

Food, Glorious Food: the Functions of Food in British Children’s Hospitals, 1852-1914

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Abstract

This article examines practices at Great Ormond Street Hospital for Children (GOSH) and, to a lesser extent, two other children’s hospitals, in particular the uses of food and diet in children’s hospitals in the second half of the nineteenth and early twentieth centuries. It will consider the role of diet in these hospitals’ therapeutic regimens but will also examine how food and meals were employed in rituals to settle distressed children and instil discipline and middle-class mores. This exploration of the social functions of food in an institutional environment draws on hospital archival material, and on the writings of one of GOSH’s early influential lady superintendents, Catherine Wood. Together, these sources provide an insight into Victorian feeding practices of hospitalised sick children before the availability of a modern pharmacopoeia and nutritional research.

Key words: Food, children, infants, nutrition, milk, alcohol, nursing, children’s hospital, poverty

Introduction

Food played a great part in the experience of young patients at Great Ormond Street Hospital for Sick Children (GOSH) and other children’s hospitals in the second half of the nineteenth century and the early twentieth. For many patients, a lack of food or its poor quality was a major cause of their admission in the first place and, once admitted, it formed a bedrock of the hospital’s therapeutic approaches to treatment. It was also at the heart of the hospital’s “civilising” project. This article will examine this multifaceted role of food at GOSH, and with occasional reference to other children’s hospitals, will demonstrate how the emerging science of nutrition was being harnessed by the equally new discipline of paediatrics.

Poverty and poor nutrition go hand in hand, and insufficient nourishment leads inevitably to ill-health. English social reformer Charles Booth, in correspondence with Seebohm Rowntree, estimated that between twenty-five to thirty per cent of Britain's population lived in poverty at the end of the nineteenth century, resulting in endemic poor health within urban communities.¹ Although general life expectancy among the population as a whole showed significant improvement as the end of the century approached, yet among the under-fives, mortality rates were only gradually declining and infant deaths remained stubbornly high.² Historians have debated the causes of these conflicting trends, and the relative contributions made by factors such as an insanitary environment, inadequate medical care and, most importantly for this study, poor nutrition.³

Thomas McKeown, in his influential, but now challenged, 1976 study of population growth, identified improved nutrition (and particularly the improved quality of milk) as the main positive influence on reduced death rates at the end of the century.⁴ But Peter Atkins and others have found much to disagree with in this argument. Atkins, for instance, contends that improvements in milk quality did not occur until after the First World War. He goes further to suggest that the challenge of supplying clean, unadulterated milk especially for the poor, was an ongoing cause of infant mortality. In his analysis, there were significant public health problems associated with milk.⁵ Paul Huck has also disagreed with McKeown's arguments. In his study of several English towns in the late nineteenth century, Huck identified a clear seasonality in the levels of infant mortality, which peaked in the summer months. His finding that breastfed infants appeared to be less susceptible to this seasonal rise than non-breast-fed infants, supported Atkins observations, suggesting that poor quality (infected, polluted) milk might be at the root of the problem.⁶ Both historians (along with

¹ B. Seebohm ROWNTREE, *Poverty: a study of town life* (3rd ed., London, 1902), p. 301.

² Anne HARDY, "Rickets and the Rest: child-care, diet and the infectious children's diseases, 1850-1914", *Social History of Medicine*, vol. 5, no. 3 (1992), pp. 389-412.

³ See Chris OTTER, "The British Nutrition Transition and its Histories", *History Compass*, vol. 10, no. 11 (2012), pp. 812-825, for a review of the historiography of British attitudes to nutrition.

⁴ Thomas MCKEOWN, *The Modern Rise of Population* (London, 1976).

⁵ Peter ATKINS, "White Poison? The Social Consequences of Milk Consumption, 1850-1930", *Social History of Medicine*, 5 (1992), pp. 207-227 and "Sophistication Detected: or the adulteration of the milk supply, 1850-1914", *Social History*, vol. 16 (1991), pp. 317-339.

⁶ Paul HUCK, "Shifts in the Seasonality of Infant Deaths in Nine English Towns during the Nineteenth Century: a case for reducing breast feeding?", *Explorations in Economic History*, vol. 34 (1997), pp. 368-386.

Woods *et al*) also claim that McKeown underestimated the extent to which breastfeeding was practised, which would render arguments for increased purity of bottled milk irrelevant in the search for causes of improved mortality.⁷

The significance and incidence of breastfeeding is at the centre of historians' debates on the issue of infant nutrition and while historians above all argue that breastfeeding was common practice in England (certainly more so than in continental Europe⁸), others have argued that there is less evidence to support a history of extended breastfeeding among the British urban working classes.⁹ Breastfeeding was discontinued for many reasons, from its impracticality for a working mother, to maternal health problems.¹⁰ A mother's own poor nutritional status not only reduced her ability to produce enough milk, but also compromised its nutritional value.¹¹ In this study, a survey of nineteenth-century case notes from Great Ormond Street Hospital (which incorporate a history of patients' feeding habits from birth and details of parents' medical histories) revealed widespread poor maternal health: inability to lactate or to produce sufficient quantities of milk were reasons for withdrawal of breast milk, but also cited were problems such as nipple abscesses, which were linked to poor hygiene.¹² Once the protection of breast milk was withdrawn, the poorest children were vulnerable, a point which George Newman, Medical Officer of Health for Finsbury, emphasised in his 1907 report on infant mortality.¹³

Breast milk replacements of dubious nutritional value increased that danger. White liquids that resembled milk were favoured substitutes: babies were fed on skimmed condensed milk (often sold door-to-door in poor areas) which had been watered down,

⁷ See R.I. WOODS, P.A. WATTERSON and J.H. WOODWARD, "The Causes of Rapid Infant Mortality Decline in England and Wales, 1861-1921, Part 1", *Population Studies*, vol. 42, no. 3 (1988), pp. 343-366 and "The Causes of Rapid Infant Mortality Decline in England and Wales, 1861-1921, Part 2", *Population Studies*, vol. 43, no. 1 (1989), pp. 113-132.

⁸ R.I. WOODS *et al*, "The Causes of Rapid Infant Mortality Decline ... Part 2 ...", p129.

⁹ Valerie A. FILDES, *Breasts, Bottles and Babies: a History of Infant Feeding* (Edinburgh, 1986).

¹⁰ R. I. WOODS *et al*, "The Causes of Rapid Infant Mortality Decline ... Part 2 ...".

¹¹ In a study of Jewish and non-Jewish communities in Manchester, lower rates of infant mortality were found in the former, which Hardy argues was a result of Jewish mothers' superior diet, traditionally heavy in oil, milk, eggs, fruit and vegetables. Anne HARDY, "Rickets and the Rest ...", pp. 404-405.

¹² See Robert MILLWARD and Frances BELL, "Infant Mortality in Victorian Britain: the mother as medium", *Economic History Review*, vol. 54, no. 4 (2001), pp. 699-733.

¹³ George NEWMAN, *Infant Mortality: a social problem* (New York, 1907), Chapter 8.

thickened with starch, and highly sugared.¹⁴ Condensed milk had been popular since the 1860s with the poor, for whom the cost of fresh milk was prohibitive.¹⁵ Much of this condensed milk was machine-skimmed, which removed seventy per cent of its nutritious fat content; and by 1906, the Medical Officer of Health for Stoke Newington was calling for the tins to be labelled “unsuitable for the feeding of infants”.¹⁶ With little nutritional value, the health of newborns was endangered, and these substitutes were a major contributor to ill health in infants and young children, being implicated in digestive problems, early dental caries and tuberculosis.¹⁷ In 1911, Dr F. J. H. Coutts reported to the Local Government Board specifically on the effect of condensed milk on infant mortality, “... the injurious results ... are malnutrition (as indicated by emaciation and atrophy), rickets, scurvy. Infants so fed show lowered vitality, with consequent reduced resistance to disease generally, and an increased liability to specific diseases such as diarrhoea.”¹⁸

Other options for young babies removed from the breast might be cow’s milk, or, by late century, one of the many commercial formulas. Where these were too expensive, sweetened watered cornflour was favoured, or pap, a sludgy concoction made from stale bread and watered-down milk.¹⁹ The jeopardy of removal of mother’s milk and the natural protection it afforded was thus aggravated by its replacement with foods of little nutritional

¹⁴ Graham MOONEY and Andrea TANNER, “Infant Mortality, a Spatial Problem: Notting Dale Special Area in George Newman's London” in E. GARRETT, C. GALLEY, N. SHELTON and R. WOODS (eds), *Infant Mortality: a continuing social problem. A volume to mark the centenary of the 1906 publication of “Infant Mortality: a Social Problem” by George Newman* (Aldershot, 2006), pp. 169-189.

¹⁵ Deborah VALENZE, *Milk, A Local and Global History* (New Haven, 2011), pp 184-191.

¹⁶ Henry KENWOOD, *The Metropolitan Borough of Stoke Newington: Report of the Medical Officer of Health and Public Analyst, 1906* (London, 1907), p. 18. Accessed online at <http://wellcomelibrary.org/moh/report/b18249759> (29 December 2013).

¹⁷ Valerie A. FILDES, *Breasts, Bottles and Babies ...* p. 123.

¹⁸ Ministry of Health, *Reports to the Local Government Board on Public Health and Medical Subjects*. N.S. no. 56, “Dr F.J.H. Coutts’s Report to the Local Government Board on an Inquiry as to Condensed Milks: with Special Reference to their Use as Infants’ Foods” (Food Reports, no. 15, London, 1911), pp. 31-32. Condensed milk is mentioned in nearly every London Medical Officer of Health’s Annual Reports by the late 1890s, yet the controversies surrounding it are, perhaps surprisingly, not discussed in Deborah Valenze’s seminal, *Milk, A Local and Global History*.

¹⁹ For a general history of infant feeding practices, see R. D. APPLE, *Mothers and Medicine: a social history of infant feeding 1890-1950* (Wisconsin, 1987). The Medical Officer for Acton in 1913 claimed that pap encouraged a craving for sweet things in children weaned on it, and that those raised ‘naturally’ preferred meat, fish and vegetables. “Urban District of Acton, Annual Report of the Medical Officer of Health, 1913”. Accessed online at <http://wellcomelibrary.org/moh/report/b19783474> (29 December 2013).

value.²⁰ Babies fed thus suffered from debility, inability to fight off infection and a general failure to thrive. These are the children who frequently presented at the doors of nineteenth-century children's hospitals.

Milk is (and was) the staple diet of infants and as described above, was closely linked to issues of infant mortality in the late nineteenth century. But for older children, poor nutrition could be just as devastating. In his sweeping 1970 study, Derek Oddy reviewed late nineteenth-century surveys of working-class diet. Poor families, he concluded, subsisted on a diet loaded in starch and lacking many essential nutritional components. Meals were dominated by potatoes and bread, devoid of fruit and vegetables (there was a prejudice against them) and, such meat as was eaten, was generally fatty bacon or cheap cuts of mutton.²¹ Furthermore, the diet of urban poor children was further compromised by high sugar content and sweet starch, with resultant tooth decay extensive, as observed by George Newton.²²

Anna Davin's study of the eating habits of poor children in late nineteenth-century London confirms this: protein was rare, perhaps only featuring in Sunday dinner or as left-overs from their fathers' plates. Children were often left to their own devices, given halfpennies to purchase food from street sellers, or left to scavenge around the kitchens of hospitals and hotels, or from the close-of-day pickings from market stalls and shops.²³ For many, quantity was the main problem, but for others, the nature of their diet presented a threat to health. Even children who appeared to eat regularly presented to school and medical authorities as undernourished.²⁴

There have been some recent challenges to the notion that the diet of the urban poor was seriously deficient in its nutritional value and bland in its content. Paul Clayton and Judith Rowbotham, for instance, have argued that that far from being undernourished,

²⁰ C. DYHOUSE, "Working Class Mothers and Infant Mortality: England 1895-1914", *Journal of Social History*, vol. 122, no. 2 (1978), pp. 248-267.

²¹ Derek J. ODDY, "Working-Class Diets in Nineteenth-Century Britain", *Journal of Economic History Review*, vol. 23, no. 2 (1970), pp. 314-323.

²² George NEWMAN, *The Health of the Stat* (London, 1907), p. 141.

²³ Anna DAVIN, "Loaves and Fishes: Food in Poor Households in Late Nineteenth-Century London", *History Workshop Journal*, vol. 41 (1996), pp. 167-192.

²⁴ Anna DAVIN, "Loaves and Fishes ..."; Ellen ROSS, "Survival Networks: women's neighbourhood sharing in London before World War One", *History Workshop*, vol. 15 (1983), pp. 4-27.

the mid-century working-class diet was “a superior version of a Mediterranean diet”.²⁵ However, even they admit that, by the end of the century, this situation was much changed, and malnutrition may have been wide-spread within working class communities. Gazeley and Newell, in a thoughtful article based on detailed examination of the 1904 study of working-class diet conducted by the Board of Trade, have questioned assumptions about the inadequacy of these diets, claiming that (with the exception of the very poorest sections of society) most families’ diets were sufficient to sustain them.²⁶ However, both studies focus particularly on the calorific requirements of male breadwinners in drawing their conclusions; and both note some major caveats in regard to women and children, whom they acknowledge may have fared less well, and that malnutrition might have been more common amongst these groups. As the health of infants and children of the urban poor (and to a certain extent, that of women too) lie at the heart of this article, the caveats outlined in these studies add further support to the argument that, at the turn of the century, the health of urban poor children was inextricably linked to their poor nutritional profile.

As a result of the stubbornly high infant mortality figures in Britain at the end of the nineteenth century, it cannot be surprising that the newly emerging discipline of paediatrics had begun to take great interest in the links between health and nutrition in infants and children. The subject of infant and child feeding became a topic of great concern for the medical profession and for public health officers. This article, using published material from the period and the records of a number of children’s hospitals, will now turn to the practical reactions to this new science. It will focus on the role food and diet played in the admission and treatment of poor children to hospital. The main focus here will be on GOSH, and its patients, who came largely from the impoverished areas to the east and north of London. The records from two additional children’s hospitals, the Evelina Hospital, London, and the Royal Hospital for Sick Children, Glasgow, are also used for comparison.²⁷ All three hospitals

²⁵ Paul CLAYTON and Judith ROWBOTHAM, “An Unsuitable and Degraded Diet? Part One: public health lessons from the mid-Victorian working class diet”, *Journal of the Royal Society of Medicine*, vol. 101 (2008), p 282. This claim by Clayton and Rowbotham has not found many supporters, and was described as “provocative” by Otter in his recent review of the historiography of food history. Chris OTTER, “The British Nutrition Transition ...”, p. 814.

²⁶ Ian GAZELEY and Andrew NEWELL, “Urban Working-class Food Consumption and Nutrition in Britain in 1904”, *Economic History Review*, vol. 68, no. 1 (2015), pp. 101-122.

²⁷ GOSH opened in February 1852 with ten beds but grew rapidly and, by the end of the century, it was admitting c.2,000 inpatients a year. The other two hospitals were much

were specifically established to care for the children of the poor. The writings of Catherine Wood, Lady Superintendent at GOSH from 1878 to 1888, and its most influential early matron, are of particular importance. Admission records, minute books, hospital dietaries and articles and books written by medical staff associated with the hospitals, have all contributed to a greater understanding of the role food played in the treatment of sick children in the late nineteenth century. Finally, the article will also probe the non-therapeutic role of food and its rituals in the institution, as an instiller of discipline and middle-class culture.

Catherine Wood and the Benefits and Dangers of Milk

Milk plays an integral role in the health and nutrition of infants and young children and, as a result, it was a central focus of medical literature on children's diets. However, as historians have pointed out, it also carried some considerable dangers, especially when cow's milk or artificial milks were used in place of breastfeeding.²⁸ Catherine Wood, a well-respected nurse in the late nineteenth century, wrote extensively about the connection between nutrition and ill health in infants and children. Her work was heavily influenced by her mentor and founder of GOSH, Dr Charles West. She published several books on nursing in different environments, her most successful being *A Handbook on Nursing for the Home and Hospital*, which ran to at least ten editions.²⁹ For this article though it is her work on childhood nutrition which is most pertinent. Her articles and books on child health

smaller. The Evelina opened in 1869 and by 1900 was admitting c.1,000 patients a year, while the Glasgow hospital (opened in 1882) was admitting c.750 by the turn of the century.²⁸ See particularly P.J. ATKINS, "White Poison ..." and Deborah DWORK, "The Milk Option: an aspect of the history of the infant welfare movement in England, 1898-1908", *Medical History*, vol. 31 (1987), pp. 51-69, for discussion of the problems associated with milk supply and its quality in the second half of the nineteenth century, and the authorities' attempts to control and improve it.

²⁹ In addition to *A Handbook of Nursing* (London, 1878), Wood's other published books and pamphlets include: *Food and Cookery for Infants and Invalids* (London, 1884); and *Boards of Guardians and Nursing* (London, 1893). Her *Handbook for the Nursing of Sick Children* (London, 1889) received a long and supportive review in the *BMJ*. "Review", *British Journal of Medicine*, 22 Feb (1890), pp. 431-432. Wood wrote regularly for *The Nursing Record* and other nursing journals. She was also a member of a number of influential committees including those of the Workhouse Infirmary Nursing Association, The Royal British Nurses Association and was recruited by the *BMJ* as Special Commissioner on its inquiry into workhouse nursing, in 1893.

frequently returned to the subject of poor feeding as a cause of illness, and on the role of milk in maintaining good health.

In Wood's view, milk (and for infants, breast milk in particular) was the only food needed. As she stated in her book on nursing sick children: "It is well ascertained that milk alone will maintain life and vigour, even in the adult ..." ³⁰ and, in times of sickness, "... it can combat illness, and repair the waste that illness causes". ³¹ She bemoaned the fashion against breast feeding, warning against cow's milk, which was too rich for a baby's stomach and lacked sugar. Cow's milk presented other problems; not least as a result of its "very sensitive nature", easily "absorbing into itself any deleterious substances that may be brought into contact with it". ³² This characteristic of milk presented problems, particularly in the overcrowded and ill-ventilated homes of her patients; but her insistence on milk from healthy animals - to avoid the "so-called infectious diseases [that] have been traced to the cow" - was far from helpful advice for her patients' families. ³³ Healthy milk was also expensive milk. ³⁴ The association of milk with disease in the public imagination was strong, but tuberculosis was actually the only milk-related condition that came directly from the cow; other diseases (typhoid, diarrhoea, diphtheria) arose as a result of human contamination in its handling. ³⁵ High quality milk was almost certainly out of reach for Wood's patients; their mothers would purchase milk from the cheapest (and probably most unreliable) sources. However, mother's milk itself also posed dangers, and Wood urged mothers to "guard herself jealously for the sake of her child especially from alcoholic drink or excesses". ³⁶ She was suspicious of the commercial infant foods which were beginning to appear, warning mothers of young infants against them; they were packed with flour and starch (the latter being identified by Wood as the only food stuff absent from natural milk) and provided scant nutritional value.

Catherine Wood's knowledge came from her long association with GOSH and her experience on the wards. She was greatly influenced by Charles West but also drew on her close working relationships with Walter Cheadle, Samuel Gee and Thomas Barlow, all highly

³⁰ Catherine J. WOOD, *A Handbook for the Nursing of Sick Children ...*, p. 165.

³¹ *Ibid.*, p. 171.

³² *Ibid.*, p. 177.

³³ *Ibid.*

³⁴ *Ibid.* Both Dwork and Atkins have discussed the prohibitive costs of fresh milk from healthy herds for the urban poor.

³⁵ Deborah VALENZE, *Milk, A Local and Global History ...*, pp. 210-216.

³⁶ Catherine J. WOOD, *A Handbook for the Nursing of Sick Children ...*, p. 178.

respected physicians who had published on the relationship between nutrition and disease in children.³⁷ Indeed, Cheadle contributed the introductory chapter on the science of nutrition to her book *Food and Cookery for Infants and Invalids*, which was produced for the International Health Exhibition held in London in 1884.³⁸ The views Cheadle expressed in that chapter are reflected in Catherine Wood's later writings.

Nutrition-related Admissions to Children's Hospitals

Wood was not alone in her observations on the dangers of "bad" milk. *The Lancet* discussed the subject under the title "Murder of the Innocents", in a reference to the high infant mortality rate which it linked in part to poor quality milk.³⁹ Wood's views on the importance of good nutrition and particularly on the importance of milk in the diet were reinforced by the patients she saw passing through her hospital. The effects of poor nutrition can be seen clearly in the admissions registers to other children's hospitals in this period. Across the three hospitals included in this study approximately six per cent of admissions appear to be directly related to poor diet.⁴⁰

³⁷ Gee, Cheadle and Barlow all held posts at GOSH during Wood's time. One of Walter Cheadle's most influential works was *Artificial Feeding of Children* (London, 1892). Samuel Gee was best known for his identification of coeliac disease as a discrete entity, whilst Thomas Barlow published his work on rickets and scurvy in "On Cases Described as 'Acute Rickets' which are probably a combination of scurvy and rickets, the scurvy being an essential, and the rickets a variable, element.", *Medico-Chirurgical Transactions*, vol. 66 (1883), pp.159-220. Reprinted in *Archives of Diseases in Childhood* vol. 10, no. 58 (1934), pp. 23-52. For a discussion of the contributions made by Cheadle, Gee and Barlow, see Ian G WICKES, "A History of Infant Feeding Part III: eighteenth and nineteenth century writers", *Archives of Disease in Childhood*, vol. 28, no. 140 (1953), pp. 332-340; and "A History of Infant Feeding Part V: nineteenth century concluded and twentieth century", *Archives of Disease in Childhood*, vol. 28, no. 142 (1953), pp. 495-502.

³⁸ Catherine J. WOOD *Food and Cookery ...*

³⁹ Editorial "Murder of the Innocents", *The Lancet* I (1858), 345-346.

⁴⁰ The analysis includes only diseases most directly related to poor nutrition. As poor nutrition leaves children vulnerable to many conditions, the impact of poor nutrition on hospital admissions is probably much higher.

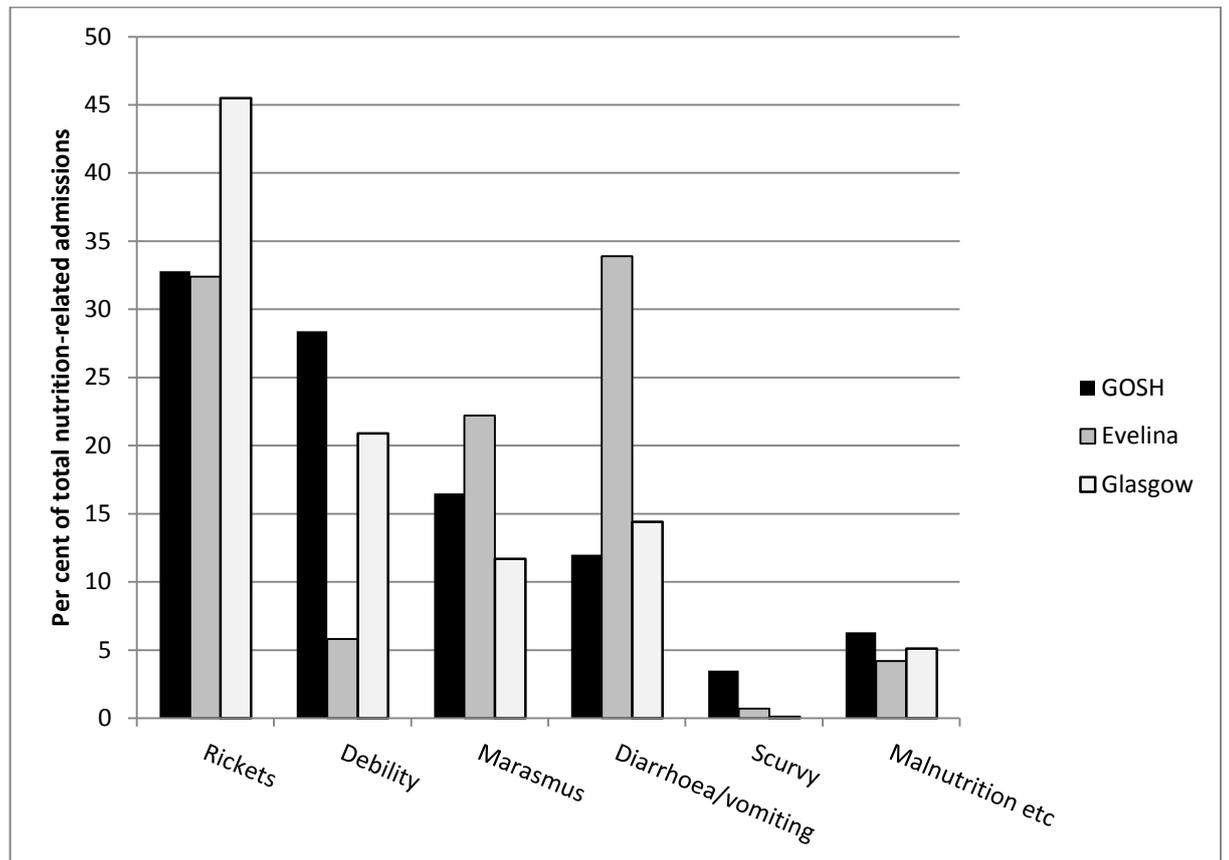


Figure 1: Admissions relating to poor nutrition at GOSH, Evelina and Glasgow children's hospitals (1852-1914).⁴¹

Rickets was the most significant nutrition-related reason for admission to each of the hospitals studied (excluding diarrhoea and vomiting at the Evelina), accounting for between thirty and forty-five per cent of such admissions (see Figure 1). A survey undertaken by the British Medical Association in the 1880s revealed high incidence of rickets in the great urban conurbations and its virtual absence from small towns, villages and the countryside.⁴² Given the lack of essential nutrients in the diet, and the low exposure to sunlight experienced by most poor urban children (who dominated all three hospitals) the high rates of rickets in these hospitals were not unexpected.

⁴¹ Historic Hospital Admission Records Project (HHARP). All data have been drawn from the three databases in HHARP, a collection of databases of admissions registers from three children's hospitals: Great Ormond Street Hospital for Sick Children (1852-1914), the Evelina Children's Hospital (1874 -1877/1889-1902) and Royal Hospital for Sick Children, Glasgow (1883-1904). HHARP was created by the Centre for the Historical Record, Kingston University, and can be accessed free of charge at www.hharp.org.

⁴² Anne HARDY, "Bread and Alum, Syphilis and Sunlight: rickets in the nineteenth century", *International Journal of Epidemiology*, vol. 32, no. 3 (2003), pp. 337-340.

Inadequate nutrition is exposed in the levels of near starvation with which some of the children presented: marasmus⁴³ was the second most prevalent of nutrition-related conditions, while general debility and malnutrition, starvation and neglect (combined under malnutrition in Figure 1) were regularly observed.⁴⁴ Diarrhoea and vomiting have been included in this analysis; although not all cases may be directly related to diet, it can be surmised that many of them were, through consumption of poor quality or contaminated food and liquids. As Anne Hardy has noted, inadequate diet led to impairment of children's immune systems, leaving them susceptible not only to gastrointestinal diseases but to a range of other problems, such as respiratory conditions and childhood infections.⁴⁵ Bearing Hardy's observations in mind therefore the proportion of admissions related to nutrition (either directly or indirectly) was certainly significantly higher than this analysis shows.

Staff at GOSH encountered many examples of the adverse effects of poor diet on children. Terms used to describe patients on admission frequently included: "small, thin child", "very wasted", "very emaciated", "a thin, feeble child", "pale and thin". Wood blamed improper or underfeeding for many of these cases: "These poor little starvelings are piteous objects, arms and legs thin and shrunken, and the abdomen abnormally large, the face like that of age, and the fretful ailing cry of hunger", but, she continued, "change their diet to a generous one of milk, and the improvement is marvellous".⁴⁶

The case of patient Dora Bates illustrates this and the dangers of improper feeding well. Dora was five months old when admitted to GOSH with marasmus in April 1912. She had been breast fed for three months and then switched to cow's milk and Robinson's Barley Water, after which she began vomiting after her feed. On admission, she was pale,

⁴³ Catherine Wood defines marasmus as "wasting accompanied with loss of power". (Catherine J. WOOD, *A Handbook of Nursing for Home and the Hospital ...*, p245.) A modern definition from Merriam Webster is "a condition of chronic undernourishment occurring especially in children and usually caused by a diet deficient in calories and protein."

⁴⁴ Anne HARDY has argued that malnutrition has to be severe in order for infectious disease to be aggravated in children. *The Epidemic Streets, Infectious Disease and the Rise of Preventive Medicine 1856-1900* (Oxford, 1993), pp. 280-281.

⁴⁵ Anne HARDY, "Rickets and the Rest ..."

⁴⁶ Catherine J. WOOD *A Handbook for the Nursing of Sick Children ...*, p. 198. Such arguments about the wholesome properties of pure milk, and the dangers of bad milk, were unique to neither Catherine Wood nor to the doctors at GOSH. Deborah Dwork has discussed the increasing interest in the links between good milk and health (and the reverse) in the aftermath of the Boer War. In 1903, the *British Medical Journal* ran a series of articles on the subject ending with an editorial which, in Dwork's words, concluded that "bad milk engendered poor health". Deborah DWORK, "The Milk Option ...", p. 59.

emaciated and slightly cyanosed, and exhibiting early signs of bronchitis. Her main treatment consisted of a diet of Glaxo's formula, a milk substitute which had been marketed since 1908, and a bismuth infusion. Dora stayed in hospital for thirty-six days, benefiting from a wholesome diet, warmth and comfortable surroundings. On discharge, her condition was much improved, although it was noted that she was not completely cured.⁴⁷

Dora was not unusual. Of nearly 6,000 hospital case notes from the late nineteenth and early twentieth centuries, half include references to breast feeding (or its absence) and in one hundred of these cases picked at random, eighty-nine per cent of patients had been breast fed. In some cases the notes provided even more detail relating to the time of weaning. Among these, a significant number (just under a quarter) had been breast fed for three months or less and were then weaned on cow's milk or a brand of artificial milk such as Nestlé's or Mellins (like Dora above). The most common age at which to start weaning, though, was twelve months; some cases include comments about the scantiness of the mother's milk supply, with suggestions this might be related to the child's general poor condition. Only a very small number had been breastfed for more than a year.⁴⁸ These findings seem to support Valerie Filde's suggestion that extended breast feeding was not a common cultural practice in England (at least among the poor) in this period; although as the population being investigated is one defined by illness, the findings might equally suggest a connection between a shortened period of breast feeding and poor child health.⁴⁹

Catherine Wood did not hold back her opinion on mothers' inappropriate feeding habits: "It seems almost beyond belief", she wrote, "that people in their senses will give children the food of an adult to eat, and yet they do".⁵⁰ In this, Wood was echoing the "common-sense" advice and admonitions in old childcare manuals written by practitioners such as William Cadogan, physician to the Foundling Hospital in the late eighteenth century, and John Darwell, an early nineteenth-century Birmingham doctor.⁵¹ In the case notes from

⁴⁷ Great Ormond Hospital for Children Archive, GOS/10/218 Dr Garrod's patients, pp.113-117. (Dora Bates case notes)

⁴⁸ The case notes of two GOSH doctors (Charles West and Archibald Garrod) have been digitised and made available via the HHARP website. They cover the period 1852-1874 (Dr West) and 1899-1912 (Dr Garrod).

⁴⁹ Valerie A. FILDES, *Breasts, Bottles and Babies ...*

⁵⁰ Catherine J. WOOD, *A Handbook for the Nursing of Sick Children ...*, p. 179.

⁵¹ William CADOGAN, *An Essay upon Nursing, and the Management of Children, From Birth to Three Years of Age* (London, 1748); John DARWALL, *Plain Instructions for the*

the Royal Hospital for Sick Children, Glasgow, a curious phrase was often used to describe the patients' home diet: the child was "given the run of the house", meaning they "foraged" for food in the home, eating whatever they found lying around.⁵² The Scottish diet differed to that south of the border: oatmeal took the place of potatoes at some meals, and minced mutton was used for soups and stovies, a dish of mashed potato, onions, mince and gravy. Reflecting Wood's assertion that mothers often fed their young babies on "adult food", it was not unusual for a Glaswegian baby to be weaned on this, the dish being strained through the mother's teeth to render it cool and "safe".⁵³

Diet as Therapeutic

It is not surprising, therefore, given the underlying and pernicious malnutrition with which patients presented, that a key concern of staff at all three hospitals was to provide children with a better diet.⁵⁴ In many cases, this was all children required for a rapid recovery: good food, with a warm bed and clean clothes completing the treatment.⁵⁵ Marginalia in the case notes support the importance of a good diet in particular, indicating that specific foods or beverages were often the only "medicine" prescribed by the hospital's physicians. Charles West laid down the principle of minimal medical intervention, emphasising instead the importance of good nursing and the careful management of sick children. Keen attention to diet was a cornerstone of his approach.⁵⁶ Catherine Wood agreed: "Now that scientific research has demonstrated the importance of food in maintaining health and balance within

Management of Infants, with Practical Observations on the Disorders Incident to Children. To which is added, an essay on spinal and cerebral irritation (London, 1830).

⁵² Royal Hospital for Sick Children, Glasgow (Yorkhill) Archive, YH7/4/9 Ward Journal for Ward 4 (Carlile Ward), Vol. 9, October 1891-September 1892, p. 82. (Case of John Farquhar, admitted 6 February 1892).

⁵³ Graham SMITH, "Beyond Individual/Collective Memory: women's transactive memories of food, family and conflict", *Oral History*, vol. 35, no. 2 (2007), pp 77-90.

⁵⁴ As Roy Porter and Elizabeth Lomax have pointed out, in reality there was little that medicine could offer to ill patients; the primary role of the hospital was to provide a safe and supportive environment where nature could do its work. Roy PORTER, *Blood and Guts: a short history of medicine* (London, 2002); Elizabeth LOMAX, *Small and Special: the development of hospitals for children in Victorian Britain* (London, 1996).

⁵⁵ The importance of a 'full diet' for a good recovery was identified earlier in the century by Robert J Graves, a physician in Dublin. Jonathan REINARZ and Rebecca WYNTER, "The Spirit of Medicine: the use of alcohol in nineteenth century medical practice" in Susanne SCHMID and Barbara SCHMIDT-HABERKAMP (eds), *Drink in the Eighteenth and Nineteenth Centuries* (Abingdon, 2016), pp. 127-140.

⁵⁶ Charles WEST, *How to Nurse Sick Children* (London, 1854). For West's influence beyond the hospital, see Anne HARDY, *Epidemic Streets ...*, pp 24-25.

the body, many diseases previously treated with drugs can be addressed through diet instead".⁵⁷ Food and feeding were therefore integral to successful treatment of her patients; a good diet was "recognised as an essential treatment by all medical men and ... makes the difference of life and death in all acute cases".⁵⁸

Wood's advice was divided into two distinct areas: the quality and type of food suitable to promote recovery and sustain good health, and how it was delivered. She stressed the importance of routine when feeding children: "punctual and systematic feeding is a matter of life and death", she wrote.⁵⁹ As Anna Davin's work reveals, eating within working-class households was a "running series of untidy meals".⁶⁰ Such a chaotic approach to feeding was anathema to Catherine Wood.

Milk was her key nostrum, and Wood swore by its efficacy in nearly every case she encountered, demonstrating a detailed knowledge of contemporary nutritional science as she advanced its cause. It contained all the necessary constituents of a good diet: fats, proteins, "nitrogenous matter", naturally occurring sugars and water; but also none of the "wicked" starch.⁶¹ Wood's ideas - the far-reaching benefits of milk and regular meal times - came to define the hospital's approach to feeding patients. While milk was at the centre of the hospital's dietary, it was supplemented by other nutritious foods as dictated by the age of the patient and the nature of their disease. Thus, patients were "prescribed" a fixed amount of nourishment each twenty-four hour period, and it was the nurses' duty to ensure this was followed. This is an important point: although it was the doctors who dictated treatment and diet protocols, it was the nurses who implemented them. Catherine Wood stressed the importance of the relationship between patient and nurse. It was the nurse's responsibility to become intimately aware of the child's condition: its posture, evacuations, response to medication, and its food and drink. Wood believed (alongside nurse leaders Ethel Fenwick and Isla Stewart) that nurses should receive a detailed education in both nursing skills and medical sciences in order to understand the treatments being prescribed and to recognise resultant changes in the condition of patients. In feeding, it was

⁵⁷ Catherine J. WOOD, "The Nursing of Sick Children III: how to feed sick children", *The Nursing Record*, 30 August (1888), p. 285.

⁵⁸ Catherine J. WOOD, *A Handbook for the Nursing of Sick Children ...*, p. 183. This echoes Walter Cheadle's statement in his introduction to Wood's *Food and Cookery for Infants and Invalids*: "In the case of invalids ... food ... may turn the scale in favour of life or death" (p.8).

⁵⁹ Catherine J. WOOD, *A Handbook for the Nursing of Sick Children ...*, p. 192.

⁶⁰ Anna DAVIN, "Loaves and Fishes ...", p. 168.

⁶¹ Catherine J. WOOD, *A Handbook for the Nursing of Sick Children ...*, p. 171.

particularly important that a nurse observed a child's reaction to food, and should have a limited amount of discretion (based on her training and experience) to adjust the diet in order to tempt her patient to eat the quantities prescribed by the doctor.⁶²

Different diseases required different types of food and specific regimens, but the common thread was regularity and closely monitored quantities. Fevers, for instance, required a liquid diet (milk, beef tea, barley water); while diseases of the throat, which made swallowing painful (e.g. diphtheria), required small volumes of concentrated nutrition, such as strong beef tea or one of the "peptonised" foods.⁶³ In extreme cases of diphtheritic paralysis, where swallowing was almost impossible for the patient, nasal feeding might be the only option. Wood described this technique as, "quite one of the new discoveries of modern days".⁶⁴ Its use in the Hospital indicates how it embraced and developed new techniques and ideas in delivering patient nutrition.

The case of Minnie Ashman (pictured in Figure 2) indicates the importance of diet in the treatment regimen for patients at GOSH. She was admitted with empyema⁶⁵ in 1873, and it was noted she was poorly-nourished. Her treatment commenced with small doses of quinine and large quantities of nourishing liquids, including milk, strong beef tea and wine. Wine became a regular part of her hospital diet. After two weeks, solid protein in the form of fish and bacon was added, and in early July, brandy was substituted for wine when she experienced chest pains. Her treatment was following established protocols for respiratory

⁶² Ethel Fenwick (nee Mason) and Isla Stewart were consecutive matrons at St Bartholomew's Hospital in the late nineteenth century. With Catherine Wood, they campaigned for rigorous nurse education and registration. See Susan MCGANN, *The Battle of the Nurses: a study of eight women who influenced the development of professional nursing, 1880-1930* (London, 1992).

⁶³ Peptonised milk, for example, was made by adding pepsin (a stomach enzyme, sold as Liquor Pancreaticus) to the milk, to part-digest it before feeding to a baby, thus putting the infant's digestive system under less strain. See Catherine J. WOOD, *A Handbook for the Nursing of Sick Children ...*, p. 175.

⁶⁴ *Ibid.*, p. 187. Although nasal feeding was in common use in asylums (as Wood herself suggests), the authors can find little reference to its use in general medicine. The few articles on the subject in the *British Medical Journal* in the nineteenth century are related to its application in asylums; and while nursing textbooks refer to the use of enemata for the feeding of insensible patients, few mention nasal feeding before the turn of the century.

⁶⁵ Empyema is associated with an attack of pleurisy, according to Wood's glossary in her *Handbook of Nursing for the Home and Hospital*, characterised by "a collection of pus in the chest" (p. 227).

and tubercular conditions.⁶⁶ The approach is clear to see; start with simple nourishing liquids (milk, beef tea etc) and, as the condition improves, move to more complex, solid foods, which are aimed at building strength to enable the child's body to recover.



Figure 2: Minnie Ashman, 1873.⁶⁷

As the nineteenth century closed, Sir Thomas Barlow (discussed above), began to use one particular foodstuff to treat infantile scurvy. Through observations of cases, which he published in *Medical Transactions* in 1883, he was able to differentiate two previously conflated nutrition-related diseases: infantile scurvy and acute rickets.⁶⁸ It was an important discovery, as the two conditions resulted from different deficiencies and required quite separate treatment. Barlow blamed the high incidence of infantile scurvy on “hand feeding of infants [with] so called ‘infant foods’ [which] cannot be trusted as a sole aliment for any lengthened period”.⁶⁹ His recommended nutritional therapy was raw-meat juice, fresh milk and orange juice. One can imagine that children could not easily be persuaded to take raw meat juice, and Catherine Wood strongly recommended that it should be sweetened with a little jam to render it more palatable to the youngsters’ tastes.⁷⁰ A typical diet for a child admitted with rickets can be seen in the case of Elsie Austin, admitted in 1902 aged 2 years.

⁶⁶ GOS/10/27/2 Dr. Dickinson's Patients with Respiratory Diseases, vol. 2 (1873), pp.1555-1572. After 142 days, Minnie was discharged, cured, to St Leonard's convalescent home, to benefit from sea air.

⁶⁷ Reproduced with permission of Great Ormond Street Hospital NHS Foundation Trust Museum and Archive Service.

⁶⁸ Thomas BARLOW, “On Cases Described as ‘Acute Rickets’ ...”

⁶⁹ Thomas BARLOW, “On Cases Described as ‘Acute Rickets’ ...”, p. 205. Infantile scurvy is now known to be caused by vitamin C deficiency.

⁷⁰ Catherine J. WOOD, *A Handbook for the Nursing of Sick Children...*, p. 190.

On admission, it was noted that although breast fed until the age of twelve months, she was subsequently “fed on anything” and was “much neglected at home”.⁷¹ Elsie presented with a severe case of rickets and was unable to walk. Her treatment included a diet of milk and raw meat juice, and later gravy and potatoes were added. She also received cod liver oil and Vin Ferri, a sherry-based iron infusion.⁷²

Alcohol as a Staple Treatment

Alcohol was a central tool in a hospital’s pharmacopoeia in the nineteenth and early twentieth centuries. Its use as part of a therapeutic regimen had grown after respected mid-century physician, Robert Bentley Todd, promoted it as a stimulant of the nervous system and also as a nutrient. It was carefully prescribed by doctors and administered in small doses where stimulants were recommended, and according to Reinartz and Wynter was seen as “essential to supporting the sick patient and stimulating the vital force”.⁷³ This was the case in children’s hospitals as much as in adult institutions. As Elizabeth Lomax has indicated, “alcoholic beverages and remedies (usually diluted with water, milk or barley water) remained high on the list of useful tonics and stimulants” at most paediatric hospitals.⁷⁴ GOSH was no exception, and as can be seen in the details of the two patients above, the treatment of both included alcohol. Minnie received wine and brandy, while Elsie was given a sherry-based iron tonic. At GOSH, alcohol was central to the whole institution: brandy, wine and porter were used as stimulants for the patients; nurses had a light ale allowance; stout was given to the porters; and wine and spirits were part of the rations for the medical staff. Alcohol was not an uncontroversial substance in hospitals and the medical

⁷¹ GOS/10/122 Dr. Garrod’s Patients, pp. 65-68.

⁷² Unfortunately, intervention came too late to save Elsie and she died three weeks after her admission. For the composition of Vin(um) Ferri, see *The British Pharmacopoeia* published by the General Medical Council (London, 1898), p. 384.

⁷³ Jonathan REINARTZ and Rebecca WYNTER, “The Spirit of Medicine ...”, p. 135. This was in line with the tradition of prescribing alcohol in hospitals throughout Europe (although in France beer and spirits were not offered). It was also considered a good medium for transmitting the virtues of other medicines until the end of the nineteenth century. Harry PAUL, *Bacchic Medicine: wine and alcohol therapies from Napoleon to the French paradox* (Amsterdam, 2001); J.H. WARNER, “Physiological Theory and Therapeutic Explanation in the 1860s: the british debate on the medical use of alcohol”, *Bulletin for the History of Medicine*, vol. 54 (1980), pp. 235-257.

⁷⁴ Elizabeth LOMAX, *Small and Special ...*, pp. 102-3.

profession were divided as to the advisability of its use.⁷⁵ Nevertheless, the controversy, led by the teetotal or temperance movement, seems to have had little apparent influence on the hospital's policy regarding the therapeutic use of alcohol.⁷⁶ Alcohol was dispensed as and when it was deemed necessary.⁷⁷

Analysis of the patients' alcohol registers from 1879 to 1893 shows that port was most favoured, with brandy, ale and gin following.⁷⁸ The early registers detailed alcohol consumption by patient. Seven-year old Ellen Lake, for example, was admitted with a diseased elbow in March 1852 and stayed for eight months. From 14 April until 12 May, she was given two ounces of wine daily, subsequently replaced by half a pint of porter until her discharge.⁷⁹ A number of the children listed in the 1852 register, who were given wine or brandy as part of their treatment, were very sick and died in the hospital; others, admitted with typhoid, rallied and were discharged cured. This early use of alcohol in the treatment of young patients predates the influence of Robert Bentley Todd, but reflects a growing move to replace depletive therapies with stimulants.⁸⁰

At the Evelina Hospital, alcohol was also a common element in treatment. Over half the records in the admission registers provide brief details of treatment the patients received, and of these, a relatively small group received stimulants or a named alcoholic beverage (just over ten per cent). When outcomes for these children are analysed, it appears that stimulants/alcohol were most often given to children who were very sick: twenty per cent of children for whom treatment details were available died in hospital, but in the subset of those receiving stimulants/alcohol this figure rose to fifty-five per cent. This seems to mirror the experience at GOSH, where alcohol was prescribed for very sick

⁷⁵ Jonathan REINARZ and Rebecca WYNTER, "The Spirit of Medicine ...".

⁷⁶ Brian HARRISON, *Drink and the Victorians: the Temperance Question in England 1815-1872* (Pittsburgh, 1971).

⁷⁷ While its use in treatment generally goes unchallenged, its consumption by staff was. In 1885, Catherine Wood proposed that the "declarations of the Church of England Temperance Society" should be introduced in the hospital. By December the following year, she reported that eighty per cent of the staff had joined the Society. GOS/1/5/4 House Committee Minutes, 26 June 1884; GOS/1/5/4 House Committee Minutes, 3 December 1885.

⁷⁸ GOS/12/13 Monthly Totals Register of Port, Brandy, Sherry & Porter Issued to Patients, 1879-93.

⁷⁹ GOS/12/5 Register of Beer, Wines & Spirits Issued to Patients, 1852.

⁸⁰ Jonathan REINARZ and Rebecca WYNTER, "The Spirit of Medicine ...".

children, reflecting perhaps the belief that alcohol could “stimulate the vital force”, in cases where it appeared to be waning.

In 1864, the medical committee noted that the increase in alcohol purchases was related to the “heaviness of the wards” and sickness among the nurses. In a bid to control usage, the Medical Officer was required to initial the cards of patients for whom alcohol had been prescribed, and the ward sister then submitted the cards for weekly ratification and countersignature. The Home Sister was ordered not to supply alcohol to the wards for more than one week without the signature of the medical officers.⁸¹ Each register was examined for discrepancies by the Hospital Secretary and compared to the diet cards. It was a good plan, but one which was regularly confounded by the doctors’ habit of mislaying the diet cards whilst on their ward rounds.⁸² In addition to the rising alcohol bill, this new regime was probably also introduced to curb pilfering. Pilfering of patients’ food and drink was common in voluntary hospitals, particularly before the major nursing reforms of the 1880s, and GOSH was not immune to the problem.⁸³ The Hospital’s Minutes record more than one occurrence of nurses discovered “intercepting eggs and wine intended for patients”.⁸⁴

Hospital Catering

As already discussed, at GOSH, the patients’ diets were carefully designed and prescribed. The hospital’s dietaries were detailed in its *Pharmacopoeia*, which - as a volume designed to be the model publication on the subject - suggests that it was followed by other institutions.⁸⁵ Diets were modified for specific diseases or at the different stages in the disease course. The 1894 *Pharmacopoeia* contains pages devoted to the Milk Diet, the Fish Diet and the Meat Diet. A further diet, which most resembles that of the ideal normal diet

⁸¹ GOS/1/6/1-73 Medical Committee Minutes, 20 April 1864.

⁸² GOS/12/5 Register of Beer, Wines & Spirits Issued to Patients, 1852.

⁸³ See, for instance, Sue HAWKINS, *Nursing and Women’s Labour In the Nineteenth Century: the Quest for Independence* (Abingdon, 2010).

⁸⁴ See, for instance, GOS/1/2/8 Management Committee Minutes, 5 May 1862, and the case of Nurse Saunders.

⁸⁵ *The Pharmacopoeia* is just one example of how the Hospital for Sick Children was establishing itself as the model for British children’s hospitals. Elizabeth LOMAX, *Small and Special...*

for children, was provided for convalescing patients. As Figure 3 indicates, bread and butter were the staples for three of the four meals served

<p>Figure 3: A weekly convalescent diet sheet for GOSH, 1884 (GOS/8/159/1)</p> <p>Breakfast at 8am:</p> <p>Cocoa, bread and butter or bread & dripping</p> <p>Dinner at noon:</p> <p>Sunday: Australia meat, potatoes, suet pudding</p> <p>Monday: Pea soup, Australian meat, rice pudding</p> <p>Tuesday: English meat and potatoes</p> <p>Wednesday: English meat and potatoes</p> <p>Thursday: soup from bones, Australian meat, bread pudding</p> <p>Friday: English meat, potatoes</p> <p>Saturday English meat, potatoes</p> <p>Green vegetables twice a week</p> <p>Tea at 4pm:</p> <p>Milk and water, bread and butter</p> <p>Supper at 6pm:</p> <p>Bread and butter</p>

daily, with dinner being a variation on meat and potatoes followed by a sweet pudding – often milk based. Vegetables were served twice a week only, and the hospital itself supplied no fruit, but accepted offerings from donors.⁸⁶ As in other medical institutions (such as adult hospitals and workhouse infirmaries) doctors at GOSH were empowered to order additional foods to supplement standard diets.⁸⁷ These included tea, sponge cake, fruit, “water-cresses”, mutton chops, chicken, eggs, beef essence, tea, wine and brandy.⁸⁸ In exceptional cases, they could prescribe a “fancy diet”, which, far from meaning that meals were

⁸⁶ GOS/8/159/1 Hospital History File. It is ironic that food also played a key role in the Hospital’s fund-raising activities; the annual dinners for (male) supporters was a major contributor to the institution’s coffers, the menus for which were lavish. Keir WADDINGTON, *Charity and the London Hospitals, 1850-1898* (Bury St Edmunds, 2000).

⁸⁷ Margaret Anne CROWTHER, *The Workhouse System, 1834-1919: the history of an English social institution* (London, 1983), pp. 187-188.

⁸⁸ *Aunt Judy’s Magazine*, 1 Dec (1868), p.101.

inherently complicated or expensive, meant rather that patients were able to choose whatever they felt like eating.⁸⁹

The cost of catering for patients, nurses, doctors and ancillary staff grew with the hospital, and had to be covered by donations and subscriptions. Although Figure 4 shows the value rather than quantity of food consumed, it provides a glimpse into the composition of diets and suggests they were dominated by milk and other dairy products.⁹⁰ The predictability and lack of variety was probably driven by the benefits of placing contracts for the same goods each week, which allowed the hospital to negotiate the best prices.⁹¹ Meat was the most expensive foodstuff. The Smithfield dealers supplied an impressive range of top quality meat, including steak, mutton, chops, prime veal joints and legs of lamb.⁹² It is likely that the prime joints went to the medical staff (who, though not resident in the hospital, received meals in-house whilst on duty) and that the cheaper cuts were fed to the patients. Although meat prices fell once refrigerated ships began to bring carcasses from the New World and the Antipodes in the 1870s, the meat bill continued to rise. It is interesting to note that, in the Diet Card from 1884, Antipodean meat was well established on the menu. The hospital contracted with local and national food suppliers from its earliest days, seeking the best terms possible. So lucrative were the supplier contracts that, by 1905, tenders came in unsolicited, such as an application for the bread and flour contract from Chalmers & Son, Bakers and Confectioners from nearby Southampton Row.⁹³ Not all suppliers were local; however, in 1906, the hospital contracted with R. Melhuish of Grimsby Fish Docks for the best white and smoked fish at two and a half pence a pound, the fish to include kippers, bloaters and 'Finney Haddocks'.⁹⁴

Figure 4: Annual Consumption of Food at GOSH 1887-1892. (Source: GOS/3/1/1 General Income & Expenditure Ledger, 1887-1891 and GOS/3/1/2 General Income & Expenditure Ledger, 1892-95)

⁸⁹ GOS/8/160 Miscellaneous Medical Papers, 1884-1958.

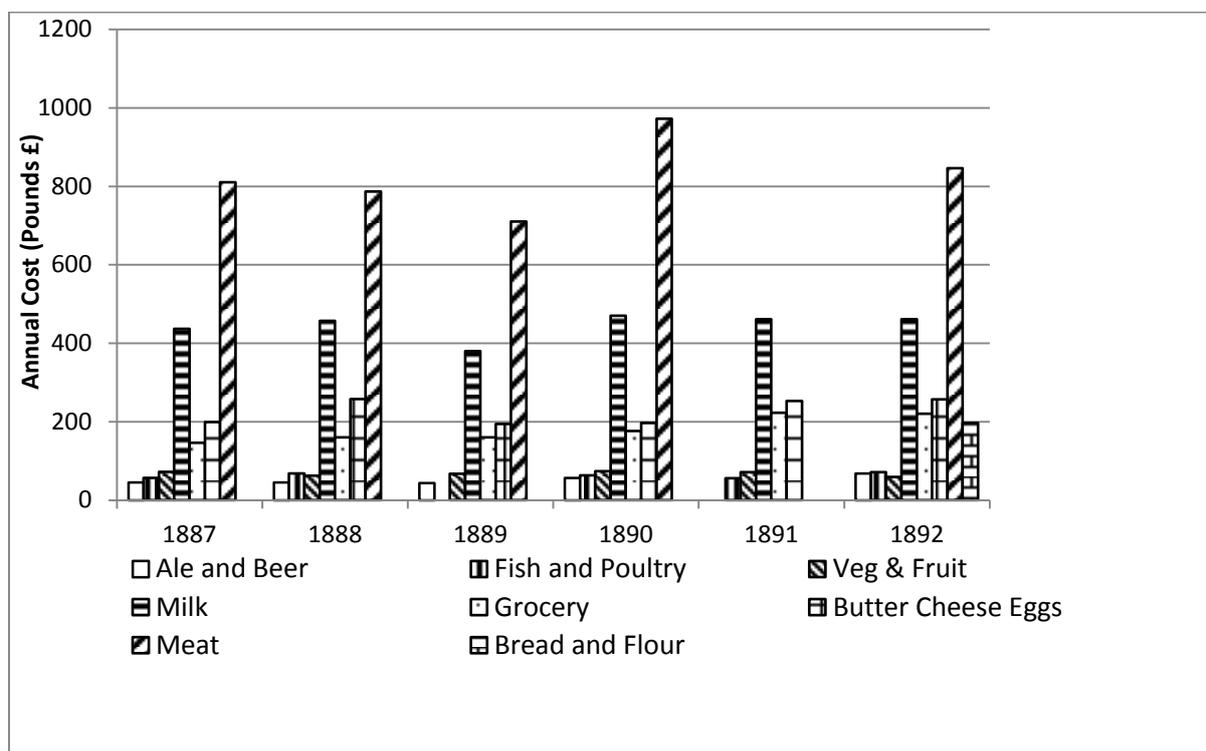
⁹⁰ The high value of meat consumed is more reflective of the diets of the medical staff than the patients.

⁹¹ GOS/8/160 Miscellaneous Medical Papers, 1884-1958.

⁹² Smithfield was the main meat market in London at the time.

⁹³ GOS/3/4/9 Correspondence re Consumption, 1860-1934.

⁹⁴ Ibid.



As has been seen, the hospital placed great store on the therapeutic and nutritive value of milk, and it was the second most costly food item for the hospital. The managers made concerted attempts to reduce the bill by putting supply out to competitive tender to dairies on the fringes of London. GOSH's first supplier, contracted twelve days before the hospital was officially opened, was the Godmanchester Milk Company (based in Huntingdonshire); but economics dictated that the supplier changed frequently. By 1868, when the hospital had fifty beds, consumption had risen to 250 quarts (62.5 gallons) a week, at a cost of £6.10s, or £338 a year.⁹⁵ Ten years later, the institution spent over twice as much on milk as on drugs.⁹⁶ The bill by this time had reached £500 a year, at which point milk consumption stabilised. In Catherine Wood's *Handbook of Nursing Sick Children*, nearly half of the eighteen recipes she provided in the appendix were milk-based: from a method to render cow's milk more like mother's own (humanised milk) to a recipe for "bread jelly food", a nutritious version of the reviled "pap". Older children would be fed milk puddings or "milk soup".⁹⁷

As already indicated, milk was a problematic foodstuff – both in terms of its quality on purchase but also in regard to its storage. The hot summers of the early 1900s, and the

⁹⁵ *Great Ormond Street Hospital for Sick Children Annual Report, 1868*, p.13.

⁹⁶ GOS/1/6/8 Medical Committee Minutes, 17 April 1878.

⁹⁷ Catherine J. WOOD, *A Handbook for the Nursing of Sick Children ...*, pp. 229-237.

associated rise in infant mortality, were the catalyst for official concerns about milk safety. Several initiatives funded by local taxes appeared, key among them being milk depots. Founded on the principle of the French *goutes de lait*, they provided good, clean milk at affordable cost, encouraging poor mothers to abandon improper feeding practices. The first to open was in St Helens in 1899, followed by Liverpool, Battersea, Bradford and Glasgow.⁹⁸ At Battersea, the herds which supplied the depot were inspected regularly, particularly in relation to Koch's tuberculin test. Initially, mothers were encouraged to purchase milk (at 1s. 6d. per child per week), but in 1903, after criticism of this approach and only a year after its opening, the depot also began to promote breast feeding amongst its mothers.⁹⁹ By 1905, the local medical officer of health was reporting higher survival rates for local infants, and the scheme was regarded as a success and worthy of support through local taxes.¹⁰⁰

GOSH was not immune to problems with milk quality and in 1902, George Frederic Still, the first full-time paediatrician at GOSH, investigated a new electrical milk pasteurisation machine for GOSH, which he deemed "very satisfactory".¹⁰¹ He recommended that the hospital adopt the technique and buy larger ice safes for the ward kitchens: "With such provision", he wrote, "I think that the apparatus will fulfil satisfactorily the extremely important object in view, namely the prevention of milk-conveyed infection, tubercular and otherwise, to the many children whose diet in the hospital consists largely of milk."¹⁰² In 1909, GOSH hosted a conference on milk quality, attended by representatives from nine children's hospitals. The delegates decreed, "Milk shall be pure, genuine, and with all its cream as yielded by the Cow, and absolutely free from any and every kind of

⁹⁸ Angus F. FERGUSON, Lawrence T. WEAVER and Malcolm NICOLSON, "The Glasgow Corporation Milk Depot 1904-1910 and its Role in Infant Welfare: an end or a means?", *Social History of Medicine*, vol. 19, no. 3 (2006), pp. 443-460.

⁹⁹ Deborah DWORK, *War is Good for Babies and Other Young Children: a history of the child welfare movement in England 1898-1918* (London & New York, 1987), pp. 98-107.

¹⁰⁰ George F. MCCLEARY, *Infantile Mortality and Infant Milk Depots* (London, 1905).

McCleary was the Medical Officer of Health for Battersea and worked with the socialist MP John Burns to promote infant welfare initiatives in Battersea and beyond.

¹⁰¹ Pasteurisation was not universally welcomed, critics complaining that it altered the taste and took away health benefits from the raw product. George ROSEN, *A History of Public Health* (expanded edition, Baltimore, 1993), pp. 325-337. The argument continues, see, for example, John HENLEY, "The Raw Milk Revolution", *The Guardian*, 23 November 2011. Available online at <http://www.theguardian.com/lifeandstyle/2011/nov/23/raw-milk-revolution>. (Accessed online 7 February 2014).

¹⁰² GOS/3/4/9 Correspondence Regarding Consumption within the Hospital, 1860-1934, July 1902. The machinery came from the Dairy Supply Co. Ltd, of Museum Street, London, and cost just under £30.

adulteration, including preservatives.”¹⁰³ They demanded that local health authorities inspect dairy farms quarterly, and that farms acquire a veterinarian’s health certificate. They also insisted that producers be required to strain, refrigerate and seal their milk in containers on site, but, curiously, forbade the dairies from pasteurising their supplies.¹⁰⁴ Milk was still the single most important part of the patient’s diet, and would henceforth be subject to all scientific and technological advances in its handling and management, in the fight against contamination.

The Ritual of Mealtimes

While food played a key role in GOSH’s therapeutic regimens, it also had a major role to play in the social life of the hospital. To encourage sick children to accept their prescribed diets of unfamiliar food, hospital mealtimes and feeding acquired a ritualistic aspect. Mealtimes were social events. Mobile children gathered around a low table in the middle of the ward to have their meals, overseen by one or two nurses. Modest portions were delivered from the ward kitchen on child-sized plates, with child-sized cutlery. Table manners were inculcated and reinforced, with grace before and after meals, and older children were expected to help the younger ones. For children used to the chaotic meals described by Anna Davin, these rituals must have seemed alien, but perhaps became reassuring.¹⁰⁵ It was part of the hospital’s mission to send their patients home demanding regular mealtimes, proper utensils and ceremony (including prayers and hand washing), to spread their acquired manners throughout the family and the local community.

¹⁰³ GOS/3/4/9 Correspondence Regarding Consumption within the Hospital, 1860-1934.

¹⁰⁴ The first British Food Adulteration Act was passed in 1860 (amended 1875); by the 1880s, local government was supposed to undertake regular food inspection, but suspicion of dairy farming practices endured. Janet ROEBUCK, *Urban Development in 19th-Century London: Lambeth, Battersea and Wandsworth 1838-1888* (Chichester, 1979), pp. 70-71.

¹⁰⁵ Anna DAVIN, “Loaves and Fishes ...”.



Figure 5: Young Patient being fed by a GOSH Nurse, 1875.

The importance of routine at mealtimes was illustrated by nurses' frequent complaints of doctors appearing at will on the wards, disrupting the patients' meals; complaints which were echoed by outside witnesses. Mrs Shadwell, a lady visitor, reported that she found "the house surgeon doing a round at dinner time, taking the nurse away from cutting up the dinner ... he shouldn't be there at that time, but often is."¹⁰⁶ In order to overcome the reluctance of sick children to take food and to reinforce the ritual of mealtimes, Catherine Wood advised that the same nurse feed a child at each meal in order to learn the child's "humours and tricks". "Unless the child discerns the love of children in its nurse", she wrote, "it will not take to its food, for these little ones are keen in their discernment, and at once recognises their friend."¹⁰⁷ The image in Figure 5 depicts a nurse feeding a patient who had suffered severe burns and, as a result, stayed in the hospital for over twelve months. It can be assumed that she had become one of this nurse's regular charges and that a pseudo-maternal relationship developed between them over the course of her stay in hospital.¹⁰⁸

¹⁰⁶ GOS/5/2/30 Lady Superintendent Reports, Feb 1862: Mrs Shadwell. For more on the role of Lady Visitors to the hospital, see Andrea TANNER, "Too many mothers?: female roles in a metropolitan Victorian children's hospital", in J. HENDERSON, P. HORDEN and A. PASTORE (eds.), *The Impact of Hospitals, 300-2000* (Oxford, 2007), pp. 135-166.

¹⁰⁷ Catherine J. WOOD, "The Nursing of Sick Children III ...", p.283.

¹⁰⁸ The patient in question is Sarah Coulson. Her image is held in the photograph collection in the archive of Great Ormond Street Hospital for Children. (Reproduced here with permission of Great Ormond Street Hospital NHS Foundation Trust Museum and Archive Service.) Sarah's full story can be read at

This intimate relationship between nurse and patient was regarded as particularly important for older children, where “the wilfulness and disinclination for food have to be conquered, and the child must be fed against its own will”.¹⁰⁹ Wood believed this could only be achieved by “gentleness and firmness on the Nurse’s part ... There is in children a ready adaption to habit, and if systematic manner of feeding be begun, and continued during the severity of the illness, the child will more readily fall in with it.”¹¹⁰ Thus, the nurse was key to the child receiving the nutrition necessary for recovery. Successful treatment depended on her knowledge of the forms of nutrition available, and her ability to prepare meals, to such an extent that, according to Wood, “the Nurse of the present day must add some knowledge of sick cookery to her curriculum before she can consider herself fully equipped for her duties”.¹¹¹

Where children were too ill to leave their beds, nurses were charged with coaxing small amounts of food into their patients; additives, such as jam and honey, were used to tempt jaded appetites.¹¹² Everything the bed-ridden child ate or drank was written in the case notes, to control nutritional intake and chart the success or failure of food experiments, the nurse recording “how easily the child took the food, the effect on evacuations, their frequency, character and manner of passing”.¹¹³

The ritual of mealtimes at GOSH was mirrored at other children’s hospitals. Figure 6 shows a typical dinnertime scene at the Glasgow hospital and was described by its long-time secretary, Andrew MacGeorge.

“At 12 o’clock dinner is served ... The children are just going to sing ‘grace’. The Sister at the head of the table ... will then uncover the hot-water tin which contains the dinner, and serve it out, while the two nurses at the side will carry the plates to the children in bed, and feed those who are not old enough to do that for themselves, or who are unable to sit up ... The tin [contains] minced meat and

<http://www.hharp.org/library/gosh/patients/sarah-coulson.html>. Accessed online 29 December 2013.

¹⁰⁹ Catherine J. WOOD, “The Nursing of Sick Children III ...”, p.284.

¹¹⁰ Ibid.

¹¹¹ Ibid. p.285.

¹¹² Official lady visitors complained of nurses wasting food, and suggested a system of fines, revealing little understanding of the challenge of feeding very sick children. Andrea TANNER, “Care, Nurturance and Morality: the role of visitors and the Victorian children’s hospital”, in Graham MOONEY and Jonathan REINARZ (eds.), *Permeable Walls: Historical Perspectives on Hospital and Asylum Visiting* (Amsterdam, 2009), p. 89.

¹¹³ Catherine J. WOOD, “The Nursing of Sick Children III...”, p.283.

vegetables for the children on 'full diet' ... 'Scotch broth' for those on second diet, and ... chicken or fish for little invalids ... At the end of the table stands a wooden tray holding a large milk pudding for the second course. There are mugs and feeding cups for the 'drink of milk' which concludes the meal."¹¹⁴



Figure 6: Dinner at the Royal Hospital for Sick Children, Glasgow.¹¹⁵

The description highlights the challenges all children's hospitals faced to ensure their patients received meals appropriate to their condition, and it reinforces the middle-class rituals of mealtimes, part of the educational and civilising mission of the institution. The sister was at the head of the table, in place of mother, dispensing food and love while the nurses acted as servants to the diners. The meal ended with a pudding rich in milk and a nutritious drink. The routine was settled and unchanging, and an important part of the pattern of the daily life of the patients.

The enforcement of rigorous diets could be - and was - undermined by parents and friends who, unable to resist "the 'piteous' requests for solid food or a small fancy", sneaked forbidden items into the wards.¹¹⁶ The smuggling of food was a well-known problem in adult hospitals, and caused problems in children's hospitals too. GOSH was determined to control

¹¹⁴ Andrew MACGEORGE *The Royal Hospital for Sick Children and its Dispensary, Glasgow* (Glasgow, 1889), p. 43.

¹¹⁵ Image from Andrew MACGEORGE, *The Royal Hospital for Sick Children ...*, p. 43, courtesy of University of Glasgow and the Wellcome Library, London.

¹¹⁶ Catherine J. WOOD, *A Handbook for the Nursing of Sick Children ...*, p. 185.

the well-meant gifts of families and friends, and nurses were warned to be on the look-out for such transgressions.¹¹⁷ “Hospital experience”, wrote Wood, “has taught that the mistaken kindness of friends has to be most jealously guarded against ... the surreptitious mutton chop has cost the life of a patient, the harmless bit of bread and butter has turned convalescence into relapse”.¹¹⁸

The hospital rules threatened dire consequences for any infringement. In 1852, the original rules stated: “[Visitors] cannot be allowed to bring any cakes, sweetmeats, fruit or other food to any patient and any visitor acting in opposition to this rule will in future be refused admission to the Institution.”¹¹⁹ However, the nurses were never able to halt the smuggling of illicit treats, and in 1907 nurses were still attempting to police the smuggling of illicit foodstuffs: “Parents and friends asked NOT to bring fruit, cakes or sweetmeats for the patients. These are NOT ALLOWED. Some children have been made very ill, and some have even died, from inattention to this rule. Visitors are allowed to bring Eggs and Sponge Cakes.”¹²⁰

Food was not just a medicine, or a means of imparting civilised behaviour; it also played a central role during special occasions at the hospital. Such events were often described in the press by journalists invited to observe the festivities. On the Prince of Wales’s wedding day, for instance, the children were treated to a special tea, described in detail in *Aunt Judy’s Magazine*: “... the patients in the girls’ ward drank tea from a tiny tea service given to them by the Queen. Margaret (as the eldest) poured for the others. She said this ‘was much better than anything; she enjoyed it more than drinking her own’”.¹²¹ Another vignette from the same magazine illustrated the inculcation of middle-class manners which was part and parcel of the visiting ritual: a patient who had been feared close to death, but was now showing signs of recovery, “[was] sometimes ... wrapped in a

¹¹⁷ Guenter B. RISSE, *Hospital Life in Enlightenment Scotland* (Cambridge, 1986); Andrea TANNER, “Care, Nurturance and Morality ...”, p. 101.

¹¹⁸ Catherine J. WOOD, *A Handbook for the Nursing of Sick Children ...*, p. 185.

¹¹⁹ GOS/1/2/1 First Minute Book of the Provisional Committee, 25 April 1852. Breaking of hospital rules by patients’ visitors sometimes resulted not only in the visitor being banned from the premises, but in the patient being discharged without further treatment.

¹²⁰ GOS/5/1/3 Regulations for Inpatients, 1907. The quote reflects the original emphasis. Unlike GOSH, some children’s hospitals relied on the families of patients to bring in provisions to supplement their diet. Jonathan REINARZ, “Receiving the Rich, Rejecting the Poor: towards a history of hospital visiting in nineteenth-century provincial England”, in Graham MOONEY and Jonathan REINARZ (eds.), *Permeable Walls ...*, pp. 48-49.

¹²¹ *Aunt Judy’s Magazine*, April (1868), p. 379.

dressing gown and carried into the ward where [her friend] Toby is, to share a cot with one of the big girls ..., a sort of afternoon visit to take tea with a friend".¹²² Occasionally, food was used as a distraction. On Sundays, after the family visiting hour, many patients were understandably upset. To calm them, the ambulant were taken to the hospital chapel for evensong, after which extra jam, treacle or honey was served with their afternoon tea.¹²³ The wherewithal for celebrations was supplied by hospital supporters. There were regular deliveries of game, fruit and vegetables from country estates, flowers and home-baked cakes. One gift, however, was turned down with alacrity. In April 1866, Mr John Gooden's generous offer of a cow to supply the children with fresh milk was rejected because "no possible good could result to the hospital from this gift at all comparable to the cost and trouble that it would create".¹²⁴ Still, it might have been fun for the children to have had a hospital cow.

Conclusion

Food was not a neutral subject in Victorian and Edwardian children's hospitals. Poor quality food or a lack of food was a major cause of admission to such hospitals whose patients, in the main, came from the ranks of the urban poor. While a significant number were admitted with conditions directly related to poor diet (such as rickets, debility and marasmus), undernourishment was probably also an underlying causal element in many other of the diseases for which they were admitted. As a result, it is probably not surprising that GOSH's matron, Catherine Wood, set such store on the importance of a healthy and nutritious feeding regime for her patients, above almost anything else. Nutritious food (and in particular milk, which contained all the nutrients necessary for the support of life) was her favoured weapon in the arsenal of treatment. But milk was not a neutral subject either: while in theory it was life-supporting and, for infants, an essential source of nutrition, in the late nineteenth and early twentieth centuries it was also fraught with problems regarding its purity, affordability and potential for carrying diseases. Historians have argued about the effectiveness of campaigns to improve the quality of milk. At GOSH, this issue was being discussed extensively in the early twentieth century and precautions were in place to ensure

¹²² *Aunt Judy's Magazine*, March (1872), p. 317. The scene depicted (entertaining friends to afternoon tea) would be entirely familiar to the magazine's young middle-class readership but to patients at GOSH would be completely novel.

¹²³ Andrea TANNER, "Care, Nurturance and Morality ...".

¹²⁴ GOS/7/2/1 Visiting Governors' Report Book, 1852-1867.

that they had the best quality fresh (and artificial) milk available, all the time balancing this with a need to control costs.

Diets at GOSH were carefully planned, prescribed and monitored, and were based on an increasingly sophisticated understanding of the newly emerging nutritional sciences. The hospital listed several different feeding regimens in its pharmacopoeia, which were prescribed depending on the child's condition: liquid diets for the very young, the very sick and those who had difficulty swallowing, while older children who could take solid food received diets based on bread, potatoes and meat. Alcohol also played a key role in treatment, as a stimulant, particularly for very sick children and as a carrier for other medicines such as iron tonics. Food and alcohol represented significant financial outlay for the institution: meat was the greatest expense, but milk and dairy dominated the dietaries, while alcohol raised issues of cost and potential misuse. Items such as fruit and green vegetables were rarely included in the official diet sheets but were often provided as 'extras', when available through donations from hospital supporters

The importance of food lay not only in its therapeutic role; it was also seen as one of the principal conduits of communication between nurse and patient, and the agency through which her care, and the moralising influence of the hospitals, were transmitted. Mealtimes were ritualised, to provide children with much needed routine and also to inculcate middle-class behaviour and manners which, it was hoped, would be exported back to patients' families and neighbours when they were discharged. Much of this philosophy can be found in Wood's writings, ideas which developed from her extensive experience of caring for sick children and heavily influenced by her mentor, Dr Charles West, and other GOSH doctors she worked with. Throughout her writings, food is discussed not only as the means through which an ailing infant or child could be restored to health and vitality, but Wood stresses also the importance of arming older children with the knowledge of which foods were (and were not) good for them. Food was a complex subject and played a multifaceted role in children's hospitals; and the study of the use of food in these institutions reveals much not only about the growing understanding of nutritional science but also provides insights into the social role of food in the attempts to 'civilise' the urban poor.