

“Cholera in Cardiff 1849 : a Stiffe lesson” 8<sup>th</sup> April 2008

Tony and Chris Howard.

The lecture was given by Dr Tony Howard but he started by acknowledging that his wife, Chris Howard, had done a lot of the research regarding the cholera outbreak. Dr Howard started by discussing a book called A History of Epidemics in Britain which was written in the 1890's – there is an entry in the book documenting an outbreak of cholera in Merthyr Tydfil in 1849 (documented first in Cardiff, then 1 week later in Merthyr, suggesting it had originated in the port and spread to Merthyr).

Cholera is an organism that is able to stick and attach itself to the gut wall. It produces a toxin which stimulates adenyl cyclase

The incubation period is 2-3 days. It can sometimes cause only mild symptoms and asymptomatic infections can occur.

However, severe cholera can cause the outpouring of 10-30 litres of fluid into the gut resulting in rapid dehydration, acute renal failure, profound shock and collapse and death.

Mode of spread : faecal and sewage contaminated water and contaminated food are the main causes, eating shellfish from polluted water is a lesser cause. Case to case direct transmission is thought to be uncommon.

It was always thought that cholera was originally described by Hippocrates. However the disease that Hippocrates described had the following characteristics and doesn't sound typical of cholera – very severe vomiting, bile stained stool, very severe abdominal pain and cramps.

At the end of the 18<sup>th</sup> Century the first outbreaks of cholera were noted in India – in Madras in 1774, Hurdwar in 1783, Vellore in 1787 and Calcutta in 1814.

In 1817 there appeared to be a major change in the cholera organism. It began spreading very rapidly across India and Eastwards across Asia and the Arabian peninsula but then appeared to die back. In 1827 there was a second pandemic which spread West. In 1831 it reached Britain for the first time. Between 1839-1855 there was a third pandemic. This again spread via the major trade routes and arrived in Britain in September 1848.

Dr Howard stated that on checking through old records, no cholera deaths are recorded for Cardiff residents in 1831/2.

In 1831 the population of Cardiff was 6,137.

In 1849 the population of Cardiff was 16,000. By this time Cardiff was changing with a new railway line in place and new feeders into the Glamorganshire canal. By the end of the 1840's the docks were very busy and prosperous and trade had increased 7-8 fold.

Dr Howard reminded us that in the 1840's, Cardiff had huge social and public health problems as a result of a period of rapid population growth. There was insufficient housing, overcrowding, poverty, poor sanitation. The Glamorgan Canal was used for drinking water and sewage disposal. The overall mortality was 30/1000 population/year. An illustration of the overcrowding was the situation in Landore Court in St Mary Street – in 1948, there were 27 houses there (each with 2 rooms), housing 500 people.

Dr Howard described the first case fatality of the 1849 Cardiff cholera epidemic. It was believed to be Arthur William Stiffe, who died on 13<sup>th</sup> May 1849. He was a Navigator who was born in 1831 in

*Picton Place, Cardiff*

. Although the above was supposedly the first case, on checking records, it was apparent that there had been some isolated cases happening before the recognised epidemic. Between 20<sup>th</sup> May and 21<sup>st</sup> June 1849 there were 274 cases of cholera in Cardiff and 138 deaths from cholera. By the end of the outbreak there had been 365 deaths.

It was interesting to hear Dr Howard listing what people thought had caused the epidemic. Some thought it had been caused by smells from the drains and sewers, bad food, cold and damp conditions and drainage of the Glamorgan Canal that had been done just before the start of the epidemic. Others thought it was caused by the “shocking habits of the Irish”!

What was done about the epidemic? The General Board of Health was informed and Dr Sutherland was sent to Cardiff. Cardiff was divided into districts and a medical officer appointed for each district. Every house was visited once a day by a Doctor. Houses were whitewashed with lime. People living near the canal were advised to move. Some consequences of the epidemic were fear and anxiety, temporary exodus of the population and creation of anti Irish sentiment.

Dr Howard commented on the good work done by Henry Paine who was the medical officer for health for Cardiff from 1853-1887. He compared mortality rates in 1849 and 1854 in those roads where sanitary measures were adopted and those where they were not adopted. By 1856 the population of Cardiff had increased to 30,925 – by this time the new system of sewage/drainage was almost complete and there was a clean water supply. The last case was seen in the 1860's.

Dr Howard concluded stating that many lessons had been learnt from the epidemic. He particularly commented on the impact of committed medical officers, but that they had to fight both medical and political opposition. The disease/epidemic had become intertwined with the politics of the day.