The National Fire Protection Association estimates that in 2011, heating equipment was involved in an estimated 53,600 reported U.S. home structure fires, with associated losses of 400 civilian deaths, 1,520 civilian injuries, and $893 million in direct property damage. These fires accounted for 14 percent of all reported home fires.

In 2013, one home structure fire was reported every 85 seconds. (NFPA)

The leading factor contributing to home heating fires was failure to clean, principally creosote from solid-fueled heating equipment, primarily chimneys. (NFPA)

The United States Fire Administration estimates that wood stoves cause over 4,000 residential fires every year.

Confined fires, those fires confined to chimneys, flues or flue burners, accounted for 87 percent of residential building heating fires. (USFA)

Thirty percent of the non-confined residential building heating fires occurred because the heat source was too close to combustibles. (USFA)

According to the U.S. Consumer Product Safety Commission, more than 150 people die on average per year from carbon monoxide poisoning, related to the use of combustion appliances, including wood stoves, in the home.

EPA estimates there are more than 17.5 million fireplaces, 241,000 hydronic heaters, and 10.1 million wood stoves nationwide.

EPA estimates that 65 percent (6.5 million) of the nation’s wood stoves are older, inefficient devices.

Just 20 old, non-EPA certified wood stoves can emit more than 1 ton of fine particle pollution (PM$_{2.5}$) into your area during the cold months of the year.
Smoke from wood-burning stoves and fireplaces contain a mixture of harmful gases and small particles. Breathing these small particles can cause asthma attacks and severe bronchitis, aggravate heart and lung disease, and may increase the likelihood of respiratory illnesses.

Particle pollution exposure can lead to a variety of health effects. For example, numerous studies link particle levels to increased hospital admissions and emergency room visits—and even to early death. Research indicates that obesity or diabetes may increase risk. New or expectant mothers may also want to take precautions to protect the health of their babies, because some studies indicate they may be at increased risk.

Some studies also suggest that long-term PM 2.5 exposures may be linked to cancer and to harmful developmental and reproductive effects, such as infant mortality and low birth weight.

Changing out one old dirty, inefficient wood stove is equivalent to the PM2.5 pollution reduction of taking five old diesel trucks off the road.

Benefits of replacing an old wood stove with an EPA-certified stove:

- saves money, fuel, time, and resources.
- up to 50 percent more energy efficient.
- uses 1/3 less wood for the same heat.
- cuts creosote build-up in chimneys that helps reduce the risk of fire.

After start-up, a properly installed, correctly used EPA-certified wood stove should be smoke free. If you see or smell smoke that means you may have a problem.

To help reduce smoke, make sure to burn dry wood that has been split, stacked, covered, and stored for at least 6 months. Never burn garbage, plastics, or pressure-treated wood.

Research estimates 70 percent of smoke from chimneys can actually reenter your home and your neighbor’s home. (Pierson et al 1989)

Consider using a HEPA filter in the same room as your stove or fireplace. A study from the University of British Columbia indicates that HEPA filters can reduce indoor particle pollution by 60 percent.