

Ober-Metzenseifen Morbidity, 1870-1894

February, 2005, by James O'Hara

While it may seem contradictory, it's possible to learn much about life in a small community from a history of its deaths. The following comments were developed from data provided through the courtesy of Thomas Hoey, and are based on his exhaustive research in the records of St. Mary Magdalene parish in Ober-Metzenseifen. He has compiled a data base available elsewhere on this site which provides considerable insight into some aspects of life in Ober-Metzenseifen during the last quarter of the nineteenth century.

1. Data description

1124 deaths are listed in the parish registers of Ober-Metzenseifen for the years 1870 to 1894. A specific cause of death is mentioned for 1105 of these individuals, generally noted in archaic Latin terms. The modern equivalents for most of these terms are provided below, although a few of the original Latin names are either too obscure or the listed cause has no modern equivalent. 83 deaths were from various causes that occurred too infrequently to be of statistical interest. In both cases, these deaths have been ignored in the counts below.

There are no deaths listed which were due to industrial accidents or to violence. Since Ober-Metzenseifen had several cottage industries, (hammer mills, woodworking shops, forestry, and possibly mining), some accidental deaths might have been expected. There are none shown. The absence of violent deaths might imply that the villagers were a singularly peaceful group, not given to lethal solutions for personal disagreements. There are only five deaths which did not result from disease, one suicide and four due to burns (combustio).

Although the entire data base contains 2211 names dating from 1669 to 1894, the cause of death is noted for only six individuals prior to 1870. (2 cholera, 1 apoplexy and 3 typhus). Apparently, listing a cause in the parish records became an administrative requirement only after 1870. Either that or the parish priest felt it desirable to maintain more complete records from 1870 on. While the overall frequency of unspecified deaths in each of the years prior to 1870, compared to the then existing village populations, seems consistent with that of the 1870- 1894 time-frame, it is probable that serious epidemics of some sort, possibly cholera or typhus, did occur within limited periods prior to 1870. For example, there were 61 deaths in 1710, and 77 in 1777 – 1778 at a time when the population was probably less than 400 individuals. However, in the absence of any causal notation, there is no way to verify that assumption.

2. Population estimate

Ober-Metzenseifen was not a large place at any time in its history, as indicated by the few census figures available for the period covered by the death list. Those available are:

1772 - 229 inhabitants, 1828 - 1839 inhabitants, 1869 - 1613 inhabitants, and 1890 - 1066 inhabitants. (The loss of 34% of the population between 1869 and 1890 was most probably due to the wave of emigration which began about 1870). The last two figures would mean that the average population at the middle of the 1870 - 1894 period was probably around 1300 inhabitants

3. Accuracy of diagnosis

There is no way of verifying the accuracy of the listed cause of death, or to determine how it was decided. There may have been one or more individuals with some medical training or background in the two Metzenseifen villages, but it is doubtful that a fully qualified physician was available for such a small population. This is particularly true for the period 1870 - 1900, during the population decline following emigration. Therefore, the cause of death may have been determined by an attending midwife, by someone with paramedic level skills, by family members, or by the parish priest himself based on a description of the death by family members.

4. Deaths primarily of children

One of the more appalling aspects of the death list is the high mortality rate for infants and young children, a rate that would be unacceptable if viewed in the context of modern medicine. However, Ober-Metzenseifen was not a uniquely lethal place to be born in the latter half of the nineteenth century. Similar childhood death rates from similar causes were common throughout most of Europe, the United States and Canada during the same period. The village was probably a far healthier place for children than the tenements of New York City, London or Vienna during the same time frame. In the following discussion, the age of a "child" was considered to be 16 years or less. Any death of an individual older than 16 is considered that of an adult.

The major causes of infant or childhood deaths were as follows.

4.1. *Angina Membranea* – 6 total (all children)

In common usage today, the word angina by itself refers to chest or shoulder pain due to a deficiency of oxygen in the heart muscle (angina pectoris). Angina membranea, at the end of the nineteenth century, referred to an inflammation of the throat commonly associated with diphtheria. The symptoms were easily distinguished, (yellow-greenish exudate, ulcers in the mouth and throat), and, while no specific treatment was available, it was rarely fatal. It is also known as Vincent's angina.

4.2. *Atrophia* - 56 total, (54 children aged 3 years or less, 2 adults)

The most common use of the term atrophia in modern medicine is in combination with the word bulbi (atrophia bulbi,) also known as Norrie's disease. This is a hereditary disease caused by a recessive X-linked gene which results in blindness, hearing loss and mental retardation. Since it is X-linked, it appears only in males. As there are roughly equal numbers of males and females in the list with a diagnosis of atrophia, it can be assumed that the term was used in a general sense, as a Latin form of the English atrophy.

This would imply death caused by a wasting away of bodily tissue for any number of reasons.

4.3. *Convulsiones* – 57 total (all children, mostly infants)

Convulsions or seizures are sudden, violent contractions of muscular tissue. Usually, in children, they result from high fever due to any of several diseases, but can be a symptom of epilepsy, infection, poisoning, lack of sufficient oxygen in the blood or a severe disturbance in the body chemistry.

4.4. *Debilitas* - 125 total, (all at most a few months old, most only a few days)

This term is usually defined as weakness, as in old age, but the list uses the term "marasmus" to indicate this condition for adults. It is more likely that the term was used to indicate the death of a new-born or very young infant due to birth complications, general weakness, or the inability to thrive in the immediate neo-natal period.

4.5. *Diarrhoea* - 4 total, (all 3 years old or younger)

This cause does not seem to have modern equivalent. It was clearly a disease or sickness of children.

4.6. *Dysenteria* - 66 total (49 children, 17 adults)

The modern term is dysentery, and while this cause is cited across the entire 24 year period, approximately half of the cases occurred between 1871 and 1877. Due to a similarity of some symptoms, many of these cases of dysentery might be associated with the obvious cholera epidemic in 1872 - 1873. Both the bacillary and amebic forms are spread by fecal contamination of food and water. Outbreaks of both are primarily diseases of the tropics, but can occur temperate zones.

4.7. *Enteritis* – 26 total, (25 children, 1 adult)

Enteritis describes an inflammation of the gastrointestinal tract. It is particularly serious in the very young and very old due to dehydration caused by diarrhea and to the accompanying loss of electrolytes.

4.8. *Laryngitis* – 8 total, (All children)

Laryngitis is an inflammation of the mucous membranes surrounding the larynx. It is rarely fatal unless the inflammation spreads to other tissue and glands in the throat, resulting in lesions and ulcers.

4.9. *Meningitis* – 4 total (all children)

Meningitis is an infection of the fluid surrounding the spinal cord and brain. There are two forms, viral and bacterial, with the latter being the more serious. The viral type can resolve itself without treatment, while the untreated bacterial form can result in hearing loss, brain damage and learning disability. In the absence of antibiotics, it can be fatal.

4.10. *Morbilli* - 29 total (all younger than 12 years)

Morbilli was the archaic term for measles, or rubeola. These deaths happened in a curious pattern, with significant outbreaks of the disease occurring at five year intervals, always preceded by a single case in the prior year. The pattern runs: 1873 - 1 case, 1874 - 6 cases, 1878 - 1 case, 1879 - 10 cases, 1881 - 1 case, 1883 - 1 case, 1884 - 9 cases.

4.11. *Noma* - 4 total, (all children, 2 or 3 years old)

Although only 4 children died of Noma, it is included here because it frequently follows measles, scarlet fever or tuberculosis. It is a gangrenous infection of the oral cavity which destroys both internal and external tissue in the mouth, lips and cheeks, and the bone in the upper and lower jaws. It occurs in severely malnourished children in areas of poor sanitation and cleanliness. While not fatal in all cases, it can result in the massive destruction of the survivor's lower face.

4.12. *Scarlatina* - 25 total, (all 9 years old or younger)

This is the common scarlet fever. There was one major and one minor outbreak in the village. 1879 -1881, 19 deaths: 1891 -1892, 5 deaths. Again, as with small pox, adults were not affected by this highly contagious disease

4.13. *Tussis/Tussis Convulsiones* - 42 total, (41 children, 1 adult 79 years old)

The modern equivalent is pertussis or whooping cough. While controllable now, it was frequently fatal before the beginning of the twentieth century.

4.14. *Variolae* - 50 total (all younger than 6 years)

Variolae was the term used for small pox. What seems notable in this sub-set is the absence of any adults in the list who died of small pox. While this highly contagious disease can be devastating in a young child, it could be almost as lethal for adults at a time before vaccination was available. 41 of the 50 variolae deaths occurred in the spring and early summer of a single epidemic year (1874). With approximately 4% of the village population infected, all of them children being tended by parents who would have been in close contact, it seems strange that there were no adult victims. It's possible that some rudimentary form of vaccination had been practiced in the village in earlier years, since Jenner's procedure was fairly well known by this time.

5. Causes common to both adults and children

5.1. *Ascites* - 47 total, (38 adults, 9 children)

Ascites refers to the build-up of fluid in the peritoneal cavity, usually as a result of cirrhosis of the liver, hepatitis or congestive heart failure. The usual victim was an adult, but some infants and young children were also so diagnosed.

5.2. *Apoplexia* - 53 total, (51 adults, 2 children)

The current usage almost always refers to a vascular incident in the brain - a clot, a hemorrhage or an aneurysm. It can, however, refer to a hemorrhage in some other organ. The death list makes this distinction in several cases, noting death from apoplexia cordis

(apoplexy of the heart - 6 cases), apoplexia cerebri (apoplexy of the brain - 28 cases), apoplexia pulmonum (apoplexy of the lung - 10 cases). The remaining 9 cases were non-specific. The adults were, for the most part, well up in age, which would be expected. The two children were 1 and 2 years old, an uncommon age to suffer a stroke

5.3. *Cholera* - 46 total (34 adults, 12 children)

The majority of these deaths (42) occurred in 1873, it what was clearly an epidemic. In common with dysentery, it is usually associated with contaminated water supplies, usually due to poor sanitation practices.

5.4. *Febris* - 17 total, (10 children, 7 adults)

This term is descriptive rather than diagnostic and refers to a death from a non-specified fever. Any of several other diseases in the village could have caused high fevers followed by death. Scarlet fever is a good possibility

5.5. *Hydrops* - 30 total, (20 adults, 10 children)

Hydrops, or dropsy, is a debilitating accumulation of fluids in the tissues, particularly the abdominal area. The modern term is edema, and in adults, usually results from congestive heart failure or kidney failure. In children, it is referred to as hydrops fetalis, and may develop from a conflict between the RH blood factors of mother and child. The antibodies of an RH negative mother may see the red blood cells of an RH positive child while in vitro as foreign bodies and attack them. The result is severe anemia, the build up of fluids, heart failure, and death.

5.6. *Marasmus* - 71 total (all adults, most 50 - 80 years old)

In the medical dictionaries in common use during this period, marasmus is described as the "weakness of old age", "wasting away", or "general deterioration". That cause of death for individuals in this age group would seem consistent with contemporary population statistics. However, current practice would probably employ a more specific or supplemental diagnosis such as congestive heart failure, anemia, etc. rather than simply "old age", based on contemporary, more advanced diagnostic techniques.

5.7. *Morbus Brightii* - 9 total, (6 children, 3 adults)

The Latin term refers to a death characterized by albumin in the urine. It is descriptive rather than diagnostic. Apparently some form of kidney failure was involved, most probably what was known in the nineteenth century as Bright's disease. The modern term is glomerulonephritis, an inflammation of the kidney. One curious aspect of these deaths is that all 9 occurred only within the three year period 1879 - 1881. Since the diagnosis of a rather obscure ailment like Bright's would not be expected from semi-skilled health workers, it is possible that, for at least these three years, there was a qualified physician available in the village

5.8. *Peritonitis* - 5 total, (4 adults, 1 child)

Peritonitis is an infection or inflammation in the abdominal cavity. The usual cause is a burst appendix, and the condition is almost always lethal if untreated. Without a skilled surgeon and a great deal of luck, it is doubtful that anything could have been done for these individuals once the infection set in.

5.9. *Phthisis* - 80 total, (68 adults, 12 children)

Phthisis, or phtysis, was a term used to indicate what was known in the nineteenth century as consumption. Modern medicine refers to it as tuberculosis. (See 5.11, below). Phthisis is cited primarily in the early years of the period, with the term tuberculosis pulmonum used later. It affected mostly adults in the village, usually in their forties or older.

5.10. *Pneumonia* - 68 total, (50 adults, 18 children)

Pneumonia is a highly contagious inflammation of the lungs, resulting in a fluid buildup which restricts breathing. It can be caused by any number of infectious agents. The two primary types are viral and bacterial pneumonia. The latter is the more serious of the two and is particularly threatening to the elderly and to very young children.

5.11. *Tuberculosis* - 56 total, (46 adults, 10 children).

Tuberculosis, or tuberculosis pulmonum, was a term used later in the period. Again, it affected mostly adults (80 % of the total). This cause was particularly present in 1889-1894 period (32 cases), which might indicate a minor epidemic.

5.12. *Typhus* - 38 total, (20 adults, 18 children)

Deaths from typhus, or typhoid fever are fairly evenly distributed across the 24 year period, indicating a chronic source of infection that the villagers were either unable to isolate or to control. One possible cause for this low but chronic level of infection may have been the presence of a typhoid “carrier” in the village. Carriers are individuals who have survived a case of typhoid and no longer show the symptoms, but who remain infectious to others for years. New York City’s “Typhoid Mary” is a classic example, dating from the beginning of the twentieth century.

6. Summary and comment

No firm conclusions can be drawn from the death data, only assumptions and inferences. For example, it seems highly probable that there was a contaminated water supply or supplies in the village, based on the large number of deaths due to cholera, dysentery and typhoid fever, all diseases caused by water contamination. The rapid spread of infectious disease indicates that the villagers did not understand the merits of isolation or quarantine. Since no adult deaths from smallpox are listed, it is less probable but still possible that some form of vaccination may have been practiced in earlier years. Finally, even less probable is the possibility of a typhoid “carrier” in the village during the last years of the period.

As the following table and graphic show, there were three periods of obvious epidemics. These figures are for the total number of deaths, both child and adult, from all causes in each year.

1870 - 5	1871 - 2	1872 - 4	1873 - 123	1874 - 96
1875 - 36	1876 - 53	1877 - 51	1878 - 48	1879 - 50
1880 - 49	1881 - 78	1882 - 35	1883 - 38	1884 - 44
1885 - 43	1886 - 43	1887 - 36	1888 - 26	1889 - 35
1890 - 35	1891 - 56	1892 - 62	1893 - 29	1894 - 57

The mortality spike in 1873 was due primarily to cholera and dysentery, in 1874 to variolae, in 1881 to scarlet fever and pneumonia, and in 1891 - 94 pneumonia and tuberculosis.

