

November 2013

Local air quality affects how you live and breathe. Like the weather, it can change from day to day or even hour to hour. Utah faces unique challenges regarding air quality due to our geography, meteorology, growing industrial sector, and population.

There are two seasons with greater occurrences of poor air quality in Utah. Wintertime inversions contribute to higher particulate matter $PM_{2.5}$ levels. Summertime high temperatures and increased sunlight create more ozone.

$PM_{2.5}$ describes particles that are 2.5 micrometers or less in diameter. These particles are so small they can only be seen with an electron microscope. Major sources of $PM_{2.5}$ include motor vehicles, power plants, residential wood burning, forest fires, agricultural burning, and some industrial processes. $PM_{2.5}$ can cause or aggravate a number of health problems and has been linked with illnesses and deaths from heart or lung disease. These effects have been associated with both short-term exposures (usually over 24 hours, but possibly as short as one hour) and long-term exposures (years).

- The U.S. Environmental Protection Agency (EPA) has developed regulatory standards for $PM_{2.5}$ ($35 \mu\text{g}/\text{m}^3$) and ozone (0.075 ppm). When the air exceeds these standards, they are often referred to as “bad air days”.
- From 2001-2011, the number of “bad air days” per year due to $PM_{2.5}$ has not increased even as our population has grown by nearly 600,000 people. Furthermore, the number of “bad air days” due to ozone has dropped significantly from 2001-2011.
- Utah faces unique challenges regarding air quality due to our geography, meteorology, growing industrial sector, and population.

$PM_{2.5}$ “Bad Air Days”

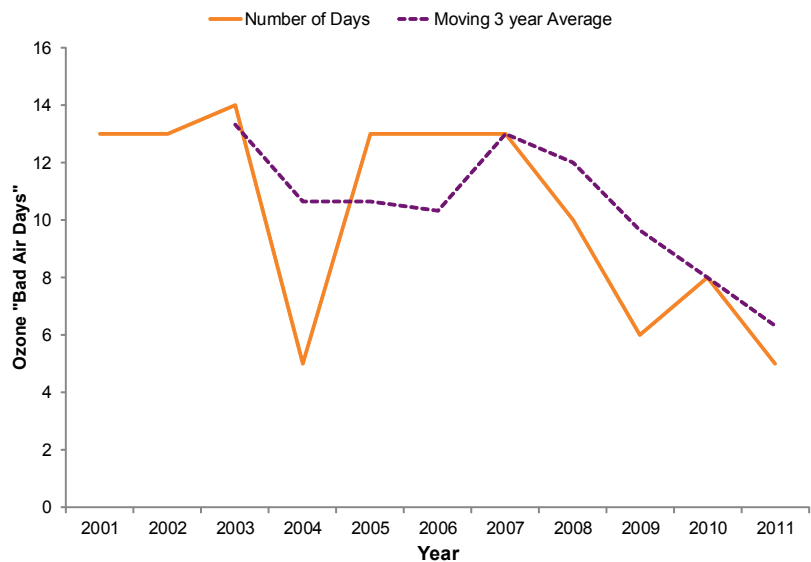
Figure 1. Number of days per year that Utah exceeded the national $PM_{2.5}$ standard set by the EPA, 2001-2011



Source: Information collected by Utah Division of Air Quality (DAQ), compiled by the Utah Environmental Public Health Tracking Network (EPHTN).

Ozone “Bad Air Days”

Figure 2. Number of days per year that Utah exceeded the national ozone standard set by the EPA, 2001-2011



Source: Information collected by DAQ and compiled by EPHTN.

Ozone is a gas found in the air we breathe. Good ozone is present naturally in the Earth’s upper atmosphere, and acts as a shield from the sun’s harmful ultraviolet rays. Bad ozone forms near the ground when pollutants (emitted by sources such as cars, power plants, industrial

boilers, refineries, and chemical plants) react chemically in sunlight. Ozone is highest during the hottest periods of the day, usually from 10am to 6pm.

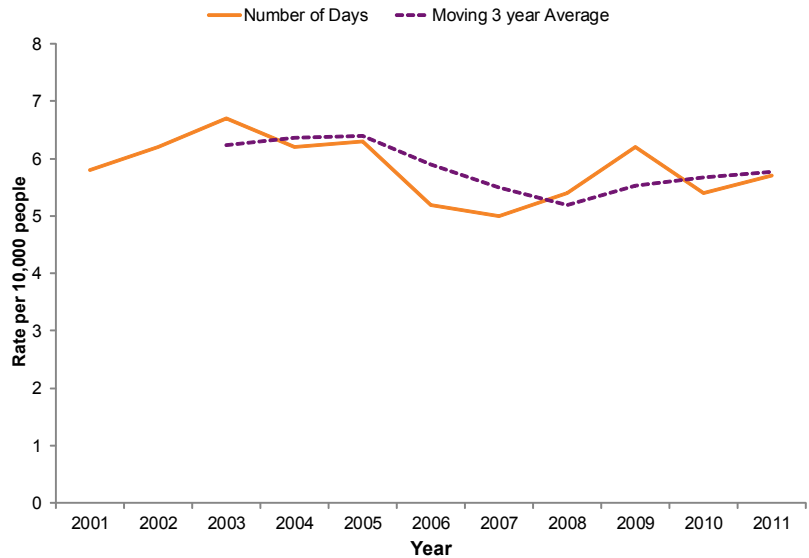
The U.S. Environmental Protection Agency (EPA) has developed regulatory standards for PM_{2.5} (35 µg/m³) and ozone (0.075 ppm). When levels in the air exceeds these standards, they are often referred to as “bad air days.” From 2001-2011, the number of “bad air days” per year due to PM_{2.5} has not increased even as our population has grown by nearly 600,000 people (Figure 1). Furthermore, the number of “bad air days” due to ozone has dropped significantly from 2001-2011 (Figure 2). Over that same time, the number of asthma-related hospitalizations per 10,000 residents has remained fairly constant (Figure 3). This information should be encouraging for Utah residents. It indicates that environmental initiatives aimed at protecting the air quality in our state are having a positive effect. While this is a good start, it is also the responsibility of each citizen to take action to protect their health and the health of their family.

The EPA, the Utah Department of Environmental Quality (UDEQ), and the Utah Department of Health (UDOH) are working together to make information about outdoor air quality as easy to find and understand as weather forecasts. A key tool in this effort is the Air Quality Index, or AQI. EPA and local officials use the AQI to provide information about your local air quality, how unhealthy air may affect you, and how you can protect your health.

The UDOH’s Environmental Epidemiology Program (EEP) has worked closely with UDEQ’s Division of Air Quality to develop tools to allow Utahns to make the most informed health decisions regarding the air they breathe. By visiting the EEP’s air quality website (http://health.utah.gov/enviroepi/appletree/AirQuality/index_final.html), Utahns can see up-to-the-minute air quality conditions where they live, and use the AQI’s health-based information to help them understand exactly what the numbers mean.

Asthma-Related Hospitalizations

Figure 3. Number of Asthma-related hospitalizations per 10,000 people, Utah, 2001-2011



Source: Utah Inpatient Hospital Discharge Data, 2001-2011

November 2013 Utah Health Status Update

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Breaking News, November 2013

The Affordable Care Act Changes Eligibility Guidelines for Medicaid

The Affordable Care Act (ACA) is a comprehensive health care reform law that aims to lower the nation's uninsured rate by expanding public and private insurance coverage. It provides a number of mechanisms—including mandates, subsidies, and insurance exchanges—to increase coverage and affordability.

Part of the ACA changes how states determine eligibility for the Children's Health Insurance Program (CHIP) and most Medicaid programs. Effective January 1, 2014, changes to eligibility rules go into effect for the following programs:

- Medicaid for children ages 0-18
- Medicaid for parents or caretakers with dependent children
- Medicaid for pregnant women
- Children's Health Insurance Program (CHIP)
- Primary Care Network (PCN)
- Utah's Premium Partnership for Health Insurance (UPP)

For all of these programs, a new tax-based methodology (known as "Modified Adjusted Gross Income" or MAGI) will be used to calculate income and household size. For the Medicaid programs listed above, the changes also include a removal of the asset test, and an increase in income limits.

Individuals who are currently enrolled in Medicaid or CHIP may see changes effective January 1, 2014. By removing the asset test from the Medicaid program for children, many current CHIP recipients will move to Medicaid. Additionally, some additional adults with dependent children may be eligible for Medicaid due to changes in income and asset limits.

Community Health Indicators Spotlight, November 2013

Assessment of Breastfeeding Supportive Maternity Care Practices in Utah Hospitals

Research indicates that breastfeeding is associated with decreased risk for infant morbidity and mortality, as well as maternal morbidity and provides optimal infant nutrition.¹ In Utah, while 85.7 percent of mothers start out breastfeeding, only 24.8 percent of babies are exclusively breastfed at six months (National Immunization Survey data, 2011). The *Surgeon General's Call to Action to Support Breastfeeding*, published in 2011, identified 20 key actions to improve support for breastfeeding.² One of those key actions is to "ensure that maternity care practices around the United States are fully supportive of breastfeeding."

Recent work has been undertaken by the Utah Department of Health's (UDOH) Bureaus of Maternal and Child Health and Health Promotion to improve breastfeeding supportive practices in Utah hospitals. These bureaus carried out an *Assessment of Breastfeeding Supportive Maternity Care Practices in Utah Hospitals* survey a few months ago, and of the 43 delivering hospitals throughout the state, all but three hospitals completed it. Survey responses indicate that Utah hospitals are performing very well in some areas; however, there are weaknesses in a few areas when it comes to supporting breastfeeding. This knowledge enables UDOH to focus on the steps that have the biggest potential for impact. The majority of hospitals surveyed indicated they would like to participate in a collaborative process with other hospitals, supported by UDOH, to help integrate and adopt the *Ten Steps for Successful Breastfeeding Hospitals* outlined by the World Health Organization in their facilities. While being designated as "Breastfeeding Friendly" is the gold standard for hospitals, numerous Utah hospitals have cited cost as a major barrier to becoming designated; it currently costs over \$10,000 to become designated "Breastfeeding Friendly" by the U.S. Baby Friendly Hospitals Initiative. UDOH is exploring the possibility of establishing state level criteria for hospitals to be designated as breastfeeding friendly.

For survey results please contact Lois Bloebaum at lbloebaum@utah.gov.

1. American Academy of Pediatrics. Breastfeeding and the Use of Human Milk. *Pediatrics*. 2012; 129:e827-41.

2. U.S. Department of Health and Human Services. Executive Summary: *The Surgeon General's Call to Action to Support Breastfeeding*. January 20, 2011.

Monthly Health Indicators Report

(Data Through September 2013)

Monthly Report of Notifiable Diseases, September 2013	Current Month # Cases	Current Month # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
Campylobacteriosis (Campylobacter)	36	34	389	335	1.2
Shiga toxin-producing Escherichia coli (E. coli)	6	13	89	99	0.9
Hepatitis A (infectious hepatitis)	0	1	9	7	1.4
Hepatitis B, acute infections (serum hepatitis)	0	0	1	8	0.1
Meningococcal Disease	0	1	7	4	1.6
Pertussis (Whooping Cough)	36	47	845	430	2.0
Salmonellosis (Salmonella)	26	33	250	261	1.0
Shigellosis (Shigella)	3	5	19	31	0.6
Varicella (Chickenpox)	0	35	135	349	0.4
West Nile (Human Cases)	1	2	6	7	0.8
Quarterly Report of Notifiable Diseases, 3rd Qtr 2013	Current Quarter # Cases	Current Quarter # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
HIV/AIDS†	27	25	90	82	1.1
Chlamydia	1,931	1,721	5,651	5,070	1.1
Gonorrhea	291	100	633	284	2.2
Syphilis	20	9	63	26	2.4
Tuberculosis	10	6	28	24	1.2
Medicaid Expenditures (in Millions) for the Month of September 2013	Current Month	Expected/Budgeted‡ for Month	Fiscal YTD	Budgeted‡ Fiscal YTD	Variance - over (under) budget
Capitated Mental Health	\$ 12.3	\$ 11.7	\$ 35.1	\$ 32.2	\$ 2.9
Inpatient Hospital	\$ 15.4	\$ 27.0	\$ 34.2	\$ 58.6	\$ (24.4)
Outpatient Hospital	\$ 4.0	\$ 6.5	\$ 10.3	\$ 17.9	\$ (7.6)
Long Term Care	\$ 13.2	\$ 13.1	\$ 36.2	\$ 36.1	\$ 0.1
Pharmacy ‡	\$ 7.9	\$ 16.1	\$ 24.7	\$ 40.7	\$ (16.0)
Physician/Osteo Services §	\$ 4.5	\$ 7.4	\$ 11.2	\$ 20.3	\$ (9.1)
TOTAL HCF MEDICAID	\$178.6	\$ 184.3	\$ 539.8	\$ 535.6	\$ 4.1

Program Enrollment for the Month of September 2013	Current Month	Previous Month	% Change¶ From Previous Month	1 Year Ago	% Change¶ From 1 Year Ago
Medicaid	258,607	260,344	-0.7%	253,052	+2.2%
PCN (Primary Care Network)	15,485	15,807	-2.0%	15,515	-0.2%
CHIP (Children's Health Ins. Plan)	34,364	34,278	+0.3%	36,045	-4.7%
Health Care System Measures	Annual Visits			Annual Charges	
	Number of Events	Rate per 100 Population	% Change¶ From Previous Year	Total Charges in Millions	% Change¶ From Previous Year
Overall Hospitalizations (2011)	280,830	9.3%	+0.8%	\$ 5,818.8	+7.4%
Non-maternity Hospitalizations (2011)	175,847	5.7%	+3.8%	\$ 4,909.9	+7.9%
Emergency Department Encounters (2011)	665,925	22.4%	+1.7%	\$ 1,309.5	+12.8%
Outpatient Surgery (2011)	376,054	12.6%	+2.4%	\$ 1,878.5	+6.5%
Annual Community Health Measures	Current Data Year	Number Affected	Percent/Rate	% Change¶ From Previous Year	State Rank# (1 is best)
Obesity (Adults 18+)	2012	476,400	24.3%	-0.5%	10 (2012)
Cigarette Smoking (Adults 18+)	2012	207,300	10.6%	-10.8%	1 (2012)
Influenza Immunization (Adults 65+)	2012	147,100	56.0%	-1.5%	40 (2012)
Health Insurance Coverage (Uninsured)	2012	376,600	13.2%	-1.5%	n/a
Motor Vehicle Traffic Crash Injury Deaths	2012	205	7.2 / 100,000	-16.8%	19 (2010)
Poisoning Deaths	2012	661	23.1 / 100,000	+15.6%	45 (2010)
Suicide Deaths	2011	503	17.9 / 100,000	+5.2%	n/a
Diabetes Prevalence (Adults 18+)	2012	141,100	7.2%	+7.5%	14 (2012)
Poor Mental Health (Adults 18+)	2012	307,800	15.7%	-3.7%	12 (2012)
Coronary Heart Disease Deaths	2012	1,580	55.3 / 100,000	-3.4%	3 (2010)
All Cancer Deaths	2012	2,861	100.2 / 100,000	+3.3%	1 (2010)
Stroke Deaths	2012	793	27.8 / 100,000	+0.6%	17 (2010)
Births to Adolescents (Ages 15-17)	2012	668	10.4 / 1,000	-6.6%	11 (2011)
Early Prenatal Care	2012	38,829	75.5%	+1.0%	n/a
Infant Mortality	2011	282	5.5 / 1,000	+14.6%	10 (2010)
Childhood Immunization (4:3:1:3:3:1)	2012	40,000	74.9%	+5.3%	15 (2012)

† Diagnosed HIV infections, regardless of AIDS diagnosis.

‡ Includes only the gross pharmacy costs. Pharmacy Rebate and Pharmacy Part D amounts are excluded from this line item.

§ Physician/Osteo Services - Medicaid payments reported under Physician/Osteo Services does not include enhanced physician payments.

¶ % Change could be due to random variation.

State rank based on age-adjusted rates.

Notes: Data for notifiable diseases are preliminary and subject to change upon the completion of ongoing disease investigations. Active surveillance for influenza virus has ended until the 2013-2014 season.