Hospitals are keystones of our contemporary health care system. Within those buildings medical practitioners perform complex procedures, reconstructing bodies broken in accidents or ravaged by diseases. It has not always been so. Some have argued that in the past hospitals were unhealthy places, incubators of disease, a concept not entirely alien even today.\(^1\) Certainly, it seems questionable whether eighteenth and nineteenth century hospitals were positive influences on community health. Overcrowding and unsanitary conditions, coupled with a lack of effective medicines contributed to this perception of institutional ineffectiveness. As sensible as that opinion might seem there are scholars who dispute it. Based on his study of a number of English provincial voluntary hospitals in the eighteenth and early nineteenth century, Stephen Cherry notes that mortality rates in those institutions were relatively low.\(^2\) Guenther Risse supports this notion, arguing that Scottish hospitals in the eighteenth century were comparatively healthy places.\(^3\)

Much of Professor Risse’s data is derived from his study of the Edinburgh Royal Infirmary, a leading voluntary hospital established in 1729. No meaningful comparison can be made between Edinburgh and Glasgow hospitals in that century. Glasgow’s Royal Infirmary did not open until December of 1794 but in succeeding decades the new Infirmary became known as one of the leading voluntary hospitals in Britain. Designed by the celebrated architect Robert Adam, it was a profound statement of a new Glasgow, already a commercial...
force and a burgeoning industrial centre. An amalgam of impulses, humanitarian, economic and civic pride, gave impetus to the hospital. The founding committee, however, articulated a clear mission to provide ‘relief of the indigent persons labouring under poverty and disease’; moreover the committee recognised that manufacturing would drive growth in the city and create ‘the increased population of those classes of Manufacture and labours of every kind, who are most likely to require charitable assistance.’

In contrast to what seemed a call to serve the needy, from the outset Glasgow’s Royal Infirmary endeavoured to limit admission to ‘respectable’ workers and their families, providing them an alternative to poorhouse hospitals. The criterion governing in-house treatment was clear: except for emergency cases, no patient was admitted to its wards without ‘a line’, a recommendation from someone who subscribed funds to the hospital’s operation. By the 1880s the subscription process had been formalised to take into account various types of subscribers: individuals could recommend one patient per guinea (£1 1s) contributed annually; firms, workers, societies and churches subscribing three guineas could recommend two patients and one more for each £1 5s 6d donated to the hospital per year. This requirement, sharply circumscribing the ringing phrases of its founders, sought to ensure a measure of decency in the patient population. Subscribers, it was believed, were unlikely to be dissolute or depraved and certainly would not recommend anyone who was.

Since the opening of the Royal Infirmary, Glasgow’s growth had been dramatic. In 1791 the population of the city and its suburbs numbered 66,000; a century later it had swollen to three quarters of a million. During this time the Royal endeavoured to treat diseases and mend bodies of a mushrooming populace: in-house medical and surgical wards were extended; vaccination services commenced in 1857; fever houses were constructed and demolished; new wings were erected to deal with increased demand; and an extensive, free out-patient practice was established. The Royal Infirmary also became professionalised: a Superintendent was appointed in 1838; house medical staff became salaried; and a Matron was recruited who oversaw the expansion and increasing proficiency of nursing staff. Joseph Lister’s antiseptic approach to surgery, developed at the Royal and announced in the *Lancet*
in March 1867, attracted international attention. By the third quarter of the century the Glasgow Royal Infirmary had become a nationally recognised health care centre and an institution essential to the West of Scotland.

Despite the hospital’s importance to the community, its records remain virtually untapped as a source of knowledge about life in Victorian Glasgow. Our vision of health in the city during these years has been formed more by mortality tables than medical records. Successive City Chamberlains made that choice easy, comprehensively charting death in Glasgow. James Burn Russell, the city’s first full-time Medical Officer of Health contributed to its mortality literature, delivering speeches and publishing pamphlets urging policy changes on municipal authorities. Towards the end of the century his colleague, Archibald Chalmers, published A New Life Table for Glasgow, a volume examining death rates and indicating the city’s woeful record in comparison to other British centres. This article shifts the focus from mortality to morbidity, suggesting that illness provides a richer, more textured notion of late Victorian Glasgow than commentaries on deaths in the city. The Royal Infirmary’s Medical Ward Books, its 1881 Medical Register of Admissions and Dismissions, and Annual Reports are major sources bringing this image into focus. The first, maintained by house physicians, provide patient histories, diagnoses, treatments and outcomes. The Medical Register documents all patients admitted, listing their illnesses, duration of hospitalisation, results of treatment and identities of recommending subscribers. Annual Reports not only aggregate illnesses and surgical procedures, they detail the hospital’s finances and list all donors. Together these sources confirm major health challenges identified in mortality tables but allow more precise analysis of who suffered from these diseases. They also catalogue the treatment options available to physicians of the period. Significantly Infirmary records also demonstrate that during the nineteenth century substantial numbers of Glasgow’s manual workers had adopted strategies to meet the costs of hospitalisation, becoming investors in their own health care. Their collective actions also had a profound impact on the hospital, transforming it from an institution bestowing charity on workers to one dependent on their financial support.
Illnesses and Outcomes at Glasgow’s Royal

January began slowly on the Royal Infirmary’s medical wards. On the first day of 1881, a Saturday following Hogmanay, only one patient was admitted: Patrick McGrady, three years of age, was rushed to the Infirmary by police, an emergency case of alcohol poisoning. The pace quickened on Monday morning however, when eight men and three women were processed. By week’s end an additional 35 people had become new patients in the Royal’s medical wards. The year began much as it would continue: in those first few days ten people were admitted suffering from bronchitis, ten from phthisis, four from rheumatism and 23 others complaining of assorted diseases. In all, 2,386 patients were admitted to the hospital’s medical wards in 1881. Men and women, plus about 150 children, complained of a wide range of illnesses: respiratory disorders, kidney disease, hysteria, sciatica, chorea, fever, heart disease, cancer, dropsy, a variety of skin disorders, syphilis, dyspepsia, lumbago, alcohol or drug abuse, plus more than a dozen patients subsequently unmasked as malingerers. Of this disparate group 41 per cent was diagnosed as suffering from bronchitis, phthisis or from chronic pain, described by physicians as rheumatism. Together these 988 patients spent 28,083 days under care in the Royal Infirmary that year.

Three hundred and seventy-eight patients were admitted suffering from bronchitis, the largest single illness treated at the Royal Infirmary in 1881. This condition takes two forms: acute and chronic. Acute bronchitis is usually a short illness that usually develops from a severe cold or following other viral infections and is characterised by cough, soreness in the chest and some shortness of breath. The majority of bronchitis cases admitted to the Infirmary in 1881 were however chronic, in which air passages in the lungs were restricted, with enlarged glands producing too much mucous, leading to persistent coughing and shortness of breath. The relationship of bronchitis to smoking, air pollution and industrial dusts and fumes is now widely acknowledged. In Victorian Glasgow smoking no doubt was a factor but there is also no question that the workplace played a significant role in the prevalence of chronic bronchitis among Glasgow workers. Sixty per cent of all bronchitis patients in the Royal Infirmary were employed in foundries, factories, mills or mines in 1881, all environments
in which organic dusts or toxins were produced. The generally foul air of the late Victorian city no doubt contributed to bronchial infections among the remainder of this hospital population. Like many industrialized cities of the period, Glasgow’s environment was appalling: ‘the acrid and deadly air of the city,’ Dr. Russell called it in 1888.\textsuperscript{16} Pollution of this order scarred residents’ lungs and significantly contributed to illness and death.

Chronic bronchitis is a progressive condition and without treatment it worsens: coughing becomes continuous, particularly in the morning and in damp, cold weather; chest infections become more frequent and death can ensue. Twenty-first century medicine can control symptoms and bring relief but physicians at the Royal Infirmary improvised as they sought remedies for its largest group of patients and the city’s most frequent killer. In the summer of 1881 the journal of the Glasgow and West of Scotland Medical Association described a new treatment, advising readers of its effectiveness: ‘in severer cases,’ the report advised, ‘turpentine forms the principal remedial agent, given by inhalation or applied to the skin.’\textsuperscript{17} Mary Joyce’s physician did not have the benefit of this advice. Over three weeks in 1875 he administered a variety of compounds to this mill worker from Partick: a stimulant composed of mercury and prepared chalk; quinine sulphate to lower her fever; bicarbonate of soda to settle her stomach; a tonic composed of quassia wood rasplings and nitric acid to improve appetite; and minute amounts of hydrocyanic acid to suppress coughing.\textsuperscript{18} In an attempt to reduce congestion, poultices, intended to draw fluid from her lungs, were applied to Mary’s chest on October 22\textsuperscript{nd}; on the 25\textsuperscript{th} sherry was prescribed. Wine remained part of her treatment for three days and her condition seemed to improve. On October 28\textsuperscript{th} the attending physician noted she was able to be discharged. In a sharp reversal and without explanation, the next entry in the Medical Ward Book indicated Mary Joyce had died.\textsuperscript{19} This cotton mill worker seemed atypical of bronchitis patients admitted to the Royal Infirmary. In 1881 only 26 of the 387 died during treatment, a mortality rate much lower than prevailed in the city as a whole where 16.5 per cent of all deaths that year were ascribed to the condition.\textsuperscript{20} Relatively old, the median age of bronchitis patients in the Royal that year was 43 and fully half were between 30 and 50 years of age. As a
group they also improved in a relatively short time, 21 days on average. This outcome suggests that on admission their conditions were not as advanced as Mary Joyce’s and thus, were able to respond to the prime elements of late nineteenth century hospital care: rest, improved nutrition and cleanliness.

Three hundred and sixty-seven patients, almost as many as had been admitted with bronchitis, were treated in the Royal for phthisis in 1881. The median age of these patients, 27, was sharply lower than that of bronchitis sufferers and the disease had its largest impact on younger people. Sixty per cent of all phthisis patients admitted that year fell between 16 and 30 years of age. Phthisis, an archaic term for pulmonary tuberculosis, was also known as consumption and was a major public health problem dramatically affecting both morbidity and mortality rates in the city. In 1881 this respiratory complaint accounted for 12 per cent of all deaths in Glasgow. Thought to be related to poverty, public health experts pointed to city tenements with their small flats as critical to the development of the disease. Glasgow’s houses did play a role in facilitating the transmission of phthisis but it was unrelated to the inhabitants’ economic circumstances. Confined housing was not a condition restricted to the city’s poor; three quarters of Glasgow’s 115,000 families lived in two or fewer rooms in 1881.21 Confused about the disease’s aetiology, Dr. Russell and his colleagues did not realise phthisis was infectious, spread by bacteria communicated by coughing or sneezing; thus it posed a threat to people of virtually all social and economic circumstances throughout the city.22

Graph 1: Glasgow Royal Infirmary 1881. Distribution of Major Complaints Treated in Medical Wards by Patient Age
If patient lists for 1881 are any guide, phthisis seemed more evenly distributed through the population than bronchitis. Among patients suffering from the latter complaint, almost one in every four was a labourer although only 17 per cent of all patients in the Royal that year were engaged in that occupation. In the case of phthisis 13 per cent of patients were labourers and 15 per cent worked in cotton mills, despite only 9 per cent of all patients being employed in the textile industry. Six per cent of phthisis patients worked in iron forges and mills; ten per cent were housewives; and four children under 14 years of age were admitted with the disease. Unaware of its cause, there was no effective treatment for phthisis in these years. Physicians, of course, employed a variety of regimens in treating the disease. Plied with a tonic for anaemia and a sedative of chloral hydrate, 35 year old Sarah McCann, a cotton mill worker, was deemed to have improved and was discharged after 45 days. Mary Weir, 41 and a cotton operative like Mrs. McCann, was sent home after only three days, chloral hydrate sedatives and stimulating tonics containing strychnine and quassia wood having no effect. She was released with the notation *In Status Quo*, meaning there had been no change in her condition and none was likely. With no effective medication to deploy against the disease there was little that contemporary medicine could achieve for any phthisis patient. Reports in the *Glasgow Medical Journal* in 1881 indicated that treatment in these cases consisted ‘chiefly of quinine and cod liver oil.’ For Mrs. Dailly, a 28 year old Glasgow housewife, prescriptions were more complex: during her time at the Royal in 1875 she received regular but small doses of narcotics consisting of opium, chloric ether and nitrous ether. Physicians employed other regimens in treating phthisis patients, of course. They were beginning to appreciate the positive effects of rest, fresh air and good diet but believed this was better achieved in suburban settings than in a busy general hospital. Neither rest, improved diet, nor narcotics produced beneficial effects for Mrs. Dailly; she died six days after admission. Her experience reflected that of many phthisis patients admitted to the Infirmary. Thirty-one per cent of all deaths in its medical wards in 1881 were phthisis patients and one in every five admitted with the disease that year died in hospital.

An analysis of the 1881 Medical Register suggests rheumatism,
affecting 243 patients, was most prevalent among younger adults. Similar to those treated for phthisis, half were between 16 and 30 years of age, the median being 25. A non-specific term in the late nineteenth century, the complaint referred to inflammation of bones, joints, muscles or tendons, leading to chronic and severe pain. The complaint was widely distributed throughout Glasgow’s population but seemed prevalent among patients who worked as labourers, cotton mill workers, domestic servants, housewives or foundry hands. Heavy labour and repetitive tasks, involving leg and arm joints or back muscles perhaps explain the prevalence of this condition in a pre-automated work and home environment. When 28 year old Helen Kelly was admitted to the Infirmary in 1876 her condition was obviously more than isolated pains; she could no longer walk upright. Her examining physician recorded her symptoms in his Ward Book. ‘These pains affected all her joints, but most especially the knees and also the back & shoulders and to a less extent her elbows & wrists. She can’t stand straight up & has difficulty in walking.’ The physician prescribed a mild antacid, a drachma or 60 grains of potassium bicarbonate dissolved in distilled water, the norm for rheumatism cases of the period. Whether this compound was effective or whether it was the rest and nourishment Mrs. Kelly received in one of the women’s wards at the Infirmary, the treatment seemed successful. Like the vast majority of rheumatism patients, she was dismissed from the Infirmary in an improved condition. Her physician recorded her progress in his case notes on May 7th, noting that her ‘pains are much relieved & patient can walk.’

The Glasgow Royal Infirmary maintained very careful records on all patients admitted and charted their progress. Table 1 indicates that Infirmary health outcomes were positive overall. Three quarters of the nearly 2,400 patients treated in its medical wards in 1881 appear to have returned to the community in better health than on admission. The average stay in those wards seems quite long, almost 29 days. This was however, considerably less than the average stay at the Royal’s cross-town rival, the Western Infirmary, where in the same year the average period was 38 days. Patients who improved during hospitalisation spent longer times in the wards than individuals who had been diagnosed as In Status Quo. More than 10 per cent of the Infirmary’s 1881 population,
these patients, according to physicians, would not improve; therefore there was little purpose in keeping them in hospital. The few patients whose conditions had deteriorated during their stay in the Royal remained there much longer than the average patient. Although being discharged from hospital in worse condition than upon admission may seem unacceptable to twenty-first century observers, this was a clinical decision, not a judgement exercised by cost-conscious administrators. Like all hospitals of the period, the Glasgow Royal Infirmary had limited resources. If existing modes of care had brought no improvement to patients’ health after fifty days, there was little reason to expect that extended convalescence would produce a different outcome. Medical staff, therefore, discharged patients who, in their judgement, would receive no further benefits from continued treatment, despite their conditions.

Table 1: Glasgow Royal Infirmary 1881,
Medical Ward Patients by Outcome of Treatment

<table>
<thead>
<tr>
<th>Treatment Outcome</th>
<th>All Patients</th>
<th>All Patients Average of Days in Hospital</th>
<th>Female Patients</th>
<th>Female Patients Average of Days in Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cured</td>
<td>145</td>
<td>30.9</td>
<td>75</td>
<td>33.6</td>
</tr>
<tr>
<td>Well</td>
<td>874</td>
<td>26.4</td>
<td>306</td>
<td>27.8</td>
</tr>
<tr>
<td>Improved Greatly</td>
<td>94</td>
<td>34.8</td>
<td>34</td>
<td>43.4</td>
</tr>
<tr>
<td>Improved</td>
<td>677</td>
<td>34.9</td>
<td>233</td>
<td>37.4</td>
</tr>
<tr>
<td>Improving</td>
<td>15</td>
<td>18.0</td>
<td>4</td>
<td>13.0</td>
</tr>
<tr>
<td><strong>Sub-total Cured, Well or Improved</strong></td>
<td><strong>1805</strong></td>
<td><strong>31.9</strong></td>
<td><strong>652</strong></td>
<td><strong>36.1</strong></td>
</tr>
<tr>
<td>Incurable</td>
<td>1</td>
<td>61.0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>In Status Quo</td>
<td>253</td>
<td>23.3</td>
<td>97</td>
<td>28.3</td>
</tr>
<tr>
<td>No improvement</td>
<td>7</td>
<td>37.8</td>
<td>4</td>
<td>10.0</td>
</tr>
<tr>
<td>Left or Would Not Submit to Treatment</td>
<td>4</td>
<td>22.32</td>
<td>7.0</td>
<td></td>
</tr>
<tr>
<td><strong>Sub-total No Improvement</strong></td>
<td><strong>265</strong></td>
<td><strong>23.8</strong></td>
<td><strong>103</strong></td>
<td><strong>27.2</strong></td>
</tr>
<tr>
<td>Worse</td>
<td>19</td>
<td>51.9</td>
<td>4</td>
<td>61.3</td>
</tr>
<tr>
<td>Died</td>
<td>265</td>
<td>23.3</td>
<td>84</td>
<td>25.2</td>
</tr>
<tr>
<td>Transferred to other Locations</td>
<td>32</td>
<td>17.8</td>
<td>12</td>
<td>15.7</td>
</tr>
<tr>
<td><strong>Sub-total Deteriorated</strong></td>
<td><strong>316</strong></td>
<td><strong>24.5</strong></td>
<td><strong>100</strong></td>
<td><strong>25.5</strong></td>
</tr>
<tr>
<td>All Outcomes</td>
<td>2386</td>
<td>28.8</td>
<td>855</td>
<td>31.1</td>
</tr>
</tbody>
</table>
Hospitalisation seemed particularly effective among females 16 to 25 years of age and correspondingly less effective for older women. One cannot explain the higher rate of improvement for younger women solely by reference to the nature of the illnesses that brought them to the hospital; in all probability women in these age cohorts were more vigorous physically than older females whose recovery rates might have reflected the physical effects of child-bearing, child-rearing and extended periods of work. It is interesting to note that in 1881 young women also had a somewhat higher rate of health improvement than male patients of the same age. Generally, however, it appears that people discharged in improved health that year reflected fairly the entire patient population. The Infirmary’s records might, therefore, appear to support Stephen Cherry’s very tentative conclusion that ‘hospital treatment aiming at curing, relieving or reducing the duration of illness might lead to greater benefits in terms of the overall health of populations than are at first sight apparent.’

Graph 2: Glasgow Royal Infirmary 1881, Patients Discharged from Medical Wards by Age
Can one, however, be any more positive about results recorded by the Glasgow Royal in 1881? The conclusion must be no, for it remains questionable how fundamental any medical treatment was to patient recuperation. Tonics administered in the hospital definitely combated widespread anaemia among patients. Poultices and compounds of finely rasped quassia wood certainly had medicinal effects, as did continued use of leeches in the medical wards, but these approaches to healing owed more to vernacular medicine than to any science or physiology absorbed by graduates of Edinburgh or Glasgow medical schools. At best, most compounds and narcotics employed in the Royal Infirmary were palliative. Significant advances in medicine came only in the following century with the development of antibiotics, the so-called ‘wonder’ drugs.\textsuperscript{32} One must also question many of the optimistic notations recorded in the Medical Register upon patients’ discharge. Although no phthisis patient was dismissed in 1881 as ‘cured’, one wonders about the true condition of the 145 patients who were sent home that year with that diagnosis. Were the nine patients with chronic bronchitis really ‘cured’ after three weeks in the Infirmary’s medical wards? Better, perhaps, but in the absence of effective pharmaceutical tools, cured seems an unduly optimistic prognosis. Though one might quarrel with terminology, one cannot dispute the very impressive recovery rates achieved in the hospital's medical wards. On the whole, however, one must view those results as arising from the institution’s environment, not its medical treatments. Positive outcomes for the vast majority of the Royal’s patients stemmed from medical wards that were scrubbed regularly with carbolic soap, periods of enforced rest for patients and diets more varied than they enjoyed at home.\textsuperscript{33}

Is it possible to compare the experience of hospitalised patients with their contemporaries who did not or could not seek treatment? The Royal's regimen of rest from repetitive labour and a more nutritious diet would have been a challenge for Glasgow working folk in 1881; thus it seems unlikely that the hospital’s 97 per cent recovery rate for rheumatism sufferers could have been replicated in home care.\textsuperscript{34} Hospitalised bronchitis patients also responded well to the institution’s environment but beyond the Royal it was a very different story; bronchitis was consistently identified with more deaths
in Glasgow than any other disease. City mortality tables confirm hospital records, indicating that in 1881 it was older people in the community who were most in danger from the disease: one person in four whose death was linked to bronchitis that year was 60 years or older. Such tables are not very helpful however, in assessing the impact of phthisis, telling us only that the majority of deaths occurred among people 20 to 60 years of age. The Royal Infirmary’s Register of Admissions and Dismissions provides greater insight, revealing that phthisis patients were younger men and women, a population that would be weakened by this wasting disease for years to come. The personal costs seem apparent, long-term pain and suffering for individuals and families. Easily imagined also are the public health implications of a contagious disease in a densely packed city but the influence of this debilitating illness on Glasgow’s social fabric and its impact on the city’s economic productivity are incalculable.

Like the majority of men and women treated in the Royal Infirmary’s medical wards, bronchitis and rheumatism patients were discharged in better health than upon admission. In 1881 less than one quarter of all medical patients failed to recover: 12 per cent showed no improvement or deteriorated and 11 per cent died, one of that group being young Patrick McGrady. Rest and improved nutrition in a clean environment, so important to patient recuperation, could have influenced positively public health in the city if applied beyond the hospital. Regrettably, conditions there limited any application of lessons learned at the Royal: the diets of most workers and their families led to chronic anaemia, increasing their susceptibility to infection; much of Glasgow’s crowded housing stock remained a breeding ground for disease; and the city’s air was contaminated. These circumstances guaranteed that the Royal’s medical wards would continue to operate at near capacity.

Patients and Payment: Hospitalisation for Workers and Their Families

Each year hospital staff recorded in the Medical Register health data on a large and diverse sample of greater Glasgow’s population. In addition, the Register noted who was employed, how employed patients earned their livings, for whom they worked and, importantly, who paid for their hospitalisation. In
1881 almost eight of every ten medical patients claimed to be employed in manual occupations. Employed, of course, did not necessarily mean having full-time work. James Treble has demonstrated that much of the unskilled work in the city was seasonal, with casual labourers only ever fully employed in a short working season commencing in April or May and ending in October or November. Employed men and women could also be poor: wages were low for unskilled workers throughout the city, whether casual or full-time. In testimony before the Commission on Housing of the Poor in 1889 Bruce Glasier estimated wages for such workers, calculating there were ‘50,000 adult males in Glasgow who do not average more than 20s a week.’ Glasier, Secretary of the Glasgow branch of the Socialist League, provided Commissioners with additional details: ‘In many large iron-works in Glasgow the great majority are not skilled men, many being only labourers earning considerably less than 20s a week. I find that from 15s to 18s a week is the common wage of the labourers working from 51 to 54 hours a week in many of the large works in Glasgow.’ A controversial figure to the local establishment, Glasier’s testimony nevertheless confirmed what Commissioners had earlier concluded: workers earning less than £1 per week were hard pressed to afford decent housing and were, according to the Commission’s definition, poor.

It is difficult to confirm wage levels in this period but Tom Johnston provided some estimates to supplement Bruce Glasier’s testimony. Editor of *Forward*, a left-wing journal, Labour Member of Parliament and later Secretary of State for Scotland, Johnston indicated that wages were generally low in the 1880s. According to his research, carters earned 18 to 25 shillings for a week often lasting 80 hours; miners took in four shillings per day prior to deductions for ‘truck’; and unskilled workers were paid from 4 to 4½ pence per hour. Skilled labour rates were, of course, higher with joiners in these years earning 31s 6d weekly, pattern makers 7 pence an hour and iron dressers and moulders 6 to 6½d. One might question Johnston’s or Glasier’s impartiality but government appointed Factory Inspectors should be immune from such charges. In their 1883 report they indicated weekly wages for female cotton mill operatives in Glasgow ranged between 7 shillings and 9s 6d.
If these were prevailing wage levels in Glasgow, it might seem reasonable to surmise that in the late nineteenth century the Royal Infirmary continued to hew to its founders’ mandate, providing care for ‘those Classes of Manufacture and labours of every kind, who are most likely to require charitable assistance.’ The Medical Register provides some answers to that question, supplying names of subscribers who sponsored patients and identifying those who signed subscribers’ lines. Read in isolation however, the Medical Register leads to confusion. In the shorthand employed by hospital clerks, often only the firm’s name appeared as subscriber, leading one to believe that it sponsored the patient’s hospitalisation. This confusion can be clarified only by merging medical records with the Infirmary’s annual reports. When one integrates these two data streams it becomes clear that the majority of patients were in 1881, as the founders had anticipated, engaged in manufacturing but were not in receipt of charity. That year 284 patients were admitted to the Royal Infirmary whose annual subscriber fees had been paid on their behalf either by trade associations or by groups of workers employed in firms that did not subscribe to the Royal Infirmary. An additional 1,166 patients were admitted on lines from firms at which both workers and
management made separate contributions to the Royal. There were also thirteen private patients treated that year who each paid a £2 admission fee to the hospital’s administration. Six hundred and twenty men and women were charity admissions. Finally, 303 patients were admitted without subscriptions being paid that year. Eighty-one of these people were emergency admissions who required no fee and 27 had been transferred from the hospital’s surgical wards. According to the Medical Register 190 of the 303 patients had valid subscriptions but subsequent analysis of financial records indicates that no subscribers’ fees for them had been received by the Royal Infirmary during that year. Consequently one can conclude that 1,450 of 2,083 patients or seven of every ten for whom subscriptions had been received prior to treatment were associated with contributions toward their own hospital care.

Patients sponsored by protective or beneficial associations were admitted on lines signed by association officers. William Fleeting, a 40 year old Glasgow slater and Secretary of the Slaters’ Operative Society, signed lines in 1881 for three patients associated with his organisation. Similarly, trade officials authorised admission for members of the Glasgow Branch of the Bakers’ Operative Association, the Tinplate Workers’ Society, the Tailors’ Operative Society and the Bricklayers’ Operative Friendly & Protective Association of Scotland. In total, these five trade organisations subscribed £45 6s to the hospital in 1881. In the same year three officers of the North British Railway Co. Employees’ Friendly Society, James Dinning, a 37 year old ledger clerk, William Melville, a railway fireman and John Bruce, a platelayer, signed lines for members in 1881.

Practices varied among non-contributory firms. At the Coustonholm Weaving Company in Pollokshaws where employees subscribed £9 to the Royal Infirmary in 1881, George Patrick, a 42 year old warehouse worker, authorised admission for three female power loom weavers. At Renison McNab, a weaving mill in Bridgeton, James McLucas, the company clerk signed lines for all workers admitted as patients. Although not a manual worker, McLucas obviously was trusted by those who were. In addition to signing hospital lines, he was authorised by weavers to be the sole signing officer for their account at a nearby bank that held deposits
for their Employees’ Infirmary Fund. In 1881 that fund subscribed £9 12 8d to provide its members with free hospitalisation. The experience at this mill reflected practice at most non-contributory firms. At the Cadzow Coal Company’s Hamilton Colliery, for instance, workers contributed £9 10s to the Royal in 1881. Although management donated no money towards workers’ hospitalisation, lines for all mine employees and dependents were signed by Hamilton Smith, Colliery Manager. A similar arrangement was in place for municipal employees. Workers at Glasgow’s Cleansing Department subscribed £30 17s that year, road menders contributed seven guineas and policemen donated £26 to the Royal Infirmary in 1881. Lines for all municipal employees were, however, signed by corporation managers: John Young, Cleansing Department Superintendent signed for 22 patients connected to his department; James Rennie, Glasgow’s Inspector of Streets signed for three workers and one dependant from his unit; and Alexander McCall, Chief Constable of Glasgow signed lines for seven policemen and members of their families. At William Dixon Ltd., one of Scotland’s largest integrated corporations, management officials routinely authorised admissions although subscriptions to the hospital, £218 11s in 1881, were raised solely by workers.

Management authorisation also seems to have been the norm in most companies in which both workers and firms contributed separately to the Royal Infirmary. For instance, employees of John Bartholomew’s Spinning Mill in Glasgow’s East End and their dependents received lines signed by John Barclay, the Mill Manager, although workers there contributed £11 6s 2d to management’s two guineas. The situation was the same at Beardmore’s Parkhead Forge: manual workers contributed £35 18s to the owners’ ten guineas that year but lines in 1881 were signed by Robert Tennant, Works Cashier. Similarly at A. & R. Cochrane, a glass works in St. Rollox, Thomas Grainger, shop foreman, authorised hospital admissions despite workers’ contributions being four times larger than the company’s two guineas. One might interpret this as an expression of management paternalism but more likely it was simply a pragmatic administrative process designed to simplify necessary preconditions to hospital admission. What is apparent, however, is that it would be an error to conflate admission authorisation
with management funding of workers’ hospitalisation.

It would be equally incorrect to assume that subscribing workers were drawn from the better paid employees in Glasgow’s workshops. Hospital records reveal that 407 labourers were treated in the Royal’s medical wards in 1881, the largest group of employed patients that year. These men, according to Ralph Glasier, earned on average less than one pound a week yet, as Chart 2 indicates, the overwhelming majority of labourers admitted that year were Infirmary subscribers. Cotton mill operatives were among the lowest paid industrial workers but hospital records indicated in 1881 that 78 per cent of patients employed in textile mills were subscribers, with the vast majority of them being female. Among the 116 miners treated for a variety of diseases in the Infirmary that year 85 per cent were annual contributors to the hospital.

Consistently high percentages of all manual workers who became patients in 1881 were Infirmary subscribers. Most were unskilled or semi-skilled: brick makers, bleachfield workers, domestics, shoemakers, engine keepers, porters, carters, waiters and washerwomen. Skilled workers comprised about nine per cent of patients that year. Six of every ten among these tradesmen, who enjoyed more regular employment and higher wages, were subscribers, a proportion no higher than that found among those unskilled men and women who worked in Glasgow’s shoe factories, tube mills, warehouses or tobacco works. Despite patients’ occupations, prevailing wage levels demanded careful money management and in the troubled economic conditions of these years it is remarkable that so many workers committed a portion of their wages to secure hospital benefits.
In contrast to the predominant pattern, there were a few firms in Glasgow and the West of Scotland who supported workers' hospitalisation without calling on them to participate financially. Frederick Braby & Co., manufacturers of galvanised iron and corrugated products located on Argyle Street, sponsored two employees in 1881 although only the company was listed as a hospital subscriber that year. Six workers or dependents were admitted on lines from William Stirling & Sons, a major textile firm in the Vale of Leven whose workers made no contribution toward hospital subscriptions in 1881. Cork cutter Peter Campbell was admitted to hospital in October of that year on a line from Cunison D. Rankin, his employer. The Royal’s Annual Report indicated only Rankin had subscribed that year. Thirty-six seamen whose ships had docked at the Broomielaw and who had not subscribed to the Royal Infirmary were treated in its medical wards on lines signed by various shipping agents in the city.

One can infer motivations for these actions: some employers might have believed that investing in workers’ health would reduce illness-related absences and increase productivity; shipping agents were in all probability fulfilling contractual

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*Chart 2: Glasgow Royal Infirmary 1881, Selected Groups of Medical Patients by Occupation indicating Subscribers and Non-Subscribers (n=1,908)*
obligations on behalf of ship owners. Others, perhaps the majority, might have acted in response to the hospital’s founding mandate, giving charitable donations. There is no intention here to deny the altruism of many of the Royal’s financial supporters in the late Victorian period. Among the 620 charity admissions were large numbers supported by voluntary organisations: 97 patients were admitted on lines from churches, 18 were sponsored by the Glasgow Foundry Boys Religious Society and 13 were supported by a Glasgow department store, John Anderson’s Royal Polytechnic on Argyle Street. Physicians of the period frequently acted as intermediaries between those in need of hospitalisation and Royal subscribers. It is also clear that individuals and firms were often contacted by concerned citizens and urged to offer lines to needy persons. The Infirmary’s own data, however, indicate that charity admissions were in the minority, approximately three in every ten patients under medical care in 1881. In contrast, the vast majority of patients were participating in cooperative strategies designed to mitigate the impact of hospitalisation on themselves and their families.

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In 1982 the eminent economic historian, Sydney Checkland remarked that health history tends to be fragmentary. Though mindful of his judgement, by necessity this article addresses only aspects of morbidity, the 2,386 patients whose illnesses were treated in the medical wards of the Royal Infirmary in 1881. A somewhat greater number, 2,733, received treatment in its surgical wards but no ledger similar to the medical register remains for that year; thus this analysis cannot be extended to the Royal’s surgical wards. Set apart from the relative calm of both these areas, physicians at the Infirmary’s Dispensary struggled to deal with masses of ailing people who queued there six days a week, seeking medical treatment as out-patients. Dr. James Adams provided insight into life in that department, writing in 1882: ‘dispensary practice is, in the words of some of its attachés, a ‘hashy’ practice and to some it is all the more distasteful because of the crowd of cases that crave notice and the little time that can be given for their consideration.’ He was not exaggerating; 20,628 people passed through the Dispensary in 1881 but no records
remain to document them or treatments they received. Across town 14,456 out-patients and 2,958 medical and surgical patients were treated at the Western Infirmary. No records exist for those men, women and children. In the City Parish the great majority of paupers admitted to its Poorhouse in 1881 required medical treatment in its wards on Parliamentary Road or in the adjacent Asylum. Similar admissions took in place in Govan and Barony, suburban districts surrounding Glasgow but as yet no analysis of the medical contributions of poorhouses has been published.

These qualifications are enumerated not to invalidate conclusions reached in this article but to place those findings in perspective. Although our knowledge of morbidity and health care in Glasgow during the latter half of the nineteenth century is imperfect, our awareness of what occurred in the Royal Infirmary’s medical wards in 1881 advances our understanding of health history, one of the great strands of urban history, according to Checkland. Infirmary records catalogue illnesses in medical wards, identifying bronchitis, phthisis and rheumatism as the three major medical problems that year. No aberration, we are able to place these same conditions in a baleful continuum that defined Scottish urban life. As late as 1936 bronchitis, phthisis and rheumatism chronically incapacitated more than one-third of the country’s workforce and accounted for more than 30 per cent of days lost from work. From Infirmary accounts we also learn that some in society were more exposed to these illnesses than others; those who worked in mills, mines and factories and who lived in the worst of Glasgow’s housing were most vulnerable. Age, too, was an important factor. The Royal’s admission register for 1881 describes a comparatively young population being treated for phthisis, destined to live with a wasting disease and a diminished quality of life; in the same year bronchitis patients, who were older on average than others, remained susceptible to a host of infections after discharge from the hospital’s medical wards; and rheumatism, resulting from the physical nature of work in factory and home in the period, crippled many still in early adulthood. Moreover, Infirmary Ward Books expose the challenges faced by physicians. Without pharmaceutical tools deemed necessary to twenty-first century medicine, documentary sources demonstrate that the institution was relatively successful in improving the health
of its patients, indicating that in the 1880s the Glasgow Royal Infirmary was no charnel house.

The generally positive health outcomes achieved by the Royal Infirmary no doubt contributed to the success of its financial campaigns among workers. Whilst small annual operating deficits were realised, the number of employee-subscribers and amounts contributed were increasing, despite the depressed state of trade during these years. Effectively, large numbers of manual workers, most of whom were low paid and unskilled, contributed money to the Royal Infirmary as insurance against costs of hospitalisation, evidence of their commitment to self-sufficiency and social responsibility. As a result, the hospital had become for the majority of its patients a fee-for-service institution. John McLure, the Infirmary’s Honorary Treasurer, certainly recognised the transformation workers had wrought to the Royal’s funding base and his financial statement to the 1881 Annual Meeting signalled the Royal understood that it could not function without workers’ continued support. Like McLure, one cannot fail to be impressed: Infirmary records for 1881 indicate 70 per cent of all medical patients for whom subscriptions had been received prior to admission were linked to employee contributions to the hospital. Moreover, these subscriptions were far from token amounts, £8 8s on average, seven times larger than the average corporate, church or individual donation to the hospital; and in 1881 large annual subscriptions were more frequent from employee groups than from other subscribers. Can one then argue that all these workers were paying their own way? The answer is no, but when employee contributions are measured, one grasps the scale of their commitment to provide hospital care for themselves and their dependants. Since 1862 manual workers had supplied on average 42 per cent of the Royal’s annual subscriptions. In 1873 their contributions had risen to 46 per cent, only £152 shy of the £7,482 raised cumulatively by corporate and individual subscribers. By 1881, as Glasgow’s industries began recovering from a deep depression in trade that had begun in 1875, workers’ contributions were again on the rise, accounting for 39 per cent of the total value of subscriptions that year. ‘There has been a substantial increase,’ McLure reported of workers’ contributions in 1881, ‘both in the amount of Subscriptions and in the number of Works contributing.’ Dr. Moses
Thomas, the Royal’s Superintendent, praised Glasgow workers, recommending the fund-raising scheme to his colleagues at the British Medical Association, believing it ‘may be the happy means of increasing the subscriptions of the working men in other places to their various hospitals and institutions.’

There is no doubt that workers received quality nursing in the medical wards of the Glasgow Royal Infirmary. Good health care came at a cost and workers responded, contributing substantially to the hospital’s operating funds. In the process, collectively they transformed its founding paradigm yet individually their situations remained precarious. Despite their best efforts to provide hospitalisation for themselves and their families, the business cycle circumscribed their independence. Hard work, thrift and the drive for self-sufficiency was little defence against reduced hours or unemployment. Short hours meant less disposable income and altered priorities, food and rent being more pressing than Infirmary contributions. If out of work for any substantial period, workers’ annual hospital ‘insurance’ could disappear. No longer members of subscription schemes and unlikely to have £2 to pay for admission as private patients, they could seek lines from churches or charities but for most, medical care would be available only in one of the district’s poorhouses. In the uncertain economic conditions of the late Victorian period, resolution of issues central to health and healthcare in Glasgow defied employees’ collective action even by its most ‘respectable’ workers.
NOTES


2 Stephen Cherry concludes in Part 1 of his two part article that ‘the pessimistic interpretation remains as the generally accepted analysis of late eighteen and early nineteenth century hospitals’ but he points out in Part 2 that such a judgement is misleading. ‘Overall, the evidence suggests medical limitations by no means prevented the hospitals from attempting to cure patients suffering from many of the diseases which were major causes of death.’ He leaves unclear whether the operative phrase in this judgement is ‘attempting to cure patients.’ See S. Cherry, ‘The Hospitals and Population Growth: The Voluntary General Hospitals, Mortality and Local Populations in the English Provinces in the Eighteenth and Nineteenth Centuries,’ Part 1, *Population Studies*, 34, 1, (1980), p. 60 and Part 2 of the same article in *Population Studies*, 34, 2, (1980), p. 260.

3 Guenther Risse disputes claims that eighteenth century hospitals were essentially unhealthy, suggesting the need for further analysis before ‘blanket indictments are made.’ Guenther Risse, *Hospital Life in Enlightenment Scotland: Care and Teaching at the Royal Infirmary of Edinburgh*, Cambridge, (1986), p. 4.

4 Jacqueline Jenkinson, Michael Moss, Iain Russell, *The Royal: the History of the Glasgow Royal Infirmary 1794-1994*, (Glasgow, 1994), 11. Royal Infirmaries were established in Edinburgh (1729), Aberdeen (1742), Dumfries (1778) and Montrose (1782). Dundee gained its Royal Infirmary in 1798.

5 See ‘Regulations Respecting the Admission of Patients,’ *Eighty-Eighth Annual Report of the Glasgow Royal Infirmary for the Year 1882*. 
6 Commitment to decency was not an idle pledge. In December 1881 Christopher Ferrier, an American seaman suffering from hemiplegia, a form of paralysis, and brought to the GRI by police was dismissed nine days later for 'irregular bad language.' See entry for December 7, 1881, Register of Admissions and Dismissions, Medical Wards, 1881, Glasgow Royal Infirmary, 1877-1882, HH 67/56/35, National Health Service Greater Glasgow and Clyde Board Archive, hereafter referred to as NHS Glasgow Archive.

7 In 1791 the population of Glasgow and suburbs was 66,578. By 1891 the city and suburbs contained 770,471 people. For census data for 1791 see James Nicol, *Vital, Social and Economic Statistics of the City of Glasgow, 1885-1891 with Observations Thereon* (Glasgow, 1891), p. 20 and for 1891 population data see p. 15.

8 For a discussion of the period before the 1863 Vaccination (Scotland) Act which made infant vaccination compulsory and failure to vaccinate a criminal offence, see Fiona Macdonald ‘Vaccination policy of the Faculty of Physicians and Surgeons of Glasgow, 1801-1863’ in *Medical History*, 41, 3, (July 1997), pp. 37. 119 vaccinations had been completed at the GRI between October 1857 and December 1881. *Eighty-Seventh Annual Report of the Glasgow Royal Infirmary for the Year 1881*, p. 22.

9 After 1876 all patients suffering from fever, other than typhus, were cared for in municipally-operated fever hospitals. A decade later typhus patients were excluded from the Royal. This allowed the Infirmary to eliminate fever wards and concentrate on surgery and general medicine. Jenkinson, Moss, Russell, *The Royal*, p. 117.

10 David Hamilton seems the only writer to have examined in any depth surgical records at the GRI. See his ‘Nineteenth Century Surgical Revolution – Antisepsis or Better Nutrition’ in the *Bulletin of the History of Medicine*, 56, (1982). The literature on the Royal contributes little to our understanding of the social context in which the hospital existed. *The Royal: the History of the Glasgow Royal Infirmary* attempts this but is firmly fixed in the commemorative tradition; Moses Thomas’ *The Glasgow Royal Infirmary and Royal Infirmary School of Medicine*, (Glasgow, 1888), a pamphlet version of his article published in the same year in the *Glasgow Medical Journal*, provides valuable information about the hospital but little about its place in Glasgow society. A similar criticism can be levelled at John Patrick’s *Short History of the Glasgow Royal Infirmary* (Glasgow, 1940). Guenther Risse identified a general contextual failure in histories of eighteenth century hospitals. He wrote in 1986: ‘With few exceptions, one simply finds single narratives of particular institutions written in commemoration of special anniversaries. These accounts are mostly repositories of information about prominent persons and
events shaping the hospital or tales of scientific progress depicting technological innovations. Building plans, staff rosters, and extant regulations sprinkle the overall story, which usually unfolds outside the social and political context of the times.’ His volume on the Edinburgh Royal Infirmary and Mary Fissell’s account of the Bristol Royal Infirmary are exceptions. See Guenther Risse, Hospital Life in Enlightenment Scotland, p. 4 and Mary E. Fissell, Patients, Power and the Poor in Eighteenth Century Bristol (Cambridge: Cambridge University Press, 1991). For a summary of hospital treatments at the GRI since 1794, see Eighty-Seventh Annual Report of the Glasgow Royal Infirmary for the Year 1881, p. 22.

11 John Strang published periodic accounts on vital statistics for Glasgow in the period 1851 to 1862. William West Watson published his reports on social and economic statistics in pamphlet form in the years 1863 to 1880. James Nicol, West’s successor, published two volumes (Vital, Social and Economic Statistics of the City of Glasgow, 1881-1885 with Observations Thereon (Glasgow, 1885) and a similarly named volume for 1885-1891 published in Glasgow in 1891) that provide details of life in the city over the decade. Morbidity, more commonly understood as illness, is not a factor in these volumes. The tradition of mortality over morbidity was maintained even in the twentieth century in William A. Horne’s chapter ‘Health,’ in J. Cumnison and J.B.S. Gilfillan, eds., The Third Statistical Account of Scotland: Glasgow (Glasgow: Collins, 1958), although the mould had been cracked four years earlier by a rival account, A.K. Cairncross, ed., The Scottish Economy: A Statistical Account of Scottish Life by Members of the Staff of Glasgow University (Cambridge: Cambridge University Press, 1954). In that volume T.T. Paterson examined morbidity separately from mortality. R.A. Cage briefly addressed morbidity in his chapter ‘Health in Glasgow’ in the volume he edited, The Working Class of Glasgow (London: Croom Helm, 1987).

12 Archibald K. Chalmers, A New Life Table for Glasgow Based on the Mortality of the Ten Years 1881-1891; (Glasgow, 1894).

13 Medical Ward Books, Registers of Admissions and Dismissions (Medical Wards) and the Royal Infirmary’s Annual Reports are held by the NHS Archive, stored in space at the Mitchell Library, Glasgow. I appreciate the guidance and advice I received in my research from the NHS archivist, Alistair Tough.

14 Medical Ward Books, maintained by examining physicians, are the only source of commentary on patients’ histories and physical conditions. Regrettably, no complete set of Medical Ward Books exists for this period. I have relied on volumes from 1875 to 1881 for patient histories, physical conditions and treatments. Most extant volumes in the period seem to deal with female patients.
15 I am grateful to LeRoy Heffernan, MD, FRCPC, of Kentville, Nova Scotia and Donogh Murphy, MB, ChB, FRCPC, of the Shaikh Khalifa Medical Centre in Abu Dhabi, who read and commented on this paper. Any errors remaining in the text are my responsibility and should not be attributed to these knowledgeable and capable medical practitioners.


18 GRI, Medical Ward Book, October 5 1875, 116, HH67/8/4, NHS Glasgow Archive. Hydrocyanic acid, a nerve and cardiac sedative, is a deadly poison. When used in minute amounts it was deemed effective in suppressing coughs and vomiting.

19 Ibid., p. 117

20 In 1881 the deaths of 2,137 residents of Glasgow were attributed to bronchitis. Over the 20 years between 1865 and 1884 an average of 2,114 bronchitis sufferers died each year. Nicol, Vital, Social and Economic Statistics 1881-1885, pp. 36, 43.

21 Nicol, Vital, Social and Economic Statistics 1881-1885, p. 280. Data here is restricted to the city of Glasgow, excluding contiguous suburbs. There was a persistent but erroneous belief that poverty and phthisis were connected. Carolyn Pennington cites statements by Dr. Russell in 1878 and by Dr. Thomas Dewar as late as 1911 linking the two conditions. See Ms Pennington’s chapter, ‘Tuberculosis,’ in Olive Checkland and Margaret Lamb, eds., Health Care As Social History: The Glasgow Case (Aberdeen: Aberdeen University Press, 1982).

22 The contagious nature of phthisis was not known until 1882. Robert Koch, a German researcher discovered that the disease derived from the tubercle bacillus, spread from person to person through the air. A bacteria-filled droplet is inhaled into the deepest portion of the lung, where the bacteria reproduce and spread through the body. At this point, the body’s immune system usually can prevent bacteria from replicating but normally cannot eradicate them. For many, the disease remains in this dormant state for life. The discovery of the aetiology of phthisis was not universally accepted by the medical profession for a number of years after Koch’s breakthrough.
Convalescent homes appeared as early as 1865 with the gift of two properties near Hamilton in Lanarkshire by Miss Beatrice Clugston. Over the next 20 years a number of homes were opened to convalescing hospital patients. Miss Marjory Schaw sponsored the creation of a large facility in Bearsden, northwest of Glasgow, for patients from the Glasgow Royal Infirmary. However, the first sanatorium specifically for phthisis patients, Bellefield Sanatorium in Lanark, opened in 1904. See Pennington, ‘Tuberculosis’ in Checkland and Lamb, *Health Care As Social History*, p. 93. William Horne outlines the development of sanatoria in his chapter on ‘Health’ in Cunnison and Gilfillan, *Third Statistical Account, Glasgow*, pp. 486-487. For an interesting discussion of the interplay of tuberculosis and architecture see Margaret Campbell, ‘What Tuberculosis did for Modernism: The Influence of a Curative Environment on Modernist Design and Architecture,’ *Medical History*, 49, 4 (2005), pp. 463–488.

Forty-one percent of female patients 25 years of age or younger suffered from phthisis, bronchitis or rheumatism; the same conditions affected 39.3% of female patients over 25 years of age in 1881. Overall 40.3% of females and 42% of males were admitted to the GRI with the same complaints. Thus, one cannot explain the higher rate of improvement for younger women solely by reference to the nature of their illnesses and therefore one should consider patient vitality. An aspect influencing female response to hospital treatment might also rest in admission selectivity. Only 36% of patients were females in 1881 and one senses that a quota was in effect. In only 2 months (January and February) did the percentage of admitted females rise to 41% and in only one (June) did it fall below 30%. This quota may have been related to the instructional needs of the Medical School at the GRI.

32 This was particularly true in the case of phthisis or pulmonary tuberculosis. The antibiotic, streptomycin was first isolated in 1943 and in clinical trials after World War II was found to be effective in stopping the bacterial growth that caused tuberculosis. It must not be overlooked, however, that two important preconditions to a healthier society had been implemented by Glasgow municipal and medical officials by the mid to late Victorian period: sanitation improvements and vaccinations. However, without the addition of antibiotics, medical professionals were severely handicapped in their war on diseases.

33 Most patients were fed bread, milk and porridge for breakfast and beef or mutton broth with bread, followed by rice or bread pudding at mid-day. Evening meals consisted of porridge, bread and a small beer. For breakfast the full diet for patients free of digestive problems was as above with the addition of a small beer; mid-day began with broth, followed by boiled beef, mutton or fresh fish, winding up with a pudding. At night porridge and bread was complemented by a measure of beer. Thomas Ferguson cites an end of century study on diets of labourers' families in Edinburgh, indicating that breakfast of more nutritious porridge and milk of earlier Scottish society had been replaced by an unhealthy one of tea and bread: ‘Were one meal of porridge and milk taken daily in place of one of ‘tea and bread meals’ . . . the labourer’s diet would be vastly improved and its outstanding faults cured.’ In Scottish diets of the period vegetables, other than potatoes, do not play any significant role. See Jenkinson, Moss & Russell, *The Royal*, p. 32 and Thomas Ferguson, *Scottish Social Welfare, 1864-1914* (Edinburgh and London: E & S Livingstone, 1958), p. 220.

34 In 1881 only 7 of 243 rheumatism patients were sent home diagnosed as in status quo. All others were noted as improved or greatly improved.

35 James Nicol charted deaths in Glasgow over a 20 year period and in he noted 1881 phthisis claimed 1,573 Glaswegians; in the same year bronchitis deaths amounted to 2,137, 527 of whom were 60 years or older. Nicol, *Vital, Social and Economic Statistics 1881-1885*, pp. 42-43.

36 James Nicol supplied classifications of deaths by major illnesses for each year but his data are divided into broad age categories: under 5; 5 to 19 years of age; 20 to 59 years; and 60 years of age and older. In the case of phthisis 1,025 of 1,573 deaths were of people 20 to 59 years of age in 1881. Nicol, *Vital, Social and Economic Statistics, 1881-1885*, pp. 35-41.
37 In 1881 12% of patients (159) died in the medical wards of the Glasgow Western Infirmary. *Seventh Annual Report of the Western Infirmary of Glasgow*, p. 13. A comparative framework might prove helpful. Concerned to remove any lingering doubts about mortality rates in eighteenth century Scottish hospitals, Guenther Risse cites statistics for the Edinburgh and Aberdeen Royal Infirmaries in the second half of that century. He states that in the Edinburgh teaching wards, which housed acute and serious cases, the mortality rate did not exceed 8% between 1780 and 1800. As he says, this figure 'hardly supports a view of the infirmary as a 'death trap.'" According to his analysis, death rates at the Aberdeen Royal were lower, hovering around 3% between 1770 and 1786. It is difficult to reconcile the death rates in the GRI in the 1870s and 1880s with those cited for Scottish hospitals a century earlier. A powerful explanation of fluctuation in mortality rates in the nineteenth century was inadequate diet but nutrition seems an unlikely explanation of disparities of this order from one century to another; Risse, *Hospital Life in Enlightenment Scotland*, pp. 290-291.


39 Presbytery of Glasgow, *Report of the Commission on the Housing of the Poor in Relation to their Social Conditions* (Glasgow, 1891), p. 11. Glasier's testimony was given in 1889 and although he knew the world of the Glasgow workers intimately, the effect of his testimony was probably weakened by his socialist political agenda.

40 ‘The opinion they [Commissioners] early formed, was fully confirmed on the evidence, that for working men whose wages are over 20s., there is a full supply of good houses at moderate rates.' Thus the Commission focused its enquiry on housing and social issues of working men and women who earned less than 20s. weekly. *Report of the Commission on the Housing of the Poor*, p. 10.

Each patient record identified the subscriber. Somewhat more than 10% of the almost 2,400 notations indicate the subscription was paid by ‘workers at’ or ‘employees of’ particular firms. However, matching the Medical Register’s notations against lists in the Infirmary’s Annual Report of subscribers for the year, one is able to determine under which category of subscriber the patient was actually admitted. For instance, a firm might be listed as the subscriber in the Medical Register but in the annual listing of subscribers the company was not noted as a contributor but workers were. In other cases both workers and employers were listed in the financial report. There were five categories of contributors who donated funds to the Royal Infirmary in 1881: ‘Subscriptions from employés [sic] in public works, warehouses and other establishments’; a very small ‘Donations and contributions’; ‘Church collections’; another small category, ‘Clyde Steamers and Harbour’; and ‘Annual subscriptions’ from individuals, companies and professional organisations in Glasgow and the West of Scotland. The sum subscribed by each donor is also listed. In addition, the Medical Register includes the name of the person who signed the ‘line.’ Those authorising the line in 1881 were traced in the census of that year to establish their occupations and personal details.

Among the 13 private patients were 3 labourers, 2 domestics, 1 housewife, 1 shoemaker and 1 tradesman, a spirit merchant, a commission salesman, a Free Kirk Minister, a teacher and a stockbroker.

The author reviewed each of the 303 patients for whom no subscription was received and determined that 81 were emergency patients for whom no subscription was required; 27 had been transferred from surgical wards who might have been emergency admissions or had been noted as subscribers when admitted to surgery (no surgical Register for 1881 exists); 2 prisoners from the North Prison and 1 from Sheriff’s cells were admitted to the medical wards and payment would be made later by the government; 2 patients were admitted who were army pensioners and whose care would ultimately be paid for by Army Pension Board. One can only assume that employee groups or employers of the 190 persons admitted without subscription had previously subscribed funds to the GRI but that their subscriptions had not been renewed for 1881.

46 Among patients supported by churches it is not possible to determine who were members of congregations, for which hospital admission was a benefit of membership, and who were in receipt of charity. Of the 97 patients supported by parishes or churches 70 indicated they were employed. Sixteen patients were housewives and 9 were children. The largest categories of employment were domestics (16), cotton mill operatives (5) and labourers (4). Twenty-seven patients were admitted to the Royal whose costs were met by various district Inspectors of Poor.

47 Sydney Checkland, ‘British Urban Health in General and in a Single City’ in Checkland and Lamb, Health Care As Social History, p. 172.


49 During this period the Western Infirmary, Glasgow’s other voluntary hospital, utilised a card index to record admitted patients. Unfortunately these cards have not survived; therefore it is not possible to replicate this study at the Western. Annual Reports do survive, however, and data given here is derived from the Seventh Annual Report of the Western Infirmary of Glasgow for the Year Ending 31st October 1881, p. 1.

50 I am currently examining applications for relief in the City Parish in 1881. Preliminary analysis of the approximately 2,000 first-time applicants indicates that those subsequently admitted to the poorhouse were either aged and without support or infirm. No individual was admitted without first being examined by a physician to verify claims of ill health or debility.


52 Paterson, ‘Health,’ The Scottish Economy, Table 104, 219 and Table 103, 218. In a November 2007 media release the British Lung Foundation named Glasgow and Lanarkshire ‘hot spots’ in the United Kingdom for Chronic Obstructive Pulmonary Disease (COPD). The Foundation’s research suggested residents in Greater Glasgow & Clyde and Lanarkshire were 52% and 44% more at risk of hospital admission with COPD respectively than the UK average. The condition kills more than 4,500 Scots every year but many people do not know they have it, according to the Lung Foundation. The charity calls for targeted NHS campaigns in known hotspots. COPD is a non-specific term for a number of illnesses including chronic bronchitis and emphysema.

Other indicators of worker responsibility and self-sufficiency are found in banking records during the same period. The ledgers of the Bridgeton Cross branch of the Savings Bank of Glasgow demonstrate that large numbers of working people in Glasgow’s East End, acting individually or collectively, employed a wide range of thrift strategies. See my article, ‘Aspects of Thrift in East End Glasgow: New Accounts at the Bridgeton Cross Branch of the Savings Bank of Glasgow, 1881,’ *International Review of Scottish Studies, IRSS, 32* (2007).

In 1881 607 employee groups from various firms in the West of Scotland contributed £5,240, an average of £8. 8s. In the same year the average donation from individuals, churches and corporate groups was £1. 4s.

Patients admitted in 1881 received lines from either 330 workers’ groups or from 591 firms, churches or individual subscribers. When these contributions are analysed, it becomes apparent that workers’ contributions that year were more substantial than corporate or charitable donors: 16 donations from employee groups were £50 or greater; 16 firms contributed £50 or more; 95 employee groups subscribed between £10 and £49; 74 firms did so; 95 employee groups contributed between £5 and £10; 80 firms contributed the same amount; and 124 employee groups donated less than £5 and 421 firms were found in this category.

Workers’ subscriptions in 1881 amounted to £5,240 compared to £7,051 from corporate and individual subscribers that year. In addition £1018 was subscribed by area churches; Clyde ship crews contributed £53. In total, subscription income was £13,362. In 1873, before the depression began, workers’ subscriptions rose to £7,357, virtually equalling the £7,482 in subscriptions from corporate and individual subscribers. *Eighty-Seventh Annual Report of the Glasgow Royal Infirmary for the Year 1881*, p. 54

Moses Thomas, *Glasgow Royal Infirmary*, p. 10. Paul Johnson pointed out that London’s voluntary hospitals had embraced a similar scheme in 1874 whereby workers who contributed to the Hospital Saturday Fund could receive tickets for admission to the wards or the ability to nominate others. See Paul Johnson, ‘Risk, redistribution and social welfare in Britain from the poor law to Beveridge’ in Martin Daunton, ed., *Charity, Self-Interest and Welfare in the English Past* (New York: UCL Press, 1996), p. 235.