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## Pharmacy in Latvia during the occupation regime of Nazi Germany (1941–1945)

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The study covers the period of World War II after shift of occupational powers in Latvia when Soviet occupation was replaced by the occupation regime of Nazi Germany in the summer of 1941 and retained until first half of 1945. Due to this shift gradually Latvia, Lithuania, Estonia and Belarus were merged into a single administrative area and designated as “Ostland”. Soviet officials left the pharmaceutical industry, which they had tried to apply to the communist ideology from June 1940 to June 1941 creating confusion and chaos. The renewed Pharmacy Board of Latvia had to deal with the restoration of supervision and a partial return from the communist to the capitalist regime. The research provides an insight to adaptation and development of the pharmaceutical industry in Latvia during Nazi Germany occupation regime, highlighting as essential indicators the administrative operation of Pharmacy Board of Latvia and its cooperation with German authorities, the availability of medicines, process of reprivatization of pharmacies and changes in the number of pharmaceutical employees. The research issue raised is topical, since it is this period that reflects the industry’s ability to adapt and perform work in fundamentally different and severe circumstances, which include both resource deficits and the transition from one regime to another. The collected evidence shows the efforts to stabilize the pharmaceutical industry in many terms. One example was the attempts to ensure the rational dispensing of medical products to the pharmacies and hospitals, with the greatest degree of austerity, because the supply and consumption of medication was extremely complex issue throughout the war.

### 1. Introduction

The Soviet occupation was replaced by the occupation regime of Nazi Germany in summer of 1941. On July 17, 1941, occupied Eastern territories were merged into a single administrative area designated as “Ostland” comprising Latvia, Lithuania, Estonia and Belarus. A special ministry was established to govern the county, headed by Alfrēds Rozenbers (*Alfred Rosenberg*) (1893-1946) (Aizsilnieks 2000). The Ostland Reich Commissariat with 900 German officials and the General Commissariat of Latvia with 280 German officials were located in Riga (Zunda 2005). Oskars Dankers (*Oscar Danker*) (1883–1965) was appointed as Director-General of the Interior of the self-government district of Latvia. On June 17 1940, Latvia had been incorporated into the Soviet Union. During the Soviet occupation period the Pharmacy Board of Latvia was liquidated and all duties went over to the Chief Pharmacy Directorate (CPD), structured in accordance to the Soviet templates and charged with supervision over all pharmacies and pharmaceutical personnel. In terms of one year pharmacy industry underwent considerable structural transformations: centralised control was implemented; pharmacies and other pharmaceutical facilities were subjected to stocktaking and then nationalised. The CPD then went on to oversee appointment, dismissal and relocation of pharmacy personnel and was responsible for the availability of medications. Due to its poor operational management and entire pharmaceutical sector experienced recession (Lauze 2019).

The CPD ceased its activities. Instead, the former Pharmacy Board of Latvia was restored, which was directly subordinated to the Director-General of the Interior and supervised by “Leiter der Referates Arzneiwesen beim Generalkommissar in Riga” (Dzirne 1944). Aleksandrs Dzirne (1907–2001) was appointed as the fiduciary person of the Pharmacy Board of Latvia. He had obtained the degree of pharmacist assistant in 1928 and was employed in

the Pharmacy Board from 1934, when at the beginning of 1940 he was appointed as head of the Pharmacy Board. After the Soviet government came into force, he was fired.

During this period, Latvian pharmacy began to recover from the chaos caused by the Soviet power. The German authorities did not stand out with much interference in the activities of the Pharmacy Board and were allowed to operate under a regime close enough to the period of independence. In further development of events, the process of pharmacies reprivatization took place as well as total control over the medicine consumption during this period managed by Pharmacy Board.

From the research perspective, the available documents from the state archives provide a broad spectrum of information about the period of research. This is largely due to the resumption of the activities of the Pharmacy Board and the scrupulous work of its chief. Thanks to Dzirne reports, the changes in the number of pharmacies and pharmaceutical employees, as well as information on the availability of medicines and the operation of local factories could be determined. There is also information about the daily work in pharmacies, as well as about the cooperation between pharmacists and doctors. The aim of this study was to summarise and systematise the information available through published and non-published sources of the operation of the pharmaceutical industry in Latvia during Nazi Germany occupation regime (1941–1945).

### 2. Investigations and results

The study is retrospective and descriptive. A historical genetic method was used to present information that helped to reconstruct and describe the chronological changes in the aforementioned period. The base of materials used in the study consists mainly of information from the State Historical Archive of Latvia and the National Archives of Latvia and the Latvian periodical of the 20<sup>th</sup> century.

### **2.1. Restoration of the pharmaceutical supervisory and operation of branch institutions under the Pharmacy Board**

Immediately after the end of the military action in the territory of Latvia in July 1941, the Pharmacy Board made an urgent attempt to identify the actual state of pharmacies network. Dzirne tasked all pharmacy managers to immediately send the following information to the Pharmacy Board: name of the pharmacy (including former CPD number); whether the pharmacy was in operation or was closed; name and degree of the manager; current staff composition of the pharmacy; whether remedies and dressing materials remained have remained intact or lost during war as well as an estimation of the approximate value and quantities of the goods lost. The Pharmacy Board took over the system created by CPD and therefore continued to operate as an economic-administrative body. In its report to pharmacy managers, the Pharmacy Board also made clear that pharmacies remain state-owned and the only persons in charge are managers (LNA LVA 1941a).

In order to protect wholesaler's stock of pharmaceutical goods from possible robbery, immediately after the end of active warfare, on July 1, 1941 guards were placed nearby and chiefs were appointed next day (Dzirne 1944). As well from July 1, all stock in the wholesales was seized (LNA LVA 1944a). On August 13, the Pharmacy Board gained full control over the pharmaceuticals available in wholesales. Consequently, the Chief of Pharmacy Board was given full responsibility for the subsequent equitable and rational dispensing of medical products to the pharmacies and hospitals, with the greatest degree of austerity. Three medicine wholesale bases were taken over from the CPD and renamed as the Pharmacy Board wholesales I, II and III (Dzirne 1944).

One medicine wholesale base had burned down with a significant number of remedy stocks during the operations of the war. In its place the Pharmacy Board wholesale IV was successfully restored in 1942 (Dzirne 1944).

All the stock accounting documentation was taken over from CPD in an unordered manner. The Pharmacy Board created centralized accounting at that time. According to Dzirne, during the Soviet occupation, the accounts of the CPD were only at the stage of establishment, since no evidence of regular accounting was available. The pharmacy managers had until then filled their accounting books by their own understanding and knowledge, so there was chaos in the accounting of materials during the Soviet era, and as it turned out, it had not been done centrally at all. On 16 August 1941, the chief accountant, assistant chief accountant, five senior accountants, six accountants, three assistant accountants, two senior accountants, and one cashier began their work (LNA LVA 1942a.).

When the Soviet authorities left Latvia, a pharmaceutical depot was established in spring of 1941 in Riga under the control of the Pharmacy Board as well. The creation of such a warehouse was most likely due to the introduction of the Soviet drug nomenclature and the belief that some medicines, active substances and herbals would no longer be in demand. A large portion of the pharmaceuticals were expired and had arrived there as a result of extensive inventories of the Soviet year. The contents of the depot were intended to be destroyed. The depot contained a variety of raw materials, patented medicines, galenical preparations, herbs, vaccines, sera, dressing materials, cosmetics, nursing care tools and a variety of wares. By the end of September 1941, the Pharmacy Board teamed up its commodity managers for reviewing and sorting the goods of this depot. Goods that could still be used were selected, medicinal products of questionable quality were transferred to the analytical laboratory for quality tests, but a large proportion of the expired goods were decided for disposal (LNA LVA 1942a).

A former CPD I medical wholesale base had served many pharmacies, hospitals, outpatient clinics and medical centres in Riga during the Soviet occupation. This branch continued to provide pharmaceutical products and raw materials for 129 pharmacies, chemical pharmaceutical companies, hospitals, outpatient clinics, photography workshops, as well as military units. Between July 1941 and

May 1942, the wholesaler had purchased medical supplies from local manufacturers for 347 970 RM and from German companies for 100 000 RM. The former CPD II wholesale base had suffered from heavy losses during the war, the warehouse and the herbal store owned by it had burned down. The purchase of additional goods was made for 313 072 RM between July 1941 and June 1942. During the Soviet occupation, the III medical wholesaler was the so-called wholesale base of the Latvia's eastern district Latgale and accordingly operated on a territorial basis. Immediately after the shift of occupation powers due to lack of transport and disrupted postal traffic, the wholesaler lost all its customers because it was 100% attached to Latgale pharmacies. From this it can be concluded that Latgale pharmacies were temporarily poorly supplied with remedies. By the summer of 1942, the particular wholesaler had stabilized, serving 109 pharmacies and hospitals with a monthly turnover of RM 45 000, however, delivered goods came from procurement made in independence period and in small quantities. The IV medical product wholesale base in one of Latvia's western cities Liepāja was run with about 20 employees, and the stock of goods was only worth 8 500 RM, and therefore the supply of medical products was minimal (LNA LVA 1942a).

The Pharmacy Board also monitored the operation of pharmacies. In January 1942, there were 360 pharmacies in Latvia (LNA LVA 1942b). In 1942, the Pharmacy Board issued a series of regulations to pharmacy supervisors regarding the performance of settlements, as well as instructions for daily situation management (LNA LVA 1942c). A total of four brochures were issued in 1942. Those rules governed the economic activity of pharmacies in order to take place in the same way throughout the country. As part of the same rules, pharmacy managers were encouraged to comply with and immediately inform the Pharmacy Board if a doctor particularly often prescribed narcotic preparations or ethyl alcohol. The Pharmacy Board also praised the efforts of pharmacy managers because pharmacy audits carried out in many cases found pharmacies clean and tidy – despite the war conditions (LNA LVA 1942d). On December 9, 1943, the Pharmacy Board issued the last, 6<sup>th</sup> instruction to the pharmacies, the thickest in terms of volume. It outlined daily situations in pharmacies of Latvia in the length of 28 points. For example, the Pharmacy Board had received complaints of disciplinary violations. Unjustified and systematic absences of employees, including the arbitrary taking of medicines, substances or other medical products for their own use, without the notice of the pharmacy managers, are mentioned. Also, despite the instructions given by the pharmacy audits, there were still pharmacies that were in extremely poor condition, untidy and repairable. Due to the simultaneous process of reprivatisation process of pharmacies at the time of issuing these guidelines, some other matters were also raised. For example, even after the privatisation of pharmacies, it has been mentioned that the recruitment, dismissal or transfer of pharmaceutical personnel will remain within the competence of the Pharmacy Board (Dzirne 1943).

### **2.2. Reprivatisation of pharmacies**

As the nationalisation process of pharmacies was realized on October 31, 1940 by Soviet government all pharmacies and other pharmaceutical companies were under jurisdiction of the government. After shift of occupation powers, the owners were interested in recovering their property. The reprivatisation of pharmacies was not an isolated process, but part of the restoration of private ownership of real estate and companies throughout the economy. It was a complicated, lasting task for precisely the reason that it included the essential political economic interests of the German occupation power.

On October 17, 1941, the German authorities' newspaper "Amtsblatt des Generalkommissars in Riga" contained an "Ordinance on the renewal of crafts, small industry and retail", which acknowledged that private activity and initiative were the foundation of a healthy and capable economy (Rīkojums par amatniecības, sīkrūpniecības un mazumtirdzniecības jaunizveidošanu 1941). A few days later, in reference to this order, a critical remark was published that, before further instructions were issued, any free and arbitrary

conduct by individuals on property was strictly prohibited (Paziņojums attiecībā uz Valsts komisāra 1941.g. 17. oktobra rīkojumu par amatniecības, sīkrūpniecības un sīktirdzniecības jaunizveidošanu 1941).

In 1942 and early 1943, A. Dzirne received several letters asking about the possibilities of privatising of the pharmacy or receiving compensations. Although it may be assumed that an ordinance on the renewal of renewal of crafts, small industry and retail would be also applicable to pharmacies, this was not the case. Dzirne responded dismissively in all cases, explaining that no rules on privatising pharmacies or providing reimbursements had been issued for the time being. The reprivatization process of pharmacies officially started on May 12, 1943, when the General Commissariat issued regulations on concessions for public pharmacies (Noteikumi par publisko aptieku koncesijām 1943). Regulations stated that community pharmacy concessions are being re-granted and granted by the Commissioner-General. From now on, the concession was open to applicants from Aryan race whose spouse was also an Aryan, in case the applicant was married. The applicant had to possess civil honor, which meant a politically trusted person. The person must have been a certified pharmacist, must have planned to work at the particular privatised pharmacy, and there should have been no evidence to conclude that the applicant was not suitable for running a pharmacy. When granting these new concessions, it was preferable to those pharmacy owners who had owned a pharmacy before nationalisation. Moreover, it was also taken into account whether the applicant had been in military service and in which army (Noteikumi par publisko aptieku koncesijām 1943).

The return of the first pharmacies to their former owners took place at a formal event at the Hall of the Great Guild on December 7, 1943 (Reprivatizētas 84 aptiekas 1943). In the framework of this event, 84 pharmacies were transferred to the former owners. The process of pharmacy reprivatization continued until the spring of 1944. On May 2, 1944, Dzirne published a review of reprivatized pharmacies listing 220 pharmacies and their owners (Dzirne 1944a). There were 32 pharmacies re-privatised in Riga, Vidzeme without Riga – 83, Kurzeme – 36, Zemgale – 43, and Latgale only 26 pharmacies.

### **2.3. Availability of medicines and operation of local factories**

The supply and consumption of medication was extremely complex and a topical issue throughout the war. As mentioned above, during the Soviet occupation, medicines were not only imported, but some of the stocks were lost due to the war activities. The Pharmacy Board developed a careful approach to the distribution of medicinal products. In 1941, following the shift of occupation powers, additional purchase of medication was not conducted, citing the difficulty of transportation and unestablished arrangements of the settlement with the occupied Ostland (LNA LVA 1944a). Therefore, starting in autumn 1941, wholesalers could supply only a minimum number or a minimum treating dose to pharmacy requests. For some difficult-to-access foreign medicines, accounting books were provided for both wholesalers and pharmacies. As for particularly large shortage of proprietary drugs were listed all Bayer company products, such as pyramidone, phenacetin, mercury salts, bismuth salts, bromine salts, iodine salts, barbiturates, codeine and its salts, caffeine salts, calcium salts, all vitamins and hormone preparations, as well as all tropical herbs, essential oils, theobromine and its salts, arsenic, inorganic acids and ethacridine (LNA LVA 1942e). For each pharmacy, depending on consumption, monthly norms were also introduced for the receipt of components needed for the preparation of extemporaneous medicines – ethyl alcohol, swine and bovine fat, sugar, glycerol, vegetable oil.

The supply of medical products resumed in 1942, meanwhile, German original medicines were imported only slightly in general. In the first half of 1942, the company “Pharm-Ost” G.m.b.h. was founded in Berlin, which had a monopoly on the supply of medicinal products to the occupied Eastern lands, including Latvia (LNA

LVA 1944a). This company delivered medicines from Germany to Riga, Tallinn, Vilnius and Minsk by railway. Thus, in 1942, medications at the value of approximately 250,000 RM, but in 1943 of about 1.5 million RM were delivered. In 1942, the stocks of wholesalers were heavily depleted, as pharmacies had served customers for a total of about 9.1 million RM. In 1942 from stocks of medicinal products of Latvia, some part was also handed over for the German army needs, such as pure quinine bulk 507 kg, pure caffeine bulk 440 kg, pure codeine bulk 33 kg and morphine bulk 7 kg. In 1943, the supply of medicinal products from Germany was relatively regular and requested original medicines, even if were not received immediately, were always supplied with the next delivery. Later, from the end of 1943 and early 1944, the supply of medicines was once again in crisis, as Germany suffered from air raids and bombing. According to A. Dzirne, in February 1944, stockpiles of many original medicines were once again depleted as the population increased their purchases (LNA LVA 1944a).

Lack of medicines in everyday life caused frustration for both doctors and patients. Often doctors both in countryside of Latvia as well as in Riga prescribed medications without being interested in whether they were available in pharmacies and in what quantities (Dzirne 1944b). In October 1941, the Department of Health had published a list of medicines intended for doctors, which should be dispensed by pharmacies only on prescription and should be used sparingly. The list included the following substances: acetone, glycerol, quinine and its salts, theobromine and its salts, bromine and its salts, caffeine and its salts, bismuth and its salts, lactic acid, phenol, citric acid, castor oil, flax oil, olive oil, wool fat (Rīkojums visiem ārstiem 1941). For the rest of the war years, the Pharmacy Board in cooperation with the Department of Health, thoroughly inspected prescriptions written by doctors and frequently sent warning letters indicating which substances were prescribed too often or in excessive quantities. It was pointed out that when prescribing medicines and dressing materials, the physician should remember and follow the basic principles of cost-effective treatment, which were as follows: (1) prescribing medicine should be as simple as possible; (2) avoid prescribing multiple products for one purpose; (3) over-prescribing and diversifying medicines should be eliminated; (4) to limit the prescription of narcotic drugs to the minimum and to try to replace them with other analgesics (LNA LVVA 1942a).

Local chemical pharmaceutical companies played a crucial role for the availability of medicines in the moment of crisis. However, they also encountered various difficulties due to the lack of raw materials imported from abroad. Company executives regularly sent information to the Pharmacy Board or made requests related to the production of preparations and the use of raw materials. For example, in May 1942 JSC “Farmācija” sent the Pharmacy Board a list of pharmaceutical products that were previously manufactured but are currently producing less or not at all due to the lack of raw materials (LNA LVVA 1942b). A regular procedure during this time was to seek permission from the Head of the Pharmacy Board to use a certain amount of the raw materials for the manufacture of drugs. From the active correspondence it can be concluded that the local companies were persistently and even enthusiastically trying to overcome the difficulties of the war.

### **2.4. Repressions and changes in the number of pharmaceutical employees**

The pharmaceutical sector, which has been suffering from a shortage of employees since the emigration of the Baltic Germans in 1939, has been indirectly but severely affected by the repressions of the population by the totalitarian regime of Nazi Germany. The greatest loss of labour was caused by the Jewish Holocaust in late 1941. Immediately afterwards, the number of pharmacy employees was critically small. Annual report of the number of pharmacies and staff on December 31, 1941 shows that there were 355 pharmacies in the country operating with only 917 employees (LNA LVA 1941b). This means that every pharmacy in Latvia had an average of 2.6 employees.

The majority of health care employees of Jewish origin, including pharmacists, pharmacy assistants and trainees who decided to stay in Latvia, became victims of ghettos or concentration camps. According to data from the Pharmacy Board, in the first half of 1941 there were 1741 people in the pharmaceutical personnel, of which 543 were Jewish (Dzirne 1944). In later reports by the Pharmacy Board, 543 is a figure cited as a loss of staff resources, denoting it as “exclusion of Jews” from the profession (LNA LVA 1942a).

Not only the Holocaust, but also the potential mobilization in the Legion threatened to cut the number of employees even more. At the turn of the year from 1942 to 1943 that the Ministry of the Occupied Eastern Territories drew up a reprivatisation plan, which was approved by Adolf Hitler (1889–1945) on February 8, and parallelly on February 10, an order was formed to form the Latvian Legion. On March 31, 1943, Chief of the Pharmacy Board, A. Dzirne received a secret letter from the Director of the Social Department of the General Commissariat of the Interior, Oskars Sīlis (1888–1950) (LNA LVA 1943a). He warned that similar to the first call, the conscription of the following of seven year period men in the German army could soon be expected. Sīlis estimated this may affect men born between 1912 and 1918, some of whom considered as undoubtedly highly skilled and irreplaceable. He pointed out that the Pharmacy Board should draw up a list of irreplaceable employees as soon as possible, but to be successful, the list should not be too long and should only include staff without whom pharmacies could not operate without. In this regard, on June 18, 1943, A. Dzirne sent a letter to the Chief of Staff of the Inspector General of the SS Volunteer Latvian Legion. In it, he reported that the Pharmacy Board is making a kind request to exempt pharmacy managers and pharmacy employees from the possible enlist in military service. He pointed out that there was an extremely large shortage of pharmaceutical employees in Latvia, and the normal operation of pharmacies would require at least another 600 to 700 employees. Dzirne created a list of 52 persons, mostly consisting of pharmacy managers. He also compiled a similar list in 1944, including 29 persons (LNA LVA 1943a).

The number of employees was tried to raise by actively recruiting pharmacy trainees, organising training courses and exams for pharmacist assistants, as well as by recruiting more students in the Pharmaceutical Division of the University of Latvia. During this time, students were not required to take entrance examinations and admissions ran campaign-like throughout the second half of 1941, resulting in a steady increase in the number of first-year students (Mauriņa 2008). Assistant pharmacist courses and exams were organized by the Pharmaceutical Division of the University of Latvia and were usually held 1-2 times a year (LNA LVA 1942f). The number of pharmacy employees was also increased by pharmacy trainees. High school graduates were invited to work as trainees.

Of particular note is the fact that, due to a shortage of pharmaceutical personnel, the Pharmacy Board also sought to arrange and assist former pharmacy staff who had emigrated with the Baltic Germans in 1939 or 1941 to return to Latvia. Between 1942 and 1943, the Pharmacy Board received several letters from pharmacists living and working in Germany asking them to return to Latvia. For example, in December 1941, Eduards Ostrovskis (born 1889), a pharmacist's assistant, sent a letter to A. Dzirne from Berlin (LNA LVA 1941c). A. Dzirne had received similar letters from Düsseldorf, Breslau (nowadays Wrocław, Poland), Dresden, and Bopfinger.

### **2.5. Period before the second occupation of the USSR (1944-1945)**

In summer of 1944, the Red Army troops re-entered Latvia through Latgale. On October 13, 1944, Riga was conquered, but further development was stopped by the formation of the Kurzeme fortress known as the “Kurland Cauldron”. As a result of these circumstances, the district of Kurzeme ended up in forced isolation for several months and turned into a headquarters of refugees, Nazi Germany and the Latvian Legion troops.

In the light of the events on the front, one of the last orders of the Pharmacy Board of Latvia was the order issued on April 5, 1944 entitled “General instructions to pharmacy managers on the precautions to be taken in the management of pharmacies and their responsibilities in the case of air attacks”. The order stated that pharmacies should be equipped with fire extinguishers, more water, spades, sand and axes. The documentation should not be left in the pharmacy overnight unless there was a fireproof room (LNA LVA 1944b).

The Pharmacy Board ceased its activities in the autumn of 1944, very likely at the end of September. On October 10, 1944, A. Dzirne left Latvia for Germany. As the Red Army approached the capital in the fall of 1944, part of the medical supplies were evacuated from Riga. On September 1, 1944, Juris Krīgens (1898–1977), a representative of the Head of the Pharmacy Board in Kurzeme, informed that recently large consignments of medicines were received from Riga, which were divided and distributed to various pharmacies in Kurzeme. He predicted that provided stock of medicines would be enough for several months, only due to war conditions there is lack of original medicines, tropical herbals and dressing materials, meanwhile, the amount of disinfectants was satisfactory. He also pointed out that at that exact time part of Kurzeme pharmacy employees had already left for Germany. Many students and high school graduates have been accepted as replacements for staff emigrated (*Medikamentu netrūks? 1944*).

From July to October, a wave of about 150 000 refugees flooded Kurzeme (Evarts and Pavlovičs 2011). In September 1944, the health care situation was not yet critical, but as time went on, conditions became more and more complex. On December 11, it was reported that almost half a million people were settled in Kurzeme (*No amatpersonām prasāma lielāka pašiniciatīva 1944*). Any civilian administration was in a state of confusion, with Liepāja as a conditional centre, where most of the institutions were concentrated and the central refugee office of “People's Assistance” was located. Jānis Niedra (1908–1969) headed by the Evacuation Department of Kurzeme reported that a greater initiative should be taken by officials from municipalities at this time – the work of local governments should be restored. Problems with food supply and sanitary conditions had begun to emerge. According to J. Niedra, he had been granted the right not to release any employee from governmental or health care personnel from Latvia. However, it was found that many doctors do not disclose their profession. Niedra urged everyone to resume work in their specialty, as municipalities should provide access to treatment for the population. He also noted that medicines had to be collected from pharmacies left unmanaged. A study by historians Edvīns Evarts and Juris Pavlovičs on municipal conditions in the “Kurland Cauldron” stated that “the medical care of the population, like veterinary medicine, was generally very poorly organised and actually experienced a temporary collapse” (Evarts and Pavlovičs 2011).

Examining the information provided in the CPD report of 1945, it can be concluded that an enormous number of pharmaceutical professionals went into exile in the fall of 1944. The last available data on pharmaceutical personnel provided by A. Dzirne in 1943 show that operated 382 pharmacies in Latvia with 1103 employees, of which 766 had higher or secondary pharmaceutical education while the others were trainees (LNA LVA 1943b). In turn, on January 1, 1945, there were 188 pharmacies in the CPD system, employing 890 persons; 297 of them had pharmaceutical education. So out of 766 people with pharmaceutical education, 469 had left the industry (LNA LVA 1945). This is corroborated by data from other sources: A. Dzirne, in an oral presentation at a meeting of Latvian pharmacists in Esslingen, West Germany, in 1948, said that about 500 pharmaceutical professionals were identified in exile (Jākobsons 1987).

### **2.6. Conclusion**

During the occupation regime of Nazi Germany from 1941 to 1945, the pharmaceutical sector of Latvia recovered from the chaos caused by the Soviet power. The restoration of supervisory of the industry and its stabilization was quite successful as the German

authorities did not stand out with much interference in the activities of the Pharmacy Board and were allowed to operate under a regime close enough to the period of independence. Unlike the Soviet approach, the German authorities offered a model of cooperation. The German authorities also took into account the need to supply Latvia with medicines and the company "Pharm-Ost" G.m.b.h. was established as monopoly on the supply of medicinal products to the Ostland. Thanks to this company from 1942 until 1944 the medicine procurement was possible since Latvia experienced particularly large shortage of original Bayer products, vitamins and hormone preparations. The Pharmacy Board attempted to stabilize the pharmaceutical industry in many terms, for example, through regular medicine stock accounting, by monitoring prescriptions and advising the doctors to treat patients as simple as possible. Local chemically pharmaceutical companies played a crucial role for the availability of medicines. From the written evidence it can be concluded that the local companies were even enthusiastically trying to overcome the difficulties of the war.

However, in some processes the essential political economic interests of the German occupation power were reflected, for example in the process of reprivatization of pharmacies. The decision to return pharmacies to former owners was delayed. It was officially approved by A. Hitler on February 10, just two days after an order to form the Latvian Legion. On May 2, 1944, A. Dzirne published a review of reprivatized pharmacies listing 220 pharmacies.

As well the pharmaceutical sector, which already suffered from a shortage of employees, has been indirectly but severely affected by the repressions. Due to the Jewish Holocaust in late 1941 about 543 Jewish pharmaceutical employees were lost. A potential mobilization in the Legion threatened to reduce the number of employees even further. On one hand, German authorities provided favourable conditions for the revitalization of the sector, meanwhile, on other hand due to the political reasons continued to affect it adversely. Within the end of the war enormous amount of professionals went into exile and a lot of pharmacies were left unmanaged. Out of 766 people with pharmaceutical education, 469 had left the industry. Immediately after the end of World War II and the following second occupation of the USSR, the state of pharmacy sector of Latvia was at its lowest point.

Conflicts of interest: None declared.

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