	Any hospitalization OR (95% CI)	Any emergency department visit OR (95% CI)
Female	0.92 (0.89–0.96)	1.37 (1.26–1.48)
Age	1.03 (1.03–1.03)	1.04 (1.03–1.04)
Race (missing is ref.)		
Black	1.21 (1.15–1.28)	1.91 (1.68–2.17)
Caucasian	1.11 (1.05–1.17)	1.39 (1.23–1.57)
Hispanic	0.75 (0.69–0.81)	1.63 (1.31–2.03)
Other	0.54 (0.51–0.58)	0.80 (0.67–0.95)
Previous year SNAP participation	0.96 (0.93-0.99)	0.98 (0.91–1.06)
Chronic conditions	1.42 (1.41–1.44)	1.41 (1.39–1.43)
Annual income (\$1,000)	1.00(1.00-1.00)	1.01 (1.00-1.01)
Medicaid eligible via spend-down	2.30 (2.03–2.61)	2.27 (1.41–3.63)
Partial Medicaid eligibility Proportion of year covered by Medicaid	$\begin{array}{c} 0.68 \ (0.65-0.72) \\ 0.15 \ (0.14-0.16) \end{array}$	0.78 (0.71–0.85) 0.09 (0.06–0.12)
Previous year inpatient hospital days/ED count	1.07 (1.06 - 1.08)	2.32 (2.02–2.68)
Medicaid community waiver	0.92 (0.88–0.97)	1.33 (1.15–1.55)
2011 year dummy	0.60 (0.58–0.63)	0.38 (0.32–0.45)
2012 year dummy	0.63 (0.60–0.67)	0.43 (0.37–0.50)
	Number of inpatient hospital days	Number of emergency department visits
	among the hospitalized IRR (95% CI)	among utilizers IRR (95% CI)
Female		IRR (95% CI)
Female Age	IRR (95% CI)	
Age	IRR (95% CI) 0.80 (0.66–0.95)	IRR (95% CI) 0.85 (0.82–0.87)
	IRR (95% CI) 0.80 (0.66–0.95)	IRR (95% CI) 0.85 (0.82–0.87)
Age Race (missing is ref.) Black Caucasian	IRR (95% CI) 0.80 (0.66–0.95) 0.99 (0.98–0.99) 0.97 (0.91–1.02) 0.95 (0.85–1.05)	<i>IRR</i> (95% <i>CI</i> ) 0.85 (0.82–0.87) 1.00 (1.00–1.00) 1.19 (1.13–1.24) 1.07 (1.02–1.11)
Age Race (missing is ref.) Black Caucasian Hispanic	IRR (95% CI) 0.80 (0.66–0.95) 0.99 (0.98–0.99) 0.97 (0.91–1.02) 0.95 (0.85–1.05) 0.79 (0.71–0.88)	<i>IRR</i> (95% <i>CI</i> ) 0.85 (0.82–0.87) 1.00 (1.00–1.00) 1.19 (1.13–1.24) 1.07 (1.02–1.11) 0.71 (0.66–0.76)
Age Race (missing is ref.) Black Caucasian	IRR (95% CI) 0.80 (0.66–0.95) 0.99 (0.98–0.99) 0.97 (0.91–1.02) 0.95 (0.85–1.05)	<i>IRR</i> (95% <i>CI</i> ) 0.85 (0.82–0.87) 1.00 (1.00–1.00) 1.19 (1.13–1.24) 1.07 (1.02–1.11)
Age Race (missing is ref.) Black Caucasian Hispanic Other Previous year SNAP participation	IRR (95% CI) 0.80 (0.66–0.95) 0.99 (0.98–0.99) 0.97 (0.91–1.02) 0.95 (0.85–1.05) 0.79 (0.71–0.88) 0.78 (0.72–0.84) 0.92 (0.82–1.03)	IRR (95% CI) 0.85 (0.82–0.87) 1.00 (1.00–1.00) 1.19 (1.13–1.24) 1.07 (1.02–1.11) 0.71 (0.66–0.76) 0.52 (0.49–0.56) 0.98 (0.95–1.01)
Age Race (missing is ref.) Black Caucasian Hispanic Other Previous year SNAP participation Chronic conditions	IRR (95% CI) 0.80 (0.66–0.95) 0.99 (0.98–0.99) 0.97 (0.91–1.02) 0.95 (0.85–1.05) 0.79 (0.71–0.88) 0.78 (0.72–0.84) 0.92 (0.82–1.03) 1.02 (1.02–1.03)	IRR (95% CI) 0.85 (0.82–0.87) 1.00 (1.00–1.00) 1.19 (1.13–1.24) 1.07 (1.02–1.11) 0.71 (0.66–0.76) 0.52 (0.49–0.56) 0.98 (0.95–1.01) 1.13 (1.12–1.13)
Age Race (missing is ref.) Black Caucasian Hispanic Other Previous year SNAP participation Chronic conditions Annual income (\$1,000)	IRR (95% CI) 0.80 (0.66–0.95) 0.99 (0.98–0.99) 0.97 (0.91–1.02) 0.95 (0.85–1.05) 0.79 (0.71–0.88) 0.78 (0.72–0.84) 0.92 (0.82–1.03) 1.02 (1.02–1.03) 1.01 (1.00–1.01)	<i>IRR</i> (95% <i>CI</i> ) 0.85 (0.82–0.87) 1.00 (1.00–1.00) 1.19 (1.13–1.24) 1.07 (1.02–1.11) 0.71 (0.66–0.76) 0.52 (0.49–0.56) 0.98 (0.95–1.01) 1.13 (1.12–1.13) 1.00 (1.00–1.00)
Age Race (missing is ref.) Black Caucasian Hispanic Other Previous year SNAP participation Chronic conditions Annual income (\$1,000) Medicaid eligible via spend-down	IRR (95% CI) 0.80 (0.66-0.95) 0.99 (0.98-0.99) 0.97 (0.91-1.02) 0.95 (0.85-1.05) 0.79 (0.71-0.88) 0.78 (0.72-0.84) 0.92 (0.82-1.03) 1.02 (1.02-1.03) 1.01 (1.00-1.01) 1.01 (0.91-1.13)	<i>IRR</i> (95% <i>CI</i> ) 0.85 (0.82–0.87) 1.00 (1.00–1.00) 1.19 (1.13–1.24) 1.07 (1.02–1.11) 0.71 (0.66–0.76) 0.52 (0.49–0.56) 0.98 (0.95–1.01) 1.13 (1.12–1.13) 1.00 (1.00–1.00) 1.27 (1.18–1.38)
Age Race (missing is ref.) Black Caucasian Hispanic Other Previous year SNAP participation Chronic conditions Annual income (\$1,000) Medicaid eligible via spend-down Partial Medicaid eligibility	IRR (95% CI)   0.80 (0.66-0.95)   0.99 (0.98-0.99)   0.97 (0.91-1.02)   0.95 (0.85-1.05)   0.79 (0.71-0.88)   0.78 (0.72-0.84)   0.92 (0.82-1.03)   1.02 (1.02-1.03)   1.01 (1.00-1.01)   1.01 (0.91-1.13)   0.87 (0.77-0.97)	IRR (95% CI) 0.85 (0.82–0.87) 1.00 (1.00–1.00) 1.19 (1.13–1.24) 1.07 (1.02–1.11) 0.71 (0.66–0.76) 0.52 (0.49–0.56) 0.98 (0.95–1.01) 1.13 (1.12–1.13) 1.00 (1.00–1.00) 1.27 (1.18–1.38) 0.87 (0.84–0.89)
Age Race (missing is ref.) Black Caucasian Hispanic Other Previous year SNAP participation Chronic conditions Annual income (\$1,000) Medicaid eligible via spend-down Partial Medicaid eligibility Proportion of year covered by Medicaid	$\begin{array}{c} IRR \ (95\% \ CI) \\ \hline 0.80 \ (0.66-0.95) \\ 0.99 \ (0.98-0.99) \\ \hline 0.97 \ (0.91-1.02) \\ 0.95 \ (0.85-1.05) \\ 0.79 \ (0.71-0.88) \\ 0.78 \ (0.72-0.84) \\ \hline 0.92 \ (0.82-1.03) \\ 1.02 \ (1.02-1.03) \\ 1.01 \ (1.00-1.01) \\ 1.01 \ (0.91-1.13) \\ 0.87 \ (0.77-0.97) \\ 0.58 \ (0.51-0.67) \end{array}$	IRR (95% CI) 0.85 (0.82–0.87) 1.00 (1.00–1.00) 1.19 (1.13–1.24) 1.07 (1.02–1.11) 0.71 (0.66–0.76) 0.52 (0.49–0.56) 0.98 (0.95–1.01) 1.13 (1.12–1.13) 1.00 (1.00–1.00) 1.27 (1.18–1.38) 0.87 (0.84–0.89) 0.75 (0.72–0.79)
Age Race (missing is ref.) Black Caucasian Hispanic Other Previous year SNAP participation Chronic conditions Annual income (\$1,000) Medicaid eligible via spend-down Partial Medicaid eligibility Proportion of year covered by Medicaid Previous year inpatient hospital days/ED visit count	$\begin{array}{c} IRR \ (95\% \ CI) \\ \hline 0.80 \ (0.66-0.95) \\ 0.99 \ (0.98-0.99) \\ \hline 0.97 \ (0.91-1.02) \\ 0.95 \ (0.85-1.05) \\ 0.79 \ (0.71-0.88) \\ 0.78 \ (0.72-0.84) \\ 0.92 \ (0.82-1.03) \\ 1.02 \ (1.02-1.03) \\ 1.01 \ (1.00-1.01) \\ 1.01 \ (0.91-1.13) \\ 0.87 \ (0.77-0.97) \\ 0.58 \ (0.51-0.67) \\ 1.01 \ (1.01-1.01) \end{array}$	<i>IRR</i> (95% <i>CI</i> ) 0.85 (0.82–0.87) 1.00 (1.00–1.00) 1.19 (1.13–1.24) 1.07 (1.02–1.11) 0.71 (0.66–0.76) 0.52 (0.49–0.56) 0.98 (0.95–1.01) 1.13 (1.12–1.13) 1.00 (1.00–1.00) 1.27 (1.18–1.38) 0.87 (0.84–0.89) 0.75 (0.72–0.79) 1.09 (1.08–1.09)
Age Race (missing is ref.) Black Caucasian Hispanic Other Previous year SNAP participation Chronic conditions Annual income (\$1,000) Medicaid eligible via spend-down Partial Medicaid eligibility Proportion of year covered by Medicaid	$\begin{array}{c} IRR \ (95\% \ CI) \\ \hline 0.80 \ (0.66-0.95) \\ 0.99 \ (0.98-0.99) \\ \hline 0.97 \ (0.91-1.02) \\ 0.95 \ (0.85-1.05) \\ 0.79 \ (0.71-0.88) \\ 0.78 \ (0.72-0.84) \\ \hline 0.92 \ (0.82-1.03) \\ 1.02 \ (1.02-1.03) \\ 1.01 \ (1.00-1.01) \\ 1.01 \ (0.91-1.13) \\ 0.87 \ (0.77-0.97) \\ 0.58 \ (0.51-0.67) \end{array}$	IRR (95% CI) 0.85 (0.82–0.87) 1.00 (1.00–1.00) 1.19 (1.13–1.24) 1.07 (1.02–1.11) 0.71 (0.66–0.76) 0.52 (0.49–0.56) 0.98 (0.95–1.01) 1.13 (1.12–1.13) 1.00 (1.00–1.00) 1.27 (1.18–1.38) 0.87 (0.84–0.89) 0.75 (0.72–0.79)

## Supplementary Table S2. Associations Between Supplemental Nutrition Assistance Program Participation with Hospitalization and Emergency Department Visits, Maryland Adults Aged ≥65 Years Enrolled in Both Medicare and Medicaid (2010–2012)

Associations estimated from zero-inflated negative binomial regression estimated with robust standard errors. All models adjusted for autoregressive effects, study year, age, sex, race/ethnicity, annual income, partial Medicaid eligibility, Medicaid spend-down eligibility, chronic condition count, Medicaid community waiver status and proportion of year participating in Medicaid.

CI, confidence interval; ED, emergency department; IRR, incident rate ratio; OR, odds ratio.