A Database of Causes of Death Based on Parish Registers from the Borderlands of Present-Day Slovakia. The Case of Detva Parish, 1861–1885

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Sources and Databases on Individual-Level Causes of Death in Historical Societies (1800–1950)

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A Database of Causes of Death Based on Parish Registers from the Borderlands of Present-Day Slovakia

The Case of Detva Parish, 1861–1885

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ABSTRACT

The article analyzes a database of causes of death compiled from individual parish registers for the town of Detva located in the present-day territory of Slovakia. The database covers the period from 1861 to 1885 and contains 9,600 entries. The town and its environs reflect the population of the seventh-largest settlement in Slovakia, which ranged from 10,000 to 12,000 inhabitants during the period under study. The population was 97% Catholic and predominantly Slovak-speaking. The article presents the motives for creating the database, the methods used to construct it, and the specific features of the parish registers from which the data were drawn. After construction, a basic classification of causes of death was performed according to the HistCat methodology. Across the entire database, the most common reasons for death came from infections, accounting for 25% of the total. The second most common category was diagnoses classified as ill-defined, with a 12.3% share, and the third most common category was tuberculosis (11.8%). These results confirm that the diagnosis of diseases displayed evident shortcomings, especially since the cause of death was not determined by a doctor, thus presenting new interpretative challenges.

Keywords: Historical causes of death, Parish registers, Building the database, 19th Century, Slovakia

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1 INTRODUCTION: THE NATIONAL CONTEXT OF THE DEVELOPMENT OF CAUSE-OF-DEATH STATISTICS

Research into the causes of death in 19th-century European countries is primarily based on state-produced sources. The first statistics recording the causes of death originated in the middle of the 18th century, primarily on the initiative of the larger towns (van Poppel & van Dijk, 1997). The earliest state-centralized statistics started during the post-Napoleonic period, in the first decades of the 19th century (Eggerickx et al., 2020; Hiltunen Maltesdotter & Edvinsson, 2025; Preston & Van De Walle, 1978; Wolleswinkel-van den Bosch et al., 1998). These were created in Western Europe, including Prussia and Saxony (Vögele, 2022). Recording causes of death was an effective tool against the spread of contagious diseases and the emergence of epidemics. In Central Europe, the establishment of the state registration of causes of death was delayed. In the Habsburg Monarchy, it did not appear until the mid-19th century after the Revolution of 1848/49, but this was true only for the western part of the monarchy (Ediev & Gisser, 2007; Lipovski, 2024; Randeraad, 2020). In the 1850s, so-called vital statistics were produced, reflecting the diverse data on the demographic characteristics of localities (Gisser, 1979). Among them, there was also information on the causes of death (Budnik & Liczbińska, 2006).

For the eastern part of the Habsburg Monarchy, the Kingdom of Hungary, which included today's Slovakia, state records on causes of death did not exist until the 1870s. At the beginning of this decade, the Hungarian Central Statistical Office (*Központi Statisztikai Hivatal*) was formed, which also summarized data on causes of death (Erdélyi, 2018). However, it identified and published these according to its methodology and divided them by identifying them as cholera, tuberculosis, and a common category for other infectious diseases; another category summarized non-communicable diseases, other causes, and cases of unnatural death (Faragó, 2011). The system aimed to eliminate contagious diseases, but it did not conform to internationally agreed-upon rules for state-recorded causes of death. Not until 1893 did the Hungarian Statistical Office switch to this system (Faragó, 2013). Even these data were not objective and accurate. The causes of death were not determined by a doctor or other medical professional, but by a civil servant (Lencsés, 2020). The results were published at an aggregative level in the yearbooks of the individual counties and towns. It is therefore not possible to analyze the causes of death by smaller regions based on these data (Šprocha & Tišliar, 2018). These do not, by nature, meet today's requirements for a more detailed analyzis or for applying methods for classifying causes of death.

Another source for analyzing the causes of death among historical populations in the Slovak environment is the parish register of burials. These data begin to appear in parish records at the end of the 18th century. The reforms of Emperor Joseph II paid special attention to parish registers. His policies reformed the registration of sacraments with the clear aim of obtaining a more accurate picture of the population, primarily for fiscal and military purposes (Maur, 1969). According to Joseph II's policies, parish registers were to be kept consistently and autonomously, even in non-Catholic churches. Another regulation concerned the keeping of separate books for each sacrament. This reform began to be implemented in the following decades, and in smaller parishes in the second half of the 19th century (Popovici, 2015). Furthermore, the registration of all acts was to be written in rubrics, no longer in lines, which was intended to clarify the authenticity of the source. Causes of death were one of several added rubrics of the registers in the 1780s; others include the obligatory name of the priest performing a sacrament, including the so-called marriage patent, which was related to the inclusion of the names of the betrothed and the place of the marriage (Cimmermannová, 1974). Thus, parish registers remained the only source that reflected the causes of death in Slovakia over the course of the 19th century.

Diagnosing the causes of death in parish registers presents several pitfalls. When analyzing their explanatory value for the 19th century, a high proportion of the data is relatively poor (Janssens & Devos, 2022). The diagnoses are, in many cases, of a descriptive nature, which only partially identify the true cause of death. This problem can only be partially dealt with in the interpretation and discussion of the results. In statistical processing, it is impossible to categorize the diseases mentioned with accuracy or the precise causes of death.

2 DESCRIPTION OF THE CAUSE-OF-DEATH SOURCE

Parish registers in the database for the parish of Detva were used as a source for analysis despite the above-mentioned risks. Since primary localities are not covered by other statistical sources, these unique documents cannot be ignored. The data from parish registers can be used to identify basic historical and demographic characteristics, but they are also a unique source for analyzes of social, economic, or local history (Tilley, 2002).

The database was created from the records of the burial parish registries from the Catholic parish of Detva, located in central Slovakia. The number of parishioners comprised one of the largest in Upper Hungary from the 1860s to 1880s. According to the 1869 census, the Detva area ranked as the seventh-largest settlement in Slovakia, with 10,035 inhabitants (Podrimavský et al., 1992; Sebők, 2005). The censuses counted 97% of the inhabitants as Catholic and 95% used Slovak as their mother tongue. The parish was unique because its centre was situated in a small town with almost 2,500 inhabitants (State Archive, n.d.-b). The rest of the population lived in scattered settlements, which were family farms built in the countryside without the classical concentration of buildings. The individual parts of the parish also differed in population size and other landscape characteristics that contributed to the layout of the settlement. The primary factors in determining the farm's arrangement included altitude, terrain slope, and the availability of arable or pastureland (Pisoň, 1969).

The geography of the landscape shaped the socio-professional characteristics of the population, and agricultural activity predominated. The largest proportion, probably more than 80% of the economically active population, practiced subsistence farming. The region was settled from the beginning of the 17th century onwards, initially for its timber resources, and a certain proportion of the local population still worked as woodcutters or as workers in steam sawmills (Golian, 2019). Around 600 other people worked in a local glassworks built in part of the parish of Hriňová (Žilák, 1999). A marginal group of local inhabitants was employed in railway, estate, and forestry enterprises and also served as the local intelligentsia, mainly clerks, priests, teachers, and gendarmes (State Archive, n.d.-b).

The database of the causes of death focused on the years 1861 to 1885 for several reasons. At this stage of research, only data from burial registers have been entered into the database. In the future, the database will be expanded to include more recent years, meaning that records of causes of death could cover the period up to the end of the Habsburg Monarchy in 1918. Earlier analyzes have shown that this period was heavily affected by epidemics and high infant mortality rates (Golian, 2019). Parish registers were quite comprehensive. Although causes of death were recorded in local parish registers from the 1830s, the numbers of houses and specific parts of the parish were not stably recorded in the registers until the late 1850s. This information was crucial for accurately identifying deceased persons and their family connections. The research period, defined as 25 years, was also deliberately chosen. This period in historical-demographic approaches corresponds to the stages of a generation's life (Livi-Bacci, 2017).

Figure 1 *The location of Detva parish on the map of the Austrian-Hungary Empire against the boundaries of contemporary Slovakia (white colour)*

In the 1860s, Hungarian society was finally consolidated after a series of political and economic crises. These culminated in the Revolution of 1848/49, followed by economic stagnation and social decline during the 1850s. Only after the end of the so-called neo-absolutist period, from 1860 onwards, did the country begin the processes that kick-started an economic and social upsurge. The population growth reflected these more favorable conditions (Holec, 2014). The consolidation of the 1860s was reflected in demographic parameters. It is possible to trace the signs of the third phase of demographic transition, during which the infant mortality rate declined, and age and life expectancy were statistically prolonged (Faragó, 2013). This period was also chosen for database construction because it allows working with modern statistical sources, i.e., population censuses. Two censuses were conducted in Hungary during the period under study, in 1869 and 1880. Using their results, one can identify more detailed characteristics of the population analyzed, although they do not reveal anything about the causes of death (Magyar korona, 1882; Sebők, 2005).

The parish registers from Detva were kept in the Latin language in the selected period. Only very rarely were there notes in Hungarian, describing the circumstances of death, etc. The form of the entry in a preprinted register book was adequate for the period of its creation and the region and thus standardized in most parish registers at that time. The burial registers contained an unchanging form of entry. Each entry included a serial number, the date of death, and the name of the deceased, for which there were additional details, such as the following: in the case of the deaths of children, the names of the parents were given; in the case of the death of an illegitimate child, this was accentuated by a special note with the mother's name. In cases of cohabitation that occurred in the parish during that period, there were no mentions of unmarried cohabitation of the parents of illegitimate children. It was only possible to find out about cohabitation from the marriage registers when these unions were legalized by the church through Christian marriage (Golian, 2019). An additional entry was also made for multiple birth children (*ex gemellis*, *ex trimellis*), and for those who were born after the death of their father (*posthumus/-ma*).

Figure 2 *Burial register of Detva parish, 1861*

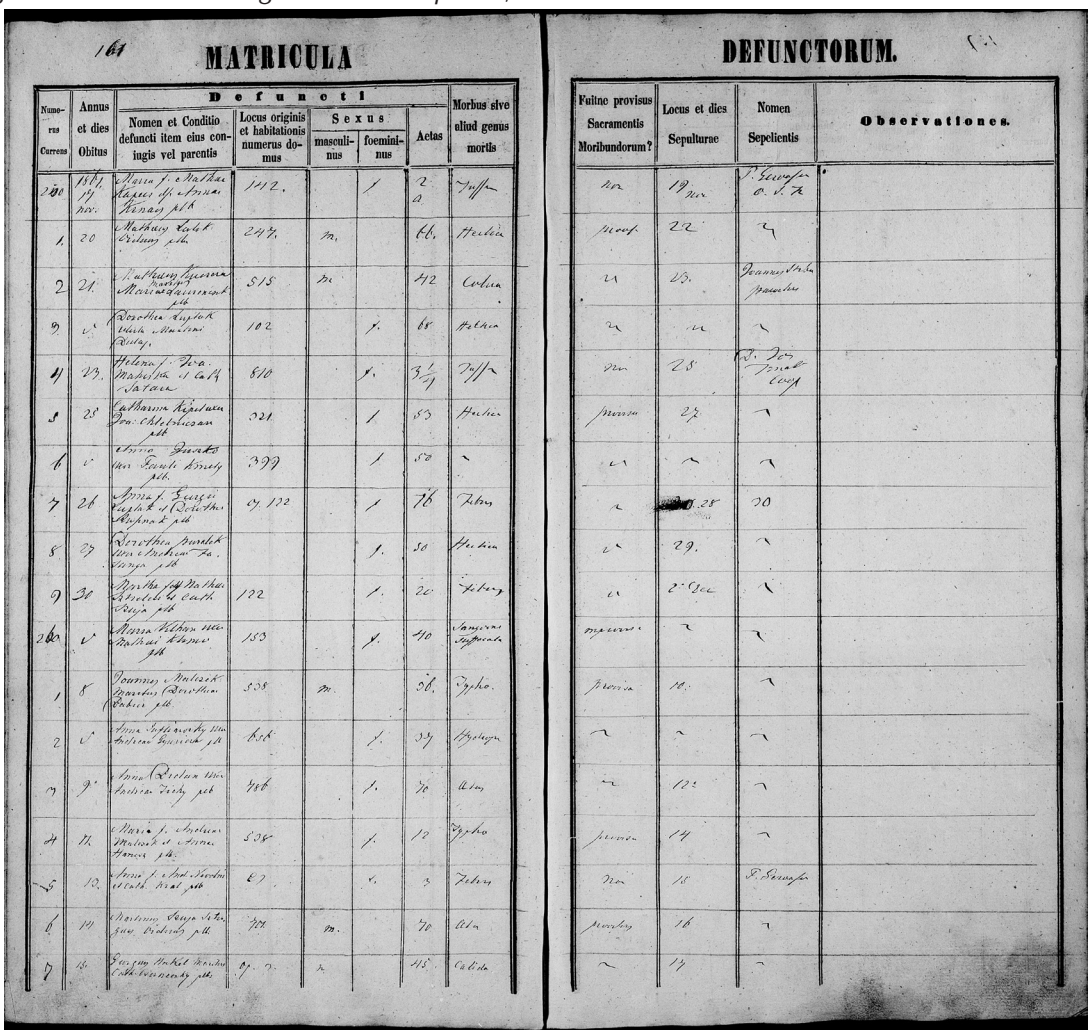
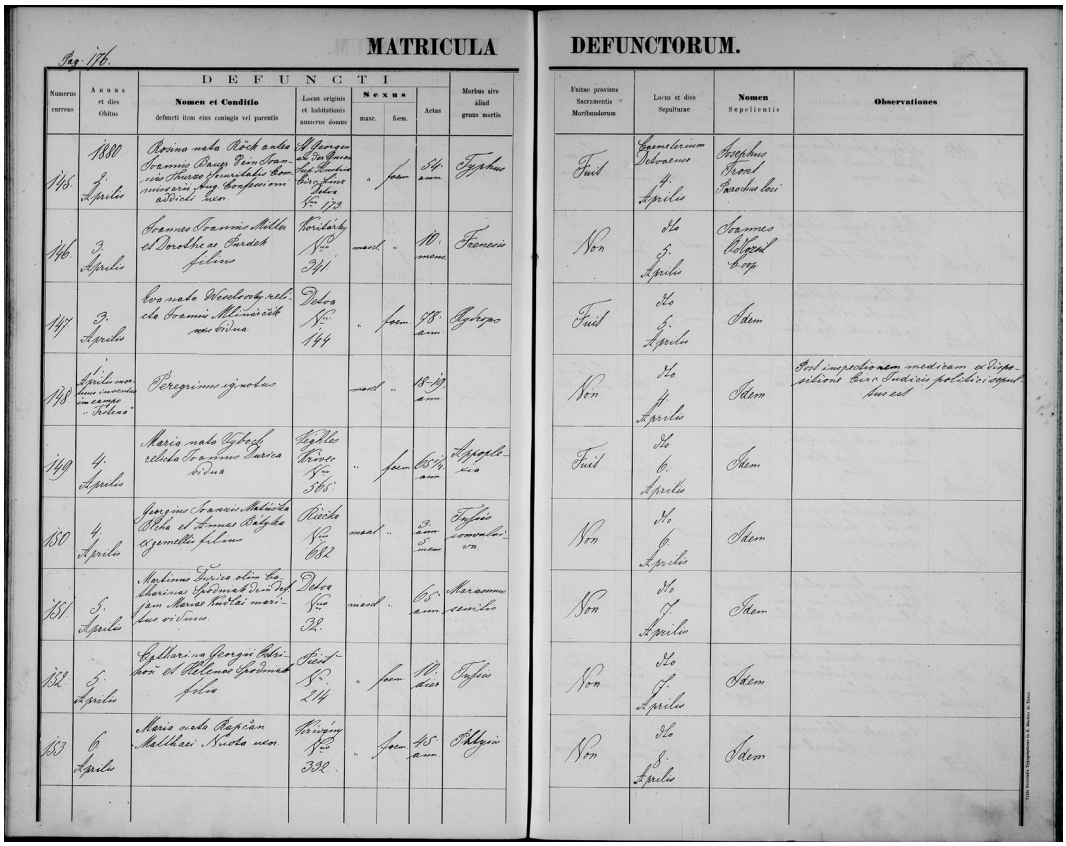


Figure 3 *Burial register of Detva parish, 1880*



In the registers of deceased adult parishioners, the name of the spouse, whether living or deceased, was recorded. Entries became more detailed in the mid-1860s (especially in 1864 and 1865), when priests also recorded the duration of the marriage. From 1873 onwards, for individuals widowed more than once, the names of previous spouses were also included, not only those of any surviving spouse. For unmarried adults, their status was noted (*coelebs.*) and for some individuals, their occupation, status, or other characteristic that distinguished them from the majority. These were primarily clerks, teachers, priests, employees of glassworks or forests, foreigners, soldiers and mercenaries, vagrants, beggars, foreigners or local Roma (State Archive, n.d.-a).

Another piece of information recorded in the parish registers was the deceased's residence, including a house number. In the early years, a specific part of the parish was not listed, and only the town (Detva) and some settlements were distinguished; but from 1862 onwards, the exact location of the parish was included with each entry. The following section of the register recorded the deceased's sex, then one's age. The next category was the recording of causes of death, which showed a noticeable widening during the period under study. Another entry in the register stated whether the deceased had received religious sacraments. In the registers, we encounter three possibilities; for the deaths of children who had not yet received the Eucharist, the notation *non* was given. Most adults had a notation given that they died having received the sacraments. The indication that someone had not received the last sacrament of the church appeared primarily in sudden deaths caused by accident or other tragic circumstances. Data in this category also tended to include the death of a person who was not Catholic.

The next section was the place and date of the burial, with a note at the top of each page stating that all burials were in the Detva cemetery. Each entry provided the burial date, which was usually two days after the death. The penultimate section reflected the name of the priest, i.e., the person who buried the deceased. In most cases, a local chaplain presided over the burial, but, more rarely, a parish priest or a visiting clergyman was responsible. The last entry in the register of burials was a section of notes that provided additional information. Most often these were references to, for example, documents on the reception of the sacraments, the completion of compulsory military service (which included the regiment of the deceased), or additional data on the circumstances of deaths, usually in the case of unusual and violent deaths, which the gendarmes or other authorities had identified (State Archive, n.d.-a).

3 DEVELOPMENT OF THE DATABASE: CONSTRUCTION AND DESCRIPTION

The database was created by transcribing all data into a Microsoft Excel table editor. Building the database took several months, and it was carried out by a single transcriber. In total, 9,605 burial entries were transcribed. After compiling a master sheet, each record was assigned a serial identification number to maintain continuity, and pivot tables were created. This allowed working with individual headings, creating commands, sorting records, and defining results.

A key task was to standardize the recorded ages of the deceased. In addition to years, ages for children were often given in months, and occasionally in weeks, days, hours, or even minutes. Months were occasionally used for adults, sometimes at an older age. To allow statistical processing, all ages expressed in various units were converted into years.

The next step was the cleaning of data entry in the tables. This included standardizing the spelling of surnames that appeared in multiple forms in the parish registers. During the 25-year study period, national emancipation influenced the recording of names, so the same surname might appear in Slovak and Hungarian languages (e.g. Dančo vs. Danscó; Ďurica vs. Gyuricza, Žilka vs. Zsilka), and occasionally in Latinized forms (Fašanga vs. Fasanga). Variation also arose from the absence of fixed spelling rules, most notably the interchangeable use of "y" and "i" (e.g., Bystriansky vs. Bistriansky). For this reason, surname spellings were unified. The same issue occurred with the recording of parish subdivisions, which were inconsistently entered in the civil registers. Magyarization particularly affected earlier records, in which Slovak place names were written with Hungarian spellings (e.g., Riečka vs. Riecska; Slanec vs. Szlanetz; Bistro vs. Bistró). These toponyms were also standardized. The final phase involved structuring, coding and classifying causes of death. The first step was to consolidate entries that differed over the years yet still indicated the same cause. These were cases where notation evolved; for example, insanity was first recorded as *phrenesis*, later *frenesis*, or there were truncations of the notation from *inflammatio* to *inflamatio* — inflammation. Classification was also necessary to determine the cause according to the circumstances of death. For example, the terms *ab partu* or *in partu* were used to designate both mothers and children who died in childbirth.

In the second half of the 19th century, there existed a very sparse network of doctors and medical professionals, especially in rural areas. Therefore, diagnosing causes of death was entirely the responsibility of local priests, who had no medical training. Therefore, a relatively high proportion of symptomatic causes of death can be observed in the list of causes of death. However, most of the data reported specific diseases and actual diagnoses that caused death. This practice can be compared to analyzes of registers from earlier periods, in which the causes of death were vaguer and more descriptive (Golian, 2024). The final step in working with the database was to categorize the causes of death into the HistCat methodology.

4 RESULTS OF CATEGORIZATION OF CAUSES OF DEATH

The causes of death in the database were classified using the HistCat method, which was chosen given the relatively high proportion of diagnoses expressed in imprecise, descriptive terms. Initially, causes of death were categorized according to the ICD10h method, but almost 23% of the data would have to be classified as symptomatic causes — category R (Janssens, 2021; Reid et al., 2024). However, the problem of unclear diagnosis of causes of death in 19th-century registers is also encountered in other European countries (Alter & Carmichael, 1996; Alter & Carmichael, 1999; Janssens & Devos, 2022; Radtke, 2002; Sommerseth & Walhout, 2019). Classification according to the HistCat method is used relatively frequently in similar studies (Reid et al., 2015). Only in recent years has the new ICD-10h approach been used more frequently, which is more precise, but its use requires data with a high degree of accuracy in diagnosing causes of death (Garrett & Reid, 2022; Janssens, 2021; Janssens & Riswick, 2023; Ludvigsen et al., 2023; Reid & Janssens, 2025; Reid et al., 2024; Reid et al., 2026). Since the aim of this article is to present the database, the categorization of causes of death is classified as a whole, divided by age and sex categories. These were only interpreted for certain selected diagnoses. To more accurately identify causes in old age, the category "old age" was separated from the "ill-defined causes" group, as in similar analyzes (Reid et al. 2015).

The most common HistCat category in the database of causes of death was "Infectious diseases", which accounted for 25% of all data. There were a total of 2,407 records in the database, of which 1,702

were deaths from whooping cough. The diagnosis was most often recorded in the registers as *tussis*, and in the mid-1870s, the term *tussis convulsiva* appeared, but the form of registration later reverted to *tussis*. Deaths from this diagnosis occurred continuously every year during the period under review, but in some years the disease broke out into an epidemic (1861, 1867, 1869, 1873, 1879, 1885). Up to 60% of all victims were infants, and together more than 90% of all deaths from whooping cough were children under 4 years of age, which was characteristic of the incidence of whooping cough in the 19th century (Stocks & Karn, 1932; Waterhouse, 1822). The victims of whooping cough were evenly distributed by sex, with boys accounting for 49%. The disease usually manifested itself in the early months of the calendar year, which was characteristic of respiratory diseases (Buzasi & Riswick, 2025).

In the category of infectious diseases, smallpox accounted for a significantly lower proportion of deaths, with a total of 420 victims, which occurred in three strong waves in 1864, 1873, and 1881. The disease was always recorded in the registers under the same term — *variola*. Smallpox epidemic waves occurred at the same time as in other European locations (Nishiura & Kashiwagi, 2009; Rolleston, 1933). Data from the database reveal that the ratio of victims by sex was balanced and that smallpox primarily affected the child population. Approximately 39% of all victims were infants, and another 41% were between the ages of 1 and 4 (Duncan et al., 1993). The incidence of smallpox cases increased mainly in spring months and peaked in May, consistent with results from other locations (Buzasi & Riswick, 2025; Duncan et al., 1993; Nishiura & Kashiwagi, 2009).

The database identified 199 victims who died of measles. The deaths occurred in two strong waves, in 1865 and 1885. The age range of the victims was very similar to that observed in the analysis of smallpox records. Up to 39% of all records were infants, and another 43% were children aged 1 to 4. Children aged 5 to 9 accounted for another 11%, and adults were practically absent among measles victims, as reflected in other studies (Crum, 1914; Shanks et al., 2015). Measles epidemics occurred primarily in the spring months, peaking in May, which fits the category of airborne diseases (Buzasi & Riswick, 2025).

A smaller proportion of infectious diseases were victims of diphtheria, totaling 68. These also appeared in the registers as an epidemic wave in 1881 and as isolated occurrences at the turn of the 1870s and 1880s. In terms of age range, infants accounted for approximately 16% of victims and children aged 1 to 4 accounted for 38%. Therefore, there was a higher proportion of older children, who accounted for 35.3% in the 5 to 9 age group. The disease was practically nonexistent in the adult population, as confirmed by other studies (Contini et al., 2025). In terms of seasonality, diphtheria appeared in the database mainly in spring, specifically in March. However, since only one strong epidemic wave can be analyzed, this result cannot be interpreted in a relevant way. The database also included 16 cases of typhus fever and one death from herpes in the infectious diseases category.

The second most common group was causes classified as "Ill-defined", with 1,181 cases representing 12.3% of the entire database. The most common category in this group was deaths from fever, which were classified using various terms. In 380 cases, the entry was *febris*, a similar form, *febris nervosa*, was diagnosed in 86 entries, followed by 298 cases of *hectica* and 35 cases of *calida* or *calida febris*. We know from the literature that the term *febris* could refer to records of an undefined nervous disorder, or it could also be a descriptive record of typhoid fever (van Cooth, 1802). In cases of *hectica*, the disease could be associated with high fevers related to tuberculosis (Šlaus, 2000). However, data from the database reveal that these descriptive forms appeared more frequently in the 1860s, so it could have been a descriptive form that was later replaced by more accurate diagnostics. Those who died from the diagnosis were primarily people of working age, with victims aged 15 to 59 accounting for 64%, children under 14 accounting for 13%, and people over 60 accounting for 23%. Another large group, 313 entries, were deaths diagnosed as dropsy in the source as *hydrops*. The term referred to oedema, describing cases of swelling of a part of the body or the whole body (Clark & Kruse, 1990; Eknoyan, 1997). The records appeared continuously in the database, with no noticeable decline in occurrence. Similar to fever, the diagnosis was primarily recorded among people aged 15 to 59 — 62.4% — and the categories of children under 14 and seniors over 60 were represented at similar rates of 16.9% and 20.7%, respectively. The ill-defined causes group also included 35 records where the cause of death was not identified and, in small numbers, diagnoses such as swelling, convulsions, or records stating that the cause was unknown or brought on by *ignoratus/repente mortuus*.

The third group with the highest number of deaths was "Tuberculosis", which included 1,131 cases, accounting for 11.8%. Tuberculosis was recorded in the database under several terms, most commonly as tuberculosis (*phtysis* and *tuberculosis*) and pulmonary tuberculosis (*phtysis pulmonaris*,

tuberculosis pulmonaria). The term *miliaria*, which was used to identify a childhood syndrome — miliary tuberculosis — was also included in the group of diagnoses (Herzog, 1998). In the case of the population studied, this cause of death was reported mainly in children aged from several months to 13 years. The incidence of tuberculosis was continuous throughout the period, relatively high, ranging from 30 to 80 cases per year, without significant epidemic waves. A higher proportion of victims was found among women, which was also reflected in other studies (Holom & Hărăguș, 2025; Mathena, 2023; Smith, 2008; van Doren, 2024). According to the age range, up to 76.2% of all tuberculosis cases were diagnosed in adults. It was true that the incidence of tuberculosis decreased among older people, as reflected in other analyzes (Holom & Hărăguș, 2025; van Doren, 2024).

The fourth highest number of diagnoses, 1,034 cases, was classified in the "Other" group, representing 10.8%. Within this group, the highest proportion of deaths was due to diagnoses of insanity with 618 cases, malnutrition with 239 entries, petechiae with 102 entries, and blisters with 17 deaths. In the case of insanity, the term *frenesis* was used in the sources, but the term was certainly not a literal designation of the true cause of death caused by mental problems (Berrios, 1987; Houlbrooke, 2000). This term was used to record deaths caused by high fever and states of unconsciousness or delirium that were not caused by mental problems (Jarvis, 1971). It is highly likely that these were cases of meningitis or other diseases manifested by accompanying symptoms of severe inflammation, i.e., high fever, exhaustion, or fainting, which primarily affected the central nervous system (Nowosielska, 2021). The diagnosis was primarily recorded in children, with 27.4% being newborns up to 1 month old and another 38.9% being children aged 1 month to 1 year, followed by 18% being children aged 1 to 4 years, and 10.1% were children aged 5 to 14 years. Despite the clear definition, deaths from starvation are very difficult to interpret, although according to the definition, they should be related to malnutrition. According to the database, however, children most often died from this diagnosis, with infants accounting for 23.8% of all victims and another 51.3% being children aged 1 to 4 years. Adults accounted for only 9.6%. Deaths also did not correlate with malnutrition in terms of seasonality, as the proportion of deaths did not decrease in the fall, when the effects of food shortages should have been reduced. Therefore, the diagnosis could indicate the effects of a disease that caused the patient to become ill or lose noticeable weight (Conley & de Waal, 2019; Flippin, 1997).

A similar proportion, 10.4% of all deaths, was accounted for by diseases classified as "Diarrhoea", of which there were 999 in total. This group included deaths from cholera, totaling 414 cases, mainly caused by an extremely severe outbreak in 1873, during which 399 people died. Of all cholera deaths, children under 14 accounted for 36.7%, and approximately half of all victims were people aged 15 to 59, which is consistent with the results of other studies (Davenport et al., 2019; Rosenberg, 1987). Deaths from typhoid fever epidemics, which killed 343 people, were also included in this category. These appeared mainly from the second half of the 1870s until the end of the period under review. The age range of typhus victims clearly shows that the disease primarily affected the working-age population, with children under 14 accounting for 7% of victims and younger working-age people between 15 and 29 accounting for 20.5% of all victims. The largest proportion of victims was found in the 30 to 44 age group, accounting for 38.9%, while 22.8% of victims were identified in the 45 to 59 age group. Seniors over the age of 60 accounted for only one-tenth of the victims, with their share declining rapidly after the age of 70. The third group in the diarrhoea category was deaths from dysentery, with 239 victims, which appeared in the database in two strong waves in 1868 and 1880 and in several weaker phases. The victims were primarily children, with infants representing 27.2% of all victims and children aged 1 to 4 representing 38.9%. Approximately 25% were children aged 5 to 9, and only one-tenth of all victims were adults. However, these results do not align with the general characteristics of dysentery, which was likely due to inaccurate diagnosis, as has been shown in other populations (Castenbrandt, 2014).

Diseases classified as "Perinatal" accounted for 934 cases, or 9.7% of all deaths in the database. The dominant category in this group was death due to infantile weakness, referred to in the registers as *debilitas*, which accounted for 892 cases. In all cases, the deaths occurred shortly after birth, with the shortest lasting only a few minutes. As expected, boys accounted for the majority, up to 67% of all deaths (Mühlichen & Doblhammer, 2025). However, it should be noted that the diagnosis was more of a description of symptoms and did not determine the exact cause of death of the children (Scalone & Samoggia, 2018). The perinatal category also included records of deaths due to premature birth, deaths during childbirth, deaths shortly after childbirth, and in one case, the cause of death for three children was listed as the fact that they were born as triplets *ex trimelis*.

The last HistCat group that exceeded 5% in the database was the "Old age" category, which included 625 death records, representing 6.5%. In most cases, 563, were recorded in the registers as senile exhaustion (*marasmus senilis*), significantly fewer were recorded as old age (*senectus*) (33) and senile weakness (*debilitas senilis*) (28), and in one case, the term *aetas* was used. The relatively high presence of these diagnoses indicates inaccurate determination of causes of death (Foster et al., 2001). Similar to other studies, according to data from this database, the majority of people (57.1%) who died of old age were men (Kellehear, 2007). Age preferences were relatively common among deaths, particularly in records of older people (Dillon, 2008).

A smaller proportion of deaths in the database were identified in the "Digestive" category (3%), with causes such as stomach pain and stomach cramps, followed by "Neoplasms" (2.7%) with findings such as tumors in various parts of the body. Their occurrence in the source does not indicate the prevalence of oncological diagnoses, but in contemporary medicine, the term tumor was defined as a swelling without a clear cause or a subcutaneous lesion that could respond with inflammation (Arnold-Forster, 2021; Flippin 1997; Merke, 1984). Another category was the "External" group (2.7%), which included deaths from accidental causes such as drowning, freezing, suffocation, but also various accidents or as a result of criminal acts, which was not uncommon (De Frenza & Tisci, 2020; Guly, 2011; Spence, 2016; Staines & Ozanne-Smith, 2016). The last category was "Respiratory" (2.5%), which most often included pneumonia, asthma, and tonsillitis. The other categories had even fewer, sporadic occurrences, as shown in Table 1.

Table 1 *Causes of death from Detva parish by HistCat classification*

HistCat Category	N	%
Infectious	2,406	25.05
Ill-defined	1,181	12.29
Tuberculosis	1,131	11.78
Other	1,034	10.77
Diarrhoea	999	10.40
Perinatal	934	9.72
Old age	625	6.51
Digestive	287	2.99
Neoplasms	260	2.71
External	256	2.67
Respiratory	238	2.48
Childbirth	76	0.79
Circulatory	70	0.73
Nervous system	60	0.62
Debility	45	0.47
Genitourinary	3	0.03
Total	9,605	100.00

5 FUTURE RESEARCH AND POTENTIAL USES OF THE DATABASES

The database of causes of death from the parish of Detva is yielding its first results, and further, more detailed analysis of its data can be expected in the future. It will be possible to analyze the causes of death in detail in the context of age groups, according to the sex of the registered persons, but also based on different parts of the parish analyzed. The database will provide opportunities to more comprehensively interpret the correlations between different types of causes of death and the demographic characteristics of the population. For example, one might identify the age categories of women dying in childbirth and from the consequences of childbirth. Similarly, it will be possible to

profile the most frequent victims of heart and circulatory diseases, deaths caused by tumors or diseases of the respiratory and digestive systems.

Special space will be available for the analysis of contagious diseases. In this section, it will be adequate to divide diseases into airborne, waterborne/foodborne, and others. It will be possible to identify how often the diseases occurred in the parish and which population categories (sex, age, place of residence) they most often affected. Also, one may examine in which parts of the parish they occurred most frequently, or in which directions they spread in the town and throughout the parish. One research theme in analyzing data from the database may be seasonality, and thus the presence and increased incidence of contagious diseases during certain times of the calendar year. Seasonality naturally influences other diseases, such as respiratory diseases, but also nutritional diseases, specifically starvation, exhaustion, or wasting (Budnik & Liczbińska, 2015).

From a social history perspective, it will be beneficial to analyze deaths as the result of external causes, whether accidental or the consequences of violence or suicide. These records will need to be approached by synthesizing, that is, to characterize the features of their occurrence in the parish. But it will also be possible to analyze them on a case-by-case basis. By careful analysis, one can identify the specific ways in which persons whose deaths were classified as as accidental, violent or suicidal (Kushner, 1993).

At this point, it is appropriate to summarize the strengths and weaknesses of the database. A clear strength of the database is that it covers causes of death for a period and region that have not been studied at all. The topic of causes of death in the territory of present-day Slovakia, which was part of the Kingdom of Hungary in the 19th century, has received virtually no attention in historiography. To date, preliminary findings have been based solely on small-scale studies focusing on a single year or a brief period. These genealogical and ethnographic studies have generally addressed the subject in a simplistic and imprecise manner. The database presented here provides new insights from a thorough analysis of data spanning a longer period. The fact that the database relies on church records has its limits, as burial records were compiled by local priests who lacked medical training. This is also evident in the nature of the entries, among which a high proportion of diagnoses categorized as "Ill-defined" and "Other" can be identified. Another risk of using this type of source is the issue of retrospective diagnosis, which can increase discrepancies between the data reported in the registers and the actual medical diagnoses of causes of death in the past (Arrizabalaga 2002; Mitchell, 2011). On the other hand, for analyzing a period for which no other state-produced statistical sources on causes of death existed, the use of church registers is the only option.

Other challenges in analyzing the database include linking results to similar sources, thereby making its conclusions more relevant. The ideal would be to link it with analyses from the former Austro-Hungarian Empire to make the environment as comparative as possible. If further circumstances require it, the database could be completed with the earlier period during which well-kept church registers have been preserved. In the materials from the 1890s onwards, however, the parish's geographical components were recorded in a new way and in Hungarian. This could complicate the identification of persons from the earlier period. Once the database has been updated and the data cleaned, it could be made available online, enabling further research and comparative analysis.

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