

Gas/Electric Stove Usage vs. Asthma Rates

The National Propane Gas Association (NPGA) reviewed publicly available data on the percentage of U.S. households that cook on gas stoves and on electric stoves published by the Energy Information Administration (EIA) which is part of the U.S. Department of Energy.¹ NPGA also reviewed U.S. Centers for Disease Control and Prevention (CDC) data on rates of asthma in the United States.²

The comparison of these data state-by-state (attached) fails to demonstrate any correlation between higher gas stove usage and higher asthma rates. In fact, it suggests the opposite—states where gas stoves are used more than average tend to have lower than average rates of asthma.

Across all 50 states and DC, based on these Federal Government data sets, the national averages are:

- Percent of with asthma: 9.8%
- Residences with an electric stove: 68%
- Residences with a gas stove: 38%

There are only six U.S. states where a higher percentage of households cook with gas stoves than with electric stoves. In five of those six states, asthma rates are below the national average.

States with More Residents Cooking on Gas Stoves than Electric Stoves

State	% of Homes with Gas Stoves	% Asthma Rate	% Asthma Rate Compared to the 9.8% National Average
California	70%	9.3%	0.5% Lower
New Jersey	69%	8.7%	1.1% Lower
Illinois	67%	8.5%	1.4% Lower
Washington DC	62%	10.4%	0.6% Higher
New York	62%	9.5%	0.3% Lower
Nevada	60%	9.5%	0.3% Lower

There are 22 U.S. states that have an asthma rate equal to or greater than the national average of 9.8%. Of those 22 states, only four have higher gas stove usage than the national average. In fact, across the 22 states with equal to or higher than average asthma rates, gas stove usage was an average of 7.8% less than the national average.

¹ <https://www.eia.gov/consumption/residential/data/2020/state/pdf/State%20Appliances.pdf> Includes ranges, cooktops, and ovens; does not include microwaves or outdoor appliances.

² https://www.cdc.gov/asthma/most_recent_data_states.htm Adults; data for children was not located.

States with Asthma Rates Equal to or Higher than the National Average of 9.8%

State	% Asthma Rate	% of Homes with Gas Stoves	% Gas Stoves Compared to the 38% National Average
West Virginia	12.4%	25%	13% Lower
Rhode Island	12.1%	35%	3% Lower
Kentucky	11.5%	20%	18% Lower
New Hampshire	11.5%	15%	23% Lower
Michigan	11.0%	46%	8% Higher
Delaware	10.8%	27%	11% Lower
Oklahoma	10.8%	37%	1% Lower
Utah	10.8%	35%	3% Lower
Vermont	10.8%	12%	26% Lower
Massachusetts	10.7%	44%	6% Higher
Maine	10.6%	8%	30% Lower
Connecticut	10.6%	27%	11% Lower
Oregon	10.6%	25%	13% Lower
Montana	10.6%	26%	12% Lower
Washington DC	10.4%	62%	24% Higher
Tennessee	10.3%	15%	23% Lower
Pennsylvania	10.2%	38%	Equal
Wisconsin	10.2%	34%	1% Lower
New Mexico	10.1%	50%	12% Higher
Wyoming	10.0%	24%	14% Lower
Ohio	9.9%	34%	4% Lower
Kansas	9.8%	23%	15% Lower
			Average: 7.8% Lower

EIA and CDC Data

	Electric cooking appliance		Natural gas cooking appliance		Number with current asthma		Percent with current asthma
Alabama	1.53(millions of homes)	81%	0.36	19%	Alabama	341,720	9
Alaska	0.17	66%	0.1	38%	Alaska	48,173	8.9
Arizona	1.99	74%	0.8	30%	Arizona	550,729	9.6
Arkansas	0.87	76%	0.34	30%	Arkansas	210,340	9.1
California	5.95	45%	9.21	70%	California	2,848,466	9.3
Colorado	1.69	75%	0.72	32%	Colorado	434,782	9.6
						299,193	10.6
Connecticut	1	72%	0.37	27%	Connecticut	83,428	10.8
Delaware	0.27	70%	0.1	27%	Delaware	59,464	10.4
District of Columbia	0.16	49%	0.2	62%	District of Columbia	1,276,625	7.3
Florida	7.44	92%	0.63	8%	Florida	736,912	9
Georgia	2.87	74%	1.35	35%	Georgia	96,890	8.8
Hawaii	0.4	85%	0.05	11%	Hawaii	127,406	9.4
Idaho	0.52	80%	0.18	28%	Idaho	832,244	8.5
Illinois	1.99	41%	3.28	67%	Illinois	497,539	9.6
Indiana	1.58	61%	1.05	40%	Indiana	220,085	9.1
Iowa	0.81	63%	0.42	33%	Iowa	216,312	9.8
Kansas	0.9	80%	0.26	23%	Kansas	395,633	11.5
Kentucky	1.46	84%	0.34	20%	Kentucky	276,711	7.8
Louisiana	1.3	75%	0.57	33%	Louisiana	115,621	10.6
Maine	0.42	75%	0.05	8%	Maine	420,686	8.9
Maryland	1.58	69%	0.91	40%	Maryland	592,048	10.7
Massachusetts	1.71	63%	1.2	44%	Massachusetts	859,534	11
Michigan	2.39	61%	1.79	46%	Michigan	369,238	8.5
Minnesota	1.63	73%	0.65	29%	Minnesota	201,273	8.9
Mississippi	0.9	83%	0.21	20%	Mississippi	441,777	9.3
Missouri	1.88	77%	0.65	27%	Missouri	89,552	10.6
Montana	0.33	77%	0.11	26%	Montana	114,104	7.8
Nebraska	0.64	83%	0.18	23%	Nebraska	230,431	9.5
Nevada	0.55	49%	0.68	60%	Nevada	127,113	11.5
New Hampshire	0.38	70%	0.08	15%	New Hampshire		

						598,649	8.7
New Jersey	1.38	41%	2.36	69%	New Jersey	162,657	10.1
New Mexico	0.44	55%	0.39	50%	New Mexico	1,449,094	9.5
New York	3.3	44%	4.65	62%	New York	645,784	7.8
North Carolina	3.63	90%	0.59	15%	North Carolina	49,883	8.6
North Dakota	0.28	89%	0.04	11%	North Dakota	895,631	9.9
Ohio	3.4	72%	1.63	34%	Ohio	322,759	10.8
Oklahoma	1.01	67%	0.55	37%	Oklahoma	356,958	10.6
Oregon	1.35	81%	0.41	25%	Oregon	1,032,246	10.2
Pennsylvania	3.37	66%	1.94	38%	Pennsylvania	103,190	12.1
Rhode Island	0.27	65%	0.15	35%	Rhode Island	385,741	9.4
South Carolina	1.72	87%	0.37	19%	South Carolina	53,990	8.1
South Dakota	0.3	86%	0.05	15%	South Dakota	552,156	10.3
Tennessee	2.38	89%	0.39	15%	Tennessee	1,617,392	7.4
Texas	7.58	74%	3.85	38%	Texas	249,663	10.8
Utah	0.79	76%	0.37	35%	Utah	54,781	10.8
Vermont	0.17	64%	0.03	12%	Vermont	571,162	8.6
Virginia	2.5	77%	0.9	28%	Virginia	579,774	9.6
Washington	2.49	85%	0.71	24%	Washington	175,011	12.4
West Virginia	0.51	73%	0.17	25%	West Virginia	465,109	10.2
Wisconsin	1.66	69%	0.81	34%	Wisconsin	44,192	10
Wyoming	0.18	79%	0.05	24%	Wyoming	23,479,797	9.8%
Total	84.01	68%	47.26	38%	Total		