

## Health

There is no question that our health has improved spectacularly in the past century. One thing seems certain: it did not happen because of medicine, or medical science, or even the presence of doctors.

“Much of the credit should go to the plumbers and engineers of the western world. The contamination of drinking water by human feces was at one time the greatest cause of human disease and death for us... (but) when the plumbers and sanitary engineers had done their work in the construction of our cities, these diseases began to vanish.” — Lewis Thomas

**Why—in many ways—are plumbers and pipefitters more important to our society than doctors?**

**What would our society be like if we did not have clean water to drink?**

How widespread would disease be without the sanitary facilities that we take for granted in our everyday lives? What would our average life expectancy be without the current high standards maintained in our water systems today?

Not since the time of the Roman empire has a society advanced their overall health to such a degree as the United States and other highly developed countries have in the past century. The Romans built aqueducts to carry fresh water hundreds of miles to their cities, some of these are still in use today as are more modern systems built in the past two centuries. The Romans developed sewage systems to carry waste out of the cities and help improve the quality every Roman citizens life. They constructed public bath houses which also contributed to an improved health of their citizenry. After the fall of the Roman empire, the advancements and improvements to the infrastructure of cities that they instituted were all but forgotten until the late 1800's. No society worked to improve the quality of their drinking water and sewage systems were none existent. People drew their water from the same wells, lakes or streams where waste was regularly deposited and no one worried or cared about ground water contamination or pollution.



People and factories dumped their waste into the nearest stream, pond, or river while downstream people depended on this same water for their daily cooking and drinking needs and watering of livestock. Rivers became sewers and overuse of fertilizers contaminated ground water and rendered farmland useless by upsetting the chemical balance of the soil. Dysentery was widespread, cholera, plagues, and the Flu killed millions over the centuries. Worldwide during the period from 1918 and on into 1919, over 40 million people around the world died from the Flu. One of the ways in which outbreaks of this magnitude have been prevented in recent history is thanks in part to modern plumbing enabling people to wash their hands more frequently and under more sanitary conditions, and also in great part to the efforts of many in the medical profession. Read this account of how in 1918 the Flu affected US Navy Sailors and the country in general at Naval Station Great Lakes, Illinois. During the 1800s, indoor plumbing started to become popular. The City of Philadelphia had one of the first public water distribution systems in the country, which began operation in 1815. Advancements in metallurgy and forging techniques allowed cost effective pipe and fittings to be manufactured. And development of the skills necessary to assemble these components together into working systems by tradesmen in homes and buildings turned these ideas and concepts into reality. Indoor heating systems made buildings more hospitable and comfortable. The development of sprinkler systems over the past 125 years has helped to save lives and property from the threat of fires. The design and installation of fire sprinkler systems is complex and has developed into a specialty trade within the piping industry. Sprinklerfitters are the UA member journey men and women who specialize in the installation and maintenance of these special purpose piping systems.

The implementation of current waste and drinking water regulations and standards through the installation and maintenance of our waste and groundwater treatment facilities, hazardous waste cleanup, and chemical controls systems has done more to increase the life expectancy of our citizens than any medical advancement in the history of mankind. These standards and regulations are one thing that has enabled us to improve our lives, but they would be nothing without the skills of Plumbers, Pipefitters and other construction trades who turn those words into the mechanical systems that remove harmful chemicals from our water, and kill bacteria and other life threatening organisms. Hundreds of thousands of square miles of our country would still be uninhabitable were it not for the great reservoirs and underground aqueducts that transport water over hundreds of miles safely to where it's needed. Where would the great cities like New York, Philadelphia, Los Angeles, and many others get the millions of gallons of water they use each and every day were it not for our countries water reservoirs, water distribution, and waste treatment and disposal systems that safely carry our sewage away?

No amount of medication could do what maintaining our sanitary and potable water systems has accomplished for our society. The next time you take that warm bath or shower in your house, or draw a glass of clean, odor-free water from your faucet to drink or cook with, you can thank in part the Plumbers and Pipefitters and construction workers of this country, not the doctors and physicians for improving the overall quality of your life. If you visit the US Center for Disease Control web site, you can read about the desperate need for safe drinking water in other parts of the world, but you won't find many, if any, references to unsafe drinking water here in the United States. Without the regulations and standards implemented here in the United States, and the associated infrastructure, we would not be much better off than many of the impoverished countries of the world.