

BBC Bitesize

The government's attitude to health care was finally changing...and old superstitious treatments were swept away by developments in medical technology. At the beginning of the century everyone was adamant that disease caused germs...But a forward-thinking Frenchman by the name of Dr Louis Pasteur believed it was, in fact, the other way round - that germs caused disease.

Pasteur was desperate to prove his ground-breaking theory, but he wasn't alone...In his attempt to gather scientific evidence, he found himself in a race against a pioneering micro-biologist from Germany called Robert Koch. The two men avidly examined germs under their microscopes. The result of this bacterial battle was one of the most significant advancements in medical history...Germ Theory!

British boffin Joseph Lister also played a part in the advancement of Germ Theory. He applied the evolving knowledge to his own patients, and proposed combating germs by using carbolic acid on surgical instruments and hands, earning him the title: 'The Father of Antiseptics.' Take a bow, Joe.

But despite the birth of Germ Theory and antiseptics, the majority of people still believed in outdated ideas. Such as the theory that disease was caused by foul-smelling air, or 'miasma' as it was known.

One such believer was the 'Lady with the Lamp,' Florence Nightingale, a nurse, social reformer, statistician, and crusading night owl. She went to the frontline of the Crimean War, treating wounded soldiers by the light of her lamp. Although her belief in miasma was not scientifically correct, her efforts to banish 'bad air' actually led to cleaner hospitals, better trained nurses, and all round better care.

And she wasn't the only Victorian woman breaking new ground...There was Elizabeth Garrett, who became Britain's first female doctor in 1865.

And social reformer Octavia Hill, who campaigned for better housing, sanitation, and more open spaces for the poor, many of which we still enjoy today!

Rampant industrialisation was causing overcrowding and incredibly dirty cities. Britain's population rose an incredible 50%, from 18 million in 1811 to over 27 million by 1851.

And while rich folks sat back sipping cocktails, good fellows like William Farr and Edwin Chadwick were out campaigning on behalf of the poor. They fought to reform the woefully inadequate poor laws, arguing the need for better sanitation, which all resulted in improved mortality rates.

Along with Octavia Hill, Farr and Chadwick were passionate about proving the link between disease and poverty.

But government action came sloooooowly. They repealed the Public Health Act of 1848, and it was not until the Great Stink of 1858 that the government's nose really got out of joint and they actually did something. The stench from the River Thames became almost unbearable, which was hardly surprising as it was effectively a giant dustbin filled with London's rubbish. The smell was so bad that the Houses of Parliament had to be evacuated, an event that was the straw that broke the politicians' backs.

Shortly after, they decided to build the extensive London sewer system. And, surprise, surprise, once the sewers were fully operational, cholera never returned and the Great Stink subsided. Phew!

This improvement in conditions also coincided with the 1867 Reform Act, giving Britain's 1 million working class men the right to vote. All of these advancements meant that the government's 'laissez faire' approach to public health had to come to an end. Hurrah!

By the end of the century things were looking brighter. Reformers had shined a light on the plight of the poor. And new working class voters were demanding better living conditions. And thanks to the brilliance of a certain few, by the end of the century we had sewers, inoculations, cleaner hospitals, access to parks, and better public health. All of which meant less disease, and greater life expectancy.

What a difference a century makes!