CHRIST'S HOSPITAL: INFANT AND CHILD MORTALITY IN THE SIXTEENTH CENTURY

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Christ's Hospital was founded by Edward the Sixth as a hospital for fatherless and destitute children who were to be fed, clothed and educated at the expense of the City of London until they were old enough to be found places of employment.

There is, in the Guildhall Library, an unbroken series of registers relating to this foundation and the following research was based on the admission registers.[1] On the lefthand page of these registers are the particulars of admission, the date, name, age, name and occupation of the father and the name of the parish in which the child was born. The righthand pages give the date of death or discharge and particulars of apprenticeship.

Not all the children whose names appear in the admission registers were accommodated within the confines of the school. Infants and young children were sent 'out to nurse,' sometimes in the country but very often in the city. Every Easter these children were brought back into the school, presumably to make sure they were still alive, and then were either sent out to nurse again (not always in the same place) or kept in the school if they were of an age for formal education.

An investigation into the mortality of Christ's Hospital children reveals that life in a sixteenth century institution may well have increased a child's chance of dying at an early age. The school was more of a hospital than an educational establishment in the early years and though deaths within the school were very few by the end of the seventeenth century, in 1563, out of fifty-nine admissions between the age of five and ten years, sixteen died within a year. In 1573, with fifty admissions, six died within a year and in 1583 two died out of a total of thirty-one admissions. The highest mortality, however, can be found among infants and young children at nurse.

Antoinette Chamoux[2] found that forty-five per cent of the children sent out to nurse from eighteenth century Rheims died before their first birthday and in seventeenth century Lyons a seventy per cent mortality rate was found amongst children reared by wet nurses. Forbes[3] found the infant mortality rate in the parish of St. Botolph, Aldgate, to be 349 per thousand live births in the period 1589-93. This is higher than comparable studies, both urban and rural[4], showing that mortality amongst infants in London was perhaps higher than elsewhere.

Table 1 shows the number of children under five years admitted to Christ's Hospital in the period 1563-83 and the number of those who died.

Table 1 Number of admissions and deaths of children under five years of age admitted to Christ's Hospital in the period 1563-83.

	Age of Entry				
	0	1	2	3	4
Died under one year	91				
Died under two years	28	23			
Died under three years	10	6	13		
Died under four years	7	3	2	10	
Died under five years	9	7	5	12	5
Total of deaths	145	39	20	22	5
No. of admissions	282	158	111	115	106
Percentage of admissions	51.4	24.7	18.0	19.1	4.7

It can be seen from Table 1 that the mortality of infants admitted was ninety-one out of 282, or 323 per thousand, but this is not a true infant mortality rate as only a small number (thirteen) of those admitted were under one month, the period during which infant mortality is greatest. It has been estimated[5] that half who died within the first year do so before they are one month old. Using this assumption it is possible to arrive at an infant mortality figure approximately equivalent to that calculated by the conventional methods[6] by employing the formula $M = \frac{2y}{x + y}$ where M equals infant mortality, x equals the total number of infants admitted between the age of one and twelve months and y equals the number of infants dying during the same period. This formula in fact produces a minimum figure as it assumes that all children not admitted under one month were admitted at one month exactly. In practice they were admitted at various ages under one year. Those admitted later in their first year would be less likely to die during the period in which we can observe them than over a period of eleven months.

For child mortality after the age of one year the problem of children not under observation for the whole year can be overcome by calculating the mortality rates only from those children who are under observation for the whole year and ignoring those who are admitted during the course of the year. Table 2 shows the corrected figures for infant and child mortality up to five years old.

Table 2 Mortality rates for infants and children under five admitted to Christ's Hospital in the period 1563-83.

Age	No. under observation	Deaths during year	Mortality rate per 1000
0	(357) *	(176) *	493
1	191	28	147
2	298	16	54
3	380	12	32
4	473	33	70
Mortality			
1-4	191	54	283

*estimates; not observed.

Bearing in mind that the infant mortality figure of 493 per 1,000 is a minimum estimate and that the probable figure is well over 500 per 1,000, it is clear that the figure for Christ's Hospital nurselings is even higher than that given by Antoinette Chamoux.

Figures calculated by Forbes and Wrigley (op. cit.) suggest that the proportion of infants dying between six months and one year is approximately one sixth of the total number dying in their first year. This fact makes possible an alternative method of calculating infant mortality, whereby six times the number of infants dying between six and twelve months is divided by the number alive at six months plus five times the number dying between six and twelve months. During the period 1563-1583, of 180 children admitted under six months twenty-two died between six months and one year. These figures give an infant mortality rate of $\frac{6 \times 22 \times 1{,}000}{180 + 110}$, that is 455 per thousand. This is sufficiently close to the figure of 498 per thousand obtained by the first method to confirm the unusually high mortality rate.

This high mortality rate may be partly due to the fact that not all Christ's Hospital infants were sent into the country; many were placed with nurses living in the city of London and such children were clearly more vulnerable to the dangers of dirt, disease and overcrowding, as comparison of the figures for Aldgate and Leake demonstrates.

However, this does not fully explain why the infants taken over by Christ's Hospital should have suffered such an appallingly high chance of dying before their first birthday, and we can only guess how efficiently the system of fostering worked. During the period in question Christ's Hospital paid the nurses between 8d and 12d weekly and also provided the child's clothing. This payment seems about average for the boarding out of infants in the sixteenth century and should have been adequate to cover the expenses of child rearing.[7]

The high mortality rate might be a reflection of a poor standard of care which was probably aggravated because the nurse often had more than one foster child at a time. Unless infants were weaned very early it may be that the amount of milk produced by the wet nurse was inadequate to feed two or three infants at the same time, resulting in a certain degree of malnutrition amongst nurselings. In the summer of 1563, a certain Jone Moore (or More) living in Moor Lane, took in two infants, one

ten days old and the other ten weeks. Both were dead by October of the same year. Throughout the next five years Jone More continued to nurse Christ's Hospital infants, of whom only one appears to have survived. In January 1564 Alice Phipps of Lambeth became nurse to two small babies, both of whom died within the month.

If the general standard of care of fosterlings was questionable it would follow that only the fittest would survive the physical and emotional upheaval of being farmed out to a series of strangers.

The number of children put out to nurse by Christ's Hospital rose steadily during the first years of the foundation. From October 1563 to September 1564 an average sum of £27 5s 4d monthly was paid out to nurses. By 1580/81 this had risen to £44 7s 9d monthly. With such a large number of infants out at nurse it would be unlikely that Christ's Hospital had much choice about the quality of their nurses and frequent checks on infants would have been a very difficult task.

Another possible answer may be that the orphans and children from destitute homes might not have been very strong and healthy when Christ's Hospital 'adopted' them. If this were the case the weaklings were unlikely to survive the rigours of being sent out to nurse. Perhaps the luckiest children were those who were returned to their natural mother, with regular payment, until they were ready for school.

It would be interesting to discover if the mortality rate of the children placed in the country was lower than for those in the city; indeed there is much more work which could be carried out in this field from the Christ's Hospital manuscripts which would increase our present knowledge about infant mortality and the fostering of children.

NOTES

1. Guildhall MS. 12,818/1. Christ's Hospital Admission Registers.
2. Antoinette Chamoux, 'Rheims in the Eighteenth Century: An Urban Population.' **LPS 13.**
3. T. Forbes, **Chronicle from Aldgate,** Yale, 1971.
4. F. West, 'Infant Mortality in the East Fen Parishes of Leake and Wrangle.' **LPS 13.**
   E. A. Wrigley, 'Mortality in Pre-Industrial England,' in **Population and Social Change.** ed. Glass and Revelle, 1971.
5. R. S. Schofield, Correspondence. **LPS 9,** p.50.
6. For example, as described by Schofield in **LPS 9,** p.50.
7. Pinchbeck and Hewitt, **Children in English Society,** vol. 1.