Term 2 - Health and Medicine

Modern Medicine

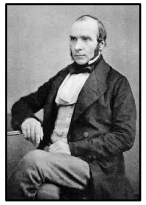
1. Key events

Date	Key event
1895	X-ray
1899	Boer War
1906	Liberal Reforms, Free School Meals
1907	School medical service
1908	Children and Young Person's Act, Old Age Pension
1909	First job centers
1911	National Insurance Act
1914-18	WW1 Albert Hustin and storage of blood
1921	Over 5000 patients had plastic surgery
1928	Penicillin discovered

2. Key events

1942	Beveridge Report
1948	NHS introduced
1953	DNA discovered
1967	First heart transplant
1978	First IVF baby Louise Brown
1978	Smallpox eradicated
2006	Public smoking ban
2008	First full face transplant
2015	Smoking ban extended to cars

3. Key individuals



John Snow

Industrial Britain

Leading doctor in Victorian Britain.

Worked out that 1854 cholera outbreak was caused by contaminated water by recording deaths from the disease and showing they were centred around one water pump

William Farr

Industrial Britain

Pioneered the idea of medical statistics.

Set up a system of recording the causes of deaths, which meant people could better understand the public health problems that led to people dying.

Statistics were vital in helping Snow to prove that Cholera came from water

Joseph Bazalgette

Industrial Britain

The Great Stink of 1858 was a very hot summer in which the heat made the smell of untreated human waste in the River Thames unbearable. This along with frequent and deadly Cholera outbreaks meant the problem of how to ride of all waste in London could no longer be ignored.

He engineered a huge complex and expensive network of sewers to move water through massive pipes under the city and out to tidal parts of the River Thames where it would be swept out to sea.

4. Treatment of disease

In 1928 Alexander Fleming was working to find a way to kill the staphylococcus germ. He found penicillin by chance after leaving petri dishes out whilst on holiday. When he came back he noticed that a mould had grown which killed the bacteria. He published his findings about the first antibiotic but did nothing else with it. Ernst Florey and Howard Chain read the article and asked the British government for funding but got only £25. They tested it on policeman Albert Alexander who had an eye infection. It worked until they ran out of penicillin. When America joined WW2 the gave $80 million to develop and mass produce penicillin. By the time of the D-Day landings there was enough to treat the casualties. Other antibiotics followed; streptomycin, tetracycline, mitomycin. In recent years however there are antibiotic resistant bacteria due to overuse including MRSA. Today there are also a variety of alternative treatments including acupuncture, homeopathy and aromatherapy. Vaccines for diphtheria, whooping cough, polio, rubella, MMR and HPV are now available for all.

5. Key individuals

Edwin Chadwick

Industrial Britain

Investigated the living conditions of the poor.

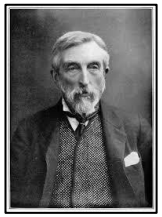
After outbreaks of influenza, typhoid and cholera the government asked Chadwick to write a report about living conditions.

He was able to show a direct link between poor living conditions and disease.

The government could not ignore this and his finding inspired the 1848 public health Act.

Charles Booth

Industrial Britain



Was a wealthy businessman and social researcher who produced a report on poverty among the working classes of London in 1892, called Life and Labour of People in London.

He spent time with the poor and medical professionals in the area , unlike earlier reports. He concluded that

30% of London lived in poverty.

Importantly his report challenged the idea that the poor were to blame for their situation.

Seebohm Rowntree

Industrial Britain

Between 1899 and 1901 worked with Booth on a study of poverty in York, Poverty A Study of Town Life.

Together used statistics to prove that poverty was not unique to London, but widespread across the country.

Showed that 30% of York also lived in poverty.

Came up with term 'poverty line' to describe the amount of money people had to earn to simply stay out of poverty.

It stressed that people couldn't help being poor.

6. Impact of war and technology on surgery

WW1 was on a scale previously unseen with new injuries caused by new weapons. X-rays had been discovered in 1895 by Wilhelm Rontgen but portable machines could help doctors find shrapnel and look for broken bones without cutting people open. The Army Leg Splint was designed to put broken bones in traction. Infections such as gangrene were common so surgeons cut away the infected flesh and soaked the wound in saline. Shell shock was identified during the war after the suffers originally being treated as cowards. Today it is known as PTSD. Karl Landsteiner had discovered blood groups which helped doctors complete blood transfusions. In 1914 Albert Hustin discovered that glucose and sodium could stop it clotting on contact with air meaning it could be bottled. In 1938 advances in storage mean the National Blood Transfusion Service opened. Harold Gillies developed plastic surgery to help men who suffered severe facial wounds during WW1 by 1921 he had treated over 5000 servicemen. In WW2 his cousin Archibald McIndoe did further work on faces and hands. Heart surgery progressed through Dwight Harken who operated on 134 hearts with no fatalities. Since the war there have been kidney, heart, lung, liver and facial transplants. These became more successful with cyclosporine to stop organ rejection. DNA and stem cells are being mapped and used to grow new organs.

7. Public Health

By 1900 poverty was still an issue in Britain. This was highlighted by the Boer War of 1899-1902. 40% of the men who volunteered were not fit for military service mostly due to poor diet and poverty-related illnesses. This was supported by the work of Booth and Rowntree. Booth studied London and created a map showing the distribution of poverty across London. In his book 'Life and Labour of the People in London' he wrote that 30% of the population lived in poverty despite many working. In York Seebohm Rowntree discovered that 28% of the population were in poverty but also that this could change during their lifetime. This he displayed in his poverty line. These concerned the government as did rivalry from nations including Germany and the USA. The new political party Labour was aimed at working people so something had to be done to win working votes. The Liberal Party came to power in 1906. They introduced; 1906 - Free School Meals, 1907 - School medical service, 1908 - Children and Young Persons Act, The Old Age Pension, 1909 - first job centres, 1911 - the National Insurance Act. These provided a safety net for children, the old, the sick and the unemployed. WW1 and WW2 highlighted that there was still more to be done. In 1942 the Beveridge Report said that people had the right to be free of the 'five giants' that could ruin their lives. Disease, want (need), ignorance, idleness, squalor (very poor living conditions). After the was the Labour Party set up the Welfare State to care for people 'from the cradle to the grave'. The NHS began in 1948 initially with completely free health care. A weekly child care payment, benefits for the very poor and slum clearance were all part of this. The NHS budget in 2015-2016 was £116 billion. In the C21st the government continues to try and improve health - 2006 a smoking ban was passed in public places extended to cars in 2015.