

Chapter 5: Demography

by Ceridwen Boston

INTRODUCTION

Coffin plates were found attached to 644 of the 781 coffins recovered from the crypt. Of these some 610 had clearly identifiable names. In addition 146 detached coffin plates were found (Appendix 1). Some of the loose plates could be matched to *depositum* plates inscriptions attached to coffins, but many could not be matched. It is assumed that the detached plates that could not be matched had originally been attached to the poorly preserved coffins found in Vault 7. The detached plates provided the names of a further 63 people.

The demographic information on the *depositum* plate inscriptions is a valuable historical resource. St. George's is unparalleled in the proportion of named individuals in the total crypt population. In the analysis which follows, this population is compared to the records for the parish as a whole, and with two broadly contemporary crypt populations of comparable social class from Christ Church, Spitalfields (Molleson and Cox 1993), and from St. Bride's Church, Fleet Street (Scheuer and Bowman 1995).

Interments in the crypt of St George's spanned the period from 1801 to 1856. The numbers interred in each decade varied with peak in the 1820s (Table 5.1)

AGE DISTRIBUTION

The ages of the crypt population of St. George's ranged from newborn to 99 years (Table 5.2). The mortality curve (Fig. 5.2) demonstrates the age distribution within this population. Infant mortality (the first year of life) was high, in keeping with the high risk of complications associated with childbirth,

congenital abnormalities, problematic infant feeding and most importantly, exposure to the infections so rife in industrialised centres of this era (Roberts and Cox 2003). It is interesting to note, however, that only a small proportion of these infants were newborn or stillborn ($n = 7$). Two of these were the still born twins of Charles and Clar. . . . Martyn, buried together in a single coffin (plate 3109).

The low proportion of neonates would suggest either that many newborns were buried elsewhere, or that infant mortality associated with complications of childbirth or congenital anomalies was indeed low in this population. In this middling population, it is not unreasonable to assume that maternal health overall would have been better than amongst the poorer classes. Hence, the tendency to premature delivery, low birth weight infants, developmental anomalies and complications in childbirth, associated with maternal ill health and deleterious social practices such as excessive alcohol consumption, would have been lower. The attendance of competent obstetricians and midwives may have reduced the risks of labour to both mother and child. However, medical intervention was frequently linked to the transmission of *streptococcus* bacteria to mothers during and after labour, resulting in the dreaded puerperal fever (*streptococcal* septicaemia), the greatest killer of young women in this period (Codell Carter 1999, 265). At St George's crypt, the mortality curve in the young adult years showed no rise, either in the death of young women or men, as is commonly found in pre-modern societies. There is nothing to suggest that death due to childbirth was a signifi-

Table 5.1: The number of interments of known date within the crypt of St. George's in each decade between 1803-1856 ($n = 682$), based on *departum* plate inscriptions, and the total number of burials in the parish, recorded in parish registers between 1801 and 1840 (London Metropolitan Archives). (The figures in brackets give numbers and %ages of crypt burials distributing undated burials proportionally)

Decade	Interments in crypt	Total burials in St George's parish	Crypt burials as a %age of total burials in each decade
1803-1810	57 (65.27)	2910	1.96% (2.24%)
1811-1820	151 (173)	1953	7.73% (8.9%)
1821-1830	219 (250.79)	2093	10.46% (11.98%)
1831-1840	180 (206.12)	1700	10.59% (12.12%)
1841-1850	64 (73.29)	no data	-
1851-1856	11 (12.6)	no data	-
Total	682 (781)	8656	

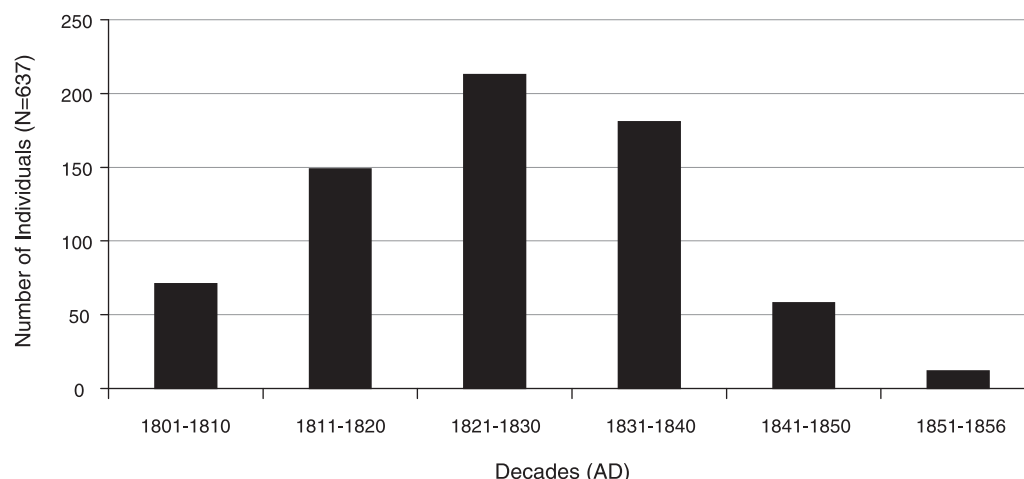


Fig. 5.1 Bar graph showing the number of interments within the crypt between 1803 and 1856

cant factor amongst this population. Death in child-birth was recorded as the cause of death in the case of Harriot Lent of Kings Street (plate 8116) and Mary Madden (coffin 1035), both of whom died aged 26 in 1830.

In the crypt sample, there was a rapid decrease in the number of deaths, after the first most vulnerable year, presumably as children became more immune

to the multitude of infectious diseases endemic in this pre-modern industrial city. Being a wealthy population, it is unlikely that the children in this assemblage suffered the malnutrition and poor living conditions so pervasive in the lower orders during this period, and nor the resulting high exposure to and poor recovery from such environmental insults. On the periphery of the metropolis,

Table 5.2: Distribution of age-at-death in the St. George's crypt population, in total and by sex (n = 652). Percentages of males, females and total population are shown for each age category.

Age category	Males	%age males	Females	%age females	Unknown	Total	%age total
still	2	9.15		5.18		2	7.21
Neonate	4		1			5	
1m-12m	23		16		1	40	
13m-23m	6	3.79	7	4.57		13	4.14
2y-5y	6	3.15	8	2.74		14	2.91
11y-15y	9	2.84	12	3.66		21	3.22
16y-20y	5	1.58	16	4.88		21	3.22
21y-25y	8	2.52	9	2.74		17	2.61
26y-30y	8	2.52	17	5.18	1	26	3.99
31y-35y	6	1.89	15	4.57	1	22	3.37
36y-40y	14	4.42	21	6.40		35	5.37
41y-45y	13	4.10	12	3.66		25	3.83
46y-50y	7	2.21	23	7.01	1	31	4.75
51y-55y	16	5.05	15	4.57		31	4.75
56y-60y	25	7.89	21	6.40		46	7.06
61y-65y	45	14.20	21	6.40	2	68	10.43
66y-70y	28	8.83	30	9.15		58	8.90
6y-10y	10	9.46	9	6.40		19	7.98
71y-75y	30	7.89	21	7.32	1	52	7.52
76y-80y	25	5.05	24	5.49		49	5.21
81y-85y	16	3.15	18	2.44		34	2.76
86y-90y	10	0.32	8	0.91		18	0.61
91y-95y	1	3.79	3	0.30		4	0.15
96y-100y			1	4.57		1	4.14
Total	317		328		6	652	

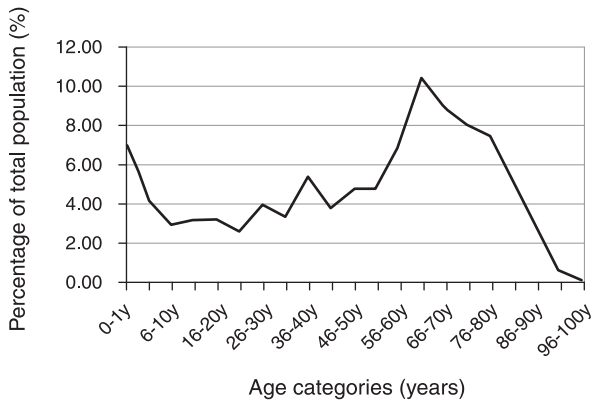


Fig. 5.2 Mortality curve of the crypt population shown as a percentage of the population

upwind from the major industry of the East End, the position of the new urban development of Bloomsbury was deliberately chosen because as a 'place by physicians [it] was esteemed the most healthful of any in London' (Styrye 1720, cited in Meller 1975, 1). From the analysis below, these healthful effects appear to have played their role in the mortality patterns of the crypt population.

There are marked differences between the demography reflected in the London Bills of Mortality of 1848 and that compiled from the coffin plate inscriptions (Fig. 5.3) from St George's crypt. Childhood mortality below the age of five years was very much lower in the latter group (11.35% compared to 40%). This was probably due to the environmental and socio-economic factors discussed above. Similarly, mortality figures for the first 20 years of life are dramatically lower (20.71%) compared with those for the wider London population (50%). Lastly, adult longevity was much greater in the St George's population, with a far higher proportion of the population surviving beyond 70 years of age (24.23% compared to 6% of the general London population).

These results are similar to those of other named assemblages from London (Table 5.3) which also reflect low mortality among the under fives and longevity among those over 70 years. The explanation for the apparent under-representation of children at Christ Church, Spitalfields, was

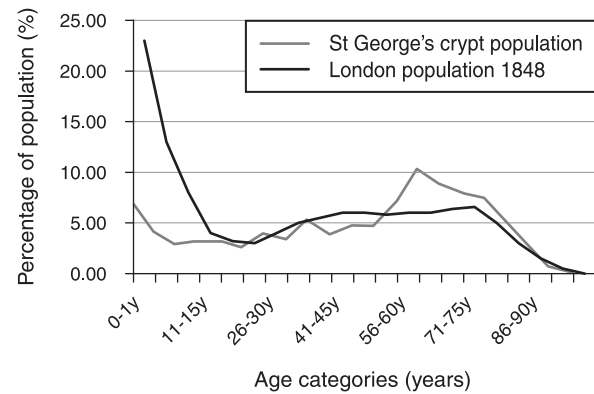


Fig. 5.3 Mortality curves of the crypt population and the wider London population based on Bills of Mortality of 1848

explained in terms of differential treatment of some deceased children - that some children were not interred with family members within the crypt but were buried elsewhere, possibly within the churchyard (Cox 1996, 20).

However, in an era when there was excessive sentimentality surrounding the death of children (Rugg 1999) considerable efforts were made to ensure that family members were interred together. It is unlikely that the dearth of subadults within the Spitalfield's crypt indicates a lower value was accorded to a child than to an adult. Nor are discrete post-medieval infant and child burial grounds, such as the *cillíní* of Ireland (Donnelly and Murphy 2008), known in England.

It is very much more probable that the apparent dearth of subadults in the middle class named assemblages shown in Figure 5.3 reflects demographic reality, and not age-specific burial practices, and that the differences in child mortality between the London Bills of Mortality and the crypt assemblages are very much more likely relate to differences in longevity and health which can be associated with the highly stratified society that was late Georgian England.

This conclusion is supported by the findings of Edwin Chadwick's 1840 study on childhood mortality in nine different locations in England (Rugg 1999, 219). He concluded that the average child mortality amongst the gentry and profes-

Table 5.3: Comparative mortality rates within selected named burial assemblages and from London Bills of Mortality

Assemblages	Mortality below the age of five years	Mortality below the age of 21 years	Survival > 70 years
St George's crypt, Bloomsbury	11.35%	20.71%	24.23%
St Luke's Church, Islington	14%	22.8%	27.2%
St Brides, Fleet St	-	28%	-
Christ Church, Spitalfields	19.2%	23%	21.8%
London Bills of Mortality	40%	50%	6%

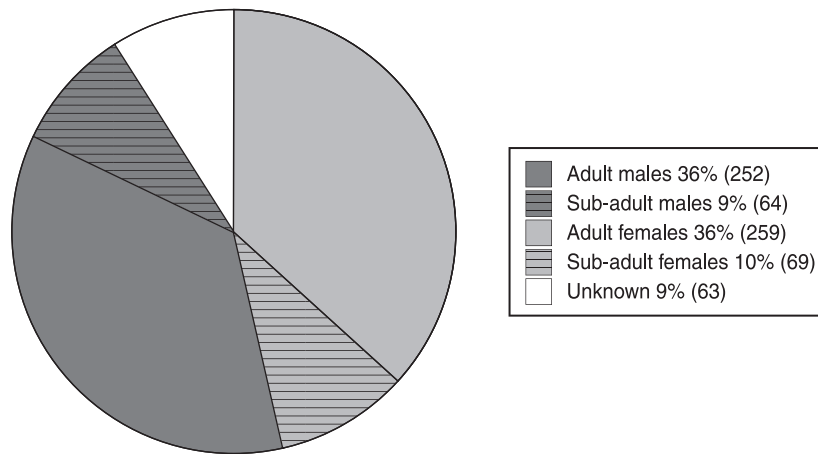


Fig. 5.4 Piechart showing sex distribution of subadult and adults based on departum plate inscriptions (N = 707)

sionals was 20%, whereas amongst labourers, artisans and servants the rate was approximately 50%. The childhood mortality rate of the St George's Church assemblage (as with St Luke's, Islington, and Christ Church, Spitalfields) approximates Chadwick's middle and upper classes. Similarly, the high proportion of the population surviving beyond 70 years is more typical of the middle and upper classes of the day.

Using mortality figures from nine different locations in 1840, Edwin Chadwick (quoted in Rugg 1999) calculated that in these places on average one in five children of the gentry and professional classes did not survive to adulthood, whilst amongst labourers, artisans and servants this figure leapt to one in two. St. George's crypt population, like Christ Church, Spitalfields, and St. Bride's church, Fleet Street, represented the wealthier middle classes of the metropolis, and had a child mortality rate in keeping with their class in other locations in England at that time.

At St. George's church, mortality rates do not change substantially over later childhood, adolescence or early adulthood, but begin to increase more acutely after 40 years, peaking in the 61-65 year old age bracket. After this there is a decrease in the number of deaths in the years following, but these do remain elevated until 85 years, after which there is a rapid decline, with only 21 individuals surviving beyond 85 years, and 6 individuals beyond 90 years of age. Nevertheless, the survival of so many individuals into advanced old age is itself eloquent of the good quality of life enjoyed by the St. George's church population.

SEX DISTRIBUTION AND MORTALITY

The distribution of males (n = 317) and females (n = 328) in the St George's crypt population was 49.15% and 50.85%, respectively of the burials of known sex. This broadly reflects the proportions quoted

in the London Bills of Mortality (50.86% and 49.14% respectively) (quoted in Molleson and Cox 1993). This would seem to suggest that in the St George's crypt assemblage, the slight sexual inequality in distribution appears not to be due to preferential inclusion of males over females but to a wider demographic reality. It is interesting to note from parish records, that between 1801 and 1840 the proportion of females to males in the whole burial population within St George's parish was almost exactly the same. Males constituted 49.83 % and females 50.17 %. Figure 5.4 show the proportions of male and female adults and subadults and burials of unknown age and/or sex amongst the burials known from *depositum* plates.

Figure 5.5 shows the number of deaths in each age category for the entire population and for males and females. The pattern of mortality for males and females are slightly different. Very young male children suffered markedly higher death rates than their female counterparts. Thereafter females tend to have slightly higher mortality rates until late adulthood. Between the ages of 56 and 80 men have

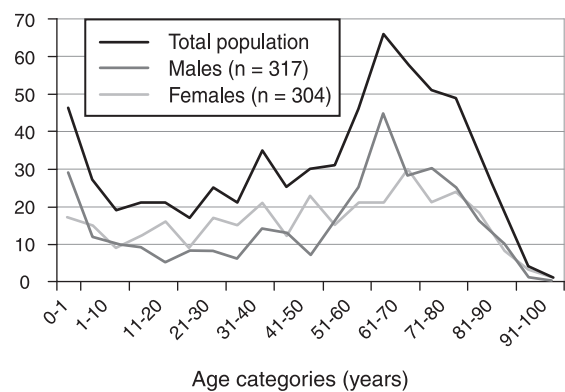


Fig. 5.5 Mortality curves of the total crypt population and for males and for females

higher mortality rate. Thereafter the mortality rate for men and women is the same.

SEASONALITY OF DEATH

The month of death is shown on most coffin plates. Table 5.4 shows the distribution of deaths by calendar month. No marked patterning could be discerned, other than that January was the month with the highest number of deaths, probably reflecting an exacerbation of respiratory diseases in the winter months. June was the month when deaths were at their lowest. Investigating the seasonality of death in 18th-century London, Bradley (1982) found that amongst children the peak months were June, July and November, whilst May, June and July were peak months for adult deaths. This was probably due to the increased prevalence of epidemics in the summer months and of respiratory diseases in the winter. This patterning was not found to be the case in the St. George's population.

The months of the year were divided into the four seasons of three months each. The proportion of deaths in each season is displayed in Figure 5.6 below. As hypothesised, winter shows a slightly higher mortality rate, but this is by no means marked. It is possible that the lack of seasonality of deaths in this population is due to the buffering effects of good nutrition, housing and medical care.

Table 5.4: Number of deaths per calendar month.

Data from coffin plate inscriptions ($n = 637$).

Month	No of burials
January	71
February	58
March	61
April	58
May	62
June	38
July	55
August	49
September	56
October	32
November	49
December	48
Total	637

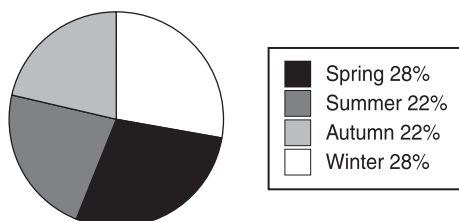


Fig. 5.6 Piechart showing seasonality of death

CAUSES OF DEATH

The cause of death is seldom cited either in the *depositum* plate inscriptions or on the memorial plaques within the church. The breastplate inscription of Gilbert Gollan (coffin 7043), aged 62 years, 'late of the Island of St. Vincent died after a most painful and ...ious illness which he bore with Christian fortitude and resignation' suggests a chronic and painful end, but gives no further details of his malady. The records of the Bloomsbury searchers record only that he died of consumption (LMA P83/GEO1/63). Two memorial plates within the church interior are more specific. The Kirkup family memorial states that James Fenwick Kirkup (coffin 1051), son of Ann and Joseph Kirkup, aged 26, drowned whilst bathing. The poignant memorial to Mary Madden (coffin 1035), aged 26, tells of her death whilst giving birth to an infant son. The infant son, Frederick Hayton Madden, lived for only five days after birth. Harriot Lent (plate 8116) also died in childbirth aged 26.

The records of the Bloomsbury searchers for the period 1771–1834 survive in the London Metropolitan Archives (P82/GEO1/63). Prior to the introduction of civil registration, the parish clerk had to be informed of all deaths within his parish. The searchers, often elderly female paupers, were employed by parishes to visit the recently deceased to ensure that no further action was required. The data from the Bloomsbury searchers' records has been transcribed and is accessible on-line. From this source the causes of death of over 250 individuals have been found. The searchers records are not comprehensive and by no means all deaths in the period are recorded. The data is best for the 1820s. Additionally the causes of death of eight individuals have been found in the parish records. In total the causes of death of 267 individuals have been found, and are summarised in Table 5.5. The most common recorded causes of death are consumption (72 cases), 'inflammation' (39 instances) and dropsy (22 cases), together with old age (18 cases).

Victorian medical diagnoses are rarely directly comparable to their modern equivalents. Given the limited tools for diagnosis at the time, they are frequently less specific than today. For example, the 'natural decay' or 'decay of nature' experienced by Sophia Hammond (coffin 2006), Jane Howe (coffin 3022) and Mary Huster (coffin 4007) usually refers to the ageing process. The 'arthralgia' experienced by the latter is a term analogous to painful arthritis. In the case of Jane Howe, the natural decay was accompanied by 'effusion of the chest'. The 'inflammation of the liver' suffered by Thomas Jeakes (coffin 1057) suggests hepatitis, possibly due to infection of the liver by viruses, bacteria or parasites; or to a complication of prolonged alcohol misuse. As a carpenter, a lifetime of exposure to varnish, paint and glue might also have caused this condition.

The widespread nature of the disease suffered by Robert James (coffin 4011) suggests some form of

'In the vaults beneath'

Table 5.5: Recorded causes of death (n=263). The information is largely derived from the records of the Bloomsbury searchers (LMA P82/GEO1/62)

Cause of death	Females	Males	Total
abcess	1	1	2
apoplexy (7F; 5M); apoplectic attack (1M)	7	6	13
asthma	1	5	6
'asthma, disease of the heart and dropsy'		1	1
cancer	7		7
'child bed' (1F), child birth (1F)	2		2
'complications of disease of the brain, bowel and bladder'		1	1
consumption	38	34	72
convulsions	4	7	11
croup	1		1
decay of nature	1		1
'decay of nature attended with arthralgia'	1		1
died suddenly	2	2	4
disease of the heart		1	1
diseased liver	1		1
dropsy	14	8	22
dropsy brain (1M); 'dropsy in the brain' (1M)		2	2
'drowned while bathing'		1	1
'enlargement of the heart'		1	1
fever	2	2	4
gout	2		2
hernia (sic)	1		1
infl[amed] lungs		1	1
'inflammation'	15	24	39
inflammation of the liver		1	1
inflammation of the throat	1		1
jaundice		1	1
liver complaint		1	1
measles		1	1
'mortification'	2	4	6
'natural decay and effusion of the chest'	1		1
old age (8F, 8M), aged (2M)	8	10	18
'ossification of the heart'	1		1
palsy		3	3
paralysis		1	1
paralytic [stroke] (2M); paralytic stroke (1M)		3	3
scarlet fever	1		1
smallpox		2	2
spasm (2F, 1M); spasms (1F, 2M)	3	3	6
stone		3	3
'stoppage in the stomach'		1	1
suicide		1	1
teeth (1F); teething (1M)	1	1	2
thrush		1	1
tumour	1	1	2
typhus fever		1	1
'water head' / 'waterhead' (2F, 1M), 'water on the head' (4F)	6	1	7
whooping cough	2	3	5
Total	126	138	267

metastatic cancer, whilst Thomas Tatham's symptoms suggest cardiac failure (coffin 1527). Untreated congestive cardiac failure is often attended by peripheral oedema (the hands and legs becoming swollen). 'Dropsy' was a catch-all diagnosis, referring to the accumulation of fluid within the body. This occurs in kidney failure, when the body no longer excretes water and salts efficiently, or as ascites, associated with liver failure (Estes 2003, 100-105). However, the most common cause of dropsy was heart failure. In Thomas Tatham's case, this would seem the most likely explanation. His 'asthma' may well not have been 'asthma' as we know it today, but rather respiratory distress brought about by poor cardiac function, possibly with attendant pulmonary oedema.

Unlike the chronic conditions described above, Charlotte Turner (coffin 7081) appears to have died of an acute infection, evidently not differentially diagnosed. The underlying cause for Jane Covell's 'throat inflammation' is unknown, but may have ranged from infectious diseases, such as diphtheria or tuberculosis, to throat cancer (coffin 7045).

The commonest cause of death was consumption, which was the cause in over a quarter of the recorded cases. Just how devastating consumption could be is illustrated by the Stringfield family, who are commemorated on a mural plaque in the Church (see Table 4.1 above). Thomas Stringfield the father was a butcher. He and his wife Mary had four sons – John, William, James, and George – and a daughter Mary. Between 1821 and 1835 eight members of the family died: Thomas and Mary, their sons John, William and James, John's wife Anna, their son-in-law Bisse Phillips Sanderson who had married their daughter Mary, and Anna the young daughter of John and Anna Stringfield. The cause of death is known in five cases, and of these three – Thomas, his son James and daughter in law Anna – died of consumption. Mary died from 'inflammation' and John of 'dropsy'. The only members of the family to survive seem to be the youngest son George, who never married, his sister Mary Sanderson now a widow, Mary's daughter Sarah, and John and Anna's son John William. Three members of the Keysell family – the brothers Richard and Henry, and their sister-in-law Eliza Olney Keysell, first wife of Francis Price Keysell – died of consumption. The Stringfields and Keysells were traders who lived and worked in the most populous south part of the parish of St George

Bloomsbury, but those who live in the newer properties north of Great Russell Street were not immune to tuberculosis. Samuel Heywood, Sergeant at Law and Judge of the Carmarthen Circuit, lost his wife Susannah and his daughter Mary Isabella to consumption. The Heywood family lived in Bedford Place. Two young daughters of the Waters family of Russell Square died of consumption in 1818 and 1819. George Burley, solicitor of Lincoln's Inn Square, and his daughter Elizabeth Burley, lived in Bloomsbury Place and both died of tuberculosis.

What is striking in the above sample is how few individuals met their end through trauma or through infection (with the exception of consumption). According to a memorial within the church, the 26 year old James Kirkup (coffin 1051) drowned whilst bathing, whilst one suicide is recorded (Robert Trower, coffin 5059).

Interestingly for this period, acute infection was the recorded cause of death in only seven individuals: two from smallpox, one from croup, two from 'fever' (cause not specified), one from measles, one from scarlet fever and one from typhus fever. One fatality from smallpox was 24 year old Thomas Bland (coffin 1506). His obituary in the *Gentleman's Magazine* (August 1825, 187) indicated that he died of smallpox, despite being inoculated against the disease in his first year of life. Surprisingly, death from cholera, the dreaded 'black one', which raged through Britain's cities and towns periodically throughout the 1830s and 1840s, was not recorded in the sample.

Conclusion

The *depositum* plate inscriptions and historical documentation both indicate that mortality rates and patterns of longevity in St George's crypt population were consistent with other 'middling sort' assemblages of London. The marked differences in child mortality and longevity between these groups and the wider London population may be explained in terms of the highly stratified society of the Metropolis, in which the vast disparity in wealth of the 'haves' and 'have nots' dictated the living conditions and occupations that had such a marked effect on health and survival. Individuals interred within the crypt of St George's Church were amongst the more fortunate members of London's population.

