

# Hepatitis C elimination among people who inject drugs in Mexico during the COVID-19 pandemic

Lara K. Márquez,<sup>1\*</sup> Annick Borquez,<sup>1</sup> Clara Fleiz,<sup>2</sup> Carlos Magis-Rodríguez,<sup>3</sup> Gudelia Rangel,<sup>4,5</sup> Steffanie A. Strathdee<sup>1</sup> and Natasha K. Martin<sup>1</sup>

<sup>1</sup>Division of Infectious Diseases and Global Public Health, University of California San Diego, La Jolla, California, United States; <sup>2</sup>Epidemiological and Psychosocial Research, Instituto Nacional de Psiquiatría "Ramón de la Fuente Muñiz", Mexico City, Mexico; <sup>3</sup>Faculty of Medicine, Universidad Nacional Autónoma de México, Mexico City, Mexico; <sup>4</sup>United States-Mexico Health Commission, Tijuana, Mexico; <sup>5</sup>Colegio de la Frontera Norte, Tijuana, Mexico

## Abstract

In 2019, Mexico was one of the first countries in Latin America to commit resources to achieve hepatitis C elimination by 2030. One year after this commitment, the global COVID-19 pandemic diverted attention to address immediate health needs to combat the spread of the disease. As a result, efforts to implement hepatitis C prevention and management programs were indefinitely postponed. Furthermore, populations at high risk of contracting the hepatitis C virus (HCV) and who bear the greatest burden of HCV national epidemic, including people who inject drugs and people who live with human immunodeficiency virus infection, remain exposed to extreme health disparities, which have potentially been exacerbated during the COVID-19 pandemic. In this article, we discuss the potential impact the COVID-19 pandemic has had on HCV elimination efforts in Mexico and the urgent need to resume them, since without these efforts, HCV elimination goals are likely not be achieved in the country by 2030.

**KEYWORDS:** Hepatitis C. Mexico. COVID-19. Drugs.

## Eliminación de la hepatitis C en usuarios de drogas inyectadas en México durante la pandemia de COVID-19

## Resumen

En 2019, México fue uno de los primeros países en Latinoamérica en comprometer recursos para eliminar la hepatitis C antes de 2030. Un año después de este compromiso, la pandemia mundial de COVID-19 desvió la atención hacia las necesidades inmediatas de salud para combatir la propagación de esta última. Como resultado, los esfuerzos para implementar programas de prevención y manejo de la hepatitis C se suspendieron indefinidamente. Asimismo, las poblaciones con alto riesgo de contraer el virus de la hepatitis C y que representan el mayor peso de la epidemia nacional, como las personas que se inyectan drogas y las personas que viven con infección por el virus de la inmunodeficiencia humana, permanecen expuestas a disparidades de salud extremas que potencialmente se han exacerbado durante la pandemia de COVID-19. En este artículo discutimos el impacto potencial que la pandemia de COVID-19 ha tenido sobre los esfuerzos de eliminación de la hepatitis C en México y la necesidad urgente de reanudarlos, ya que sin ellos los objetivos de eliminación no se alcanzarán en el país en 2030.

**PALABRAS CLAVE:** Hepatitis C. México. COVID-19. Drogas.

## Correspondence:

\*Lara K. Márquez

E-mail: lkusnezo@health.ucsd.edu

Date of reception: 07-12-2021

Date of acceptance: 21-01-2022

DOI: 10.24875/GMM.M22000650

Gac Med Mex. 2022;158:110-113

Contents available at PubMed

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## Efforts for HCV elimination in Mexico

With the increase in preventable cases of hepatitis B and C in the world, and the development of effective diagnoses and treatments on the market, in 2016, the World Health Organization established a strategy for eliminating viral hepatitis before the year 2030.<sup>1</sup> Reducing the incidence of hepatitis C by 80% is planned, and related mortality by 65%. In Mexico, hepatitis C virus (HCV) seroprevalence in the general population ranges between 1 and 2.5%,<sup>2</sup> but it is higher (> 90%) in key populations such as persons who inject drugs (PWID).<sup>3</sup> In 2019, Mexico was one of the first countries to commit to HCV elimination at the national level,<sup>4</sup> which included diagnosing 90% of cases and providing the first 750,000 antibody rapid tests and 12,500 direct-acting antivirals (DAA), with priority to populations at high risk of HCV, including PWID, people who live with human immunodeficiency virus (HIV) infection, and other key populations.<sup>5</sup> However, it is uncertain how the pandemic has obstructed implementation of this policy and achievement of the goals for HCV eradication.

Among priority populations for receiving hepatitis C treatment, as part of the national policy to eliminate this disease in Mexico, more than half of HCV infections are attributed to injection drug use.<sup>6</sup> Hepatitis C elimination goals in Mexico will only be achieved if treatment is prioritized and interventions are adapted to key populations that bear a high burden of the disease, such as PWID. A specific modeling analysis has estimated that the strategy of only providing treatment with DAAs is sufficient to reach HCV infection incidence goal, but total number of treatments needed per year decreases if it is combined with harm reduction (HR) interventions, such as opioid agonist therapy and high-coverage syringe exchange programs.<sup>7</sup> In addition, treatment in combination with high-coverage escalated HR services (e.g., to 50%) is the optimal and most cost-effective strategy.<sup>8</sup> Given that obtaining and maintaining funding for HR services remains a challenge, funding and implementing affordable and physically accessible HR programs for PWID should be a priority.

### Challenges for HCV elimination in Mexico before the pandemic

Before the COVID-19 pandemic, only one fourth of the people with chronic hepatitis C were diagnosed at

the national level, and an even smaller proportion were treated (< 1%).<sup>9</sup> Not only is the estimated number of undetected cases of HCV infection high, but perhaps it is even higher in communities that experience a high burden of the disease such as PWID, who have to face significant barriers for having access to detection tests and treatment. To achieve HCV elimination, the search for cases will be essential in all populations, particularly among PWID. In addition, specific protocols will be required in order for new cases to be identified and linked to treatment. Community-based work carried out by non-governmental organizations will be essential for reaching these key populations and achieving government's policy of universal coverage.

Initially, the cost of DAAs was a barrier, but with newly negotiated prices by the federal government, this historical impediment has almost been eliminated. As part of Mexico's commitment, the assigned treatment will be free. If additional DAA treatments are required for achieving HCV elimination, further government financial investment will be needed.

### Challenges for HCV elimination progress in the COVID-19 era

With the COVID-19 pandemic, health system priorities significantly changed. Health care units focused on SARS-CoV-2-infected patients; perhaps the most worrying about this shift has been the impact on highly vulnerable populations, such as PWID. Even a single-year delay in the implementation of tests, treatment and intervention programs to limit HCV infection might result in an excessive number of preventable cases and mortality related to this virus.<sup>10</sup> This delay would increase the incidence of hepatitis C cases and missed treatments. It is essential for current funded programs related to HCV infection and for detection, diagnosis and treatment services to continue.

Together with Mexico City, Mexicali and Ciudad Juárez, Tijuana was one of the cities that was most immediately affected by the COVID-19 pandemic.<sup>11</sup> The consequent closure of the US-Mexico border and travel restrictions forced more PWID to stop working, who also increased shared use of syringes and medications to avoid withdrawal, which further increased the risk of HCV and HIV transmission. Regarding this scenario, it is necessary to point out that PWID have a high risk of morbidity and mortality from COVID-19, because they lack access to hygiene and medical care basic resources as simple as water, soap and sterile injection kits.

Absence of HR services and an increase in the introduction of fentanyl, particularly along the Mexican northern border, have increased concerns about overdoses and HCV and HIV transmission.<sup>12</sup> In light of this difficult scenario, it is essential, now more than ever, for the continuity of HR services to be maintained and for them to be expanded. Any discontinuation will obstruct HCV elimination efforts. Modeling in the city of Tijuana has shown that elimination of opioid agonist therapy and high-coverage syringe exchange programs results in an almost immediate upturn in HCV infection cases among PWID. This is perhaps the most concerning, given that it could be a lasting consequence of the COVID-19 era. Failure to fund and ensure human resource services continuity at this moment will fuel the risk of injection and associated risks such as HCV and HIV transmission, as well as overdoses among PWID.

### Ensuring HCV elimination progress: next steps

Despite these challenges, there are significant opportunities such as HCV diagnostic and treatment services integration into existing infrastructure, with HIV testing and treatment and HR programs; these synergies might accelerate progress towards hepatitis C elimination. Recent evidence on HCV care integration at HIV centers among PWID has shown great successes in increasing HCV detection, as well as in infection status awareness, connection with medical care, treatment initiation and achievement of a sustained virologic response.<sup>13</sup> Without defined actions and continuous prioritization of funding programs for integrated HR services for PWID, the risk of HIV and HCV outbreaks will increase. Maintaining and expanding HR services is critical for these goals to be achieved, but it should also be recognized that basic services were not being provided to PWID before or during the pandemic. These fundamental issues must be addressed in order for the goals of the World Health Organization and UNAIDS to be successfully achieved.

### Conclusions

Despite the public health crisis caused by the COVID-19 epidemic, Mexico's commitment to hepatitis C eradication in the country is promising. The economic fallout from the pandemic must not be allowed to dismantle the goals outlined in 2019, since

prioritizing hepatitis C testing and treatment would be cost-effective. Lastly, hepatitis C elimination will be more easily achieved by applying appropriate interventions for populations with high burden of the disease.

### Funding

Lara K. Márquez was funded by the National Institute on Drug Abuse, NIDA (number T32 DA023356) and by the Fogarty International Center, both from the US National Institutes of Health; as well as by the Institute for Global Health at University of California San Diego (number D43TW009343). Annick Borquez was funded by NIDA (number DP2DA049295). Stefanie A. Strathdee thanks for the funding granted by NIDA (number R01DA049644). Natasha K. Martin was funded by the National Institute of Allergy and Infectious Diseases, NIDA (number R01 AI147490), and the University of California San Diego Center for AIDS Research, a program funded by the National Institutes of Health (number P30 AI036214).

### Conflict of interests

The authors declare that there are no conflicts of interest.

### Ethical disclosures

**Protection of human and animal subjects.** The authors declare that no experiments were performed on humans or animals for this research.

**Confidentiality of data.** The authors declare that no patient data appear in this article.

**Right to privacy and informed consent.** The authors declare that no patient data appear in this article.

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