Legal infanticide:

Foundling mortality and its measurement in turn-of-the-century Italy, with special reference to the Casa dell'Annunziata of Naples

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1. Introduction. In another setting I have discussed the way in which the 1897 scandal at Naples' foundling home, the Casa dell'Annunziata, sparked a national debate over foundling care in Italy (Ipsen, 1999). That scandal centered on the revelation of high mortality, malnutrition, and disgusting hygienic conditions at the home and inspired both a parliamentary investigation and a series of failed attempts to introduce legislation governing and standardizing foundling care practices throughout the country. That the foundling problem garnered attention when it did, but nonetheless remained entirely unresolved, I judge in that article to be an index of contemporary bourgeois opinion regarding, on the one hand, population pressure in Italy, and on the other hand, Italian backwardness. A modernizing state like Italy needed to deal with social problems like infant abandonment, legacy of a clerical and pre-industrial past, but at the same time Italy's inability to cope with its burgeoning population – massive emigration and social unrest come quickly to mind for the period in question – argued, if only implicitly, for a laissez-faire attitude with regard to the other population safety valve of abandonment.

One of the major ironies of the Annunziata scandal is that it derived from a misinterpretation of foundling mortality. The initial report released by the provincial investigatory committee, which caused considerable shock, stated that of 856 infants abandoned at the Annunziata in 1895 and kept in the institution, all but three had died by the end of 1896. But this 'internal' mortality told only part of the story as another 1000 or so infants had been abandoned in 1895 and sent out to external wet nurses. Although the home failed to keep track of this latter group, they certainly survived in larger proportions than the unfortunate 856 left in the home. Moreover, not only was mortality at the Annunziata more modest than originally imagined – perhaps a bit over half of the 1895 foundlings died by the age of one or two – it was hardly unique, and similar levels could be encountered in many other Italian locations. Some of these levels were revealed by the national Foundling home investigation that followed the Annunziata scandal, but others had been discussed in various publications over the preceding two or three decades. Indeed an 'internal' mortality of near 100% like that of the Annunziata was by no means unheard of. Why then the uproar in 1897? In part, as I have already suggested, it was a question of evolving public opinion, but another component was the general confusion about the survivorship of abandoned infants. The fact was that at the time there existed no general agreement as to how to measure foundling mortality. In part this situation reflected insufficient data – ignorance of the fate of farmed-out infants was by no means unique to the Annunziata – but it also derived from different ideas of what was to be measured.

In the pages that follow I propose to explore the debate over foundling mortality in turn-of-the-century Italy and also some of the measures proposed. This exploration will at once reveal the difficulty of the problem – few of the reported rates can really be trusted – and give some idea of the range within which foundling mortality in Liberal Italy likely fell. Finally I shall concentrate on mortality at the Annunziata itself and some unpublished data for the period 1884-1901.

2. The limits of measurement. Progressive reformers in the nineteenth century, like the Risorgimento heroine Jessie White Mario, were highly critical of the foundling-care system. In part this was because it absolved the fathers of illegitimate children of any responsibility: toward the mother, toward the child, or toward the public institution that frequently ended up supporting that child. The other major criticism, however, regarded the high and at times near exterminatory mortality at the homes. That mortality in fact inspired the title chosen by White Mario for her own response to the Annunziata scandal: *Charitable Works and Legal Infanticide* (White Mario, 1897). And in a similar evocation, 'massacre of the innocents' was not surprisingly the phrase most often associated with the scandal. Infanticide and massacre may indeed be overly dramatic terms, and they almost certainly did not reflect the motivations behind most abandonments¹. Nonetheless the figures reviewed below do paint a grim picture for the end of the nineteenth century and suggest that the accusations of White Mario and others were not entirely misplaced.

Kertzer and White, in their *Cheating the Angel-Makers* (1994), have come to a different conclusion². By means of careful archival work, they have reconstructed a foundling mortality rate for Bologna that declines dramatically over the course of the nineteenth century³. Undoubtedly conditions and mortality improved in Bologna over this period as they likely did also in the cases of Milan studied by Hunecke⁴ and of Florence by Corsini (1997) and Viazzo *et al.* (1994; 1997). However, there were also setbacks. Viazzo *et al.*, for example, document a crisis in 1858-63 during which foundling mortality in Florence more than doubled. And in the case of Naples, while Da Molin has documented improvements by the 1870s (1994, 291), I have myself described their temporary nature (1999). So while there was certainly local, and probably also general, improvement in foundling mortality in Italy over the course of the nineteenth century (and beyond), lots of babies were still dying. Can we estimate how many and so evaluate the applicability of terms like 'infanticide', 'massacre', or even simply 'excess mortality'?

In spite of the fine historical demographic work being done on infant and child mortality and on foundling mortality in particular⁵, I doubt that we shall ever be able to confidently discuss levels of foundling mortality in nineteenth-century Italy for areas much larger than a province. Levels were too variable over time and space to allow generalization from a few examples, and data are too often lacking or inadequate to give much hope for coverage anywhere near complete. In some places records were well kept, as for example in Bologna, Florence, and Milan, but generally speaking, good record-keeping corresponded with reasonably good adminis-

tration of foundling care and so almost certainly better survivorship. As discussed below, the more dismal situations were hinted at from time to time, but never thoroughly documented, so there is probably little hope that we shall ever see a convincing series of mortality figures for Cosenza or Rome or Vicenza, let alone for Italy as a whole. This problem was of course already recognized in the nineteenth century, but there was not much that could be done about it given the general confusion surrounding foundling care (and record keeping) at the time. Nonetheless, conscientious statisticians and foundling-home directors sought to measure the phenomenon, to improve data collection in the local area over which they might have had some control, and to interpret information coming from others over which they could exercise little influence. Given the necessarily partial nature of our knowledge in this area, I would argue that a more careful evaluation of the contemporary discussions and measures of foundling mortality generated by these individuals is one of the best ways to better understand the nature and scale of a phenomenon which will inevitably remain shrouded in a good deal of mystery.

3. The scale of abandonment. The first problem in measuring foundling mortality is to define, identify, and count foundlings themselves, alive or dead. With regard to definition, abandonment in Liberal Italy occurred in at least three ways. Some infants were left in public places: by the roadside, at the door of a church or hospital. Although a criminal offense, about 8% of the approximately 100,000 abandonments for 1879-81 were of this type⁶. The other 'traditional' method of abandonment was to leave the infant in the turning cradle (ruota or torno) of a foundling home or 'receiving hall' established officially for the purpose. This sort of abandonment was legal if the child was illegitimate. Once widespread in Italy, its frequency declined beginning with the first foundling-home reforms and turning-cradle closures of the late 1860s. By 1879-81, anonymous abandonment in the turning cradle already accounted for only 30% of the total⁷. The most common method by that time was so-called direct consignment. In these cases, the foundling was presented directly to the foundling home or local authority, usually by a midwife who declared that the child was illegitimate and that the mother chose not to have her name included on the child's birth certificate. The Italian civil code specifically provided for this sort of anonymity⁸.

In all three cases the child was generally considered of unknown parentage (*figlio d'ignoti*) and so described on the birth certificate⁹. Some of these foundlings were of course the children of married parents who either would not or could not keep them, but the anonymity of the turning cradles made it impossible to know how many of the children abandoned in them were legitimate. Nor can we know how frequently the children of married parents were falsely declared *figli d'ignoti* at the moment of consignment. Both sorts of abandonment were illegal as they involved the suppression of the child's 'civil status', that is the fact that he or she was *not* a bastard¹⁰. The percentage of legitimate children among foundlings before the introduction of direct consignment (still of course not a perfect control) undoubtedly varied with place and period. Hunecke comes up with 50-60% for mid-nineteenth-

century Milan (1989, 138-42), while Corsini (1997, 5-7) derives a figure of about one-third for Florence in 1840-42. The Italian liberal statistician Enrico Raseri limited his estimate to 'a high proportion'¹¹. Indeed, the contemporary perception that many children born of married parents were being left at the foundling home and so benefiting from assistance normally intended only for illegitimates was one of the prime motivations for foundling-home reform and the elimination of anonymous abandonment.

In spite of these high percentages, foundlings were, with few exceptions, classified as illegitimate. On the other hand, it was by no means the case that all (or even most) 'illegitimate' children were foundlings, a situation which complicates the measurement of both the level of abandonment and foundling mortality. Beginning in 1866, the Italian state, in keeping with the practice in other national contexts, only recognized marriages performed by civil authorities and so considered all children born of unions formalized only by a religious ceremony to be illegitimate¹². Many Catholics, however, as a protest against the Liberal (and occasionally anticlerical) Italian state, refused the civil ceremony and were only wed by a priest. Their children, then, were classified as illegitimate though they enjoyed a family situation which must have been as stable, healthy, and hygienic as that of their legitimate neighbors. What did distinguish these children bureaucratically from foundlings was that their parents' names were included on their birth certificates. In the legal parlance of the day they were 'recognized' and so not *figli d'ignoti*. Starting in 1884, the Italian statistics institute, or DIRSTAT¹³, began distinguishing between legitimate births, recognized illegitimate ones, and a third category consisting of non-recognized illegitimates and esposti. Esposti (literally 'exposed') were variously defined in this period as the criminally-abandoned (public place), the anonymously-abandoned (public place plus turning cradle), or all foundlings. However understood, the category of non-recognized illegitimates plus *esposti* corresponded fairly well to our definition of foundling, as the non-recognized illegitimates cared for by their parents (or other guardians not contracted through the system of foundling assistance) were probably few¹⁴.

The annual figures for non-recognized illegitimates and *esposti* from 1884 to 1914 are graphed in figure 1 (right axis)¹⁵. They decline from a level over 35,000 to one just below 20,000. Births were fairly constant over the period (about 1.1 million per year) so abandonment as a percentage of total births (left axis) declined at about the same rate, from a bit over 3% to a bit under 2. We can extend the curve a little further back in time by using the contemporary estimates made by Raseri, the leading expert on foundling statistics at the time. Raseri found that abandonments for 1879-81 averaged a bit over 35,000, just about the same as for 1884, and he estimated a level of about 40,000 per year for the period 1865-79 (Raseri, 1884, 224-7; 1881, 5). If his estimates are correct then between unification and the eve of Italy's intervention in the First World War, abandonment dropped by about half.

These figures are of course interesting in their own right and raise important questions. Why, for example, did abandonment decline? The primary reason was foundling-home reform. Throughout Italy, though more energetically in the north and center than in the south, local administrations were seeking to prevent the

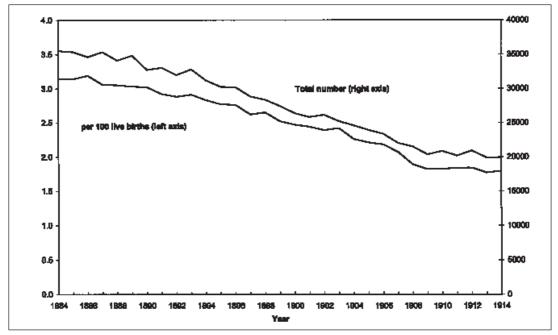


Fig. 1. "Non-recognized" illegitimates and abandoned infants, 1884-1914

Source: DIRSTAT, Movimento dello stato civile

abandonment of legitimate children (as well as of illegitimate ones brought from other provinces). If Hunecke's estimate that 50-60% of all infants abandoned in the Milanese turning cradle were legitimate is correct, and that estimate could be applied to Italy as a whole, then the introduction of direct consignment and the successful exclusion of the illegal abandonment of legitimate children could account for a drop like that in figure 1. But Milan was probably unusual and even by 1914 the abandonment process was not so perfectly controlled as to entirely prevent legitimate abandonment. Indeed several hundred *comuni*, primarily in the south and Sicily, still had turning cradles at the later date. Other factors were also at work. For one, foundling-home officials in more and more places – and in some with considerable success – were encouraging unwed mothers to recognize and keep their illegitimate offspring. The decline also probably reflects a gradually increasing degree of success in preventing unwanted pregnancies: both the sort that had probably never been wanted – the product of adulterous affairs for example – and those which a modern and industrializing world made less desirable – premarital conceptions (not always followed by the expected marriage) and unwanted family additions.

4. Legitimate versus illegitimate infant mortality. We still have not learned much about foundling mortality, though, except that over time there were progressively fewer foundlings to die. Before considering various ways of measuring that mortality, it is worth remembering that to have any meaning foundling mortality needs to be compared to the mortality of infants enjoying usual parental care, care which itself varies with region and social class and so impacts upon general levels of mortality. Be that as it may, the degree to which foundling mortality exceeds general (or

else legitimate) infant mortality, as it almost always did in the past, is an index of the relative suffering imposed by abandonment, whether that suffering was due to the abandonment process itself, exposure to infection, malnutrition, mistreatment, or the lack of maternal nursing and care.

Ideally the measure of infant mortality should tell us the proportion of babies who die before reaching the age of one. However, as that is difficult to measure, the ratio of total deaths between birth and age one in a calendar year to total births in that same calendar year is usually substituted¹⁶. Today this infant mortality 'rate' (IMR) ranges from under 5 per thousand in Japan to just over 100 for tropical Africa. For Italy as a whole, statisticians have calculated infant mortality rates since at least the 1870s¹⁷. The accuracy of these early rates was of course compromised by incompleteness and inaccuracy in both birth and death reporting. More recently, Lorenzo Del Panta, using ISTAT figures, has estimated the probability of dying during the first year of life in 1890s Italy at 168 per thousand; he also cites another not entirely consistent source which traces the decline in IMR during the Liberal period from 270 (1861-2) to 141 (1911-12)¹⁸. It is to these figures then that we should attempt to compare foundling mortality. We might start with the more general category of illegitimate mortality. As already mentioned, the illegitimate category was particularly problematic in Liberal Italy. As an index of how problematic, almost 60% of all illegitimate births in 1885-87 were recognized at birth by at least one parent. Although there were instances of both 'free unions,' in which the illegitimate offspring were recognized, and of single unmarried parents, usually mothers, keeping and recognizing their children, many, probably most, of these recognized illegitimates were children born of parents joined by religious-only ceremonies. Predictably the levels of recognized illegitimates were especially high in the former Papal States and the traditionally more Catholic north-east. They were low instead in the north-west and in the formerly Bourbon south¹⁹. Illegitimate mortality at the time then probably represented more or less an average for foundlings and recognized illegitimates. That mortality, as reported by DIRSTAT, is graphed in figure 2 for 1881-1914. The drop between 1886 and 1887 (dotted line) is the result of improved coverage. Till 1886, data had been collected only for provincial capitals, often magnets for unwed rural women seeking to abandon their infants; as a result those capitals were usually characterized by a higher proportion of foundlings among the illegitimate than their hinterlands and so higher illegitimate mortality. The lack of figures for 1890-95 instead corresponds with a particularly difficult period for DIRSTAT when even the decennial population census scheduled for 1891 was canceled due to budget cuts. Starting in 1888, or more safely 1896, illegitimate mortality stayed within a fairly narrow band of between 210 and 270 per thousand. During that time the prevalence of Catholic-only marriage likely declined; as one indication the number of recognized illegitimate births decreased by 18% in the same period²⁰. On the other hand, another category of recognized illegitimates, namely babies recognized by their unwed mothers was increasing by at least the turn of the century as by then many foundling homes had not only closed their turning cradles but begun encouraging these mothers, often with financial subsidies, to keep their children (Ipsen, 1999). Although it is a hazardous estimate, a degree of stability in the illegitimate

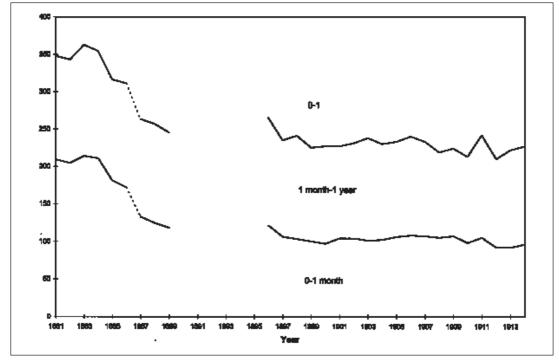


Fig. 2. Illegitimate and Foundling Mortality, 1881-1914

Source: DIRSTAT, Statistica delle cause di morte.

Mortality rate may have been a sign of minor improvement in foundling mortality. At a national level, then, attempts to measure foundling mortality do not take us very far. What does stand out is the fact that illegitimate mortality, in spite of the fact that it included a good dose of mortality for infants enjoying stable family situations and parental care, was nonetheless well above legitimate levels. For the period 1896-1914, legitimate infant mortality as measured by DIRSTAT ranged between 125 and 180 per thousand as compared to the illegitimate rates of 210-270. If about half of the illegitimate infants were not foundlings and enjoyed a survivorship rate similar to that for legitimate infants then we might estimate foundling mortality as between 295 and 370 per thousand²¹. As we shall see below, there is ample evidence to suggest that at least one third of all foundlings did perish before their first birth-days; though that evidence is generally more local in nature.

Occasionally, illegitimate mortality was broken down by province. Raseri, for example, reports provincial rates for 1883 together with the observation that while in Northern Italy most illegitimates were foundlings – and so illegitimate mortality might correspond fairly closely to foundling mortality – in the south large numbers of illegitimates lived with their parents, up to 85-90% in Apulia, Lucania, and Sardinia²². If his observation is accurate, then the figures he reports, especially for the north, merit attention. Some of these are shocking and suggest near extermination of foundlings: 810 per thousand in Sondrio, 770 in Piacenza, and 550 in Cremona, while others may indicate reasonably good foundling care: 180 in Udine and Grosseto, 190 in Verona and Massa Carrara. The presumably less useful south-

ern rates range from incredibly low levels, 80 and 90 in Bari and Lecce, to ones that, if they indeed considerably underestimate foundling mortality, are signs of tragic situations: 420 to 490 for Cosenza and three Sicilian provinces²³.

5. Foundling mortality. The attempt to measure foundling mortality directly presents its own special problems. In particular, how is one to construct a measure similar to the general infant mortality rate for foundlings? Unfortunately, except in that minority of cases in which a foundling was born in a maternity hospital – these were specifically created to accommodate unwed women who could then automatically and in secrecy abandon their children - frequently nothing was known about a foundling's birth. Abandonment then had to be used as a substitute for birth with the result that some of the high mortality first hours and even days of life do not normally enter into the calculation of foundling mortality²⁴. Some children inevitably died before they could be abandoned and so entered into the record of no foundling home or administration²⁵. This inevitable omission, rarely mentioned in either historical or retrospective studies, means that all foundling mortality figures are likely somewhat deflated²⁶. In addition, the foundling's birth date is often not known with precision and so survival to age one can only be known approximately; this latter imprecision though should not affect mortality rates significantly. The standard way to measure overall foundling mortality, then, more or less equivalent to IMR, is to divide deaths to foundlings aged 0-1 during a calendar year by the total number of abandonments in that same year (in some cases this will correspond to foundling-home admissions)²⁷. This measure might be used for a single foundling home, for a province, a region, or the country as a whole. It presents, however, another problem, generally more serious than that regarding the substitution of abandonment for birth. In order to get an accurate measure, one needs to keep track of the foundlings till death or age 1, whichever comes first. Ideally foundlings, whether left at the foundling home or the receiving hall, were not cared for institutionally but farmed out to wet nurses, preferably in the countryside, with whom their chances of survival were considerably better than in the homes²⁸. The provincial foundling administration paid the wet-nursing fees (usually through the sindaco or comune administration) and maintained legal responsibility for the foundlings. Presumably it also kept track of the foundlings, usually by means of those same *comune* administrations. In practice, as the Annunziata experience before 1898 and that of other homes as well shows, the provincial administration often completely lost track of its farmed-out foundlings. The administration then might learn about a foundling death if the wet nurse brought back the infant corpse, perhaps in order to claim another charge, or it might learn about survival if the child were returned alive to the home at the end of the wage period – a short 18 months in Naples – or when the higher nursling wage dropped to that paid for the maintenance of weaned children. Obviously this sort of casually acquired information could not produce accurate mortality statistics.

A review of the foundling literature of the day reveals that while some administrations were meticulous in their record keeping (Milan, Bologna), administrative negligence was by no means unique to Naples but characterized other provinces as well throughout the peninsula (Rome, Vicenza, Avellino, Cosenza, for example). As a result, any regional or national rates of foundling mortality have to be judged with caution. Even if provincial or foundling-home administrations understood and agreed upon a mortality measure, and as we shall see they did not, many of them simply could not come up with the necessary data.

Nonetheless, these rates were compiled and reported in the literature of the day, and have been reported in various secondary sources as well. The main source for these rates is a series of studies carried out by Raseri for DIRSTAT²⁹. Although he does offer some national totals for abandonment levels (cited above), Raseri's mortality information was generally limited to those provinces with foundling homes and obtained from the homes' directors in response to circulars issued by the Ministry of the Interior. The rates he provides are deaths to nurslings, not necessarily less than one year old, per 1000 admissions. The earliest figures are for 1866-75 (27 provinces with foundling homes) and produce an average rate of 387, well above the general infant mortality rates discussed above, while for 1887 (51 provinces) the rate is little changed at 381³⁰. For the 1890s he reports regional rates as well, still it would appear for foundling homes only. For 1890-92 the rates range from lows of 295 (Sardinia) and 308 (Piedmont) to highs of 432 (Venetia) and 412 (Sicily). The national rate was 370. For 1893-94 instead we find extremes of 320 (Marches), 334 (Tuscany), 450 (Venetia), and 464 (Campania), and a national rate of 389³¹. Raseri's work was path-breaking and careful, but he was of course limited by the quality of the data he received. To begin with, he had no data for the many comuni that had no foundling home but instead a simple receiving hall (often with turning cradle) from which the foundlings were directly sent to external wet nurses. With regard to foundling mortality outside of the homes, contemporary experience (see below) suggested that in some regions (generally northern ones) foundlings were worse off in those provinces that did have foundling homes than in those without. On the other hand, many of the receiving halls were in the rural south and mortality for foundlings left at these was likely as high or higher than that reported for the homes³². Overall foundling mortality, then, was probably a bit higher than that for the homes only. As for the data collected on the homes themselves, some undoubtedly reflected both internal and external mortality, but many homes only possessed information on internal mortality. Internal mortality rates could be calculated in several ways (discussed below) and, depending on the method chosen for its measurement, might either exaggerate or underestimate general foundling mortality (understood as deaths per 1000 admissions). My impression from a review of the literature is that underestimation was more frequent³³. A combination of factors then combine to suggest that Raseri's figures likely understated foundling mortality, though it is impossible to say by how much.

The parliamentary Foundling home investigation inspired by the 1897 Annunziata scandal also reported regional rates, including both foundling-home and other sorts of foundling mortality, as well as rates for the single (provincial) foundling homes themselves. That investigation, whose report was prepared by Raseri, was conducted by means of questionnaires sent to foundling-home officials, provincial physicians, and prefects. As such it was (again) only as accurate as the data received from

homes whose record-keeping problems have been alluded to above. And one has also to consider the fact that some of these respondents may have preferred to hide embarrassing situations. The regional rates of foundling mortality reported for 1890-97 were lowest in Abruzzo (297), Apulia (313), and Sardinia (319), and highest in Venetia (429) and Campania (420), though these figures fluctuated considerably³⁴; the national average was 374. For the foundling homes themselves, the investigation found rates for 1893-96 ranging from 200-250 in several Piedmontese and Tuscan homes to over 500 in a few homes in Lombardy, the continental south, and Sicily. The highest reported rate of all was 673 for Padua, and Naples at 492 was well above the national average of 392³⁵. In all of these figures there is of course the possibility of under-reporting, and in some cases careful record keeping may have produced apparently high relative rates of mortality and so penalized reasonably well-run homes.

6. Local measures. Incomplete data inspired in fact a variety of measures which could be expected to differ from the IMR-equivalent deaths 0-1 divided by total admissions (see appendix). A sample of these can be derived from consulting the «Rivista di Beneficenza Pubblica», a public health journal that frequently printed reports on foundling mortality, often relayed by the homes themselves. A fairly typical 'internal' measure encountered in those reports, for example, is derived by dividing only those deaths occurring in the foundling home itself by total admissions, a measure which ignores mortality outside the home and so gives a low figure, especially if, as normally hoped, most foundlings were farmed out to external wet nurses soon after admission.

Although it is not clear how the large figure for Padua reported by the parliamentary commission was calculated, a variation on the internal measure seems to have been that normally used there. For 1903, for example, that home reported an 'internal' mortality of 451, calculated by dividing deaths in the home (124) by the sum of the admissions (249) and foundlings present in the home on 1 January (48) («Rivista di Beneficenza Pubblica», 1904, 810-1). This measure will vary considerably, largely as a function of the home's success in farming out its foundlings and so, for example, Padua had reported a rate of only 200 for 1898 and a frightening 782 for 1876 («Rivista di Beneficenza Pubblica», 1899, 694-97; 1903, 66-7). When these rates are very high, like the 1876 figure for Padua, they are probably not too far from accurate, as in those cases most of the infants die before being farmed out and so external mortality is relatively less important to the measure of foundling mortality. When they are low, they likely tell us more about farming-out levels than about mortality.

A seemingly simple correction to this internal measure is to eliminate farmed-out infants from the denominator; one then has internal deaths divided by internal foundlings (the population at risk). This variation, however, creates gross overstatements. Ideally foundlings were to be consigned to external wet nurses as soon after admission as possible. In a well-run home then the only reason for not being farmed out would be death and so the internal rate would be 100%. Moreover, there was a negative selection factor for foundlings as the external wet nurses normally got to choose their charges and so tended to leave the sickly ones behind. And

one of the few governmental directives regarding foundling care directed homes not to farm out syphilitic infants. Instead, when detected, foundlings with syphilis were either nursed by internal wet nurses who had themselves already contracted the disease or else were fed animal's milk; in either case their chances for survival were slim³⁶.

An internal measure of this last sort (but using deaths over a period of two years) was at the heart of the Annunziata scandal. In another example, the Vicenza home, also a poorly-run one, reported an internal mortality for 1892-6 of 955 and an external one of only 108. The measures used (see appendix) were probably (internal deaths)/(foundlings kept in the home) and (external deaths)/(foundlings farmed out), neither of which in the absence of more information about farming out rates tells us much. An investigation of the home for that same period did, however, yield a ratio of deaths under age one to total admissions of 437% («Rivista di Beneficenza Pubblica», 1899, 420-43).

A couple of attempts were also made to find a measure that utilized the information normally available, namely that regarding the internal populations of the foundling homes. Raseri developed such a measure which he described as giving «the number of annual infant deaths per 100 infants constantly present in each day of the year» (see appendix). Using this measure for the homes of Turin, Genoa, Milan, Como, and Rovigo, all of which probably kept pretty good records, he obtained levels for the years between 1879 and 1883 ranging from 27.17 to 40.17. In every case this measure gave a figure (in %) a bit below the usual deaths divided by admissions (Raseri, 1884, 252-4). One of the physicians involved in the Annunziata scandal, Achille Titomanlio, also derived his own measure by comparing monthly internal deaths to the average monthly population of the homes as calculated at the end of each day (see appendix). Using this measure for the Annunziata in 1895 he got a rate of 39.2% as compared to the 'too rosy' 33.5% calculated by dividing (internal deaths) by (infants present at the beginning of the year + admitted infants + infants returned by their nurses). He describes the latter method as that used in almost all Italian foundling homes, another confirmation that most foundling mortality figures from this period were under-statements insofar as they are considered IMR-equivalents (Titomanlio, 1899, 4-5). Both Raseri and Titomanlio attempted to make do with the data available, but both of their measures penalize well-run homes as high farming-out rates translate into smaller denominators and so higher mortality rates.

Rates were also sometimes reported as being combined internal and external ones, like the overall Vicenza rate cited above. In these cases the home or foundling administration apparently kept track of its farmed-out infants. If so, those rates should be fair estimates of the foundling mortality rates. As a few examples, Siena reported a rate of 255 for the early 1890s, Palermo 462 for 1897, Verona 257 for 1885-98, Lanciano 475 for 1875-99, Rome 818 for 1904, and Milan 370 for 1910³⁷. In a couple of rare local cases, very careful track was kept of foundlings. Giovanni Berti, for example, director of probably one of the best-run homes in Liberal Italy, kept records on all infants abandoned in Bologna for the years 1877-92 (8,974 in all). As a result, not only could he calculate mortality rates for age 0-1, but for every

age up to 14-15 (though for smaller and smaller groups). He estimated that approximately 60% of all foundlings died by the age of 15; while among the general population that level of mortality was only reached by about age 40. Mortality in the first year of life for the Bologna foundlings had varied from 270 to 480 and averaged 365 for the whole period, as compared to an IMR in Emilia of 204 (1884-86) for the general population and 270 (1883-90) for illegitimate non-foundlings. Berti (1897) claimed that the public was generally ignorant of the horrible conditions in the homes and he joined other voices calling for their elimination³⁸. Indeed if a well-run home could achieve no better a mortality rate than 365 then perhaps a rate like the 818 reported for Rome in 1904 was not so unusual.

Even carefully compiled statistics could be flawed it seems. On a couple of occasions observers noted that if mortality for foundlings admitted to the Milan home – frequently described as the best in Italy – were calculated not as deaths divided by admissions for a year but by following each foundling till his or her first birthday then mortality levels were considerably higher: between 369 and 416 as compared to between 208 and 269 for 1895-98 and 443 rather than 220 for 1907³⁹. If the deaths counted for the usual measure were only those to infants admitted in that same calendar year (and not also to those under one year of age but admitted the previous year), then one might expect a discrepancy of this sort. And if indeed this were the case, then even Italy's finest facility could barely keep half its charges alive to age one.

And what of the poorly-administered homes? We shall come in a moment to the Annunziata's near 100% internal mortality which generated shock and disbelief. But the fact is that evidence from both before that scandal and from the investigations that followed it reveal still more tragic situations. Cosenza, which still had a high rate of mortality at century's end as measured by the Foundling home investigation, also had the misfortune to have been the subject of an early and often-cited study revealing that of the nearly 6000 foundlings kept at the home there during period 1865-74, 99% had died⁴⁰. In another example, cited by Raseri (1884, 246), an 1884 investigation had revealed that of 1459 foundlings admitted to the foundling home of Modica, 1456 died «before their period of care (*allevamento*) was finished»⁴¹. The Modica report notably does not seem to have inspired anything like the reaction to the Annunziata figures reported 13 years later⁴². In addition to these hopefully extreme cases, we have already seen evidence of high foundling mortality in, for example, places as widely spread as Palermo, Messina, Avellino, Rome, Padua, Sondrio, and Piacenza.

7. Foundling home conditions and reform. Although the figures examined here all need to be treated with caution, it does seem that foundling mortality exceeded 500 per thousand in the first year of life in many places and probably reached levels far higher in others. And though the current article is concerned specifically with the question of rates, one cannot consider an apparent massacre of this sort without inquiring at least briefly into the causes. Certainly many homes were poorly funded or, as in the case of the Annunziata, those funds were mis-used. As a result of financial restraint, but also at times terrifically poor administration, the conditions of the

home might be poor: dirty, crowded, poorly maintained, poorly heated and/or ventilated. Filthily clad infants might be piled together, several to a crib, mixing the well with the sick and at times even the already dead. Nor was the hygiene of the wet nurses hired to care for them likely to be of a higher standard; poor women who worked for a miserable wage and often risked infection themselves (especially syphilis contracted while nursing⁴³). Most of all, though, these nurses were too few. A ratio of foundlings to wet nurses in the homes of three or four to one was not unusual, and ratios as high as 11:1 were reported in the Foundling home investigation. No wonder mortality was so high in some homes, and no wonder the infants fared better when farmed out to external nurses. Attempts to compensate for wet nurse shortages by means of artificial feeding (animal's milk or other substitute) were made at various times and places in Italy, but with generally disastrous results in the period here considered⁴⁴. Although pasteurization and sterilization were developed in the 1870s and apparently sufficiently widespread in Paris and London by 1895 to contribute to mortality declines there (Biraben, 1991, 230), the techniques spread more slowly in Italy and were often poorly applied: pasteurized milk poorly stored and fed from a non-sterilized bottle for example. Nor, of course, was animal's milk, even when sterilized, an ideal food for infants. Indeed the preferred solution of most reformers, and that ultimately adopted, was not to improve artificial feeding but to encourage maternal nursing (Ipsen, 1999).

Some critics at the time maintained that the fault was that of the Italian system of foundling care itself, namely the tolerance and even encouragement of the abandonment of children born out of wedlock. And, in fact, the possibly still-high mortality figures for Bologna and Milan suggest that mortality for foundlings abandoned to even the best homes remained at a level of more than 50% above general infant mortality. In this regard, one other experiment merits reference before we finally consider the specific case of the Annunziata mortality.

The medium-sized Po Valley town of Rovigo had led the way in foundling-care reform with the elimination of its home in 1888. Though criticized by some and thought by others inapplicable in large cities or in southern Italy, the Rovigo reform achieved impressive results. Denied the opportunity to abandon their offspring to provincial care, the unwed mothers of Rovigo were instead offered a monthly subsidy (initially for three years) if they agreed to keep, 'recognize', and nurse their children. As a result, the pre-reform foundling mortality of 391 (1878-87) dropped to a startling 70 (1888-97), well below the general Italian IMR (Minelli, 1898)⁴⁵. Advocates claimed that the only way to insure low infant mortality was by means of maternal nursing, an observation born out in other contexts as well.

8. L'Annunziata di Napoli. With regard to mortality at the Annunziata, both the home's administration, as represented by one of its members, the parliamentary deputy Luigi Simeoni⁴⁶, and its medical staff (represented by Titomanlio) pointed out that the shocking figures publicized by the provincial administration referred only to internal mortality in the strict sense: foundlings staying, and mostly dying, at the home, as opposed to surviving or dying with external nurses (infants returned to the home by their wet nurses, in some cases because of illness, were also includ-

ed in the internal group). As such, these experts claimed, the figures were meaningless⁴⁷. The administration and physicians, though, were the two groups held most responsible for the sorry state of affairs at the Annunziata, so their dismissal of the admittedly misleading provincial figures comes as no surprise. The fact is that the conditions at the Annunziata were horrible, as revealed by the 19-month investigation carried out by Gustavo Pucci (1900), director of the Florentine Ospedale degli Innocenti and appointed as special commissar to replace the discredited administration at the Annunziata in 1897 (Ipsen, 1999). What the provincial figure did reveal was that the home failed to farm out a large percentage of its foundlings and that virtually all of those left behind died well before the age of two. We can, however, learn more about the Annunziata mortality. As we have already seen, the Foundling home investigation reported a mortality rate of 492 (1893-96) while Titomanlio's measure gave an adjusted internal mortality of 392 for 1895.

A more complete picture emerges when we consider that 1,879 infants were abandoned at the Annunziata in 1895 (see table 1); according to the provincial report, 856 of these either stayed in the home or were returned to it by their nurses and, with three exceptions, died by the end of 1896. The other 1,000 or so were farmed out, presumably never to return, and we have no information about their survivorship. With regard to the unfortunate and better-monitored infants left in the home, we can ask whether they were doomed to perish because of poor care, malnutrition and an insalubrious environment, or alternatively because they were the sickest and weakest infants, almost certain to die even if a wet nurse could have been found for them. Simeoni favored the second argument and insisted that because the external nurses got to choose their own charges they inevitably left the feeblest infants behind, a sort of procreational refuse (il rifiuto della filiazione). He further ascribed the high mortality at the home to poor medical care – the Annunziata scandal originated because of a conflict between the physicians and the administration – and to the questionable morality of the internal nurses: «women of ill fame and corrupt habits who poison rather than nourish their charges **48. Alternatively, the disgusting conditions found by Pucci at the institute support the first interpretation, namely that high foundling mortality was the result of poor care, unhygienic conditions, infection, and malnutrition (not enough wet nurses). Neither explanation, however, addresses the issue of mortality among the farmed-out infants.

We can contextualize the 1895 situation by looking at the history of Annunziata mortality during the course of the nineteenth century. In her own work on the Annunziata, Giovanna Da Molin uses data from Giambattista D'Addosio's 1883 history of the home to calculate quinquennial mortality figures⁴⁹. Da Molin actually uses two different measures. For the years 1811-70, she divides D'Addosio's deaths by admissions (five-year totals). These deaths are likely internal deaths for all ages, though as usual the majority will be very young. Beginning with 1871, probably the year D'Addosio himself arrived at the home and began more careful record-keeping, deaths for each year are categorized as either deaths to those admitted during that same year or else deaths to those admitted previously (deaths(b) and deaths(c) in table 1). In calculating 1871-83 mortality, Da Molin sums up deaths to those admitted during the same calendar years (deaths(b)) for 5-year periods (a 3-

Tab. 1. Annunziata Statistics, 1871-1901

year	present (a)	admissions	farmed out	deaths (b)	deaths (c)	tot. deaths	returned %	farmed out(d)	mortality (e)	mortality (f)
1871	258	2230	1137	1074	225	1299	205	50.99	52.21	
1872	154	2446	1411	1145	165	1310	214	57.69	50.38	
1873	240	2245	1263	907	109	1016	156	56.26	40.88	
1874	232	2225	1198	1050	178	1228	227	53.84	49.97	
1875	167	1729	956	810	168	978	178	55.29	51.57	45.8(1871-5)
1876	161	1487	1110	419	101	520	164	74.65	31.55	
1877	114	1496	1459	240	54	294	238	97.53	18.26	
1878	143	1415	1304	207	97	304	250	92.16	19.51	
1879	167	1670	1347	361	182	543	288	80.66	29.55	
1880	128	1510	1337	371	124	495	334	88.54	30.21	20.7(1876-80)
1881	107	1537	1472	349	69	418	352	95.77	25.42	
1882	92	1500	1319	395	84	479	394	87.93	30.08	
1883	96	1545	1398	358	85	443	410	90.49	26.87	24.1(1881-3)
1884	52	1478	1454	340	72	412	370	98.38	26.92	
1885	90	1436	1429	287	57	344	412	99.51	22.54	
1886	74	1456	1421	291	67	358	406	97.60	23.39	
1887	69	1415	1412	244	54	298	395	99.79	20.08	
1888	84	1397	1384	244	82	326	425	99.07	22.01	
1889	115	1600	1465	332	125	457	482	91.56	26.64	
1890	149	1645	1457	351	140	491	472	88.57	27.36	
1891	162	1465	1337	370	114	484	462	91.26	29.74	
1892	160	1625	1383	157	463	620	493	85.11	34.73	
1893	189	1754	1285	176	588	764	431	73.26	39.32	
1894	170	1799	1228	245	687	932	448	68.26	47.33	
1895	227	1879	1371	181	617	798	467	72.96	37.89	
1896	205	2027	1320	257	796	1053	448	65.12	47.17	
1897	204	1895	1408	228	606	834	447	74.30	39.73	
1898	243	1854	1482	324	410	734	626	79.94	35.00	
1899	121	1750	1640	109	460	569	321	93.71	28.78	
1900	132	1626	1622	91	204	295	345	99.75	17.23	
1901	144	1712	1695	118	293	411	574	99.01	18.52	

Notes: (a) present 31 December (see note 59 to text)

- (b) of those admitted 1 Jan.-31 Dec.
- (c) of those admitted previously
- (d) my calculation
- (e) D'Addosio measure (see appendis and n. 59 to text)
- (f) Da Molin measure (see appendix)

Sources: ACS, Ministero dell'Interno: Inchiesta Reale per Napoli, b. 94, except %farmed out (my calculation) and mortality (f) (from Da Molin, 1994, 271).

year one for 1881-83) and divides that sum by the 5-year total for admissions (see mortality(f) in table). This measure has the limitation that it leaves out deaths to those over one month old in January, over two months old in February and so on (where birth is as usual defined as the moment of abandonment)⁵⁰. The pre-1871 rate necessarily leaves out much information about the farmed-out foundlings, as

little was known of them. As compared to an IMR-like ideal, that omission may be balanced to some extent by the inclusion of mortality to foundlings over one year of age. And in periods of low farming-out rates, when most of the mortality was internal to the home, the calculated mortality figures must have been pretty close to the grim reality. In fact, for the period 1811-45 Da Molin's figures reveal shocking levels of mortality, ranging from 67 to 84%, together with a low percentage of foundlings sent out to external wet nurses (20-37%). A closer look at these figures reveals in fact that throughout this period, and indeed throughout the century, the number of deaths plus the number of foundlings farmed out to external wet nurses is usually fairly close to the total number of infants abandoned, which is to say, again, that foundlings were either farmed out or they died in the home⁵¹. Da Molin's post-1871 rates may instead miss a considerable amount of under one-year-old mortality while continuing to suffer from the chronic lack of information on mortality among farmed-out infants.

Beginning in 1846-50, Da Molin's figures reveal a notable increase in farming out⁵², usually well above 50% and reaching as high as 87-91% in 1876-83, together with a corresponding decline in mortality, usually in the 40-50% range and then dramatically down to 22% for that final period. The apparently very good mortality of 1876-83 confirms other evidence that this was a rare golden age for the institution. Under the directorship of Nicola De Crescenzio, a series of reforms was introduced in 1872-76, including the closing of the turning cradle. That closing, intended to prevent the abandonment of legitimate infants and of infants from other provinces reduced the level of abandonment by about a quarter (see figure 3), and that reduction explains in part the mortality improvement. But conditions seem also to have improved at the home as well. In 1876, White Mario, who had been horrified by

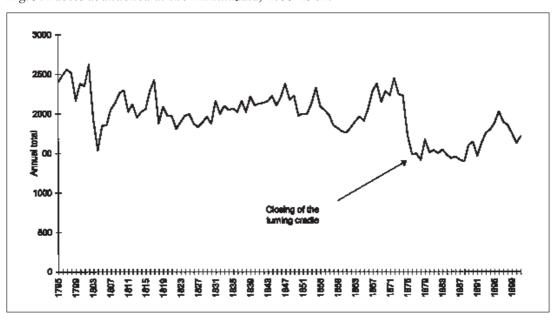


Fig. 3. Babies abandoned at the Annunziata, 1795-1901.

Source: D'Addosio, 1883; ACS, Ministero dell'Interno: Inchiesta Reale per Napoli, b. 94 (corrispondenze).

the Annunziata when she visited it with Garibaldi in 1860, visited it again as part of her study of Neapolitan poverty and found it instead to be a model home (White Mario, 1978, 109-34). The infants left in the home were still dying, it seems, but thankfully many fewer were being left there; the question of what became of those who were farmed out, though, still remains unanswered⁵³.

Da Molin provides some clarification in this regard for an earlier year. She has analyzed the fate of the Annunziata foundlings in 1836, a particularly unhappy one with a mortality rate of 86%. Of the just over 2000 infants abandoned that year, most died at the home. Another 148 were either returned dead by the external wet nurses or known to have been buried by them. Of the other farmed-out infants, 61 survived, while for 227 there is no record. Da Molin (1994, 279) concludes that these were certainly survivors:

It is certain that these infants did not die, at least not immediately, as in that case the wet nurse hurried to consign the infant cadaver or bury it in her town and declare the death to the foundling home⁵⁴.

Some wet nurses certainly behaved in the way described, but others almost just as certainly did not. Later investigations, for example, uncovered examples of wet nurses continuing to receive payments after the death of their charges, a strong incentive for a desperately poor women to hide, or at least not advertise, a foundling's death. And even where the possibility of additional payments was not an issue, for nurses who did not want to take on another foundling there was likely scant motivation to bother reporting foundling deaths to the (possibly distant) home in Naples.

Furthermore, during his tenure at the Annunziata in 1897-9, Pucci carried out two studies of the many farmed-out foundlings of whom the home had lost all trace which provide clues regarding external mortality. For those sent to nurses outside the city of Naples, he found 965 dead, 397 either expatriated or transferred to other *comuni* (and so possibly alive), and 102 untraceable; unfortunately he does not tell us how many were traceable, still with their nurses, and alive. For the 595 infants farmed out in the city itself over the years 1890-96, he provides information on 400 of which 75 have died and 190 are untraceable, leaving 135 traceable and alive (Pucci, 1900, 71-2). Pucci's 1897-99 study suggests that mortality was far from negligible among the thousands of 'lost' foundlings, though the only (very) rough estimate we can make is 75/210 or 357 per thousand (and that for ages up to seven or eight), a level about twice the 1890s infant mortality rate estimated for Italy (see above)⁵⁵.

Unfortunately, the high levels of farming out achieved under De Crescenzio were not maintained according to subsequent figures compiled by D'Addosio for the Principe di Cellamare, Pucci's successor as director of the Annunziata. Those figures were compiled in response to a questionnaire from the Saredo Commission investigating corruption in the Neapolitan communal and provincial administrations beginning in 1900⁵⁶. According to D'Addosio's later (and I believe till now unpublished) figures (included here in table 1), farming out levels continued to be

very high, almost 100%, for the years 1883-89, after which they declined and hit bottom (65%) in 1896. Hence the large number of infants in the home at the latter date and the large number of deaths (admissions also increased in the years leading up to 1897 – see figure 3). It was in fact in 1896 that Gianetto Cavasola, the Neapolitan prefect, ordered the Annunziata investigation.

In measuring annual foundling mortality, D'Addosio divides total deaths to foundlings in a calendar year (regardless of year of admission) by the sum of admissions in the year and foundlings present at the beginning of that year (deaths(b) + deaths(c) in table 1; see also appendix). His measure suffers from some of the usual limitations: it may include foundlings over one year old in both the numerator and the denominator, and it very likely does not include external mortality, except perhaps for the last years following the scandal and investigation.⁵⁷

With regard to the 1897 scandal, it is instructive (if confusing) to compare D'Addosio's figures to those released by the provincial investigators, keeping in mind that the figures reported in the newspapers which inspired such outrage referred specifically to 1895 admissions left in the home for the years 1895-96. Following D'Addosio, deaths in 1895 to 1895 admissions (1895 deaths (b) in table 1 = 181) plus deaths in 1896 to previous-year admissions (1896 deaths (c) = 796) equal 977 or 124 more than the 853 reported by the province, an excess possibly attributable to deaths to pre-1895 admissions (in 1896 deaths(c)) or to reported external deaths in D'Addosio's figures. As to the population at risk (those left in the home), the difference between admissions and farmed-outs for 1895 is 508 (a 73%) farmed-out rate), but another 467 infants were returned to the home in 1895 and 448 in 1896. The sum of 1895 non farmed-out infants and 1895 returned infants (508+467) equals 975 or two less than the 977 1895-96 internal deaths to (possibly) 1895 admissions recorded by D'Addosio for 1895-96. If, instead, we also add the 1896 returnees (though many of these were certainly 1896 admissions) to our denominator, we can estimate a rough two-year internal mortality for 1895 admissions of 687 per thousand, still a high figure but lower than the 853/856 reported in the papers.

A particularly surprising feature of D'Addosio's figures starting in 1892 is that the deaths to infants abandoned during the previous calendar year (deaths(c)) are more numerous than deaths to those admitted during the same year (deaths(b)). The dramatic increase in deaths to previous-year admissions is difficult to explain and would seem to contradict the usual observation of decreasing mortality after the first hours and days of life. As a first hypothesis, if age at abandonment for some reason increased in 1892, then this phenomenon might find partial explanation in a greater missing first-days mortality for foundlings (see above). A couple of interesting observations made regarding historical patterns of infant mortality in Italy may also be relevant. Breschi and Livi Bacci have studied month of birth as a factor in children's survival and find that while babies born in winter were considerably more at risk of dying in their first month, the seemingly more fortunate summer babies nonetheless experienced a significant peak of mortality during their second summer. That second summer (for a foundling the calendar year after abandonment) probably coincided more or less with weaning and so translated into a

heightened risk of gastro-intestinal diseases (Breschi and Livi Bacci, 1997). In addition, Del Panta has shown that these diseases, likely to strike after weaning whatever the month of birth, were especially frequent in southern Italy (Del Panta, 1997, 12). Still, the particular pattern of southern infant mortality at the time, which may indeed have been still more marked among foundlings, is at best only a partial explanation and raises the further problem of why we do not find the same pattern in the preceding years.

More likely, the shift can be attributed to changes in farming out practices and policies. In the city of Naples, working-class women had traditionally taken on foundlings without receiving any payment. In part this was because the foundlings, after passing through the Annunziata's turning cradle were considered figli della Madonna and so, according to local lore, blessed or full of grace; they were thought to bring good luck. When the turning cradle was closed in 1875-76, the number of foundlings placed in this way dropped from about 600 to about 300 (while total abandonments dropped by about a quarter). Meanwhile those placed with mercenary wet nurses, presumably outside the city of Naples though with time this restriction was relaxed, increased to a sustained level of over a thousand per year, and eventually as high as 1500 for the period in question⁵⁸. To these mercenary nurses the Annunziata paid wet nursing fees for 18 months and paid nothing for subsequent 'dry' nursing or raising of the foundlings⁵⁹. One can imagine then that many foundlings were returned to the home after payments stopped at the age of about 18 months. It may well be then that the large number of deaths to foundlings abandoned in previous years after 1891 are weaned infants returned to the home who in that normally insalubrious environment succumb to just the sort of diseases studied by Breschi, Livi Bacci and Del Panta. Moreover, in a cost cutting measure, the subsequently discredited Annunziata administration decided in 18 September 1890 to shorten the already brief 18 months of nursing wages to 15 months (increased back to 18 in 1896) (Pucci, 1900, 68-9). Assuming that this regulation applied only to nurses accepting charges after that date (and so was not retroactive), then the first infants returned to the home at the conclusion of 15 months of nursing payments (and so probably weaned early) would have shown up in late December 1891, coinciding precisely with the increase in mortality to previous year admissions beginning in 1892. On the other hand, neither the return to 18-month wages in 1896 nor lower mortality starting in 1899 reversed this anomalous situation. Other local economic factors may also have played a role in increasing return rates, one possibility being the displacement of poor Neapolitans as a result of the program of urban renewal (sventramento) initiated in 188960.

D'Addosio's data raise other questions as well. Presumably the vast majority of deaths(b) (which derive from the category of same year admissions) are deaths to foundlings under the age of one. We are on shakier ground, though, with deaths(c) some of whom derive from present(a) (at the beginning of the calendar year) and others, as observed above, from the returned category. There is also no way of knowing how many of the returned appear among admissions of the same year as opposed to previous ones.

Anomalies aside, a reasonably representative picture of Annunziata mortality is

probably provided by D'Addosio's measure (mortality(e) in table 1). Following it, we see mortality increase steadily from a low of 201 per thousand in 1887 to almost 500 in the peak years of 1894 and 1896. For the infamous 1895, though, D'Addosio calculated a lowish figure of 379. As suggested repeatedly above, data limitations mean that historical measures are rarely entirely satisfactory. Still, D'Addosio's do confirm White Mario's impressions of excellent conditions in 1877 and Pucci's (seconded by White Mario) of disastrous ones in 1897, as well as subsequent observations regarding the improvements made by Pucci and Cellamare.

With regard to the crisis years of 1895 and 1896, we might assume that D'Addosio's measure counted only internal deaths (an assumption supported by subsequent comments made by Pucci) and apply some other rate to the still large number of farmed-out infants. We might, for example, choose the rough measure calculated above from Pucci's studies of farmed-out infants for the period. Although not strictly a measure of infant mortality, that rate of 357 does not seem exaggerated given some of the figures reviewed earlier in this article. Making that calculation we come up with overall foundling mortality rates for the Annunziata of 611 (1895) and 683 (1896)⁶¹, not the sort of extermination suggested by the original figures released by the provincial study, but indications nonetheless that Neapolitan foundlings at the time were indeed lucky to see their first birthdays.

Under Pucci, the farming-out rate climbed back up over 90%, and following the Cellamare increase in external wet-nurse wages it reached almost 100% in 1900-1. Surveillance of the 'external family' seems also to have improved at that time, judging both from Pucci's discussion of new measures taken to monitor farmed-out infants (Pucci, 1900, 77-80) and from the fact that the number of deaths counted – far larger than the few non-farmed-out infants (who numbered only four in 1900) – must have included external mortality. D'Addosio's mortality calculation in fact declines in the first years of the century to levels (168 and 221) about equal to general infant mortality. Although these figures seem almost too low – perhaps there were still some unreported deaths and later abandonment caused by stricter controls might have meant more very early mortality was missed – undoubtedly the post-scandal administrations achieved encouraging results in turn-of-the-century Naples.

Our knowledge of foundling mortality in Italy before World War One is inevitably vague and approximate. Data collection at the time was spotty and uneven except in a few notable cases, and those cases of good record-keeping almost certainly corresponded with above-average foundling care and so relatively low mortality. Our general review of measures calculated both at the time and in more recent secondary literature suggests that more often than not those measures underestimated mortality (when understood as an IMR equivalent), but by how much? We do know that foundling mortality almost always exceeded general infant mortality and that the latter about halved during the period here considered (declining again from 270 to 141). Might foundling mortality have been about twice those figures? It may well have been, and foundlings may also not have enjoyed the same sorts of improvements achieved by non-abandoned infants. Indeed we have seen repeated evidence that in an average (which is to say poorly-run) foundling home half of the infants abandoned

probably did not survive to age one. The problem was, however, resolving itself in another way. While reformers argued about maternity and paternity searches, filiation subsidies, and the elimination of foundling homes, potential foundling parents were abandoning less and less. From a level of probably about 40,000 per year at the time of unification, abandonment had declined by half on the eve of the Great War. Much of that decline was the result of administrative changes which sought to prevent the abandonment of illegitimate children, but there were other underlying and complementary social, cultural, economic, and demographic changes taking place which ultimately took care of the problem of foundling mortality by eliminating – though not till more recent decades – the first half of the couplet.

Appendix:

Foundling mortality measures described in the text (generally multiplied by 1000)

A = Total annual admissions *or* admissions + foundlings/nurslings present on 31 Dec./1 Jan.

A' = Admissions only

P = Infants present on 31Dec./1 Jan.

D = Deaths to foundlings/nurslings in a calendar year, possibly including external deaths

 D_1 = Deaths to foundlings/nurslings occurring in the home during a calendar year

 D_2 = Deaths to nurslings occurring outside of the home

 $D_3 = Deaths$ in a calendar year to foundlings admitted in that same year [deaths (b) in table 1]

 $d_n = monthly internal deaths (n = month)$

 m_n = average daily population calculated over one-month period

F = Annual number of foundlings farmed out to external wet nurses

R = Infants returned to home by nurses

Overall foundling mortality (Raseri ideal, Vicenza, Siena, Palermo, Verona, Larciano, Rome, Milan, Bologna)

$$(D^1 + D^2)/A$$

Internal mortality (Padua, Vicenza)

 D^1/A

Internal mortality (revised) (Naples, Vicenza)

$$D^{1}/(A - F)$$

External mortality (Vicenza)

 D^2/F

Raseri measure (3-year period)

$$\frac{\frac{1}{3}D_1}{P+\frac{1}{3}\frac{A^2-F}{2}}$$

Titomanlio measures (Naples)

$$\frac{\left(\sum_{n=1}^{12} \frac{dn}{n}\right)}{D_1}$$
 (yearly average)

D'Addosio meaure (Naples)

$$[D/(A' + P)]*100$$

Da Molin measure (Naples, 1871-83, quinquennial measure)

 $[D_3/A']*100$

¹ Over the past quarter century there has been considerable debate over the question of parental/maternal affection in past time and so over the motivation behind abandonment. The opinion, expressed for example by Langer (1973) and Shorter (1975, 168-204), that in prior times – till the late eighteenth century in France for Shorter poor parents were relatively indifferent regarding the fate of their new-born children and infants combined with the very high mortality suffered by foundlings might suggest that legal abandonment indeed served as a convenient alternative to (illegal) infanticide for those parents. Others, including Fuchs (1984) and Hunecke (1989, 30-6), argue instead that in a state of abject poverty, those parents sought what they thought was best for their children, namely round-the clock care and wet nursing paid for by the foundling home. For a brief discussion of these issues, see Kertzer (1993, 174-8). As should be clear from the text, I use the term (legal) infanticide to refer not to parental intent but to social function, condoned by bourgeois opinion (or non-opinion as the case may be); and I believe one can say the same for White Mario.

² Though see Kertzer (1993, 138-44) for what strikes me as a somewhat more pessimistic assessment.

³ The Bolognese rates calculated by Kertzer and White decline from 706 (1809-10) to 566 (1829-30/1849-50) to 372 (1869-70) (Kertzer and White, 1994, 462) as compared to an 1861-62 legitimate infant mortality rate of about 270; for consistency with what follows I present these rates as deaths age 0-1 per 1000 admissions. These sorts of rates are discussed at length below.

⁴ Hunecke says relatively little about the secular trend of mortality in the nineteenth century, but see 1989: 148-57, 276-7, 301.

⁵ See, for example, Bideau et al. (1997); Corsini and Viazzo (1997).

⁶ The figures on the various categories of abandonment in 1879-81 are taken from Raseri (1884, 224-7). Article 509 of the first Italian criminal code, subsequently expanded as articles 386-9 of the Zanardelli code, defined abandonment in a «solitary place» as a criminal offense.

⁷ Interestingly, Corsini (1997, 14-15) shows that in 1840-42, more than 30 years before the *ruota* was closed, anonymous abandonment in Florence already accounted for only 40% of the total.

⁸ Article 376 of the civil code (Pisanelli) specified that when an illegitimate birth was registered by a non-parent (again usually the midwife), the father's name could not be included on the birth certificate and the mother's only if she gave written consent. Article 191 presumably allowed the parent to refuse being named even if he or she should do the registration.

⁹ I shall not take into consideration the rather small category of infants of known parentage (including legitimate infants) admitted to foundling homes as their existence does not affect the discussion that follows. For a discussion of that group in Florence, see Corsini (1997).

¹⁰Article 506 of the Piedmontese criminal code, made more explicit in articles 361-3 of the Zanardelli code.

¹¹ 'forte proporzione,' DIRSTAT 1888: 87.

¹² See articles 93-4 of the Civil Code.

¹³ DIRSTAT is an acronym for Direzione generale della statistica. For the period under consideration here it was a part of the Ministero dell'Agricoltura, Industria e Commercio.

¹⁴Between 1863 and 1883 DIRSTAT had distinguished between legitimate, illegitimate, and *esposto*. The state

statisticians intended that only the anonymously-abandoned (in a public place or in the *ruota* and so of unknown *stato civile*) be classified as *esposti*; not surprisingly many *comuni* classified all foundlings, including the directly consigned as *esposti*, while others included the directly-consigned in the illegitimate category. As such, the pre-1884 figures are a poor guide to levels of abandonment. The inclusion of non-recognized illegitimates and *esposti* (however defined) in a single category eliminated this confusion. See DIRSTAT, *Movimento dello stato civile 1884*: xxxix-xlii.

¹⁵Some of the data in Figures 1 and 2 (through to 1900) are also reported in Gorni (1974).

¹⁶This ratio would of course exactly equal the rate of infant mortality in a stationary population with constant rates of birth and death.

¹⁷ See, e.g., the DIRSTAT volume *Movimento dello stato civile* for 1877 (and probably earlier volumes as well).

¹⁸ Del Panta (1997, 9). Del Panta's 168 for the 1890s is lower than Natale and Bernassola's 187 (1891-92) and 173 (1901-2) (cited in Ibid.); the latter figures are also generally higher than those reported at the time by DIRSTAT. Del Panta also importantly points out that while Italian infant mortality at the time was not far above that of other European countries, Italian child mortality (ages 1-5) was instead about twice that of England or France. The current article does suffer the defect of focusing almost exclusively on mortality during the first year of life; but it should at the same time be noted that for foundlings the challenge of surviving infancy was considerably greater than it was for non-foundlings.

¹⁹The highest regional rates were those of Sardinia (84.2% of illegitimate births recognized by at least one parent), always an anomalous case with regard to abandonment, and Latium (81.3) and the lowest those of Piedmont (24.6) and Apulia (30.0). The cultural relevance of pre-unification political boundaries is best expressed by a comparison of bordering regions with very different levels: Emilia (78.1) and Lombardy (32.0), Marches (73.8) and Abruzzo-Molise (44.7), and Latium (81.3) and Campania (32.1). (See DIRSTAT, 1888, 85-87). ²⁰According to DIRSTAT, *Movimento dello stato civile*, illegitimate births recognized at birth numbered 50,134 in 1884, 40,088 in 1896, and 32,919 in 1914, in, again, a context of fairly constant total births.

²¹The ratio of recognized to non-recognized illegitimates as reported by DIRSTAT, *Movimento dello stato civile*, was closer to 3:2 in this period which would suggest that this admittedly rough estimate of foundling mortality might be too low.

²²This figure is surprising given the low levels of recognized illegitimates in these regions (see n.19). If both figures are near reality, then large numbers of unrecognized illegitimates must have lived with their parents. Were these parents unmarried or married only by the Church? And had they not recognized their children because of some specific motivation or simply out of ignorance of or failure to follow bureaucratic procedures of registration? ²³The unbelievably low rate of 43 for Livorno is explained by the fact that its foundlings were sent to neighboring Pisa (where the rate was nonetheless a respectable 200). See Raseri, 1884, 240-4.

²⁴Angeli (1994, 113) has found a perhaps overestimated 95% abandoned at two days of age or less for Imola in the eighteenth and early nineteenth centuries, while Da Molin finds, for the Annunziata in 1836, 60% abandoned in the first day of life and 89% during the first

week (1994, 264) . Applying the cluster 3 (Austria as representative for Czechoslovakia, Austria, Italy, Spain, and Greece) survivorships for the first days of life in 1900 derived by Masuy-Stroobant (1997, 16) of $q_0 \cong 10$, q_1 . $6\cong 30$, and $q_{0.365}\cong 240$, we might roughly estimate that out of 1000 foundlings 400 experience q_0 outside the home (4 deaths) and on average 250 experience $q_{1.6}$ outside the home (7 deaths) which would add $11^0/_{00}$ to foundling mortality rates. These q figures, though, are for general infant mortality and so certainly underestimate Italian foundling-to-be mortality in 1900.

²⁵If bureaucratic procedures were followed, these children would likely be registered as unrecognized illegitimates (for whom separate mortality figures were not kept). Very early infant mortality might also be registered as still-births, and there is reason of course to believe that, given the frequent desire to hide unwed childbearing in general, many of these deaths may not have been registered at all.

²⁶ For exceptional reference to the problem of missed early-days-of-life mortality for foundlings, see Berti (1897, 208); Corsini (1997, 20); Rollet (1997, 213-14).

²⁷ The formulae for this measure and the others described below are included in the appendix.

²⁸ See Viazzo et al. 1994 and 1997 for an example of the dramatic effect on mortality of an extension – less than two weeks – of the lag before farming out.

²⁹ These include Raseri (1881; 1884), DIRSTAT (1888; 1894; 1895). Although not named, Raseri was certainly the author of the latter three studies as well.

³⁰ Raseri (1884, 252-5); DIRSTAT (1888, 82); in Raseri 1881 (12) he estimates a rate for 27 provinces «before and after turning-cradle closings», most of which took place in those same years 1866-75, of 410-420.

³¹ DIRSTAT (1894, 15-16; 1895, 6). The 1893-94 figures do not include Sardinia and Apulia and the Campania rate is compromised as information received on the Annunziata was incomplete. Some of these rates are also cited in Gorni (1974, 50-7), though without consideration of their limitations.

³² In the prolonged and fruitless parliamentary discussion of foundling-care reform (see Ipsen, 1999), one senator at least called for elimination of the receiving halls, which he described as unhygienic, poorly administered, and dangerous to the survival of the infants abandoned there (De Cristofaris in Senato del Regno, *Atti interni*, disc. 9 December 1907 (Leg. XXII): 7657-9).

³³ Namely the use of the measure (or similar variation): internal deaths divided by admissions (see appendix).

³⁴Regional rates (homes only) for 1898, for example, were highest (rather than lowest) for Abruzzo and lowest (rather than highest) for Venetia (Commissione d'inchiesta 1900a, 22)

³⁵The lowest foundling home rates were for Portoferraio (233), Novi Ligure (204), Arcidosso (226), Livorno (233) – apparently a home had been opened there some time between 1884 and 1892 (see n. 23), Mondovì (241), Vercelli (243); the highest rates were for Viterbo (503), San Gimignano (511), Orvieto (520), Como (523), Mantua (545), Avellino (555), Catanzaro (598), Messina (625), and Padua (673) (Commissione d'inchiesta 1900a: 16-31, 64-72; see also Commissione d'inchiesta 1900b, 5-7 on Naples).

³⁶ On syphilis and abandonment, see Kertzer (1999).

37 «Rivista di Beneficenza Pubblica» (1898, 578-81; 1898, 929-30; 1899, 567; 1900, 505-9; 1905, 106-9; 1912, 271-3).
3). Small sample sizes of course increase the possibility of

unusual highs and lows. The smallest in this list is Rome with 473 admissions in 1904.

 $^{38}\mathrm{As}$ Berti himself pointed out, his calculations were compromised by the fact that 5-6% of foundlings each year were 'recognized' and reclaimed by a parent and so appear in his statistics as having survived till the end of the period, whatever their fate. The 60% $_{15}\mathrm{q}_0$ figure reflects his adjustments.

³⁹Romani (1903); «Rivista di Beneficenza Pubblica» (1908, 728-30).

⁴⁰This 1878 study, by G. Tocci, is, for example, cited by both Raseri (1884, 219, 244) and Gorni (1974, 54-5). Apparently Cosenza did a poor job of placing infants with external nurses, but for those who were so fortunate, external mortality was reported as a low 267.

Also cited by Kertzer (1993, 143) and Gorni (1974, 23).
Explore possible explanations for the timing of the Annunziata scandal and the outrage inspired by the published mortality figures in, again, Ipsen (1999).

⁴³ See Kertzer (1999).

⁴⁴ See, for example, Battarossi (1897); Titomanlio (1899); «Rivista di beneficenza pubblica» (1908, 628-30); Commissione d'inchiesta (1900a, quesito XIII).

⁴⁵The 1888-97 rate was probably for children receiving the subsidy. If, instead, the infant died in the first days or perhaps even weeks of life, the mother may well never have gotten around to registering for the subsidy, and that omission may explain in part the very low rate.

⁴⁶ The head of that administration was Giuseppe Lazzaro and its third member Ferdinando Rubinacci.

⁴⁷ Simeoni defended himself in the Chamber of Deputies (Camera dei deputati, *Atti del parlamento italiano*, disc. 24 May 1897, 987); Titomanlio's comments can be found in «Il Mattino», 29-30 June 1897 and were repeated in more detail in Titomanlio (1899).

⁴⁸The first comment comes from «Roma» (28 May 1897); the second from Lazzaro, Simeoni, and Rubinacci (1897, 64): «donne di mala vita e di corrotti costumi, che avvelenano anzichè nutrire i poveri infanti». Similar if milder statements can be found in more recent literature. Da Molin (1994, 272), for example, writes regarding the umarried abandoning mothers serving as internal wet nurses at the Annunziata: «Quale affetto, quale cura poteva dare ad un neonato estraneo una donna capace di lasciare per sempre il proprio figlio? (What sort of affection and care could a woman capable of abandoning forever her own child give to an unknown newborn?)». These women were of course under considerable social (not to mention economic) pressure to abandon their children, as Kertzer has shown (1993), and «forced» is probably a more appropriate word choice here than «capace (capable)»

⁴⁹ Da Molin (1994, 271, 292-3); D'Addosio (1883): 'prospetto statistico;' the data series in both ends with 1883.

⁵⁰ It also contradicts Da Molin's note that «the number of deaths refers to all babies in the Annunziata 'family' and so not only those admitted in the same year» (1994, 292-3). Da Molin's death totals (1994, 271) are slightly lower than those derived from D'Addosio for 1871-5 (4983 rather than 4986) and 1876-80 (1571 rather than 1598), but are identical for 1881-3 (1102) – see deaths(b) in table 1. Da Molin does not explain her method, but it can be derived by comparing her table to D'Addosio's (and so from the data included here in table 1).

⁵¹The fact that the sum is until 1891 always a bit larger than the total number abandoned can perhaps be explained by the fact that foundlings returned to the home by their nurses may not have been registered as a second abandonment, but then farmed out again to another nurse and so counted twice or more in the figures for those farmed out. From 1892 to 1898 (see table 1), the farmed-out plus current year deaths total is instead less than admissions, and by as much as 450 (1896). These were years of low farming out rates and high mortality. Barring underreporting of internal deaths, these numbers suggest that a significant number of internal foundlings nonetheless survived at least to the end of the calendar year in which they were abandoned, contrary to other evidence regarding internal mortality in those years.

⁵² D'Áddosio's annual figures (from which Da Molin's quinquennial ones are derived) show a big jump between 1847 (902 farmed out compared to 2380 admissions) and 1848 (1661 compared to 2177); see D'Addosio (1883), prospetto statistico N. 5. One imagines that the farmingout wage (on which more below) might have increased that year. Politically, it is also interesting that this improvement should have occurred in the revolutionary year of 1848, though in Naples the revolutionary forces were fairly easily repressed; see, e.g. Woolf (1979, 384-5). ⁵³Da Molin echoes D'Addosio (1883) in concluding that conditions at the Annunziata improved so much after 1875 that it could be considered one of the best foundling homes in Italy (1994, 291); though a look at any number of contemporary sources, e.g. White Mario's 1897 study in which she describes the Annunziata as one of the worst foundling homes in southern Italy (1897, 39), reveals that the home's high ranking was a fleeting one; see again Ipsen (1999).

⁵⁴Da Molin (1994, 279): «Certo è che questi bambini non morirono, almeno nell'immediato, perchè in tal caso le balie si affrettavano a consegnare il corpicino morto o a farlo seppelire nel paese di residenza e a dichiarare l'avvento decesso all'ospizio». See also more generally 275-9.

⁵⁵ In another context, eighteenth-century Normandy, Bardet et al. (1997) find very high mortality among farmed-out infants; only 14% of those who made it to the wet nurses alive survived to age 4.

⁵⁶ACS, *Ministero dell'Interno: Inchiesta Reale per Napoli*, b. 94 (corrispondenze); the better-known communal investigation was completed in 1901; while the provincial lasted till 1902; see Russo (1972).

⁵⁷ D'Addosio's measure is mortality (e) in table 1. It is entered by hand in D'Addosio's (printed) table (ACS, *Ministero dell'Interno: Inchiesta Reale per Napoli*, b. 94 (corrispondenze)). The formula reported in the appendix can be derived from the data in table 1; that formula yields D'Addosio's figures (within a rounding difference of 0.01) for all years except 1883 (should be 27.00, probably an error of calculation) and 1899-1901. All the data for these last three years has been added by hand to the printed 1871-98 table. The discrepancies for these final years are the following:

D'Addosio's	My
figure	calculation
28.78	30.41
17.23	16.78
18.52	22.14
	figure 28.78 17.23

A curiosity of the table (here reproduced) is that the annual 'present' figures refer to 31 Dec. rather than 1 Jan., though the mortality rates are calculated as if they referred to 1 Jan. It is not likely that D'Addosio summed admissions and present at the *end* of the calendar year to get his at-risk population (in effect counting many 'present' twice), and so it may be that those listed as present on, e.g., 31 Dec. 1871 were really those present on 1 Jan. 1871. Nor does taking the table at its word and shifting the present column down one space eliminate the 1899-1901 discrepancies.

⁵⁸Again, these figures are from D'Addosio's memorandum to Cellamare's response in ACS, *Ministero dell'Interno: Inchiesta Reale per Napoli*, b. 94 (corrispondenze).

⁵⁹ As the national investigation following the Annunziata scandal revealed, some provinces paid for up to 21 years of foundling care (Ipsen, 1999, 14).

⁶⁰ The first swing of the pick axe took place on 15 June 1889, though the relevant legislation passed in January 1885; see De Seta, 1981, 259-60.

⁶¹ The measure used (see table 1) is: 1000*[deaths(b) + deaths(c) + .357(farmed-out)]/(present(a) + admissions). This measure, however, does not take into account that some of the returned foundlings (about 450 for each of these years) surely died in the home and so number also among deaths(b) + deaths(c).

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DIRSTAT, Movimento dello stato civile

DIRSTAT, Statistica delle cause di morte

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Riassunto

Infanticidio legale: la mortalità dei trovatelli e la sua misura nell'Italia di fine '800, con particolare riferimento alla Casa dell'Annunziata di Napoli

In questo articolo si esamina il dibattito attorno alla mortalità dei trovatelli sviluppatosi in Italia nel periodo a cavallo tra la fine del XIX secolo e l'inizio del Novecento. Il lavoro prende spunto da analisi fatte da vari studiosi di demografia storica sul fenomeno dell'abbandono in aree urbane

(Firenze, Bologna, Milano), utilizzando statistiche qualitativamente molto buone rispetto alla media, e cerca di comporre un quadro generale dell'andamento e dei livelli del fenomeno facendo uso di molte delle pubblicazioni disponibili dell'epoca (comprese statistiche ufficiali) che contengono anche stime della misura dell'abbandono dei bambini. L'approccio è quello di considerare distintamente le varie tipologie dell'abbandono – illegittimi, illegittimi non riconosciuti, esposti – e le diverse misure adoperate per valutare la loro mortalità. Confrontando i livelli di mortalità dei trovatelli con quelli della mortalità infantile della zona è facile vedere che, molto probabilmente, punte che superano il 500 per mille erano frequenti tra le categorie degli abbandonati e, in certi casi, il livello saliva ben al di sopra di quella soglia arrivando a cifre che giustificano il parere della White Mario, la quale (assieme ad altri) paragonava la situazione dei trovatelli ad una forma di infanticidio legale. Il lavoro si conclude con un esame della particolare situazione della Casa dell'Annunziata di Napoli, uno dei brefotrofi più importanti d'Italia, partendo dallo scandalo che la investì nel 1897 ed esaminandone le ragioni.

Summary

Legal Infanticide: Foundling mortality and its measurement in turn-of-the-century Italy, with special reference to the Casa dell'Annunziata of Naples

This article explores the debate surrounding foundling mortality in Italy in the late nineteenth and early twentieth century. It first considers the studies of several scholars who have directed their attention at important centres (Florence, Bologna, Milan) which offer statistical material of generally much better quality than the norm, but goes on to suggest that elsewhere the situation was likely considerably worse (and measured poorly or not at all). It seeks nonetheless to derive a general impression from a series of historical sources (including official statistics) beginning with measures of the scale and secular development of abandonment in general. It then examines the various categories used – illegitimates, recognized illegitimates, foundlings – and the various measures used to measure their mortalities. Where possible an attempt is made to compare these measures to infant mortality as measured today; very likely the foundling levels frequently exceeded 500 per thousand and in some cases rose to levels which well justified Jessie White Mario's description of foundling care as a form of legal infanticide. The article closes with a more in-depth study of the Casa dell'Annunziata of Naples, one of Italy's most important foundling homes, and the shocking levels of mortality revealed by the 1897 scandal and subsequent investigation. It also offers some unpublished figures for that home.