RISAD
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Neoliberalism and their effects on public health services: The case of health workers facing the covid-19 pandemic

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Abstract

Neoliberalism weakened the public health system, and the pandemic reflected the contradictions of its neglect. The objective of the work is to analyze the relationship between the structural conditions that neoliberalism has generated in public health services and its impact on the working conditions of health personnel who treated patients infected with covid-19. The methodology used is descriptive statistics with information from primary sources through a questionnaire of 23 items for convenience and secondary sources from INEGI, WHO, OECD and ECLAC. The questionnaire was applied from December 2020 to January 2021, given the sanitary conditions, it was applied electronically, taking care of the confidentiality of the worker. The main results are: the increase in the working day from 8 to 12 hours a day, regular salary perception, which implied that employees must have a second job in 36%, the risk of work increased, 100% of the sample had an infected colleague and 83% a colleague who died, in terms of health protection, 40% considered it insufficient, 98.4% of the sample has high stress, which deteriorates the worker's living conditions. The implications are serious for the country and for workers who work in adverse conditions, the needs of the sector must be met immediately, increasing the budget for infrastructure and promoting the specialization of workers.

Key Words

Neoliberalism, structural change, healthcare workers, work intensity, working conditions. Reference JEL: E-24, E-61, J-01.

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Introducción

The World Health Organization (WHO) declared on March 11, 2020 that the world was facing a pandemic caused by the SARS-CoV2 virus that causes Covid-19 disease. The phenomenon was taken with surprise and disbelief. In Mexico the measures to face the pandemic have internal guidelines and take the recommendations of the World Health Organization. Prevention and control of Covid-19 disease among the population are fundamental to mitigate health, economic and social effects. In Mexico, the National Day of Healthy Distance was decreed on March 24, 2020, with social distancing measures to reduce the risk of spreading the virus, which led to the total closure of economic, cultural and social activities, hence, some work activities were moved on into a virtually modality, especially those related to the commerce of goods and services, (DOF, 2020).

The global economic context at the beginning of the pandemic was of a low growth of 2.6%, due to international problems such as: the tariff war between the United States and China, which ended up having repercussions on Mexico's economic performance. The country presented recession in the Gross Domestic Product (GDP), in the last two quarters of 2019, which deepened in -8.5% in 2020, the largest drop since 2008. The pandemic has aggravated the effects of the economic crisis; however, the problem has been faced since the 80s with the orientation of the economy to the market and private enterprise, that is called as neoliberalism, which have their effects on the health system (Valdemar Díaz, 2021). Thus, the research question arises: What are the consequences of the structural conditions of the neoliberal accumulation pattern in the health services, specifically in the working conditions of health personnel caring for patients infected with covid-19?

The mercantilization of health care in Mexico takes place in a context of social and economic inequality. The public health sector was weakened to face the pandemic, in terms of infrastructure and existing health personnel. Thus, the aim of this document is to analyze the relationship between the structural conditions generated by the neoliberal accumulation pattern in health services and its repercussion on the working conditions of health personnel attending patients infected by Covid-19, through a sample of health personnel in the Metropolitan Zone of the Valley of Mexico. The work is important on a national scale because it is included in the context of the discussion on the reorganization of the health sector and the permanent call for new positions for medical specialists, within this framework the conditions in infrastructure, salary level and safety of health personnel at present and the result of the historical process are questioned, therefore, the discussion suggested by the document is not only relevant, but necessary for the country, not only because it captures the conditions at the peak of the pandemic, but because it suggests the transformation of the health sector as a result of the health emergency.

The hypothesis of this work is: The pandemic deepened the economic crisis that has been brewing since the last two quarters of 2019 and revealed the precariousness and deficiency in the country's public health services, where health workers are the ones affected due to

increased work intensity, greater occupational risk, insufficient supplies and generally instability at work, resulting in increased stress among health workers.

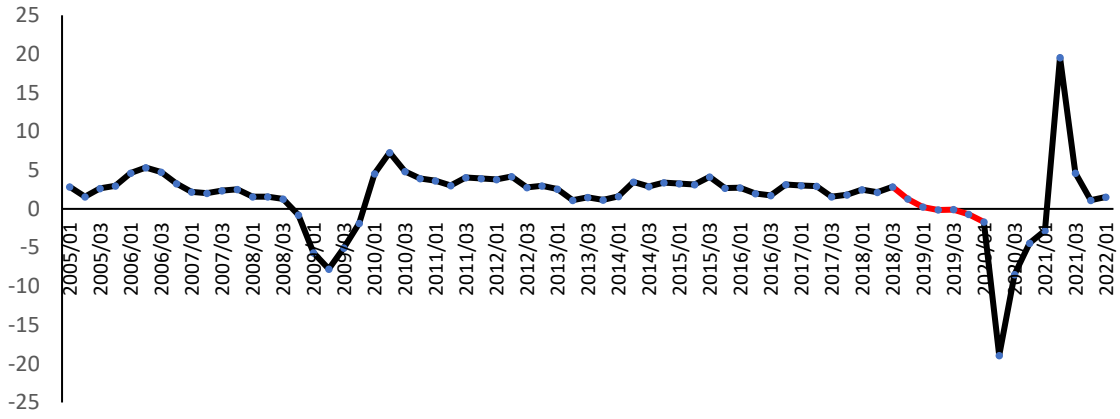
The work hypothesis is divided into 4 sections, the first is the literature review which is subdivided into 4 sections: structural conditions of Mexico before the pandemic, structural changes of neoliberalism and the effects in the public health scheme, structural changes in public health institutions and effects of neoliberalism on health workers. The second section is the methodology; it is broken down into the instruments and the analysis procedure. The third section is the results and discussion where the intensity and working conditions of health employees of 10 hospitals that treated covid-19 disease from 8 areas are described and analyzed, regarding the type of contract, working day, means of work, number of patients attended, salary, vacations, unpaid activities, and the level of stress they have. The last section contains final reflections on the effects of the structural changes of neoliberalism in relation to the affectation of the public health system and its effects on the health workers who faced the pandemic.

1. Literature review

1.1. Structural conditions in Mexico before the pandemic

The economic conditions in which Mexico faced the pandemic have a not very encouraging precedent, since the world economy had a poor growth in 2019, the world Gross Domestic Product (GDP) was 2.6%, the lowest since the economic crisis of 2008 which was 2% and in 2009 -1.3% (WB, 2022). Trade conflicts between the United States and China affected the dynamics of global trade. In Mexico, the GDP presented a meager performance since 2018, while, the decline began in the third quarter of 2019 whose annual rate was -0.03%, for fourth quarter the decrease stood at -0.64% with data from the National Institute of Statistics and Geography (INEGI, 2021). The Mexican economy was in a deceleration prior to the covid-19 crisis, see chart 1, the part highlighted in red shows the fall since 2019, the pandemic accentuated the national and global fall.

Chart 1. Annual change in Mexico's GDP from 2005 to 2022



Note: Series is annual change at 2013 prices, seasonally adjusted series.
Source: Own elaboration with data from BIE-INEGI. https://www.inegi.org.mx/sistemas/bie/

Economic crises are the normal cyclical behavior of the capitalist production system. The causes are different depending on the event; for the 1929 crisis it is attributed to the overproduction of commodities, together with the overvaluation of financial instruments (López Fernández, 2009), while the 2008 crisis is attributed to the financialization of the economy, the excessive issuance of junk bonds and the low regulation by the State of financial markets (Lapavitsas, 2011), and the 2020 crisis to the covid-19 pandemic.

From the point of view of the critique of political economy, crises have their origin in the downward trend of the rate of profit. The economic cycle is the manifestation of the incessant need to recover and increase the profitability of capital, to achieve the increase in the rate of profit implies increasing the exploitation of the worker by extending the working day or intensifying it, which implies, strictly speaking, the constant, growing and incessant technological innovation (Roberts, 2016). Intensity occurs when a single worker must operate a greater amount of constant capital and inputs for production, as a result, a greater amount of goods (Marx, 2004), it is also extensible to the service sector as in the case of health workers, education, food preparation, among others.

The economic crises have reoriented the course of the process of capital accumulation and the form of extraction of surplus value, from which derives the change in the structure of capitalism itself, in which the organization of production is reoriented. In the crisis of 1970-1980, in order to reorganize the productive structure, the protectionist pattern of accumulation was modified by the neoliberal one. The pattern of accumulation is understood as the set of characteristics acquired by the economic functioning at a given moment, in the words of Valenzuela (1997) there are 5 dimensions: a) ideology or doctrine, b) economic policy, c)

participation of the State in the economy, d) production of surplus and c) social classes. In Mexico, the neoliberal period is determined from the 1980s to the present day, where economic policy in general is oriented to the market as the great regulating entity.

The neoliberal accumulation pattern is based on the free market, private enterprise, orientation to the external market, intensity in the employment of the labor force, hyper-exploitation of natural resources and the role of the State as a simple regulator of the economic system and the assumption of losses of private origin, these are the main characteristics of the currently dominant pattern (Dabat, Hernández and Vega, 2005).

The neoliberal accumulation pattern is constituted through economic transformation or structural changes with social impact. The most outstanding change is productive organization and labor flexibility, which requires: eliminating obstacles to hiring and firing, variability in the salary earned by workers according to the labor market, which implies the need to eliminate, modify and simplify labor laws for the protection of workers, such as: collective bargaining, unionization and social security (De la Garza Toledo, 2002). Labor flexibility leads to labor precariousness or deterioration of working conditions: job instability and/or job insecurity, non-formal labor relations, wage precariousness, gender disparity and in general labor vulnerability (Martínez-Licerio, Marroquín Arreola and Ríos Bolívar, 2019).

[1] "in 1994... the modification according to the employers would be: 1. Functional and geographic mobility with multi-skills, 2) temporary, hourly or short-time contracts, 3) rationalize grounds for termination of contracts, 4) limitations on liability in labor lawsuits for payment of lost wages, 5) hourly pay, 6) democratize the strike: prior to the outbreak of a strike, accredit the majority will of the workers with a secret ballot; 7) elimination of conciliation and arbitration boards, 8) elimination of legal contracts, 9) establishment of training contracts that do not imply an employment relationship, 10) elimination of the blind scale and change it to a scale by capacity, 11) establishment of labor benefits in accordance with the conditions of each company, 12) elimination of the exclusion clause for entry and separation, 13) freedom to join unions and 14) apolitical unionism, elimination of the relationship with political parties" (De la Garza Toledo, 2002, p. 7). 7).

Therefore, the economic crisis of Covid-19 has provided sufficient information to move towards a productive restructuring and with it a new form of work organization, where labor flexibility through telecommuting or home office will tend to develop in a more established way (Ezequiel Vidiella, 2021). In the case of health workers, labor flexibility should not have a place, but in the public sector it should be strengthened, since the pandemic put the health system in check in terms of infrastructure and highly specialized medical personnel, in this situation the tendency will be to reverse the problem of infrastructure and health personnel.

1.2. Structural changes of neoliberalism and impact on the public health system

During the pandemic, remote work became the way to carry out commercial and service activities, as a result, the increase in productivity and lower operating costs, since these are borne by the worker as the payment of electricity, internet, computer, camera and other materials that are essential for work performance at home, implying a social inequality of those who can work through this way and those who cannot (Weller Jürgen, 2020).

In the case of health workers, they have also increased the intensity of work, not only because of the conditions generated by the pandemic, but also because the conditions of infrastructure and medical supplies were diminished, as well as insufficient health personnel. The problem has its antecedents with the entry into force of the neoliberal model in the provision of public services. According to Martínez and Soto-Reyes (2012), the Washington Consensus, in its section on public spending, states the following:

> Reordering of public spending priorities: such reordering would be carried out starting from cutting public spending to reduce the budget deficit without resorting to taxes. Public administration subsidies, mainly to parastatal companies, would be the first to suffer, since the allocation of these resources was considered wasteful; the gradual elimination of subsidies would allow the allocation of these resources in strategic areas of a social nature (p. 47).

The social strategy in health began with budgetary containment, from 1988-1994 the foundations were laid for the slimming down as a public institution of the Mexican Social Security Institute (IMMS), as a way of following the plan of the international organizations for Mexico and Latin America of the World Bank (WB) and the International Monetary Fund (IMF) that, health should also be oriented to the market and private enterprise.

6 The Washington Decalogue has 10 main points: 1) fiscal discipline, 2) reordering of public spending priorities, 3) tax reform, 4) financial and interest rate liberalization, 5) flexible exchange rate or free

floating market, 6) free trade, 7) liberalization of foreign direct investment, 8) privatization of public enterprises, 9) deregulation and 10) property rights (Martínez and Soto-Reyes, 2012).

The results of neoliberal policies can be seen in Tables 1 and 2. The first shows the number of doctors per 1000 inhabitants in the Mexican Republic, where the growth in 16 years has been 0.66 doctors. In 2021, there were 2.4 physicians per 1,000 inhabitants, that is, in 21 years there has only been an increase of 1.2 physicians, which is below the OECD average of 3.5 physicians per 1,000 inhabitants (INEGI, 2021). It is important to note that the data does not include the situation in places with less than 1,000 inhabitants or rural areas.

Chart 1. Number of physicians per 1,000 inhabitants at the national level	
2016	1.84
2015	1.8
2014	1.71
2013	1.64
2012	1.59
2011	1.58
2010	1.49
2009	1.49
2008	1.45
2007	1.41
2006	1.38
2005	1.32
2004	1.25
2003	1.18
2002	1.18
2001	1.19
2000	1.18
Número de médicos (generales, especialistas, pasantes, internos y residentes) en contacto con el paciente en (de) instituciones públicas de salud, por cada mil habitantes, en un año y área geográfica determinados. El nombre es el utilizado a nivel internacional, aunque el indicador solo haga referencia a los médicos en instituciones públicas.	

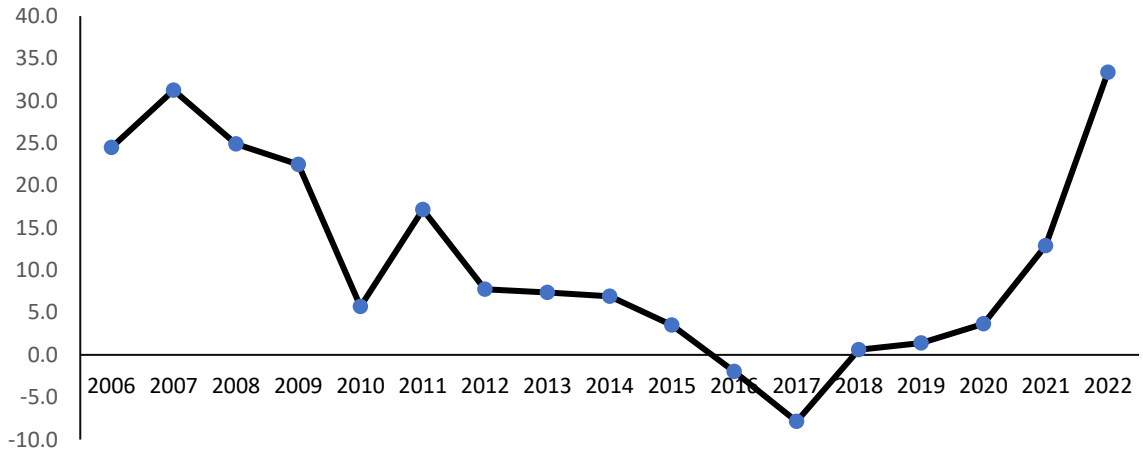
Chart 2. Public spending on health as a percentage of GDP	
2020	3.15 %
2019	2.68 %
2018	2.67 %
2017	2.76 %
2016	2.85 %
2015	2.99 %
2014	2.89 %
2013	3.12 %
2012	3.01 %
2011	2.91 %
2010	2.88 %
2009	2.86 %
2008	2.62 %
2007	2.53 %
2006	2.42 %
2005	2.47 %
2004	2.59 %
2003	2.41 %
2002	2.17 %
2001	2.11 %
2000	2.01 %

Source: Own elaboration with data from

Catálogo Nacional de Indicadores (snieg.mx) and https://datosmacro.expansion.com/estado/gasto/salud/mexico#:~:text=Esta%20cifra%20supone%20que%20el,2%2C68%25%20del%20PIB.

Chart 2 shows public spending as a percentage of GDP, it is observed that in 2020 it was the largest budget in the last 20 years, due to the health emergency, however, it is lower than the average spent by OECD countries of 8.8%, includes pension payments (OECD, 2019, p. 152). Chart 2 corroborates the information on the drop in the health expenditure budget. The budget was contained, i.e., it remained constant to meet the most basic needs, without considering population growth, as well as the growth in life expectancy, which compromises health services and pension payments.

Chart 2. Percentage variation of the public health budget



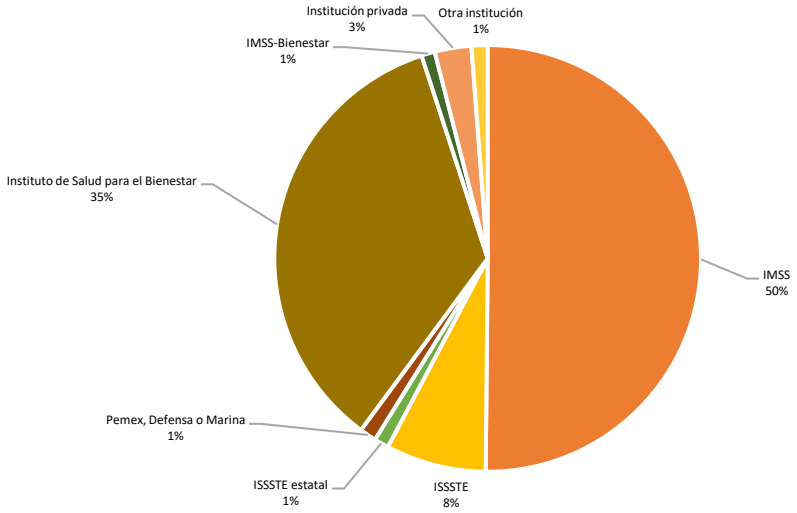
Source: Prepared by the authors with data per year from the Federal Expenditure Budget. https://www.pef.hacienda.gob.mx/

The pandemic demonstrated that the private sector was not the option to face a social problem, for example what happened in the United States, with 83.2 million cases and more than 1 million deaths, the population without access to health insurance by 2018 was 27.5 million, and those who have insurance are insufficient because they only cover a portion of the cost of consultation and treatment (BBC, 2022), which led to a serious situation in one of the most developed countries in the world. The scheme that was intended to be implemented in Mexico with the neoliberal reforms was aimed at a private service, similar to that of the United States, which demonstrated its inability to serve the population, given that the pandemic was a worldwide social catastrophe and a robust, public and social health service was needed.

1.3. Structural changes in public health institutions

IMSS attends 50% of the insured population[4], see chart 3. However, the services offered by the public institution should have been increased in proportion to the economically active population, in order to have the capacity to serve the employed population and those to be employed. However, the deterioration of the country's economic conditions has led to an increase in informal employment, which includes: self-employed agricultural (subsistence work and backyard economy) and non-agricultural workers, unpaid work and work with economic units that are not legally registered. During the pandemic, informal work went from 55.4% in 2020 to 55.8% in 2021 (INEGI, 2022), more than half of the employed population is informal and generates 30% of the added value in the national economy. The increase in informality implies that they do not have access to public health services and are paid by workers.

Chart 3. Population with health services according to affiliation in 2020



Source: Own elaboration with data from INEGI. https://www.inegi.org.mx/temas/derechohabiencia/

In order to lighten the monetary burden of public service, the IMSS Law underwent an important reform in 1997, in which services were made more flexible and the pension and

[4] Desde sus inicios es sistema de salud pública "recae en tres entidades principales: el Instituto Mexicano del Seguro Social, que atiende a la población trabajadora que labora en las empresas del sector privado; el Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado que, como su nombre lo indica, se encarga de los trabajadores al servicio del Estado, es decir, la burocracia; y la Secretaria de Salud que se hace cargo, en teoría, de aquellas personas no asalariadas que son marginadas de las instituciones de seguridad social." (Noriega, et al. 2009, p. 63).

retirement system was transferred to the private sector, under the scheme of Administrators of Retirement Savings Funds (AFORE), in which the protection of workers' savings is left to the free floating of the market interest rate. Crises have shown the negative effect on savings funds, decreasing what has been earned for years, (Ramirez B., 2019). Workers become vulnerable since the amount of their pension will depend on the functioning of the market.

With the 1995 reform, services for the uninsured population, which includes informal workers, were reorganized. The infrastructure belongs to private companies and the medical staff is paid by the State, the benefits are private, since the State pays the hospital administration a rent for the services provided to beneficiaries of the Seguro Popular now Bienestar, especially in third level care, this type of social security was established during the six-year term of Vicente Fox, from 2000-2006 with the National Health Program (Tamez S. and Eibenschutz C., 2009).

The Seguro Popular scheme was a health strategy of the first government of the National Action Party, the "government of change", which tried to incorporate basic health coverage, however, it had several problems in its design such as: the scope of services, subrogation, and institutional planning on what already existed in the IMSS and ISSSTE (Leal Fernández, 2013). With the administration of Felipe Calderón, the strengthening of Seguro Popular and the abandonment of the IMSS and ISSSTE system continued, however, the scheme continued to function (Tamez S. and Eibenschutz C., 2009). With the government of Enrique Peña under the "universal security system" scheme, an attempt was made to build hospitals, but the objective was not achieved and what had been achieved was abandoned, what was strengthened is the mixed system in favor of private companies (Leal Fernández G., Sánchez Pérez H. and León Cortés J., 2016).

The problem is not only focused on first, second and third level hospitals, but also on the suppliers of medicines and hospital supplies. The tenders were covered with tricks to strengthen certain companies related to leading figures in national politics, as in the case of the construction of the General Hospital inaugurated in 2015 by the federal and state governments

[1] "These suggestions were aimed at carrying out the first phase of health services reform, for which it was necessary to fracture the foundations of social security, which by then was already serving about 50% of the Mexican population. Thus, during the 1990s, the government continued the reform of the Mexican health system, favoring the strengthening and creation of the necessary conditions for the commercialization of health care. The two fundamental actions to achieve this were the weakening of social security through modifications to the IMSS Law (2) and the reorganization of the services that serve the uninsured population (3). The changes in this period were many and very diverse; it can be said that they laid the foundations for the full expression of the true objectives of the health services reform: the emergence of the longed-for public-private mix, as a way of guaranteeing the flow

of resources from the public sector of health care to the private sector." (Tamez S. and Eibenschutz C., 2009, p. 135).

"...'for now it is not in the plans to build more hospitals', but to take 'maximum advantage of the resources available in the country and that there can be exchange of services between the different institutions'" (Leal Fernández G., Sánchez Pérez H. and León Cortés J., 2016, p. 125).

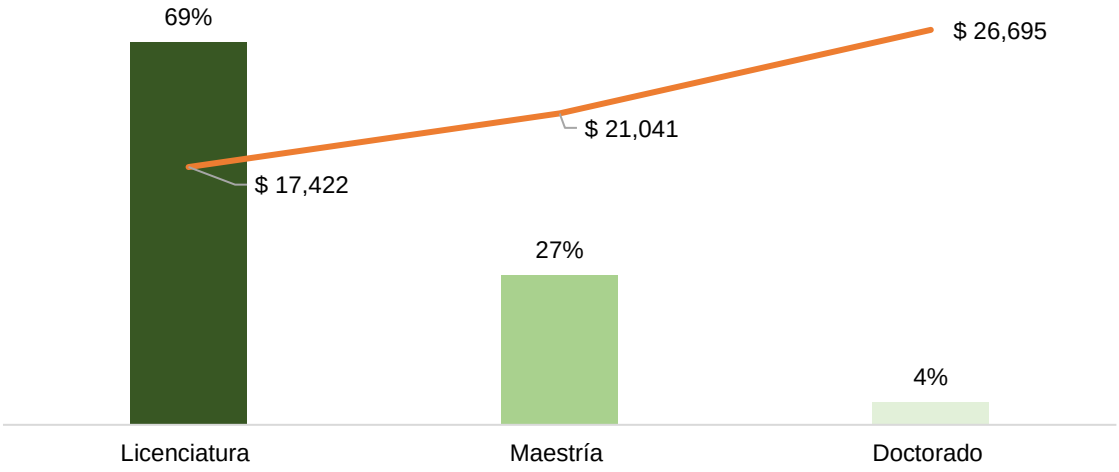
"The minimal "universal" agenda of González Pier barely contemplated the building of first level "universal" hospitals (such as the one that was inaugurated last February 18, 2015 in Cananea, Sonora, with the support of Grupo

and the private sector (Secretaría de Salud, 2015). It is a brief context that allows knowing the precedents in which the Covid-19 pandemic is faced, but that in essence the repercussions are assumed by health workers who see their salaries undermined, their workday extended, social benefits decreased in contradiction with the amount of work they must perform.

1.4. Effects of neoliberalism on health workers

According to data from INEGI (2021), on a national scale 46% of the employed personnel working as physicians are women and 54% are men, of which "the average number of hours worked per week of a person employed as a physician is 41.7, ... physicians working 35 to 48 hours (64%), followed by those working 15 to 34 hours (19%), those working more than 48 hours (15%) and those working less than 15 hours (2%)" (p. 2). The average hourly pay is 122 pesos. Chart 4 shows the average salary according to level of education, which ranges from $17,422 pesos per month to $26,695 with a doctorate. The data are aggregated for public and private institutions; they do not include data on other incentives such as seniority or administrative positions.

Chart 4. Percentage of the population 25 years of age and older employed as physicians by educational level and average monthly income (pesos), 2021



Source: INEGI, 2021, p. 2

According to Sergio Sanchez and Gabriela Montoya (2003), the working conditions of IMSS workers "are plagued by tensions, due to the crisis generated by the implementation of neoliberal policies, which increased after the modification of the IMSS law in 1995" (p. 122).

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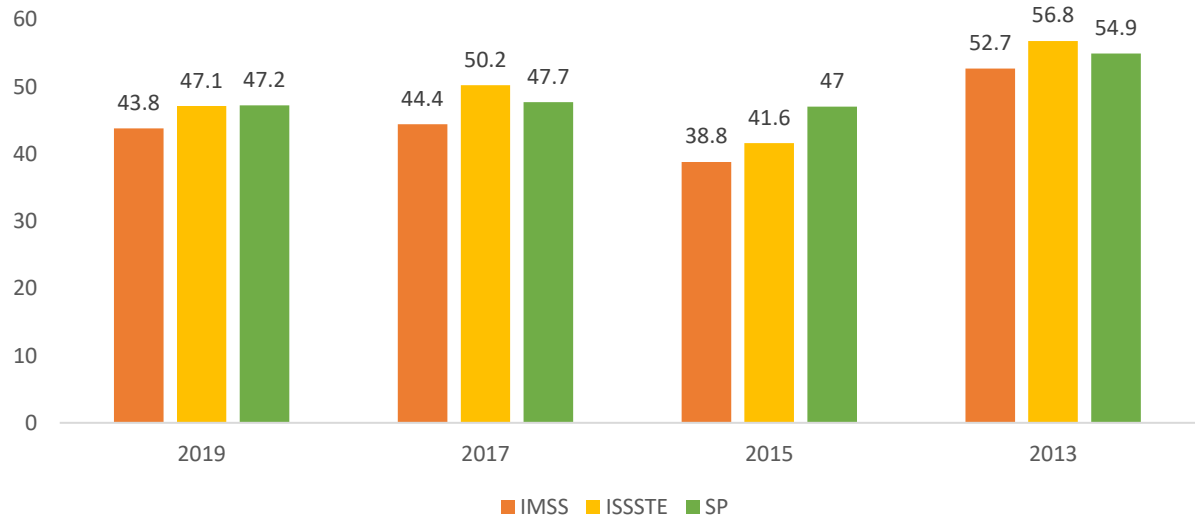
Chart 5. Satisfaction with public health services



Note: This is the percentage of the population aged 18 years and over living in urban areas of 100,000 inhabitants and over who are users of state public health services of Seguro Popular (SP), IMSS and ISSSTE, who say they are very satisfied or satisfied with their experience of these services.
Source: Own elaboration with data from the National Catalog of Indicators (snieg.mx).

The beneficiaries who have the best perception of the health systems are those affiliated with ISSSTE, followed by Seguro Popular and finally IMSS. The overload of work and prolongation of the working day in the IMSS has led to a poor perception of the medical personnel. These are the characteristics that the health sector has and with which it faced the covid-19 pandemic, which deepened the poor working conditions of health personnel.

2. Methodology

2.1. Tools

The objective of this work consists of analyzing the relationship between the structural conditions generated by the neoliberal accumulation pattern in public health services and its repercussions on the working conditions of health workers, specifically those who attend to patients infected with covid-19 in the Metropolitan Zone of the Valley of Mexico (ZMVM). To achieve this, a questionnaire was developed with 23 items for convenience, in order to obtain information on the working conditions and intensity of health workers' work.

The questionnaire is of a mixed exploratory type, that is, it contains open and closed questions, which allow us to know the worker's perception of their working conditions, during the period of highest covid-19 infection; between December 2020 and January 2021, for Mexico City and the State of Mexico. In this sense, the results presented here are descriptive, providing a sample of the working conditions in which the health catastrophe was faced.

2.2. Analysis method

The questionnaire was elaborated in Google forms, because the sanitary conditions did not allow any paper test to be carried out due to the high risk of the health personnel. Hospitals in the ZMVM were located in the hospital directory of attention to covid-19, of the 145 registered in the database of the Government of Mexico City (2021), the sample was by convenience, so it was applied only in hospitals where there was willingness to access the email database of staff who were in covid-19 areas, Therefore, the scope of the test is limited to 10 hospitals and 64 health workers, however, it provides an overview of the working conditions at a specific time, which allows for an analytical approach to the conditions in which the pandemic was faced.

The instrument was sent to health workers between December and February 20, 2021. The sample collects the working conditions of workers who attend covid-19 such as: salary perception, personal protection, medicine supply, work schedules, family members and colleagues infected with covid-19, vacations and number of patients attended according to their severity. The questionnaires are confidential and for research purposes; therefore, ethically, no data were collected that would violate the safety of the workers. Once the responses were available, the database was processed in Excel to perform a descriptive statistical analysis.

3. Results and argument

The health care workers work at the following facilities: Hospital General Tláhuac, Hospital General las Américas, Pediatric Hospital, Hospital Regional de Alta Especialidad de Zumpango (HRAEZ), Hospital Regional 251 del Instituto Mexicano del Seguro Social (IMSS), Instituto Nacional de Enfermedades Respiratorias (INER), Instituto de Seguridad Social del Estado de

México y Municipios (ISSEMYM), Secretaria de Salud de la Ciudad de México (SEDESA), Unidad Temporal Covid-19 (UTC-19) Centro Banamex and Unidad Temporal Covid-19 Autódromo Hermanos Rodríguez.

They were grouped into 8 areas: Covid-19 reconversion, general surgery, internal medicine, gynecologist-pediatrician, and continuous admission, hospitalization, pharmacy, Intensive Care Unit (ICU), emergency, imaging, rehabilitation (inhalation therapy) and blood bank. Hospital reconversion played a decisive role in dealing with the pandemic, since the areas dedicated to conditions other than those related to respiratory diseases, had modifications, according to the Hospital Reconversion Guidelines (SS, LRH, 2020), the areas that are not prepared to attend respiratory diseases made an immediate transformation, which implied for the personnel an adaptation of their daily activities to attend acute covid-19, increasing stress and work intensity. One example is the neonatology subspecialty, which was prepared to provide specialized services to pregnant women infected with SARS-CoV2.

The sociodemographic data of the health care workers caring for patients with covid-19 are as follows: there were 64 workers, of whom 69% were women and 31% men. The average age is 35 years; personnel over 50 years of age accounted for only 6%. Thirty-nine percent of the personnel are married, 42% are single and 19% are in another situation, which includes free union, widowed and divorced.

Chart 6. Percentage distribution by sex

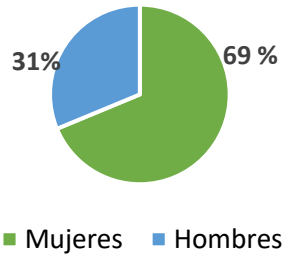
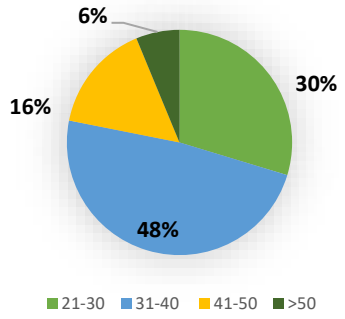


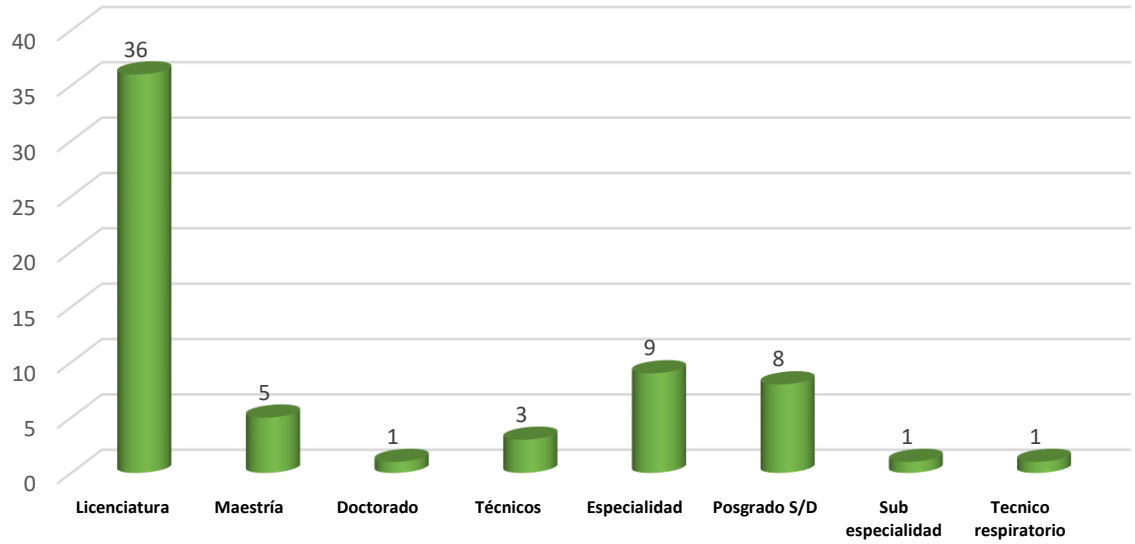
Chart 7. Age



Source: own elaboration.

Workers with subspecialty represent 1.5%, respiratory technicians 1.5%, with specialty 15%, 56% have a bachelor's degree, 8% have a master's degree and one person has a doctorate.

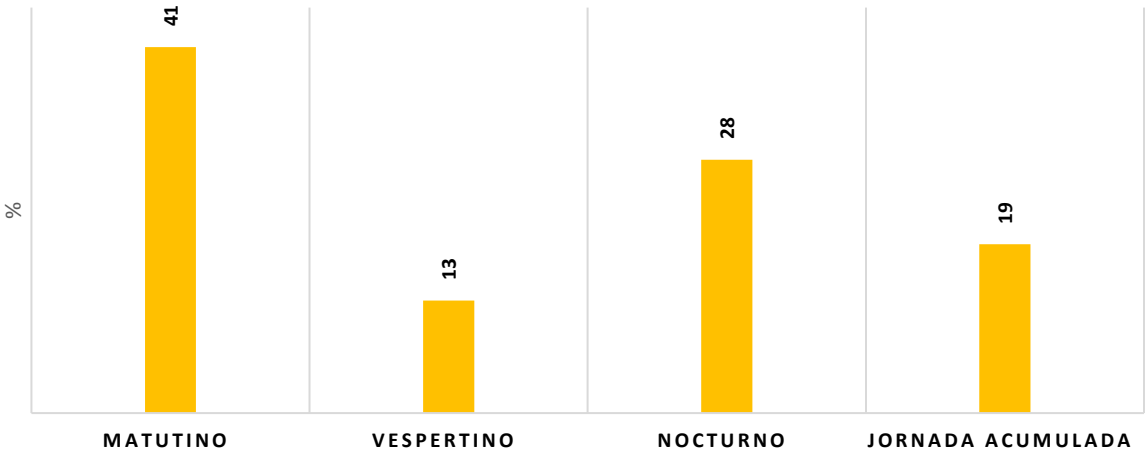
Chart 8. Academic degree of health care workers attending patients covid-19



Source: own elaboration.

Morning shift personnel accounted for 41% of the sample, followed by night shift with 28%, accumulated shift with 19% and evening shift with only 12%.

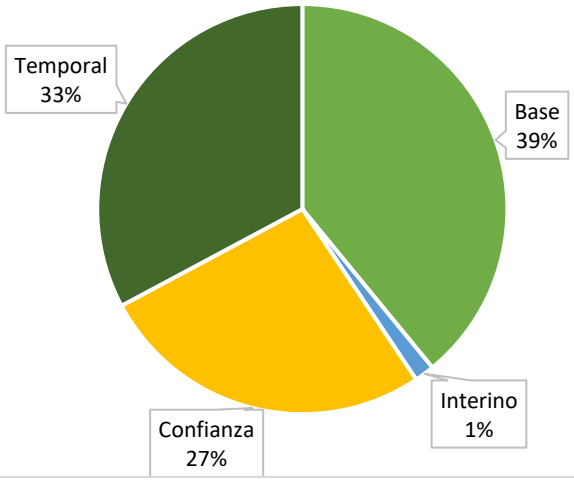
Chart 9. Percentage distribution of working hours



Source: Own elaboration.

The federal government, as part of the strategy to confront the pandemic, hired temporary personnel with contractual renewal every 3 months, representing 33% of the labor structure of those interviewed, 39% of the basic workers, 27% of trust employees and 1% interim. The majority of the workers with a base position represent the majority, while those in a vulnerable situation represent 61%, which ultimately makes working conditions more precarious.

Chart 9. Percentage structure of health care workers by contract type



Source: Own elaboration

3.1. Work intensity and working conditions

Work intensity is understood as the length of the workday and its relationship with the greater number of patients that must be attended during working hours, the work risk is added, due to the complexity involved in working with a virus for which there was no specific approved treatment, therefore, increased the work risk, which could end in contagion and death of the worker.

Of the sample, 52% worked an average of 12 hours, 20% of the workers complied with Mexican regulations regarding the maximum workday extension of 8 hours, 12% worked 9 hours.

The workers after working 12 hours on average, have a double working day, 40.2% of the sample reported other activities such as: teacher by the hour, private practice and other employment as a doctor, see Table 3. The answers are feasible with the fact that 61 % do not have a plant within the hospital where they exercise their health services, therefore, they must have another job to raise the level of income. Also, caring for the family and the elderly

represents part of the double or triple workday, which contributes to the stress of healthcare personnel.

Chart 3. Other paid labor activities				
	Si = 23		No = 41	
Edad/años	Mujeres	Hombres	Mujeres	Hombres
21-30	1	2	11	2
31-40	8	4	13	7
41-50	4	2	5	1
>50	0	2	2	0
Total	**13**	**10**	**31**	**10**

Source: Own Elaboration

The occupational risk involved in caring for covid-19 patients showed that 100% of those interviewed have at least one colleague who has contracted the disease, and 83% have at least one colleague who has died. The family of health care workers has also been infected with 69% of the sample and 30% have a family member who has died from the virus. In qualitative terms, workers say "when you get sick with Covid-19 you come back more tired, we do our work as well as possible according to our conditions, because after getting sick the after-effects can reduce your lung capacity and therefore you feel very tired and overwhelmed".

The salary perception is, regular with 67.2 %, good 23.4 % and bad 9.4 %, see table 4. The salary level depends on the category the worker occupies within the hospital hierarchy, in that sense, the least favored are the temporary employees, since there are benefits that are not applicable. In the literature review section it was pointed out that workers have a higher salary according to their level of schooling, in this case the sample pointed out 56 % with a bachelor's degree which corresponds to a salary of $ 17, 422 pesos in 2021. Some considerations of the workers in the open questions point out the following "There is a lack of medicines, material that is used directly with patients, they did not give us the incentive authorized by the Federal government (bono covid-19)"

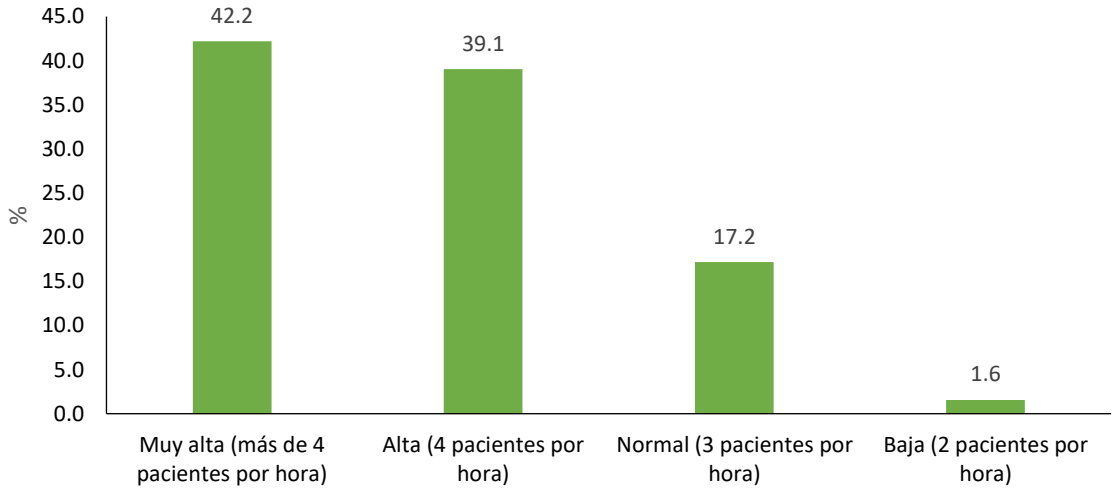
Chart 4. Wage perception of health care workers

	Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Buena	15	23.4	23.4	23.4
Mala	6	9.4	9.4	32.8
Regular	43	67.2	67.2	100.0
Total	64	100.0	100.0	

Fuente: elaboración propia.

Patient care increased at the apex of each wave of contagion, the sample was collected at the peak of December 2020 to February 2021, therefore, the demand increased, as well as, the labor intensity. Very high demand was considered, if the health worker attends more than 4 patients per hour which represented 42% of the sample, high demand up to 4 patients per hour, was 39%, medium care 3 patients per hour was 17% and low demand only represented 1.6%, see chart 10. The scale was taken: very severe those patients who need ventilators, real severity those who need hospitalization but not a ventilator, felt severity those with covid-19 symptoms.

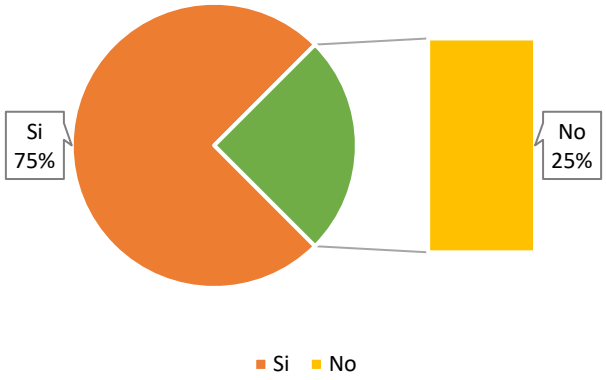
Chart 10. Covid-19 attention according to gravity



Fuente: Elaboración propia.

The Federal Labor Law for health care employees establishes two vacation periods per year, of 15 days each, plus days off at the employee's convenience due to occupational hazards. Seventy-five percent of the workers had vacation in the last year; however, the rest has been perceived as insufficient, due to the high demand for services and the long working day. 25% of the workers did not obtain this benefit at the time of answering the questionnaire, the data are shown in chart 11.

Chart 11. Health personnel who have been on vacation



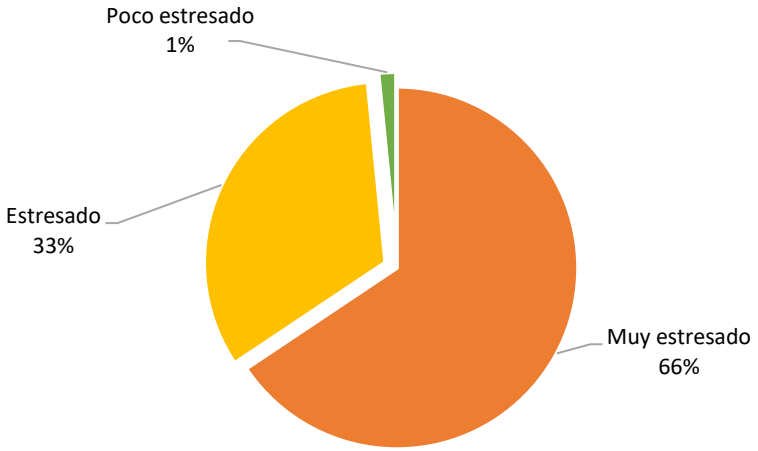
Source: Own elaboration

Sanitary protection materials at the beginning of the pandemic were in short supply, due to the inelasticity of the market in the short term, caused by the high demand for specialized mouthguards and external protection. Sixty percent of the sample considered that they had sufficient protective materials to carry out their work; 40% indicated the opposite, and in their comments they noted shortages. Medicines as part of the work supplies are insufficient in 80%, negotiations with pharmaceutical companies became a diplomatic issue that was operated from the Presidency of the Republic to make supply agreements.

The working conditions of health workers are complex, the pandemic increased the risk of work with the constant danger of infection and in some cases led to the loss of life, the length of the working day and the increase in the number of patients, has had consequences on the health of workers such as increased stress (Palacios M. and Paz-Román M., 2014, p. 324). The feeling of very high stress was in 65.6% of the sample, stressed 32.8% and only 1.6% responded

that they are not under stress, see chart 12.

Chart 12. Stress perception



Source: Own elaboration

The effects on the health of workers and in general the social cost is high, the most accepted analysis is that the intensity of work is attributable to the pandemic, however, the pre-existing conditions are important, both in hospital infrastructure and in the working conditions of medical staff, they were deteriorating during the neoliberal period (Fernández Leal G., Sánchez Pérez H. and León Cortés J., 2016). In the open-ended questions the workers pointed out the following "I would ask if I were in that opportunity, that the staff be psychologically supported mainly because the bosses are prepared to support colleagues who need it, in addition to making the workdays less stressful. This change, even though we have been like this for a year, some of us, including myself, have not yet adapted to the changes in schedules or some routines. Give us at least a little tolerance, towards the field we are facing. It is true that post-traumatic stress does not come quickly, we may have sequelae until much later, but starting to treat it would be good for many of us."

Letting the worker speak on his own in a moment of high contagion makes an x-ray of the situation not only personal but institutional as for example "covid patient care is too sad, if we see it from the inside, living in isolation, far from the family, with a serious health problem, where the social and financial situation cause stress in the same patient and family. Stress is present in the entire hospital environment, patients and medical personnel, we add the stress of arriving home and infecting the family, isolation was recommended for medical personnel, but help does not arrive as it should, we are personnel who have expenses, who have families, who live from day to day due to poorly paid salaries. It is not possible to be isolated from the

family for many reasons. We continue in this battle giving 100% for the love of what we do, even if society does not understand it."

4. Final thoughts

The research work was charged with answering the question: what are the consequences of the structural conditions generated by the neoliberal pattern of accumulation in the health services and its repercussion on the working conditions of health personnel who faced patients infected with covi-19? the objective was to answer the research question.

It was theoretically argued that neoliberal policies were concretized in the Washington Decalogue and the privatization of public services, including health services, which resulted in keeping the budget to the health sector constant, over 25 years, it ranged between 2 and 3 %, only in 2020 it increased to 3.15 % due to the pandemic. It is significant because public institutions serve 97% of the population, only 3% is in private institutions (chart 3), the low budget led to the pyrrhic growth in the number of doctors, per 1000 inhabitants increased 1.2 in 21 years, coupled with the deterioration of hospital infrastructure.

The neoliberal structural reforms were also reflected in a new pension scheme, from those administered by the State to those administered by private financial companies in AFORES. The savings funds move with the market interest rate and it depends on the companies where they place the financial assets to obtain profits and also losses. In this sense, the pension will be determined by the savings at the time of retirement. The oscillation in the AFORES violates the monetary security for workers' retirement.

The structural reform that implied private investment in the public scheme, or mixed hospital system that operates as part of the Seguro Popular, now Bienestar, consists of the health personnel being under the State payroll, while the hospital infrastructure is of private capital and the government must pay a rent, which is determined by the public users that occupy the service, this scheme guarantees basic care, but not second and third level care.

In terms of health care workers, market-oriented reforms cause wages to deteriorate at the same rate as the variability of the price system or inflation, and wage restraint has a direct impact on the welfare of health care workers. Also, the lack of public investment in hospitals and personnel generates work overload in the floor staff and the lack of work supplies generates the conditions for workers to feel stressed, which has a direct impact on work performance. These are the conditions preceding the pandemic and that deepen during that period, the consequences are visible in health personnel according to the results shown in the questionnaire.

The questionnaire that was applied to the health workers consisted of 23 items of their own elaboration, at their convenience, because, due to the sanitary conditions, it was not possible to carry it out personally. The methodology was only descriptive statistics that allows reflecting the basic working conditions in which the pandemic was faced. In this sense, the results have limitations to make generalizations on a national scale, although, the data are congruent with the conditions that were pointed out in the literature review.

The hypothesis of this work was corroborated since the workers increased their working day from 8 to 12 hours, with 52% of the workers, as well as, the number of very serious and serious patients was 81%, the instruments and means of work answered to be insufficient in 40%. With respect to work risk, it was very high, 100% had at least one coworker who contracted the infection and 83% had a colleague who died, the salary perception is regular and work instability is for 61% of the sample, although 75% of the workers enjoyed at least one vacation period and not two as stipulated by law, the perception of stress was 98.6% of the workers, which deteriorates their work performance and compromises the physical and psychological health of health personnel.

Neoliberalism and structural reforms aimed at reducing the public social budget with increasing participation of private enterprise, weakened the public health system. Given the economic conditions of the country in GDP recession during 2019 and the growing social inequality with 55.8% of informal workers, exacerbated the national health system. Henceforth a structural reform is needed in reverse; where investment in infrastructure, technology and medical supplies is growing in relation to GDP and population, at least, comply with the 6% that WHO indicates as minimum necessary, as well as, the creation of decent jobs for health personnel, maximum of 8 hours a day, adequate workloads, job stability and living wages that is manifested in better care and with this will generate a strength in social welfare.

References

Banco Mundial (BM) (2022). Crecimiento del PIB (% anual). https://datos.bancomundial.org/indicator/NY.GDP.MKTP.KD.ZG

BBC (2020, 13 de abril). Coronavirus en Estados Unidos: 4 claves que explican el enorme impacto del coronavirus en el país por covid-19 del mundo. https://www.bbc.com/mundo/noticias-internacional-52273159

Catalogo Nacional de Información Estadística y Geografía (SNIEG) (2022). Catálogo Nacional de Indicadores, https://www.snieg.mx/cni/

Dabat A. Hernández J. y Vega K. (2015). Capitalismo actual, crisis y cambio geopolítico global, *Economía UNAM*, vol.12 no.36. http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S1665-952X2015000300062

Datos Macro (2022). Gasto en salud con relación al PIB. https://datosmacro.expansion.com/estado/gasto/salud/mexico#:~:text=Esta%20cifra%20supone%20que%20el,2%2C68%25%20del%20PIB.

De la Garza Toledo Enrique (2002). Flexibilidad del trabajo en México, en *Población y sociedad al siglo XX*I, El Colegio de México. http://sgpwe.izt.uam.mx/pages/egt/publicaciones/capituloslibros/flexibilidad.pdf

Diario Oficial de la Federación (2020, 24 de marzo). Acuerdo por el que se establecen las medidas preventivas que se deberán implementar para la mitigación y control de los riesgos para la salud que implica la enfermedad por el virus SARS-CoV2 (COVID-19). https://www.dof.gob.mx/nota_detalle.php?codigo=5590339&fecha=24/03/2020

Ezequiel Vidiella Ivan (2021). Home office aplicado a una empresa constructora, [Tesis de especialización, Universidad Tecnológica Nacional]. Repositorio institucional. https://ria.utn.edu.ar/bitstream/handle/20.500.12272/5193/2021.04.18.TFI.Vidiella.Iv%c3%a1n.pdf?sequence=1&isAllowed=y

Gobierno de la Ciudad de México (2021, 15 de diciembre). Hospitales covid-19 https://hospitales.covid19.cdmx.gob.mx/public/hospitales/EstatusHospitales.xhtml?tamizajeRealizado=true

Instituto Nacional de Estadística y Geografía (2021). Banco de Información Económica. https://www.inegi.org.mx/sistemas/bie/

Instituto Nacional de Estadística y Geografía (2021, 22 de octubre). Estadísticas a propósito de las personas ocupadas como médicos. Comunicado de prensa núm. 580/21.

Instituto Nacional de Estadística y Geografía (2022, 17 de febrero). Encuesta Nacional de Ocupación y Empleo, cuarto trimestre de 2021, https://www.inegi.org.mx/contenidos/saladeprensa/boletines/2022/enoe_ie/enoe_ie2022_02.pdf

Lapavitsas C. Morera C. (2011). *La crisis de la financiarización*. Universidad Nacional Autónoma de México, Instituto de Investigaciones Económicas, Consejo Latinoamericano de Ciencias Sociales, México.

Leal Fernández G. (2013). ¿Protección social en salud? Ni "seguro", ni "popular". *Estudios Políticos*. Núm. 28, 163-193.http://www.scielo.org.mx/pdf/ep/n28/n28a9.pdf

Leal Fernández G., Sánchez Pérez H. y León Cortés J., (2016). Sobre la propuesta de "universalidad" en salud: Mercedes Juan y Enrique Peña Nieto. *Estudios Políticos*. Núm. 38, 117-141. http://www.scielo.org.mx/pdf/ep/n38/0185-1616-ep-38-00117.pdf

López Fernández de Lascoiti E. (2009). Crack de 1929: Causas, desarrollo y consecuencias en *Revista Internacional del Mundo Económico y del Derecho*. (1), 1 – 16. http://www.revistainternacionaldelmundoeconomicoydelderecho.net/wp-content/uploads/CRACK-DE-1929-Causas-desarrollo-y-consecuencias.pdf

Martínez Rangel R. y Soto Reyes Garmendia E. (2012). El consenso de Washintong: la instauración de las políticas neoliberales en América Latina. *Política y Cultura*, (37), 35-64 http://www.scielo.org.mx/pdf/polcul/n37/n37a3.pdf

Martínez-Licerio K., Marroquín-Arreola J. y Ríos-Bolívar H. (2019). Precarización laboral y pobreza en México. *Análisis Económico*, 34 (86), 113-131. http://www.scielo.org.mx/pdf/ane/v34n86/2448-6655-ane-34-86-113.pdf

Marx K. (2011). Cambio de magnitudes en el precio de la fuerza de trabajo y en el plusvalor. *El Capital* (Pedro Scaron traductor). Tomo 1, Volumen 2, México, Siglo XXI. (original publicado en 1867-1873).

Noriega M, Franco J. G., Montoya A., Garduño M. A., León L. E., Martínez S., Cruz C. (2009). Deterioro de las condiciones de trabajo y de salud en México. *Salud trab*ajo. Ene-Jun. 17(1),61-67. https://proverifica.com/documentos/deterioro.pdf

Organización Mundial de la Salud (OMS), (2022), Covid-19: cronología de la actuación de la OMS. https://www.who.int/es/news/item/27-04-2020-who-timeline---covid-19

Organización para la Cooperación y Desarrollo Económico (OCDE) (2019). *Panorama de salud 2019*. https://www.oecd.org/health/Panorama-de-la-Salud-2019.pdf

Ramírez López B. (2019). La necesaria construcción de un sistema público de pensiones para la sociedad mexicana. *El Trimestre Económico.* 86 (344), 967-1001. https://www.eltrimestreeconomico.com.mx/index.php/te/article/view/982

Roberts M. (2016). *La larga depresión. Cómo ocurrió, por qué ocurrió y qué ocurrirá a continuación*. España. El viejo topo. 19-44.

Sánchez S. y Montoya G. (2003). Reflexiones en torno a las condiciones laborales de médicas y médicos del Instituto Mexicano del Seguro Social. *El Cotidiano*. 19(22), 105-115. https://www.redalyc.org/pdf/325/32512212.pdf

Secretaría de Salud (2015, 17 de febrero). *La Secretaria de Salud, Mercedes Juan, inauguró primer Hospital General con atención universal en el país.* [Comunicado de prensa].

https://www.gob.mx/salud/prensa/la-secretaria-de-salud-mercedes-juan-inauguro-primer-hospital-general-con-atencion-universal-en-el-pais

Secretaría de Salud (SS) (2020, 5 de abril). Lineamientos de reconversión hospitalaria https://coronavirus.gob.mx/wp-content/uploads/2020/04/Documentos-Lineamientos-Reconversion-Hospitalaria.pdf

Tamez, S. y Eibenschutz C. (2008). El Seguro Popular de Salud en México: Pieza Clave de la Inequidad en Salud. *Revista de Salud Pública*. 10 (1), 133-145. http://www.scielo.org.co/pdf/rsap/v10s1/v10s1a12.pdf

Valdemar Díaz J. (2021). Diagnóstico sobre la mercantilización de la salud en México y propuestas para la construcción de un sistema universal desde la perspectiva del derecho humano a la salud. Comisión Económica Para América Latina. https://repositorio.cepal.org/bitstream/handle/11362/47532/1/S2100843_es.pdf

Valenzuela F. (1997). Cinco dimensiones del modelo neoliberal. *Política y cultura.* 1(8), 9-38. https://www.redalyc.org/pdf/267/26700802.pdf

Weller Jürgen (2020). La pandemia del covid-19 y su efecto en las tendencias de los mercados laborales. Organización Internacional del Trabajo.https://repositorio.cepal.org/bitstream/handle/11362/45759/1/S2000387_es.pdf