

# Medical care for industrial accidents in a late 19<sup>th</sup> century British voluntary hospital – self help, patronage, or contributory insurance ?

*Michael 2006; 3:135–56.*

## *Summary*

*This paper presents a case study of the available medical care for industrial accidents in a late nineteenth century British voluntary hospital, North Ormesby Hospital near Middlesbrough in the North Riding of Yorkshire. It is mainly concerned with the implications of the medical care provided by the institution, and the complex nature of welfare instruments through which the working population of the area ensured their safety-net, given that the hospital was supported largely by subscriptions from the industrial workers throughout the period under review. Since its erection in 1859, the hospital came to rely heavily on the collections raised by the workers of the iron & steel and railway companies in Middlesbrough. Based on the examination of the Council Meeting Minute Books, the Case Books and the Annual Reports of the hospital during the period, it concludes that the funding of medical care provided by a local voluntary hospital was a composite of different factors, i.e. self-help promoted among the working population, patronage or paternalism of management towards workers together with an intent for securing a robust and efficient labour force, and an early form of contributory insurance.*

## **Aims**

Recent investigations in modern British medical history tend to indicate that health care during this period came in many guises and was offered through a multiplicity of institutional forms. They also suggest a complex network of overlapping systems for insuring against the health risks, from solidaristic friendly society membership to contractual medical aid companies.<sup>1</sup> Thus any simple assertions about the development of British medical

welfare, for instance, from private to public, or local to national, must be erroneous as Professor Paul Johnson has pointed out.<sup>2</sup> We should recognise a great variety of welfare instruments prevailing in Britain before or even after Beveridge.<sup>3</sup>

This paper is intended to present a case study of the available medical care for industrial accidents in a late nineteenth century British voluntary hospital, North Ormesby Hospital near Middlesbrough in the North Riding of Yorkshire. It is mainly concerned with the implications of the medical care provided by the institution, and the complex nature of welfare instruments through which the working population of the area ensured their safety-net, given that the hospital was supported largely by subscriptions from the industrial workers throughout the period under review. Therefore it would be proper to say at the beginning that from its foundation this hospital had been organised on a different basis in fund-raising from the voluntarism in the sense of the eighteenth century philanthropic and charitable principle.<sup>4</sup>

The Council Meeting Minute Books of the hospital from 1867 to 1907<sup>5</sup> are consulted in order to analyse the relationship in interests between the medical institution, the town's staple industries of iron & steel and railway, and their workforces. The Case Books from 1861 to 1870<sup>6</sup> and from 1883 to 1908<sup>7</sup> as well as the Annual Reports of the hospital<sup>8</sup> are also examined to reconstruct a profile of the age, gender and occupation-specific morbidity of its patients, and trends in the sources of hospital income.

### **Morbidity as seen in the hospital records**

First of all, let us consider overall figures for morbidity as seen in the hospital records, in the two periods, immediately after its erection from 1861 to 1870, and from 1883 to 1908. In both periods, a male bias in the in-patients is apparent, but in the later period, the bias became slightly less salient with males accounting for 67 per cent of the total 15,137 in-patients as compared to 72 per cent of the total 1,454 in the earlier period.<sup>9</sup>

Figure 1 indicates changes over time for half a century in the number of in-and out-patients admitted as well as in the composition of surgical and medical cases.<sup>10</sup> From the opening of the hospital, out-patients outnumber in-patients, which seems rather natural, given the accommodation and expenses for nursing care for the in-patients. On average, the number of out-patients was virtually twice that of in-patients, and at the beginning of the twentieth century, there were considerably more of the former than the latter.

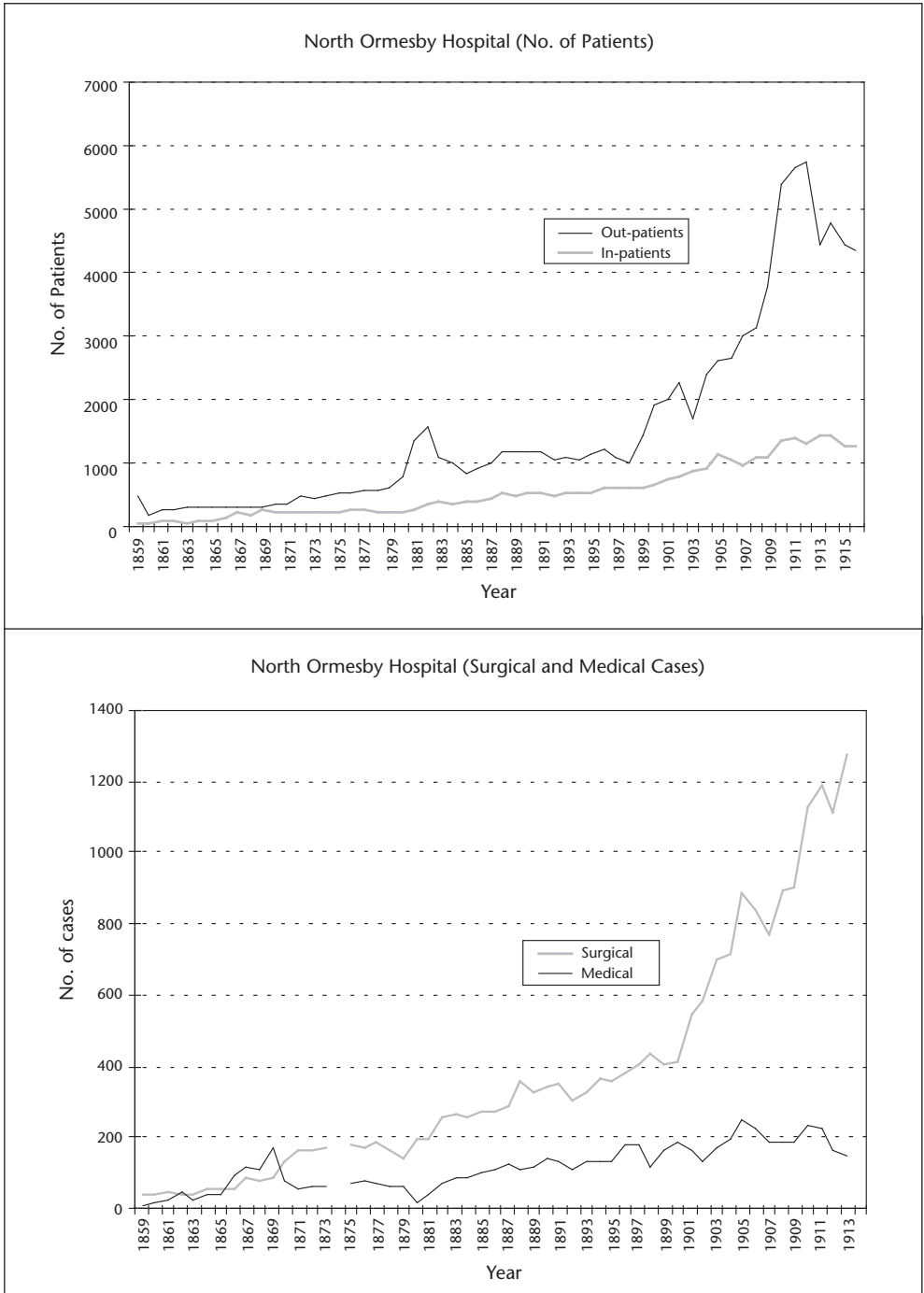


Figure 1: North Ormesby Hospital (Patients)

It is interesting to note that except for a very short period in the late 1860s, the hospital accommodated many more in-patients suffering from surgical rather than internal, medical illnesses. This seems to reflect one of the features of morbidity as seen among the people living in the Middlesbrough area in the late nineteenth century, especially among males.

If we look at gender- and age-specific distributions of the in-patients (See Figure 2), we will notice that between the two periods, there occurred some remarkable changes in the age structure of the in-patients. In the first

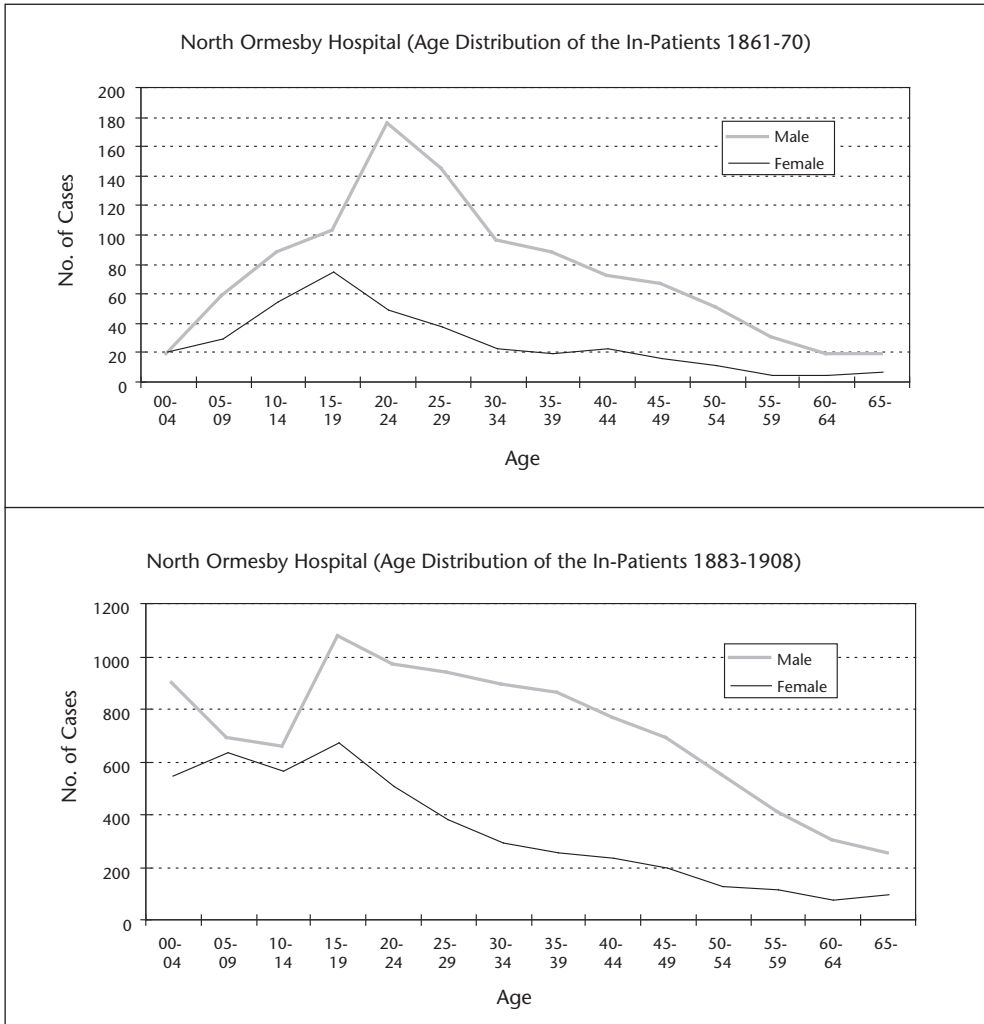


Figure 2: North Ormesby Hospital (Age Distribution of the In-Patients)

period, the highest point for males appears among the age groups of 20 to 24 and then of 25 to 29, whereas in the second period, a peak is found in younger age group of 15 to 19 with older age groups from 20 to 24 onwards showing higher levels throughout. The other marked change is discernible in the distributions of infant and child patients, especially in the male age group from 0 to 4 years of age, which in the second period occupy significant proportions.<sup>11</sup>

This is likely to be accounted for partly by the changes in the age structure of the population from the 1880s onwards, dependent upon the decreasing in-migration of the age groups of 20 to 24, and from 25 to 29, due to the staple iron & steel industry of the town being somewhat diminished.<sup>12</sup> It also seems to have been caused by the fact that towards the end of the nineteenth century, not only did adult males have a claim to the care provided by the hospital, but their wives and children could also increasingly expect to be received into the hospital as appropriate. From 1866 onwards, a special ward for sick children had been set apart.<sup>13</sup> These facts suggest changes occurring between the two periods in the fundraising policy of the hospital. For instance, the changes might have resulted from the hospital's efforts to increase contributors by providing greater access to their dependants.<sup>14</sup>

The most frequent cause of admission for males in the first period is, as is shown in Table 1, from accidents; for instance, injuries, burns, and fractures, whereas women are mostly admitted for internal diseases, such as rheumatism, abscess, and debility. In the second period, the picture is almost similar. For males, surgical cases are also predominant with frequent ailments being compound and simple fractures, burns, bruises and contusions, whilst females are frequently admitted from ulcer, chorea, anaemia, tonsils and adenoids, and tuberculosis, all of which are internal and medical illnesses. Duration of in-patient treatments for females in later period, 34.4 days on average, was slightly longer than that for males, 31.1 days on average, which seems to indicate decreased emphasis upon the acute sick for women.<sup>15</sup>

For the accidental cases, injuries to feet, legs, ankles and backs are conspicuous. These injuries were mainly due to workplace accidents both in the iron works, and upon the railways. As the compilers of the annual reports of the hospital during the period often grieved, the burns were of the most frightful kind, chiefly from molten iron.<sup>16</sup> Compound and simple fractures together with burns and injuries account for almost half of the causes of death in the first period, whilst in the second period, the most frequent causes of death are also from accidental cases of frac-

*Table 1: Morbidity as seen in the Hospital Records*

(1861–1870)			
Male		Female	
injury	191	rheumatism	28
burn & scald	125	abscess	27
fractures	122	debility	26
rheumatism	82	ulcerated legs, etc.	24
abscess	49	burn	20
ulcerated legs, etc.	47	injury	14
crushed legs, etc.	35	conjunctivitis	13
bronchitis	29	bronchitis	12
conjunctivitis	21	chorea	11
phthisis	20	synovitis	11
others	255	others	165
<b>Total</b>	<b>976</b>	<b>Total</b>	<b>351</b>
(1883–1908)			
Male		Female	
fractures	1,082	ulcer	253
burn & scald	689	chorea	193
bruise	502	anaemia	177
contusion	327	tonsil and adenoid	177
ulcer	304	tuberculosis	169
inguinal & other hernia	234	abscess	149
abscess	223	gastric ulcer	135
tuberculosis	223	burn & scald	114
crush	210	eczema	92
rheumatism	206	necrosis	92
laceration	204	rheumatism	90
pneumonia	150	carcinoma & cancer	82
bronchitis	141	fractures	79
sprain	131	keratitis	70
necrosis	127	dyspepsia	63
others	5,315	others	2,872
<b>Total</b>	<b>10,068</b>	<b>Total</b>	<b>4,807</b>

North Ormesby Hospital, Case Book, 1861-1870, Teesside Archives, H/NOR 10/1,  
 North Ormesby Hospital, Case Books, 1883-1888, 1885-1908, Teesside Archives,  
 H/NOR 10/2, 3

Table 2: Causes of death

Male					
1860 – 1870			1883 - 1908		
	No	%		No	%
compound & simple fractures	15	26.3	compound & simple fractures	90	15.8
injury	7	12.3	pneumonia	52	9.2
burn & scald	6	10.5	burn & scald	37	6.5
phthisis	6	10.5	phthisis & tuberculosis	25	4.4
abscess	4	7.0	strangulated hernia	12	2.1
bronchitis	3	5.3	bronchitis	12	2.1
others	16	28.1	others	340	59.9
<b>Total</b>	<b>57</b>	<b>100.0</b>	<b>Total</b>	<b>568</b>	<b>100.0</b>
Female					
phthisis	2	25.0	tuberculosis	16	7.0
burn & scald	1	12.5	burn & scald	15	6.5
			cardiac diseases	9	4.0
			strangulated hernia	9	4.0
			cancer	7	3.0
others	5	62.5	others	173	75.5
<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>Total</b>	<b>229</b>	<b>100.0</b>

North Ormesby Hospital, Case Book, 1861-1870, 1883-1888, 1885-1908, Teesside Archives, H/NOR 10/1, H/NOR 10/2, 3.

tures and burns, comprising 22 per cent of the total deaths of 568 (See Table 2).

Hospital mortality in both periods was more than 5 per cent on average with a male mortality of 6.0 per cent (See Figure 3).<sup>17</sup> This was clearly higher than those observed in other voluntary hospitals, for instance, 3.1 per cent for the male in-patients in the General Infirmary at Leeds at the beginning of the 19<sup>th</sup> century.<sup>18</sup> Consumers of medical services, chiefly of the male manual workers employed in heavy industries, living in a physically hazardous environment, had a strong influence upon the hospitalisation in this area.

### Fund-raising

Figure 4 indicates the proportions of the subscriptions and donations offered by the employees of various firms in the Middlesbrough area of all the ordinary subscriptions and donations received by the hospital.<sup>19</sup> It is impressive to note that workers' contributions to the hospital fund were con-

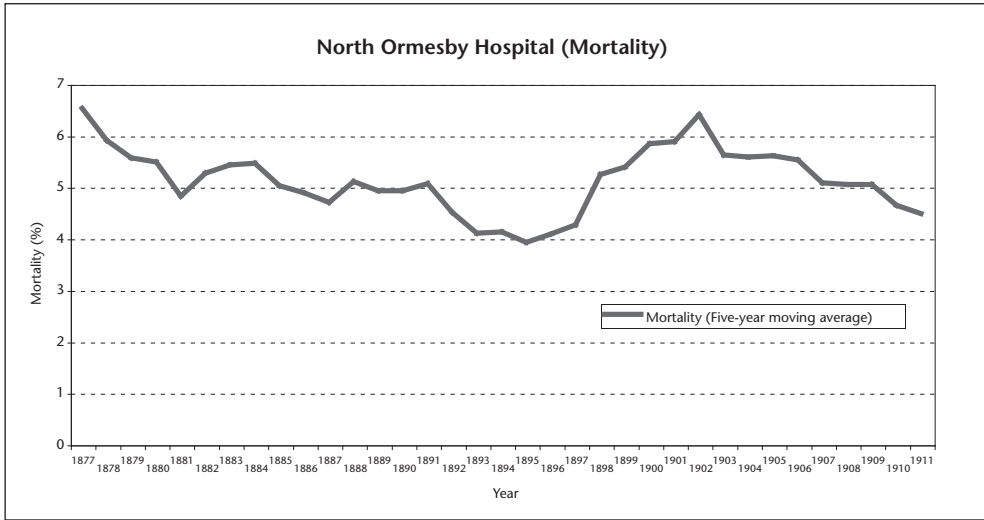


Figure 3: North Ormesby Hospital (Mortality)

siderable throughout the period. Their contribution accounts for more than half of the hospital funds on average. Towards the end of the 19<sup>th</sup> century, shares of the hospital's ordinary income derived from workers' subscriptions rose rapidly to more than 60 per cent. At the beginning of 20<sup>th</sup> century, the hospital was run almost entirely from workers' subscriptions. Thus it could safely be said that throughout its history from 1859, this hospital relied to a great extent on the workmen's contributions for its fund-raising.<sup>20</sup>

The same tendencies were seen in the institutions of other heavy industry areas, like Glasgow, Sheffield, Sunderland, Newcastle or Swansea, where accidents, emergencies and environmental diseases were prevalent.<sup>21</sup> Yet, even compared to these institutions, North Ormesby Hospital's sources of income were extremely concentrated on the collections from these heavy industry workers, which is probably rare in the history of British hospital development during the period under observation.<sup>22</sup>

Differences in the finance and fund-raising activities between this institution and other hospitals are worth noting. Table 3 compares the subscribers for North Ormesby Hospital in 1876 to those for the General Infirmary at Leeds in 1857.<sup>23</sup> The proportions of subscriptions collected from the employees in the Middlesbrough area account for as much as 65 per cent of all the subscriptions, whereas those from the companies cover less than one-tenth of the contributions from the workers, that is, only 5.5 per cent. As for individuals, the amounts from the peerage and



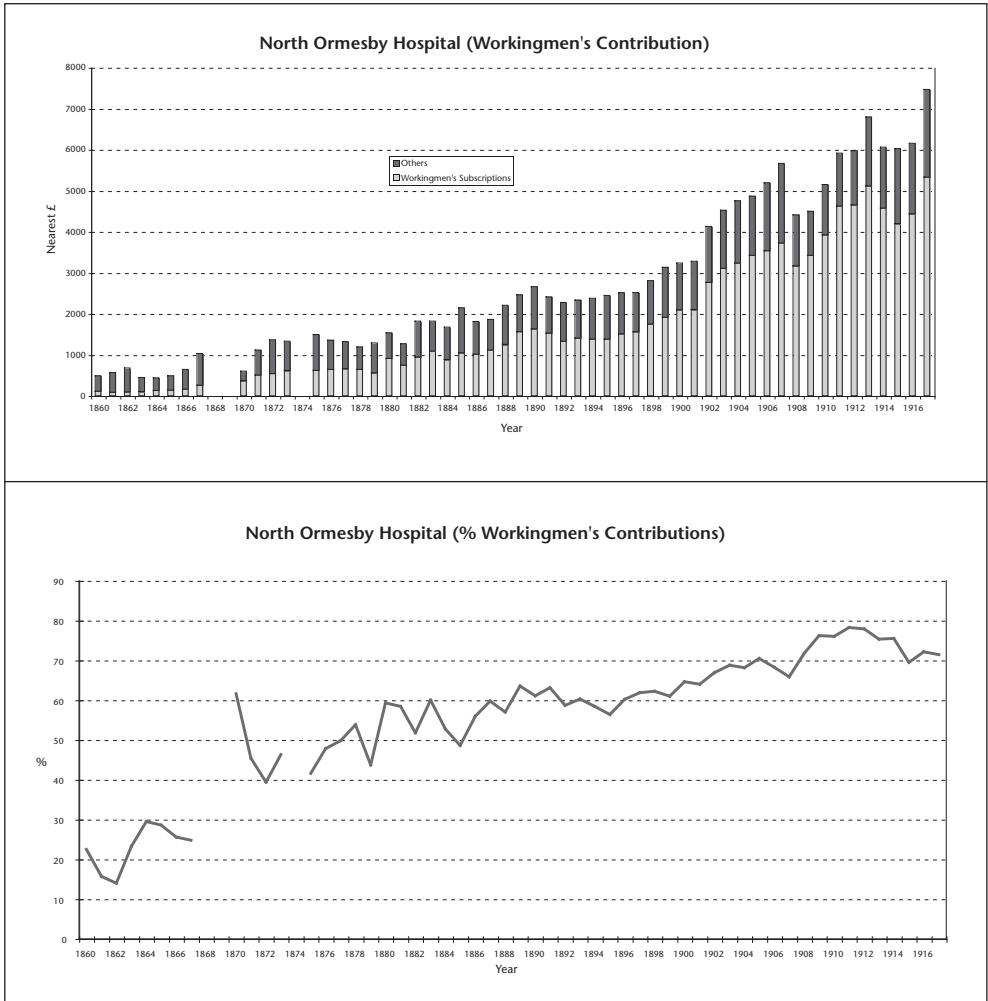


Figure 4: North Ormesby Hospital (Workingmen's Contributions)

gentry comprised 9 per cent, whilst the ordinary lay people contributed 4 per cent.

In contrast to this pattern of fund-raising, Leeds General Infirmary shows a more even distribution in subscriptions. As the General Infirmary at Leeds didn't adopt contributory scheme procedures, it did not receive any contributions from workmen as a body. Rather the Infirmary relied much more on the wealthy landed interests in the West Riding of Yorkshire. The peerage and gentry contributed 22 per cent of all the subscriptions to the Infirmary.

Table 3: Hospital Fund-raising (North Ormesby Hospital and General Infirmary at Leeds)

North Ormesby Hospital 1876				General Infirmary at Leeds 1857			
Subscribers	No. of Cases	Amount £	%	Subscribers	No. of Cases	Amount £	%
Companies	10	53.4	5.5	Companies	174	482.5	20.8
Friendly Societies	3	12.6	1.3	Friendly Societies	9	29.4	1.3
Poor Law Unions	2	12.6	1.3	Poor Law Unions	7	45.2	2.0
Overseers of the Poor				Overseers of the Poor	11	45.2	2.0
Other Organisations	3	4.4	0.4	Other Organisations	4	40.3	1.7
Individuals				Individuals			
Aristocrats	3	17.1	1.8	Aristocrats	23	123.4	5.3
Gentry	19	68.1	7.0	Gentry	119	390.3	16.8
Ecclesiastical	7	12.6	1.3	Ecclesiastical	45	110.5	4.8
Lay Mr.	18	23.3	2.4	Lay Mr.	396	761.3	32.9
Mrs.	10	13.6	1.4	Mrs.	93	202.4	8.7
Miss	9	7.8		Miss	40	86.1	3.7
Workers at various Co. Hospital Sat. & Sun. Fund		631.8	65.0				
		114.5	11.8				
<b>Total</b>		<b>971.8</b>	<b>100.0</b>		<b>921</b>	<b>2,316.6</b>	<b>100.0</b>

The Eighteenth Annual Report of the Cottage Hospital, North Ormesby, Middlesbrough, 1876, pp 10-13, The Annual Report of the State of the General Infirmary at Leeds, from September 29<sup>th</sup>, 1856 to September 29<sup>th</sup>, 1857.

Also among the important supporters of Leeds General Infirmary were the rising bourgeoisie of manufacturers and merchants, the petite bourgeoisie consisting of shopkeepers and professionals, as well as other middle class people. Thus contributions from these lay individuals are of primary importance, forming more than 40 per cent. They seem to have exploited the voluntary hospital system, seeking some sort of respectability and patronage which a recommendation to hospitals might have brought, in return for subscribing to a fund for medical facilities. More importantly, subscriptions collected from industrial concerns, mainly the textile companies based in the Leeds area, account for 21 per cent of total subscriptions.<sup>24</sup>

On the other hand, with the exception of Snowden and Hopkins Iron Works, having subscribed a total of 5 pounds sterling, no companies made any contributions in 1860 in the locality in question.<sup>25</sup> So that, in fact, workers originally financed this hospital themselves. In order to show the relative importance in contributions to the hospital covering the period

*Table 4: Company and their employees' Contributions to North Ormesby Hospital (1860-1881)*

Name of Company	Company Contribution		Employees Contribution		Total amount	
	£	%	£	%	£	%
Cochrane & Co.	9 *	5.6**	152	94.4	161	100.0
Bell Brothers	14	23.0	47	77.0	61	100.0
Gilkes, Wilson, Pease & Co.	10	25.0	30	75.0	40	100.0
Clay Lane & South Bank Iron Works	0	0.0	55	100.0	55	100.0
Gjers, Mills & Co.	0	0.0	15	100.0	15	100.0
Samuelson & Co.	5	100.0	0	0.0	5	100.0
North Eastern Railway	10	28.6	25	71.4	35	100.0
	48	12.9	324	87.1	372	100.0

\*: Average £ per annum

\*\* : % contribution to each company

North Ormesby Hospital, The first to fiftyninth Report of the Cottage Hospital, North Ormesby, Middlesbrough, 1860 – 1881.

from 1860 to 1881, proportions of the total contributions provided by the companies and their employees are shown in Table 4.<sup>26</sup>

Throughout the period, the total contribution from six major iron works and the local railway company amounted to less than one-seventh of the amount from their employees. Among them, Clay Lane and South Bank Iron Works and Gjers, Mills and Co. made no contributions at all, whereas their workers contributed totals of 55 and 15 pounds sterling respectively on average. The fact seems rather striking when we consider the number of patients sent in by these companies.

Among the companies sending their employees and their families to the hospital, Cochrane and Co., sent the highest number, as much as 30 per cent of all the male patients suffering from surgical cases, and 17 per cent for the male medical cases in the first period.<sup>27</sup> They recommended 13 per cent of the male and 9 per cent of the female in-patients in the second period (See Tables 5 and 6).<sup>28</sup> However, this company contributed a total of only 9 pounds sterling on average, throughout the period. By contrast, their employees subscribed as much as 152 pounds sterling on average.

It was often reported in the Council Meeting Minutes Books during the period that 'The Council would contrast the sum contributed by the working men with the small sum, which has been contributed by the employers of labour' or that 'working men who have so nobly assisted themselves deserve a little more encouragement at the hands of those who are owners of capi-

*Table 5: Recommenders (Companies)  
North Ormesby Hospital (1860 – 1871)*

Male Surgical Cases					
Companies				Diseases	
Names of companies	Occupations	No.	%	Names of diseases	
Cochrane & Co.	Ironworks	163	30.9	Injury	135
Bell & Brothers Co.	Ironworks	36		Burn & Scald	97
Gilkes, Wilson & Co.	Ironworks	22		Fracture	82
Hopkins & Co.	Ironworks	22		Crush	29
Backhouse, Dixon & Co.	Shipbuilding	20		Contusion	7
Bolckow, Vaughan Co.	Ironworks	16		Wounds	6
Stockton & Darlington Railway Co.	Railway	15		Others	18
Jones, Dunning & Co.	Ironworks	12			
Other Companies		58			
Total		372	69.9	Total	374
Others		33	6.2		
No recommendations		127	23.9		
<b>Total</b>		<b>532</b>	<b>100</b>		
Male Medical Cases					
Companies				Diseases	
Names of companies	Occupations	No.	%	Names of diseases	
Cochrane & Co.	Ironworks	75	17.0	Rheumatism	40
Gilkes, Wilson & Co.	Ironworks	19		Ulcerated legs	27
Bolckow, Vaughan Co.	Ironworks	14		Abscess	19
Bell & Brothers Co.	Ironworks	13		Bronchitis	11
Backhouse, Dixon & Co.	Shipbuilding	11		Phthisis	6
Hopkins & Co.	Ironworks	11		Pneumonia	6
Other Companies		30		Diseases	6
				Inflammation	6
				Others	53
Total		173	39.0	Total	174
Others		73	16.4		
No recommendations		198	44.6		
<b>Total</b>		<b>444</b>	<b>100</b>		

North Ormesby Hospital Case Book, 1861 – 1870, Teesside Archives, H/NOR 10/1.

*Table 6: Recommenders to North Ormesby Hospital (1883-1908)*

Recommenders	Number of Patients admitted	%
<b>Male</b>		
Cochrane & Co.	1,277	12.7
Emergency	539	5.4
Raylton Dixson & Co.	477	4.7
Cargo Fleet Iron Works	410	4.1
North Eastern Railway	357	3.5
Wilson, Pease & Co.	344	3.4
Bolckow & Vaughan Co.	285	2.8
Sadler & Co.	269	2.7
Anderston Foundry	239	2.4
Normanby Iron Works	237	2.3
Dorman Long & Co.	208	2.1
Bell Brothers	186	1.8
Clay Lane Iron Works	126	1.3
Accident	86	0.9
Others	5,028	49.9
<b>Total</b>	<b>10,068</b>	<b>100.0</b>
<b>Female</b>		
Cochrane & Co.	428	8.9
Emergency	204	4.2
Bolckow & Vaughan Co.	180	3.7
Dorman Long & Co.	178	3.7
North Eastern Railway	162	3.4
Cargo Fleet Iron Works	129	2.7
Anderston Foundry	118	2.5
Wilson, Pease & Co.	101	2.1
Sadler & Co.	99	2.1
Raylton Dixson & Co.	77	1.6
Normanby Iron Works	77	1.6
Bell Brothers	73	1.5
Clay Lane Iron Works	34	0.7
Accident	8	0.2
Others	2,939	61.1
<b>Total</b>	<b>4,807</b>	<b>100.0</b>

North Ormesby Hospital, Case Books, 1883-1888, 1885-1908, Teesside Archives, H/NOR10/2, 3

tal'.<sup>29</sup> The Council Meeting Minutes Books also noted 'the Owners of Works whose subscriptions have not covered the cost of patients sent in by them'.<sup>30</sup> Although it looked as if the ironmasters and railway company began to support joint contributory sick-pay schemes, companies' contributions were clearly minimal as compared to those provided by their workers.<sup>31</sup>

## Hospital management

The North Ormesby Hospital was founded in 1859 as a Cottage Hospital from the deep concern of its founder, Sister Mary of the Christ Church Sisterhood, over the lack of nursing care for those injured by the boiler explosion in the previous year at the Ironworks of Snowden, Hopkins and Company in Middlesbrough. It is interesting to note that whilst the hospital retained its religious, philanthropic or charitable influences<sup>32</sup> throughout the period under review, shortly after its erection, as we have seen, it came to rely on the money raised by the workers of the iron & steel, and railway companies. With this point in mind, we would like to consider the internal organisation of the hospital and how it was run.

At the outset, the promoters of the hospital must have tried to remain neutral in regard to opposing interests, and diligently pursued their own aims to establish an independent medical institution. Thus, they not only organised a workers' association named "The Working Men's Committee" in the hospital for the purpose of obtaining workmen's cooperation in aid of fund-raising, but also asked the employers of the area to make an arrangement for their workmen to contribute a small amount of money to the hospital.<sup>33</sup>

Moreover, the promoters called at the iron works themselves with the view to obtaining weekly contributions from the workers.<sup>34</sup> They undoubtedly urged the ecclesiastical community of the area as well to contribute, setting up various schemes including medical charities of the Hospital Saturday and Sunday Funds.<sup>35</sup>

Yet increasingly in terms of contributions to the fund-raising as well as of the number of patients admitted, this hospital came to function substantially as a worker's medical centre to treat accidental cases which were of almost daily occurrence owing to the dangerous nature of the work they were engaged in. Immediately after its erection in 1859, and before the formation of the Hospital Council in 1866, workers employed by four of the major iron companies of this area, Cochrane, Bolckow & Vaughan, Samuelson, and Snowden, contributed 110 pounds sterling, which accounts for as much as 23 per cent of the hospital's ordinary income.<sup>36</sup>

From the hospital's foundation, workers employed in these heavy industries took the initiative in establishing a system or organisation in the

hospital for collecting subscriptions, as suggested by a remark in the Council Meeting Minutes Books. It was reported that a deputation of the Working Men's Committee in the hospital 'made some suggestions as to improved organisation for collecting subscriptions and for attending to other matters affecting the interests of the hospital'.<sup>37</sup> Then, a sub-committee was appointed to consider the subjects brought before the Council Meeting by the Workmen's deputation, the result of which was a formation of the House Committee in 1870.<sup>38</sup>

It seems likely that the Working Men's Committee in the hospital formed in 1867 ceased to be active in operation at the beginning of the 1870s after it had fulfilled its role of acting as trustees for enabling the working people in the area to form a close relationship to the hospital, and support it with substantial contributions.

The House Committee consisted of 20 to 36 individuals each representing the iron & steel, and ship-building, railway companies and chemical factories, as well as a friendly society. This Committee seems to have provided a better-organised structure than a provisional association of the Working Men's Committee.<sup>39</sup>

Meanwhile, the system of collecting workers' contributions to the hospital fund-raising became more systematized and structured, with the share of the hospital's ordinary income derived from workers' contributions rising to more than 60 per cent, as we have already observed. The working class in the Middlesbrough area tended to regard this hospital as especially their own, and to give it their united and systematic support, presumably with the intent of using it as one of the most important safety-nets available. Hence the Council itself thought highly of the fact that the workers were assisting themselves and promoting self-help.<sup>40</sup>

### **Self help, patronage, or contributory insurance?**

Contributions were likely to have been taken from the workers' wages in each company, and in the earlier period, the Working Men's Committee, or the Working Men's Meeting formed in the hospital, seems to have made an arrangement for their contributions to be subscribed to the hospital. The evidence from the pay books of Bell Brothers, one of the major iron works of the area, shows that skilled, semi-skilled and un-skilled labourers as well employed by the company in the late 1860s, spent approximately 5 per cent of their weekly or fortnightly wages on providing against emergencies.<sup>41</sup>

Bell Brothers made deductions from their workers' wages for house-rent, doctor's fees contracted with the company, payments to sick club, and

the 'Roman Catholic Fund'. 2 pence in contributions to North Ormesby Hospital were taken from their fortnightly wages. Another 4 or 6 pence were deducted to pay for the doctor, together with 1 shilling and 4 pence for the sick fund.

It could be said from this evidence that sick benefit services in the period were independently organised at individual works.<sup>42</sup> The evidence would also seem to indicate that within companies, besides ordinary sick benevolent clubs organised for providing compensation during illness, or for paying for the doctor's fees contracted with the firms, all of which were also financed with the contributions deducted from wages, there was a membership sick club especially designed for sending the injured to North Ormesby Hospital.

In times of sickness, scheme members could call upon this benevolent fund to which they each contributed only a minimal amount of money, say a farthing or a penny per week. If dependants of contributory scheme members needed hospital treatment, they could also apply to the fund. In the present state of our knowledge, the collecting system is not crystal-clear. However, most likely, the contributory scheme members and their dependants could enjoy free treatment in the hospital in return for their weekly subscriptions deducted from their wages. Members might have had to obtain company doctors' recommendations for hospitalisation.<sup>43</sup>

Obviously there were other channels available in this period through which the working class could support themselves in times of hospitalisation, for example as is shown in Table 7. It illustrates how fund-raising and expenditure were undertaken in the Middlesbrough branches of the Amalgamated Society of Engineers and the Steam Engine Makers Society, with those for the hospital in the same year for comparison.<sup>44</sup>

Unionised workers could expect fairly high proportions of the expenditures in medical care from their subscriptions, with as much as 29 per cent for the Steam Engine Makers Society and 9 per cent for the Amalgamated Society of Engineers. Yet especially for un-organised workers outside the formal associations such as trade unions, friendly societies, or other benevolent societies, the system relying on the medical care provided by a voluntary hospital of the area, would seem to have been an important self-supporting sick and accident fund based upon voluntarism.

Other iron and steel companies likewise must have supported a wide variety of welfare services for their workers. Company welfare was in the employers' interests, especially in the iron and steel industry. Reliance upon export markets forced the iron & steel industry to be highly competitive and susceptible to trade cycles. Therefore, company-based or company-



Table 7: Fundraising and Expenditures of Middlesbrough Associations 1876

Amalgamated Society of Engineers No. of Branch members: 228				Steam Engine Makers Society No. of Branch Members: 15				North Ormesby Hospital			
	£	s.	d.		£	s.	d.		£	s.	d.
<b>Income</b>											
Contributions etc.	515	11	8	Contributions etc.	21	16	7	Subscriptions	230	6	6
Received from other branches	110	0	0	Received from other branches	36	2	0	Subscriptions from Workmen	646	15	11
Others	36	3	3	Others	3	9	7	Donations	611	5	9
<b>Total</b>	<b>661</b>	<b>14</b>	<b>11</b>	<b>Total</b>	<b>61</b>	<b>8</b>	<b>2</b>	<b>Total</b>	<b>1,488</b>	<b>8</b>	<b>2</b>
Balance Dec. 1875	1,269	18	5	Balance Dec. 1875	21	11	8	Balance Dec. 1875	426	8	4
<b>Grand Total</b>	<b>1,931</b>	<b>13</b>	<b>4</b>	<b>Grand Total</b>	<b>82</b>	<b>19</b>	<b>10</b>	<b>Grand Total</b>	<b>1,914</b>	<b>16</b>	<b>6</b>
<b>Expenditure</b>											
Travelling	391	4	10	Travelling	2	8	7,5	House-keeping Acc.	1,477	14	11
Unemployed	-	-	-	Unemployed	13	10	0	Medical & Surgical Acc.	87	4	1
Sick	169	5	4	Sick	23	16	4	Furnishing & Repair Acc.	89		14
Funerals	12	0	0	Funerals	5	0	0	Establishment Acc.	284	5	0
Superannuation	4	8	0	Superannuation	-	-	-	Others	5	18	5
Others	39	12	11	Others	9	3	3,5				
<b>Total</b>	<b>616</b>	<b>11</b>	<b>1</b>	<b>Total</b>	<b>53</b>	<b>18</b>	<b>3</b>	<b>Total</b>	<b>1,914</b>	<b>16</b>	<b>6</b>
Balance, Dec. 1876	1,315	2	3	Balance, Dec. 1876	29	19	10	Balance, Dec. 1876	-	-	-
<b>Grand Total</b>	<b>1,931</b>	<b>13</b>	<b>4</b>	<b>Grand Total</b>	<b>82</b>	<b>19</b>	<b>10</b>	<b>Grand Total</b>	<b>1,914</b>	<b>16</b>	<b>6</b>

Amalgamated Society of Engineers, Yearly Report of Middlesbrough Branch, 1876, Modern Records Centre, University of Warwick, MSS 259/2/1/1. Annual Report of the Income and Expenditure of the Steam Engine Makers' Society, 1876, p. 198.

specific labour management and industrial welfare were important to iron and steel companies.<sup>45</sup>

Labour shortage or labour turnover was really a serious problem in a newly-built, isolated, industrial community exclusively dependent upon a staple industry of iron & steel and railways. As Professor Bob Fitzgerald has pointed out, in such a circumstance, employers tried to create an internal labour market within their firms, not only through improved security of employment but also by the provision of welfare benefits. In competitive industries such as iron and steel with small and medium-scale firms pre-dominant, this tendency was more remarkable.<sup>46</sup>

In addition, a paternalistic attitude made sense, especially among the non-unionised labour in small and medium-sized businesses prevalent in the iron & steel industry during the period under review.<sup>47</sup>

Apart from the company-based private welfare schemes which must have been rather unsystematic and less extensive at this stage, Middlesbrough's own economic structure, that is, a newly-founded town whose economy was extremely concentrated on iron & steel and the railways, gave rise to a peculiar welfare system, as seen here. A mono-industrial structure, with most of the workers enduring almost similar working conditions, was likely to have brought about common interests among the workers. Thus the medical care which prevailed in the area during the period, provided by a voluntary hospital based on contributory schemes rather than on an old subscription-recommendation system, could be said to be a quasi-public means for social security.

### **Conclusion**

In conclusion, let us consider the implications of the medical care provided by a British voluntary hospital in the late nineteenth century based on the case study of the early stage of a hospital system organised on nascent contributory schemes.

It is often suggested that Middlesbrough workers tended to be heavily involved in a range of self help organisations, such as friendly societies, trade unions or other benevolent societies, as for instance Professor Asa Briggs has noted.<sup>48</sup> The tendency seems to have resulted from the fact that it was an entirely new town, planted as late as 1830, and there were no fixed or disposable old endowments, available elsewhere, say, in London, Birmingham, Liverpool, Sheffield, Leeds or Glasgow, or other long-established towns. Thus Middlesbrough's working class had to strive to cater for their own needs, which was likely to have strengthened, among the workers there, a grass-roots solidarity.<sup>49</sup>

Strictly speaking, the system on which the management, finance and fund-raising of a voluntary hospital in this area were all based cannot be said to have originated from this working class grass-roots principle per se. As implied by a remark in the Council Meeting Minutes Books in 1867, iron companies would 'issue notices to their workmen recommending them to contribute a farthing each man weekly to the hospital'.<sup>50</sup> Initially, workers seem to have been rather passive in that they just followed what the promoters of the hospital or the employers of companies in the area tried to set up in terms of managerial, financial, or fund-raising mechanisms of this medical institution.

Nevertheless, once the system was established, workers could identify this hospital as a medical institution promoting their aims; hence they participated actively, as they seem to have welcomed this contributory scheme

which allowed for a certain-degree of grass-roots participatory democracy and encouraged a working-class tradition of self-help as Jose Harris has mentioned.<sup>51</sup> They tended to have regarded this hospital as particularly their own, designed to promote their self-help. Thus they continued to give this institution their united and systematic support to make it a reliable safety-net. The existence of this sort of medical institution in their vicinity could lessen the fear arising from severe industrial accidents due to the hazardous physical environment.

On the other hand, the maintenance and promotion of such a medical institution like the voluntary hospital as seen in this area, which virtually specialised in treating industrial accidents and emergency cases, seemed to have had tangible advantages for the employers, as a means of meeting the needs of their workforces, upon which efficient production depended. Thus, the origin of the medical welfare system in this area was a mixture of indirect company involvement and the encouragement of working-class self-help.

It consisted of the co-existence of the so-called 'mixed economy' of medical service provision with a charitable principle on the one hand, and a sort of contributory quasi-insurance arrangement, supported both by industrial and labour concerns on the other hand.<sup>52</sup> In this sense, what we have been seeing in this system was a composite of different factors, that is to say, self-help promoted among the working population, patronage or paternalism of management towards their workers together with the intention of securing a robust and efficient labour force, and an early form of contributory insurance.

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