

Contribution of remittances to Mexican household income and healthcare

Contribución de las remesas en el ingreso de los hogares mexicanos y el cuidado de la salud

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Abstract:

The article aims to analyze the participation of remittances in household income in Mexico in 2018 and 2020 and their role in healthcare during the pandemic by COVID-19. First, it examines the variation in the share of remittances in the income of Mexican households before and during the pandemic. Then, it analyzes the use of remittances in spending on health care. The statistical overview of household income and expenditure in the country is described with national survey data. Examining remittance dynamics in Mexican household incomes before and during the pandemic provides a valuable understanding of their relationship to healthcare. The results suggest that the increase in remittances was due to the weakening of other sources of income because of the economic contraction caused by the health crisis. In addition, these resources were used, to a considerable extent, to cover health and funeral expenses, which represented unexpected expenditures for households.

Keywords:

Households, income, pandemic, remittances, health.

Resumen:

El artículo tiene como objetivo analizar la participación de las remesas en el ingreso familiar en México en 2018 y 2020 y su papel en la salud durante la pandemia por COVID-19. En primer lugar, se examina la variación en la participación de las remesas en los ingresos de los hogares mexicanos antes y durante la pandemia. Luego, analiza el uso de las remesas en el gasto en salud. El panorama estadístico de los ingresos y gastos de los hogares en el país se describe con datos de encuestas nacionales. Examinar la dinámica de las remesas en los ingresos de los hogares mexicanos antes y durante la pandemia proporciona una valiosa comprensión de su relación con la atención de la salud. Los resultados sugieren que el aumento de las remesas se debió al debilitamiento de otras fuentes de ingresos debido a la contracción económica causada por la crisis sanitaria. Además, estos recursos se utilizaron, en gran medida, para sufragar los gastos de salud y funerarios, que representaban gastos imprevistos para los hogares.

Palabras Clave:

Hogares, ingreso, pandemia, remesas, salud.

Introduction

Throughout history, humans have migrated from place to place to satisfy their needs. Although this phenomenon has been present in our society for centuries, what is interesting today is its relevance in both social and economic activities. According to the United Nations (UN), in 2019, international migrants constituted 3.5% of the

world's population. In June of the same year, the number of international migrants was estimated at 272 million, fifty-one million more than in 2010, and almost two-thirds were labor migrants [1].

Migrants are described by the International Organization for Migration (IOM) as anyone who moves or has moved across a border outside their place of birth [2]. Migrants have contributed to the economies that receive them

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through their labor force and in their countries of origin through remittances that they send home for a prolonged period.

Remittances result from the effort and participation of international workers in a socioeconomic reality different from their country of origin [3]. In Mexico, remittances sent by migrants constitute an essential source of income for both the recipient families and the country since, from the macroeconomic perspective, they represent a multiplier effect on GDP and an increase in consumption and investment [3].

Mexico is one of the countries that receive the most remittances and is part of the world's busiest migratory corridor (Mexico-United States). The latter is currently the leading destination of global migration [4]. According to the Institute of Mexicans Abroad (IME, its acronym in Spanish) of the Ministry of Foreign Affairs (SRE, for its acronym in Spanish), in 2021, 12,145,143 Mexicans were living outside the country, of which 11,750,000 resided in the United States of America, that is, it represents 96.7% of the total of Mexicans living abroad [5].

At the same time, the world population faced the worst health crisis in recent years, the pandemic caused by the SARS-CoV-2 virus named COVID-19, which triggered an intense economic crisis. As the pandemic progressed from 2020, many households were unprepared to sustain income changes over a prolonged period [6].

In 2020, Mexico was the third destination country for global remittances [7]. Therefore, it is a priority to examine the impact of remittances on the family economy of recipient households and to identify the effect that COVID-19 caused on their income since 2020 was the year in which Mexico officially declared the pandemic in the country.

To analyze the share of remittances in household income in Mexico, in the context of the health crisis to compare their role in healthcare in 2018 and 2020, this article examines the variations in the share of remittances in the income of Mexican households before and during COVID-19 and the use of remittances, particularly in health care.

Theoretical frameworks

The sending and use of remittances in Mexico have been widely studied in the theoretical and empirical literature from an economic perspective and other approaches, such as its relationship with health. However, due to the recent declaration of the end of the pandemic, little research focuses on and analyses the situation from the economic perspective, especially regarding remittances and

healthcare jointly. Therefore, this research examines the impact of remittances on family income and the use of these in health-related expenses due to the pandemic.

García-Amador, Mora-Rivera & van Gameren (2023) analyze the dynamics of transfers at the national level and their impact on health-related costs and the limitation of the availability of medical services in households in Mexico between 2010 and 2016. In addition, they argue that remittances, both in rural and urban areas, played a positive role in improving the financial situation of households concerning access to healthcare [8]. Pintor-Sandoval & Bojorqu ez-Luque (2021) address the behavior of remittances in the income of Mexican families during the pandemic through the analysis of employment and unemployment rates of Mexicans living in the United States and remittances received up to June 2020. They conclude that remittances have increased, based on the need to maintain family subsistence due to the context of health risk, in addition to representing significant economic support for recipient households [9].

From a public health perspective, the work of D az-Gonz lez & Ram rez-Garc a (2017) analyses health spending in Mexico and the determinants that make it a catastrophic expense. The results indicate that access to health insurance directly impacts the spending level on medical services. However, such insurance does not considerably influence the likelihood of catastrophic expenses, while external household income has a positive relationship in both determinations [10]. Likewise, Gonz lez-Block, de la Sierra-de la Vega & Vargas-Bustamante (2013) focused on using public and private services by migrant dependents in Mexico to analyze the relationship between remittances and membership in Seguro Popular in 2010. They conclude that the destination of remittances was the purchase of medicines and the problems of sick relatives; thus, Seguro Popular presented an opportunity to contribute favorably to the efficiency of health spending derived from these transfers [11].

Finally, Mora & Camberos (2015) analyze the role of remittances in health spending in marginalized regions of Mexico from Engel's curves of 2000, 2005 and 2010. The data come from the National Household Income and Expenditure Survey (ENIGH) [12].

In summary, the authors agree that remittances positively impact Mexican households' income, and a large percentage of these are destined to cover family and health expenses. These findings support the relevance of investigating the constant flow of remittances and the

impact on the health of Mexican households triggered by COVID-19.

Methodology

This document aims to analyze the impact of remittances on Mexican households before and after the COVID-19 pandemic. It seeks to understand how these foreign money transfers have influenced recipient households' economic situation and healthcare.

The research follows the quantitative route, with exploratory and descriptive scope. The study design is nonexperimental and longitudinal (two periods). Data on remittance revenue flows in Mexico from 2018 to 2021 through the Bank of Mexico's digital platform were collected. Statistics on the dependence of each state on international remittances were obtained from the Yearbook of Migration and Remittances (2022), published by BBVA Research, BBVA Foundation and the National Population Council (CONAPO).

Data on the income level of households receiving remittances in 2020 come from the National Financial Inclusion Survey (ENIF) conducted by the National Institute of Statistics and Geography (INEGI) and the National Banking and Securities Commission (CNBV). They also looked for variables related to the economic effects caused by the pandemic and how they faced this situation.

Similarly, a triangulation of information from different sources, such as ENIGH (2018) and ENIF (2021), was performed to identify the extent to which these revenues were used for health care.

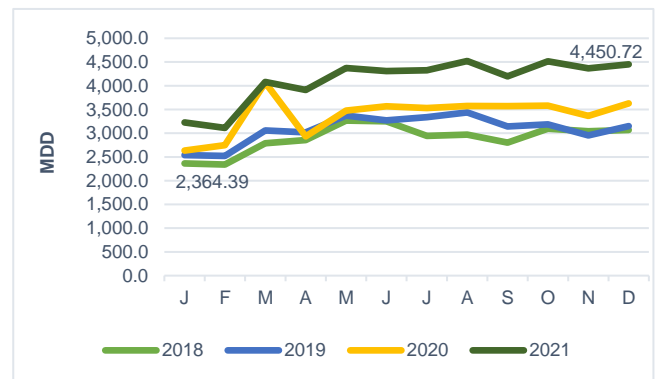
Once the information was collected, the data were analyzed to identify patterns and differences between household incomes before and during the pandemic and thus examine their relationship to receiving remittances. A limitation of the research is that the ENIF provides data on the receipt of remittances but not on the use of remittances, so the information derived from the analysis should be read under this consideration. In the absence of data on remittances for 2018 in the ENIF, the study of households receiving remittances restricts the generalization of the results.

The proposed methodology will provide a detailed understanding of the impact of remittances on Mexican households before and after the pandemic. The collected data and analysis will provide valuable information on how these money transfers have influenced recipient households' economic situation and healthcare spending.

Analysis of results

Remittances are an important source of income that contributes to household welfare and economic development. Figure 1 shows the flow of income from international remittances to Mexico from 2018 to 2021, at prices in the third quarter of 2020; generally, from January 2018 to December 2021, the growth of remittances was 88% [13].

Figure 1. Remittances income in Mexico from 2018 to 2021 (base year 2020)

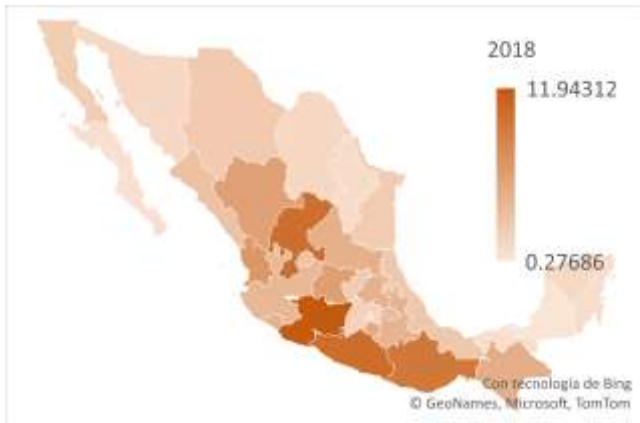


Source: Authors' elaboration with data from Bank of Mexico

Figure 1 shows a growing trend in remittance flows from 2018 to 2021. However, in 2018, the income from remittances has a constant behavior, almost unchanged, opening the year with an income of 2,364.39 million dollars and closing it with 3,150.16 million dollars. The following year shows no significant changes. However, in 2020, they increased income abruptly, entering up to \$4,079.81 million in remittances, its highest peak in March, when the pandemic was officially declared in the country. Although remittances fell sharply in April, remittance flows are constant for the rest of the year, as is the health crisis caused by COVID-19.

Below are the results of the comparison on the dependence of remittances by states in Mexico in 2018 (see Map 1) and 2021 (see Map 2) to evaluate the role of remittances as a percentage of the value added to the gross domestic product of each state; nevertheless, do not present significant changes. We appreciate that Michoacán is the entity with greater dependence in 2018 and 2021, followed by Guerrero and Zacatecas [7].

Map 1. Dependency on remittances in Mexico, by state, 2018.



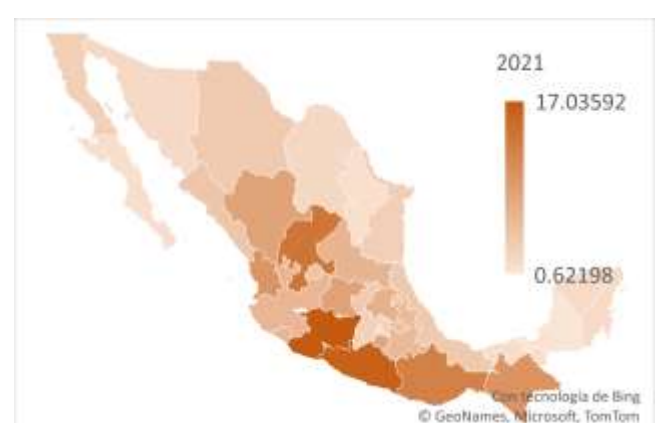
Source: Authors' elaboration with data from BBVA Research, National Population Council and BBVA Mexico Foundation (2022).

Map 1 shows that dependence on remittances is concentrated in the western and southwestern regions of the country. The difference that is evident compared to the northern region of the country can be explained by different factors; however, the one that stands out the most is that remittances have greater weight in household income in the west, south and southwest regions, where the map is a more intense color, regions where migration is common and more than being synonymous with development, becomes a subsistence alternative for the families that live there [14].

The northern part of the country, officially, is not dependent on remittances in a significant way. However, in this border economy, there is a phenomenon called "pocket remittances": cash that does not pass through the Mexican financial system. Quantifying or obtaining indicators of this is impossible [15]. The remittances that arrive in the border states are, to a large extent, in cash, through informal means, as some family members who return to Mexico who enter illegally or who, on the contrary, do have legal documentation or drivers of private vans engaged in the cross-border transport of migrants [15].

Dependence on remittances increased in certain entities in 2021, as seen in Map 2. The States that have shown a notable increase in this indicator are Baja California, Baja California Sur, Chiapas, Durango, Guanajuato, Guerrero, Hidalgo, Jalisco, Michoacán, Morelos, Nayarit, Oaxaca, San Luis Potosí and Zacatecas, some with a high rate of migrant expulsion, which makes sense because, in 2021, remittances sent to our country reached 51,593.9 million dollars, which represented, an increase of 27.1% concerning 2020, the highest annual growth in Mexico since 2003 [16].

Map 2. Dependency on remittances in Mexico, by State, 2021.



Source: Authors' elaboration with data from BBVA Research, National Population Council and BBVA Mexico Foundation (2022).

There are differences in income between those households that receive remittances and those that do not. Remittances can significantly impact recipient households, as they represent an additional source of income that can improve their economic well-being.

It is important to note that differences in income between remittance and non-receipt households may vary according to the socioeconomic context and specific conditions of each family. Factors such as educational attainment, geographical location, job opportunities and access to services and resources can influence the economic situation of households, regardless of whether they receive remittances. Next, it analyzes the dynamics of remittances in 2018 and 2020.

According to data from the National Household Income and Expenditure Survey 2018 (ENIGH) [17], 6.1% of the households surveyed were recipients of monetary income from other countries, of which approximately 89% were among the lower and middle social strata. In contrast, non-remittance-receiving households are concentrated between the lower and middle-upper strata. This concentration of foreign exchange in the lower socioeconomic strata highlights the importance of remittances in the livelihood of households at the base of the economy.

Of the households receiving remittances, 58% were headed by women, while men headed the rest. In terms of age, most heads of households were between 37 and 67 years old. Regarding current income, male-headed households received an average of 6,461.5 pesos monthly, while female-headed households 6,056.3 pesos monthly.

Remittances can have a positive impact on the ability of families to maintain their well-being. Such resources can help cover medical expenses, purchase medicines, and appropriate treatments. Thus, they would access quality medical services. In 2018, 61% of households receiving remittances incurred healthcare-related expenses of approximately 1,300 pesos every six months, representing 3.45% of their total monthly income. This percentage for healthcare can represent a heavy expenditure and reduce the ability of families to cover other essential expenses, with adverse effects on the quality of life. Remittances could be used for funeral expenses, which are often not included for many families. In 2018, a quarter of the households receiving remittances had to pay for the funeral expenses of a family member [17].

According to data from the National Household Income and Expenditure Survey (ENIGH) [18], in 2020, 5.1% of households surveyed received remittances; this percentage decreased 16.4% compared to 2018. Since 2018, the households receiving remittances have been concentrated in the lower social strata and the others in the lower and middle-upper strata.

During 2020, approximately 1.8 million households in Mexico received remittances, representing about 5.1% of all households in the country. Within these remittance-receiving households, 45.7% were headed by women, while men headed 54.3%. In terms of age, most heads of household were 40 to 64 years old [7].

Regarding the economic situation, 5.3% of households with remittances, headed by women, did not have any other type of income, while in households headed by men, this percentage was 8.3%. Regarding average monthly income, households receiving remittances headed by women had an average income of 10,633 pesos, while those headed by men had an average income of 12,206. Notably, these amounts are in current pesos and correspond to monthly income [7].

In 2020, the health contingency was officially declared by COVID-19, so health and funeral expenses increased constantly. Below are some data collected by the 2021 ENIF, which collected data for 2020.

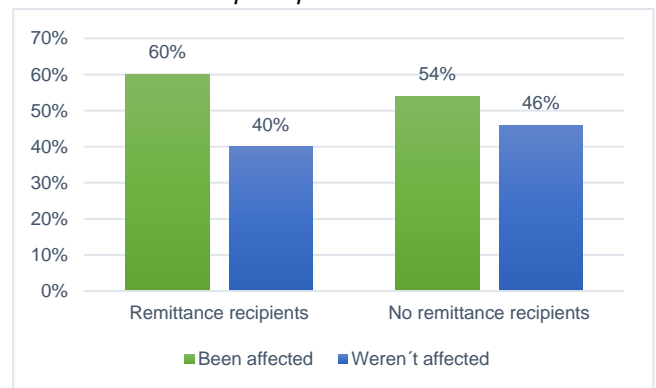
Economic Impact of COVID-19

Due to the adverse effects on the Mexican economy due to the COVID-19 pandemic, domestic sources of household income were weakened, hence the need for more remittances, on the one hand. In addition, individuals and households receiving remittances faced unexpected

health and funeral expenses. A characteristic of remittance recipients is that they have more limited access to social security services than the rest of the population, reflecting that a significant percentage of them work in the economy's informal sector [19].

With data from the ENIF 2021, conducted by the National Banking and Securities Commission (CNBV) and the National Institute of Statistics and Geography (INEGI) [18], it was found that 86% of the total households surveyed do not receive remittances, that is, only 1,928 households receive remittances, of which 60% were affected in some way by COVID-19. These results do not differ much from the analysis of households not receiving remittances, as 54% were equally affected by the pandemic (see Figure 2).

Figure 2. Households affected by COVID-19, according to their perception of remittances

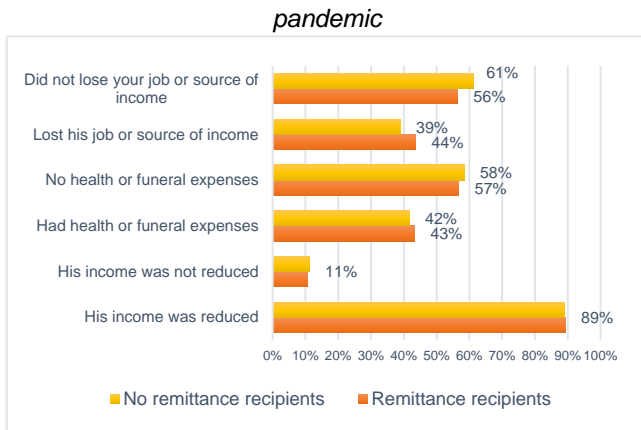


Source: Authors' elaboration with data from the National Institute of Statistics and Geography (2021).

In all geographical areas of Mexico, the economic crisis caused by the COVID-19 pandemic had a significant impact in various ways. These included situations such as the reduction of income of some household members, the loss of employment and the need to incur expenses related to health or funerals [19].

Figure 3 shows different scenarios that the population faced. In both remittance and non-reimbursable households, the income of 89% of households decreased. On the other hand, the loss of employment was more significant in households receiving remittances (44%) than in households not receiving transfers (39%). In addition, 42% of households that do not receive remittances and 43% of households that have remittances faced expenses for funerals and medical services.

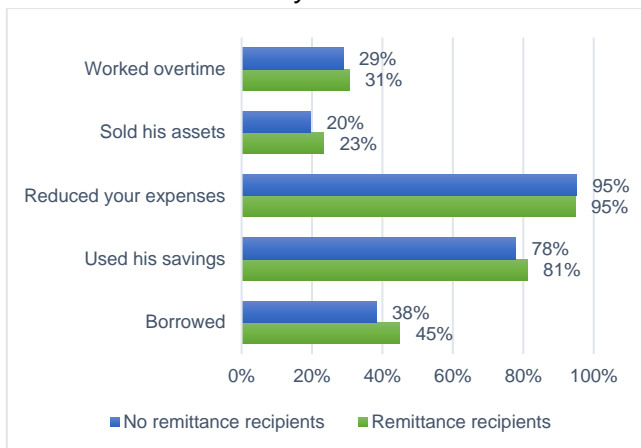
Figure 3. Percentage of households receiving and not receiving remittances with economic effects due to



Source: Authors' elaboration with data from the National Institute of Statistics and Geography (2021).

During this crisis, households were seen in an unpleasant financial landscape; as stated above, the impact of this was reflected in the loss of employment, reduced income and unexpected health expenditures. As a result, faced with dwindling resources, families were forced to resort to different sources of financing to face the crisis and cope with family expenses (see Figure 4).

Figure 4. Households affected by the pandemic and how they faced it



Source: Authors' elaboration with data from the National Institute of Statistics and Geography (2021).

Figure 4 shows that households receiving remittances were affected more than those not, so they had to take measures on their income and expenses, such as working overtime, selling their assets, using their savings or borrowing.

Before the COVID-19 pandemic, families receiving remittances were in a stable situation. Remittances received were an essential source of additional income for many families. Such income was often used to cover essential expenses; however, high dependence on remittances was a constant concern, as some families

could become vulnerable if the flow of remittances were suddenly reduced.

During the health emergency, job losses in the United States and the global recession negatively affected migrants' ability to send remittances to their families in Mexico. They directly impacted the living standards of these families, many of whom were forced to reduce costs and adjust their budgets. Those without other sources of income found themselves in a more precarious economic situation. However, others had a more stable financial cushion, which allowed these families to survive until the economic situation of their relatives abroad was restored. In short, the magnitude of this effect depended on the amount of remittances they received and the job stability of overseas senders.

Conclusions

This research highlights the importance of remittances in the current economic and social context. Migrants represent a significant workforce in receiving countries, contributing both to the economic growth of these countries and to the well-being of their homes in countries of origin through remittances. In the case of Mexico, a country with a high dispersion in the United States, remittances play a crucial role in the domestic and family economy.

The pandemic initially impacted remittance flows, but subsequent stability suggests that this income flow may be resilient even during economic and health crises. When examining the dependence of remittances by state, through the index that relates remittances to the gross value added, we see how remittances are a critical component of the economy in some areas of the country. These findings suggest that remittances are essential to Mexico's economy, especially in states such as Michoacán, Guerrero and Zacatecas. Remittances of border states are primarily in cash, through informal means called "pocket remittances", so they do not pass through the Mexican financial system and are not quantified.

The analysis of the ENIGH data reveals the importance of remittances in the livelihood of Mexican families, especially in the lower socioeconomic strata. Remittances have a differential impact on female-headed households, who, on average, earn slightly less than male-headed households. These resources play a critical role in accessing quality health services, as 61% of remittance-receiving households spent a significant portion of their income on healthcare-related expenditures in 2018. In 2020, it highlighted that 86% of households surveyed do not receive remittances, which implies that only a tiny

percentage receives this type of transfer. Of these remittance-receiving households, 60% were affected in some way by COVID-19, suggesting that even remittances did not guarantee immunity from the economic effects of the pandemic. As for households not receiving remittances, 54% were also affected by the pandemic.

This finding is relevant because it shows the pandemic spread throughout the country. Percentages of health and funeral expenses highlight the additional economic pressure the pandemic placed on families regarding unexpected health-related expenses.

As a result, this article highlights the need for public policies that promote better access to health services in general medicine and its specialities and address income gaps in Mexico, specifically in the lower income strata of the population, intending to reduce dependence on remittances and improve the Mexican families welfare.

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