



**STATE
OF THE** **AIR** 2012



**AMERICAN
LUNG
ASSOCIATION®**

**Janice Nolen
American Lung Association**

What is the State of the Air report?

- 13th annual look at ozone and PM 2.5
- Gives **A - F** Grades or **Pass/Fail** to 900 counties with monitors (out of 3,068 counties)
- Ranks metro areas by pollution
- Access to county, state info by zip code
- Provides trend data on changes in air quality

What State of the Air Does



- Puts air pollution into everyday language
- Gives public local information
- Focuses attention on ozone and particle pollution

Where we get the data

States Collect Air Pollution Data in
2008, 2009, & 2010



EPA Reviews & Posts Data Online



Our Consultant Downloads the Data from EPA for Us

Once we get the data

We Calculate Grades



We Share Grades With State/Local Air Agencies
for their Review



We Confirm Grades and Calculate Rankings

What we grade

- **Ozone**
- **Particle pollution (PM_{2.5})**
 - Short-term (24-hour) measures “spikes”
 - Year-round (annual average) measures “day-in and day-out”
- Only counties with monitors get grades
- Grade only air quality—not “effort to clean up”

Grades Based on the Air Quality Index



- EPA yardstick for reporting air quality
- Translates monitored pollution levels into recommendations for action
- Used across the nation
- We use this for grading ozone & short-term particles (**A**-**F** grades)

Weighted averages

County	Orange	Red	Purple	Wgt. Avg	Grade
Alleghen	23	4	0	9.7	F

1 point for every orange day = **23**

1.5 points for every red day = $(4 \times 1.5) = +\underline{6}$

Add them together = **29**

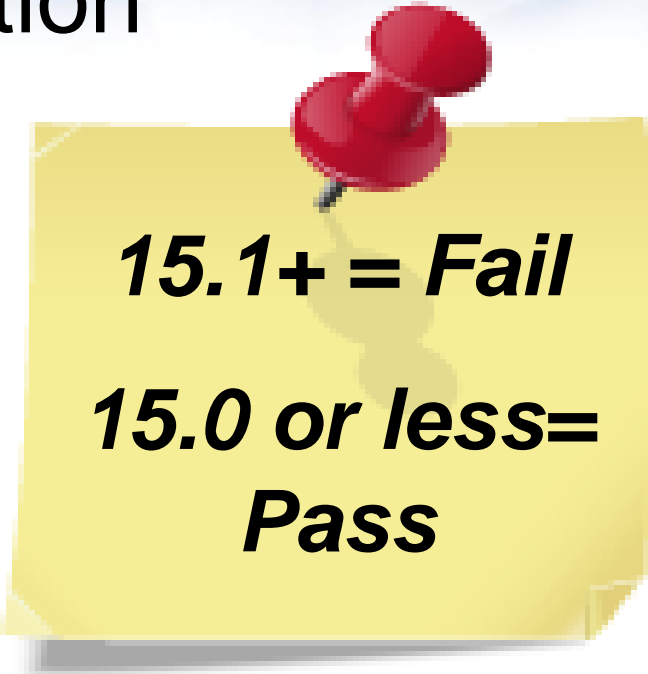
Find yearly average (Divide by 3) **$29 \div 3 = 9.7 = F$**

A = 0 **B** = 0.3-0.9 **C** = 1.0-2.0

D = 2.1-3.2 **F** = 3.3+

Year-round particle pollution is different

County	Annual	
	Design Value	Pass/Fail
Escambia	INC	INC
Etowah	12.6	PASS
Houston	10.8	PASS
Jefferson	15.1	FAIL



15.1+ = Fail

15.0 or less = Pass

Rankings

- Cities ranked by the score of the most polluted county in the metropolitan area
- Cities usually include more than one county
- We follow U.S. Census definitions of city
 - Metropolitan Statistical Area
 - Combined Statistical Area (may have more than one city)



STATE
OF THE **AIR** 2012



**AMERICAN
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- *State of the Air 2012* report shows cleaner air across much of nation thanks to standards enforced under the Clean Air Act.
- Despite this progress, 127.2 million Americans continue to live in areas with dangerous levels of ozone or particle pollution.

In 2008-2010

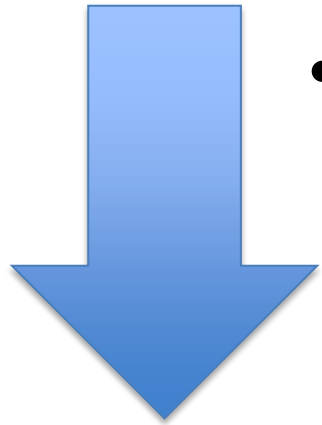
4 out of 10 people

in the U.S.A. lived in counties with an

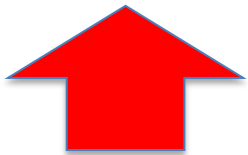
F for air quality

The News

Much less Ozone nationwide



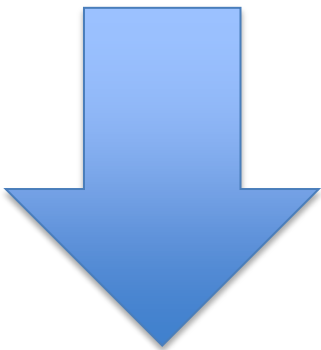
- 22 of the 25 cities most polluted year-round had fewer unhealthy days
 - 18 had fewest days to date



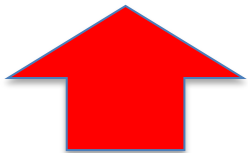
- 3 had more days

The News

Less Particle Pollution Year-round

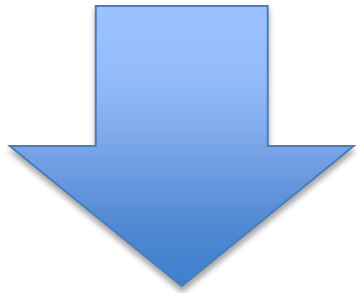


- 24 of the 27 cities most polluted by particles had improved annual levels
- 17 saw their lowest levels ever
- 3 had more days/worse days



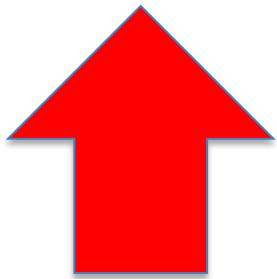
The News

Mixed news in spikes in particle pollution



- 13 of the cities most polluted by short-term levels had fewer high particle days.

- 9 from last year moved off list




- 13 of the cities on the list did worse than in 2007-2009

Reasons for improvement

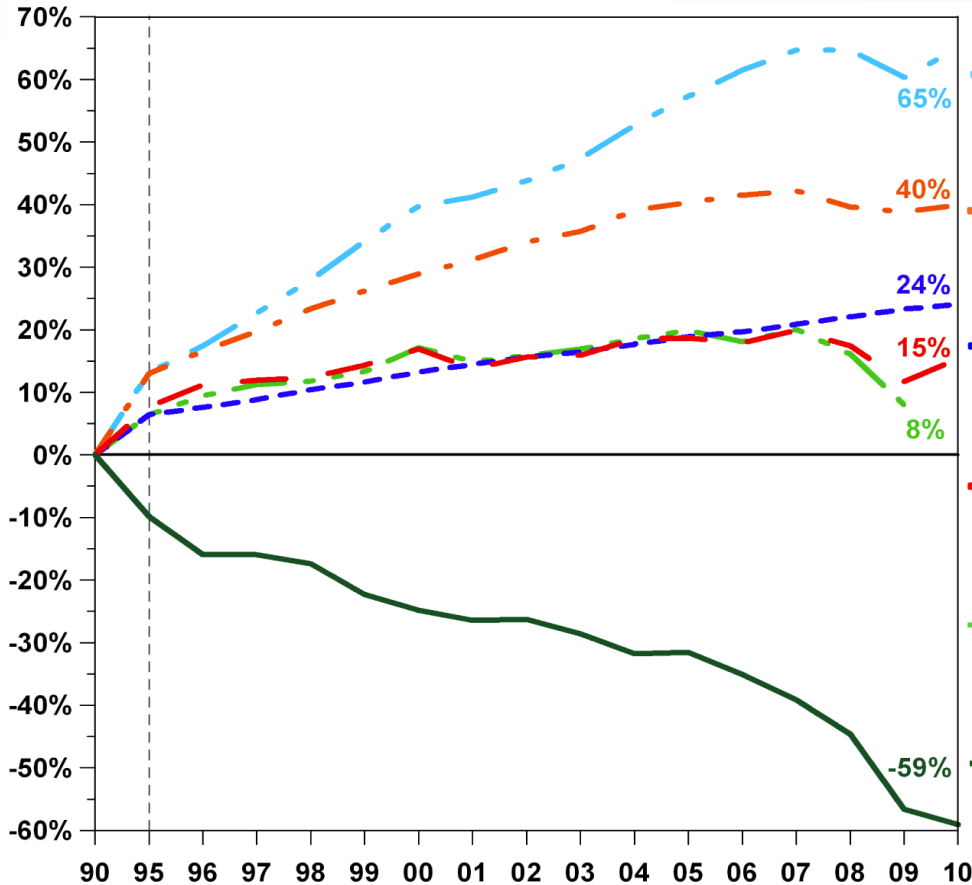
The Clean Air Act tools at work:

- New emissions control equipment on coal-fired power plants
- Converting fleets of buses and trucks to low-emissions vehicles
- Cleaner gasoline fleet, including SUVs



Air pollution reductions from a strong, well-enforced Clean Air Act

Impact of the economy?



Gross Domestic Product



Vehicle Miles Traveled



Population



Energy Consumption



CO₂ Emissions



Aggregate Emissions
(Six Common Pollutants)

EPA, 2012

Cleanest City



**Santa Fe-
Española,
New
Mexico**

Postcard image courtesy of Zazzle.com

 **AMERICAN LUNG ASSOCIATION.**
Fighting for Air

Most-Polluted

#1 Ozone Pollution



Most-Polluted

#1 Year-Round and Short-term Particles

**Bakersfield,
Calif.**



Postcard images courtesy of Zazzle.com

What's the State of Your Air?

For 13 years, the American Lung Association has analyzed data from state air quality monitors to compile the *State of the Air* report. The more you learn about the air you breathe, the more you can protect your health and take steps to make our air cleaner and healthier.

REPORT CARD:
What's the Grade for your air?

Select Your State

or

Enter Your Zip



Air a Health Risk?

Yes, the air still threatens health of millions.
[Learn more.](#)

Breathing polluted air can harm your health and even shorten your life. **State of the Air** is a report card on air pollution in communities across the nation. The more you learn, the more you can protect your health and take steps to make our air cleaner and healthier.

Did You Know?

Take Action Now

Latest @LungAssociation Tweets

LungAssociation: @RepTierney Thanks for your support for the #PreventionFund and your support of lung health!
Fri, Apr 27

LungAssociation: #StateoftheAir 2012 monitored the 2 most widespread types of air pollution, ozone (smog) & particle pollution (soot) from 2008-2010
Fri, Apr 27

LungAssociation: #5Words to consider: Don't gut clean air protections! Take action at <http://t.co/mQOqATCZ>
Fri, Apr 27

[» Visit Us on Twitter](#)

How to find your grade?

- Enter your zip code or select your state.
- Zip code gets you to your county
- State gets you to a list of counties with monitors.



REPORT CARD:
What's the Grade for your air?

Select Your State

Or

Enter Your Zip

Health Risks

- » [Ozone](#)
- » [Particle Pollution](#)
- » [Children's Health](#)
- » [Disparities](#)
- » [Near Highways](#)
- » [Protect Yourself](#)

Take Action

- » [Join Our Fight For Air](#)
- » [Donate](#)
- » [Share Your Story](#)
- » [Share Your Air](#)
- » [Shop For Air](#)
- » [Send an eCard](#)

Health Effects of Ozone and Particle Pollution

Ozone and particle pollution are the most widespread air pollutants—and among the most dangerous. Recent research has revealed new insights into how they can harm the body—including taking the lives of infants and altering the lungs of children. All in all, the evidence shows that the risks are greater than we once thought.

Recent findings provide more evidence about the health impacts of these pollutants:

- A major review of particle pollution and other air pollutants concluded that many cause heart attacks, even when people inhaled elevated levels for as little as one week.¹ This review looked at evidence from 177 studies and found that particle pollution (both fine and coarse), carbon monoxide, nitrogen oxides, and sulfur dioxide all increased the risk of heart attack.
- Particle pollution that lasts for just a short while may be causing strokes, even at levels considered safe, according to a study of Boston area patients.² In particular, researchers found that breathing levels of traffic-related particles were linked to increased risk of stroke within 12 to 14 hours of breathing them.

Trusted Links

- » [AirNow](#)
- » [National Association of Clean Air Agencies](#)

U. S. Environmental Protection Agency sites:

- » [Clean School Bus USA](#)
- » [Information for Citizens and Communities](#)
- » [National Ambient Air Quality Standards](#)
- » [Protect the Environment: Act Locally](#)
- » [What You Can Do](#)

News from Lung

[Home](#) > [2012](#) > [Personal Stories](#)

Our Fight

- » [What We Do](#)
- » [Our Story](#)
- » **[Personal Stories](#)**
- » [Clean Air Timeline](#)
- » [Advocacy](#)

Take Action

- » [Join Our Fight For Air](#)
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- » [Share Your Story](#)
- » [Share Your Air](#)
- » [Shop For Air](#)
- » [Send an eCard](#)
- » [Download Report](#)

Stories

We all have a reason to fight for clean air. Check out some personal stories below that highlight the need for healthy, safe air, and [click here](#) to share your own.

Items **1 - 10** of **79** [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [Next](#)

I have reactive airway asthma and the air quality, or lack of it, in Mesa, AZ has me on steroids many weeks of the year. The result of taking so much prednisone is weak bones and weight gain that is causing all kinds of other health problems, including type 11 diabetes. [Read more at FightingForAir.org](#)

— **Claudia, AZ**

I have a 10-year-old son named Chandler who is being home schooled because of his poor health. His asthma controls his life, and he misses out on a lot of things other children his age are able to do. [Read more at FightingForAir.org](#)

— **Monica, AZ**

[Home](#) > [2012](#) > [States](#) > [District of Columbia](#)

Take Action

- » [Join Our Fight For Air](#)
- » [Donate](#)
- » [Share Your Story](#)
- » [Share Your Air](#)
- » [Shop For Air](#)
- » [Send an eCard](#)
- » [Download Report](#)

REPORT CARD:

What's the Grade for your air?

Select Your State

Or

Enter Your Zip

District of Columbia

District Of Columbia

Washington-Baltimore-Northern Virginia, DC-MD-VA-WV

[How to Protect Yourself](#)

If you live in District Of Columbia , the air you breathe may put your health at risk.

Ozone



Particle Pollution 24-hour



Particle Pollution Annual



You can make a difference in the air that you breathe.

[Tell your member of Congress to protect your health: Don't weaken the Clean Air Act.](#)

[Tell us why having healthy air matters to you.](#)

Tell your friends about the air where you live.



Washington-Baltimore-Northern VA

- Ranked #13 for high ozone days
 - Harford County, MD
- Ranked #22 for 24-hour particle pollution
 - Baltimore City, MD
- Ranked #56 for annual particle pollution
 - Baltimore County, MD

Virginia

Fairfax County

Washington-Baltimore-Northern Virginia, DC-MD-VA-WV

[How to Protect Yourself](#)

The air you breathe needs your support.
You can make a difference in the air that you breathe.

[Tell your member of Congress to protect your health: Don't weaken the Clean Air Act.](#)

[Tell us why having healthy air matters to you.](#)

Tell your friends about the air where you live.



SEND AN EMAIL



SHARE ON FACEBOOK



SHARE ON TWITTER

Ranked 13 for high ozone days out of 277 metropolitan areas

Ranked 22 for 24-hour particle pollution out of 277 metropolitan areas

Ranked 56 for annual particle pollution out of 277 metropolitan areas

Much more info online

High Ozone Days

[Learn More](#)



 [Change since 1996: 40.5 less days this year](#)

Counties with monitors in this metropolitan area

[Alexandria City, VA](#)

[Anne Arrundel, MD](#)

[Arlington, VA](#)

[Baltimore, MD](#)

[Baltimore City, MD](#)

[Calvert, MD](#)

[Carroll, MD](#)

[Charles, MD](#)

[Washington, DC](#)

[Fairfax, VA](#)

[Fauquier, VA](#)

[Frederick, MD](#)

[Frederick, VA](#)

[Harford, MD](#)

[Loudoun, VA](#)

[Montgomery, MD](#)

[Prince George's, MD](#)

[Prince William, VA](#)

[Stafford, VA](#)

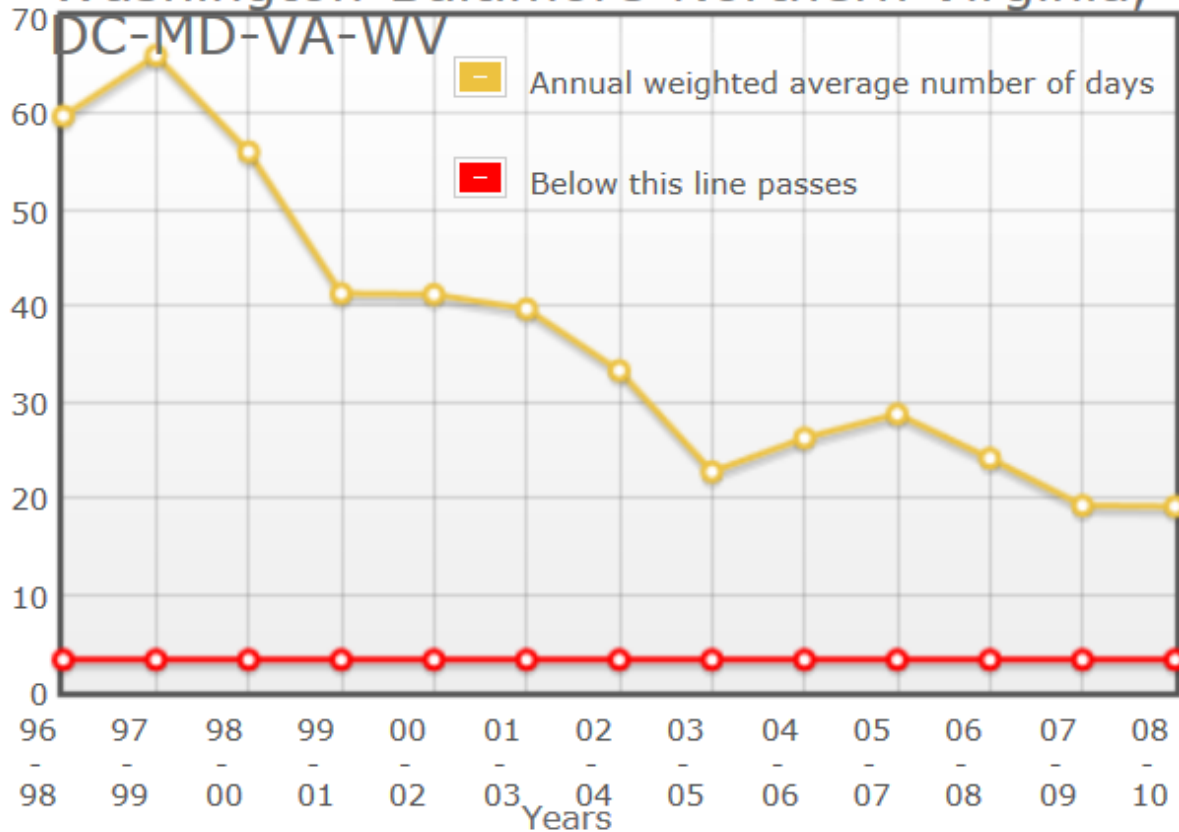


Trends for Ozone

Change since 1996: 40.5 less days this year

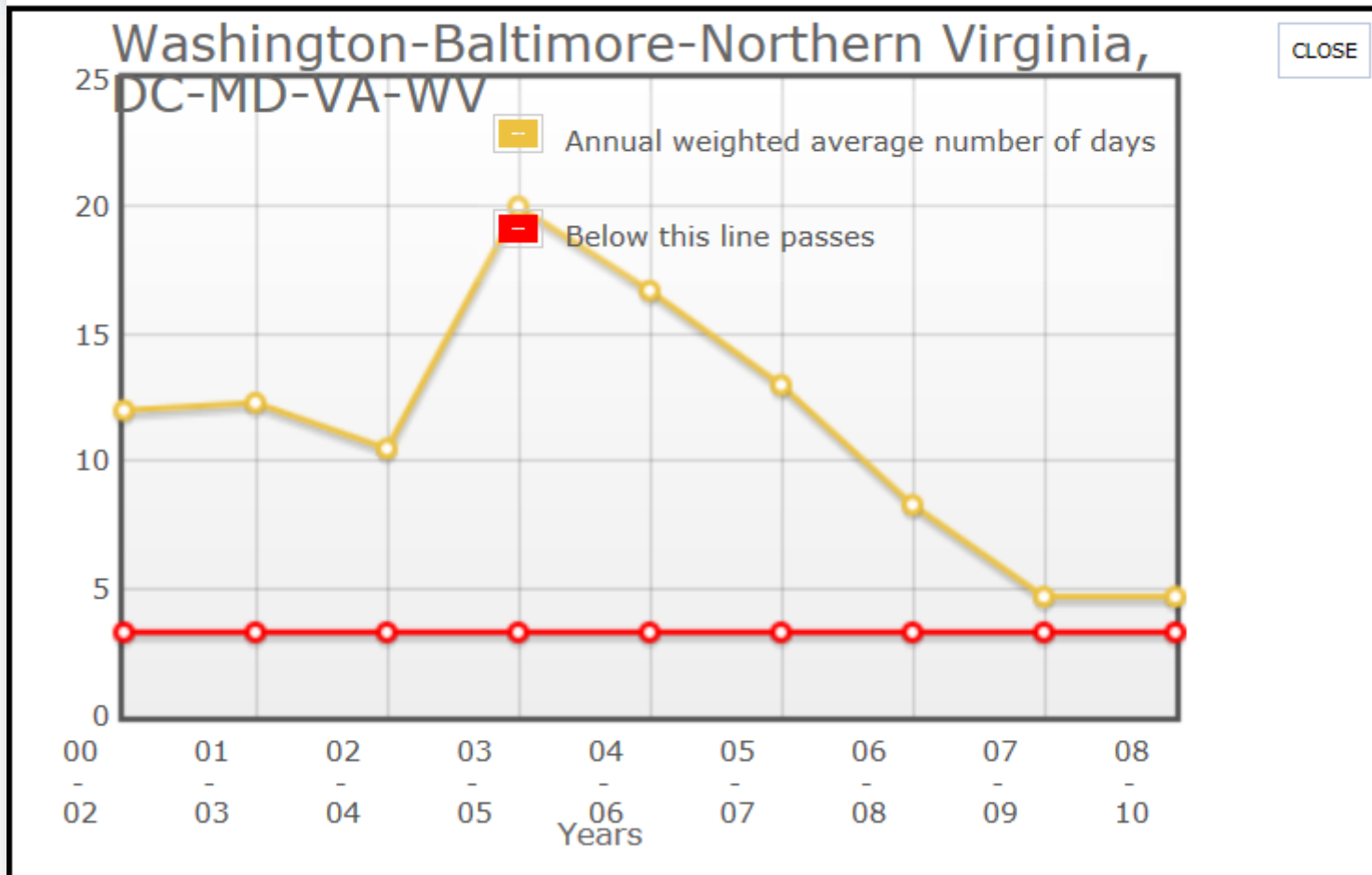
Washington-Baltimore-Northern Virginia, DC-MD-VA-WV

CLOSE



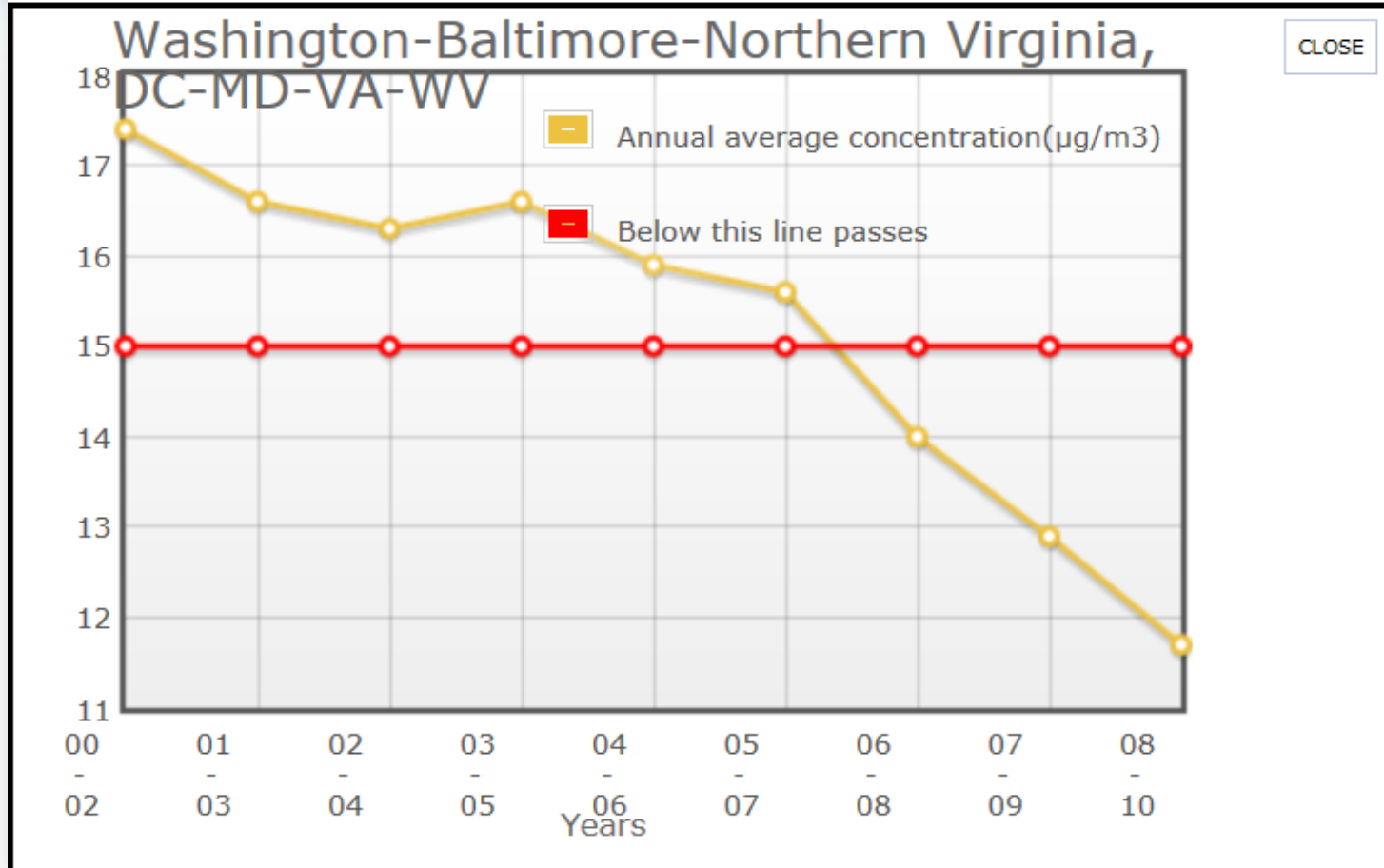
24-hour PM Trends

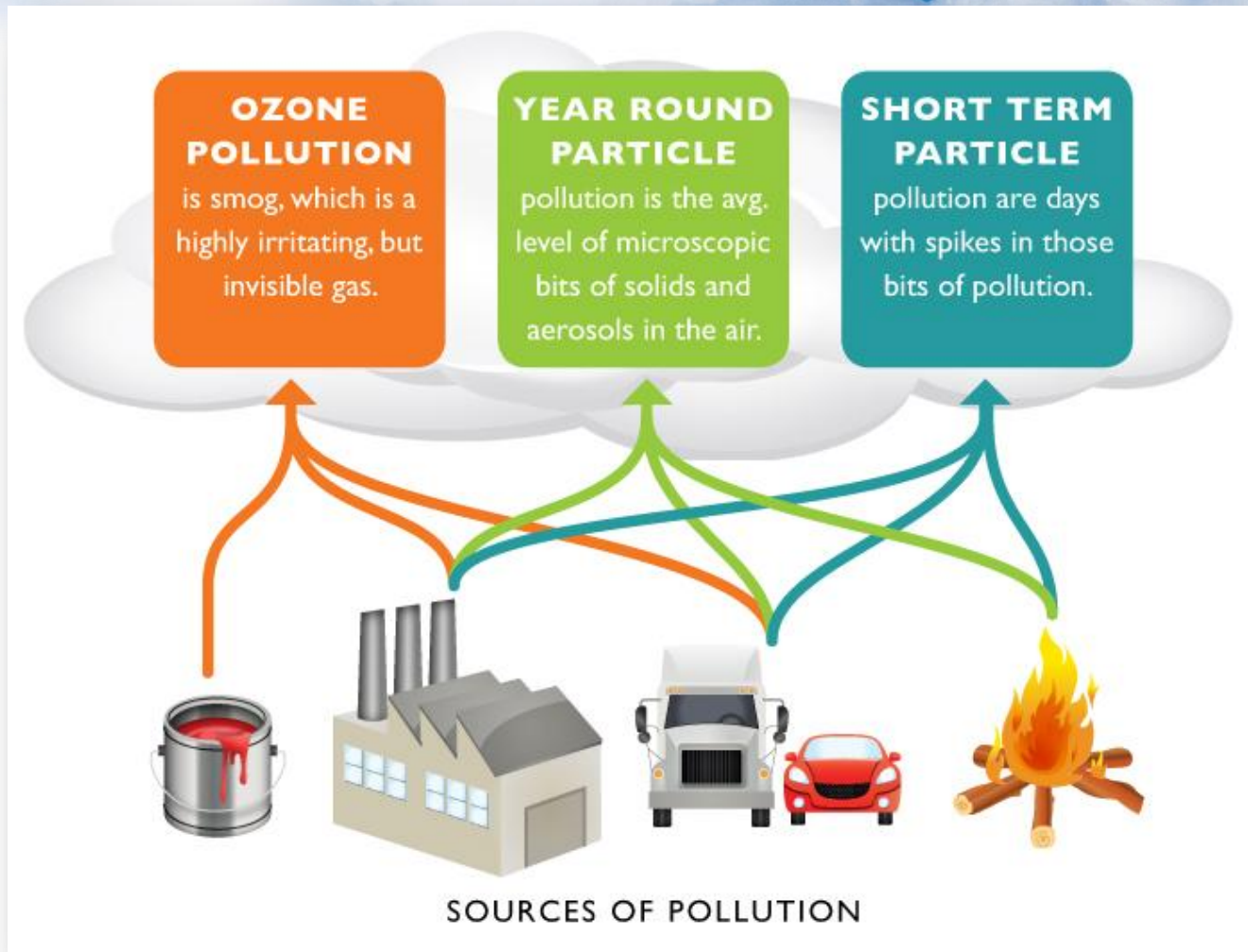
✓ Change since 2000: 7.3 less days this year



Annual PM Trends

Change since 2000: $-5.7 \mu\text{g}/\text{m}^3$





New—Phone App

State of the Air Phone App in iPhone and Android markets

FIGHT FOR AIR FROM YOUR PHONE.



Protect your health with your own daily air quality forecast. Get the free app at Lung.org.



 **AMERICAN LUNG ASSOCIATION.**
Fighting for Air



ON.

Meet Alvin, the Air Collector



New Awareness campaign



Alvin collects
air, just as
we all do—
sorta.

Become a fan of Alvin:

- @theaircollector
- Youtube.com/theaircollector
- Facebook [facebook.com/theaircollector](https://www.facebook.com/theaircollector)



Alvin Grimes

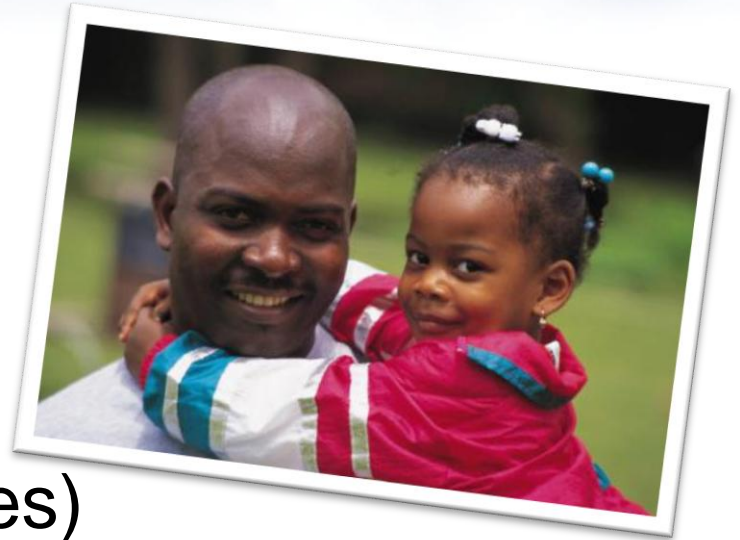
@theaircollector


Hi, I'm Alvin Grimes. I'm an air collector, you might have seen me on TV. Check out my videos at [youtube.com/theaircollector](https://www.youtube.com/theaircollector).

Why do we publish State of the Air?

Millions of reasons

- 127.2 million people in counties with too many days of dirty air (either ozone or particles)
- Nearly 5.8 million people in counties where the air failed every test





We will breathe easier when the air in every
American community is clean and healthy.

We will breathe easier when people are free from the addictive
grip of cigarettes and the debilitating effects of lung disease.

We will breathe easier when the air in our public spaces and
workplaces is clear of secondhand smoke.

We will breathe easier when children no longer
battle airborne poisons or fear an asthma attack.

Until then, we are fighting for air.