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Reassessing the field”**

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Guest Editor's Note

The present thematic issue, entitled *Epidemics, healthcare systems, and healthcare actors in Romanian-speaking areas between the 18th and 20th centuries. Reassessing the field*, has emerged from a panel organized at the National Congress of Romanian Historians, held at the University of Suceava, in August 2024. The scope of the panel – entitled “Medical modernization, social modernization. Public health in Romanian-speaking areas during the 18th-20th centuries” – was to review the main recent developments in the field of medical history with an added, direly needed regional focus.

The timeliness of the present issue is highlighted by the existence of recent European-wide projects with a transnational focus on the history of healthcare, such as the COST Action 22159 (National, International and Transnational Histories of Healthcare, 1850-2000 - EuroHealthHist), which aim to bridge the growing divides in terms of “themes, approaches, methods, and even sources between historians working in different parts of Europe”¹. Despite Romania’s lengthy tradition in recovering the medical past of its inhabitants, regardless of time frame and (historical) area, there remain considerable gaps in knowledge to be covered, compared to other areas of Europe. With the gradual developments of different digital approaches to archival source material that are poised to shed highly nuanced light on patients’ and health providers’ joint experiences, the speed at which regional divisions in terms of analysis and findings will grow can only increase. Thus, recent attempts to overcome this source of broadening disparity, such as those by Dumănescu, Hegedűş and Lumezeanu (2022), must be supported by a constant trans-disciplinary effort to lay the groundwork of a new history of medicine in this part of the continent.

The papers collected in the current special issue of the *Romanian Journal of Population Studies* display the wide range of approaches and source material that characterize the grassroots approach to the development of medical infrastructures, the emergence and self-fashioning of new medical actors, as well as the concerted efforts of various state actors to draft, define, and implement a growing set of measures to report, understand, and prevent (epidemic) disease.

¹ CA 22159 – Description, <https://www.cost.eu/actions/CA22159/>, last accessed 12th February 2025.

The ensuing palette of studies spans from eighteenth-century, Habsburg-controlled Transylvania (Jesner) to late nineteenth-century Bukovina (Mareci-Sabol), Bessarabia (Ețco), and the riverine borders of the newly fashioned Romanian State (Trăușan-Matu, Buda). A further study explores the role played by a close companion of epidemic, namely warfare, in the self-definition of healthcare actors whose activities and lives were inarguably changed by the transformative experience of the multiple military conflicts that involved Romanian-speaking areas between 1877 and the Great War (Livadă-Cadeschi).

Several related topics figure in all studies, exhibiting the similarities in terms of challenges experienced by various state actors in this area of Europe: on the one hand, most studies allude to or explicitly discuss the emergence of healthcare systems, framing it as a process that required going beyond the mere creation of functional infrastructures, and their staffing with qualified individuals. Regardless of the time frame, geographic or political framework, or the type of health concerns being dealt with – primarily but not exclusively epidemic in nature – the guiding read thread in the establishment of a functional system able to counter the appearance and spread of disease seems to have been the creation of an infrastructure that allowed the collection, reporting, and dissemination of health data at various levels. Health data – in aggregate, state-driven forms, as well as in granular patient-histories – appears as one of the prime movers in guiding the formation of a health system that could identify potential peril and sickness before it became a matter of national security. Related to this, on the other hand, is the growing association built by collecting data between patients' (or would-be patients') social and economic status and their pathologies, which would gradually and inalienably shape the structure and provision of healthcare well into the twenty-first century.

Thus, the present special issue appears highly topical, in the context of the broader discussion as to the origins of inequality manifested and perpetrated by healthcare systems in treating diseases and delineating categories of potential patients.

Oana Sorescu-Iudean

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Health Data Reporting and Recordkeeping in Early Modern Transylvania: The Medical Reports of Andrea Carol Grosse

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Abstract. This study explores the emergence of systematic health data reporting and recordkeeping in early modern Transylvania through an analysis of Andrea Carol Grosse's medical report on the 1737–1738 plague outbreak. Against the backdrop of the Habsburg Monarchy's increasing centralization and the concomitant recognition of population health as a cornerstone of military strength and economic prosperity, Grosse's work illustrates the early integration of empirical observation with nascent statistical methods. His report, structured in three interrelated sections—descriptive analysis, detailed patient case studies, and a travel diary—demonstrates how paper-based administrative technologies facilitated the collection and organization of health data. Grosse's systematic documentation of disease transmission, symptomatology, and outcomes not only reflects contemporary theories of contagion and miasma but also anticipates modern epidemiological approaches by linking individual patient histories to broader public health measures. By contextualizing Grosse's observations within the broader shifts in statecraft, medical practice, and administrative technology, this paper contributes to our understanding of how early modern health data practices laid the groundwork for the development of medical statistics and evidence-based public health policy. The findings underscore the transformative role of health data in early modern governmental strategies and offer new insights into the interplay between medical knowledge production and state power.

Keywords: Transylvania, health data, eighteenth century, epidemics, patient history

1. Introduction

During the eighteenth century, the early modern state increasingly recognized the importance of maintaining the population's health as a critical factor for its strength and prosperity. This realization has been linked in historiography to the emergence of public health initiatives, which marked the beginning of systematic efforts to sustainably improve the health of entire populations.

Health data played a crucial role in this process. Research into the relationship between population and health data in early modernity has garnered significant scholarly attention and sparked debates (Mackenbach 2020: 8-10). Key factors such as nutrition, medical advancements, hygiene, and inoculation/vaccination have been identified as foundational for improving public health and extending life expectancy. The observation and control of health during this period were facilitated by new modes of governmentality and the development of data sets to lay the foundation for public health measures. These data sets were produced on demand by the early modern state or, in some cases, by the church, reflecting a growing institutional interest in health management, but also the role of private initiative by medical practitioners.

This article examines early modern governmental modes of action for managing and collecting health-related data, focusing on the Habsburg province of Transylvania, administered by the Viennese Court, as a case study. Concentrating on a bubonic plague outbreak in 1737 and the work of Andrea Carol Grosse, it explores the modes of health data reporting and recordkeeping characteristic of the early modern period. Grosse's medical report will be analyzed as an important step toward the emergence of a medical statistic, including a glimpse toward the role of patients' histories for such new modes to gain knowledge on medical issues, to react timely during a period of medical crisis.

2. Health data between paper technology and epidemics

The relationship between the Habsburg Monarchy, as an early modern increasingly centralized organization, striving for uniformity, and its human population underwent significant changes during the eighteenth century. During this period, the Habsburgs' average population came to be recognized as important, valuable, and characterized by their occupational roles as hard-working farmers, industrious laborers, battle-ready soldiers and mothers. This shift was influenced by the rise of rational thinking among early modern states, supported by the early spread of Enlightenment ideas. States began to understand their populations as a critical factor in their wealth, as cameralism—the predominant economic theory of the time—assumed that economic

prosperity relied on the labor of men and women, who also served as valued taxpayers. Furthermore, the power of early modern states, on the cusp of transitioning into territorial states, was closely tied to military strength, which depended on having sufficient healthy soldiers. Consequently, diseases, which decimated the population, became not only a demographic issue but also an economic and security problem. The Habsburg Monarchy began to take on the role of a manager of public health, collecting health data for self-serving purposes. Historiography previously pointed to the emergence of state-institutionalized public health in the nineteenth century and classified developments such as the formation of statistics as prerequisites for the establishment of public health. An approach that Dorothy Porter, especially since the fight against epidemics has been regarded as part of public health, classified as outdated. The handling of epidemic diseases must be viewed as part of an emerging modern governmentality of health (Porter 1999: 10).

The long eighteenth century was characterized by the “epidemiological transition”, a phase in which pestilence and famine were the leading causes of death among contemporaries. The predominance of pestilences—often in the context of wars—began to shape governmental strategies aimed at both preventing and curbing epidemic diseases (Mackenbach 2020:7-8).

The frequent occurrence of epidemics also sparked a broader interest in the issue of public health. The “fight” against epidemics became an integral part of both the external and internal policies of the Viennese Court, serving as a foundational element of governmental strategy (Lesky 1957: 82-106; Jesner 2021: 31–55). The Habsburg Monarchy established new institutions such as the *Sanitätshofkommission* (Sanitary Court Commission) based in Vienna, the *Sanitätskommissionen* (Sanitary Commissions) in the provinces – in Sibiu, and the *Medicinal Polizey* (medical police), which acted as a significant surveillance authority. The medical police monitored the population’s behaviour, particularly regarding sexual conduct, which the Roman Catholic Habsburg leadership regarded as crucial for public health by preventing the spread of sexually transmitted diseases (Rosen 1974, Rosen 1958, Möller 2005, Lang 2021).

The early modern state also created new professional roles, such as *proto medici* (leading physicians) and *(pest)chirurgi* (specialists for pestilences), to manage and implement health and sanitary policies. These processes are of particular interest because they facilitated the collection of new health-related data. These measures were accompanied by new laws (Sanitätsnormativ 1770), the establishment of medical spaces (e.g., terrestrial and maritime quarantine stations, hospitals, and homes for invalids), new hygiene strategies (e.g.,

canalization, the promotion of clean water, purification methods, and social distancing), as well as the professionalization of medical education (The Josephinian Academy in Vienna - *Josephinum*) and administrative procedures (Lesky 1959: 1–228, Loetz 1993, Lohff 2019).

The eighteenth century marked the initial phase of the “paper technology” era. During this period, the state began systematically registering births and deaths, while hospitals recorded patient admissions and discharges. These records often included columns for names, ages, dates of admission or discharge, and sometimes additional data such as occupation (Kassell 2016: 120-135; Weisser 2024). In 2010, medical historians Volker Hess and J. Andrew Mendelsohn explored the connection between medical knowledge and paper technology. The authors highlighted the importance of “case and series”, emphasizing patient histories as crucial sources for generating medical knowledge. They argued that such records were prerequisites for constructing epistemically meaningful series in medical contexts. They stated (Hess, Mendelsohn 2010: 287-314):

“Questionnaires, hand-drawn columns or tables, or printed schemata: all such formatting, prescriptive in both the normative and literal sense, operates by fill-in-the-blank. Designed to ease the collection, organization, and storing of knowledge, prescriptive formatting also had unplanned effects, among them the production of series.”

The technology of paper prescribing originated in the early modern state administration in the form of simple lists used to manage data. Simple tables with rubrics became essential administrative tools across civil, military, and medical contexts (Rusnock 2002).

In military contexts, precise figures on prisoners of war, the wounded, or the dead enabled an “evaluation” of wars and informed strategies to enhance military and medical efficiency. Source materials from the Habsburg-Ottoman Wars of the eighteenth century reveal that such data were analyzed by authorities to address health-related issues, such as ensuring the availability of sufficient medical personnel, medication, food, clothing, and bandaging materials, or determining whether a temporary hospital needed to be established due to heavy losses.

In 1906, the physician Friedrich Prinzing wrote *Handbuch der Medizinischen Statistik*, which, in its second edition (Prinzing 1931), included historical statistics on mortality. According to Prinzing, famine and war were key factors contributing to increased mortality throughout history.

Furthermore, Prinzing outlined an approach that established him as a pioneer in the history of military medicine, namely, the study *Epidemics Resulting from Wars* in 1916 (Prinzing 1916). He adopted a statistical methodology, analyzing quantitative source material on the mortality of so-called “war epidemics”. Prinzing used this data-driven approach to highlight the high mortality rates associated with military conflicts. He emphasized the detrimental impact of the intersection between warfare and epidemics on the health of both civilian and military populations (Prinzing 1931: 640-650). The case presented in this paper will also be connected with warfare and its effects on the spread of pestilence in zones of conflict including its hinterland.

The highly diverse sources resulting from the manifold record-keeping procedures during epidemics provide historians with valuable insights into the nexus of health data and population dynamics. However, each data set allows us to gain in-depth understanding of single cases, which in turn enables us to gain a broad comparative perspective, useful in subsequent analyses of new datasets for the purpose of research on infection patterns, disease progression, and mortality in the early modern area.

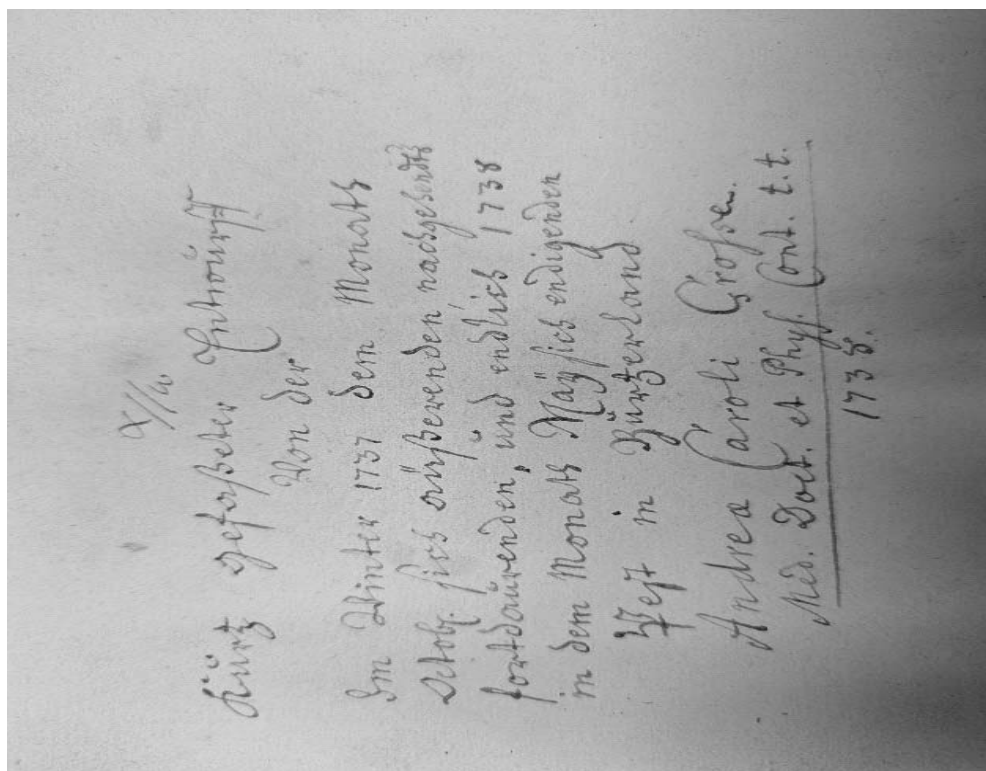
3. The reports of the physician Grosse on a plague outbreak in Transylvania (1737-1738)

In October 1737, shortly after the Habsburg army had launched a military campaign in the region, the plague spread from Wallachia to Transylvania. Local authorities, however, were uncertain whether the disease was the “real” bubonic plague or another illness. From Transylvania, the plague was transmitted to the Banat and Hungary by military forces, particularly the Grünne Regiment stationed in Sibiu (Sorescu-Iudean 2025a). At this time, the Habsburg-Ottoman War (1736-1739) had transformed the south-eastern margins of the Habsburg Empire into a war zone (Angeli 1881: 247-338, 409-479). With the transfer of the Grünne Regiment to the Banat, the epidemic intensified in the conflict-affected region, likely influencing the outcome of the war (Hammer 1839). This outbreak underscored the significance of locally based and organized sanitary commissions in Sibiu, Timișoara, and Osijek as local managing institutions of health. In our case, the correspondence of the commission in Sibiu provides valuable insights into the spread of the epidemic, contemporary perceptions of the disease, and the strategies implemented to contain it.

In Juli 1738 the report *Kurtz gefaßeter Entwurf von der Im Winter 1737 dem Monats Octobri sich äußerenden nachgehendts fortdaurenden, und endlich 1738 in dem Monath May sich endigenden Pest im Burtzerland was in Juli 1738* was submitted from

Sibiu to the Sanitary Court Commission in Vienna. The report dealt with the plague in the historical region Țara Bârsei (Burzenland) between October 1737 and May 1738. The document will be the key source for this article.

Figure 1. Cover sheet of Grosse's report



Source: Austrian State Archives (c).

The author of the report was Andrea Caroli Grosse. Born in Cristian, a large village in Țara Bârsei near Sibiu, Grosse was the son of the local priest. He studied medicine in Halle from 1729 to 1732 and began his career as a military physician in Wallachia before being appointed as a doctor in Transylvania by the Viennese court. The limited available sources indicate that Grosse spent the majority of his life practicing medicine in Transylvania. According to parish registers, he passed away in 1757 in Sibiu (Trausch 1870: 38, Offner 2006: 299). In 1737 he was recorded as holding the position of *Pestchirurgi* (plague physician).

The inclusion of such early modern medical reports in our research allows us to put the spotlight on the contemporaneous perception of illness and health (Dinges et al. 2015, Steinke, Stuber 2004: 139-160, Fossel 1913: 238-252, Schlegelmich 2015: 100-110, Stolberg 2023, 357-385). As Michael Stolberg has noted, these represent significant testimonials of practices of producing evidence for the production of medical knowledge. The medical historian defines further (Stolberg 2015: 78):

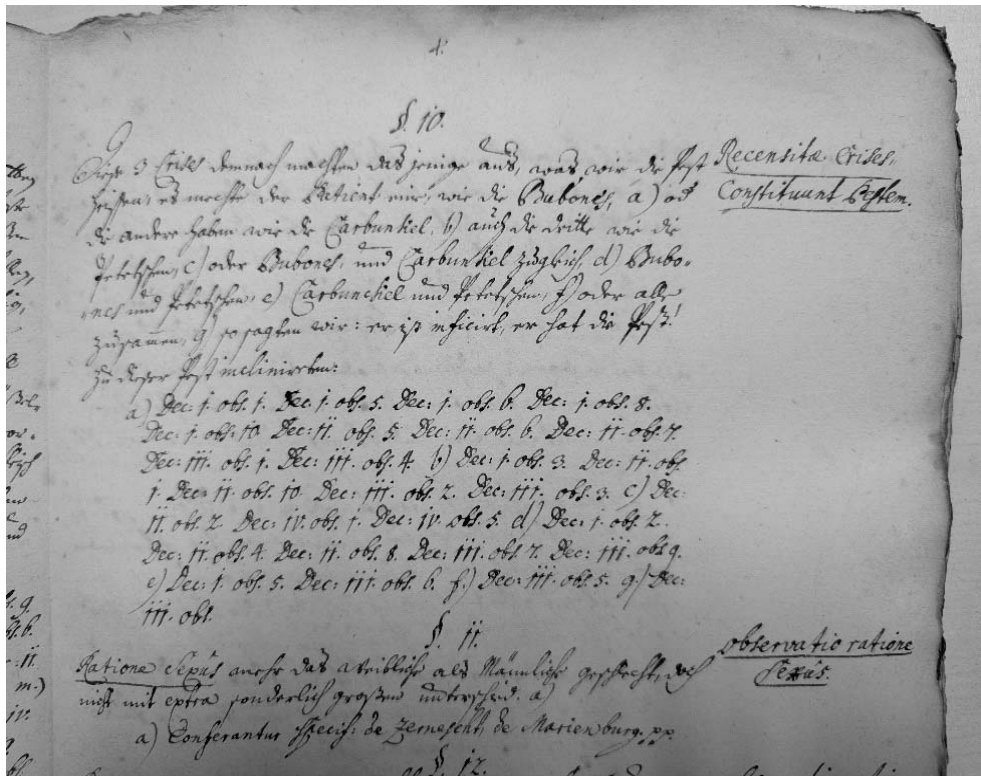
At its core lies the question of how scholars and scientists, at different times, arrive at specific insights and convictions—how they develop hypotheses and theories from a multitude of individual observations on humans, in nature, or in the laboratory, as well as from serial, experimentally generated data.

Stolberg refers to the duality of medical writings as either public or private records, to the growing interest among scholarship into communicative practices (among others diaries, letters, laboratory journals or official reports), and ascribes to them a key role in the implementation of new knowledge and practices (Stolberg 2015: 78-79).

In the accompanying letter of the report, Grosse emphasizes that he submitted the report on demand of the authorities and that the material concerning the plague in Țara Bârsei is based on facts only, „without the slightest enlargement or reduction of the incidents”.

The report itself is divided into three parts: A descriptive analyses of his results, an *observatium* based on individual patient cases, and a travel diary (*diarium*) from November 1737 until May 1738. All three parts refer to each other. His description of results in the first part are linked with the number of the *Observationes*, the patient case (for example see fig. 2: Dec(as) I obs. I). This approach allowed Grosse to prove his findings with facts based on his own set of *Observationes*, made during visitations. The physician was instructed by the local Commanding General of the province Field Marshal Johann Georg Christian von Lobkowitz (1686-1755) to visit infected or perhaps infected villages in order to medicate the infected population.

Figure 2. Observations as reference for a fact based analyse



Source: Austrian State Archives (c).

The first part of the three is titled “Von der 1737 im Burtzerland an Siebenbürgen grassirenden Pest” and divided into 27 sections. Grosse located the origin of the plague in the Ottoman Empire (Panzac 1985). He referred to *Sistok* as possible place of origin, a place close to the Danube, where the plague had raged in May and June in 1737. For Grosse was clear that the plague had been transferred from Walachia to Transylvania and the Țara Bârsei by military troops. In a second step Grosse tried to trace “patient 0” of the Țara Bârsei. The physician explained that in October 1737 the plague broke out by a *Compagnie Marquetainer*, a merchant of the Damnitz Regiment in Codlea (Zeyden). Grosse stated that the deceased merchant and his wife transferred the disease to the local inn owner. At the same time Grosse traced the plague to the Wallachian village of Zărnești (Zernescht) in farmhouses, which had served as quarter for Wachtmeister von Gylani and his hussars. In October a

person from the village Toarcla (Tartlen) was dispatched to the imperial magazine in Braşov (Kronstadt). In Braşov he got a used tobacco pipe as present from a soldier and brought the plague back into the village. According to Grosse, the plague emerged from these three places. Outgoing from Coldea, Zărneşti and Toarcla the disease was then transferred to Vlădeni (Vladany), Vulcan (Volkendorf), Tohanu (Tohan), Apaţa (Apatza), Sânpetru (Petersberg), Feldioara (Marienburg) and Ghimbav (Veidenbach). These ten villages, ravaged by the disease, were the centre of attention in Grosse's report.

From the physician's perspective, disease transmission occurred through *Miasma Pestilentialia* via *Humoribus Corporis Humani*, as well as through sweat, saliva, or the exhalation of unhealthy air. Additionally, direct contact with buboes and carbuncles containing pus, as well as with fabrics that had come into contact with them, was considered to be highly risky. Grosse's theory of disease transmission reflects an interesting combination of contagion theory and miasma theory. He describes the symptoms of the disease, which include headache, nausea and vomiting, muscle aches, general weakness, fatigue, blackened skin (gangrene), sudden onset of high fever and chills, and swollen, painful lymph nodes (buboes) in the groin, armpits, or neck. He also provides an account of the progression of the disease, as the presence of buboes, carbuncles or petechiae, characterized as "crisis" indicate a plague infection, according to his concept.

According to Grosse's account, slightly more women than men died during the plague outbreak. A few of the women had been pregnant, showing buboes, but had had no abortive birth. Concerning the age of plague victims, according to Grosse's analyses, in every other village except Zărneşti more adults than children had passed away. Outgoing from humoral pathology Grosse wrote concerning *Ratione Temperamentorum* that only sanguine and phlegmatic persons were been infected by the plague, while the choleric and melancholic type had been spared.

Temporally, he identifies a peak in cases in October and around Christmas, while noting a decrease in lethality during the full moon. The physician likewise noted that during the plague outbreak, the incidence of other diseases, such as measles and smallpox, declined. In this context, it is important to acknowledge the evident effectiveness of quarantine as a medical technique for isolating infected individuals to prevent the spread of disease.

Grosse focused extensively on the issue of prevention. He identified three categories of preventive measures practiced in the Țara Bârsei. The *Ratione Prophylaxeos Theologica* encompassed two daily prayers, along with personal penitential prayers, seeking God's forgiveness for sins and requesting

divine intervention to restore the health of the infected. Grosse's concept of *Ratione Prophylaxeos Politica* was based on orders issued by the military leadership, the sanitary commission and the directives of the Braşov magistrate. However, he critically highlighted a significant issue: these measures were not implemented as intended. Healthy villages failed to properly restrict access to individuals from infected areas, roads were not adequately maintained, and dead cats and dogs were not buried as required. Additionally, sick cattle were improperly processed for consumption, public gatherings continued despite prohibitions, and individuals neglected to report cases of illness or adhere to quarantine regulations. Furthermore, people exchanged clothing and inherited belongings from deceased infected individuals, while officials failed to provide essential support, such as food and firewood, to affected households. This description reflects a reality in which official norms were not fully observed. Grosse introduced his final category, *Ratione Prophylaxeos Medico*, also with a critical remark: no one had consulted physicians on which preventive measures would be effective against plague infection. The idea of prevention had not yet arrived in the minds of the population. He emphasized the importance of mental stability in relation to his own role as a medical professional, which, in the early modern period, was closely associated with prayer. For their own protection, physicians followed a diet that included vinegar and they disinfected their mouths with wine or schnapps. Additionally, they chewed juniper, fumigated rooms after attending to patients, disinfected their own clothing, maintained distance from patients' breath and sweat, and took measures to protect their faces. Grosse determined that the prophylactic measures implemented by the government in Vienna and enforced by local medical personnel were not sufficiently observed by the population and certain officials, rendering the regulations ineffective. The preventive strategies employed were primarily based on the principles of separation and quarantine, which were considered the most essential tools for controlling the spread of infectious diseases until nowadays (Jesner 2021).

Figure 3: Diarium, Tabell I, January 12, 1738

Ort:	Häuser:	Gestorbene:	Kranke:	Rekonvaleszente:
Creiden:	33.	56.	28.	30.
Wolkendorf:	7.	15.	3.	5.
Perdenbach:	5.	13.	"	9.
Zernezcht:	42.	109.	"	52.
Johan:	1.	8.	"	"
Petersberg:	1.	4.	"	2.
Summa:	89.	215.	31.	98.

Source: Austrian State Archives(c).

Following his description of the medical treatment practices for the plague, including the *Cura Pestis* with its XXI sub-sections, Grosse presents a *General Tabell*. In his travel diary, the physician recorded statistical observations based on his visits to infected villages. In 1737, he documented and analysed the spread of the disease by categorizing data into villages (*Ort*), infected houses (*Häuser*), patients (*Kranke*), and deceased individuals (*Gestorbene*). By 1738, he began numbering his tables (Tab. I – Tabella XVIII) and expanded his analytical approach by incorporating additional categories, including villages (*Dörfer*), houses (*Häuser*), deceased individuals (*Gestorbene*), patients (*Kranke*), and convalescents (*Rekonvaleszente*).

These aggregated datasets enabled Grosse to conclude his report with a table (figure 4) that facilitates drawing conclusions about the mortality rate during the period under investigation.

Figure 4. General Tabell From October 1737 until May 1738

Ort	Häuser	Personen
Torsler	1	5
Peterdorf	1	4
Seibentoch	5	9
Thau	1	8
Weiskendorf	7	21
Oeden	24	60
Wadung	1	6
Zennell	4	17
St. Michael	5	11
Marientberg	2	4
Summa	101	382

General Tabell.
 10. Sept. 1738
 J. G. G.

Source: Austrian State Archives(c).

In ten villages, 101 houses were infected, with a total of 382 individuals affected, of whom 133 survived the disease. Gathering information through the use of such handwritten structured forms (Figure 3 and 4) allows us to trace first attempts of producing statistical knowledge in medical contexts.

4. Grosse's Observations: Small steps toward an individual patient history

Finally, we turn to the field of patient history, which emerged as a distinct area of study within the history of medicine in the late twentieth and early twenty-first centuries. Traditionally, the history of medicine centred on prominent physicians, landmark discoveries, and institutional developments. However, from the 1970s onward, scholars increasingly sought to recover the experiences of patients, reflecting the rise of social history and a growing interest in marginalized voices (Gillis 2006: 490-512, Warner 1999: 101-111). This field intersects with the histories of the body, emotions, disability, and public health,

drawing on diverse sources such as patient letters, diaries, asylum records, oral histories, and series of cases like Grosse's *Observationes* (Vanja 2006: 26-35, Stolberg 2016: 499-518, Churchill 2012).

Grosse provides valuable insights into Transylvanian patient history in the 1730s. He documented 50 cases in the report, systematically indexed within five sections (Decas I–V). During his *Visitationen* (instructed journeys) in the ten villages to practice physical examination of potential infected and already sick persons, Grosse was accompanied by a *Contagions Chyrurgo*. By the eighteenth century, such visitations had become a common political instrument for monitoring and directing governmental (health) strategies in rural areas. While the origins of this practice can be traced to religious traditions, it evolved into a powerful administrative tool (Zeeden, Lang 1984, Näther 2014: 121-136, Kröll: 2024).

Grosse's journeys were clearly governmental missions, as evidenced by his frequent diary entries documenting his reports to the Sanitary Commission in Sibiu, Field Marshal Lobkowitz, General Field Marshal Wolf Siegmund von Damnitz, and the Braşov magistrate. His entries allow for the reconstruction of his travel route. The report presents 50 case studies, divided into 17 cases involving female patients and 23 involving male patients, of whom 22 were children. Grosse did not provide any explanation for this particular selection; however, he noted the existence of additional cases, some of which were similar to those presented in the report. Furthermore, he mentioned that he became ill in December, shortly before Christmas, and remained unwell until the first week of 1738—a circumstance that adversely affected the structuring of the selected sample, as he was unable to document cases accurately during that period.

Grosse was influenced by a Galenic medical milieu and was committed to providing detailed descriptions of symptoms and the progression of disease, with particular attention to the occurrence of a “crisis” as a pivotal turning point in contemporary perceptions of illness. Consequently, we will examine several cases. For example, he documented the illness of a seven-year-old boy who developed a bubo under the armpit that enlarged to the size of a hazelnut by the second day of observation, and who ultimately died on the third day without receiving any treatment. Another case highlights the dangerous misconduct of a Saxon plague physician. The physician used a piece of fabric to wipe the purulent buboes and carbuncle of a patient and subsequently repurposed the same fabric as socks in his shoes. He justified this action by citing the exceptionally cold weather and his fear of freezing to death. A woman from an infected household developed a pestilential fever, experiencing

alternating chills and hot flashes, as well as episodes of delirium, for nine days. Throughout this period, no clear turning point or “crisis” could be identified, although she did not suffer from severe pain. On the tenth day, Grosse decided to perform bloodletting, after which the patient's condition gradually improved. She regained coherence, her delirious episodes ceased, and she expressed a desire to eat. By the second day following the treatment, she had fully recovered and was considered convalescent. Grosse also documented the infection of a Wallachian pope in his forties. The initial symptoms included limb pain and hot flashes, followed by the development of two buboes in the groin area. One bubo was elongated and thick, resembling a sausage, while the other, located slightly below the first on the same leg, was approximately the size of a goose egg. These buboes were treated with specialized plasters; however, they only began to diminish in size after fourteen days and completely disappeared after four weeks.

The selected cases from Grosse’s sample illustrate how the physician systematically summarized key information, including the patient's sex, age, symptoms, treatment, disease progression, and, in some instances, details regarding the chain of infection. Grosse did not anonymize his patients; however, his approach was not entirely consistent, as he occasionally provided the name of the patient or a close relative, such as a father. Individual observations conclude with a Scholion—a type of explanatory comment that highlights what made the case noteworthy or representative.

Grosse’s diary provides limited insight into the physician-patient relationship; however, it does reveal that visits to sick individuals occurred on a regular basis. During his stays in villages, he oversaw the burning of material goods and maintained close contact with various locations classified as hazardous, necessitating his own periodic quarantine. His final diary entry, dated May 14, 1738, states: “In the afternoon, we finally arrived in Sibiu and successfully concluded this expedition.” At this point in time all villages were free from the disease.

5. Conclusion

This study demonstrates that early modern Transylvania, as exemplified by Andrea Carol Grosse’s medical reporting during the plague outbreak (1737–1738), was a formative arena for the emergence of systematic health data reporting and recordkeeping. Grosse’s detailed observations, structured data collection, and incorporation of patient histories highlight how early modern medical practitioners began to harness quantitative and qualitative data to understand and manage epidemics. His work provided immediate

administrative and clinical guidance during a critical public health crisis for the court in Vienna.

The analysis reveals that the Habsburg Monarchy's increasing reliance on data collection was deeply intertwined with its broader strategies of state centralization, military readiness, and economic management. Health, reinterpreted as a collective asset crucial to national strength, spurred innovations in administrative practices—including the creation of handwritten tables, patient case series, and early statistical compilations. Grosse's report, with its methodical indexing of cases and integration of narrative patient histories, exemplifies the nascent “paper technology” that facilitated the transformation of sporadic medical observations into structured epidemiological evidence.

Moreover, the paper illustrates the complex interplay between governmental directives, military movements, and local practices, emphasizing that effective public health measures depended not only on data collection but also on how faithfully measures were implemented. Grosse's critical commentary on the shortcomings of local quarantine and preventive practices underscores the challenges inherent in early modern public health governance. His dual approach—combining empirical data with contemporary medical theories such as miasma and contagion—prefigures later developments in evidence-based medicine and biomathematics.

In sum, this study contributes to our understanding of how early modern efforts in health data reporting and recordkeeping were instrumental in shaping public health policies and practices. It positions Grosse's work as a key transitional moment in the evolution from individualized case studies to systematic epidemiological analysis, thereby offering valuable insights into the origins of modern medical statistics and the enduring role of patient histories in generating medical knowledge.

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Quantitative and Qualitative Transformations in the Public Healthcare System and the Medical Infrastructure in Bessarabia (1812-1917)

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Abstract. The present study offers a survey of the evolution of the medical infrastructure in Bessarabia during the nineteenth - early twentieth century based on published and unpublished documents. It summarizes the quantitative and qualitative transformations that took place in the public health care system in Bessarabia during the above-mentioned period. At the same time, it reflects the main stages and achievements of the public healthcare system in tsarist Bessarabia over the course of its evolution, in order to complement the discussion of the strategies of organization and reform of the public healthcare system, already tested in Bessarabia, with a consistent analysis of the results obtained. The study also examines and evaluates the structural changes of the aforementioned healthcare system, produced in relation to different types of health care, as well as its performances and failures. The study analyzes the concepts of health care system reforms in Bessarabia through the prism of European modernization and evaluates the Bessarabian medical practice and experience in both an international historical context and a highly complicated domestic one, set in an ethnically diverse region. Based on relevant documentary sources, the study elaborates novel analytical research and provides a concise overview of the health care system in Bessarabia in the context of European modernization.

Keywords: Bessarabia, public health, zemstva medicine, epidemic diseases, medical congresses of Bessarabia, public hospitals

1. Introduction

The public healthcare system has a primary role in the evolution of modern society. Public health is a key factor in the social, economic and cultural development of society and also plays an important role in ensuring national security and the possibility of achieving individual and social well-being. Before analysing the subject directly, the study offers a brief survey of the organization of public healthcare in Bessarabia during the 19th century.

The organization of the public healthcare system in Bessarabia was initiated after the annexation of the province to the Russian Empire, a process which proved to be extremely difficult, hindered by a series of demographic, political, social and economic inconveniences. The implementation of economic policies in the region was inextricably linked to the health of the local population and labour productivity. An important step in the organization of the public health care system in Bessarabia was the establishment of the Medical Administration (Uprava) in January 1813 (A.N.R.M. 2/1/92) - the highest body tasked the elaboration of public healthcare strategies, which was subordinated to the Government Administration and the Medical Council of the Ministry of Police (Materiali 1862: 5-6). Its tasks included the management of civil and military medical and sanitary affairs, along with the oversight and organisation of vaccination campaigns against epidemic diseases such as smallpox.

The aim of the article is to carry out a modern and up-to-date scientific investigation that will allow to objectively discern the strategies of organization and reform of the public health system, already tested in Bessarabia, with a consistent analysis of the results obtained, as well as to disseminate unpublished statistical information into the scientific circuit.

2. Sources

The present study is based on unpublished archival sources, found in several archival funds of the National Archive of the Republic of Moldova (ANRM).¹ As a result of this research, the present study sheds light on factual material concerning various statistical information about the organization of the public healthcare system in Bessarabia that has hitherto drawn very limited historiographic attention. Published documentary sources were likewise employed: annual reports of the governmental zemstvo², medical institutions,

¹ The following archival funds were used for the purpose of the present study: 1, 2, 179, 190, 200, 201, 551, 595, 255.

² Zemstvo - institutions of local self-government in the Russian Empire, established in a number of provinces and counties of European Russia under the zemstvo reform of January 1 (13), 1864. Zemstvos were engaged in building roads, schools, hospitals, organizing agricultural

inspectors, governor, medical congresses, etc. So far, there is no synthesis of the issue in English-speaking historiography. In order to investigate the mechanism of reform and evolution of medicine in Bessarabia, we turned to the medical reforms published in “*Complete Collection of Laws of the Russian Empire*” (Polnoye 1830). The statistical collections published during the nineteenth and early twentieth centuries have also proven useful in analysing the subject matter of the research (Zapiski 1864, 1867, 1868).

The volume and granularity of information provided by the multitude of sources indicated above, made it possible to investigate the evolution of the public health system in Bessarabia in the second half of the nineteenth century - beginning of the twentieth century, as a component part of the evolution of public health policies in Eastern Europe.

3. First half of the nineteenth century

The Uprava played an important role in the creation of the network of local medical institutions, the coordination and implementation of the tsarist state's policies in the field of sanitary, prophylactic and anti-epidemic insurance. The staff of the Uprava comprised 10 persons: chairman-general-governor, inspector, surgeon, a specialist in obstetrics (*mamoj*), courier, clerk of the registry, one guard as well as four mid-level sanitary staff (*felceri*). For the annual maintenance of the Medical Uprava of Bessarabia, 5060 lei were allocated from the 10% Bessarabian capital³ and the state treasury. The amount was distributed as follows: the inspector was paid 2000 lei, the surgeon - 600 lei, the obstetrician - 400 lei, the courier - 600 lei, the secretary - 300 lei, the secretary - 300 lei, the guard - 120 lei, four mid-level sanitary staff - 800 lei, and the office expenses - 240 lei. As a rule, the office of chairman was held by the governor of Bessarabia, and the office of the Uprava's chief surgeon - by the town doctor (Materiali II 1862: 14). The first inspector of the Medical Uprava in Chişinău was Iosif Wolifingher. A first step in the implementation of a public health management mechanism was the organization of medical centers with qualified personnel. In 1852 the Bessarabian Regional Committee of Public Health was established under the Medical Department of the Ministry of Interior, which was responsible for the control of epidemiological diseases. For

and veterinary services, providing assistance to the population in case of crop failure, and assisting in the development of local industry.

³ In accordance with the provisions of the Statute of the Bessarabia region, approved in 1828 by the Russian Emperor Nicholas II, a social fund was created to which ten percent of local taxes were allocated. The financial means of the fund were distributed to finance social activities, such as: maintenance of hospitals, schools, sponsoring scholarship holders to study abroad, etc.

example, in 1855, the Committee acted promptly and effectively to stop and combat the typhoid epidemic, which had spread in the villages of the Trans-Danubian settlers (Tabac, Sadâc) (ANRM 190/ 1/22). In 1871, the Committee was abolished with the establishment of the *zemstvo* (state medical service).

At the same time, the authorities in the field, faced with the growing need to strengthen the province's defence mechanisms against infectious diseases, focused their efforts on implementing confirmed and verified strategies, such as, for example, the establishment of quarantines (1812-1814, 1819) (ANRM/ 2/ 1/ 61), which had a practical operational role in preventing incidents with a direct impact on the health of the region's inhabitants (ANRM/ 2/ 1/ 64). To this end, several committees and commissions were set up in Bessarabia to combat epidemics (ANRM/ 455/1/1).

The history of quarantine institutes in Bessarabia witnessed a definite shift in 1800, when the Statute of Land Border and Port Quarantine was approved in St. Petersburg, according to which a state service with an appropriate legal framework was to be established (Polnoye 1830, 875). It represented not only a summary of medical practices and experiences but also offered the possibility of implementing innovative technologies at the time, such as, for example, eliminating the need to incinerate infected merchant ships, along with the entire cargo of goods they were carrying, and replacing this radical procedure with a more tolerant one, such as, for example - disinfection. This represented an effective method that would both ensure the harmlessness of the goods as well as eliminate the pointless waste of imported products, contributing to the development of trade relations. As a result of the implementation of the above-mentioned statute, quarantines were established in the cities of Dubasari, Odessa, and Bugaz (Voronina 2012: 216-224).

Approached from an integrated perspective, right from the very beginning of the path, healthcare in Bessarabia was organized by creating a network of specialized institutions not only in the provincial capital, but also in all county centers. In order to build a complex mechanism that would ensure access to medical services throughout the entire region, six so-called county *pharmacopolises* were set up, consisting of outpatient clinics and pharmacies, equipped with medical personnel (so-called “district doctors”, physicians, pharmacists) and the necessary medical supplies (Materiali 1864: 14).

The plan of concrete actions aimed at strengthening the public healthcare system in Bessarabia included the establishment in 1817 of the first city hospital in Chişinău. Initially, in 1814, philanthropic practices were resorted to and, based on donations from the local elite, in the construction of the future hospital building was started one year later. The hospital opened its

doors to the public two years later. The permanent staff of the town hospital consisted of a senior doctor, a junior doctor (who was also in charge of the hospital accounts), a messenger, a secretary, a priest (foreign-rite priests were also employed, depending on the demand) and a security guard at the hospital office. For the maintenance of the office 2, 184 silver Rubles were provided. In addition to treating the sick, the city hospital also assisted 10 old people's homes, 8 orphanages and supported 5 prisoners released from the servery for porter work. The auxiliary staff of the hospital consisted of 27 persons, including: an accountant, a senior surgeon, three lower-level surgeons, and another 22 employees. For their upkeep, 1,529 Rubles and 44 kopecks. The hospital's activity was supported by the existence of a pharmacy (Materiali II 1864: 12).

The staff of the pharmacy of the city hospital consisted of 5 positions: the senior pharmacist, the assistant pharmacist and 3 laboratory assistants. For their maintenance the sum of 4,283 rubles (rub.), 44 kopecks (cop.) were paid. Chişinău Another hospital and a pharmacy were established as subordinate to the Theological Seminary in Chişinău. The tasks these institutions handled with priority included providing medical aid to students and teachers of both the educational institution itself and those who came under its subordination: The Spiritual School for Boys in Chişinău, and the Lancastrian schools. The medical and pharmacist staff of the hospital consisted of individuals who also worked in the city medical institution. In the school year 1826-27, 4011,13 lei were allocated from the budget of the seminary for the activity of the medical unit. (Eţco 2018: 104). The founding of the first medical institution in Chişinău contributed to the organization of a Bessarabian medical scientific environment capable of stimulating the development of local medical science.

For the first time, in 1824, the doctor of the city hospital, Sergei Grushinsky, carried out and documented research on cadavers. The foundations of forensic medicine were thus laid in Bessarabia. In diagnosing pathologies specific to various branches of medicine, such as surgery, neurology, rheumatology, etc., another doctor employed by the city hospital, namely I.B. Slighel, initiated the anatomopathological examination (Baciu 2015: 32). The autopsy of corpses was also practiced in other counties of Bessarabia. For example, archival materials shines light on the case of Ivan Vintilor, a landowner from Reni County, who died prematurely in the late 1820s. In order to identify the cause of his death, the inspector of the Medical *Uprava*, Florian V. Vlethovskii, ordered that an anatomopathological analysis of the internal organs of the deceased be performed, using chemical reagents from the pharmacy of P. Rozenbaum. (ANRM/ 271/ 1/10) The following years also

witnessed the establishment of the military hospital in Chişinău, one of the largest regional military hospitals in the area (1827), boasting with the figure of 310 beds for patients. Chişinău It provided medical care to individuals wounded during the Russo-Ottoman military clashes. It was also during this period that the Jewish Hospital in Chişinău began its activities. The hospital institution was established based on financial sources collected by the Jewish community, while its activity was organized in accordance with the needs and customs of medical care of the Jewish population. (Materiali II 1863: 13) By order of the governor of Novorussia and Bessarabia, in 1833, the Akkerman City Hospital was established to serve the military. Operating beside the hospital, there was a pharmacy run by the county doctor. The Akkerman City Hospital was managed by the mayor of Akkerman, the local military chief, the county prosecutor, the county physician and three deputies. In total there were seven members, for whom 582 rub. 28 cop. were allotted (Materiali 1863: 13-14).

In 1828, a new public health reform was implemented in Bessarabia, which involved increasing the number of positions in the central apparatus, the establishment of medical districts corresponding to the eight regional counties, and the creation of district branches of the Government Medical Administration. The branch-level staff consisted of four members: the county doctor, two apprentice *lecari* and a midwife. Moreover, in a region where the population was ravaged by epidemics, to support and stimulate the birth rate, the decision was made to resort to the institute of professional midwives, in addition to other established practices. These medical professionals were delegated to each county. Their work was supervised by the superior midwife of the governmental medical administration (ANRM/ 270/1/10/. 47).

The organization of the veterinary system handling epizootics, fell within the immediate attributions of the Ministry of Internal Affairs. For the prevention and control of cattle plagues, the position of regional veterinarian was created. This official became a member of the Medical Upravei of Bessarabia and was paid 250 silver rubles from the 10% Bessarabian capital. The official's duties included both the identification of the peculiarities of infectious diseases in cattle, as well as the identification and adoption of measures for their prevention and eradication. (ANRM /270/ 1/ 10) Among the immediate priorities of the medical reform of the 1830s was to increase the salaries of regional public health employees. The new composition of the reformed Governmental Medical Administration included 11 titular members, who benefited from a new salary scale: the inspector was paid 600 silver rubles annually, the operator - 400; the obstetrician - 400; the secretary - 200, the senior medical practitioner - 150, the junior medical practitioner - 120, 2

surgeons (*felceri*) - 100 rubles each, the registrar - 400, the veterinary surgeon - 300, the senior midwife - 200. In 1848, the military Governor of Bessarabia gave instructions to establish the position of assistant veterinarian with an annual salary of 250 rubles. (ANRM /270/ 1/10/ 33). In total, 2,970 rubles were allocated annually for the activity of the Governmental Uprava.

The administrative staff was supplemented by 2 new staff: the veterinary surgeon and the senior midwife. Thus, in each of the eight Bessarabian counties, a county doctor, two medical practitioners and a midwife were actively employed by the state. The county doctor was paid 300 Rubles a year. (ANRM /270/ 1/10) The higher-level apprentices were paid 150 rubles a year, the lower apprentices - 120 Rubles a year. In total, the medical staff in the county branches consisted of 32 persons: 8 county doctors, 14 higher-level apprentice doctors, 2 lower-level or junior apprentice doctors and 8 midwives, for whose activities 5,940 silver Rubles were allocated per year.

A few years later, the hospital was reorganized according to a new statute and was already functioning on the basis of financial sources obtained from a match tax, from which 7,200 silver Rubles were provided annually. The hospital treated up to 30 patients. The staff of the medical institution consisted of a junior doctor, a supervisor (who was also an accountant, elected by the Jewish society), a messenger, a surgeon and another eight employees, twelve persons in all. Their maintenance amounted to 1537 Rubles. The Medical Uprava closely monitored the work of the county surgeons. In 1842, it issued a circular prohibiting surgeon barbers from performing any surgical operations without having documents that would certify the local sanitary establishment's activity. (ANRM /181/1/1)

Another reform of the public health system was implemented in the late 1840s. In 1847, by the order of the Ministry of Interior, in the county towns of Bessarabia the position of town doctor was established; this official was to be assisted by a medical practitioner, paid from the Bessarabian capital of 10%. (Materiali II 1862: 14-15)

In total, in the 1850s, the amount of 12,510 silver Rubles a year was allocated for the maintenance of the Medical Administration of Bessarabia and its county representatives from the State Treasury and the 10% Bessarabian capital. (Materiali 1862: 15)

The Bessarabian Medical Administration was responsible for forensic medicine in the region, coordination and monitoring of medical officials in the counties, ensuring the management of pharmaceutical activity, the supervision of medical institutions, medical police, protection and improvement of public health and eradication of epiphytotic and epizootic diseases.

The Smallpox Vaccination Committee, responsible for the prevention of smallpox infection through vaccination, operated alongside the Medical Administration. Two vaccinators were assigned to each city and an unlimited number to each county. The population of Bessarabia was vaccinated annually against smallpox, especially newborns. The vaccinators worked on a voluntary basis and were not financially remunerated for their work but were exempted from certain taxes or labour. (ANRM/455/1/2).

A new direction in the sphere of regional health care organization was the creation of state institutions responsible for helping vulnerable social categories. In 1834 the Department of Social Assistance, the so-called *Prikaz*, was established in Bessarabia. Its tasks included the establishment, protection, care and financial support of asylums, orphanages, hospitals, educational institutions, penitentiary institutions. It operated based on state funds and private donations. The administration of the *prikaz* consisted of 18 members: the president of the Department - the military governor, two delegates from the nobility, the treasurer - a delegate from the merchants' representative in charge of the treasury, the deputy treasurer, the secretary, the accountant, the deputy accountant, two chief clerks, an archivist and 7 scribes. (Materiali 1862, 9-14) For the work of the administration, 3863 Rubles were allocated annually. The Department consisted of 7 sections: 1) the Administration of the Department; 2) the School Board of the Chancellery School; 3) Administration of the Industrial-Social Committee; 4) Office of the Chişinău City Hospital; 5) Office of the Jewish Hospital; 6) Administration of the Chişinău Orphanage Ward; and 7) Administration of the Akkerman City Hospital. The three important hospital institutions in Bessarabia: the Chişinău City Hospital, the Jewish Hospital and the Akkerman City Hospital, were transferred to the jurisdiction of Prikaz, which subsequently operated based on financial sources provided by the Social Welfare Department. (ANRM/ 201/1/ 22)

Conceived as a philanthropic institution, without any discrimination whatsoever, the Department set up several penitentiary hospitals, one in each county town, of which: in the city of Chişinău - a penitentiary hospital for 15 beds; Orhei - 10 beds; Hotin - 15 beds; Bălţi - 15 beds; Bender - 15 beds and Akkerman - 10 beds. It also established an orphanage and a home for the elderly. During its decade of activity, 1848-1858, 26,549 applications were registered with the department's administration that needed to be resolved; on January 1st, 1858, 42 applications remained unresolved. (Materiali 1862: 9-14).

4. Second half of the nineteenth century

The crisis facing the Russian Empire after the defeat in the Crimean War (1853-1856) prompted Emperor Alexander II to reorganize Russian society by implementing liberal reforms in all vital areas of the Tsarist Empire. Known in history as the “Age of Great Reforms” of the 1860s, it began with radical transformations also for the healthcare system in the Russian Empire, including the Bessarabian region.

One of the most important reforms of this period was the peasant reform, implemented in 1861, which abolished serfdom. A first consequence of this reform was the appearance on the social scene of the Russian Empire of a large category of free peasants. The new contingent of peasants was to be integrated into a new environment specifically designed for their needs. (Eтҫco 2018, 207) Thus, the reform of the public health system was an imperative necessity and received excessive attention from the Tsarist authorities. Their efforts were geared towards the organization of a public health system capable of providing healthcare for the entire rural population. (Eтҫco 2018: 207) In order to meet the challenges of modern capitalist society, a new body of local self-administration was set up in the western regions of the Russian Empire in 1864, which was directly responsible for the health care of the population. In a short time, Zemstva medicine proved its priority, becoming one of the most progressive public health systems at that time. Its activity was structured on the basis of new principles of health care organization adjusted to the needs of modern society. The strategic imperatives of the Bessarabian Zemstva in the field of public health care were the following: to provide free and accessible medical services for all social strata, prophylactic specialization, to ensure the involvement of the population itself in the organization of health care, to support the development of medical science, medical technologies and innovations, pharmaceuticals, to be governed through collegial administration, and to maintain a public character. Therefore, thanks to the contribution of zemstvo medicine, a number of new health care institutions were established in Bessarabia: hospitals, asylums, sanatoriums, schools of obstetrics and obstetrics, sanitary offices, bacteriological wards, a center for the manufacture of smallpox detritus, summer camps for the health care of children, sanatoriums for the elderly, etc. (Korchak-Chepurkovsky 1893: 4-38). Zemstvo medicine was also the driving factor in the creation of the “universal doctor” of the time, who was supposed to be endowed with a wide range of knowledge and practical skills, and elevated into the figure of an intelligent and erudite physician-scientist, an excellent statistician and a skilful healthcare manager capable of conducting analyses based on aggregated health data. Zemstva

strengthened its efforts to create a representative forum of Bessarabian physicians, the germinating nucleus of the collective medical mind - the Bessarabian Gubernatorial Medical Congresses. They have become both an influential methodological center and a tribune of zemstvo medicine in Bessarabia, making an essential contribution to the development and modernization of the public health system.

Zemstva became actively involved in the sanitary-medical organization of Bessarabia, assuming part of the expenses related to this initiative. Therefore, the position of sanitary doctors was established, and also, in 1892, the Zemstva Sanitary Bureau was established. It functioned until 1897 with the physician A.V. Corceac-Cepurovski as its president, after a 15-year break (1897-1912 the representative office was closed), and in 1912 the office resumed its activity with V.T. Kopatotov as its president. (Ghethman 1866: 12) The sanitary inspection was part of the duties of the governmental medical administration, city and county physicians, town and city sanitary doctors and was aimed at supervising the sanitary conditions in factories and plants, checking food supplies and beverages; monitoring the trade in toxic and energetic substances, artificial mineral water enterprises, fruit-sweetened drinks, food and yogurt. The irregularities detected by the sanitary inspectors had to be removed by the producers of the goods, and if they did not comply with the requirements, the guilty parties were held responsible. (Bessarabskoye 1887, 2-131) For example, 469 cases were recorded in 1887 (Korchak-Chepurkovsky 1893: 9).

The capital of Bessarabia became a center of zemstvo medicine through its main institution - the Gubernial Zemstvo Gubernial Hospital (former Chişinău city hospital, transferred from the subordination of the *Prikaz*) which created and founded an experimental base for all medical institutions in the region, provided a link between medical and sanitary activity, implemented the unified nomenclature of diseases, carried out medical statistical research, studied morbidity in the process of medical care, implemented the system of outpatient medical records, free medical aid, etcetera. The ambulatory medical record of the sick person provided the zemstva doctor with a valuable arsenal of statistical-medical information collected from the entire governorate, on the basis of which it would have been possible to investigate the causes of various pathologies of the population. It provided vital information on the medical center, the place of residence of the sick person, when medical help was sought out, the patient's name, nationality, occupation, age, family situation, illness, causes of illness, etc. It also had to establish the link between hygiene and morbidity of the

population in order to develop a coherent project of medical strategies and practices for its eradication and prevention. (Korchak-Chepurkovsky 1893: 59) Zemstva allocated major investments in the governmental hospital institution, increasing its potential from a capacity of 100 beds in 1863 to 250 beds with free medical care (1889). The modernization of the hospital infrastructure included, in addition to the renovation of the old buildings (1870 and 1890), the erection of a new complex of curative blocks equipped with modern medical equipment, including: a 2-storey block for female neurological patients with a capacity of 50 beds, 15 wards, a toilet, a bathroom, a room for female attendants, a wooden shed for neurological patients (in 1875); a 2-storey block for (male) neurological patients, provided with a capacity of 60 beds: 10 wards, cabinets and offices for doctors, rooms for male and female attendants, primary care centers (1885). (Korchak-Chepurkovsky 1893: 25) At the beginning of the twentieth century, the Governmental Zemstva Hospital, strategically located on one of the main arteries of the city, equipped with modern technology and equipment, was a medical complex consisting of 4 stone curative blocks (3 of 2 floors each and one 1.5 floors), 2 for women and 2 for men, barracks for aggressive patients, rest room for neurological patients and tailor's shop, an isolator; a pharmacy consisting of 4 spacious rooms; a study room for the students of the obstetrics and midwifery school; surgical, neurology, otolaryngology, autopsy wards, bacteriological diagnostic laboratory, which operated in its own space consisting of 3 laboratories and a section for animal experiments, disinfection room equipped with the Koethe antiseptic oven from Göttingen, hydro-technical constructions for draining the curative blocks; staff quarters, kitchen, bathroom, steam laundry, store-rooms, summer barracks, etc. (Obzor 1901: 27-30).

In 1887, the “Vasile Kalmuttiski” Pneumologic Dispensary was established, which procured the pneumologic apparatus for philanthropic purposes, intended for the treatment of all patients of all social backgrounds. The pneumologic apparatus was purchased from a specialized Institute in the city of Munich. Kalmuttsky made a number of representations to the local administration in order to have the import duty on the device waived. The governmental authorities interceded with the City Duma, and later the Governor of Bessarabia appealed to the Ministry of Finance to have the pneumologic apparatus exempted from all import duties. Two wards were organized for patients, with 4 beds in each, one with a symbolic fee and the other - with free treatment (Bessarabskoye 1887: 175).

In 1883, in the city of Chişinău, a children's hospital was likewise established. The medical institution was located on Serghei Lazo Street and had 40 beds. Among the subsidizers was the Red Cross Society. The hospital had therapy, surgery and ophthalmology departments. During the years 1886-87 313 children were treated in the institution. (Bessarabskoye 1887: 2-131) The Infectious Diseases Hospital for curative and prophylactic medical services was established in 1896. It was a medical complex consisting of 11 curative blocks with a capacity of 150 beds and a medical contingent of 18 specialized physicians.

The zemstva medicine put on the agenda the problem of establishing a specialized psychiatric clinic. In 1878 a request was submitted to the government to allocate 136 thousand rubles from the funds of the monasteries abroad for the construction of a psychiatric hospital and to allocate 25 thousand rubles annually for the maintenance of about 150 patients. The realization of the psychiatric hospital project was postponed for about 15 years and only in 1892 the first construction works on the curative blocks started. In 1885 a curative block for the neurology ward with 60 beds was put into operation. The psychiatric medical complex in Costiujeni was put into operation in 1903. The vast majority of the zemstvo's financial investments in the public health care system were directed to the field of psychiatry - 65%. (Ghethman 1966: 24). The County Zemstvos were given priority tasks related to the development of rural medicine, the maintenance of county hospitals, and the assumption of part of the costs of epidemics. Each county was divided into medical sectors subordinated to the county hospital and consisting of: county hospitals, rural health centers and pharmacies. Initially, in 1873, the county hospitals were established in Sculeni - with a capacity of 10 beds; Râşcani - 10 beds; Floreşti - 6 beds; in 1874 - the medical center in Vadul lui Raşcov. A year later, in 1875, in the city of Tiraspol, a new county hospital was put into operation, and a year later, in 1876, the county hospital in the city of Dubăsari started its activity. In the newly established hospitals, the zemstva invested 15-16 kopecks per day for the care of a patient. (Ghethman 1966: 25).

Over the course of 40 years the number of medical sectors in Bessarabia increased from seven in 1870 to 75 in 1910. (Obzor 1871-1914) The dynamics of the evolution of this type of medical institutions, which served the rural population, can be summarized as follows: in 1870 there were seven medical wards in the whole of Bessarabia; 1880-23 medical wards; 1890-40; 1900-55; 1910 - 75; 1912-75. In spite of the measures adopted, the provision of medical care in Bessarabia was unsatisfactory, both the number of the population, which returned to a medical ward, and the average area of a

medical ward exceeded the established limits. Thus: in 1870, a medical sector averaged 4,530 square verses; 1890-793 square verses and a population of 31,500 people; 1912- 403 square verses and 27 thousand people. In 1870, in the county medical districts of Bessarabia there were three hospitals for the service of village settlements, equipped with 51 beds; over a decade later, the zemstvo medicine established six more hospitals in the medical districts of the governorate; in total, there were 13 hospitals, equipped with 252 beds; in 1890, the number of county hospital institutions increased to 28 units, which were equipped with 396 beds, of which: 121 were in city hospitals and 275 in villages. To a hospital bed-place in 1900, there were 3,2 thousand inhabitants and 2,2 thousand - in 1912, which indicates a shortage of hospital places for the village population of the governorate. There were also insufficient number of health centers for the surgeons, in 1890 - 27,4 thousand villagers, in 1899 - 47,0 thousand. (Ghethman 1966: 24) As a result, a three-tiered structure of health care for the rural population was created: medical center - county hospital - government hospital. Consequently, Zemstva's strategic imperatives in the field of public health developed a vast network of town and village hospitals, medical outpatient clinics, in order to ensure regional medical security. The priorities of the zemstvo's medical care were in the following areas: obstetrics, the fight against infectious diseases, sanitary supervision and practical sanitary measures, sanitary statistics, the dissemination of hygienic knowledge, concerns about the situation of the zemstvo's medical personnel.

Therefore, from 1888 onwards, a series of reports were compiled containing accurate statistical information on the health of the population of Bessarabia and the organization of medical care. Zemstvo medicine contributed to the development of specialized areas of medical aid. In the first place, the stationary system of zemstvo medicine gave a new impetus to the development of sector and county zemstvo surgeries. It contributed to the implementation of aseptic and antiseptic methods. Towards the end of the nineteenth century, wounds were no longer treated with antiseptic solutions, but they were swabbed with iodoform with gauze and then pressed with iodoform. (Bessarabskoye 1887) *Zemstvo* doctors performed amputations, abdominal, obstetric and even neurosurgical operations. In 1888 in Bessarabia cocaine was used as an anesthetic for the first time in cancer surgery. At the beginning of the twentieth century, in hospitals in Bessarabia, most surgical operations were performed using chloroform as an anaesthetic. (Bessarabskoye 1887, Ghethman 1966: 32-34) The number of operated patients was quite high. In 1896, 556 patients were registered in the surgical ward of the Guberniy Zemstva hospital. In 1913, 10 operations with local anaesthesia with cocaine

and 126 operations with the use of chloroform as an anaesthetic were performed in the surgical ward of the Gubernial Hospital.

Obstetrics emerged as an independent field of *zemstvo* medicine. In 1872, two medical schools were established: the school of surgeons (01.06.1872) and the school of midwives (01.09.1872). As the doctors of the city hospital included a number of sub-surgical subjects in the curriculum, the students were specialized in both surgery and midwifery. (Bessarabskoye 1889: 290-293) In order to complete the specialization, the range of school subjects was extended with paediatric courses and infectious venereal diseases. This is justified by the fact that women suffering from the above-mentioned diseases would be more likely to go to an obstetric midwife than to a male or female physician. *Zemstva* addressed a request to change the curriculum. The only conditions were that the study period be extended to 3 years and that surgeon-midwives be granted the right to treat venereal diseases in women and children only under the supervision of a doctor. Thanks to the efforts of the *Zemstvo*, in 1873, the Midwifery School was transformed into the Midwifery School with a 3-year term of study. (Korchak-Chepurkovsky 1893: 35) The gubernia congresses of the *zemstva* physicians of Bessarabia were held between 1873-1914, during which various issues were addressed, related to the organization of the public health system and the development of medical science. The First Governmental Medical Congress was held in Chişinău in 1873; the Second - 1879; the Third - 1880; the Fourth - 1885; the Fifth - 1885; the Fifth - 1887; the Sixth - 1888; the Sixth - 1888; the Seventh - 1893; the Eighth - 1897 and the Ninth - 1914. The first congress of Bessarabian physicians addressed a number of organizational and hygienic-sanitary problems facing the public health system at that time.

During the debates, a number of questions were raised regarding certain clinical manifestations of certain diseases, their frequency, etc. For example, uterine bleeding, which was frequently reported in women from Bessarabia, was explained by the fact that in the region, girls gave birth early, at the age of 15-16 years. It was also emphasized during the congress that Chişinău's drinking water contained a large amount of lime salts, which led to atheromatosis of the cerebral vessels and was known to cause goiter (Ghethman 1966: 16). Bessarabian doctors pointed out that landowners and owners of enterprises bought extremely salty cheese for their workers (so that less was consumed), which caused foot-and-mouth disease in the organism. Another alarming manifestation, reported by Bessarabian doctors, was the fact that the population of the region, for curative purposes, frequently resorted to bloodletting, which caused mass anemia and other diseases (Ghethman 1866:

15). The 5th Congress of *Zemstvo* physicians made its contribution to the implementation of medical statistics. The reports on Hotin and Orhei counties, where the highest number of people affected by diseases of the digestive organs (21 - 25%) was recorded, were thoroughly analyzed. Interestingly, also in the above-mentioned counties, a record number of cases of pellagra was also recorded, in Hotin - 114 and in Orhei - 69. In other neighboring counties, e.g. Bălți, 17% cases of digestive organ sickness and 25 cases of pellagra were registered, and in Chișinău county - 14% cases of digestive organ sickness and only one case of pellagra. For the employees of the public health system, a correlation between the ratio of cases of pellagra and diseases of digestive organs was visible, which referred to connotations that the etiology of certain diseases of digestive organs would have connections with the etiology of pellagra. The representatives of *zemstvo* medicine, analyzing the field figures and establishing a causal link between pellagra and diseases of the digestive organs, assumed that the toxin of pellagra also conditions many other diseases of the gastrointestinal tract. An important clue was that in the region, spoiled corn was used to prepare food (Vrachebnaya 1913: 36).

A basic guideline was to identify the exact morbidity figures of the population in the region, which would allow a coherent design of medical strategies and practices for the eradication and prophylaxis of morbidity. For this purpose, medical statistical institutions were established, such as the Sanitary Commission and the Sanitary Bureau, which were given powers to study the health situation of the population (Ghethman 1966: 18).

In order to develop rural medicine, the congress adopted the decision to establish sector medicine. The sixth Vetch Congress of District Physicians analysed the statistical data of the governmental medical sector and drew some generalizing conclusions for the identification of new mechanisms for the eradication and prophylaxis of regional diseases. The ninth Congress discussed various aspects of the etiology of pellagra in Bessarabia (Korchak-Chepurkovsky 1893: 59).

Zemstvo medicine contributed to the development of the smallpox vaccination system. In 1873, the *Zemstvo* established a smallpox vaccination office at the Gubernya *Zemstva*. In order to obtain smallpox vaccine, it was necessary to purchase calves, for which the *Zemstvo* allocated 100 rubles. It proved extremely difficult to implement the technology of making the material used for inoculation, and the first results in this field were not achieved until 1883. At the invitation of A. V. Korceak - Cepurkovsky, the famous ophthalmic surgeon Yulia Kveatkovskaya, the governmental physician of Bessarabia, came to Chișinău, where she strove to organize a center for the

manufacture of smallpox detritus, which became operational in 1893 (Korchak-Chepurkovsky 1893: 9).

Yulia Alexandrovna Kveatkovskaya (1859-1951) was the first female ophthalmic surgeon in Bessarabia. In 1894, she established the first private ophthalmologic clinic in Bessarabia. Just two years later, in 1896, thanks to this contribution, the first public ophthalmologic hospital with 10 beds was established in Bessarabia. Between 1899-1903, Kvyatkovskaya received more than 12 thousand outpatients and 899 inpatients - the ophthalmologic hospital served not only Bessarabia, but also neighbouring counties in the neighbouring provinces. It performed unique ophthalmologic surgical operations. The reports signed by Kvyatkovskaya contain a wealth of information that contributed to the development of medical science, as well as a detailed analysis of patients by class, age, nationality, occupation, supplemented by a comprehensive investigation of diseases by anatomical features (Kveatkovskaya 1904: 18). In 1909, Yulia Kveatkovskaya published an article in a specialized journal entitled "Scleral rupture with subconjunctival luxation of the lens in the only sighted eye": she removed the lens three months after the injury; the visual acuity was corrected by -0.2. (Kveatkovskaya 1909: 398-401). During the First World War she led a medical detachment on the Mărășești frontline. At the end of 1917, Chișinău she managed the work of medical and school institutions as part of the urban government of the city of Chișinău.

5. At the beginning of the twentieth century (1900-1917)

At the beginning of the twentieth century, the public health system in Bessarabia was organized, in accordance with the requirements of zemstvo medicine, by medical sectors. In 1901 there were 60 medical sectors in the eight counties of Bessarabia. Hotin County was divided into 8 medical sectors in which 15 hospitals-sanitary centers and 8 pharmacies were operating. Bălți Bălți County had 8 medical sectors in which 11 hospitals-health centers and 10 pharmacies operated. Soroca - 8 sectors: with 8 hospitals and 6 pharmacies. Orhei - 8 sectors: 8 hospitals and 7 pharmacies. Chișinău had 7 sectors with 17 hospitals and 14 pharmacies. Bender - 6 sectors with 7 hospitals-health centers and 10 pharmacies. Akkerman - 8 sectors with 11 hospitals-health centers and 13 pharmacies. Ismail - 7 sectors with 6 hospitals-health centers and 11 pharmacies. In total, in the 60 medical districts of Bessarabia there were 86 hospitals and health centers in 83 localities, equipped with 2014 beds for patients and 79 pharmacies. Medical aid to the sick was provided by a mixed system: stationary, ambulatory and mobile. The latter came under the

responsibility of the surgeon-physicians (Obzor 1901). In spite of the fact that most medical institutions were located in Chişinău County, they were mostly in the city, while for the rural population of the county there were only 3 medical institutions, so about 60 thousand people were allocated to a single medical institution, therefore, the population of Chişinău County was less well provided for than that which lived in the 4 counties indicated above. The population of Bălţi, Orhei and Hotin counties was better provided for in this respect, where about 21 thousand people were serviced by each medical institution. In the 86 hospitals, 71 were common, subordinated to different public institutions, with a number of 1721 beds and 15 were at the balance of administrative departments for personal use with a number of 293 beds, of which: eight were specialized, seven hospitals were based in the city of Chişinău: *zemstvo* maternity hospital, *zemstvo* pneumological dispensary, private ophthalmological clinic of Dr. Yulia Kviatkovskaya, private gymnastic and massage institution of Dr. Zilberstein, private electro-hydropathic clinic of Dr. Tumarkin, private women's clinic with a maternity ward of Dr. Gojanskaya, private dental clinic in Chişinău of Dr. Karpinovski and dentist Barşevski, and city maternity hospital in the city of Bender (Obzor 1901).

The Budaki Sanatorium, specializing in mud and salt baths, was located in Akkerman County, near the village of the same name. Here patients from different counties and governorates were admitted. The main contingent of patients were rheumatics and those suffering from anaemia. The sanatorium was specialized in the treatment of rheumatism, anaemia, articular and bone diseases, and female gynecology. In Ismail County in the villages of Jebrieni, Borisovka and Shagani, mud and sea baths were used. In the locality of Shaba, the treatment of lung diseases, was practiced with the use of the grape of the mountain. In the suburbs of Chişinău, on the Rashkanovca estate, there was an underground spring called Borcut, which had a strong odor of hydrogen sulfide and a pleasant fresh taste, considered by the inhabitants as curative (Obzor 1902, 11-129). At the beginning of the twentieth century there were 14 public outpatient clinics with payment, of which: in Chişinău - the pneumological clinic, a private institution offering orthopaedic massages, a private hydrotherapy clinic and a private clinic without payment; in Chişinău county there were 4 outpatient clinics, Bălţi-Bălţi- 1, Soroca - 2, Ismail - 1, Bender - 1 (Obzor 1902: 111).

At the same time, outpatient clinics operated without payment: in addition to all medical institutions - 99 outpatient clinics, of which 81 were accessible to all and 18 were inaccessible (functioning alongside closed institution such as prisons, educational institutions). Hotin county - 1; 2

hospitals of the Ministry of Finance: the brigade lazaret of the Border Guard Corps in Novoselița locality, Hotin county and also the brigade lazaret of the Border Guard Corps in Sculeni locality, Bălți county; 2 charity hospitals in Bălți county, near the village of Stolniceni in the name of Stroiescu and in the city of Bălți, near the village of Stolniceni in the name of Stroiescu and in the city of Chișinău, near the village of Stolniceni in the name of Stroiescu. Chișinău children's hospital in the name of Alexandru; 2 economic hospitals: in Zarojani, Hotin county near the sugar beet factory and in the village of Vascăuți in the economy of the landowner K. Kazimir; 3 private hospitals: the ophthalmological clinic of Dr. Yulia Kveatkovskaia; the maternity hospital of Dr. Gojanskaia and the dental clinic of Dr. Karpinovski and dentist Barșevski (Obzor 1902: 111-129).

Out of the 86 hospitals, 35 operated in cities with a total of 1370 beds and 51 in counties with a total of 644 beds for patients, 50 hospitals were zemstvă hospitals, of which in or. Hotin - 1, in the county - 7; in Bălți - 1, in the county - 6, in Soroca - 1, in the county - 5, in Orhei - 1, in the county - 6, in Chișinău - 3: the gubernial hospital with a psychiatric ward, the psychiatric clinic in Costiujeni and the maternity hospital. The most in demand among the population were the outpatient clinics of the Zemstvo medical institutions and the Chișinău outpatient clinics: in addition to the Jewish hospital and the ophthalmological clinic of Dr. Yulia Kveatkovskaya.

There were pharmacies in all the outpatient clinics, especially in the zemstvo clinics, where medicines were dispensed free of charge. In this context, the activity of the Jewish hospital in Chișinău, which in 1901 dispensed free medicines to 76,835 patients, including 25,676 (33%) dispensed on the prescriptions of town doctors, 28,780 (37%) on the prescriptions of outpatient doctors and 12,379 (29%) on the prescriptions of hospital doctors, was noted. (Obzor 1909: 111-129). Medical aid was sought by 770,340 people, who were treated in hospitals and outpatient clinics. The maintenance of outpatient clinics in 15 medical sectors amounted to 37,115 rubles, in the remaining medical institutions the expenses were paid from the common medical allowances. (Obzor 1901).

Most often medical help was sought in Bălți county, up to two thirds of the total number of the county's population, Chișinău - more than half, Orhei, Soroca and Hotin - up to half, while in the southern counties of Bender, Akkerman and Ismail - less than one third. The predominant diseases among the population of Bessarabia were related to metabolic diseases, diseases of the digestive system, respiratory system, dermatologic diseases, malaria and scabies,

about 400 (51.4%) of the total number of patients in 1901. (Obzor 1909: 111-129).

The highest number of deaths was due to infectious diseases; out of 60,492 patients, 4803 were treated in medical institutions, of whom 2653 died in hospitals. Among those hospitalised for infectious diseases, one individual died for every 12 patients, and outside hospitals, one individual died for every 25 patients. As a result, treatment outside hospitals was twice as favourable as in hospitals. The authorities explained the situation by the fact that most patients who were admitted to hospitals were in a serious and hopeless condition.

On the eve of the First World War, 282 doctors were working in Bessarabia, of whom: men - 257, women - 25; physicians - 379, of whom: 261 - men, 118 - women; midwives - 205; dentists - 44; dentists - 53, pharmacists - 213. In the school year 1912-1913, 32 medical staff with secondary education were trained in Bessarabia, and 374 bacterioscopist examinations were carried out in the sanitary-hygienic laboratory. In the same period, the Bessarabian branch of the Red Cross Society raised the question of local government institutions granting disability allowances to persons unfit for work. (Obzor 1914).

During the First World War medical care in Bessarabia regressed. The recruitment at the frontlines of a large number of doctors and paramedics deprived the civilian population of Bessarabia of quality medical staff, especially of doctors with a good knowledge of Romanian, a fact noted in the official reports of the authorities. (Obzor 1914: 95-100).

As of July 1, 1917, in Bessarabia, with an area of 31,214 square meters and 2,118,200 inhabitants, there were 80 medical sectors in operation, of which 63 had stationary medical institutions and 17 ambulatory, 71 medical sectors had specialized doctors and 9 had no medical personnel with higher education. (Raport 1917, 123) On average, a medical sector had an area of 396.43 square meters and 26,477 inhabitants; a medical sector with a stationary medical facility had 503.41 square meters and 33,622 inhabitants, and a medical sector with professional medical staff had 29,834 inhabitants. The provision of medical assistance to the civilian population in settlements far from medical centers was further hampered by the impassable roads in Bessarabia, especially in winter, fall and spring, making it difficult for doctors to move from one sector to another and for patients to go to the doctor for medical help (Rapport 1917: 122-132).

A review of the aggregated statistical information reveals that, with the exception of Chişinău⁴, 26.477 persons were allocated to a medical sector; the indicated number of inhabitants exceeded the preset norm of 10.000 persons to a medical sector. A medical unit with beds catered to 33,622 inhabitants, which, in turn, was three times more than the norm. Likewise, a medical sector served by a specialist was responsible for 29,083 - as in the previous cases, three times more than the norm (10,000 inhabitants) (Obzor 1914).

We will further analyze the issue of stationary medical aid for the population of Bessarabia, both for non-infectious and contagious patients. In the region there were 63 stationary medical units with 959 non-infectious beds and 38 infectious disease wards with 301 beds for contagious patients, and 17 temporary barracks for infectious diseases with 615 beds. There were 2209 inhabitants for each non-infectious hospital bed and 3444 for each bed in a contagious disease ward (Dokladi 1917: 124).

In 1917, Hotin county had 3501,9 square meters with 403,1 thousand inhabitants; Bălţi -4871- 278,9; Soroca - 4010,7-292,5; Orhei -3632,9 -281,9; Chişinău -3271,9 -225,5; Bender -5394,3-266,7; Akerman -7032,9 -369,6. If we analyze the statistical information collected by counties, then, based on general indicators such as area, population, population density, number of medical sectors, etc., we find that in Chişinău and Bender counties only 50% of medical sectors had hospitals. The rest were outpatient clinics. (Raport 1917: 124).

If we take into account the fact that, according to the standards adopted by the *zemstva*, a medical sector had to provide medical care to the population on an area of 314 square versts⁵ at most (within a radius of ten versts), then it follows that only Hotin and Chişinău counties met the requirements. The rest of the counties did not meet the requirements of the *zemstvo* medical care, consequently, health care was unavailable to a certain percentage of the population. A careful examination of the quantitative aspect of the public health system in Bessarabia will lead us to the conclusion that it was unsatisfactorily organized, incapable of providing the entire population of Bessarabia with qualified medical aid. (Dokladi 1917:126-128). The quality of regional healthcare also left much to be desired. Most of the young doctors, who replaced those recruited at the front, were eminently unfamiliar with the

⁴ In 1914, the city of Chisinau had 121.500 inhabitants, of which: Jews - 46%; Russians - 30.2%; Moldovans - 17.7%; Poles - 3%; Germans - 1.2%; other Slavic nationalities - 0.9%; Greeks, Armenians, Gypsies, Persians, Gruzini, Turks and Tatars - 9.2%; other nationalities - 0.8%; the city of Balti - 23.000 inhabitants, of which: Jews - 55.8%; Russians - 22.9%; Moldovans - 17.1%; Poles - 2.9%; other nationalities - 1.3%.

⁵ Versta - unit of measurement used during the nineteenth and twentieth century, especially in Russia, equal to 1067 meters.

conditions and way of life of the local population and, most importantly, with their national language - Romanian. Therefore, they had to rely on the services of an interpreter when dealing with the indigenous population. The majority of the medical staff with secondary education, in the absence of educated surgeons, consisted of trainees and nurses with six weeks' training.

Such a situation would have been disastrous in peacetime, but even more so in wartime, especially when Romania entered the war and Bessarabia became the closest rear of the front. The movement of large numbers of troops into the territory meant that the province was invaded by a series of epidemics - typhus and typhoid epidemics, dysentery, smallpox and other contagious diseases. If we go back to the statistical information cited above, we can see that the public medical system in Bessarabia could not cope with these challenges, as can be easily deduced from the table below.

Table 1. Typhus spread by county in Bessarabia, 1917

Counties	Number of localities	Number of localities infected with typhus in 1917	Number of typhoid-infected localities in 117 in percentage
Hotin	208	92	44,2
Bălți	321	202	62,9
Soroca	275	173	62,7
Orhei	285	167	58,6
Kishinev	246	145	59,0
Bender	199	79	39,0
Akkerman	224	38	17
Total:	1758	896	51

Sources: Dokladi (1917): 131.

In the nine months of 1917 there were 21,418 cases of typhus, which indicates that there were 10.1 cases per 1000 inhabitants. Comparing the actual epidemic data of the last four years with those of the last nine months of 1917, we get the following picture: between 1913-1916 there were 1569 cases, 1917 - 21,418. Thus, the number of cases of typhoid sickness for the nine months of 1917 exceeded by nearly 1 ½ times the sum of the cases of sickness recorded during the years 1913-1916. An extremely interesting feature of the outbreak of the typhus epidemic in Bessarabia is its roughly uniform distribution throughout the whole governorate. As can easily be seen from the above table, the typhoid epidemic affected the Akkerman county - 17.0%, four of the seven counties (Bălți, Soroca, Orhei, Chișinău), about 60% of all localities were affected by

typhoid, in two counties - about 40% (Hotin 44.2% and Bender 39.0%). Overall, in 1917, about 51.0% of Bessarabia's settlements were affected by the typhus epidemic, the center of the region was the most damaged by the epidemic, and the extreme south was the least devastated by the epidemic. On the basis of the statistical information researched, there were no outbreaks where the infected population numbered in the hundreds. Of the 896 infected localities, only in 35 of them did the number of certified cases of typhus exceed 100; in the remaining localities, in the first nine months of 1917, there were 30 to 50 cases of illness. On the other hand, it was alarming that more than half of the populated localities were affected by the epidemic, and in the absence of adequate medical care - under war conditions - the situation was catastrophic (Raport 1917: 123-131).

6. Conclusions

During the nineteenth century, the Bessarabian authorities carried out a series of concrete measures for the development of the public health system in Bessarabia. In spite of all the efforts invested, at the beginning of the 20th century, the system was unable to provide the entire population of the region with health care in terms of both quantity and quality. Therefore, if towards the end of the nineteenth century medicine in Bessarabia was progressing, determined by the liberal reforms applied in the system, then, in the period 1905-1918, the public health system in Bessarabia experienced a regression. The contingent of quality medical staff was insufficient to provide medical care to the entire population of Bessarabia. Among the reasons was the fact that Bessarabia did not have a higher institution of medical education, and the potential of the local medical schools of secondary education was exceeded by the situation, in the conditions of the soaring population density and then in the conditions of war. While in 1812 there were about 400,000 inhabitants in Bessarabia, a century later, on January 1, 1913 the population had increased more than five-fold, with 2,251,277 inhabitants registered in Bessarabia region.

The Zemstva Medical Service played a primary role in the development of the public health system in Bessarabia. Zemstva was one of the main contributors to health care in Bessarabia. Medical aid to the Bessarabian population was organized by the zemstva, town and Jewish societies, the treasury, charitable institutions and private individuals. However, in the absence of functioning state mechanizations, which would have regulated medical policies and financial investments in the system, the results did not cope with the realities on the ground. Medicine, being only at the mercy of private voluntary investments and local administration bodies, had no chance

to develop at the level needed to achieve a high level of efficiency in providing medical aid to the entire population of Bessarabia.

With operative roles and meanings in the dynamics of the process of regional social-economic development, the Bessarabian medical system, through the efficiency of human capital, marked the quantitative and qualitative prefaces of the first two decades of the twentieth century. The period of transition from one century to the next highlighted the discrepancy between the real needs of Bessarabian society and the level of medical development.

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People, Epidemics, and Quarantine: Cholera Epidemics and Medical Reforms in Romania in the 19th Century (1831-1913)

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Abstract. This study aims to address the issues of cholera epidemics, quarantine and public health in Romania during the period between 1831 and 1913. The study is part of a more comprehensive project, in which we analyze quarantine from multiple angles, more precisely the medical, political, economic, diplomatic, demographic and social dimensions. In the following, we will focus our analysis on two aspects: the cholera epidemics up to 1913 and the policy of the health authorities to control cholera through quarantine, prohibitions and public hygiene measures. The emphasis will fall on the health law of 1874 and its effects on public health. The study explores these topics using a wide range of primary sources, including health law articles, bills of mortality, medical reports, and the periodical press. The research allows us to better understand the link between cholera epidemics and public health strategies and reveals how cholera forced state authorities to act urgently and organize a modern public health system.

Keywords: population, cholera, quarantines, public health, modernization, Romania

1. Introduction. Cholera Epidemics and Medical Modernization in Romania

Similarly to many European countries, Romania faced its first cholera epidemic in the summer of 1831, when the disease that had been haunting Russia since

1829 broke through the sanitary cordon organized by the Russians on the Prut River and advanced towards Iași and Bucharest, the capitals of the two principalities, causing numerous victims on its way (Taki 2008: 94).

We should mention that in 1831 Romania had not yet been established as such; the territories under focus in the present study were the principalities of Wallachia and Moldavia, two countries with a complicated legal status, functioning under the suzerainty of the Ottoman Empire and the protectorate of the Russian Empire. This situation was imposed on the two countries by the Treaty of Adrianople of 1829, which ended the Russo-Ottoman War (1828-1829) and considerably strengthened Russia's influence in the Balkans, to the detriment of the Ottoman Empire (Ardeleanu 2008: 57; Ardeleanu 2016: 13-14). Between 1829 and 1834, the two principalities were under Russian military occupation and were ruled by its representative, the Russian general Pavel Kiseleff (1788-1872). While Kiseleff's rule ended in 1834, with the agreement of the Ottoman Empire, Russia would appoint loyal and trustworthy individuals as rulers: Alexandru Dimitrie Ghica (1834-1842) in Wallachia and Mihail Sturdza (1834-1849) on the throne of Moldavia. After the revolution of 1848, these were succeeded by Barbu Știrbei in Bucharest and Grigore Al. Ghica in Iași. Through this, Russia maintained its control over the principalities until 1853, after which, the outbreak of the Crimean War (1853-1856) put an end to Russia's influence in the principalities. Defeated in the war, Russia lost the status of protector of the principalities, which came under the collective guarantee of the "Great European Powers". The Treaty of Paris of 1856 would enshrine the new status of the two countries and pave the way for their union (1859) and the establishment of Romania (Boia 2007: 74-75). The unification project continued in 1878 with Dobrogea and was completed in 1918, through the union of the historical provinces of Transylvania, Bukovina and Bessarabia with Romania (Nicoară 2024: 144-145).

Under the supervision of Governor Kiseleff, a number of modernizing measures were put into practice in the two principalities, such as: the Organic Regulations (1831-1832), documents with constitutional value, and the Danube quarantine system as a barrier against plague and cholera epidemics. Regarding the Organic Regulations, it should be noted that despite their limitations and hidden objectives (the annexation of the Principalities by Russia), they accelerated the modernization process of Romanian society, guided the principalities towards a capitalist economy, and caused important institutional and social changes reflected in the class structure, standard of living, and demography (Filitti 1916: 93; Jelavich 1984: 29-30; Mârza 2005: 83-85). In the following, we will focus on the Danube quarantine system, which played an

important role in managing collective health and in modernizing Romania's healthcare system.

In 1830s, within the context of trade intensification at the Danube mouths, extended connection of Danube ports and cities to international trade networks and increased human mobility, the rulers of the principalities became increasingly aware of the danger of mass diseases and devastating epidemics. The fear of epidemics and the desire to assert a sanitary autonomy for the principalities vis-à-vis the Ottoman Empire were the main reasons that led General Pavel Kiseleff to put into practice Article 6 of the Treaty of Adrianople (1829), on the basis of which the sanitary cordon was set up on the Danube border of the Principalities, between the Ottoman Empire and the two Romanian principalities (Ardeleanu 2024: 154-155). The sanitary cordon was made up of eleven quarantine stations in Wallachia (at Brăila, Calafat and Giurgiu, at Cerneți, Turnul, Zimnicea and Călărași and at Izvoarele, Bechet, Oltenița and Piuș-Pietrii) and one in Moldavia (at Galați-țiglina) being directed by the “General Inspector of Quarantines” with the help of the “Quarantine Committee” (one Committee for each principality) (Negulescu and Alexianu 1944: 279-280; Grigoruță 2020: 206). In the first months of its existence, for political reasons, the quarantine system on the Danube was overseen by the Russian general Sergei Dimitrievici Urusov (1786–1869), the trusted man of Governor Kiseleff. Towards the end of 1831, Kiseleff appointed another loyal person, General Nicolae Mavros (1782–1868) as the Inspector General of quarantine (Petrescu 2020: 140; Pippidi 1992: 110). Nicolae Mavros headed the quarantine service of the two Principalities until the 1854 reform, when the institution was abolished. In addition to the aforementioned stations, other quarantines were also functioning in the vicinity of the two principalities, one at Orșova, established by the Habsburgs near the border with Wallachia, and one quarantine at Sulina, which had been established by the Russian authorities in 1829, after taking possession of the Danube Delta (Popa 2008:95; Robarts 2016: 146-147).

The Quarantine Committee was conceived as a special department under the Ministry of the Interior, which would be exclusively responsible for quarantines and public health issues. The Wallachian Committee was composed of three members with decision-making power (the Inspector General of Quarantines, the Deputy Inspector and the Protomedicus of the principality) and 21 officials. The 21 officials formed the “Chancellery of the Quarantine Committee”. Three of staff were medical specialists, while the rest performed various secretarial, cashier, control and supervisory duties, having limited knowledge of cholera (Negulescu and Alexianu 1944: 74-75). The

Committee's tasks included collecting data on contagious diseases, disseminating information about these conditions, monitoring the evolution of epidemics and reporting to the Minister of the Interior on their status on a daily basis, drafting public health bills and sending them to the Minister for approval (Negulescu and Alexianu 1944: 81).

The Kiseleff administration's attempts to stop cholera through sanitary cordons and quarantines at the naval border did not yield the desired results. Cholera found ways to circumvent obstacles and crossed the border into the principalities. Usually, when the first cases of contagious disease appeared in a town, the state authorities used quarantine, sanitary cordons and prohibitions to keep the plague under control. The first step was to identify the disease outbreaks and to declare quarantine. The identified houses were disinfected and families were separated according to signs and symptoms manifested by their members. The sick were admitted to lazarettes (not so much to be cured, but mainly to be isolated and thus to prevent the infection of other people) and those suspected of contagion were isolated in their homes and periodically underwent medical checks. As the epidemic progressed, schools, shops and workshops were closed, public gatherings (church services, fairs and gambling) were banned and free movement between towns was restricted. For the free movement prohibition, the authorities would impose sanitary cordons consisting of several soldiers or gendarmes (Negulescu and Alexianu 1944: 79-80). If the transit of people could not be completely interrupted, the travelers would be checked for signs of illness and subjected to disinfection through body cleanings with vinegar or brine (Buletinul Oficial 1834: 13). A similar procedure was applied to draft animals (oxen, horses or donkeys) and means of transport (carriages, chariots or carts), while cloths and goods were fumigated with aromatic powders and disinfectants (DJAN-Dolj 75/1847). In addition, the consumption of raw or rotten fruits, especially boiled corn and melons, and the "manufacture of starch" (considered harmful to the environment) were also prohibited (SMBAN 3/1865).

In the case of death, the procedure was different. The dead body was placed in a deep pit and then sprinkled with quicklime and finally covered with earth (Buletinul Oficial 34:13). The deceased's personal belongings were then disinfected or burned, if considered worthless. A "radical solution" was applied to dogs and cats in "infected houses". According to the protocol, these animals had to be killed and buried in the ground, while being careful not to touch them (Curierul românesc 1830: 69). To ensure that things were carried out according to law, the governors stipulated that the staff responsible for implementing the measures should swear to scrupulously follow the health

rules and that any departure would be accompanied by very harsh punitive measures. For example, for preserving the remaining goods of the dead, one would have to undergo a double quarantine or several days of hard labour in a salt mine (Negulescu and Alexianu 1944: 84-85:).

Concurrently with the imposition of quarantine and the enforcement of prohibitions, a vast literature on cholera was published, with the help of which the authorities disseminated information related to diseases and epidemics. Through “disease warnings”, public health regulations, instructions, brochures and domestic medicine books, people were advised how to recognize cholera, how it was believed to spread, and how to defend themselves against it (Muzeu Național 1836: 113-114; Cuciureanu 1848). Other instructions stressed the importance of public hygiene and identified the essential elements for the health of the inhabitants: clean drinking water, sanitation and better living conditions.

Related to the last aspect, until 1874, governors also tried to control cholera through concerns about the cleanliness of streets, houses, and water in cities. Thus, the public garbage collection service was normalized and measures were taken to drain puddles of water and swamps in localities; funds were found for paving streets, disinfecting public sewers with chloride of lime and modernizing drinking water supply facilities. Public parks and gardens were also arranged, and more emphasis was placed on food hygiene control in urban centres (Livadă-Cadeschi 2013: 71-72). Last but not least, the villagers were encouraged to build houses with large windows, toilets, and stables for animals. Other measures have been taken in the field of the healthcare system. Gradually, a network of county hospitals was created through which free medical services were provided to the poor population, and measures were taken to increase the number of specialist doctors by encouraging foreign doctors to settle in the principalities, but also by establishing schools and faculties for training specialist doctors, etc (Bărbulescu 2018: 120-121; Trăușan-Matu and Buda 2023: 34-35).

Between 1831 and 1874, during the three cholera pandemics, the Romanian population faced five cholera epidemics, which manifested as irregular outbreaks with varied severity between regions: 1831-1832, 1848-1849, 1855-1856, 1866-1867 and 1873-1874. Although most people tried to uphold the terms of quarantine and prohibitions, the recorded mortality was very high. According to the calculations of Dr. Iacob Felix, during the 1831 epidemic, 20,218 people died of cholera out of the approximately 3,000,000 inhabitants of both Moldavia and Wallachia (Felix 1905: 306). The figures for mortality were equally dramatic in the following epidemic waves; during the

1848-1849 epidemic, between July 1st and August 3rd, in Wallachia, out of the 18,443 cases of illness detected, 3,893 resulted in death (Cernovodeanu 1983: 317). In the case of Moldavia, Dr. Iacob Felix estimated that between May 19th and July 16th, 1848, 7,000 people died of cholera (Felix 1905: 308). The cholera epidemic of 1873 was no less devastating. The figures recorded by Iacob Felix show 3,200 victims out of the 18,000 people infected with cholera (Felix 1905: 309).

After 1874, the year when the first sanitary law of modern Romania was adopted, three more waves would follow, the epidemics of 1876, 1893, and 1913. Broadly, until 1893, the measures of defence against contagion consisted of unconditional quarantine, trade restrictions, bans on gatherings, and public hygiene and sanitation measures. After 1893, with the emergence of research laboratories and the development of vaccines, quarantine was imposed only in strategic locations (at the naval or land border). The effect of the new strategies can be assessed from the number of victims. For example, between July and October 1893, in Romania “1,494 people were infected, of whom 622 recovered and 872 died”, and during the cholera epidemic of 1913, although preventive vaccination of all Romanian soldiers was imposed, over 11,500 soldiers contracted cholera, of whom 1,600 did not survive the contagion (Ciupală 2020: 111).

After 1928, when Alexander Fleming (1881-1955) discovered penicillin, mortality from cholera began to decline significantly in Europe and the United States. Currently, in addition to preventive (sanitization) measures, antibiotics and rehydration salts (the treatment against "metabolic acidosis") are very successful (Ferguson 2021: 135)

2. Cholera, the Law on Sanitary Service Organization (1874) and the Institution of Quarantine

Having seen how many institutions, protocols and medical procedures arose from the state of emergency caused by cholera epidemics, it is worthwhile to inquire what the sanitary law of 1874 proposed in order to limit the spread of infectious diseases. What set it apart from previous quarantine regulations? Under what conditions and manner was quarantine declared as a public health measure?

On June 16th, 1874, following the cholera epidemic of 1873, the Romanian government published the Law on the organization of sanitary service. The first priority of the law was to create a state health service, in the form of a Health Directorate within the Ministry of Interior, whose power of decision and intervention depended on the collaboration of medical and

central or local political authorities. According to the new law, the main health authorities were the Minister of Interior, the Director of the Health Service, the Higher Medical Council and the County Public Hygiene and Sanitation Councils. In case of an epidemic threat, these institutions assessed the type and severity of the plague, decided on intervention measures and approved an organized strategy for the implementation of mandatory rules (Bărbulescu 2009: 33-34). It was not only medical professionals or public health officials who received public health duties and responsibilities, but also border guards, police and state bureaucrats.

Strictly related to epidemics and quarantine, in order to defend the country against epidemic disease, the law provided that the Minister of Interior, after the approval of the Higher Medical Council and the government, could order to close borders for infected or potentially infected travelers, for goods and other objects liable to transmit a contagion, and might seize morbid travellers and their goods for a fixed time, by special regulation (Şuta et al. 2009: 65). The special regulation had to specify the cases when quarantine could be established, the quarantine time for specific diseases, and the hygienic conditions of the quarantines (lazaretto) (Şuta et al. 2009: 65).

In case of an interior epidemic outbreak, the county prefect had the authority to seize houses and infected persons, to order the disinfection of houses, corpses, clothing and other objects and to close schools, but not before receiving the approval of the Council of Public Hygiene or, in special cases, the order of the Minister of Interior (Şuta et al. 2009: 65). By introducing the central approval, a form of partnership was created between local and central authorities regarding primary assistance in the event of a health emergency. Good collaboration between these institutions was essential in order to identify and address environmental risk factors for health. The law provided special sanitary duties for the urban communal councils and for the permanent committees of the rural counties. In case of an epidemic, the members of these committees had to provide care for the sick at their homes, and if the situation worsened, to order the establishment of special hospitals during the epidemic crisis, where the sick could be isolated and cared for.

Furthermore, under the 1874 law, the primary county doctor, city doctor and district doctor were mandated to supervise the state of the environment and propose regulations in order to prevent the spread of infectious disease (Şuta et al. 2009: 99-102). Their main concern was to check that citizens respect public hygiene measures and protect drinking water sources (not to be contaminated with toxic waste). These tasks involved monitoring the living conditions of the citizens. This encompassed almost

everything, from the state of the air, water and housing to how to design houses, cemeteries, businesses, sewage and garbage disposal sites, etc (Șuta et al. 2009: 93-95).

The repeated references to polluted air, the state of environment and public hygiene should be understood in the medical context of the time. The idea of sanitizing urban areas was based on the miasma theory, according to which diseases were generated by a toxic and foul-smelling air, generically called miasma, produced by all kinds of impurities and decaying matter (garbage piles, stagnant water, factory waste, latrines, surface sewers, etc.). Scientists argued that the miasma appeared spontaneously from waste and was transmitted by the inhalation of poisoned air, especially to people more susceptible to the disease (Halliday 2001: 1469). Lacking scientific evidence but basing their conclusions on empirical observation, the proponents of the theory invited the people to consider at the environment and the infected individuals' wretched living conditions, therefore at the factors and places of miasma formation. They advocated for a systematic prevention and control of contagious disease, strict public sanitation laws (for example, regarding the cleanliness of cities, food hygiene, burials in times of epidemics) improved living conditions (Curierul românesc 1830: 1; Buletinul Oficial 1834: 13; Trăușan-Matu and Buda 2003: 26).

Although the adherents of the miasma theory of transmission convincingly argued that epidemics started in unhygienic urban areas, they could not explain why cholera followed the route of human communications as it spread to Europe and North America from the Ganges Delta, or why cholera epidemics broke out and spread in the cold season, when toxic fumes and bad odours were minimal. Such questions came from proponents of the contagion theory. They argued that diseases were spread directly from one person to another, or indirectly, from goods brought from places where diseases were endemic, by means of as yet undetectable chemicals or small organisms, invisible to the naked eye, called "animalcules" or "invisible bullets" (Trăușan-Matu 2021: 74-93). They also argued that the best strategy to prevent and control epidemics had to include three mandatory measures: border control of people and goods, quarantine (with the separation of sick from uninfected and isolation in infirmaries), and health surveillance by issuing "health certificates" to ships and passengers (the tickets were intended to inform the authorities that their holders were either non-contagious, came from plague-free areas or places, or had previously undergone a quarantine before setting traveling again) (Tognotti 2013: 254-259).

There were other voices that demanded a more convincing explanation regarding the nature of the disease (contagious or infectious). Since the middle of the 19th century, doctors and scientists such as John Snow (1813-1858), Louis Pasteur (1822-1895) or John Lister (1827-1912) argued that there was no clear evidence that cholera was transmitted by air and proposed new explanations for its transmission (for example, by means of water or some microorganisms), explanations that had the effect of creating an adequate network of drinking water and sewage in cities, but also introduced disinfection as a measure to fight outbreaks of epidemic disease (Evans 1988: 123–146; Ferguson 2021: 173-174).

Conflicting discussions about the causes of disease could also be heard at the International Sanitary Conference in Vienna, in July 1874, when representatives of twenty-one states met to agree on standardized quarantine. Although failing to reach a consensus on unique quarantine measures, the commissioners unanimously adopted a resolution which, among other things, asserted that “the ambient air is the principal vehicle of the generative agent of cholera” (Howard-Jones 1975: 39). Very briefly, the text of the resolution stated that cholera “spontaneously develops only in India, from where it is exported to other countries by water, and that it is transmitted mainly by man and his clothes”, but it is also possible to transmit through “goods coming from places of infection, through cholera corpses, animals, and certain foods” (Howard-Jones 1975: 39). The text also stated that cholera has an incubation period of 4-5 days and that “no safe disinfecting means are known” (Howard-Jones 1975: 38; Gudin et al. 2010: 27).

Returning to Romania, by issuing specific provisions regarding the cases when quarantine can be declared as a public health measure, the 1874 law allowed the relaxation of isolation measures in favor of a new system of “medical inspection”, which was considerable shorter and more operative. Moreover, by ensuring the primacy of public health measures, the law enabled the organization of an unprecedented response to possible epidemic outbreaks and, at the same time, contributed to the creation of a sanitary infrastructure and helped to ensure better living conditions in cities. In this public health project, an important role fell to the doctors, who were compelled to report any suspicion of contagious disease and to draw up annual reports on the sanitary condition of the county or city they medically supervised. In this process of fighting epidemics, the decision to establish specialized infectious disease hospitals weighed a lot. In order to prevent the spread of an untreatable infection, it was absolutely necessary that patients and their

contacts be isolated in hospitals. Hygiene and isolation measures were dictated by the medical knowledge of the time.

3. Fighting cholera epidemics after 1874. Case study: Iacob Felix and the management of the 1893 cholera epidemic

The fourth cholera pandemic started in 1881, lasted for fifteen years (1881-1896) with some pauses and severely affected countries such as Spain, Germany, the Austrian-Hungarian Empire, the Russian Empire and the Ottoman Empire. Even though Romania had a border with the last three states, until 1892 it managed to prevent cholera from entering the country. How can this success be explained? The documents of the time speak of a coherent and prompt action of the government of introducing river, sea and land quarantines, the strict limitations on human mobility and rapid mobilization of local public health units to clean up unhygienic places and impose protective measures (Regulament 1879: 2-3; Felix 1905: 302; Bacaloglu 1911: 5).

Regarding this strategy, Dr. Iacob Felix (1832-1905), professor of hygiene at the Faculty of Medicine in Bucharest between 1869 and 1902, a pioneer in sanitary research in Romania, promoted the connection between experimental science, social hygiene, and medicine, and director of the Health Service (1892 – 1899), stated in his “Report” to the Minister of the Interior in 1883 that the establishment of land quarantines did not contribute to a large extent to stopping cholera from entering the country, but rather that this was due to rigorous procedures aimed to minimize the risk of contagion. These procedures included prompt telegraph warnings of contagious disease outbreaks, travel restrictions and “the placing of guards at mountain passes, along the Danube and on the river Pruth” (SMBAN 2/1883). Furthermore, he proposed a future abolishment of the quarantine, reasoning that it “expends very large amounts of money” and “holds back the nation's prosperity by limiting trade”. He was instead in favor of a systematic plan of preventive and protective measures, even if they also were “very strict and very expensive” (SMBAN 2/1892).

Together with the establishment of quarantines, the health authorities in Romania's large cities implemented measures to limit the epidemic, which included closing down schools, suspending public gatherings and church services. The Bucharest Hygiene Council report for 1883 mentions another plan to combat contagious disease, based on disinfection services aimed at disease outbreaks, also based on the 1874 law, in addition to public hygiene measures and prohibitions. According to the report, disinfection services

consisted of “sprinkling the dwellings and furniture of the infected” with a solution of “carbolic acid” (phenol, a very toxic substance) or calcium hypochlorite, or fumigations with sulphur (SMBAN 2/1883). Devices with dry heat of up to 120 °C were used in the spraying disinfection process. As they did not ensure a maximum disinfection effect and in addition the dry heat destroyed clothing and bed linen, Dr. Iacob Felix proposed the establishment of a disinfection service next to the Bucharest City Hall, equipped with mobile ovens and machines for spraying disinfectant solutions with wet heat. For the transportation of contagious patients to the hospital, Iacob Felix proposed the purchase of “ambulance carts” that could be regularly disinfected (SMBAN 2/1883). The report also points out some problems faced by the improvised hospitals: the small number of volunteer specialists and the lack of disinfection facilities, which hindered the sanitization process of the halls, barracks and carts.

It should be mentioned that ten years later, in 1893, Bucharest had an operational communal disinfection service consisting of two mobile ovens, four small fixed ovens and several wet heat sprayers. In 1899, the technological inventory of the service was enriched with another large oven and several devices for disinfecting contaminated rooms or objects using formalin (an aqueous formaldehyde solution). Moreover, several sub-surgeons were employed in the service of the City Hall. Although they were not permanently employed, they made a significant effort to halt the spread of contagion which had visible results. The 1899 report records 3,190 disinfection operations compared to only 119 in 1893. The number of interventions would increase from year to year. In 1908, for example, the City Hall service recorded approximately 8,000 interventions (SMBAN 4/1897).

In the summer of 1893, cholera entered Romania from the Ottoman Empire through the port cities of Sulina and Constanța and spread to “15 counties, 21 urban communes and 38 rural communes.” After the epidemic was over, the director of the Health Service Iacob Felix compiled a “Report on the Cholera Epidemic of 1893”, which he sent to the Minister of Interior (Felix 1893: 32). The text shows that in 1893, despite the quarantine, the isolation of the sick and the separation of the sick from the healthy, in Romania between July and October 1893, “1,494 people were infected, of which 622 recovered and 872 died” (Felix 1893: 32). This seemed as a considerable progress, compared to the epidemic of July 1865-April 1866, when “57,088 people fell ill with cholera, of which 24,034 died” (Felix 1901: 308).

At the end of the epidemic, Iacob Felix analysed how the 1893 epidemic was managed and identified several vulnerabilities. The first problem involved the communities most exposed to contagious diseases. According to Felix's analysis, the population most affected by the plague was that of the Danube port cities: Sulina, Tulcea, Galați and Brăila. This was not by chance: at the time, the transport of passengers and goods over long distances was usually undertaken by water, and as disease travels with people, infections would first appear in port cities and then spread, following land routes, to urban agglomerations, which were especially congested and unhygienic areas. In order to remove the danger, I. Felix recommended the application of public health measures devised especially for Romania at the Dresden Sanitary Convention of March 1893, namely the establishment of permanent sanitary services in all Danube and maritime ports, the purchase of modern sanitary facilities and the supplementation of sanitary personnel. In addition, the improvement of public sanitation and strict supervision of public order by the sanitary police were also required. Iacob Felix also suggested granting compensatory damages for the social groups most affected by quarantine rules, such as the raftsmen, people who were engaged in the transport of logs by water (Felix 1893: 33).

Another shortcoming identified by Dr. Felix was related to parts of the public health system, which did not react according to the law. In some cities the infectious disease principles laid down in the 1874 law had been imperfectly put into practice, in the sense that an insufficient quantity of enough vapor disinfection machinery had been purchased, or staff responsible for disinfection had no knowledge on how to use the devices. Finally, if there was any need, I. Felix concluded that epidemic proved that drinking water in Romania constituted a vehicle for spreading disease, just like the 1892 epidemic had demonstrated in Hamburg, and thus revealed the importance of safe water sources (deep wells or pump wells) and modern water filtration technologies (chlorination of water in settling basins and use of sand filters). Because of the way it had spread, the epidemic also showed the importance of factors favouring disease, such as the lack of hygiene, poverty, environmental pollution and the intensification of trade and population movement (Felix 1893: 33-4).

The reports drawn up by Iacob Felix stimulated the development of public health measures in Romania. The doctor's argumentation on abolishing land quarantines and relaxing river and maritime rules, on the rapid implementation of preventive measures agreed upon at international conferences, convinced rulers to invest in both urban sanitation infrastructure (sewers or waste disposal) and public health campaigns aimed at educating the public about the importance of individual and community hygiene practices.

In the 1899-1913 period, while many countries of the world were fighting the sixth cholera pandemic, Romania faced several isolated outbreaks of cholera, with fluctuating severity from one city to another. This performance is explained by the prompt application of the measures agreed to at the international conferences in Dresden and Venice, which Romania joined in 1898, many of these measures having been devised with direct reference to state-of-the-art scientific discoveries from the end of the 19th century (Babeş 1911, 1915). In 1883, the German bacteriologist Robert Koch (1843-1910) demonstrated that the cause of cholera was a comma-shaped bacterium called *Vibrio cholerae*, and in 1893 he explained the aetiology of the disease and the role of water in its transmission. Furthermore, Koch formulated the basic rules for the control of cholera epidemics, which were approved in the same year by the Great Powers at the Dresden Conference and reconfirmed at the Venice Conference in 1897. At both Conferences, Iacob Felix represented Romania (the first time as director of the Sanitary Service, and as a “technical delegate” in Venice) (Felix 1901: 81). The solution agreed upon by all participating states consisted in identifying the epidemic at the initial site of outbreak, prompt communication of “the disease to all governments that have acceded to the Convention” and application of prophylactic measures. At sea, the prophylactic measures consisted of the sanitary inspection of the “supplies” coming from epidemic places, of the crew and passengers, the hospitalization of the sick and contacts in quarantine hospitals (now called sanitary stations) for five days, and the disinfection of luggage and goods considered carriers of infections, of dishes and of drinking or wastewater (Felix 1901: 81).

Moreover, in order to facilitate the disinfection process, the General Directorate of the sanitary service required that the hospitals belonging to sanitary stations situated on the naval frontier, as well as those belonging to railways, be equipped with modern disinfection facilities (Felix 1901: 83). Therefore, at Sulina, both a Danube port and a seaport, where the European Danube Commission built in 1894 a hospital for infectious diseases with 60 beds, separate from the navy hospital, the authorities introduced modern disinfection and water filtration facilities (Felix 1901: 83; Bercuş 1972: 378-79). A similar situation was recorded in the port of Galaţi, where a permanent sanitary service was established to prevent cholera epidemics coming from Russia.

Cholera epidemics became much easier to control and eradicate. However, the beginning of the victory against cholera must be interpreted in the context of a global political, medical and economic collaboration, a

collaboration that was achieved late, after overcoming the controversies generated by political and economic interests of the main European powers or of individual states. In addition to sanitary inspection, hygienic and prophylactic measures, the discovery of remedies, such as the cholera vaccine was very important.

In 1913, during the Second Balkan War, Romania faced a new cholera epidemic. The disease was brought from Bulgaria through mobile food and weapon supply units. In order to keep the epidemic in check, the solution envisaged consisted in the installation of laboratories at the observation points for the diagnosis of the first cases of cholera, the preventive vaccination against cholera of all Romanian soldiers, the examination of the soldiers returning home and the isolation of the sick and healthy carriers (Georgescu and Albulescu 1972: 462; Alexandrescu and Smadu 1913; Ciupală 2020: 110-11). The vaccination campaign was led by Ion Cantacuzino (1863 – 1934), physician, biologist and professor of experimental medicine at the Faculty of Medicine in Bucharest (1901 - 1934), the founder of the Laboratory of Experimental Medicine at the Faculty of Medicine in Bucharest (1901) and of the Institute of Serums and Vaccines in Bucharest (1921). As for the civilian population, at the first registered cases of mandatory cholera vaccination was imposed in the contaminated area, and the installation of infirmaries for the isolation of the sick.

4. Conclusions

The analysis of the quarantine in the Romanian space reveals the struggle of the state administration to counteract a disease about which, at the beginning, not much was known. A struggle that involved both the search and implementation of the most effective measures to prevent contagious diseases (quarantine, sanitation and the provision of minimal medical care), as well as finding the human, material and economic resources to put them into practice. After 1874, as quarantine restrictions became increasingly unpopular, the authorities turned to other preventative measures: they invested in urban sanitation infrastructure (sewage or waste disposal), safe drinking water sources, and launched public health campaigns designed to educate the population about the importance of individual and community hygiene practices, as well as the cholera vaccine.

Related to quarantines, in 1893 the Romanian authorities changed the name of quarantines to “sanitary stations” and considerably softened their rules, though these were never completely abandoned. Their role was still evident: they contributed to limiting infection, delaying the spread of disease

and maintaining a climate of safety in society. In the absence of medicines and correct knowledge about diseases, quarantine nonetheless influenced many aspects of public health. It was the institution that systematically collected information on the state of infectious diseases and sent regular epidemiological reports to the Health Committee. On the basis of these reports, political and health authorities could more easily monitor the evolution of diseases and intervene more quickly to contain them.

In the end, the victory over cholera was facilitated by technological advances in communication and transportation (including the telegraph, and railroads), but the decisive factor was medical progress. In research laboratories, the scientists identified and isolated the killer bacteria and developed vaccines (and after 1928 antibiotics). New medical discoveries, along with public hygiene, worked in tandem to improve people's lives, public health and security.

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Médecins roumains sur le front, 1877-1918. Mémoire et mémoires*

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Abstract. The present study's goal is to argue that the war memoirs of the physicians, which are subsumed under historical memoriography, constitute a coherent documentary corpus, with explicit national pedagogical purposes. While these sources bring to the scene individual destinies, they are not about primarily about individuals, but rather integral parts in a generalizing social project centered on the country and the nation. Our documentary option covers a chronological section organized into three main moments: 1877-1878, 1913 and 1916-1918. We have considered only published and autonomous, self-contained works, exclusively and explicitly dedicated to war.

Keywords: war memoirs, physicians' memoirs, historical memory, social pedagogy

Dans le contexte des dernières années, la valeur des mémoires en tant que source historique primaire, traditionnellement rattachée plutôt au genre littéraire, s'est définitivement imposée, et les historiens ont commencé à considérer de plus en plus qu'elle pourrait effectivement jeter les bases d'une historiographie (Leu 2012: 12). L'utilisation des mémoires comme source impose des grilles de lecture croisées, depuis l'histoire de l'époque où ils ont été écrits et les événements qu'ils décrivent (dans notre cas, les guerres) jusqu'à la

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biographie de ceux qui les ont couchés sur le papier, responsables de l'intentionnalité de cette démarche. La mémoire autobiographique se concentre sur la signification que chaque auteur attache aux différents moments de son histoire personnelle (Constantin 2004: 22). Les autobiographies s'inscrivent dans la logique d'une narration qui, pour être intelligible, doit respecter quelques critères, dont le premier et le plus important est l'établissement d'un objectif final, d'un enjeu du récit (Constantin 2004: 23). C'est avec cet objectif final à l'esprit que les épisodes sélectionnés sont utilisés pour mettre en évidence les conclusions (Constantin 2004: 24). En d'autres termes, l'enjeu de la conclusion détermine le choix de l'épisode ou des épisodes évoqués. Ayant fréquenté depuis un certain nombre d'années la littérature d'intérêt social produite par les médecins, nous nous sommes demandé si les mémoires de guerre des médecins pouvaient être compris comme un corpus cohérent et relativement bien délimité au sein des mémoires en général et des mémoires historiques en particulier.

Il convient de préciser que nous n'avons pris en considération que des ouvrages autonomes consacrés à la guerre, et non la guerre en tant qu'étape de vie dans le cadre des mémoires de type général des médecins. Le corpus auquel nous nous référerons comporte trois segments, qui se distinguent selon un critère à la fois chronologique et thématique, des événements auxquels ils se rapportent, à savoir: la guerre de 1877-1878 (Fialla 1906; Petrescu 1977; Sabin, 1912); la campagne de 1913 (Arbore 1913; Gerota 1913; Ghiulamila 1914); et enfin, la Grande Guerre, 1916-1918 (Raicoviceanu-Fulmen 1920; Ștefănescu-Galați 1921; Bianu 1937; Dona 2018; Trancu-Rainer 1982, 2021; Stamati-Claudian 2008).

Présents sur le front, soit en tant que médecins militaires, soit en tant que réservistes, les médecins choisissent parfois de laisser à la postérité des mémoires faisant référence explicitement et exclusivement à la confrontation militaire à laquelle ils ont participé. Dans le paysage des écrits provenant du monde médical, en dehors de la littérature professionnelle, scientifique et didactique, les mémoires de guerre se distinguent par l'intentionnalité, exprimée sans ambiguïté, de ces démarches. Autrement dit, dans la plupart des cas, les auteurs eux-mêmes les ont destinés à une publication rapide par rapport au moment de leur rédaction, et l'intention de pédagogie sociale, propre en général au genre mémoriel, est explicitement assumée. En revanche, les auteurs ne semblent pas intéressés par le genre mémoriel en soi. À l'exception de Ion Ghiulamila, aucun des personnages mentionnés ne publie de mémoires de type général. Cependant, dans la plupart des cas, ils se distinguent par leurs écrits concernant le domaine social (social-politique proprement dit ou de sensibilité

sociale, qu'il s'agisse de journalisme ou de littérature). C'est la raison pour laquelle nous sommes tentée de placer les mémoires de guerre des médecins dans la sphère de la littérature d'engagement social.

L'hypothèse semble se vérifier si l'on prend en considération un autre aspect qui attire l'attention: la plupart des médecins auteurs de mémoires sont présents dans l'espace public à d'autres titres (ils remplissent des fonctions administratives civiles ou militaires, occupent des positions politiques ou des chaires dans l'enseignement universitaire, exercent des activités philanthropiques). Ludovic Fialla (1831-1910) fut professeur et chef de département à l'École nationale de médecine et participa, en tant que membre fondateur, à l'organisation de la Croix-Rouge en Roumanie. Il publia des ouvrages médicaux et la traduction d'un ouvrage de vulgarisation, *Cunoștințe igienice populare* (d'après le D^r Hoeber), Bucarest, 1896. Gheorghe Sabin (1853-1924) fut médecin de district à Horezu, puis médecin principal du département de Vâlcea et de la ville de Râmnicu Vâlcea, plusieurs fois sénateur de Vâlcea (entre 1895 et 1915, avec des interruptions), deux fois préfet du département de Vâlcea (1904-1907, 1910-1912), et obtint en 1919 un siège de député indépendant. Ecaterina Arbore (1873-1937) fut médecin communal à Bucarest, médecin pour les enfants trouvés et orphelins, médecin pour les conférences de nourrices et les inspections à domicile, médecin des dispensaires sociaux pour la prophylaxie de la tuberculose et l'assistance aux tuberculeux pauvres (hôpital et sanatorium de Filaret). À partir de 1902, elle commença à militer dans le cercle socialiste « România muncitoare » (la Roumanie ouvrière), puis au sein du Parti social-démocrate. En 1918, elle partit en Russie, où elle occupa divers postes de responsabilité dans l'appareil sanitaire soviétique. En 1937, victime des purges successives en Union soviétique, elle fut condamnée à mort et exécutée. Elle a été réhabilitée à titre posthume tant en Roumanie qu'en URSS. Elle donna de nombreuses conférences populaires, publia des articles dans la presse socialiste de Roumanie et dans les publications de l'Internationale communiste, ainsi qu'un certain nombre d'ouvrages de vulgarisation sur des sujets médicaux, sociaux ou liés à l'émancipation des femmes. On dispose de peu d'informations sur Nicolae Burghel. Il exerça comme médecin à Vidra, puis comme médecin communal à Bucarest, et participa à l'organisation et, ensuite, à la publication des rapports des congrès de l'Association générale des médecins de Roumanie en 1905, 1907, 1908, 1910, 1911, 1912 et 1913. Dimitrie Gerota (1867-1939) eut, entre 1899 et 1936, une carrière universitaire précoce et constante; en 1916, il devint membre de l'Académie roumaine, et entra en 1918 au Parlement en tant que sénateur représentant l'Université de Bucarest. Il avait toutefois ses propres options

politiques, qu'il exprima publiquement dans une série de brochures. Il mena également une importante activité philanthropique. Ion D. Ghiulamila (1872-1936), orthopédiste de la Maison royale, se concentra, dans ses publications, sur sa spécialité, mais avec une perspective sociale de la médecine, mettant l'accent sur l'assistance aux invalides de guerre. Vasile Bianu (1858-1927) fut médecin à Horezu-Vâlcea et à Buzău, publia de nombreux articles dans des revues médicales et reçut en 1911 le prix Năsturel Herescu de l'Académie roumaine pour son « Dictionnaire de la santé ou le médecin de famille » (*Dicționarul sănătății sau doctorul de casă*, 1910; 1941). En 1926, il signait en tant que sénateur de Huedin. Mihai Ștefănescu-Galați (1874-1949) fut professeur d'université et doyen de la Faculté de médecine de Iași entre 1926 et 1929. Il publia des ouvrages médicaux, scientifiques et didactiques, tout en collaborant régulièrement aux revues *Viața Românească* et *Însemnări ieșene*. Ecaterina Raicoviceanu-Fulmen (1873-1970) est considérée comme la première femme journaliste de Roumanie, au sens de journaliste professionnelle et salariée. Elle publia des volumes personnels et des traductions. Militante du mouvement féministe, elle défendit activement, dans toute sa production journalistique, la nécessité de l'émancipation des femmes et l'égalité des droits des femmes avec les hommes dans tous les domaines de la vie sociale.

Bien que succinctes, ces quelques informations sur l'activité des médecins qui publièrent des mémoires de leur vivant, nous ont semblé significatives non seulement pour les biographies des personnages concernés, mais aussi pour ce que l'on pourrait appeler la position du médecin dans la société. Dans la seconde moitié du XIX^e siècle et au début du XX^e, les médecins deviennent de plus en plus actifs dans l'espace public, avec des aspirations explicites à se constituer en un corps de technocrates (transcendant les options politiques), appelés à mettre leurs connaissances non seulement au service de la médecine proprement dite, mais aussi au service du fonctionnement général de la société. L'ancienne analogie organiciste, qui établissait des similitudes entre le corps humain et le corps social, transférait le savoir de ceux qui comprennent et soignent le corps humain au niveau de la société, légitimant ainsi leur vocation à une présence active dans l'espace politique. La biologisation du corps de la nation se développera ainsi dans deux directions persistantes dans le temps, l'hygiénisme et l'eugénisme.

Le D^f Al. Tălășescu, chef du service sanitaire du port de Constanța, considérait que *«seuls les biologistes sont appelés à tenir entre leurs mains les destins du reste de l'humanité [...] notre vocation est de fertiliser le travail de l'humanité»*, par une *«extension du rôle scientifique biologique à d'autres domaines d'activité, dans nos relations avec les gens et au sein de l'organisme de l'État»* (Tălășescu 1902).

Dépositaires de la seule science garante de la vie, les médecins ne peuvent entrer en rapport avec l'espace politique que pour le tenir en tutelle. Ce qu'ils souhaitent, ce n'est pas une simple consultation. Les leviers par lesquels leurs propositions pourraient devenir des réalités relèvent de la politique. De la sorte, au début des années 1900, les médecins décident d'entrer en politique. Ainsi, en 1905, le D^r C. Vasiliu publiait, sous le titre « Poziția socială a medicului » (« La position sociale du médecin »), les résultats d'une enquête menée par le *British Medical Journal* sur ce sujet. L'auteur mettait en avant la situation en France (singulière, il faut le dire), où les médecins avaient décidé de former une sorte de « parti de l'hygiène » et d'entrer dans les corps législatifs. La première présence significative des médecins au Parlement de Roumanie semble remonter à 1901, lorsque, selon le D^r C. Vasiliu, les médecins occupaient la sixième position à la Chambre, l'avant-dernière (après les avocats, les propriétaires, les professeurs et les hommes de science, les commerçants, les ingénieurs, mais avant les militaires), et la quatrième position au Sénat (après les propriétaires, les avocats, les professeurs et les hommes de science, mais avant les évêques, les militaires, les ingénieurs et les commerçants) (Vasiliu 1905).

L'expression par excellence de la vocation des médecins à prédominer parmi les autres professionnels de l'espace public se retrouve en 1934 dans les paroles du D^r Gheorghe Banu:

«En définitive, l'indépendance des institutions est tout à fait relative par rapport à la nécessité nationale, qui est unique pour tout le pays; si l'on devait réfléchir à des mesures énergiques et sans trop de consultations préalables, la loi, obligatoirement, devrait lever toutes les sommes disponibles, incorporer toutes les institutions pour une direction unitaire et pour ce que j'appellerais une dictature prophylactique en Roumanie» (Banu 1934: 354).

C'est dans ce contexte que nous avons choisi de comprendre les mémoires de guerre des médecins roumains, car la guerre leur offre une belle occasion d'intervenir dans l'espace public. Certes, face à la guerre, les médecins ont leur mot à dire. Et pas seulement sur le front ou à l'arrière, où ils soignent les blessés. En effet, toute l'activité médicale (prévention, médecine sociale, hygiène, etc.) peut s'entendre comme une façon d'assurer à la nation sa force économique et militaire. En 1885 déjà, le D^r Iacob Felix considérait les soins de santé comme une vertu civique, responsable du bien-être économique de la nation, mais aussi de sa défense en cas d'éventuelles agressions:

«Il est de notre devoir de préserver notre santé, pour devenir de dignes citoyens, dotés de la force nécessaire pour travailler aux champs, pour gagner notre pain quotidien, et veiller à ce que nos bras aient la vigueur requise pour porter les armes, afin qu'en cas de besoin nous puissions défendre la patrie et le foyer paternel contre les ennemis du pays et de la nation roumaine» (Felix 1885: 3).

Par ailleurs, la guerre met en évidence la fragilité du corps physique de la nation, ainsi que la responsabilité des autorités civiles et militaires quant à la manière, le plus souvent critiquée par les médecins comme défectueuse, dont elles entendent défendre et, autant que possible, renforcer le citoyen et le soldat. Beaucoup des médecins qui publient leurs mémoires de guerre le font dans une logique explicite de pédagogie sociale, apportant dans l'espace public des témoignages qui fonctionnent comme une forme de pression sur les autorités, ainsi sommées d'adopter des mesures pour améliorer les conditions hygiéniques et sanitaires tant dans l'armée que dans la population civile. C'est d'ailleurs la raison pour laquelle ces écrits sont généralement publiés très peu de temps après les événements décrits.

Le D^r Dimitrie Gerota lit l'effort déployé et les difficultés endurées lors de la campagne de 1913 à travers le prisme de la métaphore organiciste, comme un moyen de fortifier le corps de la nation afin de le préparer à la lutte pour atteindre ses idéaux:

«Tout comme un organisme s'immunise après avoir été inoculé avec un certain vaccin, fasse Dieu que les fatigues et privations de cette campagne soient le sérum bienfaisant avec lequel notre armée sera immunisée pour résister à l'avenir aux privations et aux fatigues inhérentes à la guerre, pour des objectifs et des idéaux plus élevés!» (Gerota 1913: 47).

Les erreurs acquièrent une valeur d'exemples négatifs:

«Car, si l'impréparation de la campagne de 1913 fut une erreur et une preuve d'imprévoyance, ce sera un crime que de partir dans une future campagne tout aussi mal préparés que cette année » (Gerota 1913: 50-51).

La dénonciation de ces erreurs dans l'espace public s'inscrit dans une logique militante dépourvue d'ambiguïté : *« Il est de notre devoir de nous battre et de nous révolter. [...] Nous nous révolterons, non pas avec la matraque, mais avec la plume, avec l'agitation dans la presse, par des réunions, des interpellations, des imprimés et par toutes les voies légales que nous garantit la Constitution » (Gerota 1913: 50-51)* pour améliorer le service de santé civil et militaire.

Bien que les mémoires de guerre des médecins présentent une série de traits communs, ils se distinguent également par une série de nuances qui témoignent de leur évolution dans l'intervalle chronologique qui nous intéresse, en commençant par la nécessité de créer une mémoire historique en 1877. Les deux textes destinés à la publication (Ludovic Fialla et Gheorghe Sabin) attirent l'attention par la date relativement tardive, par rapport aux événements narrés, de leur apparition dans l'espace public: 1892 (1906) pour le premier, et 1912 pour le second. Ils s'inscrivent dans la logique générale de pédagogie sociale/nationale propre aux mémoires historiques, mais les enjeux assumés par leurs auteurs, bien qu'assez semblables, présentent néanmoins des nuances différentes. Ils écrivent tous les deux pour se souvenir, mais leurs perspectives ne sont pas fondamentalement identiques. Chez Ludovic Fialla, l'accent est mis en tout premier lieu sur la valeur pragmatique et prospective de ses notations, et seulement en second lieu sur la construction de la mémoire historique. Chez Gheorghe Sabin, cette dernière prédomine, et l'accent est mis sur l'héroïsation du soldat roumain.

La première édition du texte de Ludovic Fialla paraît en 1892, presque par nécessité, car, comme il l'avoue lui-même, personne n'avait jusqu'alors rien publié de semblable. Ce qui suggère que, plus d'une décennie après le moment historique en question, celui-ci n'avait pas encore acquis tout le poids symbolique du lien entre l'indépendance et la construction de la nation. D'ailleurs, si Ludovic Fialla parle encore de *la guerre roumano-russo-turque*, Gheorghe Sabin ne parlera que de *la guerre d'Indépendance*. Le texte de Ludovic Fialla « servira aussi à la mémoire du passé » (Fialla 1906: 6), mais *en tout premier lieu* « le but [...], c'est le bien des combattants blessés » (Fialla 1906: 7). La deuxième édition, cependant, publiée à l'occasion du Jubilé de 1906, intègre la guerre de 1877 dans le récit de la fondation de l'État roumain moderne sous le règne de Carol I^{er}: « Nous nous préparons à célébrer le jubilé des quarante ans du règne du roi Carol I^{er}. [...] L'Indépendance et le royaume roumain ont jailli de cette époque, comme une perle du plus bel orient » (Fialla 1906: 3). Chez le Dr Sabin, la glorification de la campagne de 1877 n'est plus centrée sur la personnalité du prince Carol, mais sur celle du soldat-héros. De ce point de vue, il est un pionnier, si l'on songe que, en Roumanie, le culte des héros est lié à la Société « Les Tombes des héros morts au champ d'honneur », fondée en septembre 1919 et devenue plus tard, en 1927, la Société pour le « Culte des héros ». Initialement, la publication des mémoires n'est, pour l'auteur, qu'un moyen de financer le monument aux héros de Vâlcea. Mais le culte des héros ne signifie nullement que la dynastie est occultée ou reléguée au second plan. C'est juste un changement d'accent, qui met moins en évidence la personne du

souverain que son lien avec la nation, avec le peuple dont l'armée était composée. Le D^f Sabin conclut son ouvrage par un appel aux

«bons Roumains, pour qu'ensemble nous apportions notre tribut de reconnaissance et nos louanges à notre jeune armée, [...] ; nous devons laisser sur terre un signe qui rappelle aux générations futures ceux qui ont versé leur sang, [...] pour nous donner une Patrie Libre, un Pays beau et indépendant. Et moi, humble narrateur de ce que j'ai vu, je n'aurai de repos [...] que lorsque j'aurai vu le monument que je veux élever à la mémoire des héros de Vâlcea, tombés sur le champ de bataille pour la Patrie et pour le Trône» (Sabin 1912: 189).

Chronologiquement, les notes de la campagne de 1877-1878 ouvrent la série des mémoires de guerre des médecins roumains. Par rapport aux témoignages relatifs à 1913 ou à la Grande Guerre, elles présentent un certain nombre de caractéristiques distinctes, qui rendent compte de l'évolution de la mémoire historique au fil du temps. À la différence du D^f Zaharia Petrescu, auteur de notations strictement personnelles, non destinées à la publication, mais dont on suppose qu'il préparait une série de notes destinées à la « mémoire officielle » de la campagne de 1877-1878, les deux autres auteurs enregistrent explicitement leurs souvenirs pour les mettre à la disposition des contemporains et des générations futures dans un but éducatif. Pour Ludovic Fialla, cette démarche reste avant tout pragmatique, mais sa décision ultérieure de republier ses *Réminiscences* dans le contexte du Jubilé de 1906 intègre la Guerre d'indépendance et la proclamation du royaume dans la narration officielle et festive du règne de Carol I^{er}, et revalorise son effort en tant qu'auteur qui constitue sa propre contribution à la célébration de la dynastie. Son activité prend une dimension patriotique justifiant son entrée dans la mémoire collective:

«Ainsi, avec cette édition, [...] je mets mon petit livre en habit de fête pour lui faire partager ces beaux jours du jubilé. [...] Cet ouvrage me survivra, mais, pendant un certain temps, ceux qui le liront se souviendront que j'ai été animé par des sentiments patriotiques et que je me suis entièrement dévoué à ceux qui souffraient» (Fialla 1906: 4).

C'est à la même mémoire collective historique que se rapporte le D^f Gheorghe Sabin, mais sous l'angle du culte du héros. Initialement, Gheorghe Sabin enregistre à titre strictement personnel les événements de son volontariat

pendant la campagne de 1877-1878. Ce n'est que plus tard que, stimulé par les modèles européens, il prendra conscience de l'importance de ces lieux de mémoire que sont les monuments aux soldats devenus héros parce « *qu'ils ont donné leur vie en luttant pour la loi, pour la religion, pour l'indépendance, en défendant leur patrie* » (Sabin 1912: IX-X). Cette géographie symbolique établit un lien direct et très concret (matérialisé dans un objet) entre la contemporanéité, le passé devenu héroïque grâce aux sacrifices des ancêtres et les événements fondateurs de l'État et de la nation:

«Mes souvenirs me sont revenus, j'ai pensé avec une profonde tristesse aux milliers de vies sacrifiées dans les plaines bulgares pour secouer le joug séculaire, et j'ai constaté avec douleur que peu a été fait chez nous pour ces héros disparus, qui nous ont donné l'Indépendance, en faisant naître de leur sang la Roumanie d'aujourd'hui» (Sabin 1912: X).

Une dernière observation concerne le moment, relativement tardif par rapport à 1877-1878, où les deux textes destinés à la publication virent le jour (respectivement 1892/1906 et 1912). Cela nous amène à penser que la symbolique de la Guerre d'indépendance en soi n'était pas encore pleinement définie. D'autre part, les mémoires de guerre des médecins roumains n'en sont qu'à leurs débuts. Ceux qui écrivent le font encore à titre strictement personnel (Zaharia Petrescu), sans s'interroger sur les ressorts intimes qui les auront poussés à le faire (Gheorghe Sabin), attendant en vain que d'autres, peut-être, aient publié à leur place des notes similaires, dont ils entrevoient déjà l'importance (Ludovic Fialla). La publication de ces souvenirs est stimulée par des événements qui ne leur sont pas directement liés, le Jubilé des 40 ans de règne de Carol I^{er} ou un voyage personnel à l'étranger. Ce sont des tâtonnements inhérents à un genre encore à ses débuts, que l'on ne retrouvera plus dans les générations suivantes de médecins mémorialistes (de guerre).

En allant plus loin, la guerre de 1913 avait plutôt été une mobilisation qu'une campagne militaire au sens strict du terme. Mais l'épidémie de choléra, apparue en Bulgarie et exportée en Roumanie, se solda par un bilan dramatique, qui marqua la mémoire des médecins présents sur le front. Tous les mémorialistes se disent choqués par la virulence de l'épidémie, par l'organisation inadéquate du service sanitaire de l'armée, par le manque de sensibilité des autorités et en général des élites face aux drames massifs que l'épidémie avait produits au niveau populaire. L'enjeu de la publication de ces notes est de dénoncer toute une série d'aspects ponctuels qui, au final, renvoient à des déficiences structurelles de la société roumaine.

Ecaterina Arbore publie ses mémoires en 1914. Elle avait participé à la campagne de Bulgarie en tant que volontaire, principalement pour des raisons professionnelles:

«Je considère que dans la vie d'un médecin, les moments les plus intéressants tant pour son activité professionnelle et scientifique que pour son activité sociale sont ceux qu'il a passés à lutter contre une épidémie» (Arbore 1914: 3).

Mais le choléra ne saurait être dissocié de la guerre, entendue comme l'expression typique des antagonismes sociaux. Ecaterina Arbore écrit ses mémoires sur le ton de la révolte contre l'ordre social perçu comme injuste, de l'accusation contre la classe dominante et de l'empathie pour la vie difficile des classes populaires:

«Qui n'a pas été témoin de l'épidémie de choléra ne peut pas imaginer combien les malades du choléra inspirent de pitié [...]. Et la pitié que l'on ressent est d'autant plus grande que l'on sait quelle a été la cause directe des souffrances endurées par ces malheureux [...]: la guerre des classes dirigeantes pour un lopin de terre a introduit l'épidémie dans le pays; la vie misérable que mène notre peuple du berceau à la tombe a été le terrain propice à la culture du microbe. Oui, je ressentais de la pitié au point d'avoir les larmes aux yeux et des spasmes dans la gorge, mais je me sentais aussi bouillonner de révolte, et j'éprouvais en même temps un sentiment de culpabilité... parce que nous, qui connaissions les conséquences de la guerre, n'avions pas pu l'empêcher» (Arbore 1914: 28).

Tout le journal est dominé par la révolte, mais les conclusions d'Ecaterina Arbore passent du registre de la révolte à celui du messianisme révolutionnaire:

«En ce qui me concerne, je crois que je ne peux en tirer qu'une seule leçon: nous aurons des épidémies de choléra, de fièvre typhoïde, etc., il y aura de la misère dans les villages, les gendarmes ruraux régneront et le même état de choses continuera jusqu'à ce que le peuple lui-même prenne conscience de ses droits, jusqu'à ce qu'il organise lui-même son administration et son service sanitaire. Et ce temps est proche» (Arbore 1914: 70).

Si la révolte bouillonnante et le messianisme révolutionnaire d'Ecaterina Arbore peuvent être attribués à l'environnement dans lequel elle avait grandi et aux milieux socialistes qu'elle fréquentait, nous serons surpris de constater des

accents similaires chez Dimitrie Gerota. En 1913, il publiait une brochure sur la campagne récemment achevée. La narration se déroule sur deux tons distincts: d'une part, le sentiment du devoir ; d'autre part, la révolte profonde face à l'incapacité des autorités à gérer l'épidémie et au traitement inéquitable dont les victimes privilégiées étaient les paysans charroyeurs et les simples soldats. L'indignation et la révolte du D^r Gerota explosent dans une diatribe véhémement, aux accents messianiques, contre les responsables politiques du pays, qui se termine par un plaidoyer en faveur de l'éducation civique du paysan, seule voie vers une société où le juste rapport entre les droits et les devoirs du citoyen garantit la limitation des abus:

«Chefs de gouvernements, ministres et députés, déguisez-vous et descendez parmi les masses du peuple que vous trompez par vos discours mensongers ; voyez son ignorance et son illettrisme, voyez les abus et les comportements de vos subordonnés et protégés, et remerciez Dieu que la patience du Roumain soit grande ! Et si ce n'est pas vous qui paierez de votre peau l'effet de l'ignorance et de l'injustice dans lesquelles vous avez maintenu les six millions de fils du pays que vous avez exploités, ce sont vos enfants qui le paieront. Donnez-leur des écoles et éclairez-les, afin qu'ils puissent connaître non seulement leurs devoirs, mais aussi leurs droits, car alors peut-être cesseront les vols et les illégalités d'aujourd'hui » (Gerota 1913: 13-14).

Dimitrie Gerota n'est pas un révolutionnaire de profession. Il ne conteste ni la légitimité de la guerre, ni ses coûts inhérents, mais uniquement les aspects sanitaires, qui auraient dû prévaloir à la fin de l'opération militaire proprement dite. Pour lui, la participation à la campagne de 1913 représentait la matérialisation naturelle du patriotisme: *«Finalement, je peux dire avec fierté que j'ai répondu de tout cœur à l'appel de la patrie » (Gerota 1913: 46).*

Nous ne savons que très peu de choses sur Nicolae Burghеле, le troisième médecin auteur d'une brochure sur la campagne de 1913. Bien que n'ayant ni la combativité, ni l'envergure d'Ecaterina Arbore ou de Dimitrie Gerota, il prit néanmoins part aux débats publics de l'époque, pour défendre les intérêts professionnels des médecins. En 1913, il publia ses mémoires de la campagne à laquelle il avait participé en tant que médecin réserviste. La raison, singulière par rapport aux autres mémorialistes de guerre, pour laquelle il avait décidé de le faire, c'était la situation inédite qu'il avait vécue, un « nouveau mode de vie pendant deux mois, bien loin de l'ordinaire de la vie quotidienne » (Burghеле 1913 : 3). Sans contester la légitimité de la participation roumaine à la guerre, Nicolae Burghеле ressent d'emblée le besoin de préciser qu'il la

considère plutôt comme le résultat des jeux d'influence des grandes puissances et de rapports de force inéquitables et corrompus :

« Si les grandes puissances "européennes" ne s'immisçaient pas dans les querelles des petits peuples sous prétexte de les réconcilier, alors qu'en réalité elles ne cherchent qu'à les dépouiller, si donc elles ne s'immisçaient pas, il est absolument certain que ces querelles se termineraient de manière plus utile » (Burghelle 1913: 3).

Et le D^f Burghelle de conclure ses mémoires sur une note optimiste, presque à la manière d'un *Bildungsroman*:

« Quoi qu'il en soit, pendant tout ce temps, je n'eus aucune souffrance ; [...] en fin de compte, je vécus comme je pus, comme à la guerre ; pourtant, je rentrai sain et sauf, bien que j'eusse eu beaucoup à endurer comme à la guerre. [...] Avec espoir dans l'élan intelligent et puissant de l'avenir, j'en garde les souvenirs les plus agréables, que j'ai couchés dans ces pages » (Burghelle 1913: 39-40).

Cette expérience a également une valeur formatrice au niveau collectif, où, plus que l'imputation des erreurs, c'est leur correction qui compte. Le D^f Burghelle hésite à formuler des accusations, bien que celles concernant la rigidité, la bureaucratisation et la hiérarchisation excessive de l'armée reviennent plusieurs fois dans ses souvenirs, préférant comprendre les imperfections rencontrées non pas comme des défaillances systémiques, mais plutôt comme des accumulations d'erreurs individuelles:

« Ne formulons pas les uns contre les autres de reproches et d'accusations qui ne mènent à rien d'autre qu'à la haine et à la division, permettant à d'autres de nous dépouiller. [...] Nous avons tous une part de culpabilité [...] » (Burghelle 1913: 39-40).

Pourtant, bien qu'il opte pour un nivellement des fautes et, par conséquent, pour une dilution des responsabilités, le D^f Burghelle ne peut finalement pas éluder le rapport contradictoire entre la rhétorique de la démocratie et la pratique de la guerre, résultat exclusif d'une concentration de la capacité de décision au sommet de la hiérarchie sociale:

« Je suis de plus en plus persuadé que l'être humain est très rusé et curieux : d'une part, il se vante d'être le défenseur du progrès, de la justice, de l'ordre, de

la démocratie, etc., et d'autre part, il attise et déclenche une guerre, avec toutes ses misères, pour de simples ambitions, des prétentions vaniteuses et des désaccords entre quelques mortels, quelques élites !» (Burghele 1913: 40).

C'est une assertion presque symétrique, dans sa logique, avec celle des premières pages des souvenirs de Nicolae Burghele, où il incriminait les mêmes rapports de pouvoir, mais au niveau international.

L'épidémie de choléra de 1913 est indissociable de la guerre de la même année. Ce qui individualise la littérature mémorielle consacrée à cet épisode, c'est l'accent mis sur la justice et l'équité sociales. Pour tous les auteurs, la guerre a mis en évidence une fracture dans la société. En théorie, la guerre mobilise un «contrat social» au nom de la solidarité nationale, mais en pratique, les sacrifices populaires sont toujours plus coûteux que ceux des élites. Une réaction cohérente de ces élites face à l'épidémie s'inscrivait donc dans une logique contractuelle. D'autant plus que le choléra et la guerre tendent à devenir équivalents. La guerre, dont les élites portent la responsabilité, se trouve à l'origine de la propagation de l'épidémie, qui ne fait qu'exacerber les conséquences dramatiques pour le peuple. Le choléra aggrave la fracture entre les élites et le peuple, par l'absence d'une réaction cohérente et conséquente des premières face aux coûts sociaux imposés au second. Guerre et épidémie sont profondément antidémocratiques, inéquitables et portent en elles un immense potentiel destructeur, justifié par la rupture du pacte social.

Le moment 1916-1918 bénéficie théoriquement du nombre le plus important de mémoires, mais certains ne furent publiés qu'à titre posthume (Marta Trancu-Rainer, Raul Dona), alors que d'autres furent rédigés bien longtemps après l'événement proprement dit (Alice Stamati-Claudian). La symbolique particulière de la guerre dont naquit la Grande Roumanie et, par conséquent, son inscription dans une logique de légitimation, fondatrice et patriotique, se retrouve cependant, bien qu'à des degrés divers, dans tous les écrits mémoriels. L'apogée de ce type d'approche est représenté par les *Notes* du D^r Vasile Bianu, une construction idéologique monumentale, où la composante mémorielle proprement dite est surpassée en quantité par un nombre impressionnant de fragments d'articles de presse, de discours, de journaux de front, et même de longs passages de diverses œuvres historiques et littéraires. Les *Notes* constituent une œuvre de propagande, où l'épopée nationale prévaut sur toutes les autres lectures possibles, prenant souvent des accents mystiques et messianiques. Sous la plume du D^r Bianu, l'idéal national devient une véritable religion laïque. Avec la «*sainte guerre de réunification nationale*» (Bianu 1926 I: 10), «*la Roumanie aura vécu l'heure de son salut*» (Bianu

1926 I: 10). Les *Notes* sont divisées en deux tomes, le *Calvaire* et l'*Apothéose* de la nation roumaine. Le D^f Bianu conclut l'ensemble de sa démarche dans la lettre et l'esprit des manuscrits religieux, lui donnant ainsi des connotations de liturgie politique:

«et moi, humble écrivain [...], je terminerai [...] avec les mots du vieux Siméon: Maintenant, Seigneur, tu laisses ton serviteur s'en aller en paix, selon ta parole, car mes yeux ont vu le salut du peuple roumain. Gloire et louange à Dieu, pour les siècles des siècles, amen!» (Bianu 1926 II: 495).

Mihai Ștefănescu-Galați se place dans la même logique nationale-patriotique, qu'il assume au risque de renoncer à sa propre logique professionnelle:

«Nous avons fait taire en nous le sens de toute une vie consacrée à protéger les autres des maladies, et nous avons contribué à la terrible boucherie qui a emporté tant de vies jeunes, [...]. Nous avons aidé l'idéal national en tant que médecins, en tant que soldats et en tant que Roumains» (Ștefănescu-Galați 2017: 186-187).

À la différence toutefois du D^f Bianu, il a un sens aigu des injustices sociales, qu'il n'hésite pas à associer à la volonté politique des gouvernants, pour dénoncer les injustices individuelles, ainsi que les dérapages généraux qui apparaissent lorsque la politique et le bien commun ne semblent plus s'inscrire sur les mêmes coordonnées. Il écrit ses mémoires pour les léguer à la postérité et dans une logique de pédagogie sociale. Mais sa pédagogie va à l'encontre du discours officiel festif et triomphaliste. L'accent ne porte pas sur l'idéal national, dont il ne conteste pas un instant la légitimité, mais sur les coûts humains de la guerre. Et là, il s'agit non seulement des vies fauchées, mais aussi d'une profonde crise des valeurs morales, qui avait amplifié les pertes matérielles. Au terme d'une guerre aussi dévastatrice, la pédagogie mémorielle ne trouve plus son objet dans la perfectibilité des aspects militaires, mais dans la dénonciation des dérapages moraux souvent camouflés par le discours nationaliste aux accents patriotards:

«Mais aujourd'hui nous n'avons plus besoin de leçons pour l'avenir. [...] Cependant, on peut encore tirer quelques enseignements de cette guerre. [...] Il est possible de voir quelles catégories d'âmes et comment elles ont répondu à l'appel du pays. [...] On peut voir quelles catégories d'âmes ont répondu à

l'appel de la patrie et comment elles l'ont fait. Tel est le bilan qu'il nous faudra bien analyser un jour» (Ștefănescu-Galați 2017: 17).

La logique intrinsèque des *Souvenirs* du D^r Ștefănescu-Galați est liée à son intention déclarée de dénoncer la fracture du pacte social entre gouvernants et gouvernés. Vu dans son ensemble, son ouvrage se structure autour de deux thèmes fondamentaux: d'une part, l'imprudence, l'inertie, souvent l'indolence de ceux qui sont appelés à diriger ; d'autre part, le dévouement, le sentiment du devoir, l'esprit de sacrifice et l'obéissance des simples gens appelés à exécuter les ordres des premiers.

La partie des souvenirs consacrée aux aspects militaires est un long inventaire des déficiences de l'armée roumaine en termes de logistique, d'équipement, voire de capacités de commandement. Pour tous ces aspects, le D^r Ștefănescu-Galați accuse explicitement les militaires de carrière de manquer de professionnalisme:

«Nous autres, profanes, lorsque nous examinons ces circonstances élémentaires, nous nous demandons comment des personnes dont la seule mission est de s'occuper de ces choses ont pu, après de longues années de préparation, quand on savait que le pays allait inévitablement entrer en guerre, ne pas utiliser au moins les enseignements de ceux qui faisaient la guerre depuis plus longtemps que nous» (Ștefănescu-Galați 2017: 53).

Mais il n'a que de bons mots pour les gens de son ambulance. Il nous semble significatif, du point de vue de la logique sociale dichotomique qui guide son discours, que les éventuels traits de caractère négatifs des protagonistes sont presque totalement absents. Théoriquement, il accepte les différences de caractère entre les gens de sa propre troupe, mais ceux-ci se divisent uniquement en *bons* et *moins bons*:

«Mes hommes n'étaient certainement pas tous pareils. Il y en avait de très bons, dévoués et obéissants. Beaucoup étaient bons sous tous les rapports. Mais il y en avait aussi de moins bons.» (Ștefănescu-Galați 2017: 112).

Dans cette dernière catégorie, le seul cas mentionné est celui d'un soldat kleptomane que le médecin parvient finalement à guérir de son vice, et qui devient par la suite *un soldat digne de ce nom*.

L'hypocrisie des décideurs politiques et leur manque de solidarité avec ceux du sort desquels ils décident sont fustigés avec virulence:

«À l'époque, on décidait à Iași du sort de ceux d'entre nous qui étaient au front. Fallait-il résister ou demander la paix ? Selon certains, il fallait résister. Nous devons retirer toute notre armée dans un coin du pays [...] où nous pourrions résister aux Allemands jusqu'au dernier homme et jusqu'à la dernière balle. Cette zone avait d'ailleurs été appelée le Triangle de la Mort. C'est ce que l'armée était censée faire. Que devaient faire ceux qui décidaient au nom de l'armée ? Se retirer à Paris ou à Odessa. Que devait faire le pays, qui se retrouvait sans armée et sans dirigeants ? C'était son affaire ! [...] Et nous, au front, qu'avons-nous fait ? Pour nous, que ce soit le front ou le triangle, c'était pareil. [...] Seule la forme géométrique de la mort était différente. La mort en triangle, si nous résistions; la mort en ligne droite, par le scorbut et la famine, si nous restions au front » (Ștefănescu-Galați 2017: 204-205).

Ses diatribes contre les autorités civiles et militaires sont le résultat direct de l'enjeu que le D^r Ștefănescu-Galați s'était fixé, à savoir la dénonciation de la *dissolution spirituelle liée à la guerre* (Ștefănescu-Galați 2017: 152) et d'une longue série de dérapages de comportement social et professionnel, principalement de la part de ceux qui détenaient le pouvoir de décision. Ses mémoires excluent explicitement les notes élogieuses, bien que les accents véritablement patriotiques ne soient pas absents de ses pages.

Les mémoires de la Grande Guerre sont également complétées par les souvenirs de deux personnages féminins, qui ont travaillé dans les hôpitaux du front, Arabella Yarca et Ecaterina Raicoviceanu-Fulmen. Néanmoins, seule cette dernière assume explicitement son appartenance au corps sanitaire. Le journal d'Arabella Yarca est peut-être le journal de guerre le plus original, en ce sens que la guerre, avec tout son cortège de misères et de souffrances physiques, que l'auteure elle-même vécut, reste simplement le décor d'histoires sentimentales avec toutes leurs bizarreries, fantaisies et caprices. Ecaterina Raicoviceanu-Fulmen, comme les médecins que nous avons évoqués, n'était pas inconnue dans l'espace public, et son activité journalistique et littéraire l'avait déjà consacrée au moment où elle publia ses mémoires de guerre. Son journal, manifestement littéraire, se situe cependant dans un espace d'engagement social sans équivoque. La souffrance collective causée par la guerre devient source d'une solidarité sociale qui prend le pas sur les souffrances individuelles:

«De plus en plus, le désir de partir loin me saisit et m'opresse. Mais une force plus grande, indéfinie, me retient dans le pays, aux côtés de tous ceux qui

souffrent [...] Je suis restée sur place, dans la ville hostile, sans aucun ami
(Raicoviceanu-Fulmen 1920: 17).

Le désastre accablant de la guerre nivelle les différences, amplifie les vulnérabilités et stimule la solidarité de ceux qui, bien que différents, partagent le même sort:

«presque en s'aimant à travers le prisme de la souffrance commune, qui lie aujourd'hui tant d'êtres autrefois mal assortis» (Raicoviceanu-Fulmen 1920: 19).

Nous concluons ces considérations sur les mémoires de guerre des médecins roumains en revenant sur quelques caractéristiques du genre. Bien qu'ils soient sans aucun doute autobiographiques (soit dans la logique du journal intime, soit dans celle des mémoires), ils ne sont pas nécessairement centrés sur la propre personne de l'auteur. À la différence des mémoires biographiques, où l'accent est mis sur l'histoire de la vie de l'auteur, dans les mémoires historiques (mémoires de guerre, en l'occurrence) le ressort principal est d'ordre historique. Ces textes répondent donc non seulement à une logique individuelle, personnelle, de celui qui les couche sur le papier, mais aussi à une logique politique (Bărbulescu 2015: 56). Les mémoires de guerre des médecins mettent en scène des destins individuels, mais ils concernent moins les individus qu'un projet social à vocation généralisatrice, centré sur le pays et la nation. Les premiers ouvrages de ce genre ont contribué à la création de la mémoire historique de la guerre, façonnant une image profondément légitimante de celle-ci, en rapport direct avec l'idéal national. Cette image s'est définitivement imposée avec la constitution de la Grande Roumanie, à la fin de la Grande Guerre, qui est restée dans l'esprit collectif comme la Guerre d'unification nationale. À l'exception d'Ecaterina Arbore, aucun des médecins mémorialistes, même parmi ceux publiés à titre posthume, ne conteste la légitimité de la guerre à laquelle ils ont participé. Mais ce qu'ils contestent presque tous (à l'exception de Vasile Bianu), dans des proportions et avec des degrés de virulence différents, c'est la capacité des autorités civiles et militaires à protéger le simple citoyen. Les médecins accusent ouvertement les gouvernants d'être extrêmement opaques à l'égard de ce que l'on pourrait appeler un projet sanitaire national, qui aurait permis de réduire, au moins dans certaines limites, les préjudices inhérents à la guerre. Même lorsqu'ils ne sont pas destinés à la publication et ne s'inscrivent pas explicitement dans une pédagogie nationale, les mémoires ne se soustraient pas totalement à la perspective sociale au sens le plus large du terme, et rendent compte des choix

de leurs auteurs. Nous pensons donc que les mémoires de guerre des médecins roumains présentent de nombreux aspects étonnamment unitaires, si bien qu'ils peuvent être traités comme un ensemble documentaire cohérent et consistant.

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“The Ugly Disease of Poverty”.
Descriptions, Reports and Socio-Medical Measures to Combat
Pellagra in Bukovina, 1890-1914

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Abstract. The health situation and the functioning of the Austrian Bukovina health system remain poorly understood due to the marginalization of the topic as well as the limited study of primary source material related to this time frame and region. Although scattered in the archives of Romania or those of Ukraine (Cernăuți/Chernivtsi), in the regional press and popularization works specific to the beginning of the 20th century, the material concerning the variety of diseases (many of them infectious, with fatal effects among the population) is rich and instrumental in understanding the knowledge the historical specificities of the easternmost province of the monarchy. Based on such diverse information from the archives of Suceava and the press of the time, the article proposes to shed light on one of the most challenging “social diseases” of the time, namely pellagra. It presents the conditions and appearance of the disease, its symptoms and phases of manifestation (as described by several doctors from Cernăuți and Suceava) and how the doctors and political authorities of the time adopted medical and social “sanitation” measures. The successes and setbacks in what had been dubbed the “Fight against Pellagra” (*Bekämpfung der Pellagra*) for several decades point to the potential for examining the topic from the perspective of social history, ethnohistory, medical history, historical demography, and rural history, thus offering ideas for new investigations.

Keywords: nutritional deficiency, social disease, medicalization, Bukovina, recovery, pellagra

1. Introduction

At the beginning of the 1908, in one of the Romanian-language newspapers from Cernăuți (Chernivtsi/Czernowitz), the priest and ethnographer Dimitrie Dan addressed the readership of “Honorable landowners” with the following words:

“None of you may have heard of a new illness called pellagra; others might not have heard of it at all. At the urging of the honourable captaincy from Rădăuți, I wish in the following to show you what a dreadful disease pellagra is, what causes it, so that some of our people fall ill with pellagra, and finally how we could protect you from that horrible and deadly sickness” (Dan 1908: 62).

Almost two decades had passed since the provincial government had requested all district medical staff involved in vaccination campaigns against smallpox to document and investigate the cases of pellagra identified in rural communities. This had contributed to a better understanding of the conditions that favoured the development of the condition, which would in turn increase the effectiveness of what the authorities called a “campaign” or “fight” against the disease.

In the medical literature of the Austrian Empire, the mechanisms of pellagra pathology were no longer a novelty since the 18th century, the disease subsequently becoming endemic in Lombardy, southern Tyrol, Gorizia and Gradisca, explaining somewhat its names of *Rose delle Asturie*, *Lepra asturica*, *Lepra italica*, *Risipola lombarda*, *Eczema lombardo*. It took doctors more than a century to understand the mechanisms of the disease, searching for its infectious or genetic causes and blaming either “animal microbes,” “dust on the skin,” “sunburn,” or “contaminated water” (Ginnaio 2011). The most reputable views attributed the attachment to a diet nearly “exclusively” and “abusively” composed of maize flour products or polenta. Hence resulted in the maidic¹ and the toxic (or zeitoxic²) theories. Supporters of the former definitely blamed the “monotonous diet” and corn, which, unlike other cereals, could not be easily “assimilated by the human digestive organs” (Felix 1901: 196). Certain assumptions limited to this hypothesis were confirmed by the discovery of vitamins, particularly the role of niacin, commonly referred to as vitamin B3 or PP. Finally, pellagra became a nutritional condition, or the

¹ Theory according to which corn, a food poor in nourishing materials, especially in nutrients nitrates, would cause pellagra, regardless of whether it is healthy or spoiled.

² Theory attributing pellagra to mycotoxins (moulds) from tainted corn.

“prototype of a social disease” caused by the body's lack of essential nutrients (Savvidou 2014). On the other hand, proponents of the toxic idea asserted that eating maize tainted with mould and fungus was the cause of the illness. According to the illustrious physician and anthropologist Cesare Lombroso, it was not poverty that caused pellagra (i.e., corn known as “the food of the poor”) but rather a virus specific to altered corn, which has a devastating effect on an exhausted and neglected body. In other words, there was a connection between “pellagra” and “poverty,” but not a cause-and-effect relationship. The severity of the clinical manifestations led to its identification with the “disease of the 3 D’s” – dermatitis, diarrhoea, and dementia, often followed by death. However, beyond the clinical particularities of this feared disease, its approach from a historical perspective remains challenging, with attempts at retrospective analysis regarding either the entire Austrian monarchy (Flamm 2021) or its provinces (Gentilcore and Priani 2023, Devetak 2024).

As for the imperial province of Bukovina, - where it is described by using terms such as “jap”, “flap”, “skin”, “skinning”, and “cleft” - references are scattered in documents belonging to administrative authorities (priests, doctors and officials), in reports, health situations and press, each highlighting its trajectory and conclusion. Historical medical research in the territory of Austrian Bukovina is still in its early stages, although in the 1970s, the physician Octavian Lupu tried to build a history of health services by referencing legislative documents issued by the chancellery in Vienna (Lupu 1978). The unpublished manuscript, which is still housed in the County Library in Suceava, identifies pellagra as one of the primary concerns. Despite the shortage of qualified medical personnel and limited financial resources, the author advocated for the gradual implementation of medical measures.

Owing to previous inquiries into the subject (Mareci Sabol 2017a, 2017b), an in-depth exploration of pellagra as the “ugly and deadly disease” that ravaged Bukovina seems to be a particularly fruitful direction of research. Moreover, the praxeological approach to the subject aims not only to discuss the practical routines and the findings of the few doctors in Bukovina but also to examine the practical application of their theoretical knowledge in a social and community context. In other words, focusing on the historical sources generated by the reports and individual analyses elaborated and published by Bukovinian doctors, this approach moves medicine from the intimate space of the hospital or doctor’s office or the patient’s home into the public debate, and eventually into the decision-making forum of the province. In addition, the sources encompass the case studies that were the subject of articles in medical journals, opinions, and archival statistics, all of which have the potential for a

practice-focused reconstruction. In the first part of this work, I will provide an overview of the food context and the nutritional deficiencies that constituted the cause or contributing factor of pellagra, highlighting two products (corn flour and alcohol) whose use and abuse led to diseases, debates, and medical and social policies. What did corn mean in the diet of the population of Bukovina, especially for members of rural communities? Who was the victim of alcohol, and who should be held accountable for the production, sale, and consumption of harmful foods due to negligence or malice? The following section presents the medical approach to the disease as a strategic movement, a spontaneous or thoughtful desire to highlight the doctor and the cases considered worthy of being made public. The last sequence refers to those figures that led doctors and provincial politicians to adopt social measures and health policies in the easternmost region of the Austrian Empire.

2. Food context: Corn-based diet, nutritional deficiencies, and alcoholism

Described as a “social plague” in Bukovina in the 1880s-1890s, pellagra caught the attention of the press. The intellectuals demanded sanitary measures and improvements to the economic environment and living conditions of the empire's citizens, trying to prevent the disease from becoming a severe threat to the state. Moreover, the profoundly dramatic image of the rural environment, monotonous and imbued with the stigmas of malnutrition or poor dietary habits, created a state of alert. Perhaps not coincidentally, the intervention of the priest Dimitrie Dan, a corresponding member of the Romanian Academy and a respected citizen of Bukovina, could contribute to edifying the people (“the honourable householders,” as he used to address them) regarding the “cause of the dreadful disease of pellagra”, concerning the deficient diet and the consumption of harmful corn:

“Those people who eat, day after day, year after year, only polenta made from spoiled, unripe or mouldy corn flour contract the disease called pellagra. But a person contracts pellagra easily if he consumes the bad or old polenta, which has begun to mould at the bottom, and moistens it with water to make it slide more easily down the throat. Similarly, those people contract pellagra, who eat good polenta, but only with clear borscht, which is not sufficient to nourish their body”. (Dan 1908: 63).

Towards the end of the 19th century, corn had become ubiquitous in rural diets, slowly replacing all other competing cereals. Excessive and often

exclusive consumption of polenta, whether made from good flour or spoiled flour, could lead to “the dreadful and terrifying disease.” Paradoxically, “the food that brought the disease” became iconic for the rural population or even “an emblem of Romanian identity” (Diaconu 2021: 108). According to Edmund von Neusser’s work on pellagra in Austria and Romania, the cultivation of corn in Bukovina had begun around the year 1786 (Neusser 1887; Klunczenko 1911c: 199), although according to observations made by Splény as early as 1775, the peasants in the newly annexed province ate “only milk, cheese, and cornmeal, that is, cornbread”. In 1893, commenting on this statement, Johann Polek, the editor of Splény’s writings, noted: “More widespread than cornbread, or what Splény³ calls *Kukuruzbrod*, is *mamaliga*, a porridge made from corn flour (Splény 1998: 213). We do not know whether the scholar and traveller Baltazar Haquet referred in his notes to the same cornmeal porridge as the only dish prepared by the people of Bukovina, but paradoxically, this poor food made the locals healthier and more vigorous compared to the residents of large European cities (Hacquet 2002: 69). The ethnographer Simion Florea Marian wrote that corn seeds were used for filling sausages or in sauces that accompanied dishes made with pork ribs, goose meat or fish. Boiled in milk, the same corn kernels transformed into a delicious dish, served mainly at substantial meals before entering Lent and at commemorative celebrations for the dead. Moreover, a fermented drink from corn mixed with barley could replace beer. For Marian, corn represented “the main element of Romanians everywhere. If there was no corn, I do not know what the Romanian people would do, who have become accustomed to eating only bread made from cereals.” Several dishes were prepared out of corn flour: polenta (“a poor word for a poor dish”), sweet corn dough (“which takes the form of a pancake whose dough must never rise and which gives a sweet taste”), *alivancă* (“prepared from corn flour mixed with yoghurt”), cornmeal – coarsely ground corn (“coarse ground seeds with milk or for making dumplings, especially vegetarian ones”). In addition, Simion Florea Marian explained the corn-wheat relationship as follows: “Romanians use wheat during the major holidays, while corn flour is used in their daily life. From corn flour, we prepare not just bread, pancakes and other similar products, but also other small pastries that are primarily consumed by children” (Marian 2010).

The expansion of the railway infrastructure and the possibility of importing large quantities of corn, against the backdrop of high consumption,

³ Field Marshal Gabriel Anton Baron Splény von Mihály was a nobleman and general of the Austrian Empire. He served as the first governor of Bukovina from the summer of 1774 until the spring of 1778.

made it possible for its price to drop. Unfortunately, transportation and improper storage also led to its spoilage. Taking seriously the warnings of doctors and realizing the ignorance regarding the nutritional value of food, the priest Dan wrote: “The most effective means to avoid pellagra is to mix polenta with wheat, rye, or barley bread, meaning we should eat, alternatively, polenta and bread. So, if we eat polenta alongside bread and if, moreover, we frequently indulge in milk, cheese, and meat from geese, pigs, sheep, lambs, then truly, the good Lord will protect us from the dreadful disease” (Dan 1908: 64). In an article meant to popularize the existence of the disease, the physician Gheorghe (sic!) Manolescu argued that it was “caused by social wrongdoing” (which had generated at a medical level “a Babylonian confusion”) and mainly targeted “the working masses, who are underfed and poorly nourished” (Manolescu 1904: 2). The “disruptions” in this image came from the presence of

“wealthy people..., who live worse than the poor. The reason is their boundless avarice, for some like these would rather sell the beautifully ripe corn, which shines like gold in the market, while they, along with their tender offspring, that is, the children, punish them by feeding them with the poorest corn, which sometimes even pigs refuse to eat. They would much rather greedily hoard money than nourish themselves with healthy bread.”

Committing a capital sin like avarice, they were condemned to “the dreadful disease of pellagra, accompanied by terrible sufferings, terrifying madness, and a cruel untimely death in a hospital or a lunatic asylum” (Dan 1908). While the wealthy class represented the “exception”, the peasants formed the “rule”, and chronic hunger caused by nutritional deficiencies and alcoholism favoured the emergence and exacerbation of the disease. In 1910, the physician Octavian Gheorghian employed stark terms to caution the public and the authorities of the following: “The greatest enemies of our people are alcohol and pellagra. They decimate whole villages, and if things continue as they are, it won’t be long until hospitals can no longer accommodate the number of sick” (“Calendar” 1910: 54). Even if the majority of the population found itself somewhere in the middle distance between moderation and excess concerning alcohol consumption, the public discourse highlighted the danger of alcoholism in Bukovina. For example, in one of the issues of “Gazeta Bucovinei” from the autumn of 1895, the residents of Suceava were divided into three categories: “Suceava residents who drink at home; Suceava residents who drink in taverns; and Suceava residents, finally, who drink at home and in

taverns” (“Gazeta Bucovinei” 1895: 3). The issue of alcoholism was not new for Bukovina. The first measures to combat it dated back to its organization within the Austro-Hungarian empire. General Enzenberg, for instance, proposed limiting imports, regulating the sale of alcoholic beverages, and controlling taverns. Moreover, he desired the sale of these “sinful liquids” on credit, recommending the reconversion of tavern keepers from their antisocial profession and directing them “towards agricultural work” (Lupu 1978: 119). By the end of the 19th century, the phenomenon of excessive alcohol consumption became notable, but the law of 1878 did not have a radical effect on locals. From the capital of Bukovina in the years 1880-1890, there was a call to distinguish the “old merry drinking, with good wine” from the “ruinous alcoholism due to various poisons.” A definite scale of the harmfulness of alcoholic drinks opposed distilled beverages to fermented ones. As a general principle, the noxiousness of the finished product increased directly in proportion to its strength, placing distilled alcohol or “alcoholic poison” at the top of the hierarchy of dangers, which generated the physical and moral decline of man, pushing him towards murder, driving him to madness and giving cause to “a host of liver diseases” (“Gazeta Bucovinei” 1896: 3). In one of his interventions, Dr. Würzel mentioned the case of the wife of a very wealthy peasant, who, as a drinker of *rachi*, “fell ill with pellagra”, later recovering after prolonged abstinence from alcohol and corn-based foods. Similarly, a 50-year-old public official, recognized as an alcoholic, fell ill with pellagra, although he had eaten cornmeal in moderate quantities. In his case, the appropriate regimen had “favourable success” (Würzel 1903: 214). However, that distinction between “reasonable” alcohol consumption and alcoholism was irrelevant for the “poor,” the “malnourished worker”, who became an object of the speeches from the podium of the provincial Diet (*Czernowitzer Tagblatt* 1910: 2) or of the priests’ sermons, who endorsed the pledges of abstinence made in church, in front of a barrel full of *rachi* that was to be first “cursed” and then led through the locality “to the sounds of trumpets and pistols”, to the burial site as proof of “getting rid of this sin” (Covalciuc 2018: 63).

Without insisting on the issue of *horilka* or *rachi* consumption, on the hygiene of the body or the dwelling, the priest Dan recommended, to avoid the “terrible disease,” first to give up the consumption of “rotten, mouldy and unripe corn.” In the event this sickness had been contracted the patient was advised to go to a doctor or the hospital and, at the same time, to exclude from the diet, “for a longer period, food with cornmeal,” promising them “complete recovery” (Dan 1908: 64).

3. Disease and patients in the descriptions of doctors from Bukovina

In 1903, in an article published in *Wiener Klinische Wochenschrift*, one of the first cases of pellagra in Bukovina was mentioned, which had been diagnosed in the early years 1880s: “I already knew that this disease was spreading more and more in the neighbouring kingdom, Romania, and when I travelled inside this country, I saw isolated cases. However, at that time, I did not have the time nor the freedom to familiarize myself, in detail, with these cases and manifestations of the disease. One day that year, visiting the priest of the village of Costâna, not far from Suceava, I found out about a disease that had already appeared repeatedly in his parish, with a multitude of symptoms and a stunning evolution that led me to a hut where a woman with a severe and advanced stage of pellagra was huddled on a poor bed. From that moment on, I directed my entire interest towards the disease and sought out every case in the area, eagerly reading all the published works on this subject” (Würzel 1903: 211). At the time of observation, the author of the mentioned article, Max Würzel, a doctor at the Public Hospital in Suceava, was one of the first to signal the presence of the disease in the Southern part of Bukovina. The same period (1883-1884) and the same village with its sick people appeared in Doctor Kluczenko's reports, which emphasized its unusual character and clinical novelty. Despite the perplexity manifested by many of his colleagues, he claimed that the disease was not unknown to the local peasants, “especially, the elderly priests here being familiar with all the severe symptoms. of pellagra and its appearance, in previous years, especially ‘after poor harvests’” (Kluczenko 1889: 47). The proximity of Suceava to the Kingdom of Romania had prompted Austrian doctor Edmund Neusser to mention in his treatise on pellagra the manifestation of the disease in Bukovina, although he had not had the opportunity to directly witness any patients there, but rather intuitively deduced this based on reports from Romanian hospitals (Neusser 1887). In turn, the physician Ioan Neagoe from Bucharest reported the presence, in the year 1866, of four patients with pellagra – which emerged after the “bad corn harvest of the years 1865-1866” – admitted to the “asylum and hospital for the insane in Cernăuți” (Manolescu 1904; Neagoe 1900), providing incorrect information regarding the location, since the construction of this medical facility would only be completed in 1886/1887. Just like Würzel or Kluczenko, the physician Ion Volcinschi from Cernăuți estimated that the first cases of pellagra were announced around the year 1884, sporadically, not only in the Suceava district but also in Cernăuți, Coțmani, Gura Humorului, Rădăuți, and Siret (Lupu 1971). Finally, Doctor Wladimir Philipowicz discussed the appearance of pellagra in Bukovina long before the year 1887, when he

diagnosed six patients. According to his notes, it was “quite late”, given that in Moldova and Wallachia, it had been reported as early as 1846-1847, and the “lifestyle of the rural Bukovinian population was quite similar to that of the Romanians” (Philipowicz 1888: 422).

In the medical literature relating to pellagra, the contributions of the physician Basil Kluczenko are by far the most easily identifiable; from his office as the health referent of Bukovina, he attempted to track the aetiology and prophylaxis of the disease throughout the entire province. Already in 1889, while functioning as the district physician of Suceava, a town located at the border with the Kingdom of Romania, he reported the presence of 12 patients with pellagra, with another 2 committing suicide due to the disease. In the document addressed to his superiors in Cernăuți, he argued that the disease might be “frequent” among the local population, “especially in years with poor harvests,” as opposed to the mountainous area, where locals were “spared.” In a “more detailed analysis” published in the *Wiener Klinische Wochenschrift*, at the public hospital in Suceava, all 12 patients mentioned by Kluczenko were peasants (daily laborers), aged between 27 and 70. Of these, 11 were men. The 12th person was Katrina J. from Petrouitz (Pătrăuți), aged 36, with ten births but only six living children, the youngest being one and a half years old. Her husband, the forester, could provide the family with “a good material situation,” even though the main food consumed remained polenta. The patient claimed to have fallen ill a year earlier (around 1886), subsequently developing inflammations on the backs of her hands and feet, which had however improved by autumn and almost completely disappeared in winter.

Without other symptoms and not knowing the cause of the malady, she firmly denied having consumed spoiled or uncooked corn. Nevertheless, the recurrence of the disease, on June 15th, had sent her to the hospital, where the doctor found a complex of symptoms, besides changes in the skin (slightly scaly, reddish in colour), which included pallor of the face, decayed teeth, frailty accompanied by dizziness and headache. Fortunately, a proper diet and the administration of iron and arsenic improved the patient’s condition. From the same period comes the case of Stefan M., a 37-year-old day labourer from Reusseny (Reuseni). Extensive facial erythema, bright red, covered his nose, forehead, cheeks, neck, backs of his hands and legs, and the outer surface of his forearms. From the doctor’s description, it appeared that the patient responded to questions addressed to him “with slow speech, after much thought,” being “extremely apathetic” and complaining of headaches and dizziness. Nevertheless, after two weeks, he was discharged. The youngest among the patients observed by the doctor from Suceava in 1888 was peasant

Konstantin K. from Teschoutz (Tișăuți). At 27, married for two years, he had two children. Although the 1887 harvest was of poor quality, the spoiled corn was consumed for four months by his family as polenta. Unlike his wife and children, he presented extensive erythema on the backs of his hands and legs, on his face and neck, experiencing dizziness, headaches, and violent diarrhoea, sometimes bloody, which weakened him, rendering him incapable of hard work in the fields. Michailo U., a 34-year-old peasant from Jakobestie (Iacobești), Iwan S. from Lissaura (Lisaura), Bihol B. from Bossancze (Bosanci), and three other men from Costâna (where the disease had become “frequent”), also complained of the same symptoms. With an illness “he had borne standing” for three years, Iwan S. from Romanestie (Românești), a 44-year-old man, married, with four children and “fairly wealthy,” had reached the stage of dementia, just like Peter G., a peasant living in precarious conditions who had ended up in the Suceava hospital after, a few weeks prior, he had set his own house on fire “in a fit of madness” (Kluczenko 1889: 48).

In Cernăuți, the secondary doctor Philipowicz “occasionally” identified pellagra at the suggestion of his “chief,” Dr Zaloziecki, who was intrigued by the skin changes on the backs of the hands and legs, as well as by the unusual psychological behaviour of a patient. With medical experience gained over more than 11 years in Gorizia, Philipowicz managed to diagnose six cases, two of which he confirmed through an autopsy. The patients were admitted to the surgery and internal medicine wards, with only one, a 26-year-old woman, assigned to psychiatry due to “mental disorders”. The treatment provided by psychiatrist Tzurkan (Țurcan) yielded results, and the patient was discharged after almost 3 months of hospitalization. Aware of the observations and descriptions of clinical cases by Dr. Kluczenko, his colleague from Suceava, Wladimir Philipowicz doubted the accuracy of patients’ statements regarding the onset of the illness. With an air of superiority, which he justified by his social status and level of education of the patients, he blamed the ignorance and “lack of intelligence and awareness of the disease among our rural population” while also recognizing “the fear of our rural population towards the hospital,” which meant that “the vast majority of patients stay at home. Therefore, I believe that a detailed observation in different parts of our Crown Land would reveal a considerably larger number of sick people” (Philipowicz 1888: 455). The same opinion was shared by Kluczenko, who considered it interesting and useful to investigate the occurrence of pellagra throughout Bukovina (Kluczenko 1889: 48).

But how did this terrible disease, which most often led to a fatal end, manifest itself, and how did the Bukovinian doctors describe it? To identify

and delineate it, they referred to foreign literature (or, in Philipowicz's case, to the experience accumulated in regions where it had already become known), checking the criteria of scientific rigour of the era applied in science medical, ordering or hierarchizing the manifestations of the disease from a conceptual and categorical point of view. According to Dr. Manolescu, in the "intermittent stage," "a beginning of redness is observed on all parts of the body exposed to the sun" and "a general weakening of the organism ... always accompanied by headaches, dizziness, continuous fatigue, disgust for work, and social reserve. These symptoms disappeared in autumn, only to return increasingly pronounced in springtime. The next stage, "remittent", was characterized by the generalization of erythema on the skin exposed to the sun, paraesthesia, hyper chromia, and desquamation or "peeling". In this phase, the treatment of skin lesions consisted of compresses of acetic clay, vaseline for softening, and, eventually, drops of arsenic. For the healing of the digestive tract, bismuth was administered in association with opiates, iron, and small doses of quinine as "tonics to improve nutritional status and combat anaemia." Doctor Würzel expressed his distrust in the administration of saline solution, plasma, and strychnine, the latter for combating episodes of schizophrenia and subsequent paralysis complicating pellagra (Würzel 1903: 215-216). The evolution of the disease or "the unfortunate sufferer being taken in the grip of the disease" coincided with "general dullness, diarrhoea, cramps, delirium, melancholy, and, finally, with death, either by the mercy of God or by suicide, by drowning or hanging" (Manolescu 1904: 2).

As Dr. Kluczenko sought the help of local teachers and priests in raising awareness among the rural population regarding the danger of getting sick, Dimitrie Dan "translated" for "the honorable householders" the grim spectacle of the disease in the following way:

"Pellagra first shows up by the fact that the one afflicted by this disease is hungover; that is, he feels no pain, yet is not healthy, so he cannot engage in any work. The patient's salivation increases, he feels a salty taste in his mouth, there is no good taste or no taste at all in any kind of food. Then, the patient is overwhelmed by stomach and bowel pains, even cramps with vomiting, then experiences a terrible stomach-ache, sometimes with bleeding. This illness is worse towards the end of winter when patients suffer from terrible headaches, dizziness and shivering as if after drunkenness, then a kind of drowsiness; they do not hear, do not see well, and eventually, they experience an inability to think of anything. Moreover, the patient develops swellings on the hands and feet,

sometimes even on the face and chest, which burn like fire and are accompanied by horrible pains. After a while, these swellings on the hands and feet rise and become red. These swellings then develop like blisters, and the skin begins to crack. The patient also develops swellings on the tongue, where crevices appear. All these symptoms appear to the patient until the beginning of autumn, that is, until the start of the cold season when the patient seems to feel better. The swellings then begin to disappear, so after a few weeks, the skin of the patient's hands and feet starts to peel, and in their place remains the skin beneath, which, however, is yellow, like the leaves of the trees after a frost. Throughout autumn, the patient also experiences headaches as well as stomach cramps. But this recovery of the pellagra patient is transient and deceitful because, with the beginning of the following spring, the headaches, dizziness, painful swellings of the skin on the hands and feet, the fierce stomach cramps and bowel troubles begin again, but now much more painfully and horrifyingly than in the past summer, and the unfortunate patient becomes sad, mute, has visions, considering oneself persecuted, and walking around with dark and sinful thoughts, that is, to end their own lives, – and many do so – indeed many of these wretched individuals go mad and die in asylums” (Dan 1908: 62-63).

Among the cases described by Dr. Würzel was a 64-year-old patient from Arbore, ill for two years but admitted to the hospital only on January 1, 1898. The appropriate treatment (based on arsenic) and the corresponding diet improved his health. However, a year after his discharge, due to the recurrence of the illness, “he was found lying in a ditch, in an extremely degraded state,” necessitating hospitalization again. Ultimately, two weeks later, that patient was discovered deceased. “Crushed under blankets... whether a suicide or accidental, he had stuffed a sackcloth into his mouth and thus suffocated” (Würzel 1903: 218).

That the victims of pellagra lived out their last days in a degrading spectacle of physical and mental misery is also highlighted by the announcements in the central German-language press. A distinctive column in the *Bukowinaer Rundschau*, specifically entitled “Misfortune”, recalled those who, having reached an advanced stage of the disease, committed suicide in sinister conditions (*Bukowinaer Rundschau* 1899: 3; 1900: 3). To avoid such dramas, the most suitable solution, as far as possible, was admission to the mental hospital in Cernăuți, the only one in Bukovina. The impressive and horrifying image of mental misery was illustrated by Dr. Gregor from the State Asylum in Cernăuți

through 72 clinical cases monitored from March 1904 to September 1905 in an attempt to establish a causal or incidental relationship between pellagra and madness. Seven patients belonged to the neurasthenic group, the most common symptoms being headache, pain in the gastric area, pressure in the head, vertigo, anxiety (which could reach phobia), and feelings of physical and mental incapacity. The awareness of their illness, pellagra, and the depression it caused eventually made them resigned and inactive. Another ten patients were diagnosed with acute dementia, manifesting, besides apathy, a hypochondriacal feeling and an awareness of their mental disturbances, willingly accepting hospitalization in the asylum. While some apparently accepted their fates, “smiling” at what they called “a shrinking of the brain,” others lamented, choosing either the medical assistance they had been offered or suicide to avoid becoming a burden to their families. Most patients (32) presented a disordered psychomotor state, having “terrifying hallucinations, accompanied by vivid emotions and violent motor excitement.” They saw their homes or villages burning, believed they were being attacked by enemies or demons, surrounded by wild animals, or, more rarely, found themselves before paradise, in the presence of archbishops or clerics, fishing or during agricultural work. Two of the patients observed by Dr. Gregor suffered from acute delirium, ten from catatonia, three from anxiety psychosis, and another two from manic-depressive disorders. The difficulties that the Cernăuți doctor referred to – like his colleagues in other hospitals in Bukovina – concerned “simultaneous alcoholism,” having a dramatic influence on the clinical picture of the illness, and “illiteracy” or the low level of education of the patients, elements that obstructed research, negatively influencing scientific observations (Gregor 1911).

4. Numbers, statistics and medical-sanitation measures

In the 1890s, the increasing presence of pellagra in the rural communities of Bukovina created a state of concern within the medical community, with repercussions throughout the entire social body. Investigations into the endemic nature of the disease in the Suceava, Gura Humorului, and Cernăuți districts showed that despite the high number of sick individuals presenting to doctors for care and treatment, the fear of hospitals among the rural population remained overwhelming. Authorities understood that only the coordinated action of doctors would help manage the health situation. Therefore, by Decree 6998, dated May 19, 1891 (Flamm 2021: 13-14), district doctors and personnel responsible for smallpox vaccination during the summer had to “investigate the spread of pellagra in communities and families, examine

lesions when warranted, and record the findings made” in a specially prepared “Form.” The summer months were the most suitable for carrying out this action, as exposure to the sun favoured skin changes and an increased ability to observe specific lesions. However, in Bukovina in the 1890s, the value of a rural doctor was still debatable: “Well, common servant! You pay the mayor, you pay the registrar, you pay the inspector, you pay the taxes, where are you to support the doctor? If we come to perish from hunger, the presence of a doctor is superfluous, as we can die without a doctor” (*Revista Politică* 1889: 1). Somewhat fascinated by the aetiology of this disease and based on observation forms and his notes, Dr. Würzel reported that at the hospital in Suceava, from 1887 until the end of October 1902, 144 individuals (79 men and 65 women) diagnosed with pellagra had been hospitalized, with an average of four per year during the period 1888-1897 and 25 per year between 1898 and 1902. Only between 1897 and 1902, those seeking treatment in the hospital increased sixfold, even though it was well-known that patients with mild forms and initial symptoms of the disease only rarely consulted a doctor. Eighty-nine were released with an “improved state of health,” while only eighteen were declared “cured”. There were also patients discharged as “not cured”, at their family’s request, and a few others who perished in the hospital. Most of the patients (109) resided in the vicinity of the city of Suceava, while the rest (35) came from other districts of Bukovina and Galicia (Würzel 1903: 217-219). For more efficient disease management, upon reaching the position of government advisor, Dr. Kluczenko proposed to doctors in Bukovina’s hospitals a “Form” to help understand the areas where pellagra had become endemic, its mode of spreading, to increase awareness of the medical community regarding the aetiology of the disease. “Kluczenko’s Form” included sections such as: 1. Name, age, marital status, and address of the sick person, including location in a lowland or mountainous area, in sunny, shady, wet, or dry places; 2. The patient occupation or place of work and ability or inability to work; 3. Economic situation or “Financial Circumstances” (in the case of peasants, the land areas owned); 4. Duration of the illness and existence of other cases in the family, indicating the degree of kinship and their nationality; 5. The primary nutrition and the specific source of corn (production or purchase); 6. Whether the patient consumes alcohol and in what form (brandy or beer); 7. Have the patients worked in Russia or Romania? If so, when? Did they consume the corn provided by the employer, bring it home in exchange for the work performed, or purchase it from another source? 8. The patient is mentally healthy or suffers from mental disorders; 9. Are there changes in the skin, face, hands or legs? 10. Was the patient admitted to a medical institution? If so, in

what year? (N.A.R.S.C.S. 215/1903) Later, a “Register” of patients with pellagra included, besides the names and ages of the patients, the duration of the disease, the area of land (garden and arable land), and the number of animals (cows, goats, and sheep) owned, the nervous, digestive, dermatological symptoms of the disease (N.A.R.S.C.S. 1/1910).

Centralizing the data provided by the doctors of Bukovina, the health reports indicated that, in just 5 years (1899-1903), the number of patients with pellagra increased by 275% (Kluczenko 1904: 253). In 1903, the district of Suceava recorded more than 400 instances (Würzel 1903: 212; Prinzing 1906: 397). In 1905, Bukovina had 1,056 patients with pellagra, which meant 479 more than in the previous year (*Bukowinaer Rundschau* 1906: 3) or the equivalent of 1% of the entire province’s population (Lupu 1978: 47). A year later, the number doubled (2,266), only to then gradually decrease to 1250 in 1909 (Kluczenko 1911a: 4). From the perspective of spread, in 1910, the disease was reported in all the districts of Bukovina, more prominently in Cernăuți, Suceava, Rădăuți, Gura Humorului, Coțmani, and Zastavna and less so in Vijnița, Siret, and Câmpulung. Nevertheless, in the Mental Hospital in Cernăuți/Chernivtsi during the period 1894-1907, the ratio of admissions was different: most of the patients came from Chernivtsi district (143), followed by those from Siret, Coțmani, Storojineț and Rădăuți (between 30 and 35) and Zastavna (23), Gura Humorului, Suceava, Vășcăuți, and Vijnița (between 15 and 17) and only five from the Câmpulung district (*Czernowitzzer Allgemeine Zeitung* 1908: 4). In numbers, between 1894-1907, 374 patients with pellagra were treated in the same hospital, out of whom 70 (18.7%) lost their lives (*Bukowinaer Post* 1908: 5). In 1902, 52 people diagnosed with pellagra were admitted for hospitalization (Lupu 1978: 110), while between 1907 and 1908, this number reached 270, or 18.4% of the total number of institutionalized patients (*Bukowinaer Post* 1908, 5). Ethnic belonging was also relevant, indicating characteristics of dietary behaviour. The victims of pellagra came from the ranks of Romanian and Ruthenian peasants, unlike “rural colonists, who have lived here for three generations – Germans, Hungarians, Lipovans, Poles – as well as numerous Jews who lived in Bukovina,” where the incidence was “exceptional” (Kluczenko 1911: 200).

From a gender perspective, Dr. Kluczenko indicated a higher prevalence of the disease among women. In his statistics, out of 2,266 patients recorded in 1906, 866 (38.8%) were men, while 1,361 (61.2%) were women (“Die Wahrheit” 1908: 25) due to a deficiency of niacin and tryptophan in their diet and high oestrogen levels. Another report from the mental hospital in Cernăuți, during the period 1911-1913, indicated the admission of 197 male

patients as opposed to 137 female patients (Bukowinaer Post 1914: 1). Regarding age group involvement, the most vulnerable group proved to be that between 21 and 60 years, with doctors identifying a link between adulthood and higher energy needs. Fewer incidents were recorded among children, adolescents, and seniors, though in their case, the question arose regarding the willingness of parents or families caring for them to take them to a doctor or to hospitalize them. Even though many patients with pellagra came to the attention of doctors within the first 4 years of its onset, most of them “bearing the disease while standing,” sometimes for up to a decade (Kluczenko 1911: 5).

The situation became extremely grim in the first decade of the 20th century. Seen from “the outside” and in a socio-economic perspective, many of villages in Bukovina were “infected with pellagra” (Jászi 1929: 232), which had reached, in a ranking of diseases, a second position in the empire (Niles 1912: 20). Sensing the long-term effects of pellagra on an economic level, Dr. Würzel wrote: “This rapid increase raises fears that the disease could become an economic danger in the not-so-distant future if the involved parties do not quickly decide to take vigorous measures to control the harm”. In other words, the state had the duty to resolve this issue, thus initiating the “Fight against Pellagra” (*Bekämpfung der Pellagra*). A few months after Bukovina's Government restricted grain import from Russia and Romania in November 1903, the authorities asked for more stringent control over its marketplaces, outlawing “rotten cornstalks and spoiled or health-damaging foods”. Any “offence” had to be reported “immediately to the competent court, so that it could punish the offenders”. (*Deșteptarea* 1904: 3).

In 1904, the physician Ioan Volcinschi established as preventive and combat measures against pellagra:

“raising the level of agriculture and intensifying agricultural production; promoting industry, especially that which is linked with agriculture; promoting home industry, through which peasants could earn some income, under easier conditions during the long winter months; improving the living conditions of the rural population through better education of women and girls regarding food preparation and especially bread; easing and shortening fasts; assisting small households that cannot afford cows to raise goats and pigs; combating alcoholism by abolishing taverns; the strictest control of corn imports and the establishment of drying facilities, according to a method appreciated at that time from Italy; the establishment of corn warehouses in regions with numerous patients, aimed at selling dried corn, and exchanging spoiled corn for good corn; a

conscientious control of all corn and flour supplies as well as the destruction of spoiled corn; providing better information to villagers through proper propaganda; avoiding placing agricultural workers in regions with pellagra” (Lupu 1978: 112-113).

Migration during the months of April to October – when a significant number of Bukovinians chose to go to Romania to earn wages from engaging in seasonal labour – was blamed for the increase in cases of pellagra, with Würzel believing that climatic and nutritional aspects favoured illness with malaria, typhus, and pellagra. He referred to the community in Tesoutz (Țișăuți), near Suceava, where, until the early 1890s, the disease had been unknown. In just 10 years, out of approximately 700 inhabitants, 50 had been confirmed with pellagra. Consequently, the doctor called for the mobility restriction or obstruction “through appropriate measures” (Würzel 1903: 217). Additionally, teachers and priests were encouraged to “enlighten the people about the sad consequences of this disease” (*Patria* 1910: 3), teaching them how to store corn, what and how to cook, which foods were healthy, and what the body needed to function optimally. After telling people how to protect their flour from cornmeal “of decay and mould” by drying it on clean sheets or tablecloths, Dimitrie Dan recommended alternating polenta with bread and supplementing the diet “as often as possible,” with “sweet or sour milk, sheep or cow cheese” and meat, at least on Sundays and holidays” (Dan 1908: 66). Starting from the same medical statistics, Kluczenko discovered that, as of 1909, out of a total of 1250 patients with pellagra, 21% were landless and had no land to work on, and 47% up to 100 acres (*Bukovinaer Post* 1911: 4).

In their studies, the doctors highlighted the link between poverty and malnutrition in the rural Bukovinian population, particularly regarding protein and fat intake, distilled alcohol use, and the limitations placed on religious fasting. At their request, but equally following the Tyrolean model, the provincial authorities under the leadership of Governor Ritter von Bleyleben decided on “measures to combat pellagra.” A special committee was to be established in the first few months of 1905 to determine which localities were most at risk of pellagra and to provide a budget for tangible measures to help the ill (*Bukovinaer Post* 1905: 1). In the following year, with 40,000 Crowns (from central funds for combating epidemics and social diseases, from those allocated by the Bukovina state administration and the Greek Orthodox religious fund), 12 facilities for patients with pellagra were built in 5 districts, with 471 individuals benefiting from these services, some for longer than 200 days. Other funds went towards synthetic fertilizers to enhance less usable

land. In 1909, the total grew to 54,000 Crowns, of which 1000 were allotted to buy milk sheep (which could provide two to three litres of milk a day), while the remaining amount was to ensure the effective operation of the feeding centres for the sick. A situation cited by the health representative of Bukovina indicated that such centres had emerged in all districts of the province (except for the city of Cernăuți) and in 30 localities where the share of pellagra patients had reached over 2.3 per cent of the population. For an average of 83 days, 1250 persons each received approximately 1200g of bread made from wheat flour daily, 300 g of bacon once a week, and three measures (*Stöjŝel*) of cooking salt every three weeks (Kluczenko 1911: 201).

In the entire landscape of social and medical sanitation, the mess halls had a vital role. Established in private homes or buildings made available by local authorities, the “eateries” or bakeries were managed by a local committee led by mayors or priests. The exemplary mess hall in Rarancea – described by Dr Rudnik in *Wiener Klinische Wochenschrift* – was located 10 minutes away from the “local chancellery,” in a “neat” building, compartmentalized, with two spacious and bright rooms for serving meals, complemented by “an equipped kitchen,” an antechamber, a pantry, and a basement for storing wood. This establishment had a well, a henhouse, two animal outbuildings, and a small garden for vegetables. A head cook, a cook and her assistant, two cleaning ladies, a baker and a clerk meant to handle the daily records were employed as the mess hall staff. Daily, between 5:00 and 7:00 am, 250 grams of bread and half a litre of “warm milk” were supplied for breakfast. At lunch, from 12:00 to 14:00, the sick received soup (500 g), beef, pork, and mutton, and occasionally chicken (200 g), vegetable side dishes - such as rice, potatoes, peas, cabbage - (300 gr.), bread (400 gr.) and dessert (350 gr.). A medical examination, repeated every 14 days, was the basis for enrolment in the mess hall programme. Corn, wine, smoking, and alcoholic beverages were prohibited, but meat was served at least five times a week (except on fasting days). The diet and strict adherence to the doctors’ recommendations yielded results, with the health status of 38% of those attending the social establishments designated for pellagra patients becoming “remarkable”, while another 58% showed “improvement” by gaining weight, a sign of recovery (Kluczenko 1911: 201; Lupu 1978: 115).

As Deputy Florea Lupu pointed out, in addition to funding, initiatives, and social institutions—all of which are vital and successful—a comprehensive legislative framework was required to enable a “sanitation of material life and in terms of the nutrition of peasants” or, to put it another way, a methodical effort to restore their social standing. The law that several deputies and Bukovina doctors had asked for was released on January 1, 1911. It stipulated

more effective control over the preservation of corn and its trade, the organization of appropriate drying facilities and storages, the replacement of polenta with bread, the compilation of more accurate statistics for educating the population on issues related to hygiene and for promoting the industrialization of villages, the establishment of a commission and a special fund for combating pellagra and, last but not least, the encouragement of doctors to settle in rural areas. This statute incorporated several of the recommendations made by physicians Kluczenko, Würzel, and Volcinski. It involved, among other things, the establishment and running of mess halls, facilities for the drying and storing of corn, and hubs for the distribution of corn and corn products to the populace in return for defective or inferior maize. In addition, bake houses (destined for a single community) and healthcare units such as hospitals for patients with pellagra had to be established and supported or maintained, with the specialization of doctors in this disease. Awards were also announced and granted for scientific works and outstanding achievements in the field of research and the fight against pellagra, while the population was to be informed about the nature of the disease, specifying the means of preventing it. Actions to increase agricultural, industrial, and nonprofit public activities had to address poverty, which accompanied the disease and was a contributing and aggravating factor in endemic areas. The president/governor, in agreement with the state committee, managed the situation as a whole, taking the measures deemed appropriate, requiring the Ministry of Internal Affairs (after hearing in the Supreme Medical Council of the Country) to allocate a sum considered necessary for carrying out projects related to combating the disease. At the same time, a commission aimed at advising and evaluating the situation. Presided over by the “president of the state” or by the appointed deputy of this position, the commission consisted of 12 voting members, namely state officials (with responsibilities in bodies such as government, the State Cultural Council, the Chernivtsi Chamber of Commerce and Industry) and doctors. Other persons, experts in the field, could occasionally or permanently participate in the debate without the right to vote. The political authorities, the so-called “first instance”, were called to apply the law, while the community was obliged to support the political authorities in this endeavour. According to the rules set forth by the state president, physicians had to notify the political authority of every illness or death of pellagra patients. The political district authority was to punish those who disobeyed or disregarded the directives with a fine of five to fifty Crowns (Kluczenko 1911: 205). The district captains briefed doctors on their new duties shortly after concluding the legislative

framework. They reminded the need to be aware of the disease's symptoms, identify patients, fill out daily tracking forms, and report the number of diagnosed cases at the district level (N.A.R.S.C.S. 2/1910).

Despite this legal framework, the local initiatives in the most affected communities that had made it onto the map of pellagra spread in Bukovina (*Czernowitzer Tagblatt* 1914: 5) and the enthusiasm manifested by several physicians doctors, who had published their case studies in medical journals in Vienna to contribute, to the understanding of the mechanisms of the disease and to find real solutions, the results in the fight against pellagra were not exactly as expected. For some peasants, corn (even low-quality corn) remained the primary source of diet. It is no coincidence that by the middle of 1914, one of the periodicals from Chernivtsi was once again showcasing information related to “the most widespread disease in Bukovina,” about 1) the number of those hospitalized in the asylum and whose end was a “painful” one, 2) the insufficient data regarding the distribution of patients, and 3) the funding that authorities needed to allocate to combat pellagra. After all, the money the state had invested represented “significant resources.” However – wondered the author – did the state have a “resource more valuable than people”? The very power of the state was rooted in healthy individuals. So, “what was the use of a political armour when, from within, ‘this insidious disease rotted and poisoned generations, resulting in idiots, cripples, and dwarfs that burden the state, the country, and the community without being of use to anyone?’” It was the responsibility of President Wassilko to continue the “precautionary measures” initiated in 1910 by Count Bleyleben, allocating equally generous sums in the campaign for the “liberation of the peasantry, this extremely healthy base of our population, loyal to the state, from a harm that is both terrible and pernicious in its consequences” (*Bukowinaer Post* 1914: 1). Pellagra cases were undoubtedly documented in Bukovina even after World War I, with public health sanitation measures still falling short of meeting the morbidity, if not fatality, numbers. Only later, towards the middle of the twentieth century, was the disease declared eradicated, disappearing from the nosological landscape of Romania along with the sanitation of major rural poverty hotspots. As for the dramatic way in which it manifested itself in the easternmost province of the Austrian Empire, its memory and reverberations in mental, scientific, political, economic, and social terms reflect the state’s capacity to build and support medical initiatives and the citizens’ willingness to recognize the danger and the disastrous effects of the disease. The story of pellagra in Bukovina is another powerful example of how conventions and practices - stemming from poverty or ignorance - can be replaced or dislocated.

5. Conclusion

Called “the disease of poverty,” pellagra had a forceful impact on the population of Bukovina, a province located on the outskirts of the Austrian Empire, with an economy forced to face the challenges and commands coming from Vienna and a complex, diverse and complicated society. Beginning in the 1880s, Bukovina doctors reported seeing more and more cases of pellagra, with patients exhibiting crippling symptoms that hampered their health and capacity to work, resulting in pauperization, worsening poverty, and undermining the community as a whole. The primary risk factor was the simple, repetitive diet of the peasants, which was extremely low or lacking in vitamins and proteins. The impoverished and precarious financial situations of those who depended only on maize as a filling and easily accessible food source were also mentioned. The physical and psychological sufferings of the patients, accompanied by social stigmatization, created a dramatic picture often described by doctors Kluczenko, Phillipowicz, Würzel, Gregor, and Volcinschi.

The galloping increase in the number of cases and the terrifying manifestations of pellagra, especially the lamentable end of the patients, prompted the central and provincial authorities to intervene through a series of measures to limit the spread of the disease while also providing support to those who, trapped in a cycle of poverty and disease, could not afford to diversify their diet or procure nutritional supplements. Pellagra came to be perceived not just as a disease but also as a social and economic threat that weakened the vitality and resilience of rural communities, accentuating their fragility. As a result, specific “social and medical sanitation” solutions were tried. First, the provincial government of Cernăuți issued a decree requiring all doctors to monitor and report cases of pellagra, especially during vaccination campaigns against smallpox. This initiative represented one of the first official attempts to collect and analyze epidemiological data, allowing for a better understanding of the spread of the disease and the contributing factors to its occurrence. Following this was a prohibition on the importation of contaminated corn from neighbouring states, restrictions on the trade of flour that could affect the population's health and regulations on the storage of grains. Although short-term and with somewhat limited effects at the community level, one of the costliest measures proved to be the opening of mess halls and bakeries to provide free meals to those confirmed with pellagra and meals that would correct nutritional deficiencies, ensuring a diversified and appropriate diet. As for educating the wider public about the causes and methods of preventing pellagra, authorities conducted awareness campaigns, with doctors, local leaders, priests, and teachers explaining both the link

between a diet based exclusively on corn and the health risks associated with it, as well as the importance of changing dietary habits.

Undoubtedly, the social and health policies to combat pellagra in Bukovina were complex and ameliorative (if not innovative) for the respective period, addressing both the symptoms of the disease and the economic and social causes of the epidemic. Additionally, efforts for epidemiological monitoring, the establishment of mess halls, regulation of corn quality, and food education campaigns significantly contributed to reducing the incidence of pellagra. However, the lack of robust health infrastructure, cultural resistance to changing dietary habits, widespread poverty, and structural dependence on corn as a staple food became significant barriers to the practical and sustainable implementation of preventive measures. The bitter lesson of what had become a widespread disease (*Volkskrankheit*) and the experience of fighting it highlighted the interdependence between health, economic conditions, and the social environment. To successfully avoid and battle such catastrophes, public health was required to be backed by a solid infrastructure, enough profitable resources, and a dedication to improving the living circumstances of all inhabitants.

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