Notes on the Kildwick Typhoid Epidemic – 4 How the epidemic started (early-December 1898 – mid-January 1899)

Typhoid was not uncommon in Britain in the late 19th century, particularly in rural areas such as Kildwick and Farnhill which did not yet have mains water or sewerage systems. In 1889, for example, there were several cases of typhoid recorded in the Highfield Lane area of Keighley¹; while, even as the epidemic was at its height in Kildwick, there were unconnected cases in Cononley² and Oakworth³.

What makes the Kildwick case noteworthy is not just that it was an epidemic in its strictest sense, with the disease spreading from a single source to affect the larger population, but that the source and how it came to the area can be clearly identified. It is also the case that the Kildwick epidemic was much more extensive than the other outbreaks in the area, in terms of how long it took to be brought under control, the number of people affected, and the number who died.

This note considers how the infection arrived in the Kildwick area; how it spread from its original source to the village; and how the epidemic took hold.

How typhoid arrived in the Kildwick area

There is no doubt about how the Kildwick typhoid epidemic started, or who was the original source of the infection. What might be a little surprising is who that person was.

The facts came to light in a special meeting of Skipton Rural District Council (RDC) on February 1st 1899. The RDC meeting was reported extensively in the local newspapers^{4,5} and we can be quite precise about how the outbreak started.

Early in December 1898, J. J. Brigg, the MP for Keighley and occupant of Kildwick Hall, spent some time at his house near Matlock in Derbyshire with his son-in-law, Dr. Sharpe.

On the 6th December 1898, Mr. Brigg returned home to Kildwick Hall from a trip to London feeling unwell. Dr. Scatterty, of Keighley, was called and diagnosed pneumonia. Shortly after, Dr. Sharpe arrived at Kildwick Hall to assist with the nursing. He returned to Matlock on December 19th as he himself felt ill. He was subsequently diagnosed as suffering from typhoid.

Dr. Scatterty, in consultation with other doctors, then revised his diagnosis of Brigg and confirmed that this case was also typhoid. Notification of the disease was made to Dr. Atkinson, the medical officer for Skipton Rural District Council, by letter, on the 24th.

It seems that Mr. Brigg and Dr. Sharpe both became infected while in Matlock, as a result of drinking raw milk derived from contaminated water (Dr. Sharpe's housekeeper also fell ill with typhoid at the same time⁶), and that both he and Dr. Sharpe had been incubating the disease during their time at Kildwick Hall.

That Dr. Scatterty made an incorrect diagnosis early in December is understandable, as the early symptoms of typhoid are not dissimilar to those of pneumonia; in fact, "typhoid-pneumonia" is an archaic medical term used to cover both illnesses⁷. Throughout, Dr. Scatterty would insist that Mr. Brigg did, indeed, have pneumonia and that these symptoms masked those of typhoid.

How the illness spread to the village

Typhoid is predominately a water-borne disease, acquired by drinking water contaminated with the faeces of an individual infected with the bacterium *Salmonella typhi*⁸. So a case of typhoid at Kildwick Hall was unfortunate, but by no means a cause of concern for the whole village. So, just how did this one case become an epidemic?

In his letter to the medical officer, notifying him of the case, Dr. Scatterty was clear that:

... [Mr. Brigg] had arrived from London with the disease upon him. There was therefore no suspicion of anything wrong with the sanitary conditions of the Hall, and no need for any special attention. ... the stools were being thoroughly disinfected, and all precautions taken.

Unfortunately, the good doctor was wrong on both counts. A combination of poor sanitation and inadequate precautions would lead to disaster.

The drains at Kildwick Hall

The report to the RDC found that waste from the WCs at Kildwick Hall passed into a stone drain, which took it down the hill, past the water tank that supplied the village, and emptied into the canal.

Once the outbreak had taken hold, it was discovered that the integrity of both this drain, and the stone channels conveying water to the village supply tank were compromised: with both being badly broken. Analysis would show that water poured down a WC at the hall would appear in the village water supply within 15 minutes.

Clearly, any infected material put down the drain at the Hall would contaminate the village supply.

Treatment of waste

The probable contamination of the village water supply with waste from Kildwick Hall was clearly an issue but, presumably, a long-standing one. It surely didn't matter that cross-contamination could occur, if all the waste from the Hall was being treated adequately before it was disposed of?

Unfortunately, what Dr. Scatterty described as being the "thorough disinfection" and "all the necessary precautions", were not sufficient to render the material which he then tipped down the drain safe.

The meeting was told that although Dr. Scatterty was himself a local authority Medical Officer, being the Medical Officer for Keighley and senior doctor at the Joint Bingley and Keighley Isolation Hospital at Morton Banks⁹, he did not follow what were the standard procedures of the time for the disposal of infected material: namely burning or treatment with perchloride of mercury, followed by burial. Instead he was treating excrement with carbolic acid for just half-an-hour, which was quite insufficient, before tipping them down the drain.

How the epidemic took hold (December 24th 1898 – January 16th 1899)

As has already been described, the water supply for the lower part of Kildwick came from a tank situated on the hillside above the village.

Water was piped into individual houses in Church Terrace (the name used at the time for the row of houses at the bottom of Priest Bank Road that back directly onto St. Andrew's churchyard), Main Street, the White Lion Hotel, and the school. It also supplied the village water-trough, located by the church steps.

Once the infectious agent was present in the village water supply, an epidemic was inevitable. The only questions were when it would all start and how far it would spread?

The initial mis-diagnosis of Mr. Brigg, and the subsequent assurances of Dr. Scatterty, meant that no one in the village was remotely aware of what was coming their way. The Christmas and New Year festivities went on as normal.

As the Keighley News reported¹⁰:

Kildwick – Children's Concert – The annual entertainment was given was given by the scholars of Kildwick National School on Saturday evening [December 17^{th}] in the presence of a full audience. The first part of the programme consisted of action songs, recitations, nursery rhymes, and a musical bell drill by the infants. The second part included songs etc. from Polly Green, Beatrice Hartley, M. Tillotson, A. Daffen, Ada Mosely, Harry Slater, Joseph Green and Fred Dixon. The successful entertainment was concluded with a musical medley.

Presumably the customary refreshments were made available during the interval: prepared using the school's, by now contaminated, water supply. One of the named participants would die in the epidemic.

On New Year's Eve 1898 a significant public event was held in the school, as was reported in the Craven Herald¹¹:

Kildwick – St. Andrew's Sunday School – On Saturday evening last [31st December 1898] the annual public tea was provided in the school. 200 persons sat down to a repast provided by Mrs. T. Tillotson.

This is remarkable, and very disturbing in hindsight, as the entire population of Kildwick was less than 150 (144 recorded in the 1891 census; 145 in 1901). It seems likely that almost the whole of Kildwick and some of Farnhill must have drunk infected water that day.

Later, in the Craven Herald report of the event and in the Keighley News¹², details are included of the entertainments provided by the villagers themselves; including: singing, recitations, piano-playing, and a lantern show. From these reports we know the names of some of those present. We also know that many of them will subsequently fall ill, and two of these will be dead within the month.

On January 2nd, a dinner was held at the White Lion Hotel attended by members of the local Cattle Club. A certain Mr. Hill of Bradley, a strict tee-totaller, stuck to his principles and drank only water all evening – and would later become a confirmed typhoid case¹³.

The first case of typhoid in Kildwick village was reported on January 12th; the victim was Stanley Baldwin. He was one of those known to have attended the village tea on December 31st, where he had entertained everyone with his singing. He, his brother and sister, lived with the Tillotson family in Church Terrace (Mrs. Tillotson was his sister). He was immediately taken to the isolation hospital in Keighley, known as Morton Banks, where he died on Sunday January 15th.

His death was reported in the Keighley News¹⁴:

Kildwick – A Funeral in Place of a Wedding – On Sunday afternoon last the death occurred under painful circumstances of Mr. Stanley Baldwin, aged twenty-two, of Kildwick, at the Keighley and Bingley Infectious Diseases Hospital. The deceased had been taken to hospital a few days earlier suffering from typhoid fever. His relatives were hastily summoned to the hospital ... but death had taken place prior to their arrival. The banns of the deceased's marriage had been read for the third time at the Kildwick Parish Church in the morning. In fact, preparations for the marriage had got quite advanced, and the choir of the church had met to decide on the form their gift should take. Mr. Baldwin had been a useful member of the choir, having been connected with it since boyhood. The affair cast a gloom over the neighbourhood, and a deep sympathy is felt for the bereaved fiancée and relatives. The funeral took place at the Burial-ground, Kildwick, on Wednesday afternoon [January 18th]. The choir attended in good numbers, and provided a detachment of bearers ... The vicar, the Rev. A. D. C. Thompson, officiated, and at the close he referred briefly to the particularly sad nature of the occasion ... At the grave-side the choir sang "Lead, kindly light" amid a touching scene. A muffled peal was subsequently rung on the church bells. The choir sent a beautiful wreath of white flowers.

One case does not constitute an epidemic and, as has already been mentioned, isolated cases of rural typhoid were not uncommon. Only when there are multiple cases, in different households, does the situation change.

But on January 16th came reports of further cases in the village – made independently by Dr. Scatterty and Mr. Rodwell, the council surveyor. They were:

- Mary Ann Tillotson (aged 40) Stanley Baldwin's sister, and the Mrs. Tillotson responsible for the parish tea described above.
- Another, unnamed, member of the Tillotson household. (Research for this article suggests
 this is likely to have been Marjorie Tillotson (aged 10), one of those who performed in the
 children's concert on December 17th.)
- Martha Petty (aged 76) The landlady of the White Lion Hotel, opposite the Tillotson house.

A total of four cases, in two households; with one death. The epidemic had started.

What next – can you help?

Do you or your family have any additional information on the Kildwick typhoid epidemic? If so, the Farnhill and Kildwick Local History Group would like to hear from you. Please email admin@farnhill.co.uk.

References

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- 7 http://www.antiquusmorbus.com/English/EnglishT.htm
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- 9 "Isolation or Isolated? Morton Banks Hospital, 1890 1920; Frank Atkins, MA thesis in Social and Cultural History, School of Cultural Studies, Leeds Metropolitan University, 2006
- 10 Keighley News, December 24th 1898
- 11 Craven Herald, January 6th 1899
- 12 Keighley News, January 7th 1899
- 13 Craven Herald, February 10th 1899
- 14 Keighley News, January 21st 1899