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## TRANSYLVANIAN HEALTH DATABASE: A HISTORICAL DATABASE OF MEDICALIZATION SPREADING IN TRANSYLVANIA BEFORE 1918

**Abstract:** Providing valuable research on social history is, nowadays, impossible without the use of complex digital tools capable of providing, through appropriate interrogation, comprehensive answers to the researchers' increasingly varied research questions. The development of Historical Population Database (HPDT) has brought us closer to other research problems that require the input of digital tools in order to be investigated as widely as possible. One of these is the process of medicalization of Transylvania, a historical topic about which there are relatively few and rather narrow approaches. On the basis of administrative and sanitary directories, various other sources referring to the allocation of doctors' posts in the communes and the filling of these posts, medical reports, press, publications, statistics, parish registers and other sources related to the medical situation, we have built the Transylvania Health Database (THD), a research tool that is expected to be released for public use by the end of 2022. THD is a method-oriented database, built in MySQL, whose presentation can be used for the implementation of similar projects in the Eastern European area, which is still underdeveloped in terms of digital tools useful to researchers.

**Keywords:** medicalization, Transylvania, historical database, health history, 19th century

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## INTRODUCTION

In the recent decades, social history has gained enormously from the use of digital tools in research activities. The building of large databases, focusing either on the historical population or on specific entities, enabled both the general access to sources and resources, provided by a limited group of researchers and computer scientists (the database providers) and the possibility to interrogate the past at a different level than previously, to address subjects hard or impossible to interrogate in the absence of large amount of data, for the purpose of generating knowledge and expertise for anyone interested.

Since 2014, a large project to digitize data from parish registers was implemented by the Centre for Population Studies at “Babeş-Bolyai” University in Cluj-Napoca. The result was the Historical Population Database of Transylvania (HPDT), which provided the necessary tool to study demographic phenomena both at the micro level and at the level of the population included in the database so far. The samples available for research allowed researchers to penetrate the intimacy of a world that proved to function and be organized differently from the picture we had formed based on narrow, micro-zonal research. These sources outline a social history that sheds a new light on a world often seen as obsolete, traditional, part of a province on the periphery of a great Empire. At the same time, the light these sources spread on the process of social modernization inspired us to develop a new digital instrument able to chart the development of one of the most important systems that not only had a major contribution in demographic transition, but also in the general improvement of the quality of life, namely, the medical system. The data collected from parish registers indicates limited access to health care for the ordinary people, especially in rural areas, despite the fact that, at least in theory and according to the law, the health policy became a state policy at the end of 19th century. Until 1908, when the Law of Public Health was improved and the payment for medical staff became a state issue, the distribution of the doctors into the province were rather poor. Most of the rural communes did not have the budget to pay for the doctor or the midwife. In the cities and boroughs where the ongoing industrialization became more effective after 1880, the spreading of medical services is more effective (the factories employed their own medical staff, which often provide services for the rest of the community). The discrepancies between the theory (legislation and discourse) and practice (the findings

based on HPDT), as well as lack of systematic data about the development of the medical system, had led to the building of the Transylvanian Health Database (THD), the most recent research tool developed at the Centre for the Population Studies.

## SOURCES AND DATA

The development of health policies and the recognition of health as an area of primary importance for the state, determined not only the spreading of medical services, but also the collection of data by the administrative authorities. The administrative yearbooks from the MTCN series (*Magyarország Tiszti Czim-és Névtára, 1884–1918*) have been published since 1873 by the Royal Hungarian Institute of Statistics (Országos Magyar Királyi Statisztikai Hivatal) and contains information about the administrative staff of Hungary, starting with the members of the Royal Family, the members of the two Courts attached to the king and the queen, the members of Parliament, and the staff of ministries. For the purpose of THD, we processed the data concerning the health system that was found in the chapter regarding the administrative management of the counties. Here we found information about the medical service of the province at the higher level, starting with the medic-in-chief, the district doctors, the circular<sup>1</sup> doctors and, quite frequently, the veterinary doctors. The layout of the information, firstly, reconstructs the health management of each county and of the royal free towns, and then the information is found at the level of each district.

The most valuable sources involved in the process of building THD are the sanitary books issued from time to time under the auspices of the Public Health Department of the Hungarian Ministry of the Interior. We discovered three such health books, for 1858, 1875 and 1895.

*A magyarországi orvosok hivatalos névjegyzéke...* (1896), discovered and processed first, was created and published by the above mentioned authority and represents an overview of the medical personnel, medical institutions and organizations operating in Hungary in 1895. The book lists the staff of the central institutions (health department of the ministry, na-

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<sup>1</sup> According to Sanitary Law (1876: art. 142), the administrative units with less than 6000 inhabitants could be associated in a so called "health circles" in order to employ a physician.

tional council of public health, council of doctors of justice, control committees), the list of doctors in the countryside arranged by counties, the list of medical staff in the capital Budapest, doctors at the medical faculties in Cluj and Budapest, the health institutions and medical collections in the two cities. The book also includes the lists of hospitals, the schools of midwifery and health associations ending with the 1895 statistics of health personnel and pharmacies. For THD, extremely useful is the chapter regarding the medical staff of the Transylvanian counties, which gave us the chance to extract information about doctors and other medical staff from this province, according to its administrative organization at the time. We have chosen to include in THD localities which currently does not belong to Transylvania (Romania) but there were part of the province before 1918 according to the administrative organization. The exclusion of such localities would have caused problems in data analyse since our ultimate goal is to use the data to track the spread of health system and the general access of the people to these services. The information provided refers to the doctor's name, his administrative position, specialization and place of residence. In addition to the physicians, also included into the state health system (chief-physicians [protomedici], are district doctors [doctori de plasa], health circle doctors, communal doctors, military doctors, doctors employed for the mine, bath doctors, coroners, etc.). The retired doctors are also mentioned, as well as those who have opted for private practice (private doctors are usually found in the larger towns). Although only the hospitals are listed, their staff are also found in the lists by county (where, in addition to the doctor's name, the position of hospital director, primary doctor, secondary doctor, etc. is mentioned). We also find the names of university professors, directors and members of medical institutes and associations.

The book published in 1896 allows us to reconstruct almost the complete medical staff in Transylvania in 1895, representing a reliable source through the official status of the issuing institution. Unfortunately, we do not have such sources for each year, but our objective is to identify and process as many sources of this kind as possible.

The next sanitary book which waits its turn to be included in THD presents the medical staff in 1875. The work of Oláh Gyula<sup>2</sup>, *Magyarország*

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<sup>2</sup> Oláh Gyula (Arad, 1836 - Budapesta, 1917), physician, one of the artisans of the health system in Hungary. He took his physician diploma at Pesta in 1863. Between 1872-1875 served as deputy in the Hungarian Parliament, and in 1875 he activated in the

*közegészségügyi statisztikája. I. kötet I. füzet. Az egészségügyi személyzet és a gyógyszerterek statisztikája Magyarországon 1875. évről. Az egészségügyi személyzet és a gyógyszerterektulajdonosok s kezelők névsorával*, was published in Budapest in 1876. In addition to the nominal list of medical personnel in the administrative-territorial units of Hungary, the book of 1875 also provides data such as year of birth, religion, place and year of graduation, specialisation and function, being more complex than the book of 1896. Of particular importance is the mentioning of licensed midwives, as they were a significant (and nominally less well known) part of the health-care system.

In addition to doctors and midwives with a diploma, the book also mentions the nominal list of pharmacy owners and operators. At the end of the volume, extremely detailed statistical tables are included, in which all the information presented in the county-by-county situation is numerically summed up, providing a valuable comparison with the state of the health system in 1858 and the possibility of assessing the changes in the number and distribution of medical personnel over almost two decades.

The next step of the project will be to go back in time to the middle and first half of the 19th century (a health book for 1858 was identified). As we approach more and more distant time era, the sources become more disparate and more difficult to access, which is why we decided to start building the database from the upper limit of the targeted period.

## THE DATABASE ARCHITECTURE

The THD database is a relational database built in the MySQL database management system following the method oriented system. In the current, original version, the database has 22 tables (Figure 1) and it is structured in three main metadata tables: list of physicians that work in the county/district system, list of hospitals and the medical staff, with the last

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health department on Ministry of Interior. Since 1883 he practiced medicine in Oradea (Nagyvárad). Between 1885–1889 acted as inspector of public health. His main work, *Magyarország közegészségügyi statisztikája* (1899).

<sup>3</sup> The authors are grateful to Levente Pakot, from Hungarian Demographic Research Institute for scanning and providing a copy of the book, available at the Library of Central Statistical Office in Budapest (<http://web.kshkonyvtar.hu/katalogus?infile=details.glu&loid=499700&rs=947960&hitno=-1>).



Figure 1. Transylvanian Health Database – user interface  
Source: THD.

component being a list of physician's careers – education, relations with other individuals as well as their social involvement.

The first component is a list of physicians working within the Transylvanian districts. The main table contains information about the district, locality, name of physician, as well as his position, specialty and the year it is mentioned. The metadata table is highly normalized. Beside the metadata table there are several additional tables – Counties, Districts, Localities, Physicians Names, Specialties, Positions, and Sources. For the metadata table the only field for free text is the year, every other field is a value list from the additional tables.

The second component of the database is the list of Hospitals and their physicians. As for the first part, the main table is highly normalized. There are two main tables: Hospitals, which present the list of the main medical institutions – the name, locality, their specialty, the year it is mentioned in the source – as well as the source. Except for the year, which is a free text box, the rest of the fields – county, locality, institution, type of institution, specialty, and source – are drop down lists. They can be found in the additional tables that help normalize the database. In addition to the Hospitals table, there is a second main table: Hospitals' Physicians that adds to the Hospitals a list of the physicians who work in these institutions and their specialty and the position within the hospital.

The last main component presents a personal dimension of the physician's life. There are several tables that show information regarding the physician's education, personal relations (parents, children, wives etc.), their career and social involvement within the Transylvanian society.

Every component is connected with the others. All the information from the third main metadata can be seen in the first component in the physician table. Every information related to one individual will appear in the personal information table (Person) of the physician.

The main tables have also search fields in order to retrieve information according to the user's research question. If there is a need, information can be downloaded from the database in excel spreadsheet format.

The database does not have a static form. If any other information is found, this can be integrated into the database. However, due to the high form of normalization, most of the new information can already be integrated within the database forms.

The User Interface is built on the RubyonRails platform. All tables have an entry form where the information can be added and a view form where the details of the record can be seen by the user. The detailed views of the main tables also contain information from the secondary tables in order to present a complete image of the record regardless of the data fragmentation in the tables due to normalization.

## DATA AND TABLES

The THD currently contains 13000 medical positions in Transylvania (covering all counties, intra- and extra-Carpathian) and information regarding 2397 medical staff (unique individuals), with continuous data between 1884 and 1918 and disparate data from the earlier period, but in the process of being completed.

In this part of the paper we shall discuss the content of the tables in order to allow a more comprehensive understanding of the processes meant to transform the information into data. As we already mentioned, several normalized tables are implied in the database architecture and their role is to connect the data from the sources to the information available for each county. The most important tables are those for counties, districts, and localities, which are extracted from the 1900 Census. Using these tables, the user is capable not only to link any individual to his place of work but also to develop further analyses since the information regarding the localities contains the overall population, the population distribution according to ethnicity and denomination and their literacy.

## Localities

[New Locality](#)

1 2 3 4 5 ... [45](#) [46](#) [47](#) [Next >](#) [Last >>](#)

County	District	Locality old name / Name	Locality current name	Overall population	Population under six	Hungarian inhabitants	German inhabitants	Slovakian inhabitants	Romanian inhabitants
Alsó-Fehér	Abrudbánya rtv.	Abrudbánya rtv. / Abrudbánya rtv.	Abrud	3341	417	1246	151	4	1921
Alsó-Fehér	Alvinc	Akmár / Akmár	Acmarlu	1128	160	13			1115
Alsó-Fehér	Alvinc	Alsó-Maros-Váradja / Alsómarosváradja/Alsóváradja	Oarda de Jos	583	93	71	37		475
Alsó-Fehér	Alvinc	Alvincz / Alvinc	Vințu de Jos	3854	578	813	55	5	2889
Alsó-Fehér	Alvinc	Berve / Berve	Berghin	1623	238	25	799		731
Alsó-Fehér	Alvinc	Borbánd / Borbánd	Bărăbañt	1211	232	81	41		1079

Figure 2. Sample of the *Localities* table

Source: THD.

At the next level, the user can choose from the list of districts according to the 1900 administrative organization of Transylvania.

[New District](#)

1 2 3 [Next >](#) [Last >>](#)

County	District			
Alsó-Fehér	Abrudbánya rtv.	<a href="#">Show</a>	<a href="#">Edit</a>	<a href="#">Destroy</a>
Alsó-Fehér	Alvinc	<a href="#">Show</a>	<a href="#">Edit</a>	<a href="#">Destroy</a>
Alsó-Fehér	Balázsfalva	<a href="#">Show</a>	<a href="#">Edit</a>	<a href="#">Destroy</a>
Alsó-Fehér	Gyulafehérvár rtv.	<a href="#">Show</a>	<a href="#">Edit</a>	<a href="#">Destroy</a>
Alsó-Fehér	Kisened	<a href="#">Show</a>	<a href="#">Edit</a>	<a href="#">Destroy</a>
Alsó-Fehér	Magyarigen	<a href="#">Show</a>	<a href="#">Edit</a>	<a href="#">Destroy</a>
Alsó-Fehér	Marosújvár	<a href="#">Show</a>	<a href="#">Edit</a>	<a href="#">Destroy</a>
Alsó-Fehér	Nagyenyed	<a href="#">Show</a>	<a href="#">Edit</a>	<a href="#">Destroy</a>
Alsó-Fehér	Verespatak	<a href="#">Show</a>	<a href="#">Edit</a>	<a href="#">Destroy</a>
Alsó-Fehér	Vízakna rtv.	<a href="#">Show</a>	<a href="#">Edit</a>	<a href="#">Destroy</a>
Beszterce-Naszód	Besenyő	<a href="#">Show</a>	<a href="#">Edit</a>	<a href="#">Destroy</a>
Beszterce-Naszód	Beszterce rtv.	<a href="#">Show</a>	<a href="#">Edit</a>	<a href="#">Destroy</a>
Beszterce-Naszód	Jád	<a href="#">Show</a>	<a href="#">Edit</a>	<a href="#">Destroy</a>
Beszterce-Naszód	Naszód	<a href="#">Show</a>	<a href="#">Edit</a>	<a href="#">Destroy</a>
Beszterce-Naszód	Óradna	<a href="#">Show</a>	<a href="#">Edit</a>	<a href="#">Destroy</a>

Figure 3. The sample of *District* table

Source: THD.



Going further, each district can be seen with its localities, and the available information contains the original name of the place (Hungarian and German), the current name and the overall population. In this way, the user is able to track the spread of medicalization, considering not only the health regulation (one doctor for localities with 6000 people, according to the Health Law of 1876 for instance) but also the proximity of medical services.

[Home](#)

**County:** Brassó

**District:** Alvidék

**Associated Localities:**

No. crt.	ID	Name	Current name	Overall population
1	<a href="#">281</a>	Apácza / Apáca	Apața	1814
2	<a href="#">282</a>	Botfalu / Botfalu	Bod	2431
3	<a href="#">283</a>	Földvár / Földvár	Feldioara	2527
4	<a href="#">284</a>	Krizba / Krizba	Crizbav	1780
5	<a href="#">285</a>	Prázsmár / Prázsmár	Prejmer	3580
6	<a href="#">286</a>	Szászhermány / Szászhermány	Hărman	2189
7	<a href="#">287</a>	_ / Szászmagyaros	Măieruș	1483
8	<a href="#">288</a>	Szentpéter / Szentpéter	Sânpetru	2197
9	<a href="#">289</a>	Veresmart/Szászveresmart / Veresmart/Szászveresmart	Rotbav	967

[Edit](#) | [Back](#)

Figure 4. Sample of District composition table  
Source: THD.

The primary information was extracted from the MTCN series. The physician is first registered with his last name and first name, in Hungarian and Romanian (due to the fact that in multiple sources the name of the same individual can be found written in both languages, e.g. George Vuia, Romanian doctor, in Hungarian sources is written György Vuia, as well as the name of the Hungarian doctor Csillag Ignátz was written Csillag Ignatie in the Romanian sources). The table of physicians also require the date of birth, the date of death, and denomination – if the information is available. The result is a list of ID-s and names, ready to be used in the second phase.

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## Physicians

Download: [Download as Excel](#)

**Search fields**

Physician lastname:

Physician firstname:

[New Physician](#)

« First < Prev 1 2 3 ... 18 19 20 21 22 23 24 25 26 27 28 29 30 Next > Last »

ID	Title	Lastname hu	Lastname ro	Firstname hu	Firstname ro	Nickname	
2312		Müllern		Ágost			<a href="#">Show</a> <a href="#">Edit</a> <input type="button" value="Destroy"/>
2313		Resch		Ernö			<a href="#">Show</a> <a href="#">Edit</a> <input type="button" value="Destroy"/>
2314		Bielz		Gyula			<a href="#">Show</a> <a href="#">Edit</a> <input type="button" value="Destroy"/>
2315		Fuss		Frigyes			<a href="#">Show</a> <a href="#">Edit</a> <input type="button" value="Destroy"/>
2316		Jancsik		Imre			<a href="#">Show</a> <a href="#">Edit</a> <input type="button" value="Destroy"/>
2317		Konrád		Jenő			<a href="#">Show</a> <a href="#">Edit</a> <input type="button" value="Destroy"/>
2318		Obert		Gyula			<a href="#">Show</a> <a href="#">Edit</a> <input type="button" value="Destroy"/>
2319		Ottó		Vilmos			<a href="#">Show</a> <a href="#">Edit</a> <input type="button" value="Destroy"/>
2320		Sachsenheim		Arthur			<a href="#">Show</a> <a href="#">Edit</a> <input type="button" value="Destroy"/>

Figure 5. The physicians' table  
Source: THD.

Based on these tables and other two complimentary tables (position and specialty, previously completed), the user is further able to proceed to the next step: to link every name from the physician table to his position as it was register in the sources, by selecting the county, the district/locality, the position, the year of mention in the source and the source itself (each source received a code). The result is the list of Physicians, with their localization/ jurisdiction and their position at a certain year (see: figure 6).

Once this step is completed, the database user is able to use complementary information from the sources in order to complete the physician's education (from primary school to university), career (every work place discovered in sources), individual relations (family and social network), and his social involvement (membership in cultural professional associations, academic works).

In order to link a physician to his family members or the professional network, we created a special table for individuals and another one for the

## Physicians list

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**Search fields**

Physician lastname:

Physician firstname:

Position:

[New Record](#)

« First < Prev 1 2 3 ... 127 128 129 130 131 132 133 134 135 136 137 138 Next > Last »

County	District	Locality	Physician	Position	Specialty	Year	Unoccupied post.
Alsó-Fehér	Gyulafehérvár rtv.		405 # Reiner Zsigmond	városi főorvos	orvostudor	1875	false
Alsó-Fehér	Gyulafehérvár rtv.		2403 # Schild János	nyug. kerületi főorvos	orvostudor	1875	false
Doboka	Szamosújvár rtv.		92 # Gajzágó László	megyei főorvos	orvos-sebész tudor; szülész	1875	false
Belső Szolnok	Dés rtv.		2404 # Szócs Sámuel	megyei főorvos	orvostudor; szemész	1875	false
Beszterce szék	Beszterce rtv.		19 # Haupt Godofréd	Beszterce vidék főorvosa	orvostudor	1875	false
Brassó szék	Brassó rtv.		2405 # Bachmeier János		orvos-sebész tudor; szülész	1875	false
Csik szék	Csikszereda rtv.		24 # Molnár József	széki főorvos	orvostudor	1875	false
Fogaras vidék	Fogaras		2406 # Bruszt Lajos	Fogaras vidék főorvosa	orvostudor	1875	false
Háromszék	Megye		36 # Wissliák Antal	főorvos	orvostudor	1875	false
Hunyad	Déva rtv.		40 # Balogh Pál	megyei főorvos	orvostudor	1875	false

Figure 6. The *Physicians List*  
Source: THD.

type of relation. The *Individuals* table contains some variables concerning the persons in contact with the physician, such as the name and surname, the birth place, denomination and his/her occupation, while the table for relation includes the type of connections, from the family ties (mother, father, children, sister, brother, wife, etc.) to work network (colleague, professor) or other social connections. Particularly important for the configuration of *Physician's individual relation* is the occupation table, which can be continuously nurtured with new occupation, as they appear in the sources.

The career table tracks the physician's professional life during his active years. Each new work place (job) requires a new record, as can be seen in figure 7.

Where the data allowed, respectively, if all the tables regarding one individual (physician) are completed, the result is a sample of an individual's life course, which allows the addition of information at any time, from different sources (see Figure 8). The advantage of a method oriented database, like the one implied in the THD architecture, is the flexibility – a feature which enables the addition of multiple data, from multiple sources that does not require interventions on the database architecture before accommodating the new data. If a piece of information is later discovered, this would be simply added in its designated table.

Home  
**Physicians Careers**  
 New Physician Career

Physician	Work Place	Position	Year
Brandt József	Kolozsvár tby. / Cluj	sebészeti nyilvántartás rendező tanácsa / profesor public de chirurgie	1896 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Destroy</a>
Purjász Zsigmond	Kolozsvár tby. / Cluj	a különös kör- és gyógytan ny. t. tanára / profesor de patologie și medicină specială	1896 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Destroy</a>
Mureșan Mureșan Leo Leo	Karansebes / Caransebeș	profesor de igiena la Institutul Teologic-Pedagogic Diecezan Caransebes / profesor de igiena la Institutul Teologic-Pedagogic Diecezan Caransebeș	1881 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Destroy</a>
Mureșan Mureșan Leo Leo	Sebes / Sebeș	orvos / medic	1874 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Destroy</a>
Mureșan Mureșan Leo Leo	Reșinár / Rășinari	orvos / medic	1876 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Destroy</a>
Mureșan Mureșan Leo Leo	Mehădia / Mehădia	orvos / medic	1880 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Destroy</a>
Mureșan Mureșan Leo Leo	Văjdăhunyad rtv. / Hunedoara	orvos / medic	1874 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Destroy</a>

Figure 7. Sample for the *Career* table  
 Source: THD.

**ID:** 1747

**Title:**

**Lastname hu:** Mureșan

**Lastname ro:** Mureșan

**Firstname hu:** Leo

**Firstname ro:** Leo

**Nickname:**

**Birth Date:** 26/5/1864

**BirthPlace:** Oláhszentgyörgy / Sângeorz Băi

**Denomination:** 6200

**Death Date:** 17/8/1894

**Physician Relations:**

No. crt.	Relation	Lastname	Firstname	Nickname	Place of birth	Denomination	Occupation
1	father	Mureșan	Vásile				tanár învățător
2	mother	Mureșan	Maria	Hangea			
3	first wife	Süss	Maria				
4	brother	Mureșan	Liviu				orvos medic

5	daughter	Mureșan	Estela						
6	son	Mureșan	Fortunat						
7	son	Mureșan	Marian						
8	sister	Luchi	Maria						
9	brother	Mureșan	Sever	6200	Tanar profesor la Școala de Arte din Iași				
10	sister	Tanco	Elsaveta						
11	sister	Moișil	Lucrăția						
12	brother-in-law	Luchi	Iosif		maior în pensie				
13	brother-in-law	Tanco	Pavel		profesor gimnazial în Năsăud				
14	brother-in-law	Tanco	Pavel		profesor gimnazial în Năsăud				
15	brother-in-law	Moișil	Constantin		profesor gimnazial în Năsăud				

Physician Education:

No. crt.	Primary School	Secondary School	University	Faculty	Specialty	Graduation Date
1	Școala Normală Năsăud	Gimnaziul Evanghelic Luteran din Bistrița, Băjb., Beas, Cluj	Vienna University	Medicine	Hygiene	//1874

Physician Career:

No. crt.	Work Place	Position	Year
1	Karinszebes / Caransebeș	profesor de igienă la Institutul Teologic-Pedagogic Diecezan Caransebeș / profesor de igienă la Institutul Teologic-Pedagogic Diecezan Caransebeș	1881
2	Săbeș / Săbeș	omos / medic	1874
3	Reșnă / Reșnă	omos / medic	1876
4	Mehida / Mehida	omos / medic	1880
5	Veșdărmășel rcs. / Hurudara	omos / medic	1874

Physician Social Involvement:

No. crt.	Membership in professional/cultural associations	Academic work	Year	Remarks	
1	Membru ASTRA, Comitetul Școlii din Caransebeș	Higiena românilor, pentru orosești, în cămin, pentru de familie, cu un cuvânt pentru căturanii, de Dr. Leo Mureșan, Medic practic și profesor la Institutul teologic-pedagogic din Caransebeș, Caransebeș, Estime autorului (Tiparul Tipografiei Diecezană Caransebeș, 1887), 119 x 12, 28 p., 1 lb. profesor de igienă la Institutul teologic-pedagogic din Caransebeș, Caransebeș (Tiparul Tipografiei Diecezană, 1887), 119 x 12, 28 p., 1 lb.		1894	Bursier al Fondului Grăniceresc din Năsăud la studii de igienă la Universitatea din Viena, cu o bursă de 1000 flor. Sursa are loc la Viena în 1874.

Physician Sources:

No. crt.	Source
1	003

ESB | Black

Figure 8. A THD sample of a physician's individual and professional life course  
Source: THD.

Home  
Hospitals  
New Hospital

Year	County	Locality	Institution	Institution type	Specialty	Source
1900	Kölozevár sz. kir. város.	Kölozevár thjv. / Cluj	Kölozevári Karolina országos kórház	országos/állami		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Maros-Vásárhely sz. kir. város	Marosvásárhely thjv. / Târgu Mureș	Maros-Vásárhelyi o. Kórház	országos/állami		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Brassó	Brassó rtv. / Brasov	M. kir. állami szennygyűntőzet	országos/állami	szennygyűrészt	001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Szeben	Nagyzeben rtv. / Sibiu	Nagyzebeni m. kir. állami elmegyógyintézet	országos/állami	elmegyógyészat	001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Arad	Arad / Arad	Aradi vármegyei kózkórház	vármegyei kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Beașterea-Năsăd	Beașterea rtv. / Bistrița	Beaștercai vármegyei kózkórház	vármegyei kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Brassó	Brassó rtv. / Brasov	Brassói polgári kózkórház	polgári kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Ceik	Ceikszarada rtv. / Miercurea-Ciuc	Ceikszaradai vármegyei kózkórház	vármegyei kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Szolnok-Doboka	Dés rtv. / Dej	Rudolf kózkórház	kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Hunyad	Déva rtv. / Deva	Dévai vármegyei kózkórház	vármegyei kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Kia-Küküllő	Dicsőszentmárton / Târnăveni	Dicsőszentmártoni kózkórház	kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Szatmár	Fehérgyarmat / Fehérgyarmat	Fehérgyarmati kózkórház	kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Temes	Fehértemplom / Bală Crivă	Fehértemplomi városi kózkórház	városi kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Fogaras	Fogaras / Făgăraș	Fogarasi vármegyei kózkórház	vármegyei kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Háromszék	Kézdivásárhely rtv. / Târgu Secuiesc	Városi és vidéki Rudolf nyilvános jellegű magánkórház	nyilvános jellegű magánkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Csanád	Makó / Makó	Makói vármegyei kózkórház	vármegyei kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Máramaros	Máramarosziget / Sighetu Marmației	Szigeti vármegyei kózkórház	vármegyei kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Torontál	Módos / Jaša Tomić	Módosi kózkórház	kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Torontál	Nagybecskerek / Zrenjanin	Nagybecskerei kózkórház	kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Alád-Fehér	Nagyenyed rtv. / Alud	Nagyenyedi vármegyei kózkórház	vármegyei kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Szatmár	Nagykároly / Carei	Nagykárolyi városi kózkórház	városi kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Torontál	Nagykikinda / Kikinda	Nagykikindai vármegyei kózkórház	vármegyei kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Szeben	Nagyzeben rtv. / Sibiu	Nagyzebeni Ferenc József kózkórház	vármegyei kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Torontál	Nagyzentmiklós / Săniicolău Mare	Berta kózkórház	kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Bihar	Nagyvárad / Oradea	Nagyváradai vármegyei kózkórház	vármegyei kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Torontál	Pancsova / Pančevo	Pancsovai városi kózkórház	városi kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>
1900	Nagy-Küküllő	Segesvár rtv. / Sighișoara	Segesvári kózkórház	kózkórház		001 <a href="#">Show</a> <a href="#">Edit</a> <a href="#">Delete</a>

Figure 9. Sample of *Hospitals* Table  
Source: THD.

As already mentioned, the second component of the Transylvania Health Database is devoted to the *Institutions*, and the most important part of this section is the list of Hospitals and their physicians. The two sources already processed, the *Magyarország Tiszti Czím-és Névtára* and the Sanitary Book of 1896 revealed the existence of 19 public hospitals and other 12 sanitary institutions (private, charitable or belonging to monastic orders) in Transylvania in 1900. The existence of sanitary books for different years allows us to track down, not only the spread of these medical facilities, but also the enrichment of medical specialities or the addition of new departments. Complimentary sources discovered in Cluj department of National Archive (funds of hospitals) entitles us to hope that in the near future the data will be completed with valuable information regarding the number of patients, their geographical distribution, and other variables important to establish the degree of medicalization, which means, in our perspective, the availability of health services for people.

Once a new medical institution is added, the next step consist in linking the medical staff to the hospitals. The yearbooks of the administra-

tive staff (MTCN) recorded the doctors working in the hospitals and one can see that the towns or the boroughs where such an institution functioned were privileged in what concerns the medical coverage (in the city of Cluj, for instance, there were 68 licensed physicians in 1900). Another aspect that can be easily found consist of the fact that most of the doctors involved in the health administration of counties were also paid as physicians in the hospitals (Czekelius Dániel, for instance, the director of „Franz Joseph” hospital in Sibiu, was the physician-in-chief of the city of Sibiu).

Many of the physicians were also professors at “Kolozsvári magy. kir. Ferencz József egyetem” (“Ferencz József” University of Cluj), the reason for which we have chosen to include in this section, not only the hospitals, but also the institution in charge of preparing the medical staff (aside from “Ferencz József” University there were also Midwifery Schools in Oradea, Cluj, Sibiu).

There are many sources related to Transylvanian medical students enrolled at different universities across Europe and these will soon be processed.

## CONCLUSIONS

There is little chance to compete on the stage of great researches in a digital world, which demands more and more technical skills from the researchers as well as the existence of digital instruments able to provide complex answers to their questions. As long as there are still many answers to find and plenty of sources to interrogate (not only censuses or parish registers, but also a great variety of statistical sources, issued either in consecutive series, or from time to time) building a database is the most desirable and complex solution offered by the combined teams of historians and IT specialists. To release these digital tools to the scientific community in order to be used in various researches, there must be the ultimate goal of an enterprise of this kind. The Transylvanian Health Database will be released at the end of 2022 and will serve, together with the Historical Population Database and other digital tools developed by the Centre for Population Studies, for a more complex understanding of the past and will contribute to the visibility of Romanian social studies abroad, which will, hopefully, strengthen connections with similar research entities.

## Hospitals' Physicians

Med. Hospitale, Judoșeni

Hospital	Physician	Position	Previous position	Specialty
1	1900 Iolovschi Karolina ortopedic kórház	Engel Gábor	igazgató / director	egyétemi nv., rendkívüli tanár / profesor universitar temporar
1	1900 Iolovschi Karolina ortopedic kórház	Telkey Kálmán	Másodéves / medic secundar	
2	1900 Harcsa-Vásárhelyi o. kórház	Harczi Kálmán	igazgató főorvos / medic-șef director	
2	1900 Harcsa-Vásárhelyi o. kórház	Kozma Jenő	osztályfőorvos / medic-șef de secție	
2	1900 Harcsa-Vásárhelyi o. kórház	Hirtz Elek	Másodéves / medic secundar	
2	1900 Harcsa-Vásárhelyi o. kórház	Nyerges Gábor	Segédorvos / medic auxiliar	
3	1900 H. kir. állami szennyvíztisztítók	Fabrics Ágost	igazgató és rendelő főorvos / director al medic-șef curant	
4	1900 Hagyaszabem m. kir. állami élmegőgyintézet	Kovács Jenő	igazgató / director	az Orsz. Közigazg. Tanácsa tagja / membru al Consiliului National de Sanătate Publică
4	1900 Hagyaszabem m. kir. állami élmegőgyintézet	Nagy Osztf	főorvos / medic-șef	
4	1900 Hagyaszabem m. kir. állami élmegőgyintézet	Fülöp Ferencz	Másodéves / medic secundar	sebész
4	1900 Hagyaszabem m. kir. állami élmegőgyintézet	Fülöp Ferencz	Másodéves / medic secundar	sebész
4	1900 Hagyaszabem m. kir. állami élmegőgyintézet	Fülöp Ferencz	Másodéves / medic secundar	sebész / sebész
5	1900 Arad vármegyei kószórház	Mátravész Nyáador	igazgató főorvos / medic-șef director	kir. tan. a III. o. w. k. s. I. m. kir. hon. főorvos orvos sz. k. w. tb. vármegyei főorvos /
5	1900 Arad vármegyei kószórház	Pavetz Gyula	előf. orvos / medic principal	tb. vm. főorvos. kórvényeszkü orvos / proto-medic comitatens suplimentar, medic-legalit
5	1900 Arad vármegyei kószórház	Trujfler Andor	Másodéves / medic secundar	
5	1900 Arad vármegyei kószórház	Tóthkötvecz János	Másodéves / medic secundar	
6	1900 Bessarabia vármegyei kószórház	Haynal Géza	igazgató főorvos / medic-șef director	
6	1900 Bessarabia vármegyei kószórház	Germán Gernán Sándor Aladarov	Másodéves / medic secundar	

Figure 10. Sample for the *Hospital Physicians' Table*  
Source: THD.





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