

# King Cholera

**How did cholera spread?**

**How was cholera treated in the 1800s?**

**What sorts of things were used to prevent Cholera from spreading in the 1800s?**

**What was the impact of cholera on public health and understanding of disease in the 1800s?**

*Pupils will answer all these questions and more by following the spread of Cholera through Worcester using a wide range of sources.*

# **Teacher Guide**

## King Cholera

### Activity 1 (10 minutes – 2 minutes per object)

On the presentation are objects which might have been used by the residents of Worcester during the outbreak of Cholera.

Working as a whole group, consider the objects on the presentation and decide the following:

1. Was this object a prevention or cure?
2. What was it supposed to do?
3. Did it work?

Each object appears on the screen with the questions below. It is your job to simply reveal each of the answers after a minute on each one.

<b>Object</b>	<b>Prevention or cure?</b>	<b>What was it supposed to do?</b>	<b>Did it work?</b>
<i>Lavender oil</i>	Cure and prevention	Calm patient and prevent spread of miasma	Would have had a calming effect but did not cure or prevent the disease as such
<i>Beer</i>	Prevention	If beer was drunk rather than water, they would obviously avoid drinking in the infection	Yes but looked down upon as something for the lower classes
<i>Brandy</i>	Cure	To strengthen	Could have helped by obviously did not 'cure'
<i>Salt water</i>	Cure	Replace lost salts	Worked but was rejected as an idea at the time!
<i>Mustard</i>	Cure	Emetic/purgative	No and would have made patients even more weak
<i>A meal</i>	Cure	To strengthen	This did not help as no vegetables or fresh fruit would have been allowed for patients
<i>Lime wash</i>	Prevention	Victorians believed that this would make dwellings more clean and free from disease	No
<i>Gunpowder</i>	Prevention	Was blown up on street corners to remove miasma from the air	No

### Activity 2 (20 minutes)

1. Divide the class into 4 groups.
2. Students read the addresses of the people who were dying of Cholera and mark these locations on the map.
3. Get the students to look *closely* at the map and the names as these can be difficult to read.
4. Can they see if there are any locations where the majority of people are dying. Why is this? They have hints on their worksheets for places.
5. Run through the summary questions for this activity as a whole group. Use the map on the PowerPoint presentation to run through these questions

- ◆ Where did most people die?
- ◆ What sorts of houses were these people living in? Did they spot all of the courthouses?
- ◆ What can we learn about Cholera from the completed maps?

### **Activity 3 (25 minutes)**

1. This activity covers the 1848 Public Health Act.
2. It is quite straightforward; students get 10 minutes to read their groups sources and answer the questions in their own group:
  - ◆ What does each source tell you about living conditions?
  - ◆ What can each source tell us about attitudes to public health?
3. Then share their group's sources with the rest of the group to answer the following questions as a whole.
  - i. Do any of the sources reveal what people thought were the problems with public health?
  - ii. Do any of the sources show us that people were thinking about recommendations for change?
  - iii. What have people started to understand about public health?
  - iv. What was done about it?
  - v. Did the health of the public get better straight away? If not, why not?

# **Student Worksheet**

# King Cholera

## Activity

1. Read through the Parish Register and find out where people were dying from cholera.
2. Put a mark on the map for each person on the register.

## Helpful hints!

-  **Pinch:** West of the river, near the bridge, in fields just north of St Johns Road
-  **Square:** At the bottom of Henwick Hill, where St Johns joins St Johns Road
-  **Bridge Place:** At the bottom of Hylton Street, near the bridge
-  **Dowlday:** Doldey Road
-  **Blockhouse:** Block House fields, by Clap Gate
-  **Tanners Yard:** Off The Butts, leading down onto Doldey Road
-  **Spring Gardens:** Between New Street and City Walls

Where did most people die?

What sorts of houses were these people living in?  
Can you spot all of the court houses (back-to-backs)?

What can we learn about cholera from your completed maps?

### Activity 3

Each group has been given a different variety of sources relating to Cholera and the epidemic in Worcester.

1. Share the sources given to your table with your group

What does each source tell you about living conditions?

What can each source tell you about attitudes to public health?

...then...

2. Share the information with the rest of the group

**For you to think about...**

-  Do any of the sources reveal what people thought were the problems with public health?
-  Do any of the sources show us that people were thinking about recommendations for change?
-  What have people started to understand about public health?
-  What was done about it?
-  Did the health of the public get better straight away? If not, why not?

# **Activity 2**

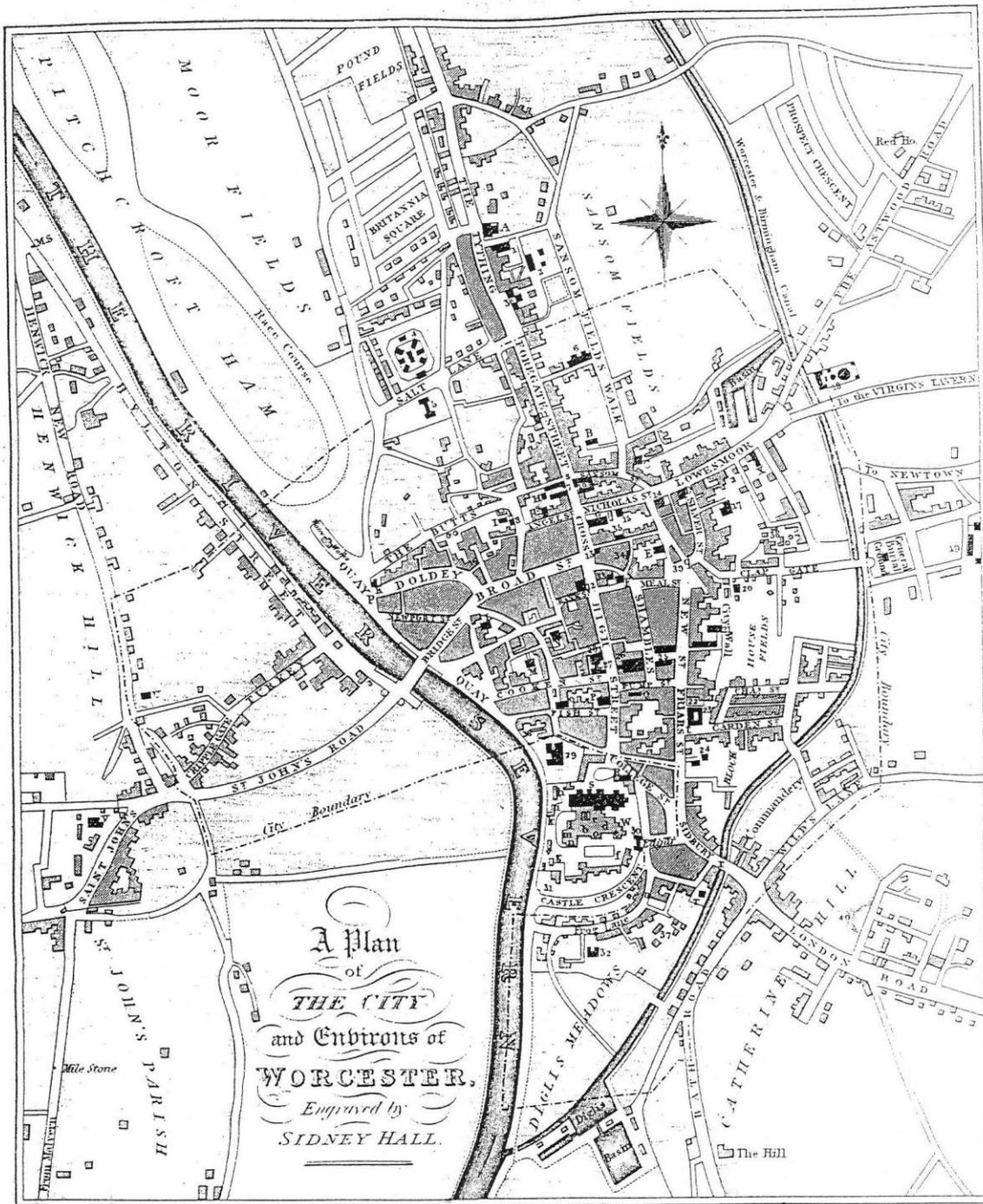
# **Resources**

Death Register (print A3 one per 3-4 students)

INTERMENTS IN THE NEW CITY BURIAL GROUND, IN THE PARISH OF ST MARTIN, WORCESTER

NAME	RESIDENCE	PARISH	WHEN BURIED	AGE	BY WHOM SERVICE PERFORMED.	AMOUNT RECEIVED.
William Watkins	Pinch	St Clement	July 16	55	Rev Mr. J. Davies	5
Richard Pinyree	"	"	" "	48	" " "	5
William Baldwin	"	"	" 17	29	" " "	5
Emma Perks	"	"	" 21	29	" " "	5
William Craven	Square	"	" 27	36	" " "	5
Henry Bull	Bridge Place	"	" 28	20	Rev Mr. Adlington	5
Mary Brinton	" "	"	" 29	54	" " "	5
John Brinton	Downday	All Saints	" 31	55	Rev Mr. Tho. Davis	5
Harriet Hooshall	Blackhouse	Extraparochial	Aug 3	23	Rev Mr. Hemming	5
John Hooshall	Bridge Place	St Clement	" 4	25	Rev Mr. J. Davies	5
Elizabeth Craven	Square	"	" 5	4	Rev Mr. Adlington	5
William Johnson	Downday	All Saints	" 6	24	Rev Mr. Tho. Davis	5
Jane Dayus	Turkey	St Clement	" 10	39	Rev Mr. Adlington	5
Martha Powell	"	"	" 10	27	" " "	5
Samuel Dayus	"	"	" 10	40	" " "	5
Thomas Barber	"	"	" 12	13	" " "	5
John Tilt	Tanners Yard	All Saints	" 12	35	Rev Mr. Tho. Davis	5
Martha King	Turkey	St Clement	" 13	46	Rev Mr. Adlington	5
John Sheen	Square	"	" 14	15	Rev Mr. Davies	5
Martha Barber	Turkey	"	" 15	12	" " "	5
Charles Harcourt	Spring Gardens	St Martin	" 16	51	Rev Mr. Tho. Davis	5
James Sommers	Cripplegate	St Clement	" 22	60	Rev Mr. J. Davies	5

Map of Worcester (print A3 one per 3-4 students)



REFERENCE

CHURCHES & CHAPELS &c.

- A St. Oswald's Chapel
- B Quakers Meeting
- C Roman Catholic Chapel
- D Baptists Meeting
- E St. Martins Church
- F St. Swithins Church
- G St. Nicholas Church
- H Berkeley's Chapel
- I Angel St. Chapel
- K Site of St. Clements Church
- L All Saints Church
- M St. Andrews Church
- N Lady Huntingdon's Chapel
- O St. Albans Church
- P St. Helens Church
- Q Wesleyan Chapel
- R St. Michaels Church
- S The Cathedral
- T St. Peter's Church
- U St. Clements new Church

- V St. John's Church
- W Deanery
- X Lowesmoor Chapel
- a Cloister b. College Hall or Kings School c. Library & Chapter House d. Audit Hall e. f. g. h. i. k. l. m. n. o. p. q. r. s. t. u. v. w. x. y. z.

PUBLIC BUILDINGS.

- 1 St. Oswald's Hospitals
- 2 Goulbourn's Hospitals
- 3 Shevrins' Hospitals
- 4 County Goal
- 5 Infirmary
- 6 Inglethorpe's Hospital
- 7 Berkeley's Hospital
- 8 City Library
- 9 Theatre
- 10 Hop Market
- 11 Post Office

PUBLIC BUILDINGS.

- 12 Old Bank
- 13 Farley's Bank
- 14 The Depot
- 15 The Savings Bank
- 16 Black Friars
- 17 Moor's Hospital
- 18 Gas Works
- 19 House of Industry
- 20 Charity School
- 21 Nash's Hospitals
- 22 Site of the Grey Friars
- 23 City Goal
- 24 Wyatt's Hospital
- 25 Garden Market
- 26 Market House
- 27 Guild Hall
- 28 Town Clerk's Office
- 29 Bishop's Palace
- 30 Edgar's Tower
- 31 Site of Castle Hill

PUBLIC BUILDINGS.

- 32 Charity School
- 33 Queen Eliz<sup>d</sup> Free School
- 34 D<sup>o</sup> Hospitals
- 35 Reservoir to Water Works
- 36 Barr's China Manufactory
- 37 Chamberlains D<sup>o</sup>
- 38 Graingers D<sup>o</sup>
- 39 The Corn Market
- 40 Site of the Fort Royal
- p Site of St. Clements Gate
- q D<sup>o</sup> of St. Martins Gate
- r D<sup>o</sup> Sidbury Gate
- s D<sup>o</sup> Foregate
- t D<sup>o</sup> Friars Gate
- u D<sup>o</sup> Frey Gate
- v Friary Gate

City Boundary - - - - -

# **Activity 3**

## **Resources**

## **Group 1 Sources** (*Print 1 set for the whole group*)

### **Samuel Smiles (1882) Self Help from the Modern History Sourcebook** (<http://www.fordham.edu/halsall/mod/1882smiles.html>)

"Heaven helps those who help themselves" is a well-trying saying, embodying in a simple saying the results of vast human experience. The spirit of self-help is the root of all genuine growth in the individual; and, exhibited in the lives of many, it shows the true source of national vigour and strength. Help from without is often defeatist in its effects, but self-help from within nearly always invigorates the soul. Whatever is done for men or classes, to a certain extent takes away the stimulus and necessity of them doing things for themselves; and where men are subjected to too much guidance and government, the inevitable tendency is to make them completely helpless."

### **Hull Board of Health (1831) Issued this statement, it was a feeling shared by much of the Upper Classes in England at the time.**

"The Board recommends you abstain from over use of all spirits and liquors, it having been found that persons addicted to drinking these substances and of partaking in other irregular habits have been the greatest sufferers from the disease (cholera)."

## Worcester workhouse

In 1703, a local Act of Parliament the Worcester: Poor Relief, Burial Ground and Hopmarket Act was passed by Parliament. The Act provided for a Court of elected Guardians to administer poor relief on a city-wide basis, including the erection of a workhouse in the old Foregate gate house.



Former Worcester All Saints parish workhouse on Doldey, c.1930

## Worcester workhouse after 1834

Worcester Poor Law Union was formed in 1836. Its operation was overseen by an elected Board of Guardians. The new union took over the existing workhouse buildings at Tallow Hill which were adapted and enlarged. A separate infirmary was erected at the south of the site. The site layout at this period is shown on the 1888 map below:



Worcester workhouse site, 1888.

## Worcester workhouse at 1894

The layout of the 1894 workhouse is shown in the 1904 map below. It fronted onto Tallow Hill to the north, and was bounded by the Hill Street to the west and Midland Road to the east.

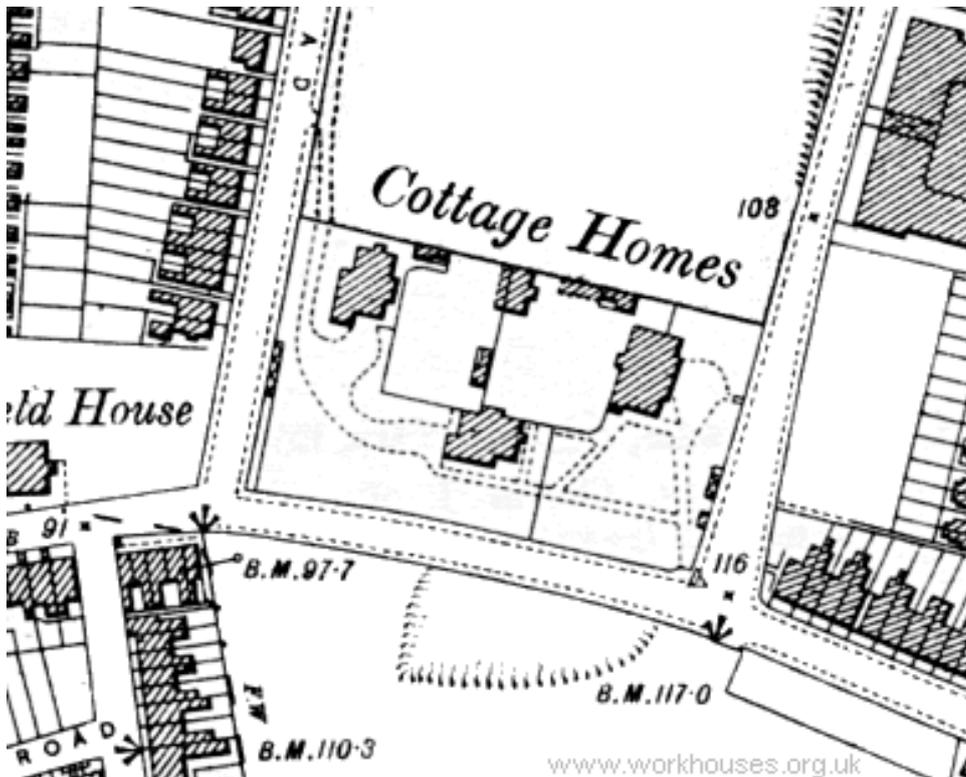


Worcester workhouse 1904

## Group 2 Sources (Print 1 set for the whole group)

### Cottage Homes

The Union operated some children's cottage homes on a 2.5-acre site to the south of the workhouse on the north side of Wyld's Lane, between Stanley Road and Midland Road. The homes were built in 1893-4 with their foundation stone being laid on the same day as that of the new workhouse.



A description of the new homes appeared in Berrows Journal on the 6<sup>th</sup> October, 1894:

“The three blocks which form the Cottage Homes have anything but a Workhouse-like appearance.

“They are erected at the end of Midland Road, on a high level and, in all the glory of the red and blue bricks, resemble rather three palatial villa residences. The style is Gothic. Every effort has been made to avoid any suggestions of pauperism...

“The buildings are fitted according to modern ideas. Each of the Homes have proper lavatory and bathroom provision in their separate establishments. Small dormitories contain from 5 to 7 or 8 beds, and each child occupies a separate bed, this arrangement extending to the Infants' Home...

“Everything is clean and tidy, smart and in proper order – perhaps the training is better than in most homes.”

## Recommendations for change

1. In 1832 cholera struck the city, and while recommendations were made to improve the sanitary conditions in the city centre, the Health in Towns Society reported in 1849 that only one mile of new sewers had been laid, and that the poor were living in courts of five to 20 houses, served by one or two privies emptying into a central cess pit which itself was emptied perhaps once every six months - the worst areas lying between the High Street and the river, in the then derelict medieval suburb.
2. Fresh water was a problem, and in 1851 only a third of the city was supplied with this - much of the system reliant on wells which were liable to contamination from nearby cess pits. While the 1780 Waterworks Act had prompted the construction of a pumping facility on the north of Pitchcroft to take water from the Severn to a reservoir in The Trinity (the old tower, on Tower Road, demolished in the 1960s) - later supplemented by a steam driven pump erected on the Quay in 1807 (which continued in use until the late 1850s) - these measures were inadequate for the urban population which by then had grown to 27,000.
3. Finally, in 1858, a new plant was built north of the old works on Pitchcroft pumping purified water to an 850,000 gallon holding reservoir at Rainbow Hill (another was later built at Elbury Hill). The quality of urban life was additionally improved in 1894 when the City Council transformed the Powick Mills on the Teme, adjacent to the bridge, into a combined steam and water driven hydro-electric facility (an experimental design and the first of its kind). Electricity from this provided about half the city's needs, with additional power coming on line in 1902 from the Worcester Power Station on Hylton Road (by the river on the east bank). This more powerful facility soon became the city's main source of electricity, although the Powick site continued generating until the 1950s.

## **Edwin Chadwick**

Chadwick was asked by the government to draw up a report on living conditions in Britain's towns and cities. The official report, "The Sanitary Conditions of the Labouring Population", published in 1842, was of great importance in terms of forcing change.

Within the report, Chadwick made a link between poverty, squalor and disease.

## **The Health of Towns Association**

The Health of Towns Association was formed in 1844 as a cross party political pressure group. Its aim was simple; it wanted to put pressure on the government to introduce legislation that would improve the quality of public health in Britain's towns and cities.

The association came about at a time when the government was investigating the conditions in towns.

The association placed pressure through use of its members' political links. They placed pressure on government to implement legislation that would require action to be taken.

## **Group 3 Sources** (*Print 1 set for the whole group*)

### **The 1848 Public Health Act**

The Public Health Act of 1848 was the outcome of both Chadwick's Sanitary report and the pressure applied on Parliament by the Health of Towns Association.

The legislation went some way towards achieving the goals of Chadwick and the Association. The main features of the act were:

- The establishment of a Central Board of Health
- Responsibility for water supplies and drainage, amongst other things, were given to corporations
- Permission was granted to towns that did not have corporation status to have a Local Board of Health
- Taxes would be levied, locally, to pay for the improvements
- Where the death rate exceeded 23 in every 100, a Local Board of Health could be imposed by the Central Board of Health

"The cottages in the neighbourhood were of the most wretched kind, mere hovels, built of rough stone and covered with ragged thatch. The wife's face was dirty, and her tangled hair hung over her eyes. Her cap was ill-washed and slovenly put on. Her whole dress was very untidy, and looked dirty and slatternly; everything about her seemed wretched and neglected and she seemed very discontented. She immediately began to complain of her house. The wet came in at the door of the only room, and when it rained, through every part of the roof also: large drops fell on her as she lay in her bed: in short she had found it impossible to keep things in order, so she had gradually ceased to make any exertions. Her condition had been borne down by the conditions of the house."

Edwin Chadwick

The Sanitary Conditions of the Labouring Population



## **Report of Henry Austin Esq. ... On The Sanitary Condition of the City of Worcester, 1847**

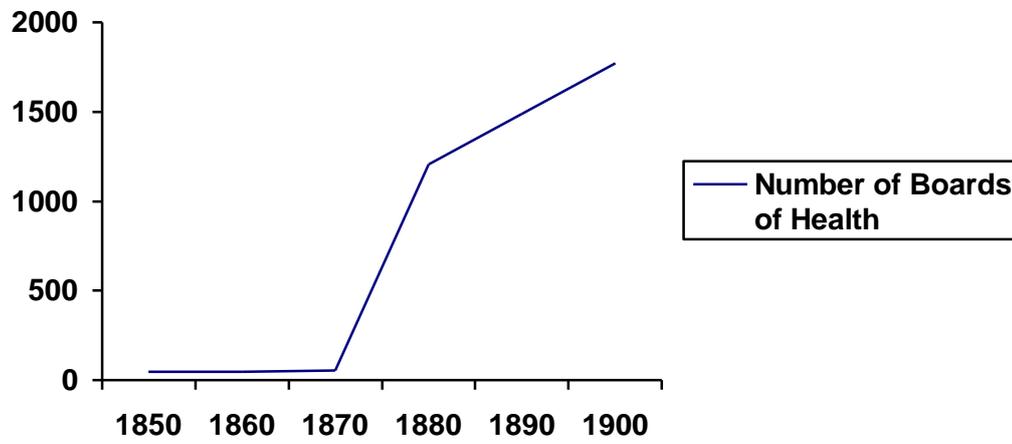
“As long ago as 1837 it was stated as a notorious fact... that “a considerable and populous district of the city is rendered unhealthy by the want of proper drains and culverts for the conveying of water” and as the remedies requested by the town and granted by the act have not been applied, the past ten years have added considerably to the evil.”

“The meadows of Pitchcroft, and the partially inhabited lands in St Clement’s beyond the river, are also low, marshy, and entirely undrained. They are all the seats of various fevers at this time, and were ravaged by cholera in 1832. The lowest part of St Clement’s is not the river bank, but a sort of valley parallel to the river, 200 yards from it.”

“In St Clement’s, beyond the bridge, in the very court in which cholera broke out in 1832, and in which it raged more violently than anywhere else in Worcester, the place remains as it then was, and amply justifies all the complaints that have been made of it.”

“In St Clement’s, the cholera broke out at its last appearance, and on visiting the house and court in “the Pinch”, it seemed highly probable that it might break out again. In one of these yards is a privy, a cesspool, a blocked up drain, and a pump yielding tainted water, all standing within a line of 15 feet. In another place the night soil was seen oozing through the walls into a house. The woman had recently buried a child, whose death the medical man attributed to this cause.”

## A Graph Showing the Number of Boards of Health From 1848 – 1900



**Group 4 Sources** (*Print 1 set for the whole group*)

**Report of the Worcester Board of Health, touching the measures to be taken for the prevention of cholera.**

“The Board beg to state, that nothing is more likely to cause cholera and other contagious diseases than a state of destitution: the body suffering from want. They, therefore, earnestly recommend that the Soup house be opened as soon as circumstances will admit; and that the soup be made without green vegetables, but with a large portion of meat, rice, barley and other nutritious ingredients. It will also be necessary that steps be taken to supply the poor with flannel, blankets, and other comforts of the like description, at reduced prices, to ensure warmth of clothing. One more suggestion the Board feel it a duty to make, is, that benevolent individuals will consider the means of providing some healthful occupation for those, who, because of the difficulties in the glove trade, are thrown out of employment. There is no surer way of preserving health, both mentally and bodily, than regular and sufficient employment.”

## **Robert Streeton: Physician to the Worcester Dispensary, Writing After the Outbreak**

The first case of cholera was reported on the 14<sup>th</sup> of July. The patient was a man, 56 years of age, of the name of Watkins, a collector of rags, and he resided in the Pinch, a low confined situation on the banks of the River Severn, consisting of about twelve or fifteen small, dirty, ill-ventilated houses, closely crowded together, and placed in two rows, facing each other... At the back of the Pinch are some large ditches which, in land, are full of stagnant water, and are, especially in the Summer time extremely offensive.

### **Berrows Worcester Journal, 19<sup>th</sup> July 1832**

We are sorry to announce that cholera has appeared in this city. The first case, on Saturday was that of William Watkins. Watkins, aged 56, lived in a place called The Pinch, at the back of Bridge Place, Hylton Street, and near the Severn. He became ill at one o'clock on Saturday morning; the doctor was called between 10 and 11, by this time he was confused; his face, hands and feet had a bluish colour, fingers and toes curled up; he complained of severe pain in his stomach; the skin was cold and there was no pulse in the wrist, his voice was a whisper; his tongue cold. He was in perfect health the day before; he ate a lot of cold new potatoes for supper, but was well at bedtime; at 1.00am he was seized with violent vomiting and diarrhoea, cramp in the legs, and pain in the stomach, the matter brought up and passed by the bowels was thin, colourless and watery, and he passed no urine. In spite of medical assistance, he died about 5 o'clock in the afternoon 16 hours from the beginning of the attack. Watkins was a travelling metalworker, but there is no evidence that he has been in contact with any cholera sufferer.

### **Berrows Worcester Journal, 19<sup>th</sup> July 1832**

On Saturday afternoon a strong young man, called Bishop, 24 years old, fell ill in the market vomiting. When the doctor saw him, his symptoms were the same as Watkins'. He now has severe fever. He is not likely to recover. He had arrived here on Friday in a boat from the Staffordshire Coal mines, where some people have cholera. He was drunk the evening before he fell ill, and had diarrhoea for two days that did not get treated.

On Sunday morning, at 2.00am, a man named Pingree, aged 48, living in the house behind Watkins', was ill with similar symptoms. When the doctor saw him at 8.30, he looked similar to Watkins, general blueness all over the body; cramps and pain and severe diarrhoea; he was conscious and remained so until death, which took place at 11.30am, nine hours after the attack. Pingree was a very poor man and weak in health. He had not been in Watkins' house, but his wife had been with Watkins frequently. The postmortem confirmed that cholera was present.

### **Berrows Worcester Journal, 3<sup>rd</sup> February 1848**

#### **Mortality Rates**

The Registrar General's report for the week ending Saturday, the 22<sup>nd</sup>, shows that a rate of mortality, which considerably exceeds the average continues to prevail... Among the deaths from external causes in the previous week is that of a child, who died in the subdistrict of Bow from 'fits caused by disease augmented by pestilent air, from bad drainage', according to the coroner's verdict.

## **Henry Mayhew Morning Chronicle 24th September 1849**

“As we passed along the reeking banks of the sewer the sun shone upon a narrow slip of the water. In the bright light it appeared the colour of strong green tea, and positively looked as solid as black marble in the shadow - indeed it was more like watery mud than muddy water; and yet we were assured this was the only water the wretched inhabitants had to drink.

As we gazed in horror at it, we saw drains and sewers emptying their filthy contents into it; we saw a whole tier of doorless privies in the open road, common to men and women, built over it; we heard bucket after bucket of filth splash into it, and the limbs of the vagrant boys bathing in it seemed by pure force of contrast, white as Parian marble.”

**The Report of the Worcester Board of Health, touching the measures taken for the prevention of cholera. Transactions of the Provincial Medical and Surgical Association, Vol 3 p. 225, 1831**

The nuisances chiefly complained of as offensive and injurious, are privies and mixens, dirt heaps of various descriptions, cesspools, drains, ditches and stagnant water, pigsties and the dirty state of the interior of the houses.

With respect to the privies, they were very generally found to require emptying, and, in many instances, were in an extremely offensive state. Some of them full even to the exuding of their contents through the floors, the whole building, seat, floor and even outside the door, being made a convenience of. Those belonging to Boyce and Criffiths' buildings, in Merrivale; the building on the corner of Moor Street; Crown Court, Clap Gate; the Wagon and Horses, in Angel Street; St Andrew's Square, and some in the Bull Entry, under the very walls of Birdport Chapel, may be especially noticed as being peculiarly offensive.

Some of the mixens and dirt heaps were found in a very bad state, and are considered to be exceedingly injurious, in consequence of the admixture of decaying vegetable matters, and the semi-fluid state in which they are kept. It is impossible to find words in which to describe the offensive state of many of this class of nuisances. The mud pot behind the Archangel, in Fish Street, the bog-hole in St Andrew's Square; the soil heaps in Crown Court, clap Gate; and the general state of Farley's entry, in the Shambles, where the manure and filth of all descriptions, remains until it is perfectly alive, may be particularly referred to. The horse mixens and stable yards were much complained of by the inhabitants in their neighbourhood, and one in Bank Street was particularly pointed out.

Many of the drains and sewers in various parts of the town, have been found to be choked up. A drain belonging to the Wagon and Horses, in Angel Street, is much complained of; and the main sewer in Quay Street has been stopped, in consequence of the heavy weights being drawn over the street crushing in the brickwork; of course the whole of the neighbourhood suffers. Some very offensive ditches and collections of stagnant water have been found to exist, such as a ditch at the back of the Moors; that in Withy Walk. A very bad ditch below the distillery, and at the back of Mr Rowland's house, in St Clements' parish; and the ground in front of Bromley's buildings, in Lowesmoor, is in a shocking state.

Mixen = dung heap