*K+(l:&*J !F. Q!U3<*:A, J , 3'
'*!@5A'5J ;!\$, :05A, ;Xe!P. '5*3. /!f:K. 35b. '5*3!*<!-5>. 35A; !53! :5J 53. /!aE; '5A, !. 3C!6, =. ;!I :5J 53. /!aE; '5A, !
4;; *A5. '5*3!433E. !) , , '53K!\$. 3!43'*35*(!67X!
!

I L*b53; S5(!GX!Z&O#g]!d[3C, ;:'. 3C53K!B, 3C, :!. 3C!, =E. /5'+!53!'L, !! *3', ='!*<!5*/, 3A, !Y: , 0, 3'5*3Xe!\$. 3!
43'*35*!Y*/5A, !T, > . : 'J , 3'!@5*/ , 3A, !^3' , :0, 3'5*3!I *3<, : , 3A, X!. 3!43'*35*(!67X!
!

I L*b53; S5(!GX!Z&OOi]!dT5K5'. /!G*C5, ;(!T5K5'. /!F. V*:?!T, DN, A*3; ':EA'53K!'L, !Y*; 'M-EJ . 3!\$EVW, A'Xe!6L, !
'3' , :3, '!.. ;!c. A'*:+!. 3C!Y/. +K:*E3C!I *3<, : , 3A, X!P, Q!R*:S!I 5'+(!PRX!
!

I L*b53; S5(!GX!Z&OO9]!d) *: , !%*:S!<*:!F, ; ;!Y. +?6L, !\$>, A'. '*!:53!'L, !4K, !*<!P, Q!6, /, 05; E. !) , C5. Xe!
! :5A. /!6L, J , ;!53!) , C5. !I *3<, : , 3A, X!P, Q!R*:S!I 5'+(!PRX!
!

I L*b53; S5(!GX!Z&OO9]!dN5AL!`5C; ?!I *J 53K!*<!4K, !53!) . 3L. '' . 3j; !\$*A5. /!U5', Xe!433E. /!J , , '53K!*<!L, !
4J , :5A. 3!\$*A5/*K5A. /!4;; *A5. '5*3X!G*; '**3(!) 4X!
!

I L*b53; S5(!GX!Z&OO9]!d) , C5. '53K!) , J *:+?IN, J , J V, :53K!NO. 3C. !'*!c*:K, '!T. :<E:Xe!433E. /!J , , '53K!*<!L, !
4J , :5A. 3!\$*A5/*K5A. /!4;; *A5. '5*3X!P, Q!R*:S!I 5'+(!PRX!
!

I L*b53; S5(!GX!Z&O&&]!d) %L. 'IA. 3!+*E!C*!Q5'L! . !; *A5/*K+!C, K: , , K!R*E!J . +IV, !;E:>:5; , C!\$'X!YL5/5>:
! *//, K, X!. 3!43'*35*(!67X!
!

I L*b53; S5(!GX(!\!) *3;5V5. ;(!P!Z&O&&]!I E::5AE/EJ IT5; :E>'5*3!%, , S!FE:IF. C+!*<!L, !F. S, ! [350, :;5'+X!. 3!
43'*35*(!67X!
!

I L*b53; S5(!GX!Z&O&&]!d65', !^7!! E::5AE/EJ IT5; :E>'5*3!%, , S!FE:IF. C+!*<!L, !F. S, ! [350, :;5'+X!. 3!43'*35*(!67X!
67X!
!

I L*b53; S5(!GX!Z&O&&]!d) , 3'. /!- , . /'L! . : , !c*:EJ X!P*: 'L, . ; 'IF. S, 05, Q!I *//, K, X!. 3!43'*35*(!67X!
!

I L*b53; S5(!GX!Z&O&#]!FBG6HM

I L*b53; S5(!GX!Z&O&O]X!%L. '!Q*E/C!+*E!C*k!Y. 3, /!C5; AE; ;5*3!L*; ', C!V+!FFF[!65'/, !^7(!I , 3', :!<:!%*J , 3(! . 3C!6L, '. !PE!75!\$. 3!43'*35*(!67X!
!
I L*b53; S5(!GX!Z&O&O]X![3C, ; ' . 3C53K!L, !^J >. A'; !*<!6: . EJ . !53!L, ! [350, ; ;5'+!6: . EJ . M^3<*:J , C!Y: . A'5A, !
<*: !\$'EC, 3'; X!FFF[I . , ; !\$>, . S, :!\$, :5, ;X!\$. 3!43'*35*(!67X!
!
I L*b53; S5(!GX!Z&O&O]X!) . 3. K53K!I :5J 53. /!aE; '5A, !\$'EC, 3'!B: *E>; ?!G, ; 'IY: . A'5A, ;IY. 3, /!T5; AE; ;5*3X!433E. /!
) , , '53K!*<!L, !4A. C, J +!*<I :5J 53. /!aE; '5A, !\$A5, 3A, ;X!\$. 3!43'*35*(!67X!ZI *3<, :, 3A, !A. 3A, /, C]X!
!
I L*b53; S5(!GX!Z&O#i]X!d^J >/5A5'!G5. ;Xe!P*: 'L, . ; 'F. S, 05, Q!I *//, K, X!\$. 3!43'*35*(!67X!
!
I L*b53; S5(!GX!Z&O#i]X!d6: . EJ . M^3<*:J , C!Y: . A'5A, Xe!fE: !F. C+!*<!L, !F. S, ! [350, ; ;5'+X!\$. 3!43'*35*(!67X!
!
I L*b53; S5(!GX!Z&O#i]X!dc: *J !@5A'5J !*!%. ::5*:Xe!\$, =*/*K+l'3; '5'E', X!\$. 3!43'*35*(!67X!
!
I L*b53; S5(!GX!Z&O#i]X!d6: . EJ . M^3<*:J , C!Y: . A'5A, Xe!\$6% i ##X!\$. 3!43'*35*(!67X!
!
I L*b53; S5(!GX!Z&O#i]X!d%*:S53K!Q5'L!6: . 3;!. 3C!BPI !@, ' , :. 3;?lC: *J ! [3C, ; ; ' . 3C53K! *!4C0*A. A+Xe!
U3C, . 0* :;X!\$. 3!43'*35*(!67X!
!
I L*b53; S5(!GX!Z&O#i]X!d^3', ; ; , A'5*3. /!4>>: * . AL, ; !'*!I :5;5; (!6: . EJ . (!. 3C!T5; . ; ' , Xe!I *+*, !! :5;5;!
I *//. V*: . '50, X!YL*, 35=(!4mX!
!
I L*b53; S5(!GX!Z&O#9]X!d%*:S53K!Q5'L!FBG6H!R*E'L?lC: *J ! [3C, ; ; ' . 3C53K! *!4C0*A. A+Xe!\$. 3!43'*35*!
I *E3A5! *3!4/A*L*/! \IT:EK!4Q. , , ;X!\$. 3!43'*35*(!67X!
!
I L*b53; S5(!GX!Z&O#9]X!d\$*:A5. !^J >. A'; !*3!) , 3'. !! - , . /'L?![3C, ; ; ' . 3C53K!. 3C!%*:S53K!Q5'L!FBG6HM
^30*/0, C!I :5; , ;Xe!I *+*, !! :5;5; !! *//. V*: . '50, X!YL*, 35=(!4mX!
!
I L*b53; S5(!GX!Z&O#9]X!d@5*/ , 3A, (!B, 3C, :(!. 3C!nY: . A'5A. /!\$*A5/*K+?j!%*:S53K!Q5'L!- , />53K!4K, 3A5, ; !'*!
^J >: *0, ! [3C, ; ; ' . 3C53K!. 3C!Y: . A'5A, Xe!I , 3', :!k: !%*J , 3j; !\$'EC5, ; (!6, =, ; !FE'L, . . 3! [350, ; ;5'+X!\$, KE53(!
67X!Zc, . 'E: , C!; >, . S, :!]!
!
I L*b53; S5(!GX!Z&O#8]X!d-EJ . 3M3M'L, MF**>I6, . AL53K?!. L. >53K!L, !! /, . ; ; : **J ; !*<!L, !cE'E: , Xe!4; ; *A5. '5*3!
<*: !6, AL3*/ *K+!Y: * <, ; ;5*3. /X!\$. 3!43'*35*(!67X!
!
I L*b53; S5(!GX!Z&O#8]X!d [3C, ; ; ' . 3C53K!B, 3C, :!. 3C!\$, =E. /5'+?IY: . A'5A. /!\$*A5/*K+!<: *J !! :5J 53. /!aE; '5A, !'*!
@5A'5J ; !\$, :05A, ;Xe!\$, =E. /!4; ; . E!'!C. J 5/+!@5*/ , 3A, !^30, ; '5K. '*: !I *E: ; , X!6, =, ; !) E35A5>. /!Y*/5A, !
4; ; *A5. '5*3X!\$. 3!43'*35*(!67X!
!
I L*b53; S5(!GX!Z&O#8]X! *30, ; ; . '5*3; !*<!-*, X!6L, !N. >, !! :5;5; !! , 3', :X!\$. 3!43'*35*(!67X!
!
I L*b53; S5(!GX!Z&O#8]X!6. S, !G. AS!L, !P5KL'X!6L, !N. >, !! :5;5; !! , 3', :X!\$. 3!43'*35*(!67X!
!
I L*b53; S5(!GX!Z&O#8]X!d%*:S53K!Q5'L!-*, ?!Y: , 0, 3'5*3(!UCEA. '5*3(!. 3C!@5A'5J ; !\$, :05A, ; !53!L, !4: , . !*<
B, 3C, : , C!@5*/ , 3A, Xe!P*: 'L, . ; 'F. S, 05, Q!I *//, K, !- *3*: , C!C. AE/'+!F, A'E: , !\$, :5, ;X!\$. 3!43'*35*(!67X!
Z3. EKE: . !; >, . S, :!]!

I L*b53;S5(!GX!Z&O#8]!d6, .!. 3C!! *3;, 3'?!\$, =E. /!4;; E/'!4Q. :, 3, ;; !e!P*: 'L, . ; 'IF. S, 05, Q!! *//, K, !\$. 3!
43'*35*(!67!ZT5;AE;; 3')!

!

I L*b53;S5(!GX!Z&O#8]!dB, 3C, :, C!@5*/ , 3A, !53!'L, !4K, !***<**!nF*AS, :!N**J !6. /S!e!I , 3', :!<*:!%*J , 3j;!\$'EC5, ;(!
6, =. ;!FE'L, :. 3![350, ::;5'+!\$, KE53(!67!Zc, .'E:, C!;>, . S, :]!

!

I L*b53;S5(!GX!B:5J ;/, +(!) X(!\!U'AL5; *3(!\$!Z&O#8]!dI L*A*/. ' , !. 3C!- . >>53, ;; !e!4:' ;!. 3C!! E/'E: . /!
\$L*QA. ; , (!P*: 'L, . ; 'IF. S, 05, Q!! *//, K, !\$. 3!43'*35*(!67!ZB: . 3'!<E3C, C]!

!

!

Y5, C. C(!aXNX!Z&0#8]X!d\$, =E. !/-.. ; ; J , 3'!5;!) *:, !! *J J *3!6L. 3!R*E!6L53S(!GE'!) *;'!! . . , ;!4:, 3j'!
N, >*: ', CXe!6YNj;!6L, !\$*E:A, X!Z^3', :05, Q]X!

!

- , C:5AS(!mX!Z&0#8]X!d-E3C:, C;!*<!/*A. /!Q*J , 3!/ , . :3!;, /MC, <, 3;, !', AL35_E, ;Xe!c*=!. 3!43'*35*X!
Z^3', :05, Q]X!

!

- , C:5AS(!mX!Z&0#8]X!dF*A. /!Q*J , 3!/ , . :3!;, /MC, <, 3;, !', AL35_E, ;!53!:, ;>*3;, !'*!E>'5AS!53!05*/ , 3'A:5J , Xe!
P, Q;!\$. 3!43'*35*X!Z^3', :05, Q]!

!

-5//(! X!Z&0#8]X!d-, :, j;!QL+!'L, !3, Q!n%5//. 3C!B:. A, j!:, 050. /!J . +!C5;. >>*53'!+*E!e!) . :S, '%. 'ALX!
Z^3', :05, Q]!

!

B, ;', :!6, AL3/*K5, ;!Z&0#"!]X!dH [f!e!Z\$*A5. /!V, L. 05*:!. 3C!C, ;5K3!A*3;E/'. 3']!

232?1BC99DEFCE8=1G=H; :1: ; I E; J K1
0'00+\$#&4, 25#&!7\$&18\$1")'*!'/&\$9/) #&! '&3\$/&4\$1/) #3'('&3\$'&'!'/!'(#
fE:!F. C+!*<'L, !F. S, ! [350, ::5'+!
1
234A1
-0/*" 5/&\$-, %&4/! ', &\$3)/&
fE:!F. C+!*<'L, !F. S, ! [350, ::5'+!
1
234>1
'&&, (/!', &\$3)/&
4/. J *!I *//, K, ;!T5; ':5A'!
!
234>1
:, " &\$/&4\$*%/&&#), %1" #\$. 1#00#&1#/2/) 4
F, . KE, !<:!33*0. '5*3!
!
234>1
5'&&'#*\$!#(#&*\$9'9#)\$/2/) 4\$&, 5'&# #
) 5335, !\$', 0, 3;!Y5>, :!C*E3C. '5*3!
!
234>1
'&/%3%)/0\$" , &,)#7\$" , &,)#4\$-/1%0!+\$0#1!%)#\$*#)'#*
P*: 'L, . ; '!F. S, 05, Q!I *//, K, !
!
23361
:\$&',)\$-#00, 2
6L, !4J , :5A. 3!4A. C, J +!*<!Y*/5'5A. /!. 3C!\$*A5. /!\$A5, 3A, !
!

[^]3':*CEA'5*3!*!\$*A5*/*K+!

232317819: ;<;=71
; , /)4\$5#5;#)
T.3K,:*E;/+!IX[X6XUX!
1
234617819: ;<;=71
#0-<4#-#&#\$'&*!)%1!,)
\$6%i##!
1
2346178123451
\$(, 0%&!##)\$!)/'&#)
6L,!N.>, !I :5;5;!I , 3' , :!
!
23461
5#&! ,)
R*E3K!%*J , 3j;!F, .C, ::L5>!\$+J >*;5EJ (!6, =. ;!T50, ::5'+!I *E3A5/!
!
234L178123451
(4/+\$; #&#!\$9#)-,)5#)
6L,!N.>, !I :5;5;!I , 3' , :!
!
234?178123451
1)'*'\$&!#)(#&! ', &\$*9#1'/0'*!
6L,!N.>, !I :5;5;!I , 3' , :!
!
234?1
)%&=" , 9#\$\$(, 0%&!##)
6L,!N.>, !I :5;5;!I , 3' , :!
!
23421781234A1
(, 0%&!##)
U/<!F*E5; , !