The Medical Pioneers of Nineteenth Century Lancaster

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Edited by

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This book is dedicated to the Pioneers at Lancaster Medical School

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List of Abbreviations

BOH	Board of Health
FRCP	Fellowship of the Royal College of Physicians
FRCS	Fellowship of the Royal College of Surgeons
GMC	General Medical Council
HOR	House of Recovery
LMBC	Lancaster Medical Book Club
LRGS	Lancaster Royal Grammar School
LRCS	Licentiate of the Royal College of Surgeons
LRO	Lancashire Record Office
LSA	Licentiate of the Society of Apothecaries
MOH	Medical Officers of Health
MD	Doctor of Medicine
MRCS	Membership of the Royal College of Surgeons
MRI	Manchester Royal Infirmary
NHS	National Health Service
RCPsych	Royal College of Psychiatrists
RCS	Royal College of Surgeons
RLI	Royal Lancaster Infirmary
SAC	South African College
TB	Tuberculosis
WSA	Worshipful Society of Apothecaries

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CHAPTER ONE

INTRODUCTION

QUENTON WESSELS

Modern medicine in England as we know it today is chiefly the product of the scientific developments of the nineteenth century.[1] These advances included improved sanitation, the acceptance of the germ theory of disease as a result of the emergence of microbiology, and the advent of painless and routine surgical procedures.[2] Strides were made towards the understanding of the relationship between the structure of the human body and the function of the various organs and systems.[3] These innovations greatly enhanced the life expectancy of many across Great Britain and Europe. The scientific revolution also changed the study of chemistry and would challenge the classical four humours and humoralism of ancient Greek medicine.[4] The in depth study of chemistry also led to the isolation of many invaluable formulations including: atropine, codeine, digitalis, iodine, morphine and quinine.[5]

Great Britain witnessed a surge in aspiring medical professionals and around 8,000 university-educated men entered the profession between 1801 and 1850. This coincided with the rise in the country's population and various dispensaries, fever hospitals and infirmaries were established to address the health needs of the growing population.[6] The latter half of the century was marked by an exponential rise in the advances in modern

1. William F Bynum, *Science and the Practice of Medicine in the Nineteenth Century* (Cambridge: Cambridge University Press, 1994), 218-226.
2. Bynum, *Science*, 218-226.
3. Roy Porter, *The Greatest Benefit to Mankind: A Medical History of Humanity from Antiquity to the Present* (London: Harper Collins Publishers, 1999), 304-337.
4. Bynum, *Science*, 218-226.
5. James R Hanson, *Chemistry and Medicines: An Introductory Text* (Cambridge: Royal Society Of Chemistry, 2006), 1-19.
6. William F Bynum, *The History of Medicine: A Very Short Introduction* (Oxford: Oxford University Press, 2008), 46-53.

medicine. Clinical instruction and research became hospital-based and patients with comparable ailments were grouped together in the search for a diagnosis. Prior to this, medicine predominantly relied on book-based instruction. Hospital medicine had its origins in Paris around the turn of the eighteenth century.[7] This new model of the science of disease led to the identification, classification, and description of diseases. Post-mortem examination and the study of pathology provided an understanding of the mechanisms of disease.[8] New methods of examination allowed for the discernment between scarlet fever and other diseases such as diphtheria; syphilis from gonorrhoea.[9] Medical education changed drastically and the methods employed at the Parisian hospitals proved superior and enjoyed remarkable influence.[10] Humoralism, based on the teachings of the Greek physicians, was a medical philosophy that viewed illness as an imbalance in the body's fluids or humours. Scientific reasoning brought into question the classical teachings of Galen and Hippocrates.

Medicine became more focused on obtaining a diagnosis and the discovery of the stethoscope proved invaluable. René Théophile Hyacinthe Laënnec (1781-1826) improvised a stethoscope by rolling a sheet of paper into a tube. This allowed him to distinguish between the various chest symptoms such as pneumonia, bronchitis and tuberculosis.[11] The stethoscope would remain the primary non-invasive clinical instrument until the first clinical use of X-rays by John Hall-Edwards (1858-1926) in Birmingham, England on 11 January 1896.[12] Parisian medicine became accessible to England after the Napoleonic Wars. Medical education in Paris provided ample bedside instruction and sparked clinical reasoning. The methods of clinical instruction introduced by Herman Boerhaave (1668-1738) at Leiden, during the eighteenth century, were no longer the preferred choice. The Boerhaavian educational system was adopted by Edinburgh and many English-speaking medical students would later rush back home to

7. Ibid.
8. Ibid.
9. Bynum, *The History of Medicine*, 46-53.
10. Porter, *The Greatest Benefit*, 304-337.
11. Bynum, *The History of Medicine*, 46-53; John R. Scherer, "Before cardiac MRI: Rene Laennec (1781–1826) and the invention of the stethoscope," *Cardiology Journal* 14, no. 5 (2007): 518–519.
12. Geoff Meggitt, *Taming the Rays* (Lulu.com, 2008), 3, http://www.lulu.com/ca/en/shop/geoff-meggitt/taming-the-rays-ebook/ebook/product-20735474.html

introduce Boerhaave's method of bedside teaching.[13] However, Parisian medicine and the study of physiological principles took precedence and, as Porter stated (1999), "opened windows onto the laws of life…".[14] Thomas Hodgkin (1798-1866) serves as an excellent example. Hodgkin interrupted his studies at Edinburgh to travel to Paris and became a student of Laënnec. Hodgkin became one of the pioneering stethoscopists in England after his return to London in 1825.[15] He became a lecturer in morbid anatomy at Guy's Hospital and not only introduced the stethoscope but also presented the first systematic lectures in pathology. His detailed publication and classic description of the enlarged lymph nodes in seven patients would later bear his name as Hodgkin's Disease.[16]

The next major leap towards modern medicine came through laboratory investigations.[17] Scientific discoveries in the field of microbiology transformed the general understanding, management and prevention of disease. The efforts of John Snow (1813-1858), Louis Pasteur (1822-1895), Robert Koch (1843-1910) and Joseph Lister (1827–1912) serve as classical examples of the applications of scientific discoveries in medicine. Ground-breaking work in the laboratory was applied within the communities and hospitals. Mortality rates were significantly decreased through the combat of postoperative infections, the treatment of water and pasteurization of milk. Patients' expectations for medical care followed suit.[18]

How then did medicine evolve in Lancaster during the nineteenth century? The study of regional differences in the practice of medicine continues to add to the narrative of the medical landscape in England. However, local insights are particularly difficult to formalise due to a lack of information and the use of generalisations have been of significant value.[19] This volume aims to contribute towards the ever growing tapestry

13. Porter, *The Greatest Benefit*, 304-337; Andrew Cunningham, "Medicine to calm the mind: Boerhaave's medical system, and why it was adopted in Edinburgh" In *The Medical Enlightenment of the Eighteenth Century*, eds. Andrew Cunningham and Roger French (Cambridge: Cambridge University Press 1990), 40-66.

14. Porter, *The Greatest Benefit*, 304-337.

15. Ibid.; Marvin J. Stone, "Thomas Hodgkin: medical immortal and uncompromising idealist," *Proceedings Baylor University Medical Center* 18, no. 4 (2005): 368-375.

16. Stone, "Thomas Hodgkin", 368-375.

17. Bynum, *The History of Medicine*, 91-117.

18. Porter, *The Greatest Benefit*, 304-337.

19. Steven King and Alan Weaver, "Lives in many Hands: The Medical Landscape in Lancashire, 1700-1820," *Medical History* 44, no. 2 (2000): 173-200.

on the history of medicine in Great Britain during the nineteenth century. The focus here is the history of medicine in Lancaster and the thesis is simply to illustrate that a community of practice amongst a few medical professionals shaped Lancaster's medical landscape. Lancaster's surgeons and physicians formed a tightly-knit group of medical professionals. The concept of a community of practice that is proposed, i.e. a group of individuals who share a profession, is borrowed from the work of Lave and Wenger (1991) and rests upon situated learning. This theory centres on the acquisition of professional skills, knowledge and attitudes within a social domain.[20] The process of sharing information and experiences, both nationally and internationally, within the group allowed these men to develop themselves personally and professionally whilst serving the town.

The reader will be introduced to a few remarkable medical men and their names will gradually become familiar. Many of these individuals were second and even third generation practitioners. The subsequent chapters are aimed at hallmarking the main medical events in Lancaster and include the establishment of a Dispensary, which evolved into an Infirmary, the Public Health movement, and the rise of the Asylums. The work presented here is not a comprehensive account and it also has a less academic purpose; to pay homage to the city of Lancaster and its medical pioneers. It should be noted that professional medicine was traditionally dominated by men and the practical aspects of healing, i.e. nursing and midwifery, did not require higher educational training and were by large deemed the role of women. The gender divide in medicine continued until the pioneering work of Florence Nightingale (1820-1910), Elizabeth Blackwell (1821-1910) and Sophia Jex-Blake (1840-1912) towards the end of the century.[21]

Thus, the intent of this volume is to provide an account of the events that shaped Lancaster's medical landscape and highlight the interwoven network of individuals who served Lancaster. Background to these pioneers, as well as their successes and failures, will be sketched within the context of Lancaster's socio-economic environment and growth as an industrial town. The next two chapters collectively focus on Lancaster's medical landscape and thus the aspects of health and disease and the evolving medical market within the town. These chapters serve to provide a sketch of the health challenges and various options of treatment that were available. Chapter 4 deals with the rise of hospital medicine and the

20. Jean Lave and Etienne Wenger, *Situated learning: legitimate peripheral participation* (Cambridge: Cambridge University Press, 1991).
21. Shirley Roberts, *Sophia Jex-Blake: A women pioneer in nineteenth century medical reform* (London and New York: Routledge, 1993).

establishment of Lancaster's Dispensaries, House of Recovery and Infirmaries. Specific reference is made to the contributions of David Campbell (1749-1832) and Christopher Johnson (1782-1866) in the establishment of these institutions.

Chapter 5 addresses the world of the surgeons, the surgeon's apprentice, and the major advances in surgery within the town. Medicine in the community and the cholera outbreak of 1832, the Sanitary Reform, and the provision of clean water is reviewed in Chapter 6. The lives and contributions of Sir Richard Owen (1804-1892) and Edmund Sharpe (1809-1877) will be the primary focus. Chapter 7 considers the humane treatment of the mentally ill in Lancaster and this has been credited to the pioneering efforts of Samuel Gaskell (1807-1886) and Edward Denis de Vitré (1806-1878). Both men were the major reformers of psychiatric care at the Lancashire County Lunatic Asylum and the Royal Albert Asylum. Finally, Chapter 8 focuses on the life of Sir William Turner (1832-1916), a scientist, anatomist and reformer of medical education. Turner's students became anatomists at various international institutions and he shaped the future of Anatomy as a subject not only in the United Kingdom, but also across the world. The series of chapters presented here are interrelated and complement each other. We hope that this volume will inspire further research into Lancaster's fascinating medical history.

CHAPTER TWO

HEALTH, DISEASE AND SOCIETY

SIMRAN DASS, QUENTON WESSELS
AND ADAM M TAYLOR

Lancaster's unique geographical location affords it a rich cultural, economic and educational history.[1] Human settlement in the area can be traced back to the third millennium BC and the presence of humans in the area undoubtedly shaped the town over time.[2] The county town of Lancaster was once a leading port for trade with the West Indies but was detrimentally affected by the Napoleonic Wars. The town's economic decline was further exacerbated by the silting of the Lune, the falling wheat prices between 1818 and 1822, the opening of Liverpool's port, the collapse of two of the town's banks and the peak in the number of unemployed in 1824. Transatlantic commerce declined and the last recorded ship to dock at St George's Quay was in 1833.[3] Cabinet making by Gillow & Co prevailed through these turbulent times and Lancaster's recession fortunately came to an end and trade once more returned to the Lune. Economic growth gradually returned and was driven by the trade of Baltic timber, Irish grain and coastal, rather than transcontinental, trade through Glasson.[4] Lancaster served, in part, as a service centre for both North Lancashire and West Yorkshire. This was further aided by the

1. Jon Sparks, *Lancaster Through Time* (Stroud: Amberley Publishing, 2012).
2. Stephen H. Penney, *Lancaster: The Evolution of its Townscape to 1800* (Centre of North-West Regional Studies: University of Lancaster, 1981), 9-32.
3. Colin A. Russell, *Lancastrian Chemist: The early years of Sir Edward Frankland* (Milton Keynes, Philadelphia: Open University Press, 1986), 70-72; James Price, *Sharpe, Paley and Austin. A Lancaster Architectural Practice 1836-1942* (Centre of North-West Regional Studies: University of Lancaster, 1998, 14-77.
4. Russel, *Lancastrian Chemist*, 70-72.

opening of the town rail systems: the North Western in 1829; and the Preston Junction Railway in 1840.[5]

Lancaster steadily continued to develop into an industrial town from 1840 onwards and two family firms, one run by James Williamson and Sons and the other by William and Thomas Storey, provided employment at the canal side mills (Fig. 2-1 and 2-2).[6] Another boost to the economy came from the Lancaster Railway Carriage and Wagon Works (Fig. 2-3). The company was established in 1863 and produced trams and railway carriages, wagons, wheels and axles. Edward Denis de Vitré, MD (1806-1878), a local physician and one of the reformers of psychiatric care in the town, served as its first chairman. In 1865, the company moved into its newly-built premises. The building was designed by Edward Graham Paley (1823–1897) and was located between Caton Road and the River Lune.[7] The Company would end up employing around 1,800 individuals by 1880 and became the second largest employer after Williamson and Sons in Lancaster.[8]

The provision of medical and social services progressed as well and included the establishment of a Dispensary (1781), a County Lunatic Asylum (opened in 1816), the Royal Albert Asylum (opened in 1870) and the Royal Lancaster Infirmary (established in 1896) and the successor to the Infirmary at Thurnham Street. The history of these establishments are well documented and will be discussed in the chapters that follow.[9] Two orphanages, Ripley Hospital (opened in 1864) and Nazareth House (opened in 1902) were also established in Lancaster.[10]

Any attempt to portray the history of local medical cultures are worth exploring in their own right and has the potential to link multiple sources

5. Ibid.

6. Price, *Sharpe, Paley and Austin*, 14-77; Derek C. Janes, *Old towns and Cities: Lancaster*, (North Yorkshire: The Dalesman Publishing Company Ltd, 1974), 48-64.

7. Price, *Sharpe, Paley and Austin*, 14-77.

8. Ibid.

9. John K. Walton, Allan Hogg and Liz Hurley, "Lancaster Asylum in the 1850s and 1860s: Patients and Treatment." *Lancaster and Westmorland Medical Journal* 1, no. 3 (1990): 74-76; Elizabeth A.M. Roberts, "The Royal Albert Hospital: An Introduction." In *The Royal Albert: Chronicles of an Era*, ed. Joe Alston (Centre for North-West Regional Studies: University of Lancaster, 1992), 1-3; Peter Williamson, "From confinement to community: The story of 'The Moor', Lancaster's County Lunatic Asylum" In *Aspects of Lancaster*, ed. Sue Wilson (Barnsley: Wharncliffe Books, 2002), 123-138.

10. Price, *Sharpe, Paley and Austin*, 14-77.

and fill existing gaps.[11] In addition, such attempts might provide further insights into regional and local differences in health, perhaps shed light on doctor-patient ratios and explain local mortality rates. The latter were known to be extremely high between 1700 and 1900.[12] The aim of this chapter is to provide an overview of the medical landscape and health challenges of the population in Lancaster during the nineteenth century.

Fig. 2-1. The White Cross Oil Cloth Mill was established in 1856 by four brothers; William, Thomas, Edward and Joseph Storey. The Mill was the biggest employer in Lancaster at the time. The massive 3,300 ton chimney can be seen to the right.

11. Steven King and Alan Weaver, "Lives in many Hands: The Medical Landscape in Lancashire, 1700-1820," *Medical History* 44, no. 2 (2000): 173-200.
12. Roberts, "The Royal Albert Hospital," 1-3.

Fig. 2-2. The Lune Mills on the Marsh covered an area of circa 21 acres and the primary products were linoleum and oilcloth. The factory was established by James Williamson (sr) during the 1840s and his son, James Williamson (jr), took over during the 1870s. Williamson (jr) later became Lord Ashton.

Fig. 2-3. The machine shop at the Lancaster Wagon Works (established in 1863). The Company became the second largest employer in Lancaster. It closed in 1908 and the complex would later, in 1914, serve as an internment camp for enemy aliens of World War I.

Disease and Society

The latter half of the eighteenth century in Lancashire was marked by a rapid increase of the population in many of its towns and cities. The urbanisation came as a result of the growth of the various industries within the county. The population of Lancaster and its surroundings gradually increased from the fourteenth century onwards to reach a total of around 17,000 by 1781. This number included 3,811 families who occupied a total of 3,657 houses at the time.[13] In fact; the proportionate population growth in Lancaster surpassed that of the other counties in England. The overall expansion of Liverpool and Manchester largely contributed towards this but even with the exclusion of these cities, the county still ranked third in growth from 1790 onwards.[14] The population of Lancaster Township reached a total of 8,580 by 1785 and expansion continued to reach around 31,224 inhabitants by 1901 (Table 2-1).[15]

Table 2-1. Estimates of the population of Lancaster Borough, consisting of the Lancaster Township and Lancaster Castle, from 1801 to 1901 (adopted from Winstanley, 2001).[16]

Year	Lancaster Township	Lancaster Castle	Lancaster, Borough and Castle	Decennial Change (%)
1801	9,030	*	9,030	
1811	9,247	*	9,247	2.40
1821	10,144	*	10,144	9.7
1831	12,167	446	12,613	24.35
1841	13,531	558	14,089	11.70
1851	14,378	226	14,604	3.66
1861	14,324	163	14,487	-0.80
1871	17,034	211	17,245	19.04
1881	20,558	105	20,663	19.82
1891	26,380	61	31,038	50.21
1901	31,224	64	40,329	29.93

*The population of the Castle was included in the township totals

13. John G. Blacktop, *In Times of Need. The History and Origin of the Royal Lancaster Infirmary* (Lancaster: Privately Printed, 1995). 7.
14. King and Weaver, "Lives in many Hands," 173-200.
15. Michael W. Winstanley, "The Town Transformed, 1815-1914," In *A History of Lancaster*, ed. Andrew White (Edinburgh: Edinburgh University Press, 2001), 173-288.
16. Winstanley, "The Town Transformed," 173-288.

Edwin Chadwick (1800-1890), the renowned social reformer, appropriately stated that the history of Britain's towns, during the first half of the nineteenth century, is largely the history of tuberculosis and typhus.[17] The towns and cities of England had higher mortality rates compared to the countryside.[18] Lancashire, during the period 1760-1840, is thought to have had higher mortality rates compared to other counties and the most important diseases included typhus (putrid fever or gaol fever), influenza, typhoid and whooping-cough.[19] Evidence suggests that one contributing factor for these high mortality rates is general poor health that plagued various families throughout the county.[20] Health problems typically affected numerous members of any given family and not even the medical professionals were spared. The Turner family of Lancaster at Friar Street serves as an example. Sir William Turner (1832-1916), the famous anatomist and later Principle of Edinburgh University, was one of four children and the only child of William Turner (sr) and Margaret Turner to reach adulthood.[21] William's older brother, also named William, died after birth and it was not uncommon for two members of the family to receive the same name in the event that one dies during infancy. Turner's younger siblings, Mary Ellen (1834-1838) and Robert (1836-1851) succumbed to diphtheria and erysipelas, an infection of the upper layer of the skin, respectively.[22] Both of these conditions are the result of bacterial infection, but this would only be discovered towards the end of the century.

Additional insights to the health of Lancaster's residents come from the Dispensary records which was established in 1781 as a result of the efforts of David Campbell (1749-1832), a local physician and founder of the

17. Edwin Chadwick, *Report on the Sanitary Conditions of the Labouring Population of Great Britain and On the Means of Its Improvement* (Edinburgh: Edinburgh University Press, 1842).
18. Andrew Wear, *Knowledge and practice in English Medicine, 1559-1680* (Cambridge: Cambridge University Press, 2000), 12.
19. Steven King, *A Fylde country practice. Medicine and Society in Lancashire, 1760-1840* (Centre for North-West Regional Studies: University of Lancaster, 2001), 42-58.
20. King and Weaver, "Lives in many Hands," 173-200.
21. Quenton Wessels, Janine C. Correia and Adam M. Taylor, "Sir William Turner (1832-1916) - Lancastrian, anatomist and champion of the Victorian era," *Journal of Medical Biography* 24, no. 4 (2016): 500-506.
22. Arthur L. Turner, *Sir William Turner K.C.B, F.R.S.- A Chapter in Medical History* (Edinburgh and London: William Blackwood and Sons, 1919), 3.

Lancaster Medical Book Club.[23] One report, published in the *Lancaster Gazette* on Saturday 08 May 1819, stated that "186 patients were admitted on the books of this Institution (Lancaster Dispensary) last month" and 56 patients were vaccinated. The report continues to state that there were 22 cases of typhus and one case of scarlet fever.[24] The first 18 years of the Dispensary's existence saw a total of 22,032 patients treated. The outpatients were treated for a range of ailments and records show that included the typical medical conditions of the time such as: quinsy (peritonsillar abscess due to tonsillitis), croup, erysipelas ('holy fire' or 'St. Anthony's fire', which is an acute *Streptococcal* infection of the skin), chronic weakness, palsy, hysteria, colic, gravel (urinary calculi which comprises kidney stones, stones in the ureters and bladder), dropsy (oedema), scrofula (probably non-pulmonary Tuberculosis), scurvy, coetaneous disorder (general diseases of the skin), worms, cancerous tumours or scirrhous, and convulsions. The Dispensary aimed at the provision for the "sick poor with medical advice and medicine gratis".[25]

Lancaster's House of Recovery (HOR) or Fever Hospital soon followed as a result of the growing need and it accommodated five patients. Christopher Johnson (1782-1866), a local surgeon, is largely credited for these efforts. Johnson, on 22 July 1815, arranged a meeting in order to establish a Board of Health (BOH) to serve the town as a charity and to establish the HOR (more on this in Chapter 4) and a property at Plumb Court.[26] Acute infections appeared to be a major burden that plagued many communities of early modern England and seemed to persist well into the nineteenth century (Table 2-2). Chadwick's report of 1842 highlights Lancaster as one of the towns with a very high mortality rate. More than 8,124 fatalities were recorded due to consumption or tuberculosis and fevers claimed the lives of 2,866 individuals (Table 2-2). In addition, a large proportion of the deaths were caused by gastro-enteric infections such as typhoid, dysentery and undifferentiated diarrhoeas. Respiratory ailments included scarlet fever, influenza, diphtheria, whooping-cough and typhus (Table 2-2).[27]

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23. John V. Pickstone, *Medicine and Industrial Society: History of Hospital Development in Manchester and Its Region, 1752-1946* (Manchester: Manchester University Press, 1986), 65.
24. *Lancaster Gazette*, May 8, 1819.
25. Blacktop, *In Times of Need*, 8-11.
26. Graham H. Anderson, "The house of recovery and the board of health - from the archives of the Lancaster Medical Book club" *Lancaster and Westmorland Medical Journal* 2 no. 4 (1995): 84-86.
27. Chadwick, *Report on the Sanitary*.

Table 2-2: The number of deaths during the year ended 31st December, 1838 from a variety of diseases in selected counties.

Counties and towns	Number of deaths during the year ended 31st December, 1838 from:										Proportion of deaths from preceeding causes in every 1,000 of the population in 1841	Proportion of deaths from all the causes of mortality in every 1,000 of the population in 1841
	1. Epidemic, Endemic, and Contagious Diseases				2. Diseases of Respiratory Organs			3. Diseases of Brain, Nerves, And Senses	4. Diseases of Digestive Organs	Total deaths resulting from the four preceding Classes of Diseases		
	Fever	Smallpox	Measles	Whooping Cough	Consumption	Pneumonia	All Other Classes					
Bedford	115	75	40	66	457	97	57	304	131	1,382	13	22
Cambridge	231	136	57	90	686	156	70	318	189	1,933	12	21
Chester	592	279	178	87	1,742	366	345	1,442	421	5,452	14	21
Lancaster	2,866	1,628	898	910	8,124	2,660	1,916	7,457	3,231	29,690	18	25
Middlesex	4,422	3,359	487	1,749	6,220	3,097	2,334	6,643	2,492	30,803	20	27
Nottingham	222	73	18	80	911	225	201	901	287	2,918	12	20
Oxford	222	81	51	59	655	108	152	389	180	1,897	12	21
Surrey	1,348	814	177	565	2,196	978	700	2,325	763	9,866	11	25
Warwick	454	415	153	164	1,495	678	361	978	635	5,336	13	20
Westmorand*	41	40	6	41	248	33	44	154	46	653	12	21
Worcester	381	305	122	258	990	353	235	645	446	3,735	16	29

*Westmorland - Now under the administrative county of Cumbria but was previously divided into two wards:
East ward - Appleby, Brough, Kirkby Stephen, Orton, Tebay; West ward - Askham, Bampton, Barton, Patterdale, Shap, Yanwath.