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Association between Frequent Mental Distress and Insurance Status using the 2022 BRFSS

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1 Title
2 Association between Frequent Mental Distress and Insurance Coverage in the 2022
3 BRFSS
4

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32 ABSTRACT

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34 Objectives

35 Determine if there is a direct relationship between frequent mental distress and
36 health insurance coverage.

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38 Methods

39 Data from the 2022 BRFSS was used to calculate adjusted percentages. Crude
40 odds ratios for both mental distress and insurance coverage. Multivariate
41 analysis calculated crude and adjusted odds ratios for frequent mental distress
42 by insurance coverage with income as a covariate.

43

44 Results

45 Individuals reporting frequent mental distress had lower income, less education,
46 and were younger. Individuals without health insurance were more likely to be younger,
47 Hispanic, and not have graduated high school. There was no significant association
48 between frequent mental distress and not having insurance when other demographic
49 characteristics were considered. There was a significant interaction between income
50 and health insurance coverage status.

51 Conclusions

52 Increasing rates of insurance coverage to decrease the rates of frequent mental
53 distress will not be successful without consideration for other risk factors. Other
54 characteristics have a stronger influence on frequent mental distress than insurance
55 status.

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63 INTRODUCTION

64 Mental distress can be used to describe a wide range of mental health
65 conditions, including official diagnoses, along with general states of depression, anxiety,
66 and stress.¹⁻³ Without a standard definition for mental distress and poor mental health in
67 general, benchmarks used vary between studies and applications. For this study,
68 mental distress will be defined as stress, depression, and emotional problems such as
69 anxiety.

70 The 2021 National Survey on Drug Use and Health published by the Substance
71 Abuse and Mental Health Services Administration (SAMHSA) estimated that 57.8 million
72 Americans, or about 1 in 5, have had a mental illness that meets the criteria from the
73 Diagnostic and Statistical Manual of Mental Disorders 4th edition (DSM-IV) in the last 12
74 months.⁴ Depression risk for adults in the United States has been increasing yearly for
75 at least a decade, with a significant increase due to the COVID-19 pandemic.⁵ In 2019,
76 the economic burden of major depression disorder alone in adults was estimated to be
77 \$333.7 billion or \$16,854 per adult with the condition.^{6,7} This was an increase from the
78 2018 estimates, and estimates of the economic cost of mental health disorders
79 continued to rise during the 2020 and the COVID-19 pandemic.⁸ Of the estimated 58.7
80 million adults in the United States with any mental illness, only 26.5 million people
81 (close to half) received at least one form of mental health treatment in 2021. At some
82 point in the last 12 months, 15.5 million people (27%) reported not receiving mental
83 health services when they needed them.⁴ The most common reason for not receiving
84 care was the cost.^{4,8} Accessible treatment, including health insurance coverage and
85 access to doctors, decreases poor mental health burdens on individuals.

86 Despite the necessity of health insurance, no universal healthcare coverage
87 program exists within the United States. Without insurance, individuals are burdened
88 with expensive payments for services or difficulty finding a provider that will provide
89 services without insurance. In 2010, the Mental Health Parity and Addictions Equity Act
90 and Affordable Care Act changed how mental health was covered by insurance.⁹ Thirty-
91 two million Americans were uninsured for mental health services, and twenty-seven
92 million went from uninsured to insured.⁹ The Mental Health Parity and Addictions Equity
93 Act required insurance to cover mental health services in the same manner as physical

94 health services were covered. However, despite these laws, mental health care can still
95 be challenging to access with cost being listed as the most commonly reported
96 barrier.^{1,8}

97 According to the US Census Bureau’s most recent report, approximately 92% of
98 Americans had health insurance at some point during 2022¹⁰. Over half of insurance
99 plans are employer-based. Other sources of health insurance, in order of how much of
100 the population they cover, are Medicaid (18.8%), Medicare (18.7%), personally
101 purchased plans (9.9%), TRICARE (2.4%), and Veteran’s Affairs (VA) and Civilian
102 Health and Medical Program of the Department of Veterans Affairs
103 (CHAMPVA)(1.0%).¹⁰

104 Risks influencing mental illness have been well documented, including general
105 access to care¹ and socioeconomic status.^{11–13} This study separates insurance
106 coverage from the broad umbrella of access to care to determine if insurance coverage
107 is an independent risk factor for frequent mental distress. If not having health insurance
108 is a significant risk factor, reducing that risk factor by increasing insurance coverage
109 through broader policies or better outreach should reduce frequent mental distress
110 among the population since individuals would be able to have support to pay for
111 services.

112

113 METHODS

114 Study Design

115 This cross-sectional study used the data from the 2022 Behavioral Risk Factor
116 Surveillance System (BRFSS). The BRFSS is a large telephone survey developed by
117 the Centers for Disease Control and Prevention that collects health behavior data.¹⁴ The
118 health department of all 50 states, the District of Columbia, Puerto Rico, and the US
119 Virgin Islands conducts the phone survey of non-institutionalized adults monthly. The
120 BRFSS uses complex stratification mechanisms and randomly digit dialing to contact
121 landline and cellphone numbers to ensure accurate random sampling of the general
122 population.¹⁵

123

124 Study Population

125 In 2022, a total of 445,132 people responded to the BRFSS survey. Only
126 individuals who answered the questions about how many days in the past 30 days they
127 considered their mental health not good and their form of health insurance were
128 included in this analysis (n=419,137). Study participants who were unsure or unwilling to
129 report on their days of not good mental health were excluded, along with those who
130 were unsure or did not answer if they had health insurance or what type of insurance
131 they had.

132

133 Frequent Mental Distress

134 The level of mental distress was assessed by the question, “Now thinking about
135 your mental health, which includes stress, depression, and problems with emotions, for
136 how many days during the past 30 days was your mental health not good?”. Frequent
137 mental distress was classified by an answer of 14 or more days. The separation for
138 frequent mental distress as 14 days was determined based on previous research using
139 this question from the BRFSS on mental distress and health-related quality of life.^{16–18}

140

141 Insurance Status

142 Insurance status was assessed by the question, “What is the current primary
143 source of your health insurance?” Participants were categorized as having some form
144 of insurance if they responded with any of the following: a plan purchased through an
145 employer or union, a private nongovernmental plan, Medicare, Medigap, Medicaid,
146 Children’s Health Insurance Program, military-related healthcare, Indian Health Service,
147 State-sponsored health plan and other government program. Individuals who answered
148 “no coverage of any type” were categorized as uninsured.

149

150 Measures

151 Demographic information included in the analysis consisted of sex, age,
152 education, income, urbanicity, and race. Age was divided into six categories to
153 correspond with other research^{3,5}. Education was separated into four categories: those
154 who did not graduate high school, those who received a high school diploma or GED,

155 and some college and college graduates. Race was categorized as Hispanic, non-
156 Hispanic White, non-Hispanic Black, or other. Income had many missing survey
157 responses, so a new category of missing was created to incorporate these individuals
158 into the analysis.

159

160 Statistical Analysis

161 First, the distribution of demographic characteristics, health insurance, and mental
162 distress was accessed along with the adjusted percentile. Data was analyzed using the
163 provided weights from the CDC. Prevalence and the unadjusted odds ratio were
164 calculated for each demographic characteristic by health insurance status. Since health
165 insurance is related to income through employment or qualification for Medicaid, the first
166 multivariate logistic regression model was run with an interaction term between health
167 insurance status and income. Since interaction returned as significant income, it was
168 treated as a covariate for the analysis. All other variables were also significant and thus
169 included in the model. Model fit was accessed by the R-squared value. Analysis was
170 conducted on SAS Studio version 3.81 (SAS Institute, Cary, NC).

171

172 RESULTS

173 Of the study participants, 57,667 (15.7%) individuals reported having frequent
174 mental distress, and 22,339 (8.4%) reported not having any source of health insurance.
175 The number of females was 222,525 (51.4%), and the number of males was 196,612
176 (48.5%). The age group with the most participants was 65 and older (n=151,992, 23%).
177 The distribution of the study population among other age groups is available in Table 1.
178 White non-Hispanics were the most common racial group, making up 58.9% of the
179 study population. Black, non-Hispanics accounted for 11.7%, Hispanics 18.4%, and
180 other racial groups comprised 11% of the study population. All percentages are adjusted
181 percentages. Additional demographic information can be found in Table 1.

182 The odds of frequent mental distress were highest among 18-24 year-olds (OR=
183 3.35; 95% CI=3.13-3.57) and 25-34 year-olds (OR= 2.47; 95% CI= 2.33-2.62) compared
184 to 65 year-olds. In general, the odds of frequent mental distress decreased with age.
185 Race did not have a large influence on the odds of frequent mental distress, with only

186 Black non-Hispanics having a significant increase in odds (OR=1.10; CI=1.04-1.17). An
187 income of less than \$25,000 annually and not graduating high school were associated
188 with increased odds. Individuals who did not graduate high school had an odds ratio of
189 2 compared to college graduates. Individuals making less than \$25,000 had an odds
190 ratio of 2.51 compared to those making \$50,000 or more. People residing in rural
191 counties did not have a significant increase in frequent mental distress. The number of
192 individuals, adjusted percentiles, and crude odds ratio for each demographic variable by
193 infrequent or frequent mental distress are located in Table 2.

194 Overall, all demographic variables had a significant odds ratio of those who are
195 uninsured compared to those insured. The three age groups with the highest odds of
196 being uninsured compared to those 65 or older are 18 to 24-year-olds (OR= 13.95;
197 95%CI= 12.00-16.21), 25 to 34-year-olds(OR= 16.67; 95%CI=14.47-19.22), and 35-44-
198 year-olds (OR=13.44, 95%CI=11.64-19.22). Black, non-Hispanics have 1.59
199 (95%CI=1.45-1.74) the odds of being uninsured, and those in the other racial group
200 have 1.39 (95% CI= 1.24-1.55) odds of being uninsured compared to Whites. Hispanics
201 have the greatest odds of not having insurance compared to their white counterparts,
202 with an odds ratio of 5.46 (95%CI=5.15-5.80). Those who did not graduate high school
203 have the highest odds out of the education levels, with an odds ratio of 11.2
204 (95%CI=10.31-12.17). Income is significantly associated with the odds of not being
205 insured with an income of less than \$25,000 (OR=4.87; 95% CI=4.52-5.25). For an
206 income of \$25,000 to \$49,000, the odds ratio is 3.42 (95% CI=3.18-3.68). Individuals in
207 rural counties have 1.17 (95% CI=1.06-1.29) the odds of not having insurance
208 compared to their urban counterparts.

209 Initially, those without insurance had 1.35 (95% CI=1.27-1.44) the odds of
210 frequent mental distress compared to those with health insurance. (See Table 4)
211 However, once the demographic variables and interaction between health insurance
212 and income were included, the odds of frequent mental distress were no longer
213 significantly associated with health insurance status for most income brackets. Only
214 individuals reporting an annual income of \$50,000 or more had a significant association
215 between frequent mental distress and not having health insurance (OR=1.24; 95%
216 CI=1.08-1.41). After the health insurance and income relationship was accounted for in

217 the multivariate analysis, no other race had greater odds of increased frequent mental
218 distress than White non-Hispanics. Being female was still associated with an increased
219 risk of frequent mental distress through all income levels. Education was still significant,
220 apart from “High School graduate” no longer being a significant factor in the adjusted
221 odds ratio for frequent mental distress for individuals making less than \$25,000. The
222 crude odds for all age groups compared to those 65 and older were significant. This
223 was also the case for each income level. All specific odds ratios can be found in Table 4.

224

225 DISCUSSION

226 The results of this study support previous studies with the distribution of the rates
227 of frequent mental distress, with age and income being strong influencers for the rate of
228 frequent mental distress^{2,5}. The differences in odds ratio between different racial groups
229 are different than many other studies, such as SAMHSA. However, since the definitions
230 of study variables are not the same, the results are not directly comparable. In general,
231 this keeps with White, non-Hispanic individuals having increased odds of mental
232 distress than most other racial groups.

233 While the general health insurance coverage rate for American adults is arguably
234 high at 91.6%, the coverage rate varies significantly between racial groups, leaving
235 some groups underserved. The distribution of characteristics among those uninsured
236 correlates with data published by the US Census Bureau.¹⁰ Every age group has
237 significantly higher risks of not having medical insurance than individuals 65 and older,
238 most likely due to Medicare eligibility starting at 65.¹⁹ The group with the highest odds of
239 not having health insurance are those 25-34. Since the Affordable Care Act allows
240 children to stay on their parents’ insurance until they turn 26²⁰, this high risk could be
241 related to young adults needing to acquire insurance on their own.

242 Before adjusting for demographic characteristics, the crude odds ratio indicated a
243 significant association between healthcare insurance and frequent mental distress.
244 However, after the multivariate analysis and adjusting for the interaction between
245 income and healthcare, the effect of insurance coverage on frequent mental distress
246 was no longer significant. This indicates that while the two are related, they are more
247 related through their relationships with other characteristics.

248 If not having health insurance had been a significant risk factor of frequent
249 mental distress, increasing insurance coverage and, therefore, an increased number of
250 people able to receive and pay for mental health care could the goal of increased
251 insurance rates would be an increase of people able to see providers for their mental
252 health and have less mental distress. However, this study shows that having health
253 insurance is not a significant factor for frequent mental distress. The lack of significance
254 indicates other variables such as income, age and education, have a stronger impact on
255 mental distress. Even though insurance coverage status was not significant in this study
256 it does not indicate that insurance coverage is not important in other aspects of health
257 and healthcare. Insurance coverage is a significant factor in other studies.²¹⁻²³

258 Limitations to this study include not being able to establish any causes or effects
259 due to the cross-sectional nature of the BRFSS survey. This study only addressed the
260 relationship between health insurance and frequent mental distress, so the importance
261 of health insurance in other aspects of health was not included. There may be benefits
262 to ensuring more coverage or universal coverage in health insurance that is not
263 reflected in this analysis. Choosing the division between frequent and infrequent at 14
264 days could introduce bias. Additionally, there is a potential response bias to answering
265 the sensitive question about days of poor mental health.

266

267 PUBLIC HEALTH IMPORTANCE

268 The results of this study indicate that improving insurance rates alone will not
269 decrease the risks of frequent mental distress. There is an opportunity to revisit how
270 well health insurance plans fulfill their role in helping individuals pay for necessary
271 mental health services. Research can be done into other specific barriers to mental
272 health care access to provide more targeted interventions to improve people's use of
273 mental health care. These barriers include proximity to care, cost of care, transportation,
274 ability to take time off from work, and the social stigma of receiving mental health care
275 services. Another beneficial research avenue would be to determine if the type of
276 insurance coverage is associated with increased odds of mental distress or other
277 mental health markers. Coverage ranges between different insurance plans and
278 providers. Assessing which types of insurance are associated with the best mental

279 health outcomes could provide direction to improving health care coverage of mental
280 health services.

281

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Table 1: Number of Individuals and correlating adjusted percentage for included characteristics, 2022 Behavioral Risk Factor Surveillance System Surveys

Variable	Number	Adjusted %*
<i>Mental Distress</i>		
Infrequent	361,470	84.3
Frequent	57,667	15.7
<i>Health Insurance</i>		
Yes	396,798	91.6
No	22,339	8.4
<i>Sex</i>		
Male	196,612	48.5
Female	222,525	51.4
<i>Age in years</i>		
18-24	22,877	10.7
25- 34	45,456	17.4
35-44	56,828	16.9
45-54	63,369	15.6
55-64	78,615	16.5
65+	151,992	23
<i>Race/Ethnicity</i>		
White, Non-Hispanic	304,487	58.9
Black, Non-Hispanic	32,774	11.7
Other, Non-Hispanic	30,238	11
Hispanic	39,817	18.4
<i>Education</i>		
Did not Graduate HS	23,020	11
HS Graduate or GED	100,354	26.9
Some College	113,489	30.5
College Graduate	180,663	31.6
<i>Income in dollars per year</i>		
Less than \$24,999	52,201	12.9
\$25,000 to \$49,999	84,803	19.7
\$50,000 or more	198,309	45.8
Missing	83,824	21.8
<i>Urban or Rural Counties</i>		
Urban	358,285	93.8
Rural	51,728	6.2

Table 2- Days of Poor Mental Health by Demographic Characteristics, 2022 Behavioral Risk Factor Surveillance System Surveys

Variable	Infrequent Mental Distress Number (Adjusted %)	Frequent Mental Distress Number (Adjusted %)	Crude Odds Ratio (95% CI)
<i>Health Insurance</i>			
Yes	343,580 (91.97)	53218 (89.42)	REFERENCE
No	17890 (8.03)	4449 (10.56)	1.35 (1.27-1.44)
<i>Sex</i>			
Male	174,401 (50.12)	22,211 (40.13)	REFERENCE
Female	187,069 (49.88)	35,456 (59.87)	1.50 (1.45-1.55)
<i>Age in years</i>			
18-24	17,065 (9.45)	5,812 (17.46)	3.35 (3.13-3.57)
25- 34	36,041 (16.46)	9,415 (22.43)	2.47 (2.33- 2.62)
35-44	47,108 (16.75)	9,720 (17.72)	1.917 (1.81-2.03)
45-54	53,699 (15.71)	9,670 (14.69)	1.70 (1.59-1.80)
55-64	69,205 (16.92)	10,410 (14.07)	1.50 (1.42- 1.60)
65+	139,351 (24.70)	12,640 (13.63)	REFERENCE
<i>Race/Ethnicity</i>			
White, non-Hispanic	264,491 (59.09)	39,996 (58.18)	REFERENCE
Black, non-Hispanic	27,897 (11.52)	4,877 (12.53)	1.10 (1.04-1.17)
Other, non-Hispanic	25,486 (10.91)	4,752 (11.18)	1.041 (1.11)
Hispanic	33,568 (18.48)	6,249 (18.11)	1.00 (0.94-1.05)
<i>Education</i>			
Did not Graduate HS	18,471 (10.52)	4,549 (13.89)	2.00 (1.86- 2.14)
HS Graduate or GED	84,053 (26.30)	16,301 (30.32)	1.74 (1.66- 1.82)
Some College	95,052 (29.86)	18,437 (33.72)	1.71 (1.63- 1.78)
College Graduate	162,496 (33.33)	18,186 (22.07)	REFERENCE
<i>Income in dollars per year</i>			
Less than \$25,000	39,208 (11.44)	12,993 (20.97)	2.51 (2.39-2.6)
\$25,000 to \$49,999	71,029 (19.02)	13,774 (23.57)	1.69 (1.61-1.77)
\$50,000 or more	178,125 (47.52)	20,184 (34.76)	REFERENCE
Missing	73,108 (22.01)	10,716 (20.82)	1.30 (1.23-1.36)
<i>Urban or Rural Counties</i>			
Urban	308,456 (93.77)	49, 829 (93.73)	REFERENCE
Rural	45,058 (6.23)	6,670 (6.23)	1.007 (0.95-1.069)

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Table 3- Health Insurance Status, by Demographic Characteristics, 2022 Behavioral Risk Factor Surveillance System Surveys

Characteristic	Insured Number, (Adjusted %)	Uninsured, Number (Adjusted %)	Crude Odds Ratio (95% Confidence Interval)
<i>Mental Distress</i>			
Infrequent	343,580 (84.71)	17, 890 (80.36)	REFERENCE
Frequent	53,218 (15.29)	4,449 (19.64)	1.35 (1.27-1.44)
<i>Sex</i>			
Male	183,873 (47.64)	12,739 (58.51)	REFERENCE
Female	212,925 (52.36)	9,600 (41.49)	0.65 (0.61-0.68)
<i>Age in years</i>			
18-24	20,400 (10.25)	2,477 (15.72)	13.95 (12.00- 16.21)
25- 34	40,117 (16.25)	5,339 (29.81)	16.67 (14.47-19.22)
35-44	51,601 (16.25)	5,227 (24.02)	13.44 (11.64-19.22)
45-54	59,064 (15.51)	4,305 (15.99)	9.37 (8.08-10.85)
55-64	74,689 (16.91)	3,926 (11.72)	6.30 (5.42-7.34)
65+	150,927 (24.83)	1065 (2.73)	REFERENCE
<i>Race/Ethnicity</i>			
White, non-Hispanic	294,232 (61.25)	10,255 (22.71)	REFERENCE
Black, non-Hispanic	30,811 (11.80)	1,963 (10.34)	1.59 (1.45-1.74)
Other, non-Hispanic	28,539 (11.17)	1,699 (8.52)	1.39 (1.24-1.55)
Hispanic	32,203 (15.77)	7,614 (47.43)	5.46 (5.15-5.80)
<i>Education</i>			
Did not Graduate high school	18,174 (9.05)	4,846 (32.76)	11.20 (10.31-12.17)
HS Diploma or GED	92,670 (26.31)	7,684 (33.59)	3.95 (2.67-4.25)
Some College	108,038 (31.16)	5,451 (22.85)	2.27 (2.10-2.46)
College Graduate	176,506 (33.47)	4,157 (10.81)	REFERENCE
<i>Income in dollars per year</i>			
Less than \$25,000	46,739 (11.83)	5,462 (24.94)	4.87 (4.52-5.25)
\$25,000 to \$49,999	78,435 (18.95)	6,368 (28.04)	3.42 (3.18-3.68)
\$50,000 or more	193,188 (47.81)	5,121 (20.69)	REFERENCE
Missing	78,436 (21.41)	5,388 (26.33)	2.841 (2.631-3.07)
<i>Urban or Rural County</i>			
Urban	339,391 (93.84)	18,894 (92.88)	REFERENCE
Rural	48,922 (6.16)	2,806 (7.12)	1.169 (1.06-1.29)

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Table 4: Adjusted Odds Ratio for Frequent Mental Distress, Stratified by Income: 2022 Behavioral Risk Factor Surveillance System

Variable	Crude OR (95% CI)	Less than \$25,000 Adjusted OR (95% CI)	\$25,000-\$49,999 Adjusted OR (95% CI)	\$50,000+ Adjusted OR (95% CI)	Missing Adjusted OR (95% CI)
Insurance					
Yes	REFERENCE	REFERENCE	REFERENCE	REFERENCE	REFERENCE
No	1.02 (0.94-1.10)	0.88 (0.77-1.01)	0.93 (0.81-1.02)	1.24 (1.08-1.41)	1.05 (0.89-1.25)
Sex					
Male	REFERENCE	REFERENCE	REFERENCE	REFERENCE	REFERENCE
Female	1.53 (1.47-1.59)	1.37 (1.26-1.50)	1.47 (1.36-1.60)	1.69 (1.59-1.79)	1.46 (1.33-1.60)
Race/Ethnicity					
White, non-Hispanic	REFERENCE	REFERENCE	REFERENCE	REFERENCE	REFERENCE
Black, non-Hispanic	0.85 (0.80-0.91)	0.67 (0.60-0.76)	0.75 (0.66-0.84)	1.01 (0.91-1.12)	0.91 (0.79-1.04)
Other, non-Hispanic	0.86 (0.80-0.93)	0.40 (0.35-0.46)	0.54 (0.47-0.61)	0.93 (0.83-1.05)	0.93 (0.79-1.09)
Hispanic	0.64 (0.60-0.69)	0.82 (0.69-0.96)	0.69 (0.59-0.81)	0.99 (0.98-1.11)	0.66 (0.56-0.78)
Education					
Did not Graduate HS	1.70 (1.56-1.85)	1.27 (1.08-1.49)	1.30 (1.09-1.55)	1.92 (1.55-2.37)	2.42(2.04-2.87)
HS Graduate	1.44 (1.37-1.52)	1.05 (0.91-1.20)	1.13 (1.02-1.25)	1.51 (1.39-1.64)	1.96 (1.73-2.21)
Some College	1.51 (1.43-1.58)	1.26(1.10- 1.46)	1.29 (1.17-1.41)	1.42 (1.33-1.52)	1.91 (1.68-2.16)
College Graduate	REFERENCE	REFERENCE	REFERENCE	REFERENCE	REFERENCE
Age					
18-24	3.83 (3.57-4.11)	2.50 (2.14-2.92)	4.44 (3.85-5.11)	4.20 (3.70-4.76)	3.60 (3.12-4.17)
25-34	3.11 (2.92-3.32)	2.61 (2.24-3.02)	3.60 (3.18-4.08)	3.21 (2.90-3.56)	2.57 (2.21-2.99)
35-44	2.45 (2.30-2.61)	2.88 (2.49- 3.33)	2.71(2.37-3.09)	2.21 (2.0-2.44)	2.36 (2.01-2.77)
45-54	2.12 (1.99-2.27)	3.33 (2.90-3.82)	2.44 (2.11-2.84)	1.72 (1.55-1.91)	1.87 (1.59-2.19)
55-64	1.70 (1.59-1.81)	2.21 (1.94-2.52)	1.96 (1.72-2.23)	1.31 (1.17-1.47)	1.65 (1.42-1.92)
65+	REFERENCE	REFERENCE	REFERENCE	REFERENCE	REFERENCE
Urbanicity					
Urban	REFERENCE	REFERENCE	REFERENCE	REFERENCE	REFERENCE
Rural	0.91 (0.86-0.97)	0.94 (0.83-1.07)	0.80 (0.71-0.91)	0.87(0.78-0.97)	1.01 (0.88-1.15)

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