Table S1. Association between eczema prevalence and mean seasonal temperature[#].						
Seasonal mean temperature – quartile (min – max deg F)	**Eczema Frequency**	**Eczema Prevalence (95% CI)**	**OR* (95% CI)**	**P-value**	**Adjusted OR** (95% CI)**	**P-value**
Winter						
1st (20.3 – 29.0)	2310	14.7 (13.5, 16.0)	1.00	–	1.00	–
2nd (29.8 – 36.8)	2550	13.8 (12.9, 14.6)	0.92 (0.82, 1.05)	0.20	0.94 (0.83, 1.07)	0.33
3rd (37.3 – 44.1)	2481	13.6 (12.9, 14.3)	0.91 (0.81, 1.02)	0.11	0.88 (0.78, 0.99)	0.03
4th (45.4 – 63.9)	2352	11.6 (10.5, 12.7)	0.76 (0.66, 0.88)	0.0002	0.74 (0.63, 0.86)	<0.0001
Spring						
1st (51.8 – 55.7)	2443	15.2 (13.9, 16.4)	1.00	–	1.00	–
2nd (55.8 – 61.1)	2469	14.0 (13.1, 14.9)	0.91 (0.80, 1.03)	0.12	0.88 (0.78, 1.00)	0.05
3rd (61.2 – 65.7)	2395	11.4 (10.2, 12.5)	0.72 (0.62, 0.83)	<0.0001	0.70 (0.60, 0.87)	<0.0001
4th (66.0 – 76.0)	2386	12.8 (11.7, 13.8)	0.82 (0.72, 0.94)	0.004	0.75 (0.65, 0.87)	<0.0001
Summer						
1st (62.5 – 66.0)	2443	15.3 (14.0, 16.5)	1.00	–	1.000	–
2nd (66.0 – 70.8)	2316	11.4 (10.1, 12.6)	0.71 (0.61, 0.83)	<0.0001	0.74 (0.63, 0.86)	0.0001
3rd (70.9 – 75.2)	2548	13.6 (12.9, 14.4)	0.88 (0.78, 0.98)	0.02	0.84 (0.74, 0.94)	0.003
4th (75.3 – 82.0)	2386	12.8 (11.7, 13.8)	0.81 (0.71, 0.93)	0.002	0.76 (0.66, 0.88)	0.0001
Autumn						
1st (29.7 – 38.7)	2169	12.3 (11.3, 13.2)	1.00	–	1.00	–
2nd (38.8 – 44.2)	2674	15.0 (14.0, 15.9)	1.26 (1.12, 1.41)	<0.0001	1.20 (1.07, 1.35)	0.002
3rd (44.3 –50.4)	2498	13.3 (12.6, 14.1)	1.10 (0.98, 1.23)	0.10	1.00 (0.90, 1.12)	0.97
4th (50.8 – 69.7)	2352	11.6 (10.5, 12.7)	0.94 (0.82, 1.08)	0.35	0.87 (0.75, 1.01)	0.06

Monthly statewide mean values of "time-bias" corrected temperatures (Degrees Fahrenheit to 10ths) for 2006 – 2007 were downloaded from the NOAA, NCDC at ftp://ftp.ncdc.noaa.gov/pub/data/cirs/.

Season: Winter = December through February; Spring = March through May; Summer = June through August; Autumn = September through November.

* Univariate logistic regression models were constructed with eczema (yes/no) modeled as the dependent variable and mean seasonal temperature value (quartiles) as the independent variable. OR were estimated for quartiles- 2, 3 and 4 compared with quartile-1.

** Multivariate logistic regression models were constructed with eczema (yes/no) modeled as the dependent variable and mean seasonal temperature values (quartiles) as the independent variable, including age, race/ethnicity (African-American, Hispanic, Caucasian, or Multi/Other), sex (male or female), household income (0-99%, 100-199%, 200-399%, 400+% of poverty level). Adjusted OR were estimated for quartiles- 2, 3 and 4 compared with quartile-1.

Table S2. Association between eczema prevalence and mean seasonal heating degree days (HDD)[#].						
Mean seasonal HDD[##] – quartile (min – max)	**Eczema frequency**	**Eczema Prevalence (95% CI)**	**OR* (95% CI)**	**P-value**	**Adjusted OR** (95% CI)**	**P-value**
Winter						
1st (137.9 – 575.6)	2352	11.6 (10.5, 12.7)	1.00	–	1.00	–
2nd (620.1 – 833.6)	2481	13.6 (12.9, 14.3)	1.20 (1.06, 1.35)	0.004	1.19 (1.05, 1.35)	0.008
3rd (836.2 – 1058.4)	2521	13.8 (12.9, 14.7)	1.22 (1.07, 1.38)	0.003	1.27 (1.11, 1.46)	0.0006
4th (1060.9 – 1326.6)	2339	14.7 (13.5, 15.9)	1.31 (1.14, 1.52)	0.0002	1.35 (1.16, 1.57)	<0.0001
Spring						
1st (5.1 – 89.3)	2397	12.9 (11.9, 13.9)	1.00	–	1.00	–
2nd (107.2 – 186.9)	2443	11.4 (10.3, 12.5)	0.87 (0.75, 1.00)	0.06	0.93 (0.80, 1.07)	0.31
3rd (194.0 – 303.3)	2410	13.8 (12.9, 14.7)	1.08 (0.96, 1.22)	0.20	1.17 (1.03, 1.33)	0.01
4th (314.5 – 394.0)	2443	15.3 (14.0, 16.5)	1.22 (1.07, 1.39)	0.003	1.31 (1.14, 1.50)	0.0001
Summer						
1st (0.0 – 7.8)	2397	12.9 (11.9, 13.9)	1.00	–	1.00	–
2nd (9.3 – 31.4)	2492	11.4 (10.3, 12.6)	0.87 (0.76, 1.01)	0.07	0.93 (0.80, 1.08)	0.33
3rd (33.3 – 74.8)	2456	14.8 (13.8, 15.8)	1.17 (1.04, 1.32)	0.009	1.26 (1.11, 1.43)	0.0003
4th (77.5 – 129.6)	2348	13.7 (12.7, 14.7)	1.07 (0.95, 1.22)	0.27	1.17 (1.02, 1.34)	0.02
Autumn						
1st (62.0 – 440.5)	2352	11.6 (10.5, 12.7)	1.00	–	1.00	–
2nd (444.5 – 629.5)	2498	13.3 (12.6, 14.1)	1.17 (1.03, 1.33)	0.01	1.15 (1.01, 1.31)	0.03
3rd (635.6 – 798.5)	2495	15.0 (14.1, 15.9)	1.34 (1.18, 1.53)	<0.0001	1.38 (1.21, 1.58)	<0.0001
4th (798.5 – 1064.2)	2348	12.4 (11.5, 13.3)	1.07 (0.94, 1.23)	0.29	1.16 (1.01, 1.34)	0.04

Monthly statewide mean HDD for 2006–2007 were downloaded from the NOAA, NCDC at ftp://ftp.ncdc.noaa.gov/pub/data/cirs/. HDD is a statewide population-weighted measure of energy demand to heat indoor structures by one degree for one day using a baseline temperature of 65 degrees Fahrenheit.

Season: Winter = December through February; Spring = March through May; Summer = June through August; Autumn = September through November.

Calculated as the sum of differences between the average daily temperature and a base of 65 deg Fahrenheit averaged over the span of 12 months.

* Univariate logistic regression models were constructed with eczema (yes/no) modeled as the dependent variable and mean seasonal HDD (quartiles) as the independent variable. OR were estimated for quartiles- 2, 3 and 4 compared with quartile 1.

** Multivariate logistic regression models were constructed with eczema (yes/no) modeled as the dependent variable and mean seasonal HDD (quartiles) as the independent variable, including age, race/ethnicity (African-American, Hispanic, Caucasian, or Multi/Other), sex (male or female), household income (0-99%, 100-199%, 200-399%, 400+% of poverty level). Adjusted OR were estimated for quartiles- 2, 3 and 4 compared with quartile 1.

Table S3. Association between eczema prevalence and mean seasonal precipitation.						
Mean seasonal precipitation (in) – quartile (min – max)	**Eczema Frequency**	**Eczema Prevalence (95% CI)**	**OR* (95% CI)**	**P-value**	**Adjusted OR** (95% CI)**	**P-value**
Winter						
1st (0.5 – 1.2)	2126	12.4 (11.5, 13.3)	1.00	–	1.00	–
2nd (1.5 – 2.8)	2289	12.5 (11.3, 13.7)	1.04 (0.93, 1.18)	0.49	0.97 (0.85, 1.10)	0.61
3rd (2.8 – 3.3)	2529	13.2 (12.2, 14.2)	1.06 (0.94, 1.20)	0.35	1.00 (0.89, 1.14)	0.97
4th (3.4 – 5.5)	2309	13.4 (12.6, 14.1)	1.10 (1.00, 1.21)	0.05	1.01 (0.91, 1.12)	0.86
Spring						
1st (0.2 – 2.5)	2215	10.7 (9.2, 12.1)	1.00	–	1.00	–
2nd (2.7 – 3.5)	2383	13.2 (12.2, 14.1)	1.28 (1.08, 1.53)	0.005	1.17 (0.98, 1.40)	0.09
3rd (3.7 – 4.0)	2196	14.2 (13.3, 15.2)	1.38 (1.17, 1.64)	0.0002	1.24 (1.04, 1.48)	0.02
4th (4.1 – 6.0)	2459	14.0 (13.1, 15.0)	1.37 (1.15, 1.64)	0.0004	1.31 (1.10, 1.57)	0.003
Summer						
1st (0.2 – 2.4)	2171	10.6 (9.1, 12.2)	1.00	–	1.00	–
2nd (2.7 – 3.6)	2382	13.2 (12.4, 14.0)	1.32 (1.11, 1.56)	0.001	1.21 (1.02, 1.44)	0.03
3rd (3.6 – 4.1)	2347	14.1 (13.0, 15.3)	1.37 (1.14, 1.64)	0.0008	1.23 (1.02, 1.48)	0.03
4th (4.1 – 6.7)	2353	13.5 (12.6, 14.4)	1.31 (1.10, 1.56)	0.002	1.21 (1.01, 1.44)	0.04
Autumn						
1st (0.6 – 1.8)	2104	10.2 (8.6, 11.7)	1.00	–	1.00	–
2nd (1.9 – 3.7)	2308	13.0 (12.0, 14.0)	1.33 (1.13, 1.57)	0.0005	1.23 (1.04, 1.46)	0.02
3rd (3.7 – 4.5)	2450	14.5 (13.6, 15.4)	1.41 (1.20, 1.66)	<0.0001	1.29 (1.09, 1.53)	0.004
4th (4.6 – 6.2)	2391	14.2 (13.3, 15.1)	1.41 (1.20, 1.65)	<0.0001	1.32 (1.11, 1.55)	0.001

Monthly statewide mean values of "time-bias" corrected annual precipitation (in) for 2006 – 2007 were downloaded from the NOAA, NCDC at ftp://ftp.ncdc.noaa.gov/pub/data/cirs/.

* Univariate logistic regression models were constructed with eczema (yes/no) modeled as the dependent variable and precipitation (quartiles) as the independent variable.

** Multivariate logistic regression models were constructed with eczema (yes/no) modeled as the dependent variable and precipitation (quartile) as the independent variable, including age, race/ethnicity (African-American, Hispanic, Caucasian, or Multi/Other), sex (male or female), household income (0-99%, 100-199%, 200-399%, 400+% of poverty level).