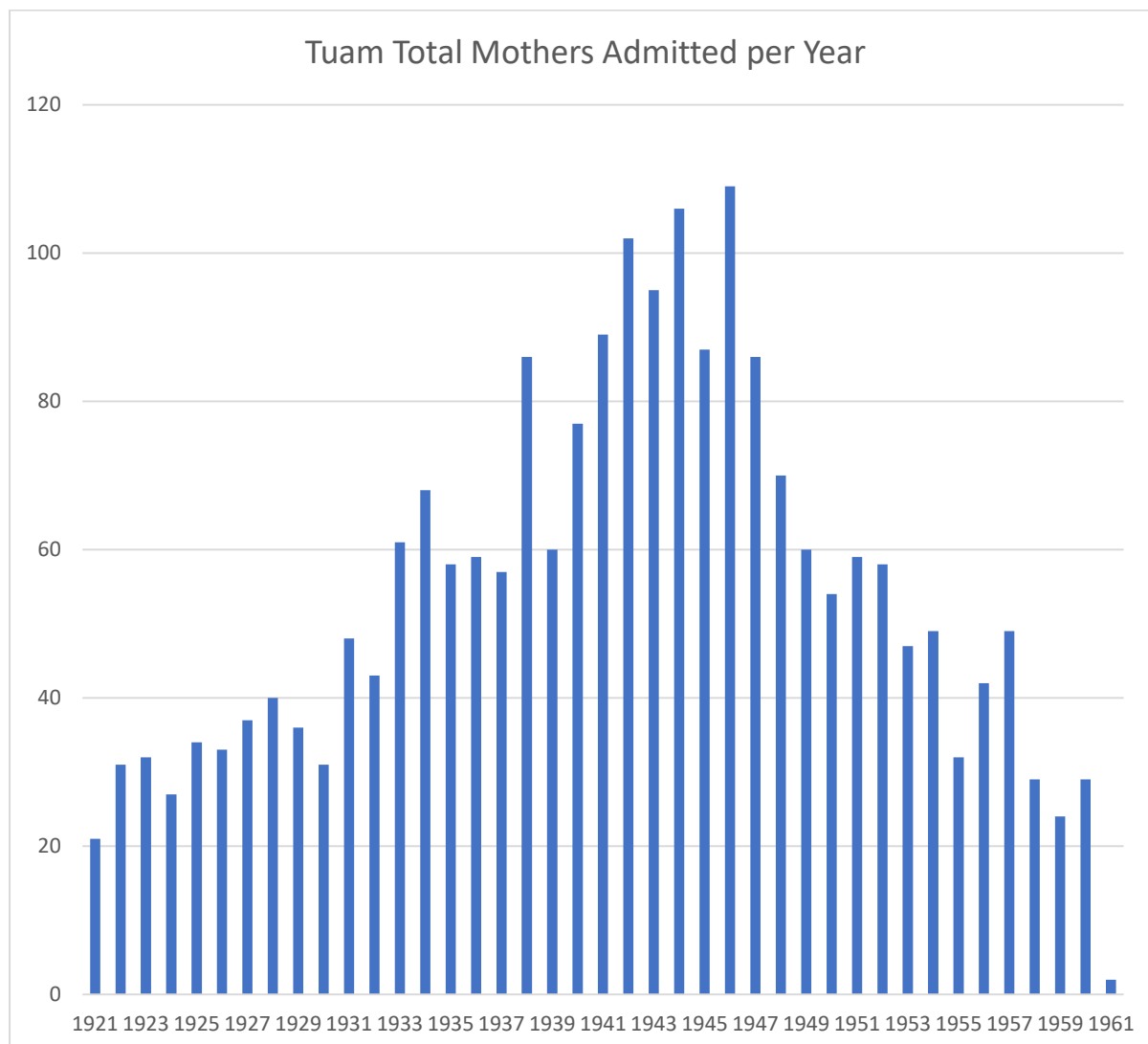


Chapter 15 A: Tuam Statistical Analysis

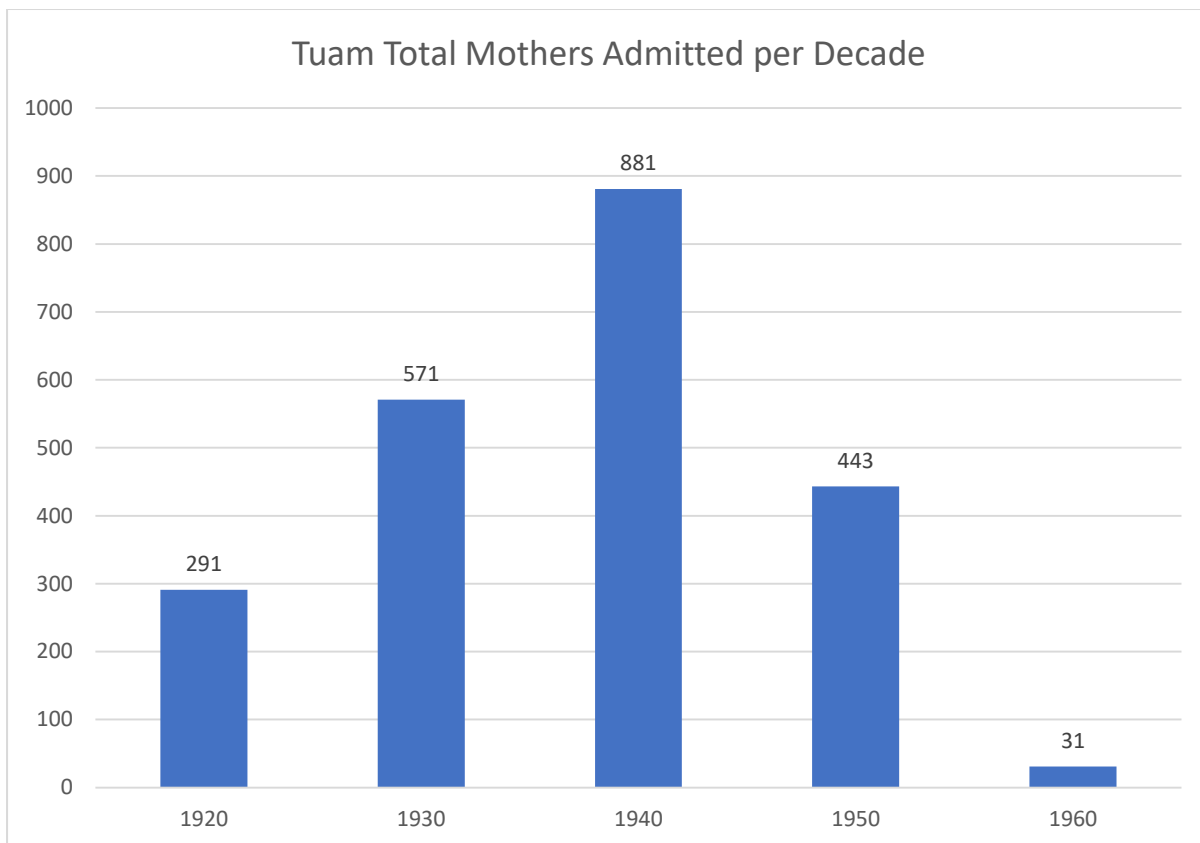
The statistical analysis provided here is based on the institutional records provided to the Commission. The Commission compiled a database from the institutional records and analysed the information on a calendar year basis. In the narrative chapter, statistical information from other sources is described. These other sources are not directly comparable with the Commission's analysis. For example, almost all the statistical information available from official publications is on an administrative year basis, that is, from 1 April to 31 March. This was the case until about 1980. However, as is clear from the analysis below, the statistical returns made to the Department of Health by the institution are broadly in line with the Commission's analysis. Statistics from other reports, for example, inspection reports, often relate to a specific day or a non-standard period and so are not directly comparable. In general, the Commission is satisfied that there are no significant differences between its analysis and information from other sources. In a few cases where there are differences, attention is drawn to this in the narrative chapter.

Admissions



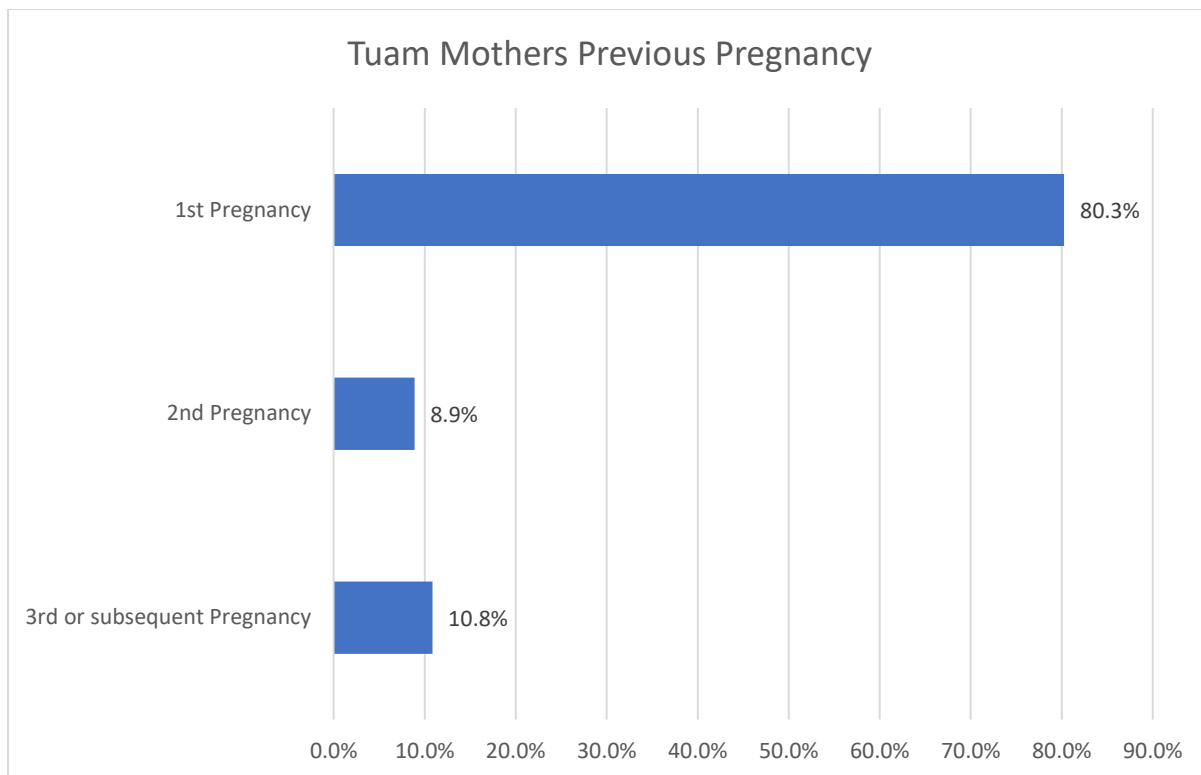
From the institutional records, the Commission identified 2,219 women who were admitted to the Tuam children's home. This includes women admitted to the home when it was located in Glenamaddy (1921-25) and in Tuam (1925-61). Dates of admission were available for 2,217 women (99.9% of admissions). Admissions began a staggered increase from 1927 and peaked in 1946 when 109 admissions were recorded. The period 1938-48 was particularly busy; 44% of all admissions were recorded in those years. Admissions began a staggered decline from 1949; 60 admissions were recorded that year and decreased to 29 admissions in 1960, the home's last full year in operation.

Marital status was recorded for 2,106 women (94.9% of admissions). The institutional records show that 97% were single expectant women and the remaining 3% were either married, separated or widowed.

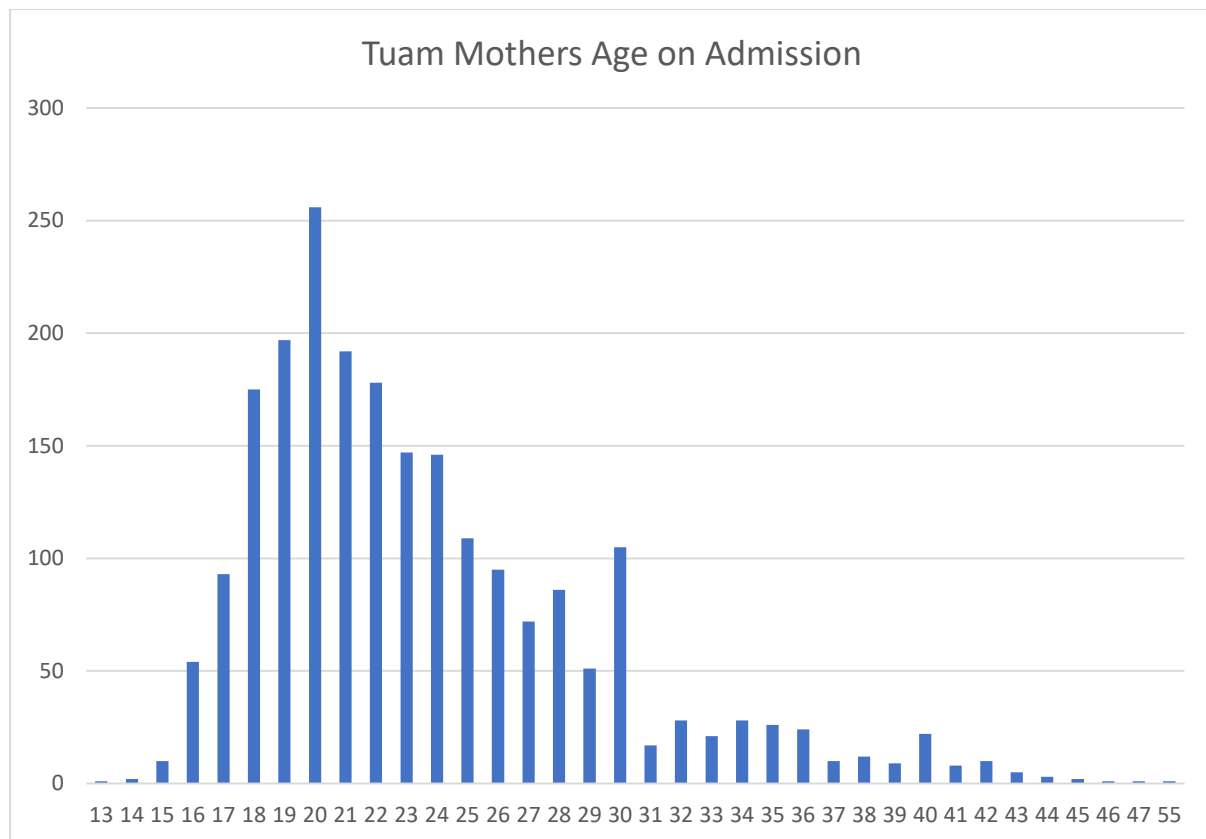


Analysis by decade shows that more women (39.7%) were admitted in the 1940s than any other decade followed by the 1930s (25.8%); 1950s (20%); 1920s (13.1%) and the 1960s (1.4%).

Previous pregnancy



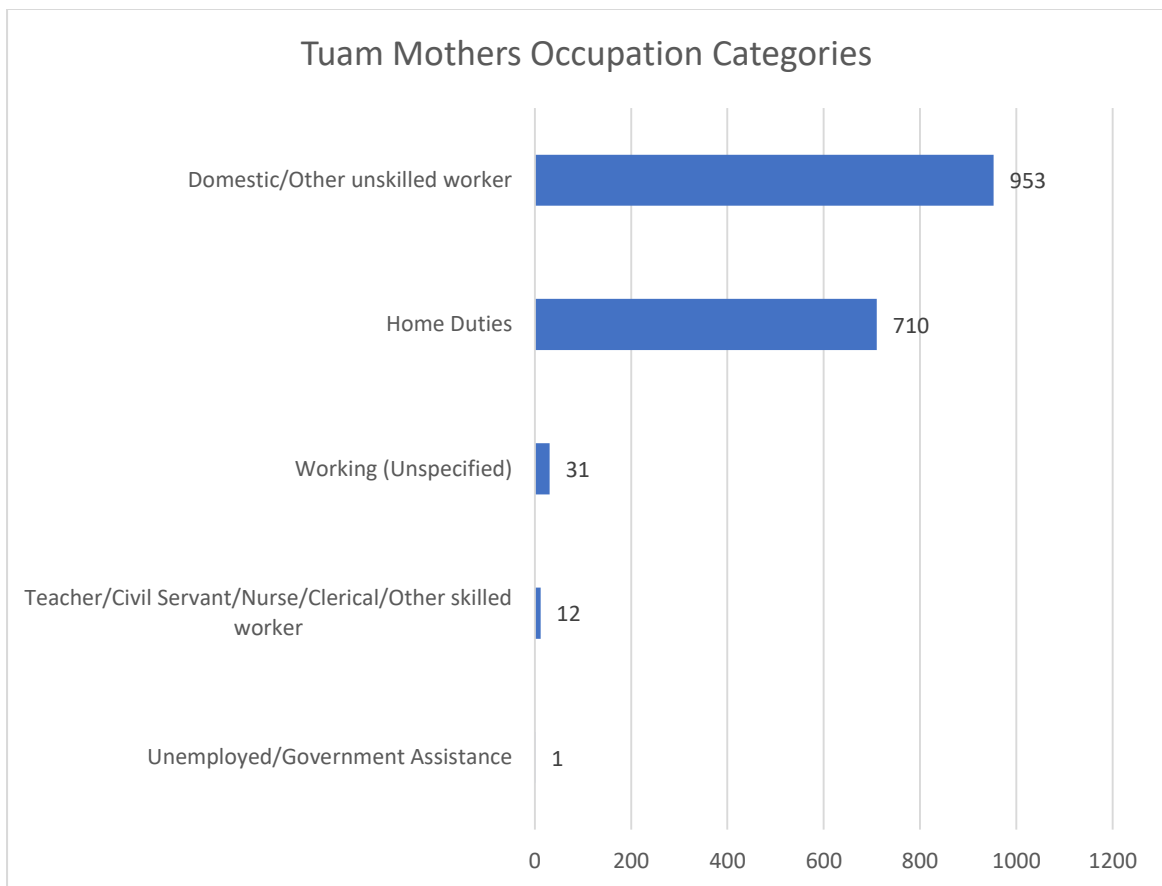
Information relating to previous pregnancy was available for 1,171 women (52.8% of admissions). The institutional records show that 80.3% of women were admitted on their first pregnancy; 8.9% on their second pregnancy and 10.8% on their third or subsequent pregnancy.

Age on admission

Information relating to age on admission was available for 2,197 women (99% of admissions). Ages ranged from 13 to 55 years. The mode of age on admission was 20 years; this increased to 21 years in the 1950s and decreased to 18 years in the 1960s. Average age on admission was 24 years. Most women (86.6%) were aged between 17 and 30 years on admission; 10.4% were aged between 31 and 55 years and 3% were aged 13-16 years.¹

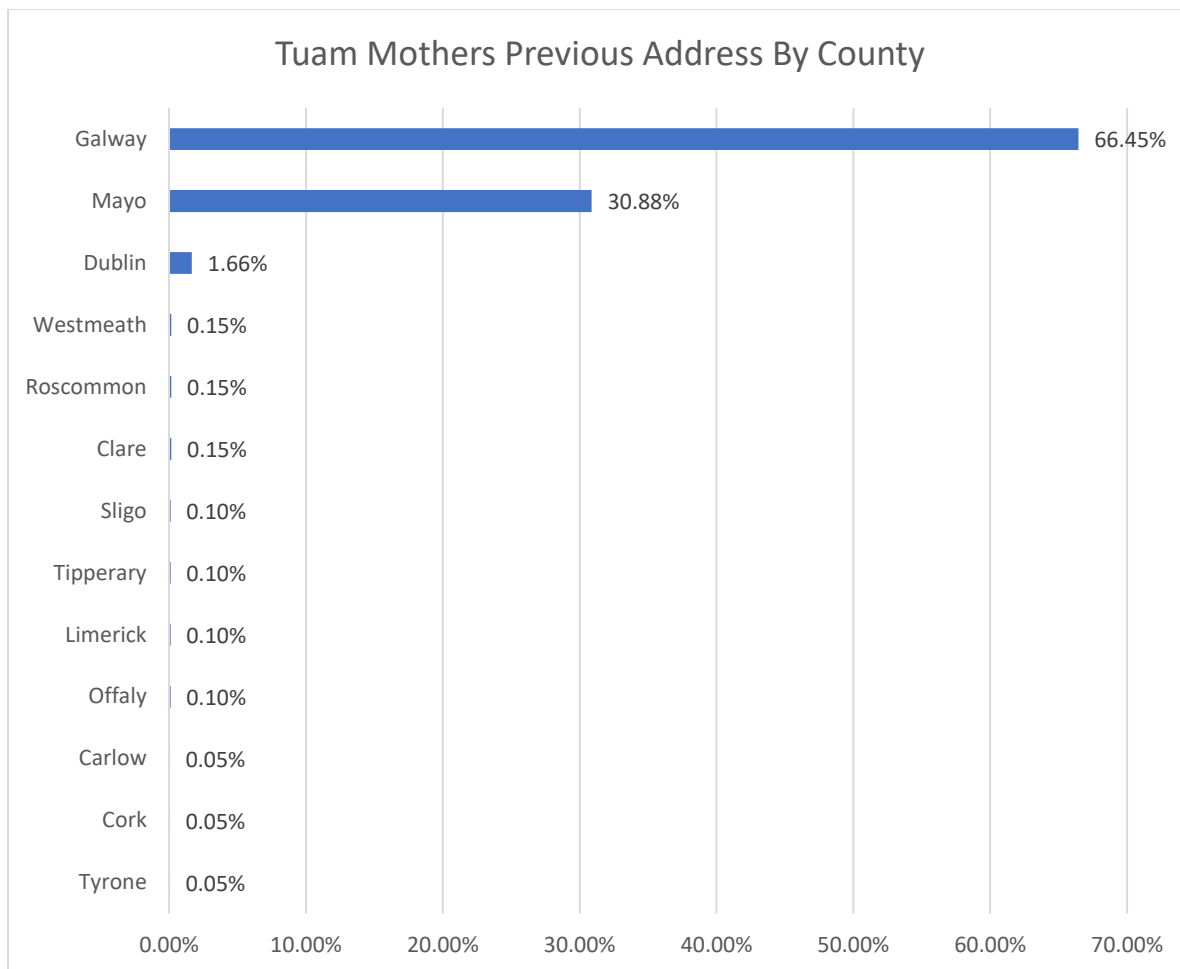
¹ The institutional records show that 'referred to the guards' or 'leave in the hands of the guards' was noted next to admissions aged 16 years and younger.

Occupations



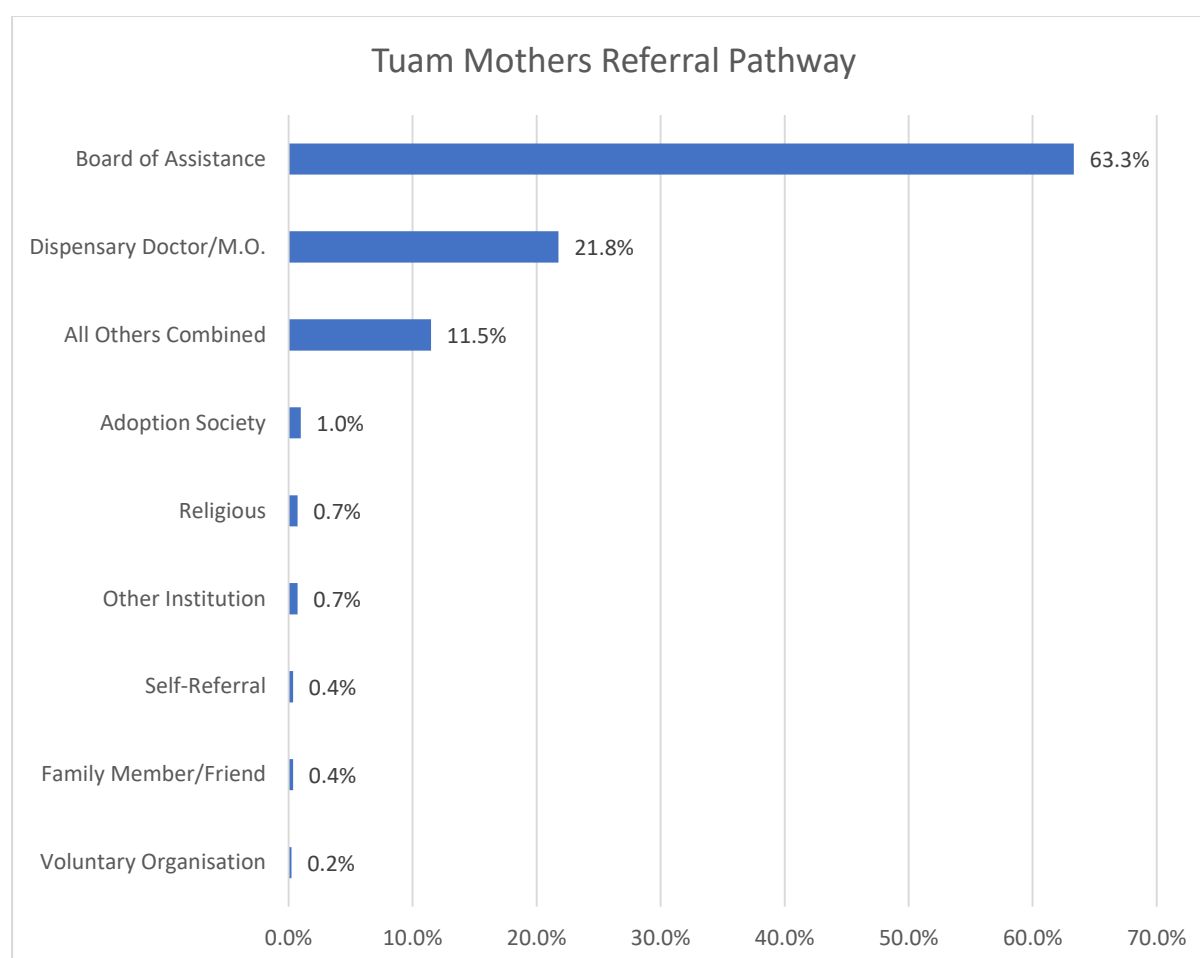
Information relating to occupations was available for 1,707 women (76.9% of admissions). Most women (55.8%) were recorded as being a domestic servant or unskilled worker; 41.6% were working in the family home or on the family farm; 1.8% were employed in unspecified positions; 0.7% were recorded as a teacher/civil servant/skilled worker and one woman was recorded as unemployed. There was no major change in occupation categories from the 1920s to the 1960s.

Address prior to admission

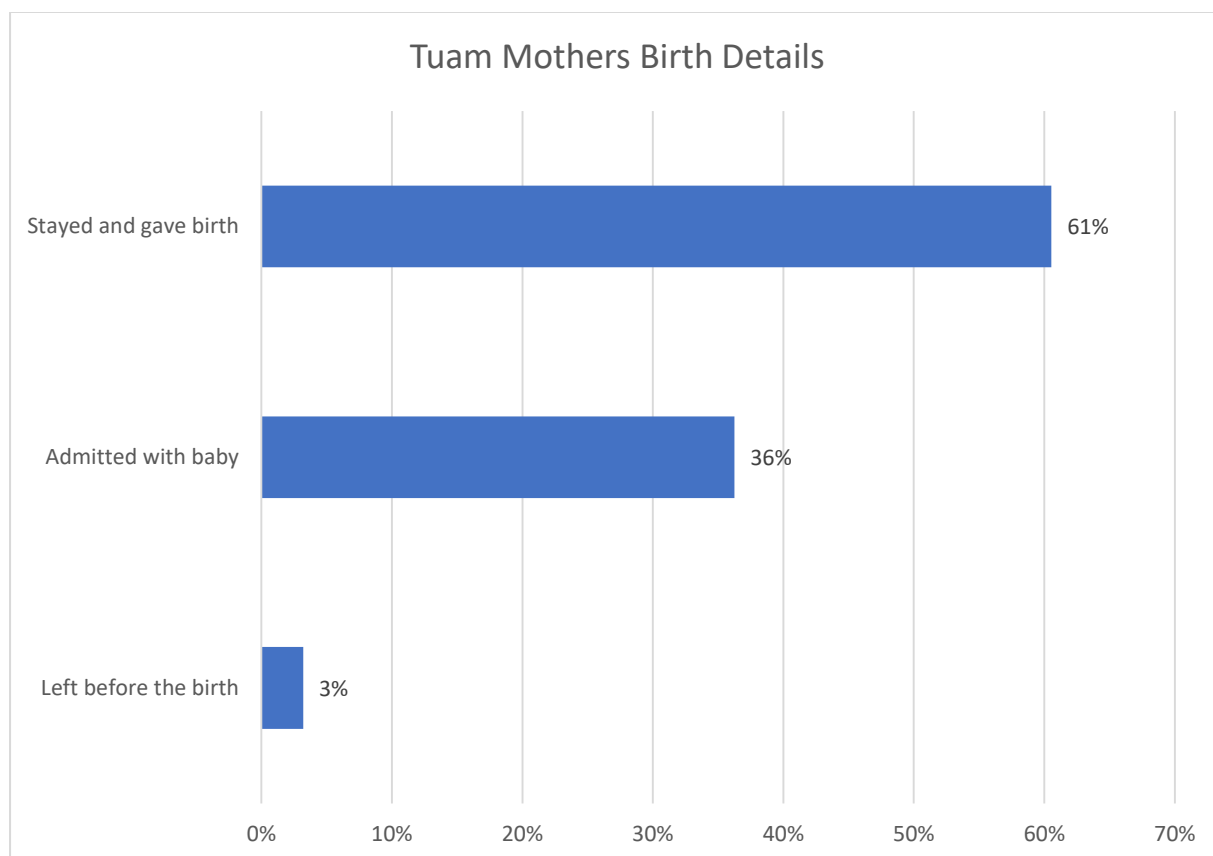


Information relating to address prior to admission was available for 1,985 women (89.5% of admissions). The institutional records show that most women (66.45%) gave an address in Galway followed by Mayo (30.88%); Dublin (1.66%); Westmeath, Roscommon and Clare (0.15%); Sligo, Tipperary, Limerick and Offaly (0.10%) and Carlow, Cork and Tyrone (0.05%).

Referral pathways



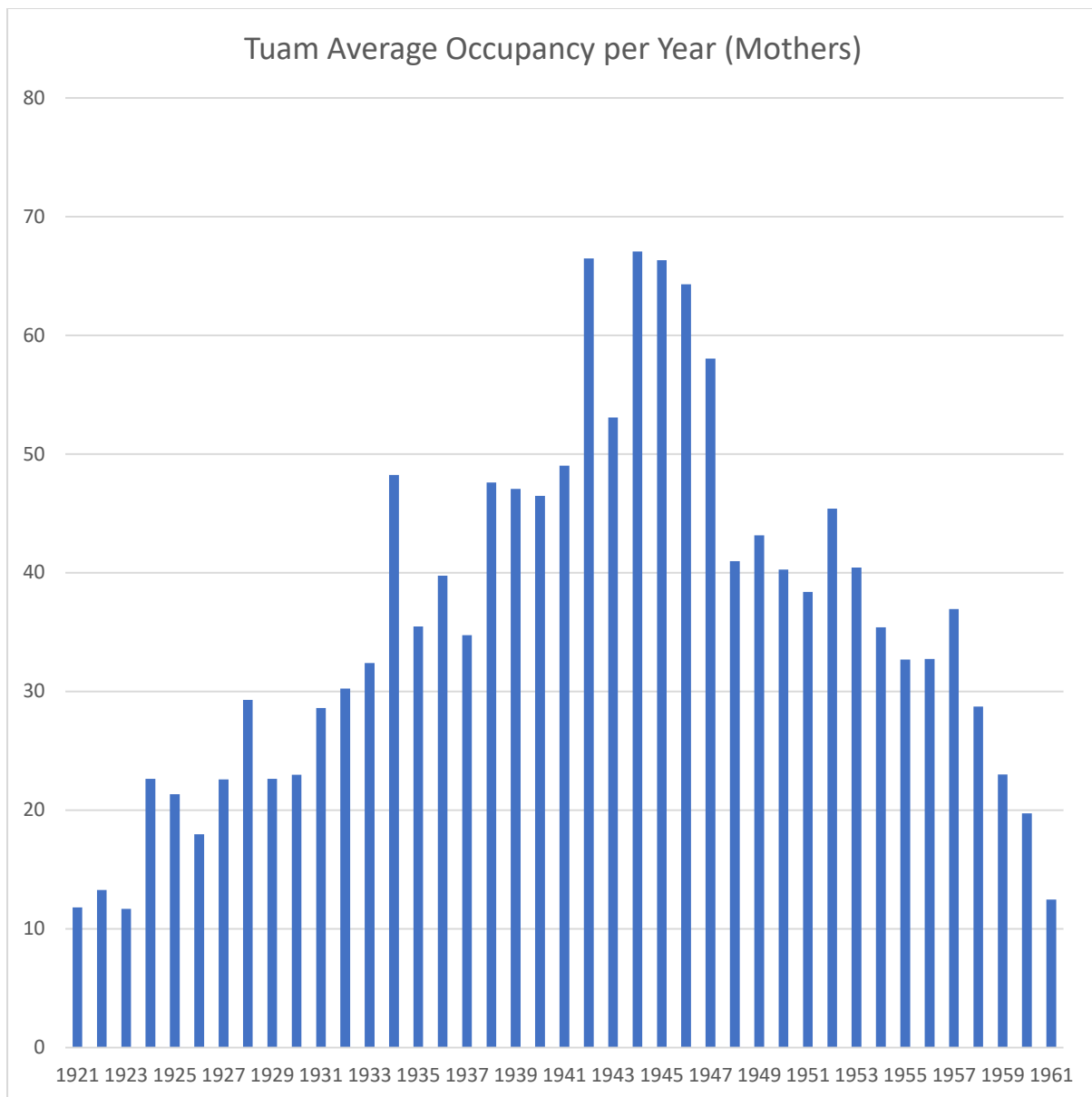
Information relating to referral pathways to the Tuam home was available for 818 women (36.86% of admissions). All women admitted to Tuam were public patients maintained in the institution by local authority boards of public assistance. Women were required to secure an admission slip prior to admission or the administrators of the home might ask the relevant local authority to accept responsibility for a woman after admission. The available records show that 96.6% of admissions were referred to Tuam by a local authority board of assistance or its agents; 63.3% were referred by a board of assistance; 21.8% by a dispensary medical officer and 11.5% by other local authority agents combined including named individuals (matrons of county homes and other hospitals, home assistance officers) and women transferred from other local authority institutions. A small number of women were referred by adoption societies, self-referred to the home or were referred by a friend/family member, a voluntary organisation or the probation services. There were no major changes in the referral pathways to the Tuam home from the 1920s to the 1960s. One woman was admitted from an unidentified Magdalen laundry on an admission ticket secured from a dispensary medical officer.

Outcome

Information relating to birth details was available for 2,190 women (98.7% of admissions). The institutional records show that 61% of women were admitted pregnant and gave birth in the home or were transferred to the Central Hospital Galway and returned to the home with their babies; 36% were admitted with their baby having given birth elsewhere and 3% of women admitted to the home left before the birth and did not return.

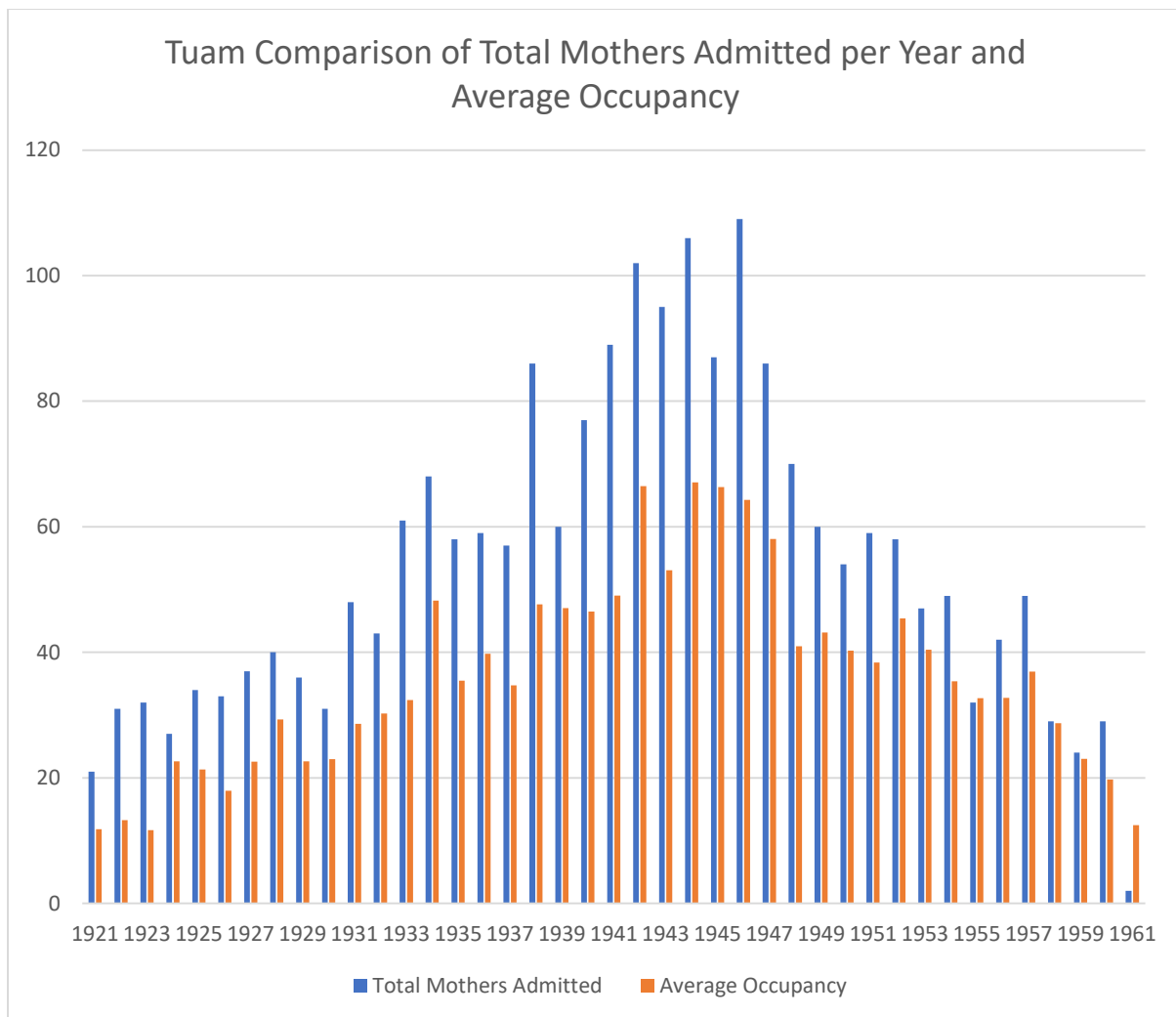
Of those who stayed and gave birth, 98.1% delivered living infants; 1.9% of pregnancies resulted in stillbirths.

Of those who stayed and gave birth 83% gave birth in the Tuam home; 16% were transferred to the Central Hospital Galway, gave birth and returned, and 1% were transferred to other hospitals, gave birth and returned.

Occupancy²

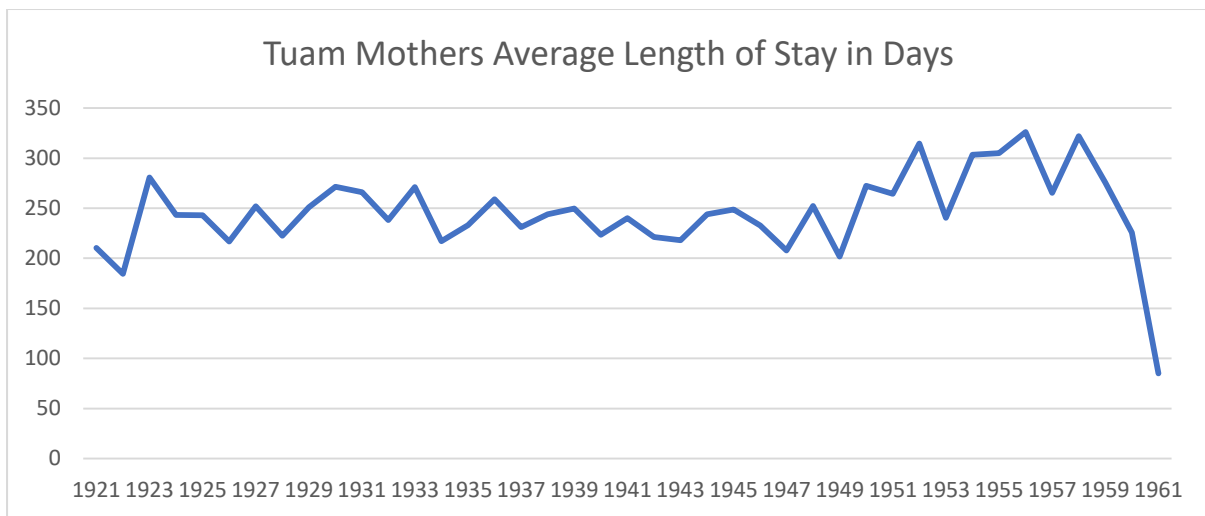
Information relating to occupancy was available for 2,175 women (98% of admissions). The institutional records show that average occupancy rates increased steadily until the mid-1940s and began to decline thereafter. Average occupancy rates were highest in the period 1942-47, paralleling increased admissions at that time. A woman admitted to Tuam in 1944 could expect to be living in the home with 66 other women; a woman admitted a decade later could expect to be living with 34 other women. By 1960, an average of 20 women were living in the home at any one time.

² Occupancy is the number of women present on any given day in the institution.

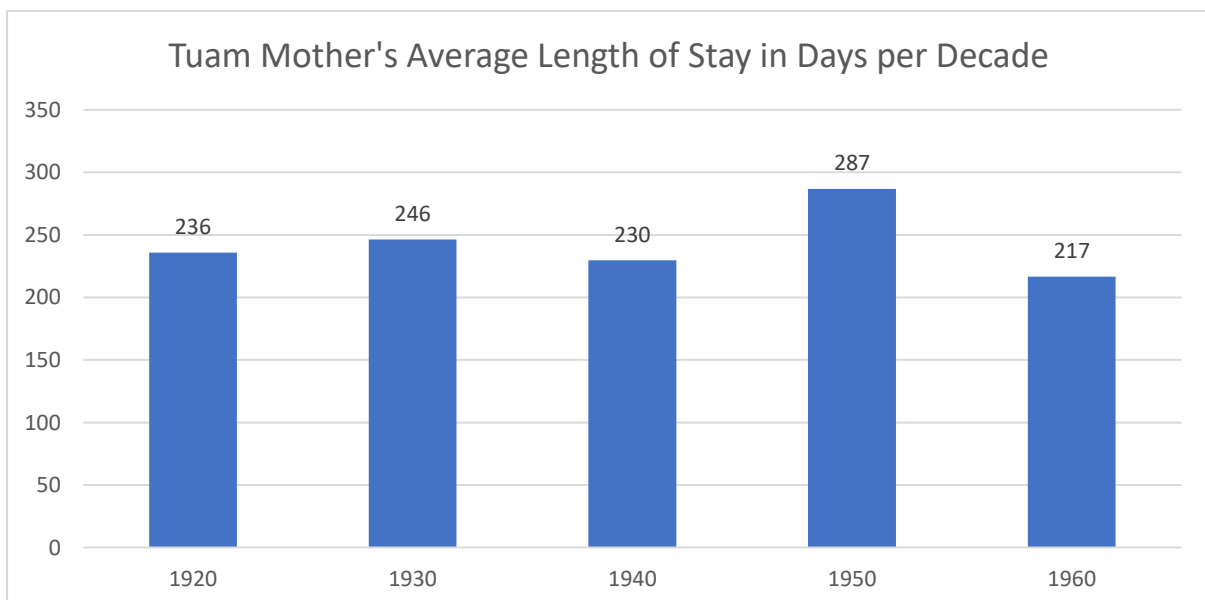


Comparative analysis shows that occupancy rates in Tuam were closely related to the number of admissions recorded in any given year. There was no instance where average occupancy exceeded the number of admissions. This occurrence in other institutions pointed to various degrees of overcrowding, but appears to be absent in Tuam. Admissions and average occupancy were close or on par in 1955, 1958 and 1959 which suggests that women were staying in the home longer in those years.

Length of stay

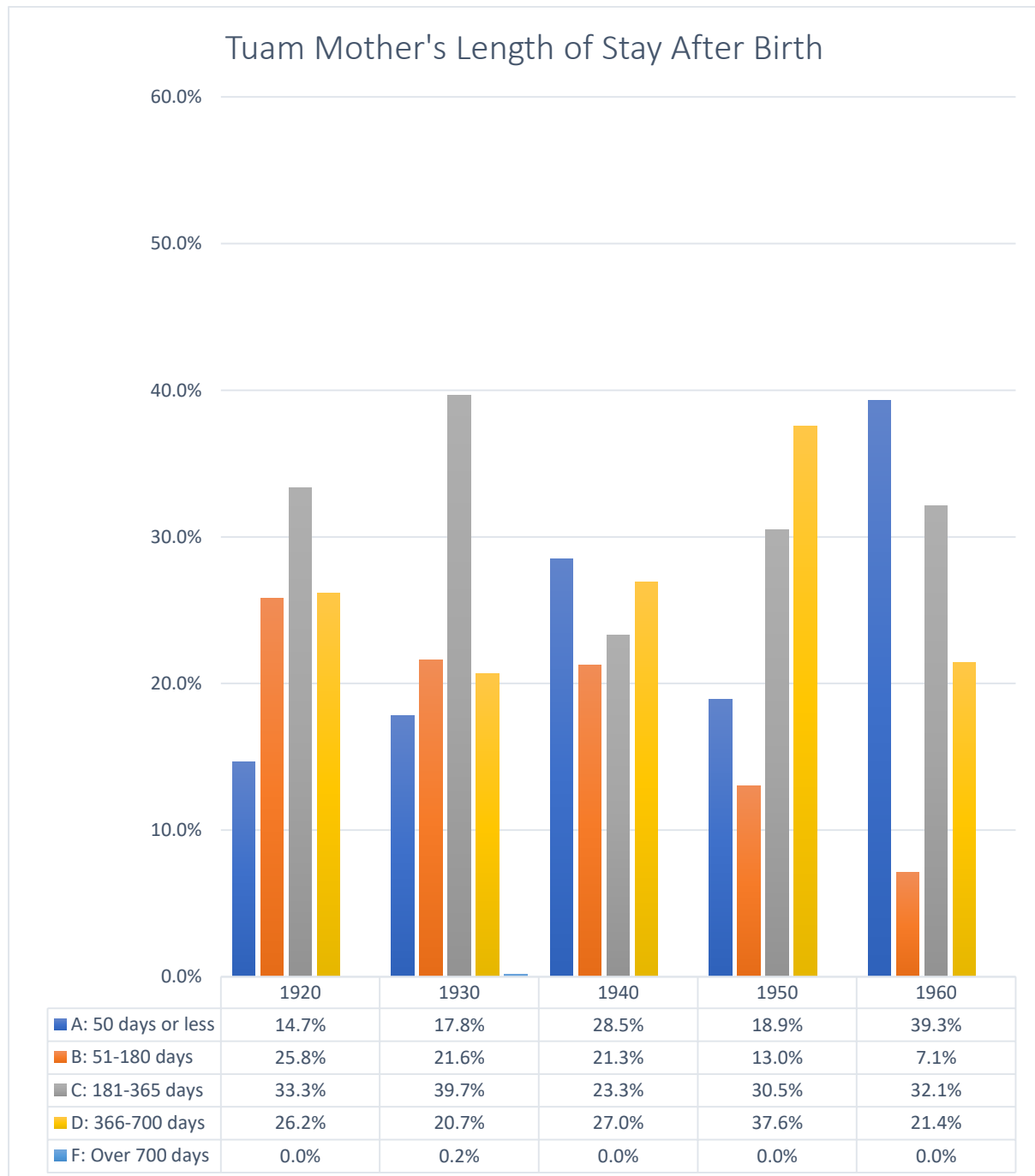


Information relating to length of stay was available for 2,175 women (98% of admissions). The institutional records show that women admitted in the years 1921-50 spent 237 days on average in the home, this ranged between an average of 185 days for women admitted in 1922 and 281 days for women admitted in 1923 - for women admitted in 1949 the average stay was 202 days. Average length of stay increased somewhat in the 1950s and was frequently above 300 days in that decade. The longest average length of stay was recorded among women admitted in 1956 - a stay of 326 days was the norm for women admitted that year.



Analysis by decade shows that there was no major change in the average length of stay from the 1920s through to the 1940s. An increase in the length of stay can be identified in

the 1950s; women admitted in that decade spent around 50 days on average longer in the home than women admitted in previous decades.



Analysis of length of stay after birth shows that, in the 1920s, 14.7% of women spent 50 days or less in the home after giving birth (this ranged between 2 and 50 days) and 40.5% had left within six months. Most women (33.3%) spent between six and 12 months in the home after birth and 26.2% remained for periods between 12 and 18 months (18 months was the longest stay recorded after birth in the 1920s).

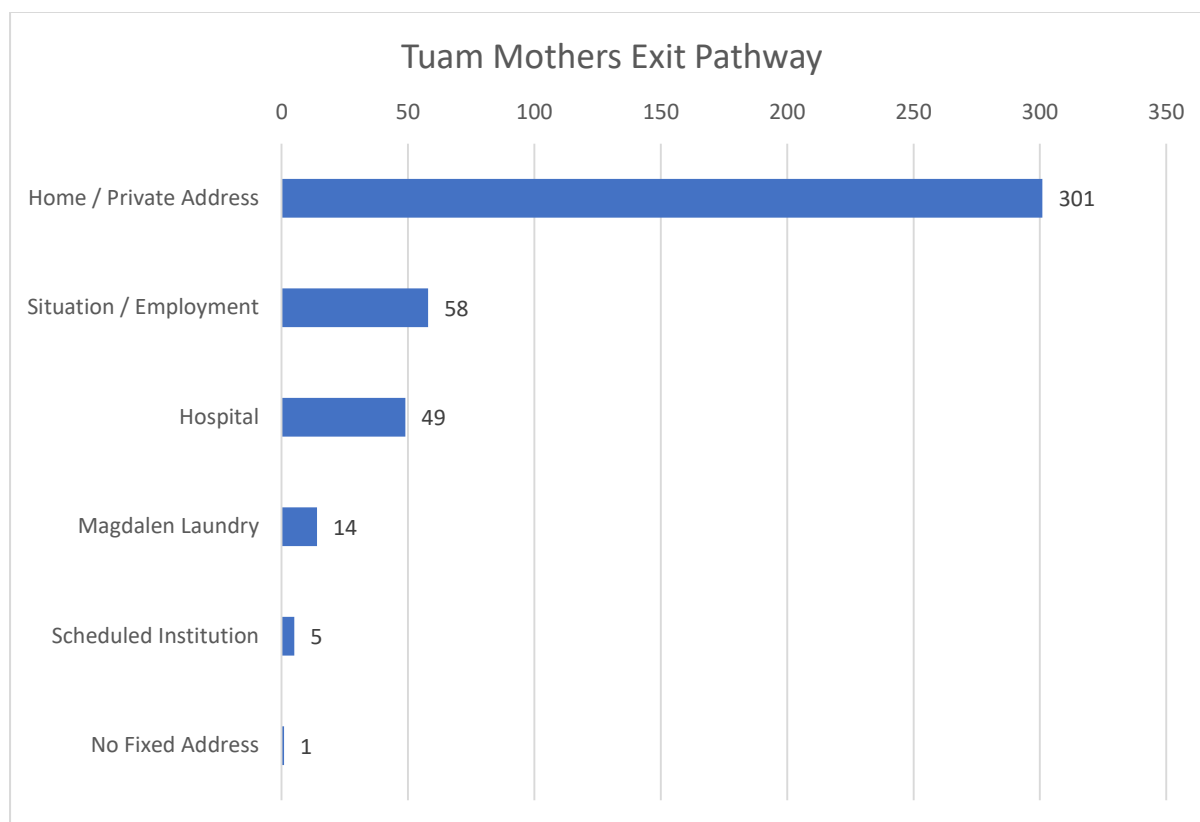
There was little change in this pattern in the 1930s. The percentage of women who left within 50 days of giving birth increased to 17.8% (this ranged between 1 and 50 days) and the percentage who left within six months decreased slightly to 39.4%. Again, most women (39.7%) spent between six and 12 months in the home after the birth. The proportion of women who remained for more than twelve months decreased to 20.7%. One woman remained in the home for 742 days after the birth.

In the 1940s, 28.5% of women left the home within 50 days (this ranged between 2 and 50 days) and almost half left within six months; 23.3% stayed for between six and 12 months. However, the proportion of women who stayed for periods of between 12 and 24 months had increased to 27% (the longest stay was a little over 15 months in the 1940s).

As previously discussed, the length of stay in Tuam increased in the 1950s. The proportion of women who left within 50 days of giving birth decreased to 18.9% (this ranged between 1 and 47 days) and 31.9% left within six months - this was a lower rate than the 1930s. The proportion of women who stayed for periods of between six and 12 months increased to 30.5% and most women (37.6%) remained in the home for between 12 and 24 months (the longest after birth stay recorded in the 1950s was 694 days).

Information about length of stay in the 1960s relates to 1960 and 1961 only. It is clear that at that juncture most women (39.3%) left Tuam within 50 days of giving birth (this ranged between 5 and 38 days). Just over 46.4% of women left within six months, but a considerable proportion of women (32.1%) remained in the home for periods of between six and 12 months. Although 21.4% of women remained in the home for more than a year after giving birth the longest stay recorded in the 1960s was 376 days.

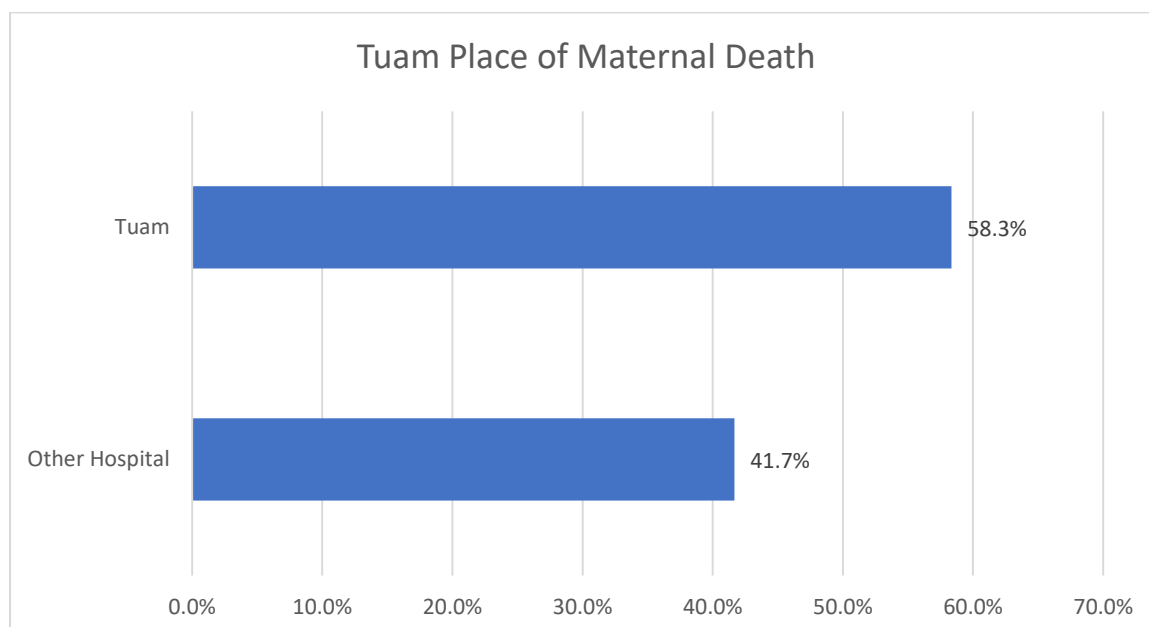
Exit pathways



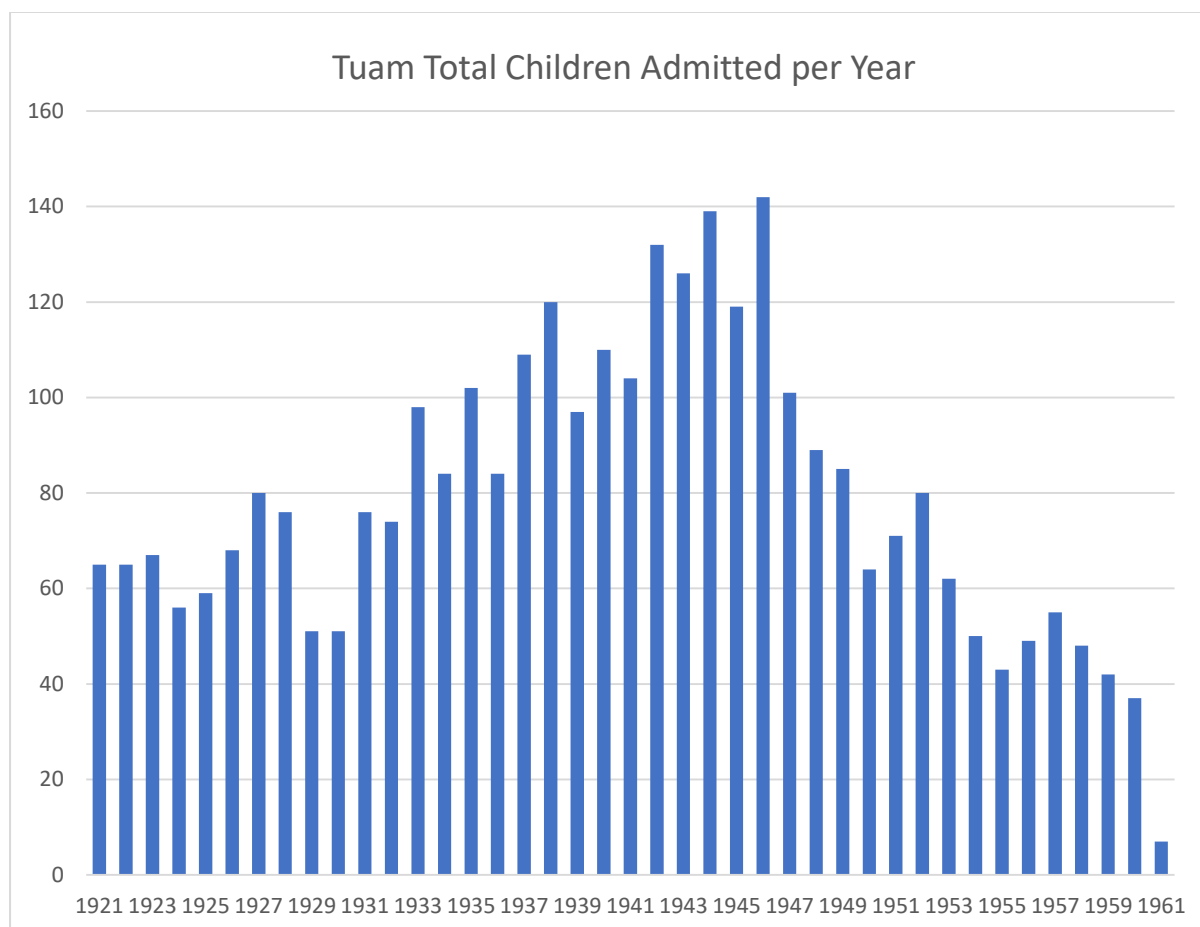
Information relating to exit pathways from Tuam was available for 428 women (19.3% of admissions). The available records record that most women (70.3%) left the institution and returned to the family home or to a private address; 13.6% were discharged to employment; 11.4% transferred to other hospitals (seven to psychiatric hospitals); 3% transferred to Magdalen Laundries; 1.2% transferred to one of the other institutions under the Commission's remit and one was recorded as having no fixed abode. The 14 transfers from the Tuam home to Magdalen laundries were recorded between 1942 and 1959. Although the institutional records show that 14 women were transferred directly from Tuam to a Magdalen laundry, children's records show that a further 84 former residents of the Tuam home subsequently ended up in a Magdalen laundry sometime after their discharge from Tuam. In addition, 13 children were admitted to Tuam unaccompanied while their mothers were admitted to a Magdalen laundry; those women had never been in the Tuam home. The available records show that Galway County Council directed a further 22 women to enter a Magdalen laundry on their discharge from Tuam; the Commission could not establish whether these women were in fact admitted to a Magdalen laundry.

Maternal deaths

Through the institutional records, the Commission identified 12 deaths among women admitted to Tuam: representing a mortality rate of 0.54%. Seven deaths occurred in Tuam and five in the Central Hospital, Galway. Six deaths were not associated with pregnancy or childbirth - they were, in the main, due to tuberculosis, measles, pneumonia and cardiac failure. One death due to coronary thrombosis was an indirect obstetric death in the sense that the condition developed during pregnancy and was aggravated by the physiological effects of pregnancy. Five deaths were directly associated with pregnancy and childbirth. Direct obstetric deaths were mainly due to puerperal sepsis and albuminuria and post-operative shock (caesarean). Adhering to WHO guidelines the maternal mortality rate in Tuam was 0.27%.³



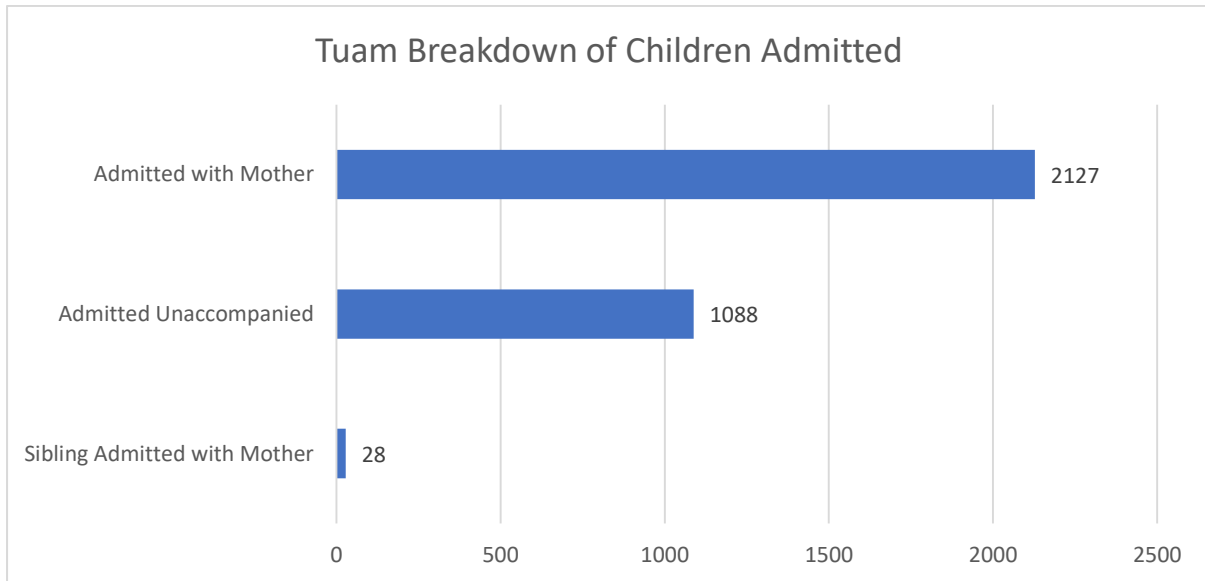
³ Maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. <https://www.who.int/healthinfo/statistics/indmaternalmortality/en/>

Children: Births and admissions

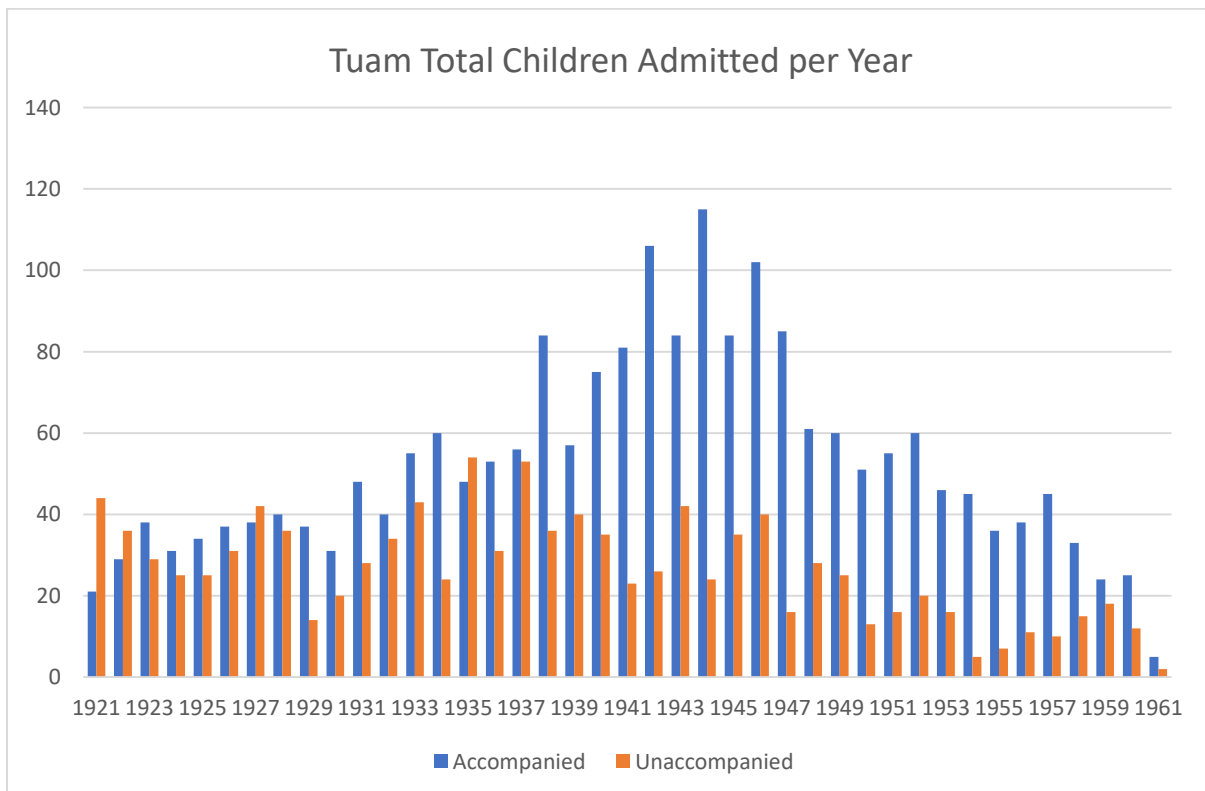
Through the institutional records, the Commission identified 3,251 children were born in or admitted to the Tuam Home. Information relating to date of birth/admission was available for 3,237 children (99.6% of births/admissions). Information relating to status at birth was available for 2,923 children (89.9% of births/admissions). The available records show that 70% of children born in or admitted to Tuam were recorded as 'illegitimate' and 20% as 'legitimate'; it was not possible to determine the status at birth in the remaining children.

Following the move from Glenamaddy to Tuam in 1925 a staggered increase in births and admissions can be identified. Numbers decreased in 1929 and 1930 (51 births/admissions were recorded in both years), but increased throughout the 1930s and early 1940s peaking in 1946 when 142 children were recorded. Births and admissions declined by almost 30% in 1947 and maintained a downward trend until the home closed in 1961. In 1960, the home's last full year in operation, 37 children were born or admitted there. The busiest period for births and admissions in Tuam was from 1933-49 - 1,841 children (57% of all births and admissions) were born in or admitted to the home in those years.

Analysis by decade shows that more children (35.4%) were born/admitted to the home in the 1940s than any other decade followed by the 1930s (27.7%); 1920s (18.1%); 1950s (17.4%) and 1960s (1.4%).

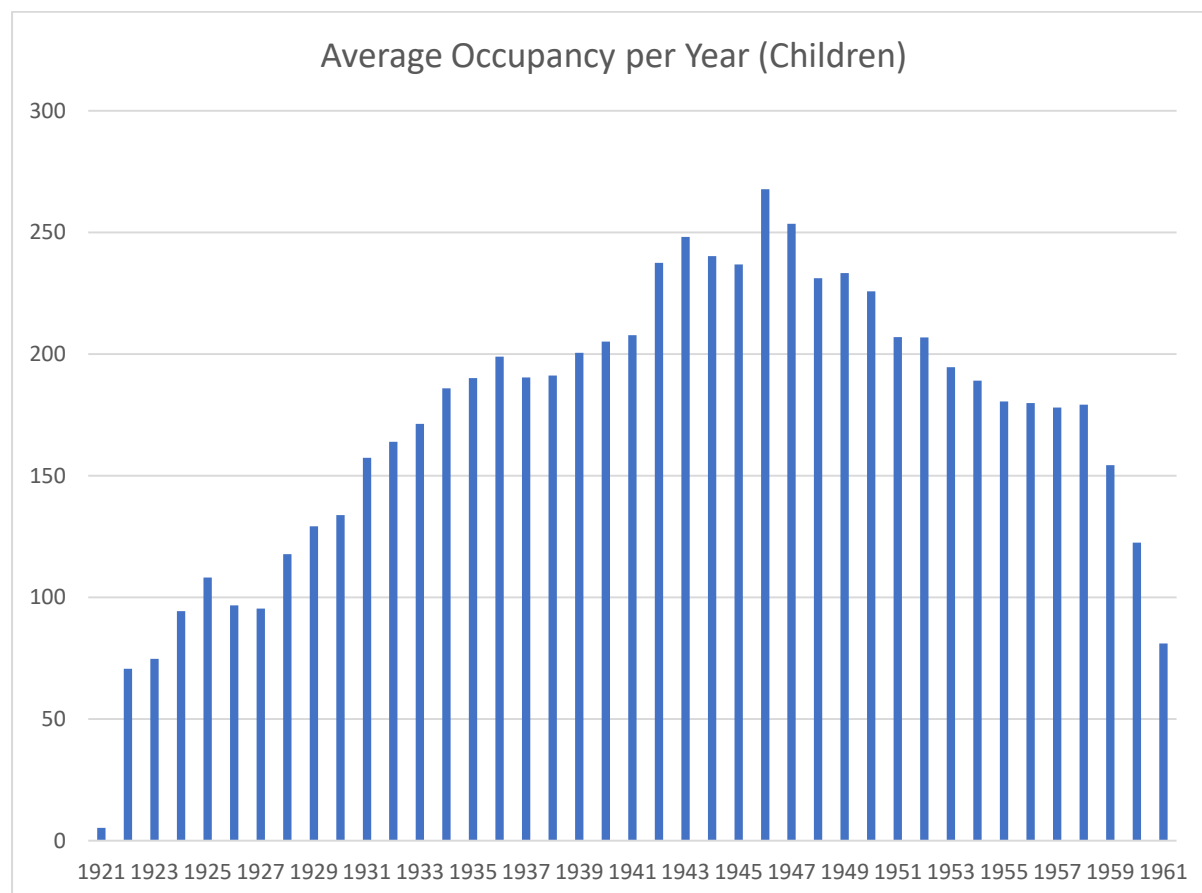


Information relating to whether or not children were accompanied on entering Tuam was available for 3,243 children (99.75% of admissions). The institutional records show that 65.6% of children were either born in the Tuam home or admitted there with their mothers; 33.5% were admitted unaccompanied and 0.9% were children admitted to the home with their expectant mothers (accompanied siblings).

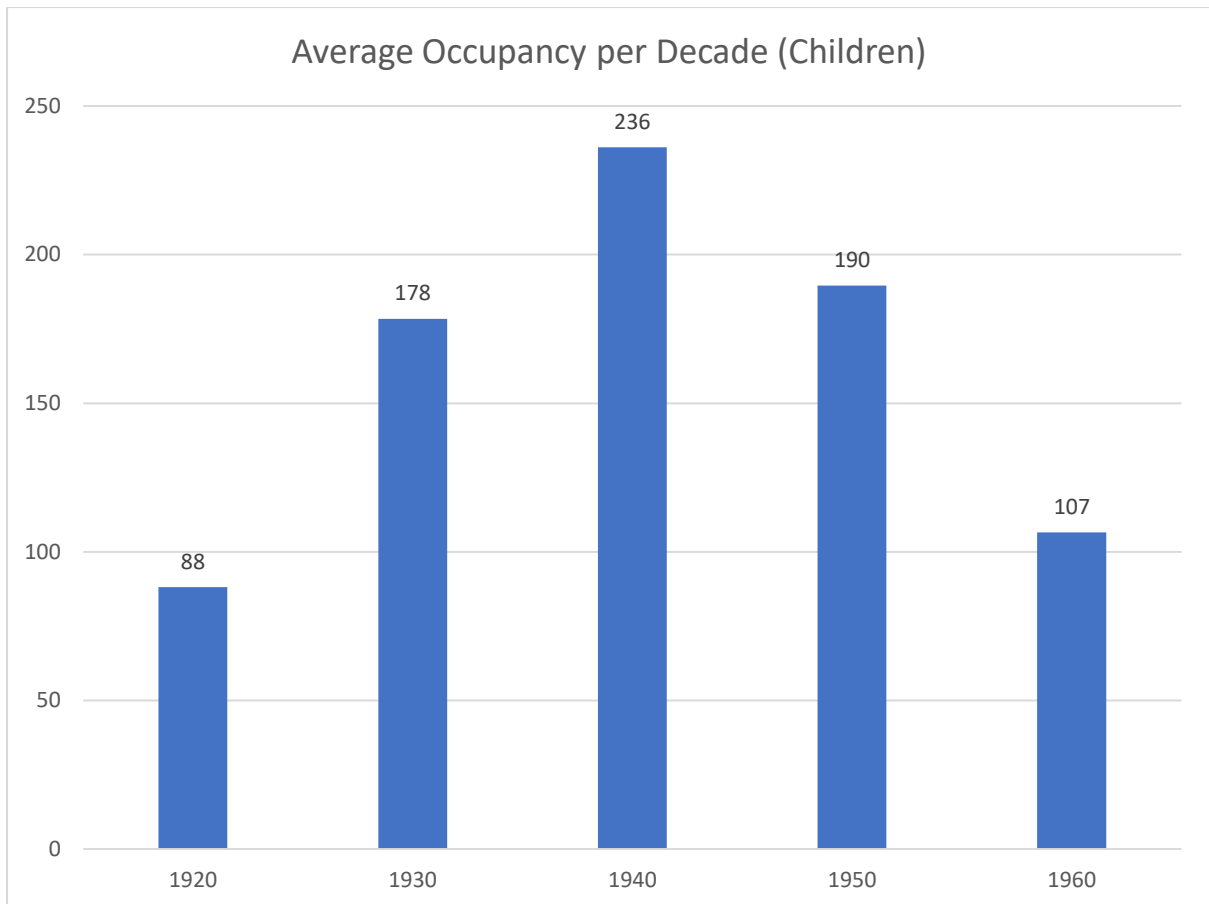


Of the 3,237 children with dates of birth/admission 1,084 (33.5%) or 1 in 3 children were admitted to the Tuam home as unaccompanied children. Where the birth status of an unaccompanied child was identifiable 71% were recorded as legitimate children and 29% were recorded as 'illegitimate' children.

Children: Occupancy

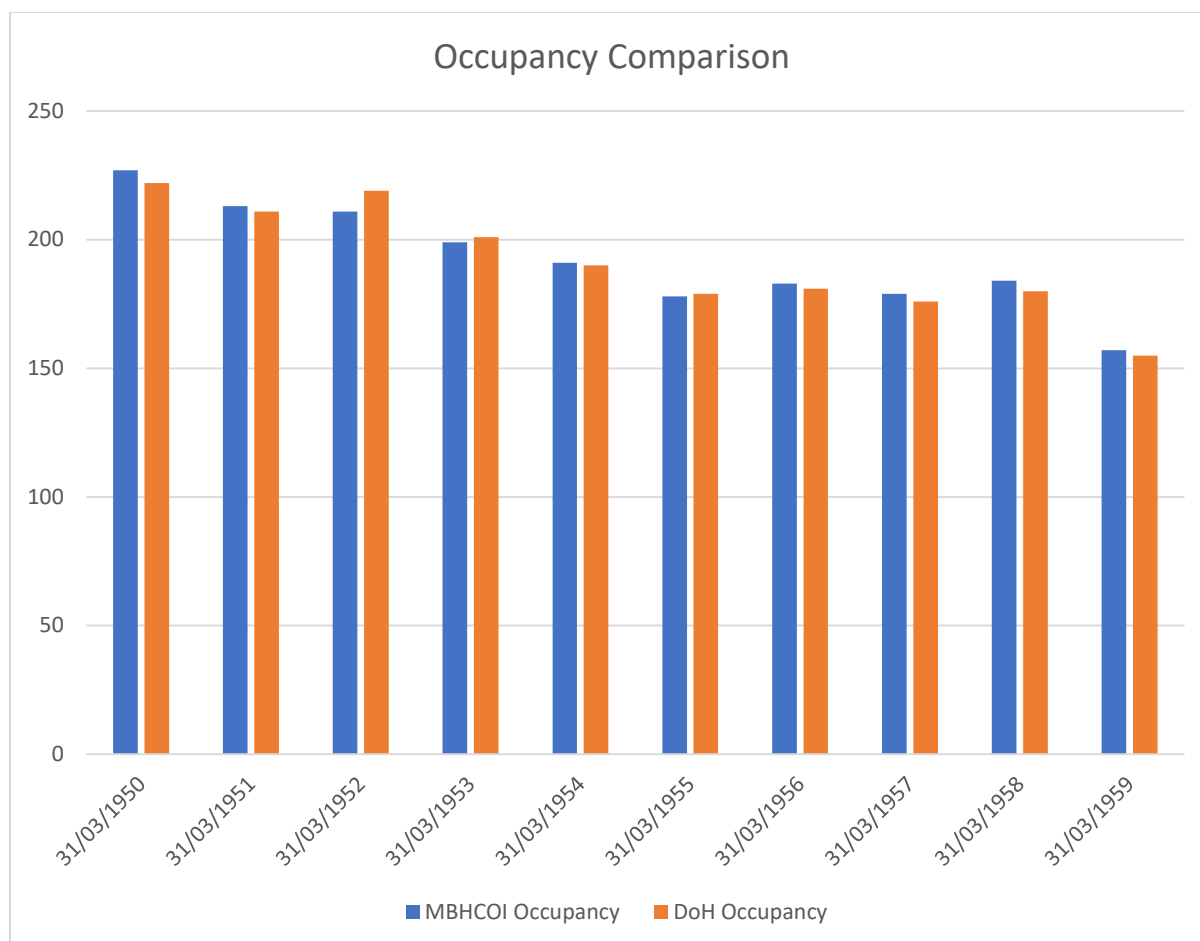


Information relating to occupancy was available for 3,237 children (99.6% of births/admissions). Occupancy rates were highest in the period 1942-50 and peaked in 1946 when 268 children on average were living in the home. By 1960, average occupancy had decreased to 123 children.



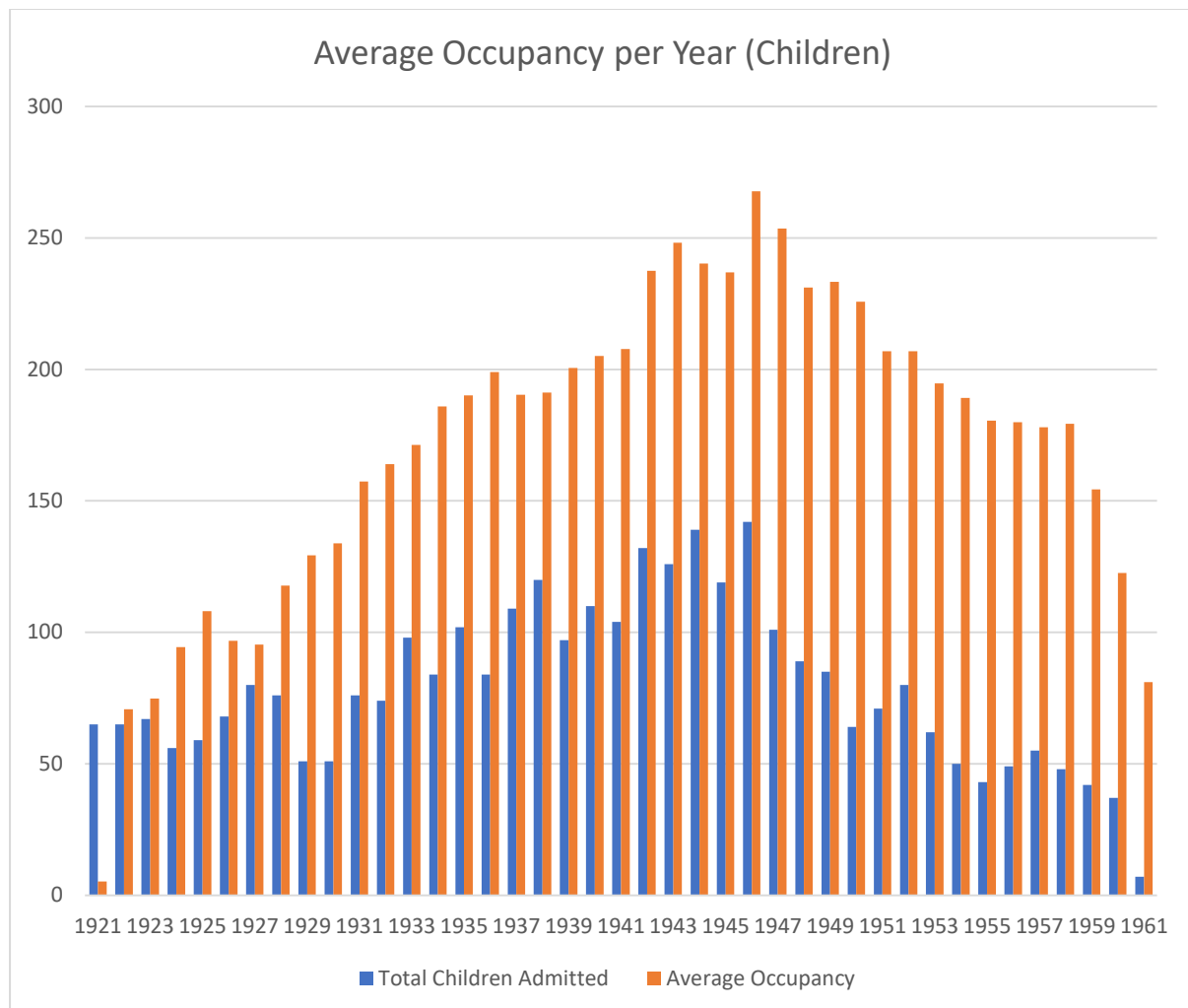
Analysis by decade shows that average occupancy was highest in the 1940s - a child born in or admitted to the Tuam home in that decade could expect to be living with another 235 children. This was a substantial increase on average occupancy rates recorded in the 1920s (88 children) and the 1930s (188 children). Average occupancy decreased by around 20% in the 1950s and by 1960, 107 children on average were living in the home. Although this was a substantial reduction on the occupancy rate pertaining in the 1950s it was still greater than occupancy rates recorded in the 1920s.

Occupancy comparison



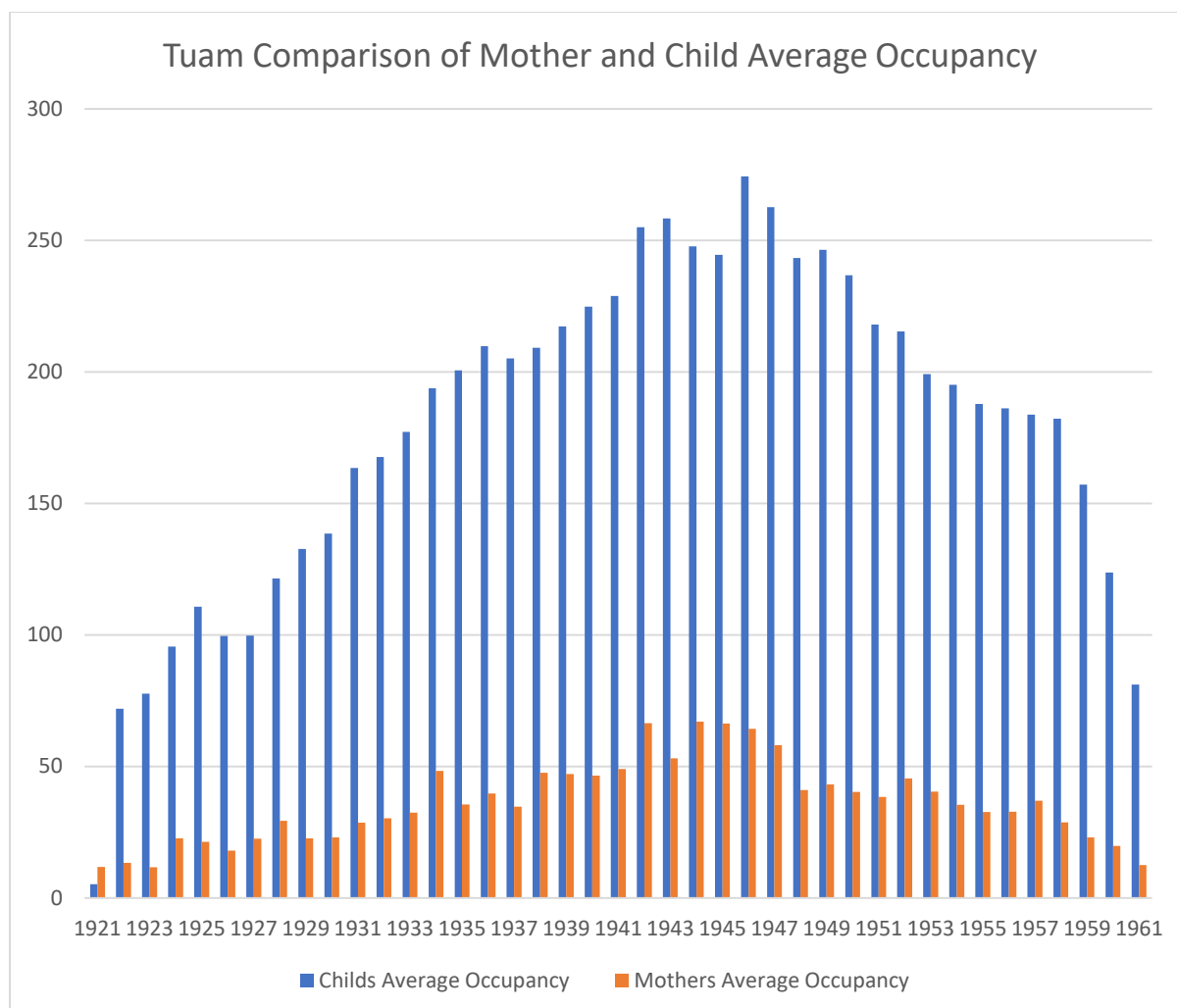
A set of annual statistical returns forwarded by Tuam to the Department of Health for the years 1950-58 allowed the Commission to undertake comparative analysis of occupancy rates derived from the institutional records relating to the Tuam home and occupancy rates returned to the department. Temporary absences from the home, such as children in external hospitals, are not recorded in the Commission's calculations which may inflate the Commission's numbers slightly. Notwithstanding this, it seems clear that occupancy rates in both record sets are broadly in line.

Occupancy/Admissions

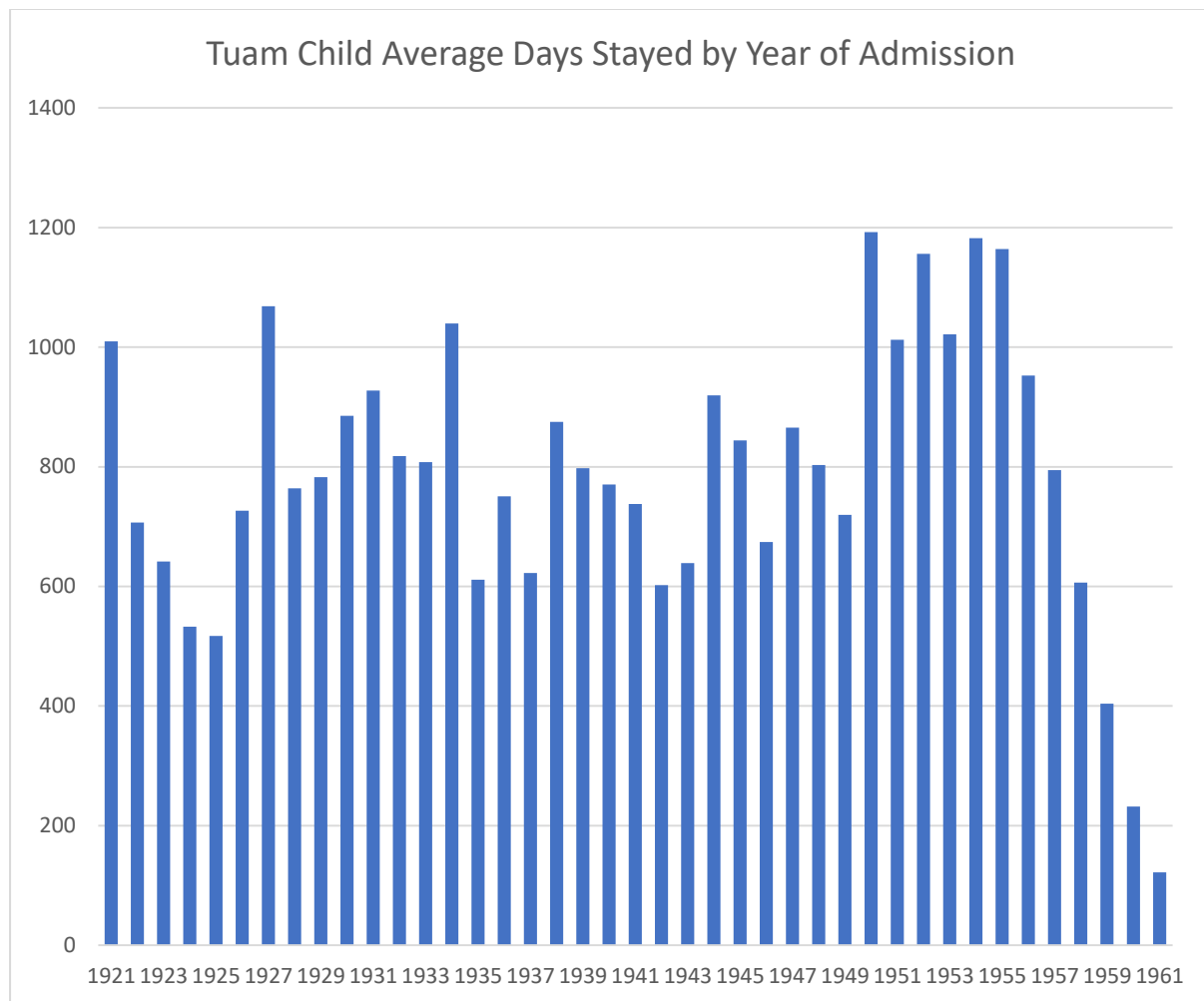


Comparative analysis of admissions and average occupancy shows that children were staying in the Tuam home far longer than children in other similar institutions. This was almost certainly due to the practice of keeping children in the home until they were seven years old before they were considered fit for boarding out. In 1946, 142 children were born in or admitted to the home and 103 were discharged or died in the institution but average occupancy on any given day that year was 268 children. Similarly, in 1960, 37 children were born in or admitted to the home and 71 were discharged or died in the Institution. However, 123 children on average were living in the home on any given day that year.

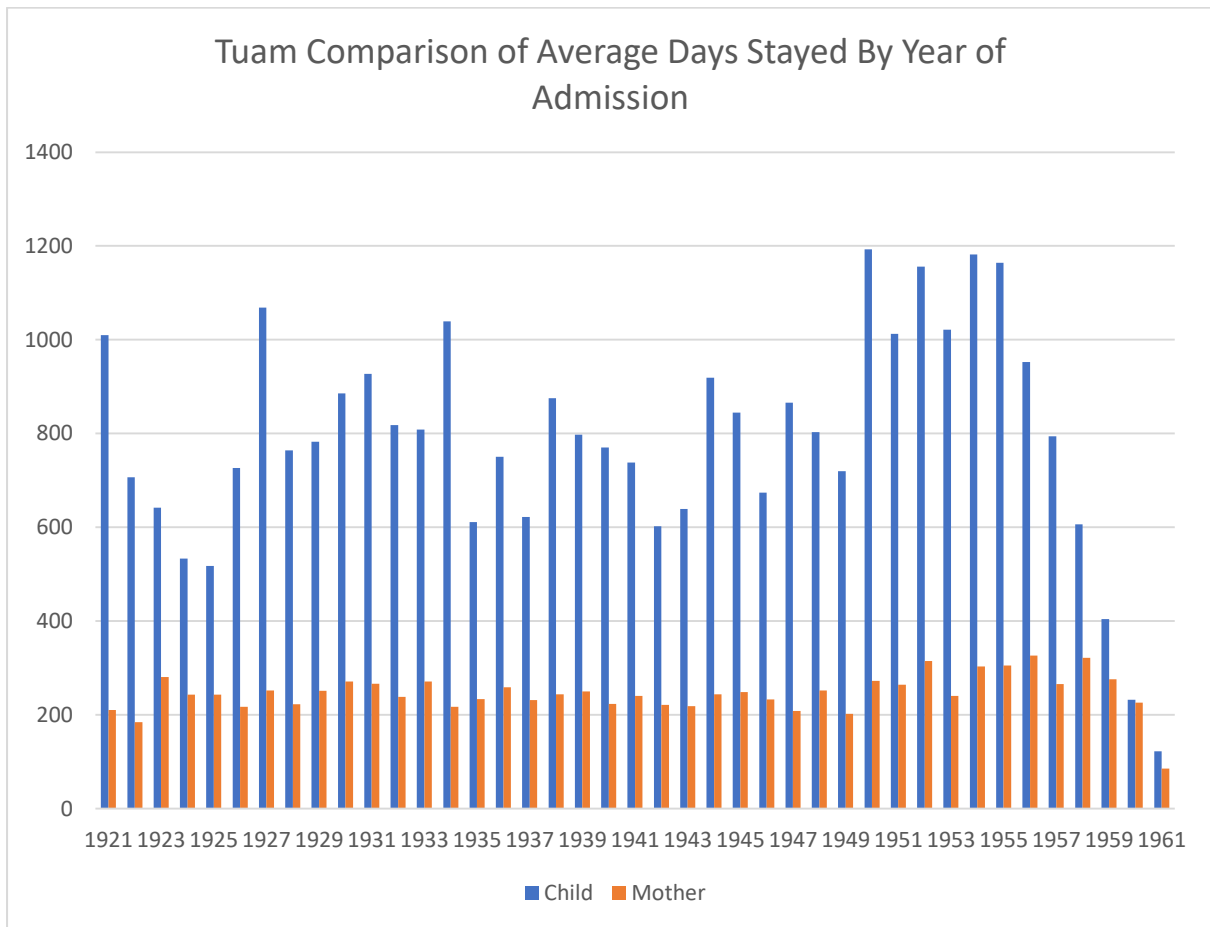
Occupancy Mothers/Children



Information relating to length of stay suggests that 73% of children remained in the Tuam home for a period after their mothers had been discharged. Comparative analysis of child average occupancy as against mothers' average occupancy confirms that children who experienced long stays in Tuam spent much of their time in the home unaccompanied. In 1929, 23 mothers on average were living in the home, but there was an average of 133 children there the same year; it was 35 mothers and 205 children in 1937; 41 mothers and 243 children in 1948 and 23 mothers and 157 children in 1959. The ratio of children to mothers in the home at any given time appears to be close to 6:1.

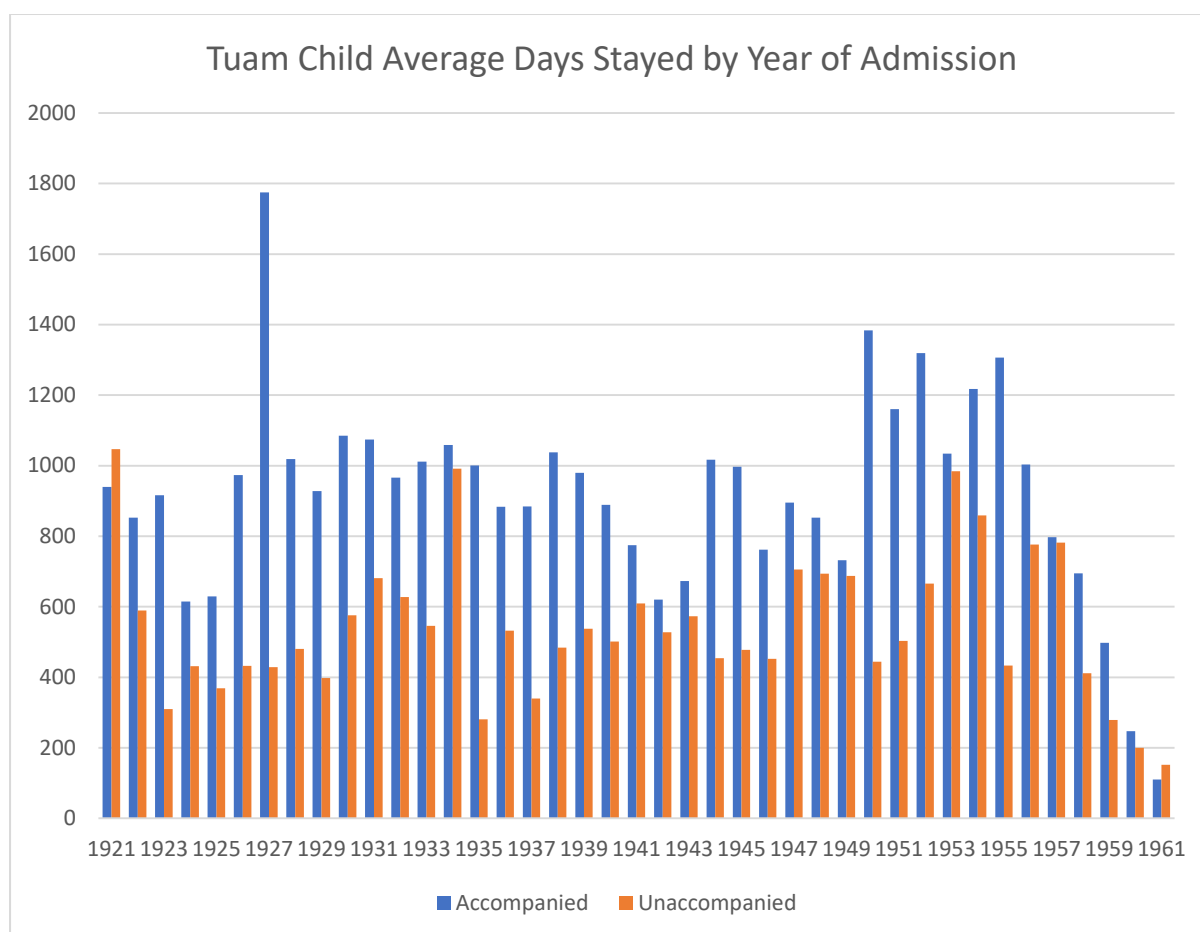
Children: Length of stay

Information relating to length of stay was available for 3,200 children (98.4% of births/admissions). Length of stay was variable over the timeframe of the home's operation, in broad terms, however, children born in or admitted to the home in the years 1921-49 were in the home for 774 days on average - this ranged between 1,068 days on average in 1927 to 517 days in 1925; 1,039 days in 1934 and 602 days in 1942. For children born or admitted in 1950, length of stay increased sharply to 1,193 days and remained close to this level until 1955 - this appears to mirror the increased length of stay identified for women admitted to the home in the 1950s. Length of stay began to decrease from 1956 and in 1960, the home's last full year in operation; children admitted that year spent 232 days on average there. The institutional records show that 20.9%, or 1 in 5 children born in or admitted to the Tuam home, spent less than 50 days there. At the other end of the scale, 16.6% of children spent between five and ten years in the home and seven children spent between ten and 15 years in the home.



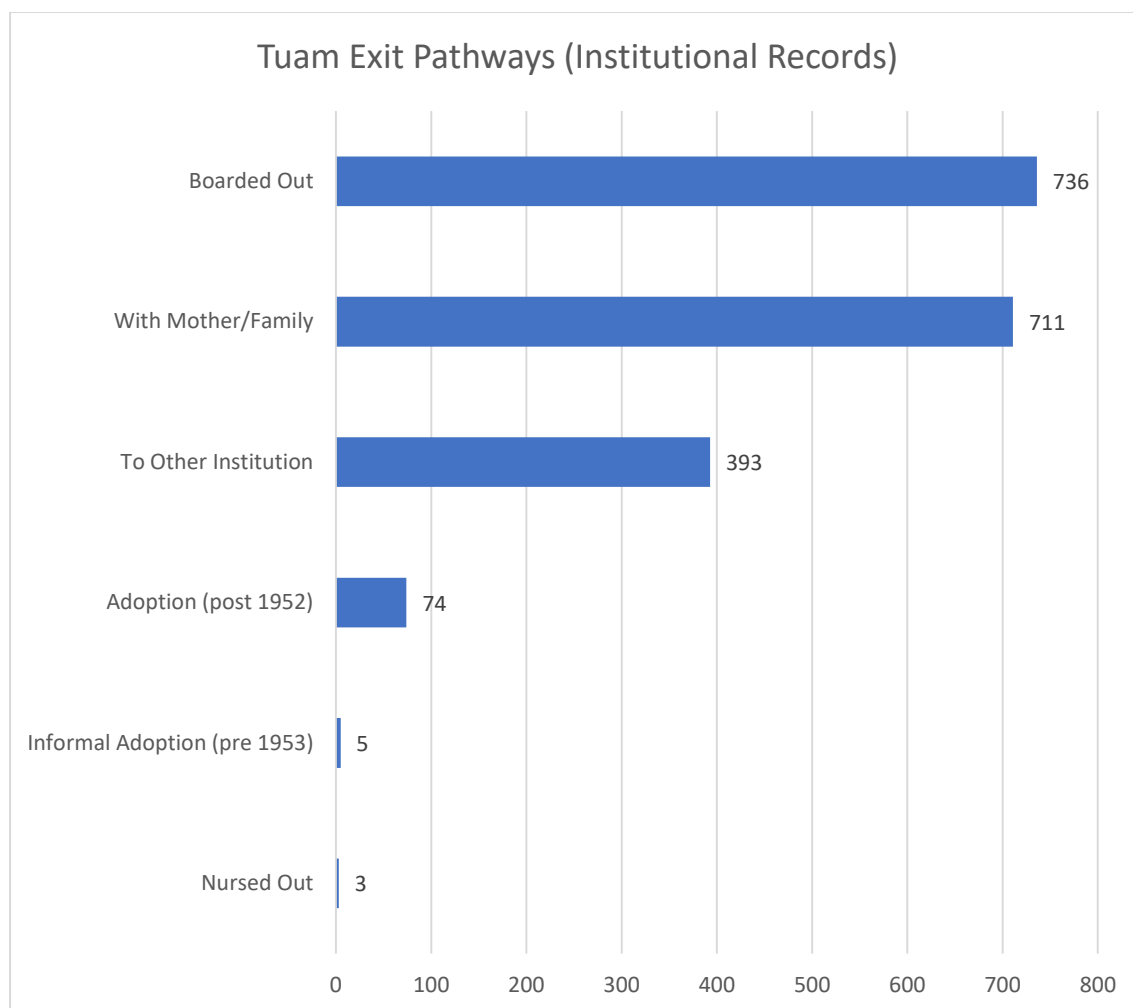
Information relating to child’s date of discharge relative to the mother’s date of discharge was available for 1,424 children (43.8% of births/admissions). The available records show that 73% of children remained in the home for some period after their mothers’ discharge; 24% were discharged on the same day as their mothers and 3% were discharged from the home earlier than their mothers.

For mothers admitted in 1950, the average length of stay in Tuam was 272 days; the average length of stay for a child born in or admitted to the home with their mother that year was 1,383 days. Children whose mothers left Tuam in 1950 could expect to remain in the home unaccompanied for 1,111 days on average.

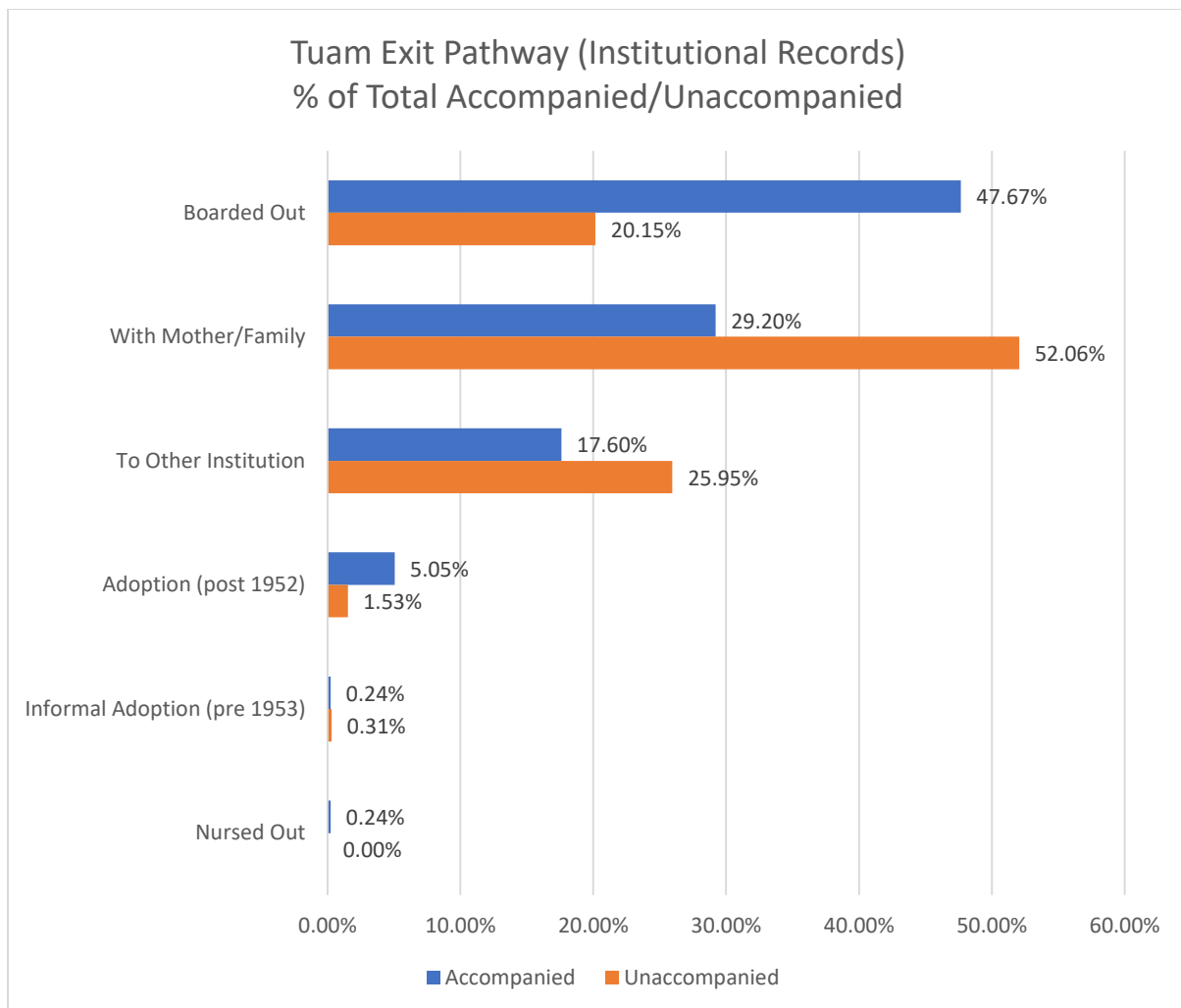


Comparative analysis of length of stay among accompanied and unaccompanied children suggests that, on average, unaccompanied children spent far shorter periods in the Tuam home than those born there or admitted with their mothers. Where the status at birth of unaccompanied children is discernible 71% were recorded as 'legitimate' children and were more likely to be discharged to the family home after a relatively short stay. Children born in the Tuam home, or admitted with their mothers, were more likely to be recorded as 'illegitimate' children awaiting adoption or placement in the boarding out system - this generally meant an extended stay in the home.⁴ In some years the length of stay among accompanied and unaccompanied children is on par, most years, however, show a discrepancy. For example, in 1927 the average length of stay for an accompanied child was 1,775 days while the length of stay for an unaccompanied child was 429 days. Similarly, in 1950, the average length of stay was 1,383 for an accompanied child and 429 days for an unaccompanied child. By 1960, the gap had narrowed to 247 and 200 days respectively.

⁴ 98.3% of accompanied children (children born in Tuam or admitted accompanied by their mothers) were recorded as 'illegitimate' children.

Children: Exit pathways

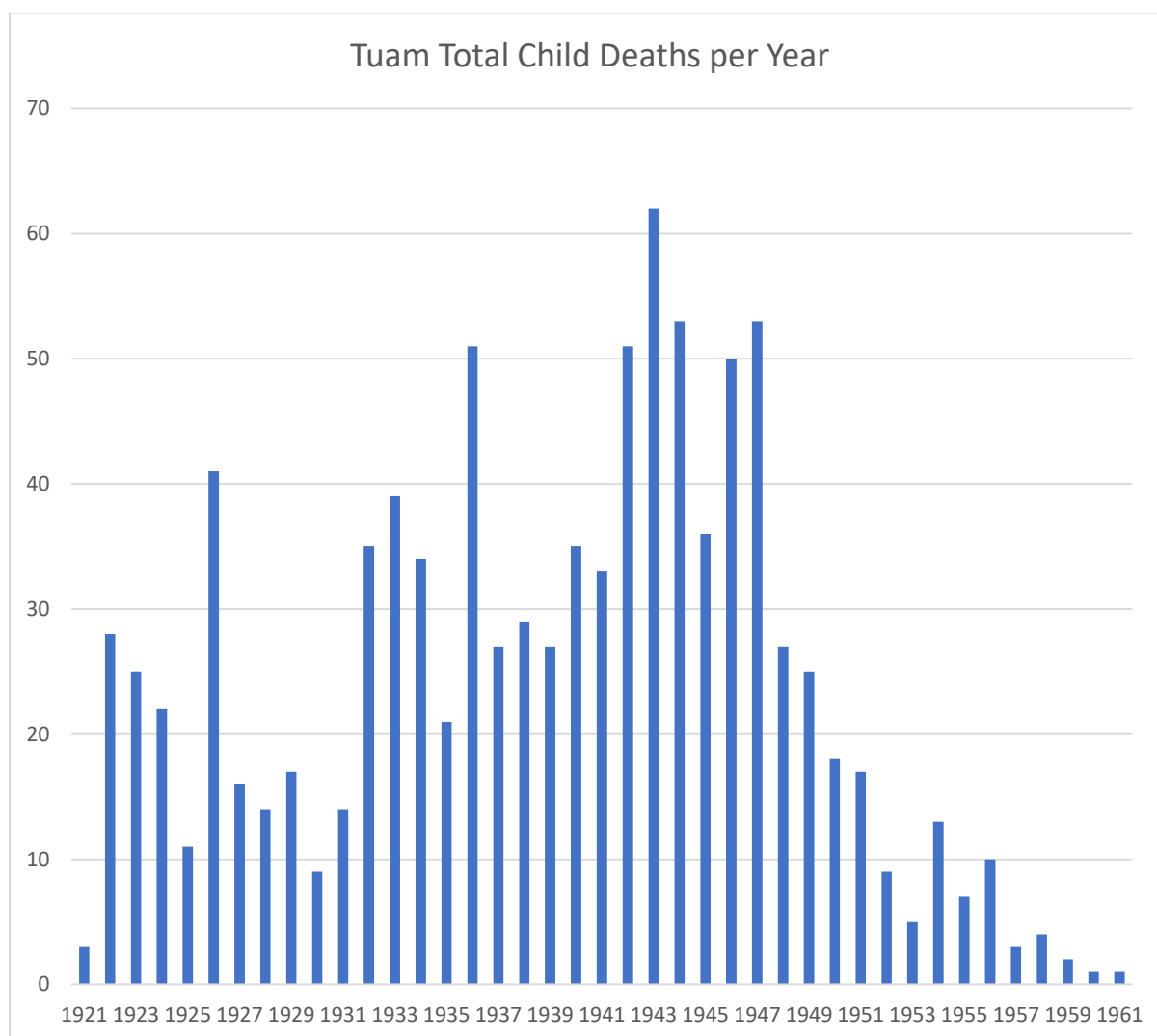
Information relating to exit pathways was available for 1,922 children (59.1% of births/admissions). The institutional records show that most children were either boarded out (38.29%) or left the home with their mothers (36.99%). Over 20% transferred to a range of other institutions; 3.85% were legally adopted (from 1953); 0.26% were informally adopted (pre 1953) and 0.16% were nursed out from the home. This pattern remained broadly unchanged from the 1920s to the 1960s. Local authority records show that 5.5% of children boarded out from the Tuam home subsequently entered the hired out system aged 16 years.



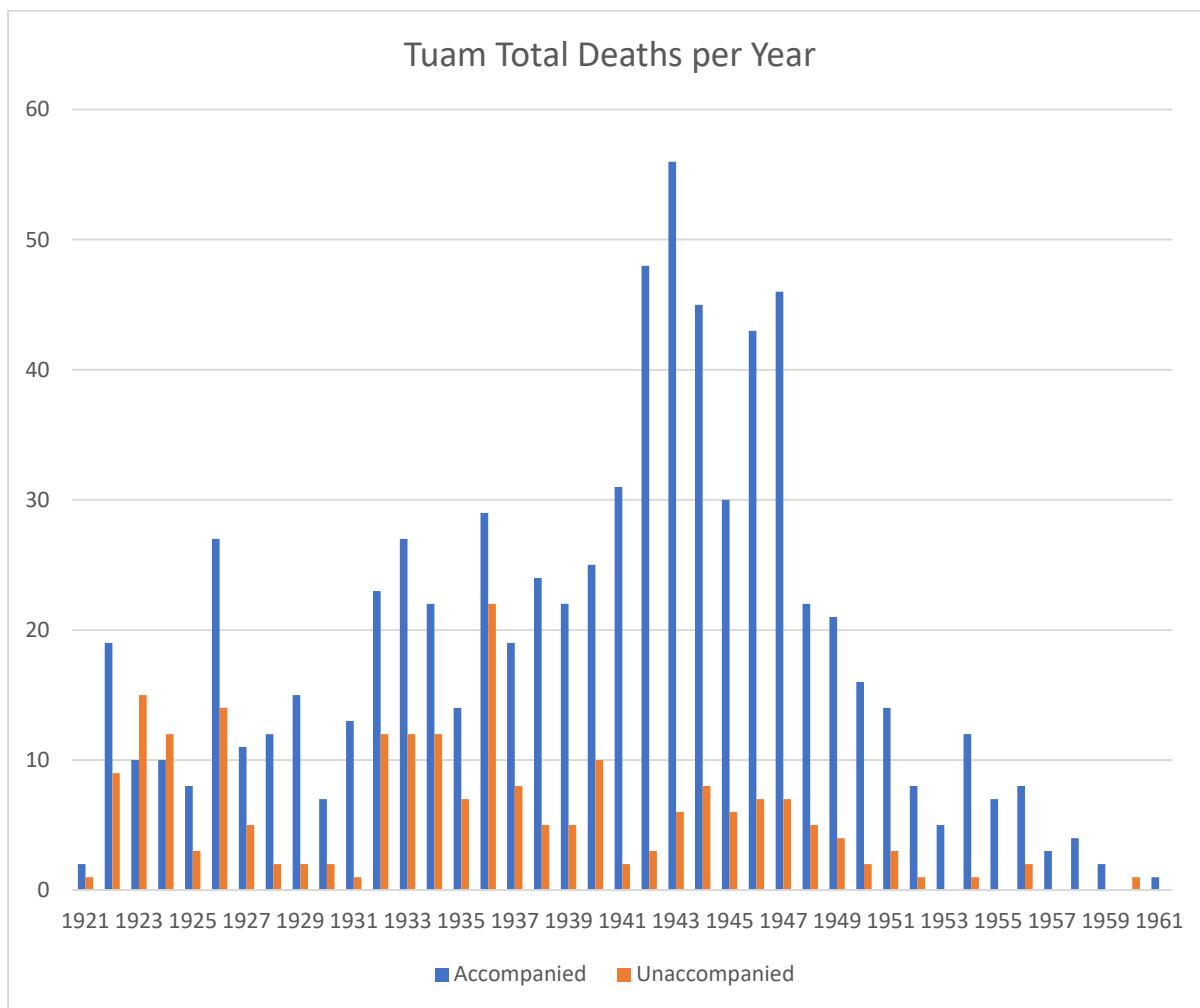
Comparative analysis of exit pathways among unaccompanied children and children born in the home/admitted with their mothers shows that unaccompanied children were less likely to be boarded out from the home; just 20.15% were boarded out compared to 47.67% accompanied children. As already stated, this is most probably because the majority of unaccompanied children were legitimate children - this is also why unaccompanied children were far less likely to be adopted. The most frequent exit pathways recorded for unaccompanied children was a return to the family home (52.06%) and transfer to a hospital or industrial school (25.95%).

Child deaths

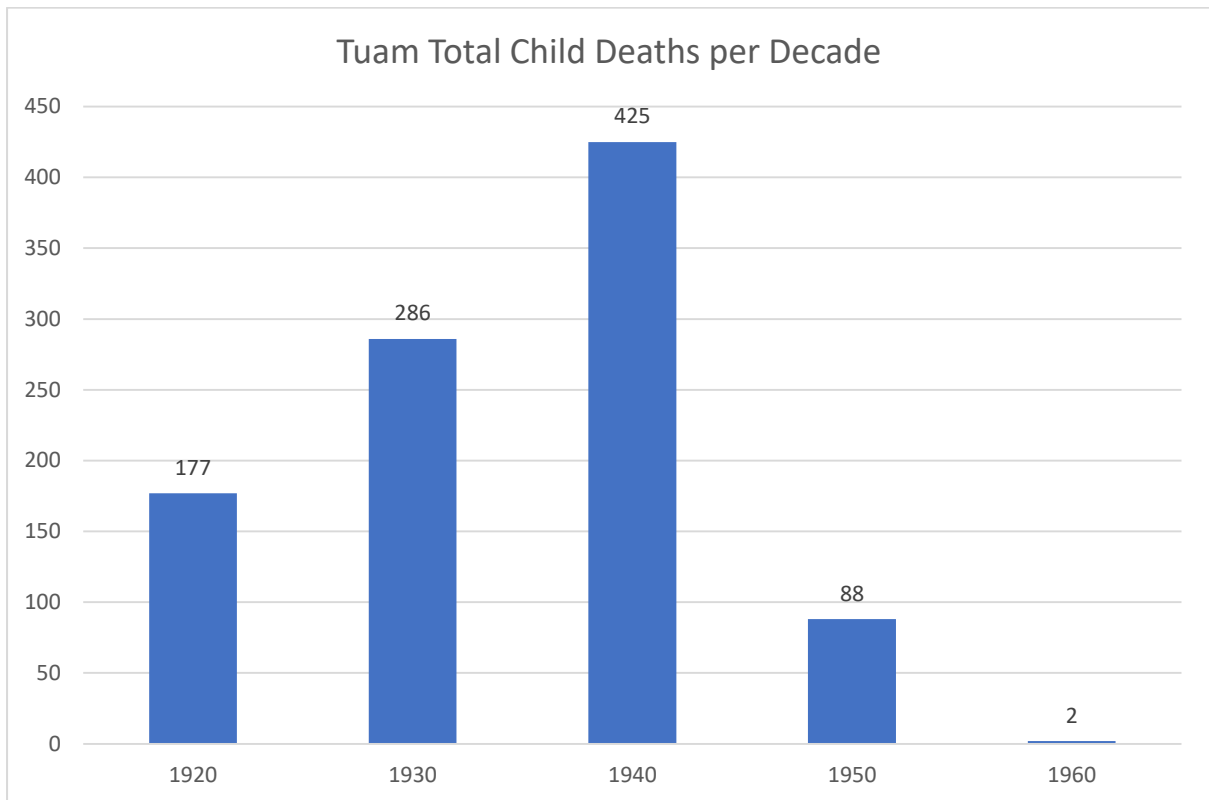
The Commission identified 978 child deaths associated with the Tuam home, including those which occurred when the home was located in Glenamaddy. Child deaths include children who died in the Tuam home, children who were admitted to Tuam and died elsewhere (generally children transferred to the Central Hospital, Galway) and children who were never admitted to the Tuam home, but whose mothers were resident there prior to giving birth (generally after transfer to the Central Hospital, Galway). The Commission located GRO death records for 972 children (99.4% of child deaths).



Most child deaths recorded in Tuam occurred before 1950; 92.6% of deaths occurred between 1921-50. Child deaths spiked in 1926 (41 deaths) and in 1936 (51 deaths). The worst period, however, was from 1942-47 - 305 child deaths, almost 1 in 3 of all child deaths recorded in Tuam occurred over those six years. The available records show that 79% of deaths occurred among 'illegitimate' children and 11% occurred among 'legitimate' children - status at birth could not be established in relation to the remaining 10% of child deaths.

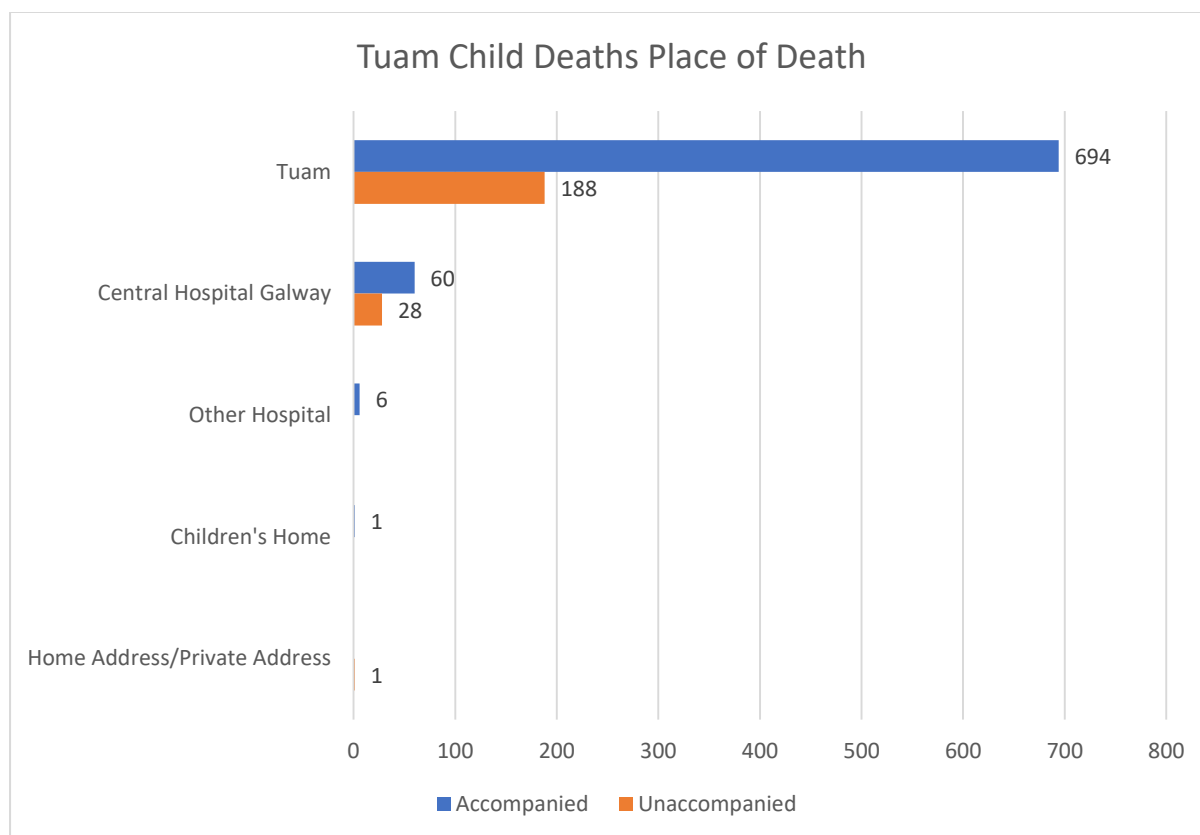


Unaccompanied children made up 33.5% of admissions to Tuam and accounted for 22.2% of child deaths in the home - although they accounted for 55% and 60% of deaths in 1923 and 1924 respectively; 34% of deaths in 1926 and 43% in 1936. Of the 305 child deaths recorded in the years 1942-47 unaccompanied children accounted for 12%.



Analysis by decade shows that more child deaths (43.5%) occurred in the 1940s than any other decade followed by the 1930s (29.2%); 1920s (18.1%); 1950s (9%) and 1960 (0.2%).

Place of death

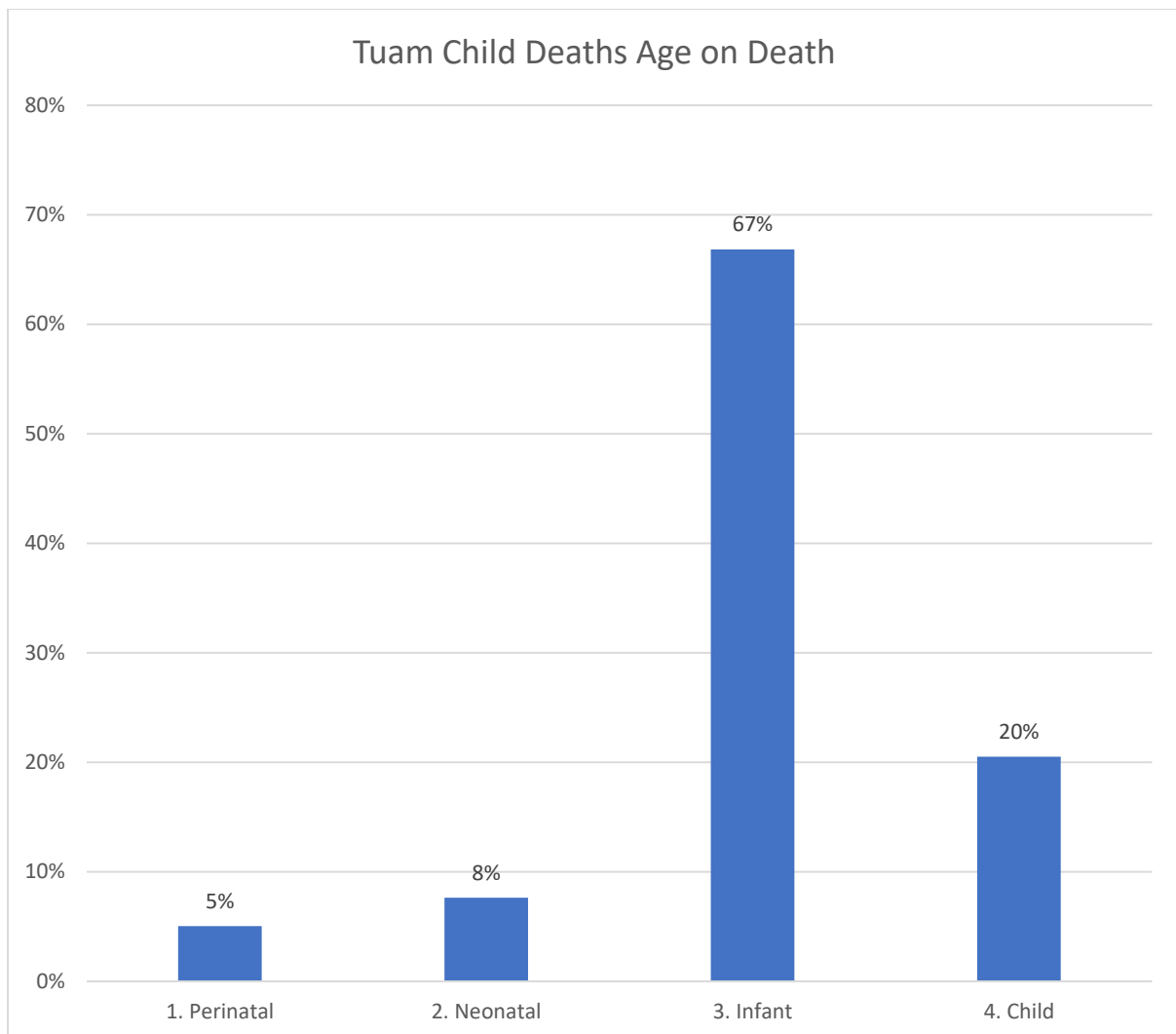


Information relating to place of death was available for all children. Most children (90%) died in the Tuam home - 80 when located in Glenamaddy; 802 when located in Tuam; 9% died in the Central Hospital, Galway; 0.6% died in other hospitals; one died following transfer to a children's home and one died following discharge to the family home.

Place of Burial

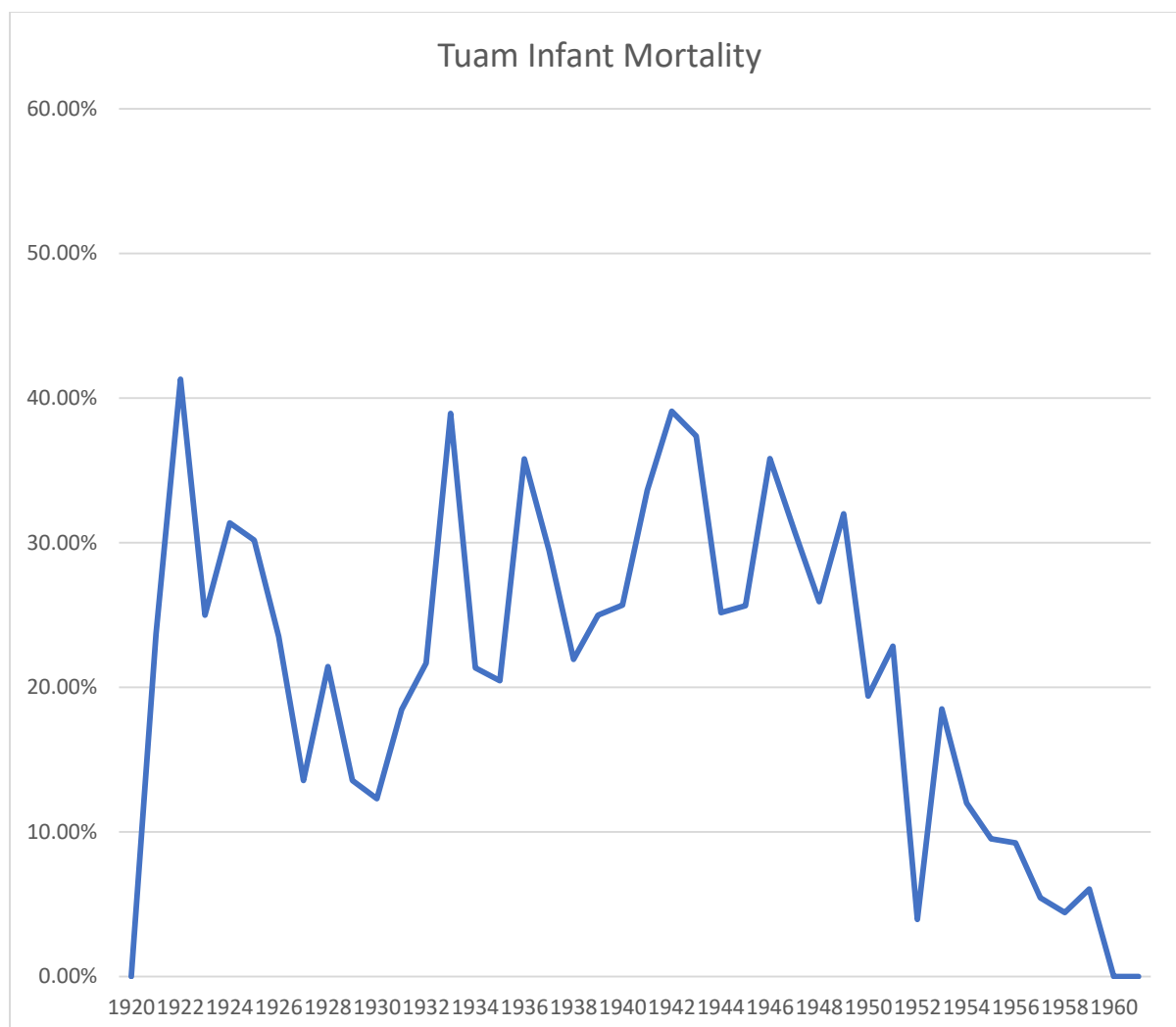
The Commission located burial records for 51 children - 50 in Bohermore Cemetery, Galway, and one in Glasnevin Cemetery, Dublin. All 50 children with burial records in Bohermore died in the Central Hospital, Galway. The child with a burial record in Glasnevin died in Our Lady's Children's Hospital, Dublin, after transfer there. The Commission established that the memorial garden on the site of the former Tuam home contains human remains which date from the period of the home's operation and considers it likely that a large number of the children who died in the Tuam home are buried there.⁵

⁵ Mother and Baby Homes Commission of Investigation, *Fifth interim report*, 15 March 2019.

Age at death

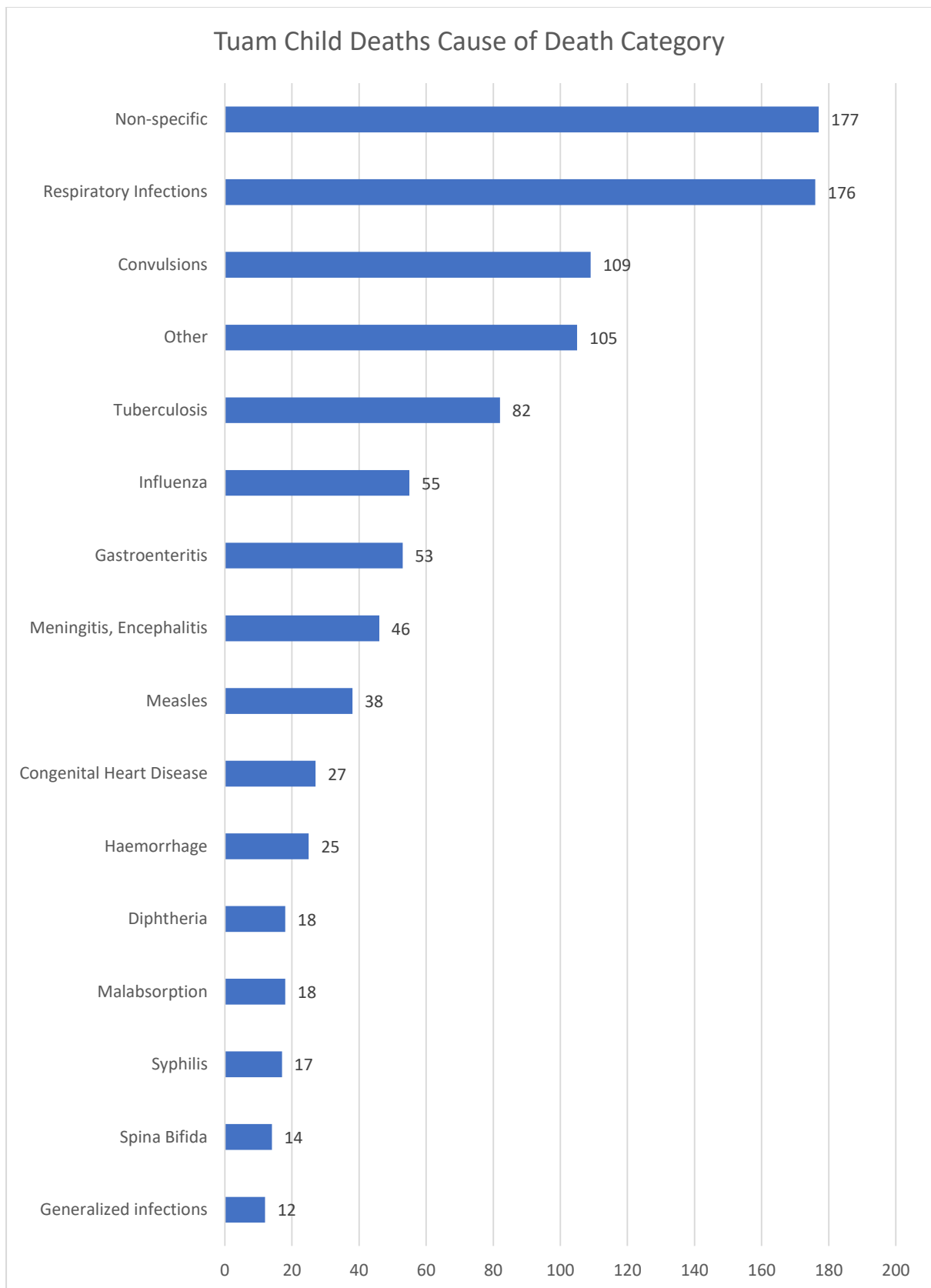
Information relating to age on death was available for 932 children (95.3% of child deaths). Most deaths (80%) occurred in infancy as follows: perinatal, 0-7 days (5%); neonatal, 8-28 days (8%); infant, 29-365 days (67%). The remaining 20% of deaths occurred in children aged between 366 days and just under five years.

The available records show that 532 children (55.3%) were accompanied by their mother at the time of death - 430 children (44.7%) were unaccompanied at the time of death.

Infant mortality rate⁶

Infant mortality peaked in 1922 (41.3%) when the home was located in Glenamaddy and decreased dramatically following the move to Tuam in 1925; infant mortality stood at 13.56% in 1927. However, by 1933 the rate had increased to 38.95% and remained above 30% intermittently until 1949. Infant mortality decreased to 19.4% in 1950 and fell to just 3.95% in 1952. Although an increase was recorded in 1953 (18.52%) the infant mortality rate maintained a staggered downward trend until the home's closure in 1961.

⁶ Infant mortality rate is calculated as follows: Living children born in the year who died before the age of 1/All living children born in the year.

Cause of death

Information relating to cause of death was available for 972 children (99.4% of child deaths). The leading cause of death were non-specific causes, such as prematurity and congenital debility (18.2%) and respiratory infections - mainly pneumonia, bronchopneumonia and bronchitis (18.1%). Over 11% of deaths were notified as being due to convulsions; 10.8% were due to other causes - mostly pertussis/whooping cough; 8.4% were notified as tuberculosis - mostly general tuberculosis and tubercular meningitis; 5.7% were due to influenza; 5.5% were due to gastroenteritis/gastritis; 4.7% were notified as meningitis; 3.9% as measles; 2.8% as congenital heart disease; 2.6% as being due to haemorrhage - mainly cerebral haemorrhage; 1.9% were due to diphtheria; 1.9% were due to malabsorption - mainly marasmus;⁷ 1.7% were due to congenital syphilis; 1.4% were due to spina bifida and 1.2% were notified as being due to generalised infections - mainly toxæmia and septicaemia.

There was no major alteration in the leading causes of death in Tuam from the 1920s to 1960.

⁷ Some commentators have asserted that deaths notified as marasmus point to some level of neglect. It should be noted that 8 of 18 such deaths relating to Tuam occurred in the Central Hospital, Galway, and that 10 of the 18 deaths notified as marasmus occurred among children who were accompanied by their mother at the time of death.