

[Philadelphia's Fire Commissioner Talks Fire Prevention](#)

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Lloyd Ayers was sworn in as Philadelphia's fire commissioner on in December 2004. He is charged with the management of its 2,400-member uniformed force and all operations of the Philadelphia Fire Department, the fifth-largest fire department in the U.S.

Ayers has served in every rank in the Philadelphia Fire Department, ranging from lieutenant to deputy commissioner — where he managed the activities of the Philadelphia Fire Academy, firefighting forces of Division 1 and Division 2, the aviation and marine units, and the safety office. Prior to that, he served as deputy commissioner of technical services, where he was responsible for oversight of the fire marshal's office, hazmat administration, the fire-prevention unit, the fire-code unit and other critical service functions.

Ayers joined FIRE CHIEF to discuss fire-prevention efforts in his city.

Can you tell our readers about the fire deaths and related injuries that happen in Philadelphia?

When I first came to the department back in 1974, fire deaths were commonplace. Fire deaths were 100-plus every year, in addition to any multitudes of injuries to firefighters. In my career, I've seen many firefighters lose their lives while they were trying to help folks. It's just a problem we've been after for a long period of time to educate our folks.

We have 1.5 million people here and more than 700,000 across 135 square miles. And our population is varied, a tapestry of religions and cultures in the city. So it's a wonderful place. But 22% of the population is at or below the poverty level here. This year's number looks like it may climb to 25%. So we really need to help folks out.

Where do most of the fire deaths happen in Philadelphia?

Most of the fire deaths happen in the disadvantaged neighborhoods, the poorer communities. So we try to focus on making sure they have life-safety devices, like smoke alarms, that absolutely save lives. The other thing to do is ensure they have all of the education they need, as far as home escape planning, testing smoke alarms, and how they should react when they hear the alarm go off. We also want to make sure they understand how to stay safe in their environment, by removing hazards that are common causes of fires. So we have a home-fire safety checklist review with our citizens. We want to bring those deaths down.

How does data come into play when it comes to targeting high-risk populations?

This is where we are now, [with a fire vulnerability index](#). We started out by tracking all fires, looking at where they were occurring. We started out at the zip code level. What was happening within the zip code? Then we would

overlay the zip code with the fire stations and find out which fire station or fire-safety district were having the fires and helping to ensure those officers were able to service those folks with fire alarms. And after that we got it down to the block level — with about 40 to 60 homes on each block — and make sure they were serviced. We would go out and knock on doors and give them literature, offer to install a free smoke alarm and drop off the literature and let them do the fire safety checklist — such as overloading circuits, smoking in the house, etc.

How did you develop maps of high-risk target areas based on household data?

We also worked Buxton, a marketing-data firm, where they go into a more granular view of the population of our city. They look at the household level. They look at what their purchase characteristics are, where they attended the schools. They look at how many people are in the home. They look at a various databases and bring those items together to build profiles. One of the things we've done is that we look at our data and process it through Buxton, to say, okay, what is the fire vulnerability index for each household. Now, we have a game-changing opportunity. Now, we can focus our efforts on the people throughout the city and go to them before the fire starts. We make sure we get the smoke alarms in or that we test the smoke alarms. If they don't have them, we get them in there.

The fires are going down, and now we have fire on the run. We have the opportunity to spend more time on education so we can chase the fire out of the city. Freedom from fire is what we want in the city.

What other prevention efforts are you working on?

We also formed a 501(c)3 citizens for fire prevention, and we take donations and we do fundraisers so we can support the smoke-alarm effort and fire-prevention-literature effort.

What has been the return on investment for this program?

We are still in the process of measuring it. The large indicators are the fire deaths. We started out several years ago we had 52 fire deaths in a year in 2005–06. We now have 35 deaths, which is the lowest we have ever had in the city. But we are still measuring.

So, we measure a 43% drop in fire deaths and being able to maintain that. Our goal is zero fire deaths, so we want to sustain what we have already gained in the decrease of fire loss and deaths. They continue to move down and less fire deaths, less injuries, less property loss. That includes decrease and ambulance and hospital care.

What is a few lesson learned from doing public education?

The lessons learned here more than anything is that the public wants it. They want to be taken care of. They want to be educated. They want to be a part of this movement to better the community and decrease the fires. But I think one of the largest things is the firefighters. The change we've seen in our firefighters and they way they view their jobs. The real hero is that man or woman in uniform who's going letting the neighbors know I am here to service you. We are armed to help people now.