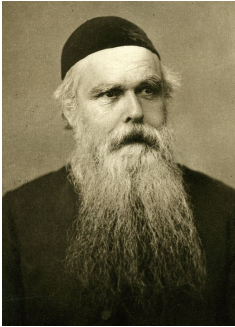


## The Broad Street Pump

“Take the handle off the pump!” said Dr John Snow. “Then no one can use it.” The water pump handle was taken off. The pump would not work now. People had to go to other pumps for water. This saved many lives. Why? Dr Snow's friend was the local minister, Henry Whitehead. He told the story of what happened. This is what he wrote:



Early one morning in September 1854, I was asked to visit some very sick people. They were dying of chol-e-ra. Everywhere I went in my parish after that it was the same. For four days the curate, the Scripture Reader and I did nothing but visit dying people. Hundreds of people died. The cholera was worse in Broad Street than anywhere else.

The outbreak began to end. “How did it start?” people wondered. It did not seem to make any difference whether people lived in clean houses or dirty ones. Some people died in both sorts of houses and in both sorts some people did not die.

A group of people got together to try to find out what had caused the outbreak and I was one of them. We discovered that the illness had been in one small area. It began very suddenly. We could not find out why – at first. But there were some very strange things that gave the clues to the answer. Everything pointed to the well in Broad Street and its pump.

When an outbreak of illness happens there has to be a way the illness gets into the houses. It had to be through the air or in the water. If we said it was the air, the strange things we found out made no sense. If we said it was the water they made perfect sense. Dr Snow had said, “It is the water!” from the beginning but few people agreed. I did not agree either.

I knew the people who lived in Broad Street as I was the minister of their church. It was easy for me to ask around. We made a map. We marked the places on the map where people had died. When we had finished we looked at the map carefully. The Broad Street well with its pump was in the very middle of the area where most people died. That was strange! What about other pumps nearby? No one had died near those except for people near one other pump. We asked the people near that pump and we

found out something strange. Mostly they did not like the taste of their pump water. They went to the Broad Street pump even though it was not very near their houses. Near the Broad Street pump was St James's workhouse. Many poor people lived there. Almost no one there got ill. That was strange! They did not use the Broad Street pump because they had their own well. A lady, who lived a long way off in Hampstead liked the water from the Broad Street pump. She sent for some every day to drink. She died during the outbreak even though she did not live near Broad Street. That was strange too!

The Broad Street houses were very crowded. Whole families often lived in just one room. I visited every family. I tried to talk to everyone. The people knew me well. I had been with them when the outbreak happened so they were happy to talk to me about it. In this way I got together a great number of facts about those who died and those who did not die. Many people had left the street in fear and gone to live elsewhere when the outbreak happened. I found out where they had gone and I visited them too. I put all the facts together carefully.

What was wrong with the well? The water was tested. The well wall was checked for leaks. Nothing was wrong. "I must be right after all," I thought, "It is not the water." But I kept on getting hold of more facts just the same. At last I found out something important.

There had been three cases of cholera in Broad Street just before the day when the great outbreak began. One was a baby that had died. At first I overlooked it. One day I was looking at the records for something else. I noticed the entry about the baby that died. I saw the address. I knew it was the house right opposite the pump.

I hurried off at once to this house. I asked the poor mother all about it. She said she had put the baby's soiled nappies in buckets of water. Then she had emptied the water from the buckets into the drains. The drains were very near the well. I told the group and they decided look at the house drains. The drains of the house were old and broken. They leaked into the well. I had found out the cause of the outbreak!