

Public health, urban space and social exclusion in postwar Spain: the exanthematic typhus epidemic in the city of Valencia, 1941-1943

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Abstract

After the Spanish Civil War, poor hygiene and nutritional deficiencies among a large part of Spain's population contributed to the rise of epidemic diseases. Exanthematic typhus posed a challenge to the health authorities, especially during the spring of 1941, when the epidemiological cycle of the disease and the lack of infrastructures combined to create a serious health crisis. The Franco regime, aware that this situation posed a threat to its legitimacy, promptly used social exclusion as part of its health policy against the epidemic. This article provides an in-depth analysis of the case of Valencia, a city that was behind Republican lines during the war, and therefore received successive waves of refugees as Franco's troops advanced.

Keywords: public health; exanthematic typhus; Francoism; Spain; Valencia.



It is well-known that a population's state of health is affected not only by biological factors but is also closely linked to its political, economic and social situation. In Spain, that link became clearer after the Civil War (1936-1939), which left the majority of the country in poverty and put General Francisco Franco (1892-1975) in power. Once the Second Republic (1931-1939) was overthrown, he instituted a fascist-style military dictatorship, which remained in place for much of the Cold War, lasting nearly four decades. The Director General for Health under the first Franco government, José Alberto Palanca (1888-1973), stated in 1941 that "a country's state of health is not isolated and unconnected to its social and economic circumstances, but is, on the contrary, a consequence of them" (Palanca, 1941, p.432). The resurgence of smallpox, diphtheria and exanthematic typhus immediately after the war was merely one more sign of the hardships, especially hunger, facing a large part of the population (Del Cura Gómez, Huertas García, 2007, p.17, 181). There was also a surge in other diseases, such as typhoid fever and tuberculosis, which were endemic in Spain before the war (Barona Vilar, 2001, p.350).

However, these adverse social and medical circumstances belied the image of a robust fatherland being preached by the regime, so the propaganda apparatus took pains to link these diseases to the war's losing side, thus evading any responsibility for their appearance. Despite the rivalries and internal disagreements between the different political factions within Francoism, Spain's health authorities allied themselves with the medical internationalism of the "New Europe" led by Nazi Germany in the early years of Second World War (Brydan, 2016). As we shall see, exanthematic typhus played a central role in this social control strategy, and subsequently in a policy that legitimized authoritarianism and coercion of the population. It was a high-mortality disease characterized by high fever, diminished consciousness and liver failure, which led to death in the course of a few days. Transmitted by lice, it was seen as the paradigm of a disease associated with poor hygiene in the trenches and concentration camps, but also with unhealthy housing conditions among the poor and with poverty in general. It was inseparable from hunger and overcrowding. The close relationship of this disease to the most disadvantaged sector of the population has been identified as one of the reasons why typhus was used as the main health argument for ideological reaffirmation (Jiménez Lucena, 1994, p.190). It is well-known that after the war, the regime identified the most vulnerable sectors of the population as having supported the Republic and thus as enemies of the new Spain. Also, during that phase, the state's ideological apparatus functioned primarily to legitimize the new regime, a goal that was pursued by applying social exclusion mechanisms.

Repression has been identified by historians as a key part of the construction of the Francoist state (Mir Curcó, 2001). After the Republic was overthrown, there was a systematic purge of state organizations, professional bodies and labor unions, with opponents of the regime being punished retroactively. As a result, Spain's incarcerated population soared: inmates were crowded together, in dreadfully unsanitary conditions, in prisons and concentration camps. The main purpose of the sentences passed was political and religious indoctrination (Rodrigo, 2013). Although fewer women were jailed, female imprisonment in separate penitentiary facilities was aimed at subjecting the inmates to moral coercion exerted by nuns of different religious orders (Hernández Holgado, 2013).

This article belongs within the historiographical approach that identifies early Francoist health policy as one more element of repression and propaganda on the part of the new regime (Marset Campos, Sáez Gómez, Martínez Navarro, 1995; Jiménez Lucena, 1998, p.111-126). Broadly speaking, it has been pointed out that social exclusion of opponents of the regime took place from the beginning, as the Franco dictatorship set out to rebuild Spain's health care structure in order to place health experts from the winning side in positions of power (Serrallonga Urquidi, 2007). In the particular case of the anti-silicosis campaign in the early years of Franco's rule, the regime's social policy was basically propaganda-driven – minimizing the benefits of national health care (Menéndez Navarro, 2008). The battle against tuberculosis was a similar case; even though the social origin of tuberculosis was known, the Francoist health authorities focused on therapeutic responses to the disease, neglecting preventive measures. The Francoist state's campaign against tuberculosis was geared toward propaganda and short-term political indoctrination, which meant it was more politically profitable to increase investment in highly visible infrastructures (dispensaries and tuberculosis sanatoriums), than to invest in social policies, especially low-income housing (Molero Mesa, 1991, 1994, 2001; García Ferrandis, 2013).

In terms of exanthematic typhus, Isabel Jiménez Lucena's (1990, 1994) work on Malaga, one of the major cities in Andalusia, constitutes an obligatory reference point for this article. This researcher demonstrated how a situation that was initially a problem for the regime was manipulated in various ways in order to reaffirm the ideological principles of the winning side.

The official line of the Francoist health authorities, as stated by the Director General for Health, was that during the war, "in contrast to what occurred on the Republican side, in the Nationalist zone people ate well" (Palanca, 1941, p.432); this was used to justify the claim that the epidemic was caused by "the mental and physical suffering that occurred during the war years in the Red zone, undernourishment, and the displacement of large numbers of people when the war ended, which determined the outbreak of the epidemic" (Palanca, 1943b, p.361).

According to this view, the incidence of typhus in other Andalusian cities like Granada, Seville or Cadiz (occupied by the Insurgents early in the war) should have been minimal, but in reality, as we shall see, it was very high; whereas, on the other hand, the typhus epidemic in Valencia should have caused extremely high numbers of cases. Since it was a bastion of the Republican rearguard throughout the conflict, the capital of Valencia was systematically bombed and took in thousands of refugees, which led to food and housing shortages. However, our work shows that morbimortality rates in Valencia were in fact rather moderate.

This article has two objectives: firstly, to determine the intensity of the epidemic of exanthematic typhus that occurred in the city of Valencia in the spring of 1941 and lasted until 1943, in comparison to other Spanish cities; and secondly, to analyze the response of the Valencian authorities to this health crisis. This is a new case-study, based on the previous one done for Malaga. To meet these proposed objectives, we shall begin by providing a brief overview of the outbreak and development of the typhus epidemic in postwar Spain (1939-1943), and the institutional response to this serious health threat. It is important to provide the wider context before dealing in more depth with the Valencia area, which is covered in the second part of the article.

We consulted unpublished documents in the Archive of the Provincial Council (Diputación Provincial) of Valencia and the city's Municipal Archive. We also consulted published medical sources, especially articles that appeared in the *Semana Médica Española* and some of the numerous monographs on exanthematic typhus that were published in the early 1940s. Among all the sources consulted, one of the most important, as we show later, is an article published in late 1943 by Javier Vidal Jordana, an epidemiologist at the Provincial Institute for Hygiene in Valencia, in the *Revista de Sanidad e Higiene Pública*, the official publication of the Directorate General for Health (Vidal Jordana, 1943), and the speech he gave on June 7, 1946, when he was inducted into the Valencian Royal Academy of Medicine (Vidal Jordana, 1946).

The exanthematic typhus epidemic in postwar Spain (1941-1943)

Historians of Francoism have identified autarky as the main cause of economic stagnation in the early years of the lengthy post-war period in Spain. The most devastating collateral effect of this was hunger (Palacio Lis, Ruiz Rodrigo, 1993; Barona Vilar, J., 2001, 2006; Del Arco Blanco, 2006, p.244; Del Cura Gómez, Huertas García, 2007). The existence of hunger is very important to our research, since nutritional deficits are closely linked to the outbreak of infectious diseases, because malnutrition normally affects the immune system.

Another factor that encouraged the outbreak of the typhus epidemic in 1941, besides the large-scale population displacement seen in the war, was poor hygiene, since personal cleanliness in general and delousing in particular were, according to the Valencian hygienist José Estellés Salarich, key measures for prevention and control of the disease (Bernabeu-Mestre, 2007, p.125-133). The postwar shortages also affected soap and all types of disinfectant; despite this, the Franco authorities did not hesitate to export oil – the prime ingredient of soap – and other agricultural products to Germany (Del Arco Blanco, 2006, p.253-255). A third factor intimately linked to the appearance and development of typhus was overcrowding, since there is a close inverse relationship between excessive population density, hygiene services to homes, and the health of citizens (Harden, 1993). Lastly, it is worth pointing out that improvement in living conditions has been identified as the determining factor in the disappearance of typhus in urban settings in the United Kingdom, especially London, in the last third of the nineteenth century (Hardy, 1988).

From mid-1937 on, the Spanish population's health began to decline steadily, but it was not until immediately after the war that epidemic typhus broke out, along with other diseases (Barona Vilar, 2001, p.354). In fact, the first typhus cases were diagnosed in Madrid in April 1939; in June there were more in Malaga, Murcia and Cuenca; and in September in Villarrobledo (Albacete). Later, the Director General for Health, José Alberto Palanca (1941, p.438-439), acknowledged that "starting in winter 1939, he was convinced we would end up facing a difficult situation." Given this statement, we can deduce that the Francoist health authorities were aware that the poor hygiene and health of a large part of the population during the postwar period would lead to a health crisis, but they claimed that those deficiencies were part and parcel of the chaos on the Republican side. The reality, as reflected in various international reports, is that during the Spanish Civil

War, exanthematic typhus never became a serious public health problem on either side of the conflict (Barona Vilar, J., 2006, p.13, 17, 20; Barona Vilar, Perdiguero Gil, 2008, p.103-126). As a prophylactic measure, the Republican army had mobile disinfestation units that could be deployed on the front line (Bernabeu-Mestre, 2007, p.115).

During the winter and spring of 1940, two major foci for the epidemic emerged, with over four hundred cases recorded in total (Palanca, 1943b, p.364): one among the prisoners crammed into an old sugar factory in Guadix (Granada) and another in an asylum for beggars in Seville. However, in spring 1941, the epidemic grew sharply worse, which made the health authorities acknowledge it as exceptional: “The situation could not be more difficult or more tragic, and I believe that in epidemiological terms there has been nothing like it in the whole of this century; we have to go back to the cholera outbreaks in the past to find a parallel” (Palanca, 1941, p.434).

The epidemic developed unevenly, around four foci where the majority of the cases were reported – the provinces of Madrid (2,592), Malaga (1,830), Seville (1,224), Granada (1,055) and Cadiz (729) – and another series of secondary foci, notably Valencia (397), Cordoba (299), and Murcia (255) (Vidal Jordana, 1943, p.577). Obviously, these figures are for cases that were officially recorded; however, the real numbers could have been much higher (Del Arco Blanco, 2006, p.253-254).

Following the epidemiological cycle, the summer heat helped control the disease – since it destroyed the vector – and, in October 1941, Malaga, Murcia, Seville, Cordoba and Valencia were declared disease-free. However, in the first half of 1942, the epidemic came back, especially in the province of Barcelona, where 1,852 cases were recorded, with 407 deaths (Vidal Jordana, 1946, p.41). Thus Barcelona, which had scarcely been affected by the first wave of the typhus epidemic, was hit hard in 1942. It seems likely that alarm was raised by the death on February 1st of Manuel Corachán García (Marí Balcells, 1981), a renowned surgeon who had been minister for Health for the Catalan government in 1936 (El muy ilustre..., 5 feb. 1942). According to a widely-read newspaper, *La Vanguardia*, his funeral was attended by “a great many people, amongst whom were Barcelona’s leading medical practitioners” (Funerales..., 7 feb. 1942). It is no coincidence that the following day, a Sunday, the same newspaper reported that the Swiss physician and bacteriologist Hermann Mooser (1891-1971) had arrived for an indefinite stay. Mooser was Director of the Hygiene Institute at the University of Zurich and one of the world’s greatest experts on exanthematic typhus (En breve..., 8 feb. 1942). During his stay in Barcelona, funded and promoted by the city government, Mooser advised the municipal health authorities on what preventive measures to take, particularly in terms of producing vaccines, and he gave various lectures in professional settings such as the Faculty of Medicine, the Royal Academy of Medicine and, in April that year, at the Hospital del Mar in Barcelona, which was then the Municipal Hospital for Infectious Patients (Mooser, 1943).

Other important foci were Madrid (1,831 cases) and Cadiz (1,294); cities more moderately infected included Granada (712), Seville (479), Malaga (424), and Valencia (182) (Vidal Jordana, 1946, p.41). Eventually, the epidemic of exanthematic typhus was pronounced over in 1943, which meant that the health authorities could turn their attention to “ordinary infectious diseases” in the country: typhoid fever, diphtheria, and dysentery (Palanca, 1943a, p.305).

In terms of the central government's response to the epidemic, in late 1939, it allocated one million pesetas in funding, but it was used mainly for the Madrid population, buying tents, delousing equipment (heaters and hydrogen cyanide fumigators),¹ creating two new wards for infectious patients at the Hospital del Rey, and building a disinfection station there (Palanca, 1941, p.436). Other hospitals designated for epidemic patients were the Princesa, the Niño Jesús and the Instituto Oftálmico (Palanca, 1943b, p.368). In early 1940, the General Directorate for Health also formed the Epidemics Board (Junta de Epidemias), to liaise with the different provincial health authorities to coordinate the battle against typhus. Subsequently, in 1943, Palanca would pool the experience of health care providers in a dozen provincial health authorities in the campaign against the disease (Palanca, 1943c).

As we now know, a major outbreak of exanthematic typhus occurred in the spring of 1941. All the government's measures proved insufficient due to the lack of infrastructure, equipment and medical personnel, as the General Director for Health acknowledged: "I believed a national catastrophe was inevitable, not just because it was widespread ... but also because of the shortage of methods for combatting it" (Palanca, 1941, p.433). In June 1941, José Alberto Palanca (p.438) went to visit the most hard-hit provinces; and described how, in Malaga, the patients were not isolated but crowded together in dire conditions in houses, while in Granada he found the health care services to be "appalling."

The health authorities knew the epidemiology of the disease, as seen in the numerous monographs published at the time, which stressed the need to isolate patients and eliminate the disease vector, namely, lice (Moróder, 1941, p.164; Clavero del Campo, Pérez Gallardo, 1941; Quintana López, Díaz de Rada, 1942). In order to isolate typhus cases, Palanca (1943c, p.3) himself insisted that early diagnosis was the basis for any health campaign. However, patients were not being isolated effectively, so the epidemic was spreading easily, as Palanca (1941, p.436) noted sarcastically: "Everything possible was done to make sure the epidemic would spread widely throughout the country, and it must be confessed that this was successful."

The regime's inability to confront and manage this health crisis forced the Franco administration to request help from the international medical community. Arguing that "two and a half years of war distracted us from world-wide medical developments and it was crucial we find out what advances had been made in the prevention of exanthematic typhus" (Palanca, 1941, p.439), the authorities arranged for the American professor John C. Snyder to visit Spain. He was taken to some of the affected areas and taught Spanish experts how to prepare the typhus vaccine, especially the Cox vaccine (Rodríguez Ocaña, 2014, p.476). At the time, the Roosevelt administration was signaling concern that typhus might prove a threat in international warfare. In 1942, Herald R. Cox was appointed to head the Typhus Commission, charged with finding an effective typhus vaccine that was easy to produce, so as to supply the US army. Vaccination against typhus also occupied most of the medical efforts made by the Spanish army (Gracián Casado, 1941).

Likewise, two prestigious members of the Pasteur Institute in Paris – Paul Giroud and André Alfred Lemierre – were sent to Madrid by the French Embassy, for the same reason (Palanca, 1941, p.439). Even more importantly, in the framework of medical internationalism in the "New Europe," the regime increased its public health collaboration

with Nazi Germany, especially with regard to exanthematic typhus, arranging for exchanges of experts and the development of specific programs (Brydan, 2016, p.295-301). Among others, the physicians Miguel Gracián Casado and Julián Sanz Ibáñez were commissioned to travel to Germany to receive the necessary training to be able to create and produce typhus vaccines (Palanca, 1941, p.439).

As Jiménez Lucena states, the image of a healthy country that the regime was trying to project was undermined by the presence of infectious and contagious diseases. These contradictions were solved by the regime's propaganda apparatus, which drew connections between these diseases and the losing side. The same legitimization strategy was used by the Nazi health authorities in their own country to exercise political control over groups of the population considered "undesirable" (Brydan, 2016, p.304). Also, references to the higher incidence of infection among the poor did not acknowledge the epidemic's relationship to the dire social and economic circumstances and the health care system, but rather blamed the victims, treating individual behavior as responsible for the disease a person was suffering from (Jiménez Lucena, 1994, p.189, 194-195). This strategy tended to fail, as the health care authorities themselves realized: "The measures against begging failed thanks to the continual influx of poor people from all over Spain. They could be made to disappear from the stairs of the metro, but then they had to be shut up in ruined houses in the barrio of Argüelles, which worked out the same for us" (Palanca, 1943b, p.366).

Similarly, the new administration avoided assuming responsibility by arguing that Spanish doctors were not equipped to diagnose the disease because of the lack of exanthematic typhus while they were being trained. The health authorities also attempted to minimize the situation in Spain, claiming that typhus was an international problem that affected Mediterranean countries (Palanca, 1941, p.439). John C. Snyder (1947, p.5-6), however, thought that war was the true cause of the numerous cases of typhus being reported across Europe, except in France and the United Kingdom; he stated that after 1940, "epidemic typhus broke out in a series of countries that were normally free of the disease, especially Spain, Italy, and Germany," as well as others such as Poland.

On August 2, 1941, the state allocated a fund of three million pesetas for the rest of the year and ten million more for 1942 (Palanca, 1943b, p.371). It subsequently ruled that the typhus epidemic was under control, and as a result of this a law passed on September 19, 1942 redistributed the funds to deal with endemic diseases, such as syphilis and malaria (España, 1 oct. 1942).

Repression and social exclusion in Valencia as public health measures

The city of Valencia, which was situated in the rearguard during the conflict, experienced demographic growth that continued in the postwar years. Between 1939 and 1949 it became the third largest city in Spain thanks to inter- and intra-provincial immigration (Ortega Osona, Silvestre Rodríguez, 2006, p.90). A testimony from the time provides eloquent testimony to this: "In Alicante the beggars were thrown out and they all took refuge in our province [Valencia]. The highway was a pilgrimage ... Whole families were constantly arriving from Andalusia" (Vidal Jordana, 1946, p.10).

Indeed, the city went from 386,427 inhabitants in 1936 to 443,286 in 1940 (Pérez Puchal, 1973, p.132), a population spike that took place over a short period of time and was not matched by an increase in urban resources. An example of this situation was the undermining of medical infrastructure during the civil war, especially the hospital system (García Ferrandis, 2015; García Ferrandis, Martínez-Vidal, 2016). After the war, the high concentration of the population living in sub-human conditions translated into the outbreak of certain diseases, such as exanthematic typhus. Thus, during the two-year period of 1941-1942, a little over 296 low-income government housing units were built in the whole city, many of them with shoddy materials (Peñín Ibañez, 1978, p.183-184, p.191-199). These data attest to the appearance of the most basic of living conditions, where sub-letting and overcrowding were the order of the day. Even the regime's press acknowledged the city's housing problems, declaring that "the urgency of the problem will necessarily create the solution, of a number of housing units that are cleaner, more sunny, and altogether more hygienic" (Aspecto..., 4 feb. 1942). What was especially serious was the appearance of the phenomenon of a shantytown along the river Turia, from Mislata to Natzaret, near the mouth of the river (Palacio Lis, Ruiz Rodrigo, 1993, p.15). Some of the shacks can be seen in Figure 1.

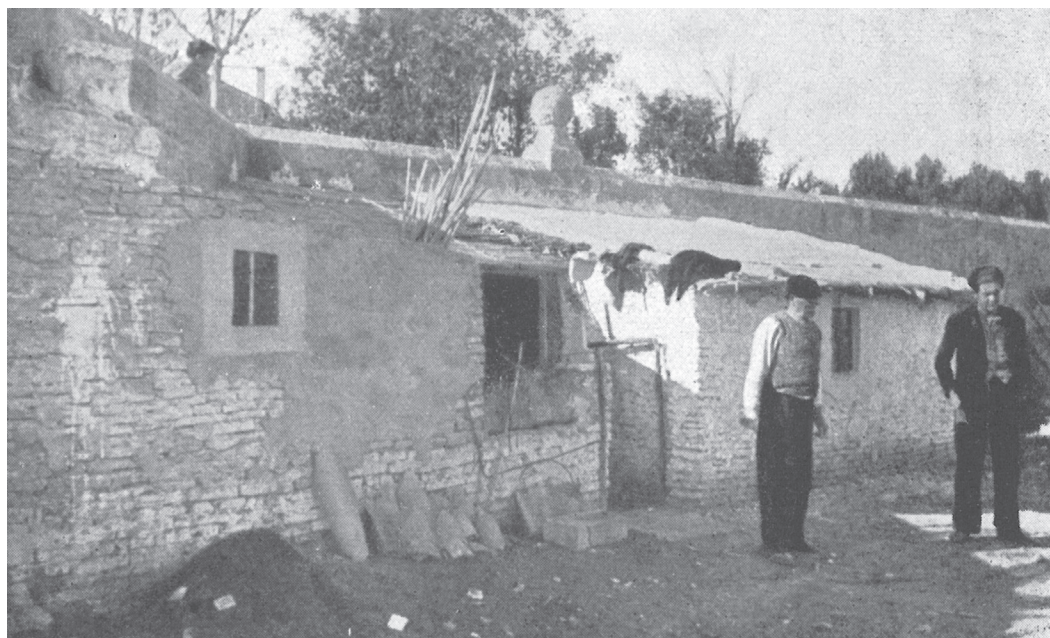


Figure 1: Shantytown along the River Turia (Vidal Jordana, 1946, p.51)

As in other Spanish cities, in Valencia in the spring of 1941 an epidemic of exanthematic typhus was declared, and the segment of the population affected was defined. In its urge to blame the most disadvantaged sectors, the regime simplified the cause of the typhus outbreak in the city, assuring that it originated among unemployed workers from the province of Cordoba who were living rough in the port area, in houses destroyed during the war (Palanca, 1941, p.435-436). In the spring of 1941, some 180 people from Andalusia and Castile were crammed into the ruins of the Hotel del Puerto: "People were lying on the

ground, half naked and pretty much exposed to the elements, since little more than the four walls were still standing; they huddled together in the most protected spots" (Vidal Jordana, 1946, p.10). This dramatic testimony comes from Javier Vidal Jordana, a physician who was named Director of the Epidemiology Section of Valencia's Provincial Institute for Hygiene in 1932 (Barona Vilar, C., 2006, p.267-268, 274-278) and kept his post throughout the purges carried out by the Francoist authorities after the war (Vidal Jordana, 1946, p.61-63). The problem was a hard one to solve, because according to Valeriano Jiménez de la Iglesia, spokesman for the Construction Workers' Union, the number of housing units that needed to be built to make up the deficit ranged from fifteen to twenty thousand, which, combined with the sharp price increase for urban lots – speculation in the city center – meant developing the existing suburbs and creating new neighborhoods on the outskirts for the middle and working classes (Ginés i Sánchez, 2010, p.155-162).

Officially, the 1941 typhus epidemic affected a total of 284 residents of the city of Valencia, of whom 35 died (Palanca, 1941, p.436). The three cities most affected by the disease were Malaga (1,839), Madrid (1,396), and Seville (945). The death rate in the city of Valencia was 12.4%, slightly below the 14.3% reported by Palanca (1941, p.367) for Spain overall.

The summer heat noticeably decreased the number of patients in the city and in October 1941, the epidemic was declared under control. However, starting in February 1942, typhus began reappearing, with cases reported in the port area and a municipal hostel where beggars spent the night crammed together. Another focus was reported in the canteens of the Valencian Charity Association (Asociación Valenciana de Caridad) (Vidal Jordana, 1946, p.19-20). The 1942 epidemic was not as major as the previous spring, since 158 cases were diagnosed and 28 deaths were certified (p.35), a death rate of 17.7%. Lastly, in 1943, there were only five cases in the city, one of whom died (p.37).

As for an institutional response to the epidemic, it should be said that in Valencia, as in the case of Malaga (Jiménez Lucena, 1994, p.50-51), it was led by the city government (Ayuntamiento de Valencia) in collaboration with the Provincial Council (Diputación Provincial). In Valencia, municipal anti-typhus measures followed one of three main points: creation of a health authority to control public and private space, exclusion of the most disadvantaged sectors of the population, and isolation and treatment for those affected. In terms of creating a health authority, on May 13, 1940, the city government approved regulations for a Municipal Health Police Force (Cuerpo de Policía Sanitaria Municipal), charged with inspecting public and private spaces (Pleno..., 2 mayo 1940). Composed of forty officers, its basic function was to check whether municipal anti-typhus measures were being followed, such as, for example, "instructions for cleaning and disinfection of vehicles in the public transport service" (Campaña contra..., 1941). These measures also mandated disinfection of private vehicles (taxis, carriages etc.), and drivers who did not comply were fined (Desinfección..., 30 mayo 1941, 14 jun. 1941). Therefore, the fundamental task of the health police was to fight exanthematic typhus and other infectious diseases through prevention, but based on coercive measures.

The second pillar for the city government's anti-typhus campaign was exclusion of the most disadvantaged sectors of the population. It is worth recalling that after the war, a

large number of people were living in bombed-out buildings, especially around the port and maritime areas. Franco himself witnessed this destruction in a visit to Valencia on the second anniversary of the entry of his troops into the city (El Caudillo..., 1 abr. 1941); as well as a lack of adequate housing, there were numerous beggars and vagabonds on the city streets: "The begging was overwhelming. Everywhere there were people in rags, carrying parasites" (Vidal Jordana, 1946, p.10). It was precisely these most disadvantaged sectors of the population who were most affected by the disease, and the city government orchestrated a set of repressive measures designed to exclude them from society. Just as in Malaga, in Valencia there was a tendency to blame those affected, claiming that "dealing with these indigent people with all kinds of social defects is very difficult, since it requires combining the necessary discipline with a modicum of humanity" (Vidal Jordana, 1946, p.13-14). The city government set up a shelter on Velázquez Street for beggars from outside the city. It also built two shelters for beggars from the city: one was situated on Travesia de la Mar, serving inhabitants of the slums in the port district, while the other, which was next to the Valencian Charity Association, functioned as an extra building for the institution (Memoria..., 30 sep. 1941). Beggars were isolated in these shelters, deloused, and given a certificate that they were parasite-free. They were also given basic health care. Subsequently, beggars who were not from the city of Valencia were "evacuated" to their home towns. In the spring of 1941, this social exclusion policy affected some three thousand people, many of whom jumped off the train immediately after leaving Valencia and fled. These measures displayed a high degree of cynicism and paternalism on the part of Francoist municipal authorities: "We could have resolved, as in other places, to send people back to their home towns ... However, we decided to evacuate the entire floating population whenever we could do it in a humanitarian way, with the minimal health guarantees" (Vidal Jordana, 1946, p.12).

As Jiménez Lucena (1994, p.195) has demonstrated, in terms of blaming the victim, beggars figured prominently in notes in the press; after June 19, 1941, there was a series of calls for donations in the Valencian press, signed by the civil governor. The funds were for the "campaign to evacuate beggars from other regions," and were aimed at private individuals, institutions and companies; with this same "charitable goal," a raffle and three open-air dances were held in the Jardines de Viveros; these were announced by splashy headlines (Campaña pro-evacuación..., 19 jun. 1941, 27 jun. 1941). Thus, the campaign for expelling the beggars was orchestrated by the civil government, which used the Francoist press as a mouthpiece. Another of the measures enacted involved fines and arrests of any concierges who allowed beggars into their buildings (Nota..., 11 jun. 1941). Finally, it should be stressed that the city's own beggars had no more luck, since three hundred of them were "taken in" by the health police and "stowed" in the municipal shelter, where they were kept "with almost no food" and "out in the open." These hard conditions, without the necessary isolation, in turn provoked eighty new cases of exanthematic typhus (Vidal Jordana, 1946, p.13). Although these measures were aimed at preventing the disease and might seem correct from an epidemiological point of view, we do not hesitate to describe them as "repressive" because they were carried out against people's will (expulsions, confinement in unhealthy spaces, penalties etc.), they were based on blaming the patients, and because

they were taken despite the context of a shortage of soap and a lack of running water and even food, in many homes. After the war, municipal policy, encouraged by the Mayor, Joaquín Manglano (1892-1985), the Baron of Cárcer, focused more on urban speculation in the city center – the so-called Avenida del Oeste was one of his emblematic projects – than on repairing the bombed neighborhoods or building adequate housing for workers on the outskirts of the city (Ginés i Sánchez, 2010, p.138-158).

The third axis of the city's struggle against typhus was isolation and treatment of those affected, so in 1941 two former cholera hospitals in the nineteenth century were repurposed. Firstly, the Hospital de San Pablo was turned into a delousing station (Pleno..., 27 ene. 1943). Also, the Hospital de San Antonio, inaugurated in May 1914 (Inauguración..., 16 mayo 1914), was re-opened and re-named the "Municipal Hospital for Infectious Patients;" it held fifty patients and was located on the grounds where the El Cid Municipal Hospital would later be built, with building starting in October 1941 (Memoria..., 30 sep. 1941). Figure 2 shows the former isolation hospital reconverted into a typhus hospital.



Figure 2: Municipal Hospital for Infectious Patients (Vidal Jordana, 1946, p.48)

The Provincial Council, meanwhile, improvised a small facility for infectious patients in part of a farm it owned in the Safranar district, very close to the Municipal Hospital for Infectious Patients (Memoria..., 30 sep. 1941). This facility became known as the "La Granja Hospital for Infectious Patients" (Hospital de Infecciosos de la Granja). It held forty beds, although during the 1941 epidemic, tents had to be erected in the garden to house more patients (Vidal Jordana, 1946, p.13). The physical proximity of both hospitals and

the intensity of the typhus epidemic led to close collaboration between Valencia's city government and the Provincial Council, which involved some dispute over who would pay for housing and feeding the sick (El Sr. Alcalde..., 24 mar. 1941). Even the Director General for Health echoed this circumstance: "In Valencia the problem lay in clarifying how much of the expense caused by the epidemic should be met by the Provincial Council and how much by the city government" (Palanca, 1941, p.438). To prevent new misunderstandings from hampering the fight against typhus, members of both institutions met to determine "rules for work and finances to coordinate which services will be covered by the Right Honorable Provincial Council and which by the Right Honorable City Hall in the campaign against exanthematic typhus and other infections" (Normas..., 1941). Lastly, we should stress that the largest hospital in the city – the Provincial Hospital of Valencia – was only involved for a limited period in the spring of 1941, since it had no isolation ward and no equipment for delousing the patients (Vidal Jordana, 1946, p.11).

Despite all these efforts, the actions of Valencia's city and provincial governments during the 1941 outbreak were clearly inadequate, since they basically involved repurposing old isolation hospitals and improvising an anti-infection facility in a set of farm buildings. This lackluster management by the Valencian health authorities is obvious in the Director General of Health's description, a few years later, of the situation while the outbreak was in full swing: "In June 1941, Valencia had over 200 typhus patients and not a single hospital to house them, to the point that for many weeks they stayed at home, in extremely unhealthy conditions, as is natural. There was only one delousing station, full of defects and half broken" (Palanca, 1943b, p.369).

In the summer of 1941, the Valencian administrations realized the seriousness of the problem, and, taking advantage of the improvement caused by the summer heat, they launched new initiatives. Firstly, the Provincial Council planned to construct an infectious diseases hospital on the site of a farm they owned. Meanwhile, the city government decided to launch a very ambitious project: constructing a brand-new, large infectious diseases hospital to be built on the grounds of the old, overcrowded Municipal Hospital for Infectious Patients (Sánchez Muñoz, 2011, p.79-88).

The Provincial Council presented the Directorate General for Health with a project for constructing a new infectious diseases hospital, and requested one hundred thousand pesetas in funding in March 1942. However, this request was turned down because "the funding is for expenses for the ongoing epidemic, not for buildings that could not help ward off an epidemic" (El Ministerio..., 11 abr. 1942). In November 1942, when the Council had already invested 343,992 pesetas (El arquitecto..., 27 nov. 1942), it once again requested help from the state. However, the Directorate General for Health rejected the request, arguing that according to the law of September 19, 1942, the monies were not for hospitals but for "techno-medical facilities" (La Dirección..., 13 mayo 1943).

Meanwhile, on September 17, 1941, the city government approved construction of a new infectious diseases hospital named El Cid Municipal Hospital for Infectious Patients (Pleno..., 17 sep. 1941). The municipal authorities were aware of the magnitude of the epidemic that had been going on since the spring and they insisted on the need to build this hospital, so work began on October 26, 1941. The project for the El Cid Hospital

included three floors holding four hundred beds, to be built “on the grounds currently occupied by the municipal isolation hospital” (Proyecto..., 8 sep. 1941). However, in its request for funds from the state, the city government referred to “construction to enlarge the current municipal isolation hospital” (Solicitud..., 27 oct. 1941). We believe this ambiguity meant that municipal authorities wanted to get around the funding rules, which stipulated that financing would not be granted for construction, so they presented the project as enlarging a prior construction instead of a brand-new building (which it in fact was). The city government described its intention as follows: “After any period of infection is over, the populace of Valencia always presents a number of infectious diseases that, while not reaching the level of an epidemic, do generate considerable numbers ... always encountering the serious obstacle of the lack of resources” (Proyecto..., 8 sep. 1941).

However, the Directorate General for Health felt that building a hospital from scratch was not an efficient way to combat an ongoing epidemic, so it only granted the city fifty thousand pesetas from funds provided by the state (Pleno..., 20 abr. 1942), a meager sum bearing in mind that the budget for the proposed El Cid Municipal Hospital for Infectious Patients was a total of 4,314,430 pesetas (Proyecto..., 8 sep. 1941). At this point, it is worth highlighting that the mayor of Valencia during this period, Joaquín Manglano, was one of the leading figures among the Valencian Carlists.² Manglano, an aristocrat who represented the local land-owning oligarchy, was not completely in agreement with the goals of the General Directorate for Health, led by José Alberto Palanca, a military officer and monarchist who supported the restoration of the Bourbon monarchy in the person of Alfonso XIII (1886-1941), who had been living in Italy since the proclamation of the Second Republic in 1931.



Figure 3: Construction on the El Cid Municipal Hospital Municipal for Infectious Patients, c.1943 (Vidal Jordana, 1946, p.48)

Reality ultimately proved the Directorate General for Health to be right, since work on the new infectious diseases hospital had to be suspended in late 1943, when the typhus epidemic was deemed to be under control. The high final cost of the project meant that the city could not afford the maintenance and management costs, and at the end of the decade, the hospital – which was actually only half-built – was handed over to the National Insurance Institute (Instituto Nacional de Previsión) and became part of the Social Security network, under the Ministry of Labor. It was renamed the “General Sanjurjo Nursing Home,” and eventually developed into the current Dr. Peset University Hospital (Sánchez Muñoz, 2011, p.88-90).

Returning to the chronology of the epidemic, in the spring of 1942 there was an upturn in cases, which underscored the state’s judgement that building hospital infrastructure was not an effective way of “preventing an epidemic” (El Ministerio..., 11 abr. 1942). This upturn once again betrayed gaps in the health care system; for example, the Infectious Patients’ Hospital at La Granja did not possess effective delousing equipment: boilers, water heaters and “hydrogen cyanide chambers,” as recommended by public health manuals at the time (Moróder, 1941; Clavero del Campo, Pérez Gallardo, 1941; Quintana López, Díaz de Rada, 1942). Likewise, there was no typhus vaccine available for health care workers, nor clean clothes for the patients (La Jefatura..., 1 abr. 1942). Meanwhile, throughout 1942, the strategy of blaming the patients continued. It is in this context that we should place this press report about cleanliness as the essential way to combat the disease: “We know the disease, how it propagates, and what its prophylactic antidote is: the most immaculate cleanliness. But it has to be collective. Defense must be of an offensive nature ... and an intensified attack must be waged on slovenly and dirty people” (Contra..., 26 feb. 1942).

Curiously, on the same page in the newspaper is another report on soap rationing. Furthermore, after the Civil Government identified the working class as another group responsible for the latest typhus outbreak, obligatory showers were instituted so employees did not have to miss work, and shaved hair was required for “all those workers whose external appearance does not offer guarantees of conscientious daily hygiene” (Planas de Tovar, 18 mar. 1942). The reappearance of the disease caused a rise in repressive measures, which points to an implicit recognition that the local health authorities were unable to get the crisis back under control.

Final considerations

In the period immediately after the war in Spain, the ideal three conditions converged for an exanthematic typhus outbreak: hunger, poor hygiene, and overcrowding. The Francoist health authorities, however, were aware that acknowledging their failure to deal with this sensitive socio-medical issue would hinder legitimization of the regime. As a result, they articulated a discourse surrounding the causes of the epidemic that followed the argument of “winners and losers,” which tended to blur the lines between controlling disease and maintaining public order. José Alberto Palanca maintained that the hardship and malnutrition suffered by the Republican zone in particular had caused the appearance of the epidemic at the end of the war. Palanca also boasted that in the Rebel zone there

were no supply problems. According to this thinking which can be described as simplistic at best, the incidence of typhus in cities and provinces where the military coup won early victories, such as Granada, Seville and Cadiz, should have been minimal, whereas in fact it was the exact opposite. On the other hand, the typhus epidemic in Valencia should have resulted in a high numbers of cases; however, our work shows that the morbimortality figures in Valencia were in fact rather modest. All of this would seem to indicate, then, that political propaganda on the part of the regime played an important role in the visible struggle against the typhus epidemic that devastated Spain in the early postwar years, which coincided with the early years of World War II and the framework of health internationalism in the “New Europe,” led by Nazi Germany.

As for the city of Valencia, we have identified that social exclusion mechanisms were used by the local authorities to prevent the typhus epidemic from undermining legitimization of the new regime. Besides political propaganda, these mechanisms were deployed in measures against those affected, such as penalties, expulsions and confinement in unhealthy spaces, actions that allow us to see that the local Francoist authorities simplified the concept of a health campaign, reducing it to a question of public order.

On the other hand, local health officials in Valencia decided to plan construction of a large hospital; however, we believe the goal of this project was not really to fight typhus, since building a hospital while an epidemic is going on cannot be considered an effective way to fight the disease. Our hypothesis is backed by Francoist legislation at the time, since neither the funding approved in 1941 nor the law of September 19, 1942 were intended to finance hospitals. The mayor of Valencia’s goal was, rather, to finance a municipal hospital by using the funding in an exceptional epidemiological context. We should keep in mind the possibility of clashes between different factions of the Francoist movement over control of health policy. On the one hand were the Carlists, who included the mayor of Valencia; and on the other were the military monarchists, who included José Alberto Palanca, the Director General for Health; and lastly, there was the Falange, the ruling fascist party, controlled by Franco, that enacted Mandatory Health Insurance (*Seguro Obligatorio de Enfermedad*) in 1942 (España, 27 dic. 1942).

Once local health authorities had embarked on building a large hospital, and gone into debt, they did not devote their limited resources to the disease-control measures advocated by epidemiologists at the time: delousing methods (based on heat: boilers, stoves, water heaters; chemical methods: hydrogen cyanide chambers), acquiring typhus vaccines, distributing clean clothes among the sick, and building low-income government housing.

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NOTES

¹ This is a technique for curing infestations of parasites or rats, and it was much used at the time, both in ships and in buildings. It involved fumigation of a closed space with hydrogen cyanide, a highly poisonous, volatile liquid.

² Ever since the reign of Fernando VII (1784-1833), the Carlists had advocated the legitimacy of a different line of succession than the Bourbon monarchy, setting off a dynastic struggle that sparked three wars during the course of the nineteenth century. During the Spanish Civil War (1936-1939), Alfonso Carlos de Borbón, along with his supporters, the so-called Carlists (who saw him as the legitimate heir to the throne), gave all their moral, economic and logistic support to the rebel side led by General Franco, making a decisive contribution to the victory of the military and the establishment of an authoritarian regime that has been described as “national Catholicism.”

REFERENCES

- ASPECTO...
Aspecto sanitario del problema de la vivienda en Valencia. *Las Provincias*. 4 feb. 1942.
- BARONA VILAR, Carmen.
Las políticas de la salud: la sanidad valenciana entre 1855 y 1936. Valencia: Publicacions de la Universitat de València. 2006.
- BARONA VILAR, Josep Lluís.
La salud de la población según los informes internacionales (1936-1940). Madrid: Sociedad Estatal de Conmemoraciones Culturales. 2006.
- BARONA VILAR, Josep Lluís.
Salud, enfermedad y muerte: la sociedad valenciana entre 1833 y 1939. Valencia: Institutió Alfons el Magnànim. 2001.
- BARONA VILAR, Josep Lluís; PERDIGUERO-GIL, Enrique.
Health and the war: changing schemes and health conditions during the Spanish civil war. *Dynamis*, v.28, p.103-126. 2008.
- BERNABEU-MESTRE, Josep.
La salut pública que no va poder ser: José Estellés Salarich (1896-1990): una aportació valenciana a la sanitat espanyola contemporània. Valencia: Consell Valencià de Cultura. 2007.
- BRYDAN, David.
Axis Internationalism: Spanish health experts and the nazi “New Europe”, 1939-1945. *Contemporary European History*, v.25, n.2, p.291-311. 2016.
- CAMPAÑA CONTRA...
Campaña contra el tifus exantemático: profilaxis en los servicios públicos. Fomento, Obras Públicas, caja 53. (Archivo Histórico Municipal de Valencia, Valencia). 1941.
- CAMPAÑA PROEVACUACIÓN...
Campaña proevacuación de mendigos y vagabundos de otras regiones. *Las Provincias*. 27 jun. 1941.
- CAMPAÑA PROEVACUACIÓN...
Campaña proevacuación de mendigos y vagabundos de otras regiones. *Las Provincias*. 19 jun. 1941.
- CLAVERO DEL CAMPO, Gerardo; PÉREZ GALLARDO, Florencio.
Tifus exantemático: etiología, clínica, profilaxis. Madrid: Gráficas Aguado. 1941.
- CONTRA...
Contra el exantemático. *Las Provincias*. 26 feb. 1942.
- DEL ARCO BLANCO, Miguel Ángel.
“Morir de hambre”: autarquía, escasez y enfermedad en la España del primer franquismo: pasado y memoria. *Revista de Historia Contemporánea*, v.5, p.241-258. 2006.
- DEL CURA GÓMEZ, María Isabel; HUERTAS GARCÍA, Rafael.
Alimentación y enfermedad en tiempos de hambre: España, 1937-1947. Madrid: CSIC. 2007.
- DESINFECCIÓN...
Desinfección obligatoria. *Las Provincias*. 14 jun. 1941.
- DESINFECCIÓN...
Desinfección obligatoria. *Las Provincias*. 30 mayo 1941.
- EL ARQUITECTO...El arquitecto informa al presidente de la Diputación de los gastos de las obras en el Hospital de la Granja. D.2.2, caja 178 (Archivo de la Diputación Provincial de Valencia, Valencia). 27 nov. 1942.
- EL CAUDILLO...
El caudillo en Valencia. *Las Provincias*. 1 abr. 1941.
- EL MINISTERIO...
El ministerio de la Gobernación deniega ayuda económica a la Diputación de Valencia. D.2.2, caja 178 (Archivo de la Diputación Provincial de Valencia, Valencia). 11 abr. 1942.

EL MUY ILUSTRE...

El muy ilustre señor don Manuel Corachán García. *La Vanguardia Española*. 5 feb. 1942.

EL SR. ALCALDE...

El Sr. alcalde del Ayuntamiento de Valencia interesa el concurso de la Corporación Provincial para el Hospital Municipal de Infecciosos. D.2.2, caja 177 (Archivo de la Diputación Provincial de Valencia, Valencia). 24 mar. 1941.

EN BREVE...

En breve llegará a esta ciudad el famoso profesor Dr. Mooser. Colaborará en la preparación de medios profilácticos contra el tifus. *La Vanguardia Española*. 8 feb. 1942.

ESPAÑA.

Ley de 14 de diciembre de 1942 por la que se crea el seguro obligatorio de enfermedad. *Boletín Oficial del Estado*, v.7, n.361, p.10592-10597. 27 dic. 1942.

ESPAÑA.

Ley de 19 de septiembre de 1942 por la que se modifica el concepto que en el presupuesto en vigor de la sección tercera de obligaciones de los departamentos ministeriales, "Ministerio de la Gobernación", figura destinado a combatir la aparición de epidemias de carácter anormal o pestilencial, en el sentido de incluir en él los gastos que ocasionen otras enfermedades endémicas y las subvenciones a corporaciones públicas u organismos oficiales que colaboren con el Estado en la lucha antiepidémica. *Boletín Oficial del Estado*, v.7, n.274, p.7736. 1 oct. 1942.

FUNERALES...

Funerales en sufragio del alma del doctor Corachán. *La Vanguardia Española*. 7 feb. 1942.

GARCÍA FERRANDIS, Xavier.

L'assistència sanitària a la ciutat de València durant la Guerra Civil (1936-1939). Valencia: Publicacions de la Universitat de València. 2015.

GARCÍA FERRANDIS, Xavier.

Aspectos epidemiológico-asistenciales de la tuberculosis en Valencia durante la Guerra Civil española y la posguerra inmediata (1936-1941). *Llull: Revista de la Sociedad Española de Historia de la Ciencia*, v.36, n.77, p.13-34. 2013.

GARCÍA FERRANDIS, Xavier; MARTÍNEZ-VIDAL, Àlvar.

L'assistència hospitalària en un dels principals bastions republicans durant la Guerra Civil espanyola: la ciutat de València. *Afers: Fulls de Recerca i Pensament*, v.31, n.84, p.365-389. 2016.

GINÉS I SÁNCHEZ, Andreu.

La instauració del franquisme al País Valencià. Valencia: Publicacions de la Universitat de València. 2010.

GRACIÁN CASADO, Miguel.

La profilaxis del tifus exantemático por medio de la vacunación. *Revista Española de Medicina y Cirugía de Guerra*, v.7, p.387-399. 1941.

HARDEN, Victoria A.

Epidemic typhus. In: Kiple, Kenneth F. (Ed.). *The Cambridge world history of human disease*. Cambridge: Cambridge University Press. p.1080-1084. 1993.

HARDY, Anne.

Urban famine or urban crisis? Typhus in the Victorian city. *Medical History*, v.32, n.4, p.401-425. 1988.

HERNÁNDEZ HOLGADO, Fernando.

La prisión militante: dos cárceles femeninas de la posguerra franquista: Ventas (Madrid) y les Corts (Barcelona), 1939-1945. In: Barrié, Roger; Camiade, Martine; Font, Jordi (Ed.). *Déplacements forcés et exils en Europe au XXe siècle: le corps et l'esprit*. Perpignan: Talaia. p.213-231. 2013.

INAUGURACIÓN...

Inauguración del Hospital de San Antonio. *La Voz de Valencia*. 16 mayo 1914.

JIMÉNEZ LUCENA, Isabel.

Medicina social, racismo y discurso de la desigualdad en el primer franquismo. In: Huertas García, Rafael; Ortiz García, Carmen (Ed.). *Ciencia y fascismo*. Madrid: CSIC. p.111-126. 1998.

JIMÉNEZ LUCENA, Isabel.

El tifus exantemático de la posguerra española (1939-1943): el uso de una enfermedad colectiva en la legitimación del "Nuevo Estado". *Dynamis*, v.14, p.185-198. 1994.

JIMÉNEZ LUCENA, Isabel.

El tifus en la Málaga de la posguerra: un estudio histórico-médico en torno a una enfermedad colectiva. Tesis (Licenciatura) – Universidad de Málaga, Málaga. 1990.

LA DIRECCIÓN...

La Dirección General de Sanidad deniega ayuda económica a la Diputación de Valencia. D.2.2, caja 179 (Archivo de la Diputación Provincial de Valencia, Valencia). 13 mayo 1943.

LA JEFATURA...

La Jefatura Provincial de Sanidad denuncia deficiencias en el Hospital de la Granja. D.2.2, caja 178 (Archivo de la Diputación Provincial de Valencia, Valencia). 1 abr. 1942.

MARÍ BALCELLS, Víctor J.

El doctor Manuel Corachán y García: su vida: análisis crítico de su obra. Barcelona: Tesis (Doctorado en Medicina) – Universidad Autónoma de Barcelona, Barcelona. 1981.

- MARSET CAMPOS, Pedro; SÁEZ GÓMEZ, José Miguel; MARTÍNEZ NAVARRO, Ferran. La salud pública durante el franquismo. *Dynamis*, v.15, p.211-250. 1995.
- MEMORIA...
Memoria de los trabajos efectuados por el Excmo. Ayuntamiento de Valencia en relación con la campaña contra el tifus exantemático. Fomento, Obras Públicas, caja 53 (Archivo de la Diputación Provincial de Valencia, Valencia). 30 sep. 1941.
- MENÉNDEZ NAVARRO, Alfredo. Politics of silicosis in interwar Spain: Republican and Francoist approaches to occupational health. *Dynamis*, v.28, p.77-102. 2008.
- MIR CURCÓ, Conxita (Ed.). La represión bajo el franquismo. *Ayer*, n.43, p.11-188. 2001.
- MOLERO MESA, Jorge. Health and public policy in Spain during the early francoist regime (1936-1951): the tuberculosis problem. In: Löwy, Ilana; Krigge, John (Ed.). *Images of disease: science, public policy and health in post-war Europe*. Luxembourg: Office for Official Publications of the European Communities. p.141-165. 2001.
- MOLERO MESA, Jorge. Enfermedad y previsión social en España durante el primer franquismo (1936-1951): el frustado seguro obligatorio contra la tuberculosis. *Dynamis*, v.14, p.199-225. 1994.
- MOLERO MESA, Jorge. La muerte blanca a examen: nuevas tendencias en la historiografía de la tuberculosis. *Dynamis*, v.11, p.345-360. 1991.
- MOOSER, Hermann. *Tres conferencias sobre tifus exantemático*. Barcelona: Hospital Municipal de Infecciosos de Barcelona. 1943.
- MORÓDER, Juan. *Teoría y práctica de sanidad pública para médicos y sanitarios*. Barcelona: Salvat. 1941.
- NORMAS...
Normas de trabajo y económicas para armonizar los servicios que corresponden a la Excmo. Diputación y al Excmo. Ayuntamiento en la campaña contra el tifus exantemático y otras infecciones. D.2.2, caja 177 (Archivo de la Diputación Provincial de Valencia, Valencia). 1941.
- NOTA...
Nota del Gobierno Civil. *Las Provincias*. 11 jun. 1941.
- ORTEGA OSONA, José Antonio; SILVESTRE RODRÍGUEZ, Javier. Las consecuencias demográficas. In: Martín Aceña; Martínez Ruiz, Elena (Ed.). *La economía de la guerra civil*. Madrid: Marcial Pons Historia. p.53-106. 2006.
- PALACIO LIS, Irene; RUIZ RODRIGO, Cándido. *Infancia, pobreza y educación en el primer franquismo*. Valencia: Publicacions de la Universitat de València. 1993.
- PALANCA, José Alberto. Las últimas epidemias. *Semana Médica Española*, v.8, p.305-309. 1943a.
- PALANCA, José Alberto. Las epidemias de la postguerra. *Semana Médica Española*, v.7, p.359-375. 1943b.
- PALANCA, José Alberto. *Trabajos realizados en la campaña de lucha contra el tifus exantemático (1941-1942)*. Madrid: Ministerio de la Gobernación, Dirección General de Sanidad. 1943c.
- PALANCA, José Alberto. Hacia el fin de una epidemia. *Semana Médica Española*, v.4, p.432-440. 1941.
- PEÑÍN IBÁÑEZ, Alfonso. *Valencia 1874-1959: ciudad, arquitectura y arquitectos*. Valencia: Escola Tècnica Superior d'Arquitectura de la Universitat Politècnica de València. p.183-184, 191-199. 1978.
- PÉREZ PUCHAL, Pedro. Natalidad, fecundidad y mortalidad en la ciudad de Valencia. *Saitabi*, n.23, p.117-134. 1973.
- PLANAS DE TOVAR, Francisco. [Disposiciones contra el tifus]. *Boletín Oficial de la Provincia de Valencia*. 18 mar. 1942.
- PLENO...
Pleno del Ayuntamiento. I.A-50 (Archivo Histórico Municipal de Valencia, Valencia). 27 ene. 1943.
- PLENO...
Pleno del Ayuntamiento. I.A-49 (Archivo Histórico Municipal de Valencia, Valencia). 20 abr. 1942.
- PLENO...
Pleno del Ayuntamiento. I.A-48 (Archivo Histórico Municipal de Valencia, Valencia). 17 sep. 1941.
- PLENO...
Pleno del Ayuntamiento. D-449 (Archivo Histórico Municipal de Valencia, Valencia). 2 mayo 1940.

PROYECTO...

Proyecto de Hospital Municipal del Cid. Memoria. Fomento, Obras Públicas, caja 53. (Archivo Histórico Municipal de Valencia, Valencia). 8 sep. 1941.

QUINTANA LÓPEZ, Primitivo de la; DÍAZ DE RADA, Andrés.

Tifus exantemático: etiología, epidemiología y profilaxis. Madrid: Espasa-Calpe. 1942.

RODRIGO, Javier.

Los instrumentos de la violencia fascista: reeducación política y transformación identitaria en la España en guerra civil. In: Barrié, Roger; Camiade, Martine; Font, Jordi (Ed.). *Déplacements forcés et exils en Europe au XXe siècle: le corps et l'esprit*. Perpignan: Talaia. p.195-211. 2013.

RODRÍGUEZ OCAÑA, Esteban.

Por razón de ciencia: la Fundación Rockefeller en España (1930-1941). In: Campos Marín, Ricardo; González de Pablo, Ángel; Porras Gallo, María Isabel; Montiel, Luis (Ed.). *Medicina y poder político*. Madrid: Sociedad Española de Historia de la Medicina. p.473-477. 2014.

SÁNCHEZ MUÑOZ, David.

Arquitectura en Valencia (1939-1957). Tesis (Doctorado en Historia del Arte) – Universitat de València, Valencia. 2011.

SERRALLONGA URQUIDI, Joan.

El cuento de la regularización sanitaria y asistencial en el régimen franquista: una primera etapa convulsa, 1936-1944. *Historia Social*, n.59, p.77-98. 2007.

SNYDER, John C.

Typhus fever in the Second World War. *California Medicine*, v.66, n.1, p.3-10. 1947.

SOLICITUD...

Solicitud de financiación para el Hospital Municipal del Cid. Fomento, Obras Públicas, caja 53 (Archivo Histórico Municipal de Valencia, Valencia). 27 oct. 1941.

VIDAL JORDANA, Javier.

El brote epidémico de tifus exantemático en Valencia, años 1941-1943: consideraciones epidemiológicas. Discurso leído en la recepción del Dr. D. Javier Vidal Jordana el día 7 de junio de 1946 y contestación del académico numerario D. Fernando Rodríguez Fornos. Valencia: Instituto Provincial de Sanidad de Valencia. 1946.

VIDAL JORDANA, Javier.

Nota resumen del tifus exantemático en Valencia: años 1941-1943: cómo hemos resuelto algunos problemas. *Revista de Sanidad e Higiene Pública*, v.17, n.6, p.571-599. 1943.

