

# The survival prospects of European foundlings in the eighteenth century: the London Foundling Hospital and the Spedale degli Innocenti of Florence

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**1. Introduction.** In the middle of the nineteenth century, around 120,000 babies were abandoned by their parents every year across Europe (Hunecke 1991, 36-38). The growing use of infant abandonment as a temporary or permanent survival strategy by both married and unmarried poor parents is a striking feature of early modern European social and economic history, and it seems to have had its first major phase of acceleration during the eighteenth century. This article takes a comparative approach to the analysis of survival chances of foundlings at two specialised institutions in the second half of the eighteenth century: the London Foundling Hospital and the Spedale degli Innocenti of Florence. Both admitted babies throughout the second half of the eighteenth century, although the scale and concentration of their admissions differed. Both also aimed to have their charges breast-fed by external nurses through infancy, and then educated and trained at the hospital before employment or marriage. However, they operated in quite different social, cultural and religious environments. The central question of this article asks how far these local conditions set the stage for the survival outcomes of foundling infants and young children, as opposed to the circumstance of abandonment or the efficiency of the hospitals. The question is answered using statistical models which quantify the impact of these factors.

Studies of European foundling hospitals have considerably expanded our knowledge of how infant abandonment worked in different places during the eighteenth and nineteenth centuries in particular, and especially for southern Europe. Corsini and Viazzo's work on Florence (Corsini 1991; 1976; Viazzo, Bortolotto, Zanotto 1994a; 1997a; 1997b; 2000), Hunecke's on Milan (1989), dos Guimarães Sa's on Porto (1992), Pérez Moreda's on Spain (1980, 167-176), and Fuchs's on France (1984), for example, have all shown the scale of infant abandonment in Europe, the role of urban centres in attracting unmarried mothers, and the high mortality of foundlings. Some studies have pushed the investigation of mortality further, examining changes in hospital policy, and the influence of the nursing system (Viazzo *et al.* 1994a; 1994b; 1999; Angeli 1994, 109-156; Kertzer, White 1994, 451-80; Kertzer, Sigle, White 1999, 303-15). Comparative work taking in more than one national or even local context is rare, however, making any discussion of relative outcomes extremely problematic. This is compounded by the use of different statistical approaches, based on data which were often collected according to different criteria. This paper uses a common technique to study two hospitals, making the results genuinely comparative. This enables us to judge whether different hos-

pitals were better at keeping children alive than others, and if so, how this was mediated and controlled. Once admitted to the hospitals, did foundlings face the same risks to life from place to place and over time, or were their experiences driven by their circumstances up to and at the moment they were given up?

The two hospitals examined here, the London Foundling Hospital and Florence's Spedale degli Innocenti, were selected for the differences in their settings and backgrounds. Both also have long-running surviving sets of admissions registers, which provide individual-level data on the children they admitted. The London Foundling Hospital was founded in 1739 by Royal Charter, and it enjoyed the support of many socially prominent men and women. For most of its history it was supported by charitable donations and investments, and admitted tens or a few hundred infants annually. All had to be under the age of two months, and free of contagious disease. The significant exception to this was a period known as the General Reception, when Parliament voted a grant to support the hospital, provided it began a policy of open admissions. While this period lasted, from June 1756 to March 1760, over 15,000 babies were left at the hospital. The upper age limit was raised to one year in 1757, and the screening for disease was removed. During this short but prolific period, infants were handed over to hospital officials or left in a basket at the gate, but strict anonymity as to backgrounds and circumstances was preserved<sup>1</sup>.

The Innocenti was of a much longer pedigree than the London hospital; it was opened in 1445 under the joint impetus of the silk guild and the commune of Florence, and was to become the longest-running foundling hospital in continuous operation. Admissions were unrestricted by number or type of child from its foundation onwards, and in excess of 500 babies were admitted annually by the middle of the eighteenth century. Infants could be left anonymously by using the *ruota* or wheel set in the hospital's wall, which rotated to receive the baby without officials seeing the person leaving it. The *ruota* continued in use until 1875, when it was removed to stop the admission of large numbers of legitimate children. By this time, the removal of such wheels was becoming widespread across Europe (Bruscoli 1900; Chericci 1932).

A cohort approach was chosen for this study of survival prospects. Its advantage is that it can focus on years of particularly good or poor survivorship, allowing detailed investigation of hospital policy. It is particularly effective where longer-run studies of mortality and admissions also exist, in order to contextualise the typicality of the cohort. There has been comparatively little work done until recently on the foundlings abandoned in London, but several cohort studies of the Innocenti have illustrated the potential of the approach. Carlo Corsini used cohort analysis to link foundling life courses to the local Tuscan community. Using family reconstitutions of two rural areas near Florence (Fiesole and San Godenzo), he examined the behaviour of families who abandoned infants to the Innocenti, and also women who acted as paid wet nurses for the hospital (Corsini 1976). A wider research project by Paolo Viazzo, Maria Bortolotto and Andrea Zanotto focused more closely on the hospital, and how it tried to counter poor survival prospects. Their work is

more thoroughly contextualised in the hospital's history, as they combined cohort studies with a longer-run survey of admissions and mortality (Viazzo, Bortolotto, Zanotto 1994a; 1997a; 1997b; 2000). The admissions' series has confirmed that, as at many other foundling homes across Europe, there was a massive increase in the size of the intake starting shortly before 1750, and extending to the closure of the wheel in 1875<sup>2</sup>. The main part of their mortality series starts in 1750, and continues until 1950, compiled partly from the admissions registers (*Balie e bambini*), and partly from contemporary accounts of deaths. Even the Innocenti's own contemporary mortality estimates needed to be carefully checked since (like other foundling institutions) they might be manipulated to promote their successes. The series thus inevitably contains a certain amount of internal inconsistency, but is extremely useful in showing the general direction of mortality. Viazzo and colleagues used it to identify several years of interest, two of which are followed up here.

The Innocenti mortality series indicated that there was an unexplained and notable, but temporary, decline in mortality around 1780. Viazzo *et al.* discovered from hospital records that the wet nurses' salaries were raised in 1779, accompanied by a shortening of the nursing period from 18 to 12 months (Viazzo, Bortolotto, Zanotto 1997b). This was part of a deliberate effort to raise survival chances by attracting more, and better quality nurses, tempered by a need to keep running costs down. It apparently led to an improvement in mortality in the first year of life, although it was offset by raised mortality in the second year as babies were returned earlier to the hospital. Viazzo *et al.* thus suggested that the recruitment of more wet nurses was significant in raising chances of early survival. In fact it was a lesson the Innocenti learned: in 1786 the nursing period was brought back to 15 months to prevent the ill effects of weaning too abruptly (Viazzo, Bortolotto, Zanotto 1999, 147-159). Viazzo *et al.* investigated these changes in regime by focusing on the entry cohorts of 1777 and 1782, that is, either side of the change in nursing policy in 1779, quantifying mortality, and the length of time foundlings had to wait in the hospital before being found a wet nurse. Although these studies highlighted the importance of the nursing regime in affecting survivorship, they did not push the investigation any further in statistical terms, and nor did they prove any causative relationship between nursing and mortality. Paolo Viazzo has kindly made the data for these two cohorts available to me, in order that a wider array of interlocking influences both internal and external to the hospital may be tested.

The selection of cohorts was in many ways an easier matter for the London Foundling Hospital since annual admissions outside the General Reception were too small to allow for statistical analysis. Further, the existence of selection criteria based on age and health status meant that infants admitted outside the General Reception period were not strictly comparable to the Innocenti foundlings. A sample consisting of the first 10% of entrants in each month between March 1756 and June 1760 was thus collected, using data from the admissions books, and supplemented by information from notes left by parents (see Levene 2003). A mortality series for the period from 1741, when admissions began, to the end of the century

also shows that the General Reception period was one of significantly raised (although somewhat improving) mortality (Levene 2005a). Before we move on to a discussion of the composition of the cohorts and an analysis of survival chances, however, it is instructive to consider the ways in which local conditions may have affected the course and incidence of infant abandonment in the two settings. This provides necessary background to the discussion of how far survival prospects were set by common or particular factors.

**2. Local factors and infant abandonment.** England and central Italy had many points of difference, for example in economic and demographic development, in religion, and in welfare support. While the former influences were significant, however, it is argued here that it was religious beliefs and related cultural practices, coupled with welfare provision, which had the greatest impact on infant abandonment. England had moved more rapidly through demographic and economic expansion and development than had Tuscany by the mid-eighteenth century: population was growing, infant mortality was falling, and industrial growth and urbanisation were well under way. Large parts of Tuscany, by contrast, had only limited population growth and higher levels of infant mortality, and had been largely sidelined in terms of economic development and infrastructural growth. Florence in particular, lagged behind other towns like Livorno and Pisa, and did not compare with London in either size or economic strength (Wrigley *et al.* 1997, 249-261; Breschi, Del Pantà and De Santis 1993; Fasano Guarini 1982; Galloway 1994, 223-274; Del Pantà 1997, 18). Although Italy's demographic structure seems to have been driven, like England's, by fertility changes, population growth was slow, and even at the end of the eighteenth century there were no real signs of sustained industrialisation (Breschi, Del Pantà and De Santis 1993, 6). The existence of agricultural systems like sharecropping also kept much of the population in relative poverty, and thus at risk of resorting to infant abandonment to keep down the number of non-productive family members living on the land (Viazzo 1994, 37-38). The so-called 'extended' southern European family may not have been any more able than a small nuclear one to provide enough support for large families to prevent abandonment (Hajnal 1982, 449-452; Laslett 1988, 153-155; Horden 1998, 22-31). In England, there was a greater amount of welfare support in impoverished rural areas, as will be noted below, although early industrialisation may have brought other abandonment-inducing trends such as high rates of urban migration of young single women at risk of bearing an illegitimate child.

More significant for the history of infant abandonment were religious and cultural differences between the two settings. 'Catholic' and 'Protestant' forms of charity have been shown to have had distinctive differences in motivation and form, although scholars now tend to stress that both were mixed systems by the eighteenth century (Cunningham 2005, 109; Davidson 2005, 34-51; Pullan 1996, 68-9; Slack 1988, 8-9; Chaney 1981, 191-209; Cavallo 1989, 93-122; Viazzo 1994, 36)<sup>3</sup>. One significant feature for this study, however, was the long-standing emphasis in Italy on the importance of saving the souls of the needy. Foundlings thus particu-

larly deserved assistance to prevent them from dying unbaptised, a fate which would leave them eternally in limbo according to Catholic doctrine. This distressing fate was not emphasised by Protestants, although the commercial and pro-population ethos of the eighteenth century had encouraged a longer-term view of the benefits of saving child lives in both settings (Cressy 1997, 111-15). The Catholic emphasis on baptism may still, however, have affected parents' reasons for abandoning a baby, and the age at which it was given up.

Another pertinent influence of religion and its associated cultural values in terms of foundling survivorship was the attitude it encouraged towards unmarried mothers. David Kertzer has made a strong case for the growth of a network of surveillance of unmarried Italian women by priests and midwives from the Counter-Reformation, forcing them to give up illegitimate infants to a foundling hospital immediately after the birth (Kertzer 1993). Across southern Europe «a network of complicity was installed and information concerning abandonment must have circulated among wide groups, probably formed mainly by women» (dos Guimarães Sá 1992, 37). The reason for this strict attitude (albeit with significant regional variation) was the need to protect sexual and family honour, which may have suffered particular strain in the eighteenth century as young people found more opportunities to work away from their families and peer networks in towns (Cavallo and Cerutti 1990, 73-109). As well as providing a safety net for overburdened parents, therefore, foundling hospitals were also a means for unmarried mothers and their families to escape the consequences of their 'sin'.

Such attitudes to unmarried motherhood are harder to detect in England, where pressure on single mothers to give up their children from either church or lay authorities was more limited. There, the poor laws had provided for doles and support for local resident populations since the sixteenth century, and officials generally preferred to seek out an illegitimate child's father in order to claim financial support for mother and child than remove it and provide care at the parish expense. These different attitudes have been taken to exemplify a willingness to absorb responsibility for illegitimate infants into the community in some countries such as Italy, while in England, the poor law stressed personal culpability by the parents (Hunecke 1994, 117-35; Kertzer 1993; Nutt 2005). The London Foundling Hospital did cite the role of shame in driving parents to infanticide<sup>4</sup>, but it does not seem to have had the same association with wider family honour as in Tuscany. In England, poverty was more likely to be the motivating force behind abandonment for unmarried and married parents alike. The impact on the form of infant abandonment is that illegitimate foundlings at least might be very young when they were given up in Florence, and thus were abandoned at the most vulnerable point in their lives. In England, unmarried women may have been able to keep their children for longer, and were not forced to give them up by the authorities.

The desire for moral surveillance underpinned the institution of a large number of foundling hospitals in Italy, but their availability may have further encouraged the practice of infant abandonment more generally (Hunecke 1994, 171). The long-standing emphases on sexual probity and the necessity to baptise unwanted infants

meant that abandonment had been institutionalised early in southern European countries such as Italy and Spain. In mid-nineteenth-century Tuscany alone, there were 16 foundling hospitals in operation, and a further six secondary hospitals, nine smaller clinics, and 44 other receiving centres for abandoned children. The Innocenti was the centre for 52 communities, exerting a strong pull to foundlings from all over the Granduchy of Tuscany (Kertzer 1993, 82). This long-standing tradition of abandonment meant that married parents were also aware of its potential as a survival strategy to protect against the impact of economic hardship or widowhood, both in the long and short term. Corsini found that Fiesole and San Godenzo families giving up more than one child to the Innocenti were passing on responsibility for a staggering 45.6% of their live births in the eighteenth century (Corsini 1976, 1015).

In London, in contrast, the certain option of abandoning a baby to a designated institution existed only during the General Reception; outside this period admissions to the hospital were based on ballots, and demand far outstripped supply (illustrating the potential hospitals had to encourage the practice even if it had not been common before). Anonymous infant abandonment was thus not as well engrained within welfare strategies as it was in Italy. Abandonment to the parish did occur, and foundlings sometimes cost the poor rate more than all other categories of the poor put together (Fildes 1990; Adair 1996, 34-35; Pearl 1981, 126). It was less likely that a mother could escape unidentified within the small bounds of a parish, however, and officials did try to trace parents of infants dropped within their boundaries. Further, as already mentioned, poor parents and unmarried mothers could apply for relief without giving their children up, and rates of abandonment seem to have been low compared to parts of Continental Europe. In the next section, we will examine the types of foundlings left at the two hospitals, and begin to test how far factors such as those discussed here may have affected their survival prospects.

**3. Cohort analysis.** Table 1 sets out some of the basic characteristics of the three cohorts. In terms of sex ratio, all three cohorts show an approximate parity. In London and at the Innocenti in 1777, more boys than girls were abandoned, although at the latter this is actually fewer boys than shown in the sex ratio at birth of c. 104 (Teitelbaum 1972, 91-92)<sup>5</sup>. In 1782 this was even more pronounced, and more girls than boys were abandoned. The discrepancies are relatively small, however, implying that parents did not use their baby's sex to direct their decision to abandon them. A pronounced tendency towards the abandonment of girls has been uncovered for other foundling hospitals, and for the Innocenti in other years, but is not seen to any large degree here (Da Molin 1993, 105)<sup>6</sup>.

When it comes to the fates of the foundlings in the two hospitals, however, outcomes diverge. Both hospitals lost a very large proportion of their charges: at least 70% dying while under their care, but more than 80% at the Innocenti, and almost 86% in 1777. Things were slightly better in 1782, but the improvement was not great, reinforcing Viazzo *et al.*'s finding that lowered mortality in the first year of life was offset by raised death rates later on. This is also supported by the infant mor-

Tab. 1. *Characteristics of entry cohorts to the London Foundling Hospital (1756-60) and the Spedale degli Innocenti (1777 and 1782)*

	Innocenti 1777	Innocenti 1782	London 1756-60
N	814	897	1484
Sex ratio (males:females)	101:100	94:100	108:100
% dying under hospital's care	85.6	81.3	70.0
IMR (1q0)	836.2	600.0	677.4
% reclaimed	5.5	9.9	1.1
% legitimate	47.5	32.3	29.9

Source: London Foundling Hospital General Register and entry billets, London Metropolitan Archive, A/FH/A09/2/1-5 and A/FH/A09/1-173; Innocenti Balie e bambini, Archivio dell'Ospedale degli Innocenti di Firenze. Serie XVI, 1777 e 1784.

tality rate (IMR), a measure of mortality in the first year of life (Levene 2005a). The Innocenti had a considerably worse record of infant survival in 1777 than in 1782, while the London Foundling Hospital had a comparable rate to the 1782 cohort. We should not lose sight of the fact that these rates are still far in excess of anything seen outside the foundling hospitals, and significantly higher than rates achieved by the London Foundling Hospital outside the General Reception. IMRs in London were closer to 350 per thousand at this point, and lower outside the capital (Laxton and Williams 1989).

Almost all of the survivors at the London Foundling Hospital were formally apprenticed, while 1.1% were reclaimed by family or friends. The Innocenti did not formally apprentice its charges, but also placed them with families where they were probably trained to work until they were dismissed from the hospital's care or married. A higher proportion of Innocenti foundlings were reclaimed, however: 5.5% of the 1777 cohort, and 9.9% of those abandoned in 1782. This may reflect the fact that parents were able to count on abandonment as a temporary relief strategy, perhaps also disclosing a higher proportion of legitimacy at the Innocenti.

Information on legitimacy confirms that both hospitals were used by both married and unmarried parents. Neither hospital recorded legitimacy status directly, but it is suggested by naming practices (for example, whether a father's name was given), and for the London hospital can be derived from information in notes frequently left by parents (Levene 2003). The Innocenti played a particularly important role for married parents; in 1777 close to half of all entrants were born in wedlock. In 1792-94 the rate was even higher, at 71.8% (Viazzo 1994, 39)<sup>7</sup>. This phenomenon has been noted by several Innocenti scholars, who suggest that the hospital was being used as a kind of Malthusian 'check' against poverty when economic and epidemic conditions were poor (Corsini 1991, 88; Woolf 1986, 15, 158). This might explain why babies of both sexes were given up in almost equal proportions rather than parents making future cost calculations based on their earning power. Almost a third of infants left at the London Foundling Hospital were legitimate as well, indicating similar processes at work.

Sex ratios by family background show almost no preference to abandon legitimate or illegitimate babies of one sex in Florence<sup>8</sup>. At the London hospital, there was a slight excess of legitimate girls (62% of legitimate babies were female), although only a slight under-representation among illegitimates (47%). Here then, there is slightly more evidence for a gender-directed preference for keeping legitimate boys at home. It may also, however, be the result of higher early male mortality, since as will be seen, foundlings in London tended to be older at abandonment than in Florence. Information on age, however, shows that illegitimate babies tended to be abandoned at younger ages at both hospitals than those born in wedlock. This is strong supporting evidence for Kertzer's thesis that unmarried Italian women had little choice but to abandon infants immediately, but it is interesting that the same phenomenon is found in England. At the Innocenti, illegitimates in 1777 were on average 5 days old when they were abandoned, compared with 20 days for legitimates, and in 1782, the figures were 14 and 28 days respectively. In both cases, average ages were raised slightly by a small number of foundlings who were close to a year or even more when they were abandoned. In 1782, seven illegitimate children were sent to the Innocenti from the foundling hospital at San Gimignano, all of whom were over one year. If these children are removed, the average age of illegitimate infants in that year is lowered to 1 day. At the London hospital, illegitimates had an average age of 40 days, and legitimates 52 days<sup>9</sup>. This finding is proof that unmarried mothers did have recourse to the foundling hospitals sooner than married parents, but that in England they were not forced to do so immediately<sup>10</sup>. More rapid abandonment for illegitimate babies probably reflects a combination of attitudes towards illegitimacy, the precarious economic circumstances of unmarried mothers and the difficulty of finding employment with a baby in tow. Illegitimacy is associated with high mortality rates in any case, but here it may be compounded by younger age at abandonment. Statistical analysis will enable us to see whether family background exerted a lasting influence on survival chances, and whether it was the same in both places and at different points in time.

Thus far, we have not uncovered major differences between the two hospitals in terms of the characteristics of the infants left there. In neither place was there much evidence of a gender preference in abandonment, and both hospitals took in a significant proportion of legitimate infants as well as illegitimates. The Innocenti did have a worse mortality record than the London Foundling Hospital, especially in the first year of life in 1777, but we have yet to discover much to indicate why. Two more factors are available for exploration, however, which do uncover a little more as to how background factors affected abandonment and its outcomes. The first is the foundlings' age at entry to the hospitals; the second is their geographical provenance.

The information on illegitimacy has already shown that babies brought to the Innocenti were younger than those abandoned at the London Foundling Hospital. This is reinforced further when we consider the proportions of the full cohorts given up on the day of birth: 59% of foundlings in the Innocenti cohort of 1777, and 47% in 1782, but only 7% in the London cohort. The Innocenti cohorts admit-



ted 78 and 72% of their intake within the first week of life, respectively, while in London, only 23% of the sample had been abandoned in this time. Although illegitimate babies were abandoned particularly quickly, it is clear that the Innocenti cohorts as a whole were given up earlier in life than the one in London. The role of attitudes to unmarried motherhood has already been highlighted in this respect, but the age evidence shows that married parents in Tuscany also generally knew prior to the child's birth, or very soon afterwards, that they would be unable to cope. In England, a higher proportion of parents, married and unmarried, kept their babies for as long as they could; many notes left with children state that they were given up only when necessity forced the parent(s) to it. In both places, however, few children entered after the age of four months.

A further explanatory factor for the age pattern is that while there was a dense network of foundling hospitals and receiving centres in Tuscany, in England the only such institution at this time was the London Foundling Hospital. Infants might therefore travel lengthy distances to reach the hospital, raising their age at arrival by up to a week. Other evidence shows that the hospital was also used by poor law officials to rid themselves of expensive burdens, and they might wait until they had several babies to send before setting out. This would also result in the abandonment of slightly older infants (Levene 2003, 226-227). This point is illustrated when the foundlings' places of birth are examined. This information was recorded between June 1756 and August 1757 at the London Foundling Hospital, with some further information from parental notes<sup>11</sup>. Innocenti officials seem to have recorded provenance whenever it was given. 56% of Innocenti foundlings in 1777 were recorded as being born in Florence, and 60% in 1782. In London, 57% of foundlings were born in the metropolis. Clearly both hospitals exerted their major pull in their immediate locality. The catchment area of the London hospital extended to a far wider area however, as might be expected from the lack of alternative foundling hospitals<sup>12</sup>. While 15% of entrants to the Innocenti in 1777, for example, had travelled 10-30 kilometres to reach the hospital, and 11% of London foundlings, only 8% of Innocenti infants had come further than that, compared with 33% of London entrants. At the London hospital, indeed, 6% had travelled 200 kilometres, and 4% even further. We are able to test the impact of factors such as these on foundling survivorship by using the technique of proportional hazards modelling.

**4. Testing survival hazards.** Proportional hazards models are a way of measuring the impact of a variety of factors concurrently on an individual's chances of survival (see Hosmer and Lemeshow 1999; for details of models in the current context see Levene 2002, 226-230)<sup>13</sup>. Those considered here include some which capture the impact of the foundlings' characteristics at entry (sex, season of abandonment, place of birth, legitimacy), and others which evaluate the impact of the foundling hospital (the speed with which babies were found a nurse, the distance they travelled to the nurse's home, and the occupation of her husband). The effect of each on the survival chances of the foundlings was measured individually, and they were then built up into a multivariate model which explained as much of the variance in

survivorship as possible. Two models were constructed for each cohort, one keeping the foundlings in observation up to the age of one year, and one from the point at which they were sent to a wet nurse, up to the age of five years. The former were designed to examine the impact of basic characteristics such as sex and legitimacy over the first year of life, while the latter show their more ongoing nature and the impact of the nursing experience, as far as that can be measured. It should be noted that children under the care of the London hospital would generally have been with wet nurses up to the age of five, while the Innocenti foundlings returned to the hospital much earlier (at the point of weaning).

*4.1. First-year mortality.* Table 2 shows the models covering the first year of life. In each case, the impact of the variable (while holding the others constant) is expressed via two values. The first is the odds ratio, which is the expression of risk for children in one category against a reference category whose odds ratio is 1. For example, males are modelled with reference to females, or entrants in spring, summer and autumn against those entering in winter. A ratio above 1 for the set being modelled thus indicates a raised hazard relative to the reference group. Taking the first value in table 1, therefore, the odds ratio of 1.167 under the sex variable indicates that boys had a 16.7% raised risk of death over the first year than girls. Below this, the odds ratio of 0.675 for the spring variable shows that foundlings entering the hospital in spring had a 32.5% improved risk over those entering in winter ( $1-0.675$ ). The second value given is the confidence level, which indicates the significance of the variable, and is expressed as a percentage. It indicates the degree of confidence that the result is not simply the result of chance, and thus does have explanatory power. A 95% level of confidence is usually a benchmark of significance.

Examining the columns for the London Foundling Hospital cohort first, we see that several variables are significant, although at the Innocenti, confidence levels are generally lower. This is common in historical data, since many potentially important variables such as birth weight are not available. The low level of explanatory power achieved by the models for the Innocenti indicates that other factors, such as the hospital environment and routine, had a greater effect than the characteristics the foundlings brought with them at abandonment. For example, it will be shown below that foundlings in Florence in 1777 were less likely to be placed with a wet nurse than those in London. Their longer average exposure to the hospital environment and lack of sustained breast-feeding may have had a considerable impact on their survivorship. Both hospitals employed nurses to feed the children before placements with external nurses were made, but there were not enough to breast-feed them all exclusively. The London foundlings in contrast, had a high chance of living with country wet nurses for much of the period captured in these models.

The sex variable was highly significant for the foundlings at the London hospital, where boys had an increased risk of death of the order of 17%. At the Innocenti, there was very little difference between the sexes. Boys do biologically experience higher risks of death very early in life, but in such high mortality populations as the foundlings' (especially those at the Innocenti) this may no longer hold true (Lalou 1997, 207; Waldron 1985, 67-88; Naeye *et al.* 1971, 902-906; Washburn,

Tab. 2. *Proportional hazards analysis of first year mortality: London Foundling Hospital and Innocenti cohorts*

	London		Innocenti 1777		Innocenti 1784	
	Odds ratio	Confidence level	Odds ratio	Confidence level	Odds ratio	Confidence level
Sex (ref to female)	1.167	96.8	0.957	42.0	1.091	64.9
Season						
Spring	0.675	100	0.553	100		
Summer	0.571	100	0.830	87.0	1.323	24.0
Autumn	0.698	100			1.251	33.6
Winter			0.592	100	1.166	46.6
Baptised (ref to unbaptised)	0.747	100				
Legitimate (ref to illegitimate)	0.694	98.0	0.717	100	0.702	100
Birth in Florence (ref to birth outside)			1.023	21.0	0.916	64.5
Chi-square	56.93	0.0000	47.43	0.0000	17.26	0.0084
Mean age at exit (days)	211.9		127.9		183.0	

Source: see tab. 1.

Notes: the model for the London hospital is stratified by the London birth variable. 100% confidence should be taken as an exceptionally high indicator of probability rather than certainty.

Medearis, Childs 1965, 57-64)<sup>14</sup>. Nonetheless, hazards analysis on cohorts of foundlings left at the Bologna foundling hospital in the early nineteenth century has shown a statistically significant male disadvantage (Kertzer, White 1994, 469). When considered alone, the sex variable was even more significant for the London data, but slightly less so for the Florentine foundlings. For the cohort of 1777, however, there is an interaction effect between gender and legitimacy giving an advantage to legitimate boys.

The season of birth or abandonment achieved a higher level of significance in two groups, but still explained little for the Innocenti cohort of 1782. For the London cohort, the season of abandonment is used, while for the Innocenti it is season of birth, as that was found to add more significance to the model (although there was frequently little difference between the two). The London cohort had the worst risk of death if they were abandoned in winter, with the least risk attached to summer. At the Innocenti, autumn was the most risky season to be born in 1777, with spring and winter more benign, while in 1782, summer was the worst, although there was relatively little difference between the seasons, and the confidence levels are low. The result for London is most easily explainable: the effects of travel in the cold months were severe for small infants, probably related to risks of respiratory infection (see also Breschi, Livi Bacci 1997, 162-163; Fildes 1988, 153). When considered as a single variable, it was also found that the winter risk was particularly pronounced for boys in the London cohort (not shown), which may be

related to their early risk of lung disease. At the Innocenti, weather conditions may also have had an impact, but the seasonal availability of wet nurses was probably also significant. Data show that there were shortages of nurses at the Innocenti in the summer months, which would have affected infants born in the spring and summer and reduced the relative risks of the winter months (Levene 2002, 142-145). This may in turn be related to the agricultural calendar, which made employment more pressing than (even paid) childcare for both potential nurses and parents. In 1782, when the nursing wage was higher, seasonal shortages of nurses were reduced (summer entrants in 1777 had an average wait to nursing placement of 68.6 days compared to 15.0 days in winter, while the figures for the 1782 cohort were 14.7 and 3.4 days). When the Innocenti foundlings of 1777 were modelled only up to the point of external nursing (or death), the season variables were very much more pronounced, with autumn proving to be three times more risky than winter, summer twice as risky, and spring 1.3 times more so. This also suggests that seasonal influences were most pronounced for babies who had to stay in the hospital for some time.

The variable measuring legitimacy achieved statistical significance in all three models, and in all cases, legitimate foundlings had the better survival prospects. This conforms to other findings that illegitimate mortality rates were higher than those for infants born in wedlock. It is generally thought that this penalty was based on poorer housing, poor nutrition *in utero*, and a higher risk of the early termination of breastfeeding (see Levene 2005b and references). Illegitimate foundlings were not treated differently from those born in wedlock after abandonment, especially in London, where family backgrounds were not known, so this increased risk must be due to exposure to poor housing and feeding conditions, or to decreased viability from their experience during gestation (or a combination of the two). Either way, it is extremely valuable to know that the penalty of illegitimate birth continued to exert a negative influence up to a year from abandonment, and long after the child had been removed from the natal environment.

The remaining variables were particular to one hospital or the other. At the London hospital, officials recorded whether the foundlings had been baptised prior to abandonment, which might be an indicator of the care they had received at home. Baptised children also had a higher average age at abandonment, however, meaning that they were given up at a slightly less risky period of life. Being baptised prior to abandonment did improve survival chances during the first year, suggesting that it was an indicator of good care with the parent(s). It should be noted, however, that when foundlings who entered the hospital prior to the General Reception are included in the model, prior baptism becomes a negative influence on survival. Perhaps during the General Reception, when survival chances were generally poorer than they were during the earlier period, the increased time spent with the mother that arranging a baptism ceremony may have brought, or the extra care prior to abandonment that it may imply, exert a positive influence. When the healthier children prior to 1756 (when infants were screened for health) are included, extra time in the home environment may have been a poorer alternative.

Birth in London was also tested univariately, and, counter to expectations about exposure to the high mortality regime there, was found to bring a survival advantage. The effect was statistically significant, but the variable did not conform to the requirements of proportional hazards modelling. It was therefore included in the multivariate model as a stratified variable, which permits different baseline hazards between categories. There is no measure of significance for this variable, but it is included in the overall explanatory power of the model (the Chi-square). As noted above, London-born children tended to be younger than average at abandonment, and their placement with an external nurse at a young age, along with a shorter journey to the hospital perhaps brought them a survival advantage. Birth in Florence for the Innocenti cohorts had a different impact in each case, but was not statistically significant in either year. When modelled up to the point of nursing only, it did carry a significant disadvantage in 1777, in contrast to the effect of London birth. It is possible that this variable is actually measuring something else, such as age on entry or illegitimacy. Infants born in Florence had an average age on entry of 7.4 days, compared with 18.7 days for those coming from beyond. This is perhaps the reason that Florence birth is associated with a higher risk of death, since prompt placement with a nurse was not assured in this year.

The model for the London hospital thus achieves a considerable amount of explanatory power. There, winter abandonment, male sex, legitimacy, prior baptism and birth in London all carried a significant weight in explaining survival chances. At the Innocenti, legitimacy also brought an advantage to foundlings in their first year of life, while in 1777, the season of birth was significant. The remaining variables did not contribute much to the explanatory power of the models. The impact of season was not common to both hospitals, and may have been mediated through the availability of wet nurses. The nursing regime has been highlighted in several cases as being of potential significance to these models, and we turn now to explore it in greater detail.

*4.2. Survivorship and nursing.* The observation clock for these models begins at the point at which the foundlings were sent to an external wet nurse. As has already been hinted, however, the two hospitals were not equally successful in recruiting nurses for all their charges, while some infants were too sick to be sent to a nurse immediately. Some died in the hospitals without ever being placed with a nurse, either because of sickness, or because a nurse could not be found. The London Foundling Hospital, with a large network of governors and local inspectors to recommend potential nurses, and little competition from other institutions or private families, successfully placed 85% of the cohort with external wet nurses. The Innocenti achieved a similar rate in 1782, when 80% of entrants were found a nurse, but in 1777, when the nursing wage was lower, only 41% of foundlings were sent out. There was also a significant difference in the speed with which children were found nurses: in 1782, almost two thirds of Innocenti foundlings were placed out within a week of arrival, compared with only 10% in 1777. Three quarters of the intake had been found a nurse within a month in 1782, but only a quarter in 1777. Of the London cohort, three quarters of the intake had been placed out with-

in a week, and 83% within a month. The efficiency of the hospitals in years where recruitment of nurses was not a problem is clear, but the 1777 data show that placements could be difficult to make when the nursing wage was not deemed to be incentive enough. The models focusing on the nursing period should shed more light on what aspects of this system had the greatest impact on survivorship. It should be noted, however, that the model for the Innocenti cohort of 1777 includes a smaller proportion of the full intake than the other two because of the poor nursing record.

Three extra variables are included in these models to capture the statistically measurable aspects of the nursing regime. The first is the speed with which foundlings were placed with nurses. These were divided into categories, which differed between the hospitals to reflect their differing nursing regimes<sup>15</sup>. The London cohort, and the Innocenti intake of 1782 show a heavy concentration in the earliest time category, while the Innocenti cohort of 1777 had a more even distribution between categories. The second nursing variable is the distance to the nurse's home. Again, these are grouped into four categories denoting distance from the foundling hospital. Just as the London Foundling Hospital's catchment area was larger than the Innocenti's, however, so was its range of nursing placements. The categories thus differ between the two hospitals, the Innocenti's stretching out to 50 kilometres, and the London hospital's to 100. The Innocenti also sent more infants to places which could not be traced, so the fourth category here denotes unknowns; there were no such places for the London data. Finally, for the Innocenti cohorts only, the occupation of the nurses' husbands was modelled. These were again grouped into broad categories: workers, tenants, landowners, others (generally craftsmen and retailers), and unknowns. This is designed to capture a measure of wealth and foster-home conditions.

The sex variable continued to act in the same way as it did in the one-year models: girls fared better in the London hospital cohort, but there was no significant difference for the Innocenti children. This variable actually has more significance in this London model than in the previous one, showing that the sex differential continued throughout early childhood. This again runs against expectations, since biological male weakness is concentrated in the earliest age categories. Boys should not have been treated differently from girls in childhood, but it is possible that they continued to display accumulated and fatal weakness which had been accrued in infancy. The sex variable was slightly more significant for the Innocenti cohort of 1777 when modelled singly (with boys having a survival advantage), but still did not approach even a 90% confidence level.

The season variable also acted in a similar manner to the previous model, but at a lowered level of significance among the London children and with less difference between the seasons. Winter remained the most hazardous, and spring and summer the least. There were again differences between the two Innocenti cohorts, with winter worst for those who entered in 1777, but best for those in 1782. Winter and spring had been the best seasons of birth for the 1777 children in the earlier model. The critical nature of the season variable seems to have been related to the stay in

Tab. 3. *Proportional hazards analysis of early childhood (to five years): London Foundling Hospital and Innocenti cohorts*

	London, 1756-60		Innocenti 1777		Innocenti 1784	
	Odds ratio	Confidence level	Odds ratio	Confidence level	Odds ratio	Confidence level
Sex (ref to female)	1.188	98.5	0.950	29.6	0.967	30.0
Season (ref to winter)						
Spring	0.751	99.6	0.980	9.0	1.193	83.8
Summer	0.782	98.6	0.790	71.9	1.576	99.9
Autumn	0.892	74.7	0.981	8.1	1.045	26.8
Legitimacy (ref to illegitimacy)	0.702	98.4	1.722	100	0.790	98.8
Distance to nurse						
Category 1			1.234	44.0	1.241	78.8
Category 2	0.761	99.9	1.131	35.9	1.034	16.2
Category 3	0.720	99.9	1.379	75.9	1.136	57.8
Category 4	0.606	99.9				
Interval before nurse placement						
Interval 1			0.363	100	1.434	38.1
Interval 2	1.198	92.2	0.400	100	1.049	5.2
Interval 3	1.338	99.8	0.580	98.3	1.458	38.6
Interval 4	1.196	81.9				
Husband's occupation (ref to Other)						
Worker			1.060	12.4	0.724	87.8
Tenant			1.123	23.0	0.939	23.8
Landowner			1.018	3.6	0.719	86.1
No information			1.114	21.1	X	X
Chi-square	54.38	0.0000	40.45	0.0000	33.08	0.0084
Mean age at exit (days)	1678		725.6		530.3	

Source: see tab. 1.

the foundling hospital, however, as none of the seasons was significant once a foundling had been successfully placed with a nurse. This suggests that the summer and harvest seasons did indeed bring lengthened and risky stays in the hospital as well as the hazards associated with weather. For the children abandoned in 1782, the disadvantage attached to summer abandonment was much more significant for the older children than it had been for the first year. This may be associated with the shortened nursing period in this year, which meant that weanling children faced the summer risks of gastro-intestinal disease and greater spread of bacterial infection at a more vulnerable age. This probably partially explains the raised mortality rate in the second year of life, since nursing took place for one year only at this time.

The legitimacy variable was again significant in all three cases, in fact slightly

more so for the London cohort, though slightly less for the 1782 Innocenti intake. In this model, however, it was illegitimate children who experienced the survival advantage in the 1777 cohort (of 72%), rather than the legitimates. This was particularly the case for male children; for females, the variable was not significant. In the earlier model there was very little difference in the effect between the sexes. Other studies have shown that in childhood as opposed to infancy, illegitimates may have better survival chances than legitimates (Kok, van Poppel and Kruse 1997), but another reason for the current result could be that the majority of those sent to nurse were legitimate in 1777 (71%, compared to approximately 50% of the full cohort). This supports the fact that legitimate children had better early survival chances, since a greater proportion of them were successfully placed with nurses. Another alternative explanation is that legitimates were given preferential treatment in being found nurses, perhaps since they were more likely to be reclaimed than illegitimate children. Of the 36 children who stayed in the hospital for over three months but were eventually found a nurse, however, 64% were legitimate. This suggests that illegitimate children were not necessarily left until last to be placed. What is certain is that legitimate children did have better chances of survival in the earliest months and weeks of life. Clearly different pathways to survival were at work in the remaining two cohorts, where legitimacy carried an advantage well into childhood. For the London children, prior baptism again carried a statistically significant advantage, but did not add explanatory power to the multivariate model. London birth had also ceased to be statistically significant.

The second set of variables in the models concerns aspects of the nursing system. Here again, there are significant differences between cohorts. For the London cohort, the shortest journeys to the nurses' homes carried the greatest hazard: 24 to 40% higher than the other categories. This reinforces the contemporary belief that areas closest to London were less healthy, although it is also possible that the weakest infants were deliberately sent on the shortest journeys to try and preserve them. Those foundlings travelling the furthest distances had the best survival chances, and all groups were statistically significant. Longer journeys might have prompted better preparation, and the hospital used its own covered caravans to send infants and their nurses to popular foster communities in Yorkshire and Shropshire. This would have given them some protection against poor weather conditions, and made it easier for the nurses to feed them *en route*. Babies and nurses travelling shorter distances used public coaches. At the Innocenti, raised risks were attached to both the longest and the shortest journeys (here, the reference category is the unknowns). The unknown communities were probably small and remote, since they could not be traced on the map, but such journeys seem not to have been very risky. The distance variable was not statistically significant for either of the Innocenti cohorts, however.

The variable indicating the speed of placement with a nurse achieved more explanatory power. For the London cohort, being sent to nurse as rapidly as possible created the least hazard, as one might expect, even though this may have meant two lengthy journeys in rapid succession. Being kept in the hospital for even one



day increased the risk of death by almost 20%, and a stay of two to six days by 34%. A longer stay was less risky than one or two to six days, and was less significant than the other categories. This can probably be explained by the fact that the healthiest infants were most likely to have been sent out immediately. Those sent after a short wait included children who were kept in the hospital because they were weak, or had been weakened by exposure to the hospital environment. Those surviving to go to a nurse after six days, however, may have been the hardier children, or those who had been strengthened by a stay in the infirmaries. For the Innocenti children of 1777, the lengthiest stay in the hospital was the most risky, to the order of 42 to 60%, and all categories were highly significant. The smallest hazard was attached to the shortest wait in the hospital, highlighting the adverse impact of the hospital environment and the lack of regular breast-feeding. Infants might survive for quite some time in the hospital before being found a nurse, but their raised hazards suggest that they were weaker for it. The cohort of 1782 fared best after a lengthy wait, but in this case, the number of infants in the category was very small indeed (only three children). The categories were re-modelled with all of those in category 4 placed in category 3, and this time a wait of 8 to 30 days (the middle category) fared best. None of the categories achieved statistical significance, however, although the overall chi-square of the model was improved to 0.0018.

The remaining nursing variable is the occupation of the nurse's husband, which is available only for the Innocenti cohorts. For the 1777 entrants, placement in a family where the husband was working in diverse trades (the 'other' category) gave the best chance of survival for the infant. These employments were probably less seasonal than those working in agriculture, and so the family may have had a standard of living which varied less over the course of the year. The differences between different groups were not large however, and none was significant. Among the 1782 entrants, the 'other' category brought the worst risks, while landowners and tenants had the best. This suggests a benefit of rural living in this cohort, though again, the categories are not statistically significant. The differences in placement rates between the two cohorts may render these categories insufficiently precise to tell us much about the nursing environment.

**5. Conclusions.** Hazards analysis and a comparison of foundling characteristics indicate that there were certain factors determining survivorship which were common across geographical, religious and cultural boundaries. The season of abandonment frequently appears as important, as do sex and the speed with which the child was found a nurse. These factors were also highlighted as significant at the foundling hospitals of Imola and Bologna, using a similar technique (Angeli 1994; Kertzer and White 1994). The only factor which was common to all three cohorts was the significance of legitimate birth, with birth in wedlock carrying an advantage in all cases in the early models. The impact of legitimacy was more complicated in early childhood, but was still beneficial in two cases. Generally speaking, however, the risks attached to foundling survivorship were those which would challenge any infant, namely exposure to cold weather, illegitimacy, and time spent without regu-

lar breast-feeding. Salinas Meza concurs with this complex of reasons for high mortality: «there was no one cause for explaining [the] appalling mortality [of foundlings], rather it was the result of a complex of extreme conditions to which abandoned children succumbed» (Salinas Meza 1991, 324). The significance of these conditions and their combinations also varied from one place to another, and over time, indicating that the conditions prevailing at the hospitals at particular points in time had an impact on the way that mortality risks were mediated. Where the hospital was less efficient in its nursing system, for example, the relative importance of other factors may have diminished. The improved efficiency of the Innocenti in 1782 compared to 1777 has been confirmed, and hazards analysis has suggested that the risks of summer infection for weanlings may have caused some of the raised second year mortality in that cohort. What we have been unable to measure is the impact of the hospital environment itself, which may have been particularly pertinent for the 1782 cohort which was returned earlier to the Innocenti. This may be why the models for that year have relatively low explanatory power.

The analysis presented here suggests that wider local factors had a relatively small impact on survivorship, but that they were significant in directing the type and age of infants who were abandoned. The attitude towards unmarried motherhood, and the availability of alternative welfare support in particular, had an impact on the age of the foundlings when they were abandoned, and the distance they were likely to have travelled. With more information on individual children, it may be possible to trace more nuanced local factors, such as the impact of the short-term economic situation, vagaries in harvest and agricultural output, and the disease environment. Unfortunately, these are factors which are very hard to measure for historical populations at this level. The local tradition of infant abandonment also played a part in survival outcomes, as it related strongly to the chance that a foundling would be found a wet nurse. In Tuscany, abandonment was widespread, and furthermore, the hospital was not always able to attract women to act as nurses. In England, abandonment does not seem to have been as common, while the foundling hospital had a better system for the recruitment and supervision of nurses, less competition from other sources, and could afford to pay a more attractive wage for a longer period. This is due in considerable part to the relatively high profile position the London Foundling Hospital occupied in the charitable world, coupled with the (albeit sometimes reluctant) financial support of Parliament for a short period. Both hospitals occupied strikingly beautiful buildings in frequently-visited parts of their towns, and both performed a valued civic function in saving lives and souls. Yet, a combination of cultural mores and pragmatic realities meant that the Innocenti foundlings had a poorer chance of survival to childhood. An early twentieth-century historian of the Innocenti may have been right when he whimsically attributed to the ceramic infants on the loggia of the hospital an invocation to passers by to give «an affectionate thought for the unhappy infants taken in by the orphanage»<sup>16</sup>.

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<sup>1</sup> For a general history of the hospital see McClure 1981.

<sup>2</sup> Admissions in this period showed sustained growth, in contrast with the spikier pattern of what Viazzo (2000, 77) called «crisis abandonment» in the fifteenth and sixteenth centuries.

<sup>3</sup> The Innocenti itself was administered by lay officials, and was supported by one of the city guilds.

<sup>4</sup> *An Account of the hospital... in which is the Charter, Act of Parliament, By-Laws and Regulations of the Said Hospital* (1749), London Metropolitan Archive A/FH/A1/5/1, states that the hospital was necessary «in order to prevent the frequent Murders committed on poor miserable infants by their Parents to hide their Shame».

<sup>5</sup> Souden (1987, 298, table 40) found a ratio of c.104 for the 1750s and 1760s. Published accounts of Florentine baptisms indicate that the sex ratio there was 104:100 more or less constantly from the fifteenth to the eighteenth centuries (Latri 1775).

<sup>6</sup> At the Innocenti in 1744, only 78.5 boys were left to every 100 girls (Levene 2002, 113-114).

<sup>7</sup> Corsini (1976, 1003) similarly found a significant number of cases where supposedly illegitimate infants turned out to be legitimate on reclamation in the cohort of 1841 (181 cases in a cohort of 1,237).

<sup>8</sup> There was a slight tendency to abandon legitimate boys in 1777, but it was not large. The sex ratios are 93:100 among illegitimates, and 112:100 among legitimates in 1777, and 94:100 and 93:100 respectively in 1782 (Levene 2002, 130). Legitimate infants were excluded from the Innocenti in 1804 (Bruscoli 1900, 118).

<sup>9</sup> We should be aware that ages may have been rounded, as the information is frequently based on estimates made by hospital officials rather

than dates of birth as at the Innocenti. When the data for London are placed into age categories rather than averaged, little difference is found between legitimates and illegitimates (Levene 2005, 41).

<sup>10</sup> Wilson (1989, 121) states that a month's lying-in period where women rested after childbirth was still common in London, although the fact that many babies were abandoned at less than a month suggests that it was beyond the resources of many foundling mothers.

<sup>11</sup> Much of the information on geographical origins comes from notes made by hospital officials (this was one area in which questions were asked of the person bringing the child). Where the information is drawn from notes left by parents, however, a bias may be detected, since London-born children were less likely to be left with a note. They were also likely to be slightly younger at abandonment. See Levene 2003, 215-219.

<sup>12</sup> Foundlings were admitted to workhouses, but they did not guarantee the same sort of anonymity and lack of consequences that the Foundling Hospital did, and parents were unlikely to be able to present a child there without being made to enter with it.

<sup>13</sup> Cox's maximum likelihood proportional hazards models were used, having tested individual variables for their proportionality and for interactions between them. The data are left truncated, since there is a short period of risk between birth and entry to the foundling hospital.

<sup>14</sup> Studies tend to find that raised male risks of death are concentrated in the early days of life. For the disappearance of the disadvantage in high mortality populations, see Seibert 1940, 584.

<sup>15</sup> For London: day of arrival (day 0), second day (day 1), days 2-6, and days 6 plus. For the Innocenti: under one week, 8 to 30 days, 31 to 91 days, and 92 days plus. Although the 1782 cohort was more similar to the London cohort, the same categories were used for both Innocenti cohorts to preserve comparability.

<sup>16</sup> «Un pensiero d'affetto per gli infelici fanciulli che il Brefotrofio raccoglie» (Cherici 1932, 40).

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## Summary

*The survival prospects of European foundlings in the eighteenth century: the London Foundling Hospital and the Spedale degli Innocenti of Florence*

The abandonment of small infants to foundling hospitals was a common and growing feature of eighteenth-century Europe. This article examines the survival chances of these infants in two different hospitals: the London Foundling Hospital and the Spedale degli Innocenti of Florence in the second half of the eighteenth century. The central question of the paper is how far local conditions such as social mores, alternative charitable provision, and religion set the stage for the survival outcomes of foundling infants and young children. The statistical technique of proportional hazards modelling is used to test the impact of factors such as these, and also those capturing a measure of the organizational state of the hospitals. Attitudes towards infant abandonment and unmarried motherhood are highlighted as being of great importance in mediating mortality rates among foundlings, as was the hospitals' ability to place children promptly with wetnurses. This indicates that the survival prospects of foundling infants and children were affected by a mixture of local factors, feeding into wider attitudes towards abandonment, illegitimacy and family formation.

## Riassunto

*Le probabilità di sopravvivenza dei trovatelli nell'Europa del XIX secolo: il London Foundling Hospital e lo Spedale degli Innocenti di Firenze*

L'abbandono di neonati in brefotrofi fu un fenomeno comune e di crescente intensità nell'Europa del XVIII secolo. Questo articolo esamina le probabilità di sopravvivenza di questi bambini abbandonati in due diversi brefotrofi: il London Foundling Hospital e lo Spedale degli Innocenti di Firenze nella seconda metà del Settecento. La questione centrale è stabilire fino a che punto condizioni locali quali le consuetudini sociali, modi alternativi di elargire servizi caritativi e la religione influissero sulla sopravvivenza dei trovatelli. Modelli statistici a rischi proporzionali vengono usati per valutare l'impatto di fattori di questo tipo, e anche di quei fattori che ci danno una misura dell'efficienza organizzativa dei due brefotrofi. Gli atteggiamenti sociali e morali nei confronti dell'abbandono dei bambini e della maternità illegittima emergono come fattori intermedi di grande importanza nell'influenzare i tassi di mortalità dei trovatelli, così come la capacità dei brefotrofi di collocare rapidamente i bambini a balia. Ciò indica che le prospettive di sopravvivenza dei neonati e bambini abbandonati dipendevano da una varietà di fattori locali che si intrecciavano con atteggiamenti di più ampia diffusione verso l'abbandono, l'illegittimità e la formazione delle famiglie.