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MONITORING DISEASE: CAUSE-OF-DEATH- REGISTRATION IN PRUSSIA DURING THE LATE NINETEENTH AND EARLY TWENTIETH CENTURIES

Abstract: In Germany, the recording of the causes of death has had a long tradition and goes back a long time in history, but remained unsystematic and nonuniform as it was an autonomous matter of the different German states. This article pursues the question of how the cause-of-death statistics developed in Prussia, the largest territorial state of the later German Reich. It is asked how these statistics, organized by the Prussian Statistical Bureau, have been related to the nationwide health policy since the 1870s. The historical development of official statistics in Prussia reveals that it is neither self-evident which information was collected, nor the criteria according to which this was done. Rather, the data actually recorded are the result of complicated negotiation processes between different actors, not only within the statistical offices, but also between the most diverse interest groups from science, politics and the state.

Keywords: cause-of-death statistics, Prussia, Germany, late 19th century, early 20th century

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INTRODUCTION

One of the central tasks of any population statistic is the recording of the causes of death. In Germany, this interest goes back a long way, but for a long time remained little systematic and, above all, not uniform. This article pursues the question of how the cause-of-death statistics developed in the largest territorial state of the later German Reich, Prussia, and how it developed in comparison to other German states. Furthermore, it is asked how these statistics organized by the Prussian Statistical Bureau,

which was organizationally located in the Imperial Health Office (das Kaiserliche Gesundheitsamt), have been related to the nationwide health policy since the 1870s. The historical development of official statistics shows that it is neither self-evident which information was collected nor the criteria according to which this was done. Rather, the data actually recorded are the result of complicated negotiation processes between different actors, not only within the statistical offices, but also between the most diverse interest groups from science, politics and the state (Vögele, 2009; Schneider, 2013; more general Bilo, Haas and Schneider 2019). By the mid-1850s at the latest, for example, interest in more detailed medical statistics had grown in the medical department of the Ministry of Education and the Ministry of the Interior (for example v. Raumer an v. Westphalen v. 16.2.1855 [Abschrift], v. Westphalen an Dieterici [Direktor des Statistischen Bureaus] v. 25.2.1855 [Abschrift], both GStA PK, HA I, Rep. 77, Tit. 94, 80, Bd. 1, Bl. 130–133). Only in later years did it become clear that the medical resources, especially in rural areas, were not sufficient to go beyond a more than rough categorization of the causes of death, especially, since in most cases, people died without medical supervision and without a medically certified cause of death (see for example: Leidinger, Lee and Marschalck 1997).

CAUSE-OF-DEATH STATISTICS IN PRUSSIA

From the late 16th century onwards, specific causes of death had been reported in the parish registers in various parts of Germany: this practice became imperative in Prussia, particularly in the larger cities, following the severe plague epidemic of 1708 to 1710. In this context, Prussia has played an important role in the general development of cause-of-death data throughout Germany. In Berlin and Breslau, the city authorities published mortality records as early as the second and third decades of the 18th century; individual provinces also compiled and published lists of causes of death relatively early on. By the second half of the 18th century, at the latest, the registration of causes of death was considered a state matter (Kisskalt, 1925: 165; Boeckh 1863: 5. For the general development in the first half of the nineteenth century see: Fircks 1879).

Under the influence of Johann Peter Süßmilch's (1707–1767) seminal and pioneering work in demography and population statistics (Süßmilch, 1741) and as part of a growing interest in medical topographies, the reg-

istration of causes of death was further improved in Prussia, both in the Circular of 1766 and by the General Land Law (*Allgemeines Landrecht*) of 1794. The founding of the Royal Statistical Bureau (1805) initially promoted this development; however, with the expansion of Prussia after 1815, it proved impossible to introduce a differentiated cause-of-death scheme in the western provinces as well (Guttstadt, 1879: 153), so that Prussia gradually fell back behind the level already achieved.

The situation in other states of Germany was even less satisfactory. Coburg, for example, introduced a relatively simple classification system in 1781 with symptom-based information only on general diseases. It was not until 1803 that Bavarian authorities demanded a yearly overview of the predominant diseases based on data from parish registers. This remained the main source of information on population statistics until 1875, despite the fact that local medical officers were asked to register all deaths according to age, sex and type of disease from 1809 onwards (Kerschensteiner, 1886; Krinner, 1928). After the mid-19th century, many states were able to publish cause-of-death statistics on a regular basis, but the practice was neither uniform nor universal. Hesse never compiled or published adequate cause-of-death statistics, and only ten states were willing to submit data for the compilation of the national cause-of-death statistics (Kohler, 1991: 295). Even after the political unification of 1871, the federal state framework of Germany persisted and there continued to be serious differences in the classification of causes of death, the registration of causes of death by physicians versus lay people, as well as the use of a reliable post-mortem examination (Lee, 2003).

A professionally performed post-mortem examination had become compulsory in Hamburg since 1820, in Württemberg since 1822, in Hesse since 1829, in Bavaria since 1839 and in Saxony since 1850. In Prussia, on the other hand, this was not required by law; here the information on the death certificate was based on information provided by family members or relatives (Prinzing, 1906: 323ff, Heimann, 1906: 20f). Despite various political efforts to enshrine mandatory, expertly executed post-mortem examinations in the law, this did not succeed in Prussia until 1933 (Walter, 1971: 72). Nevertheless, some major Prussian cities had been insisting on such examinations through police ordinances since 1871 (these were Berlin, Breslau, Elberfeld, Königsberg, Stettin, Frankfurt am Main; see Kintner, 1999), and by the turn of the century such ordinances had been introduced in all major cities (for a compilation of towns and cities with more than 15,000 inhabitants who did not report deaths on the ba-

sis of medical death certificates in 1901, see Mayet, 1903: 164). From 1910 onwards, the Rhine province was the only Prussian province to require a compulsory post-mortem examination (Walter, 1971: 80). On the whole in Prussia, even by 1926, 30 percent of the population still lived in communities or areas without such a standard (Kintner, 1999).

In the German, as well as in the international classification schemes, the focus was on acute and chronic infectious diseases (respiratory organs, digestive organs) – with special emphasis on typical childhood infectious diseases such as measles and rubella, scarlet fever, diphtheria and croup¹ as well as whooping cough – and increasingly also on “modern lifestyle diseases” such as cardiovascular diseases and cancer. The main causes of death at the time, gastrointestinal disorders (e.g. diarrhoea), which mainly affected infants, and diseases of the respiratory organs (including pulmonary tuberculosis) were registered along with the classic infectious diseases that were often associated with epidemic outbreaks. The latter included smallpox, which no longer played an important epidemiological role towards the end of the 19th century; or cholera, which was only of local importance by that time. However, both continued to be registered as “scandalized” diseases in many state and city statistical offices well into the 20th century.

After the establishment of the Imperial Health Office in 1876, it published the cause of death statistics for the Reich, districts, provinces and larger German cities (with more than 15,000 inhabitants), based on differently classified data supplied by the statistical offices, including data from the Royal Prussian Statistical Bureau (*Das Deutsche Reich...*, 1907: 42–44; Vögele, 1998: 218–219; now on the medical statistics of the Imperial Health Office; Hüntelmann, 2008: 381–429; 2019). However, the fact that both statisticians and physicians claimed access to the medical statistics often led to divergences, both in later years in Germany as well as at the international level (concerning the latter, cf. Borowy, 2003). The following sections of this contribution focus on the development of cause-of-death statistics; concerning the parallel negotiations on the establishment and modification of comprehensive, nationwide medical statistics (see also Hüntelmann, 2019).

¹ According to Rosen, “Krupp” / “Croup” was a popular term for infectious diseases of the respiratory tract in children, which were often rather symptoms of diphtheria (Rosen, 1973: 666).

This older abbreviated system had 18 distinct numbers and was in use until 1904 (Table 1). From 1892 to 1904 the statistics comprised four age-groups (0-1; 1-15; 15-60; 60 and over), and was extended to 6 age-groups in 1905 (0-1; 1-15; 15-30; 30-60; 60-70; 70 and over) (*Das Deutsche Reich...*, 1907: 46).

Table 1: The abbreviated list of registered causes of death of the Imperial Health Office in the older and newer records.

Until 1904:	From 1905:
Diphtheria and Croup	Weakness of Life (1. month)
Whooping Cough	Old Age (over 60 years)
Scarlet Fever	a) Childbed Fever
Measles	b) Childbirth Other (Miscarriage)
Typhoid Fever	Scarlet Fever
a) Rare Dangerous Infectious Diseases	Measles and Rubella
b) Infectious Animal Diseases	Diphtheria and Croup
a) Pulmonary Tuberculosis	Whooping Cough
b) Other Tuberculosis	Typhoid Fever
Lungs Infection	Infectious Animal Diseases
Other Inflammatory Diseases	a) Rose (Erysipelas)
Pulmonary Diseases	b) Other Wound Infectious Diseases
Catarrh of the Intestines, Atrophic	a) Pulmonary Tuberculosis (Phthisis)
Children	b) Tuberculosis other Organs
a) Childbirth Fever	c) Acute generalized miliary Tuberculosis
b) Childbed Fever	Lung Infection
Neoplasms	Influenza
Weakness of Life	Other Infectious Diseases
Old Age	Other Diseases of the Pulmonary System
Accidents	Diseases of the Circulatory System
Suicide	Brain Stroke
Other	Other Diseases of the Nervous System
Cause of Death not notified	a) Stomach and intestinal catarrh, vomiting
	diarrhoea
	b) Other Diseases of the Digestive System
	c) Appendicitis (since 1907)
	Diseases of the Urinary and Genital Organs
	(except Childbed Fever and Venereal Diseases)
	a) Cancer
	b) Other Neoplasms
	a) Suicide
	b) Murder, Homicide, Execution
	c) Accident or other Violent Death
	Other
	Cause of Death not notified

Source: Würzburger (1909-1914: 45-55); *Das Deutsche Reich...* (1907: 46-47).

In Prussia, after lengthy consultations, the decree of the Ministry of Spiritual, Educational and Medical Affairs and the Ministry of the Interior of April 1904 resulted in a major revision of the recording of the causes of death (Table 1; Preußen. Erlaß..., 1904; *Preussische Statistik...*, 1905: VI–XVI). The requirement was, on the one hand, to take into account the latest scientific knowledge, and also to design a uniform system for the industrialized nations. The latter however failed, therefore large differences remained even within the German Empire.

A major point of contention between the Prussian Statistical Bureau and the Imperial Health Office was the question of whether the Bureau should continue to forward the figures at the district level to the Health Office, especially as these would be published annually in the “Prussian Statistics” anyway. The Imperial Health Office, on the other hand, was interested in receiving the data quickly so that it could be used and made available to health policy (GStA PK, HA I, Rep. 77, 3910, Bl. 68–73). The office attached great importance to a detailed and narrow geographic grid of records, and thus precisely forwarded to the district level, so that it could quickly identify the outbreak and spread of epidemics. In addition, there was the hope of being able to narrow down the causes of diseases on the basis of statistics sent down to the district level. It was stated:

Experience has taught us that the most diverse influences must be taken into account, such as the water supply, nutrition, waste disposal, housing, density of people living together, occupation, because the most important illnesses are more or less caused by social ills. The indispensable basis of epidemiological disease research is the most detailed statistical evidence possible, such as where the diseases are found and how often they occur in the various places. Only when one is informed about this can one try to bring clarity to the mostly complicated circumstances, in order to then remedy the situation in fulfilment of the practical tasks of public health care. But this requires a knowledge of the mortality processes in the individual districts (GStA PK, HA I, Rep. 77, 3910, Bl. 70).

In the eyes of the Imperial Health Office, the statistics should, therefore, unmistakably represent a solid basis for public health care. At first, the health department apparently prevailed with this argument. The reference of the Interior to the inevitable loss of reputation by the Reich Office, “if the figures for all non-Prussian federal states were still published for the smaller districts”, whereas Prussia only provided figures for the provincial level may have played a role in this context (GStA PK, HA I, Rep. 77, 3910, Bl. 74).

Financial pressures on the bureau increased in the years that followed, so that Prussia, for example, stopped publishing the causes of death by district from 1916 onwards (GStA PK, HA I, Rep. 77, 3910, Bl. 181). In the years of the Weimar Republic, it became more and more difficult to maintain even the level of medical statistical recording that had been achieved due to the precarious financial situation of the state. This put Prussia in an awkward situation against the background of an ever-stronger international trend towards standardization of cause-of-death statistics. Without this trend having offered a guarantee for reliable statistics on the causes of death across the board (Lee, 2005). For example, the introduction in 1930 of a standardized list of causes of death, which was already in international use, when relevant statistics were in serious jeopardy due to the high costs involved. This prompted the President of the Prussian State Statistical Office to write a detailed memorandum in which he explained in detail the necessity of these statistics. Only the regular survey of the causes of death makes it possible, for example, to assess the effectiveness of disease control measures over years and decades and to adjust them if necessary (GStA PK, HA I, Rep. 77, 3910, Bl. 187). International reputation also played a role in the argument: From the Handbook of the International Statistical Institute:

it turns out that there is not a civilized state down to Haiti that does not keep statistics on the causes of death. Given this state of affairs, it seems to me very questionable to forego the Prussian statistics on the causes of death, as is planned (GStA PK, HA I, Rep. 77, 3910, Bl. 187)

The Reich Ministry of the Interior (RMdI) also supported the acceptance of the international list of causes of death, as decided at an international conference in October 1929 in Paris “by 39 countries around the world” (GStA PK, HA I, Rep. 77, 3910, Bl. 192). And for factual reasons, the RMdI considered it urgently necessary to adopt the international directory, which is much more detailed than the German directory and reflected the current state of medical science. For instance, in 1928, 126,500 deaths (which corresponded to about one sixth of all deaths) were summarized under the broad general heading “Diseases of the circulatory organs”,

it becomes impossible to recognize the importance of specific individual diseases of the heart and blood vessels, and thereby, impossible to determine the causes from which the number of deaths from diseases of the circulatory organs has steadily increased (GStA PK, HA I, Rep. 77, 3910, Bl. 192-205: „Begründung“, Bl. 195).

Overall, the infectious diseases, following the epidemiological and bacteriological tradition, are given too much weight compared to organ diseases (GStA PK, HA I, Rep. 77, 3910, Bl. 192–205: Bl. 195). However, a new register alone did not guarantee the necessary prerequisites for reliable cause-of-death statistics, in particular, medical involvement in determining the cause of death. Irrespective of the deficits that still exist in this respect,

Reorganization of the statistics on the causes of death [...] is, above the connection to international efforts, also absolutely necessary for German purposes in the interest of planned economic work in the field of health policy (GStA PK, HA I, Rep. 77, 3910, Bl. 192–205: Bl. 205).

In fact, the statisticians together with the specialist departments involved, succeeded in persuading the Minister of Finance to introduce the international list of causes of death from 1932 (GStA PK, HA I, Rep. 77, 3910, Bl. 224–230; Bl. 250–252). Despite the pioneering role of Prussia, the German Empire was one of the last European states to adopt the international classification system (Table 2).

Table 2: The introduction of the international register of causes of death (ICD)

Country	detailed ICD	short ICD
Belgium	-	1903
Bulgaria	-	1925
England and Wales	1911	-
France	1900 (Paris)	1900
Netherlands	1901	-
Ireland	1921	-
Lithuania	-	1925
Luxembourg	-	1924
Poland	-	1909
Portugal	-	1901
Scotland	1921	-
Spain	1900	-
Turkey	-	1924

Source: Huber (1930: 7).

Financial reasons also led to the decision to transfer the medical statistics at the Reich level, from the Reich Health Office, to the Reich Statistical Office in 1925 and to merge them with the population statistics there. Friedrich Burgdörfer, who was responsible for censuses in the Reich Statistical Office at the time, had requested this on the part of the statisticians (HessStA Darmstadt, G 13, 203: 21–27).² However, it was not only the conference of national and state statisticians who was interested in this shift in competence, but chiefly the Reich Savings Commissioner, who intensively scoured the state administration for duplications of work and for this reason also played a key role in the change in responsibility for medical statistics (Hüntelmann, 2008: 394–396; 2019).

CONCLUSION

Overall, the course of the disputes about the character and administrative location of the cause-of-death statistics shows that this survey, by no means, unbrokenly reflected the respective state of medical knowledge, but rather was also an expression of the financial possibilities of a state and the compromises between the actors involved within the statistical offices, as well as between various interest groups from science, politics and the state. Despite various efforts, the German Empire was one of the last European states to adopt the international classification system.

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² Burgdörfer was by no means alone here; see e.g. the article published by Emil Roesle in the run-up to the decision, in which he justified the need for the Reich Statistics to oversee medical statistics (Roesle, 1924: 101).

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