

COVID-19 and global HCV elimination efforts

Sarah Blach, MHS, CPH.

HCV Team Lead, CDA Foundation, Lafayette, CO, USA

Email: sblach@cdafound.org

What do your projections suggest about the impact of COVID-19 on HCV elimination efforts?

Our projections suggest that a one-year delay in HCV programming due to the COVID-19 pandemic could result in 906,000 people never receiving an HCV diagnosis and 746,000 people never receiving HCV treatment, globally, through 2030.¹ If these losses are not recovered, we would expect 623,000 (95% UI: 609,000–685,000) additional prevalent infections in 2030, as well as 44,800 (95% UI: 43,800–49,300) excess cases of HCC and 72,200 (95% UI: 70,600–79,400) excess deaths due to HCV over the next ten years. ⁽¹⁾

Have these projections likely changed in the past 6 months as the pandemic has evolved?

When we began this work, we had no way of knowing how much disruption the COVID-19 pandemic would cause. We chose to model a full one-year delay (where no diagnosis or treatment would occur) to be conservative. Since that time, we have been collecting data from national programs to update our analyses with real-world data. This will allow us to eventually report at a national level, rather than just the regional or global levels. Preliminary data suggest that, in 2020, on average, low- and lower-middle- income countries experienced a 70% reduction in HCV treatment starts, while upper-middle- and high- income countries experienced a 40% reduction. In the end, our original projections may not be far off at the regional or global levels; however, it may manifest as two years at partial capacity, rather than a single full year at no capacity. If anything, we would expect the final impact of the COVID-19 pandemic to exceed our projections.

Where in the world will COVID have the biggest impact on HCV elimination efforts?

At the regional level, our projections suggested that most excess HCC cases and liver-related deaths would be expected in lower-middle income countries and high-income countries, while most excess incident infections would be in lower- and upper-middle income countries. ⁽¹⁾ However, at a country level, this is yet to be seen. That's because it is not as straightforward as determining which country has the most COVID cases. Rather, there are four major questions we need to ask when considering the impact of COVID-19 on national HCV elimination progress:

- 1) How robust was the HCV elimination program to begin with?
- 2) How significantly, and for how long, will COVID-19 affect service delivery?
- 3) How are patients reacting to and rebounding from the COVID-19 precautions in their country?
- 4) How will the HCV elimination program recover after the pandemic?

The first question may be the most important. The latest data from the Polaris Observatory suggest that at the beginning of 2019, only 8 countries were on track for HCV elimination. ⁽²⁾ A few countries are ahead of schedule

for hepatitis elimination, so it would take catastrophic multi-year delays in programming to lose ground. Egypt, for example, has already screened more than 80% of the adult population and initiated more than 3.5 million patients on treatment. As a result of the country's past efforts, the COVID-19 pandemic, while unwelcome and disruptive, is not an imminent threat to HCV elimination progress. Unlike HBV or HIV, HCV is curable, and early treatment prevents progression to advanced liver disease – meaning, these past one-time efforts will not need to be repeated to achieve the elimination targets (barring massive levels of reinfection or a new primary source of HCV transmission in the country). On the other end of the spectrum, there are countries lagging behind in hepatitis elimination efforts where a complete discontinuation in programming would have basically no impact.

This leaves the countries in the middle – a majority of countries in fact, where every year could be a pivotal year for HCV elimination efforts. Within this group, the level of disruption from COVID-19 as well as patient comfort and readiness to seek care become the dominant variables. Sweden, a country that did not experience a “hard lockdown” in 2020, saw a 10-45% reduction in monthly new diagnoses in the first 10 months of 2020. ⁽³⁾ Harm reduction and treatment programs were similarly impacted, complicating the country's ability to achieve the incidence elimination target. The easiest way to measure the impact of COVID-19 thus far is through year-over-year changes to HCV diagnosis and treatment, after considering pre-established programmatic changes. And, while this is helpful for determining the impact of COVID-19 to date, there is significant uncertainty around the future of HCV elimination programs. If HCV programs only return to pre-2020 levels, then the losses from 2020 may never be recovered. Similarly, if focus is permanently shifted away from HCV programming, we could expect more prevalent cases and a much greater loss of life in both the short and long term. However, should countries choose to double down on HCV elimination, they could recoup the short-term losses and still achieve elimination by 2030. Ultimately, we hope to be able to better answer this question over the course of the coming year.

Lastly, it is also important to remember the disconnect between person-level and population-level impacts. A one-year delay may not change a country's or region's progress toward HCV elimination, but the loss of 72,200 lives globally would still be felt acutely by their families – especially since mortality from HCV is largely preventable.

What steps can policy makers take to limit the impact of the pandemic on HCV elimination efforts?

The pandemic serves as a reminder that there will always be setbacks that are out of our control. Because of this, we need to act as if HCV elimination is important today, not just within the next ten years. Policy makers are going to respond to the fire in front of them, so quite frankly it may take time for them to recommit to hepatitis elimination. Similarly, it may take time for patients to feel comfortable returning to clinical settings. In the meantime, the hepatitis community should continue pushing forward, to evaluate what ground was lost in their country (and why) and develop a plan for regaining momentum toward elimination.

The most recent WHO access report recommends a “treat all” approach with a drastically simplified test and treatment paradigm. ⁽⁴⁾ As a result, a broader provider base can and should be recruited to assist in HCV elimination. Furthermore, curing HCV can be achieved for as low as \$60 (US Dollars) per treatment regimen in low- and middle-income countries, ⁽⁴⁾ and rapid diagnostic tests are readily available to expedite test and treat programs. Many countries have implemented population level screening for COVID-19 and improved their capacity to track and

monitor patients. These learnings and infrastructure should be leveraged for hepatitis programming and could be used efficiently to implement a one-time large-scale test and treat program. Although we have 10 years to eliminate HCV, experiences in countries such as Egypt suggest that with political will and strong programs, elimination can be achieved in much less time.

References:

- 1 Blach S, Kondili LA, Aghemo A, Cai Z, Dugan E, Estes C, et al. Impact of COVID-19 on global hepatitis C elimination efforts. *J Hepatol.* 2020.
- 2 CDA Foundation. Polaris Observatory 2020 [updated April 17, 2020. Available from: <https://cdafound.org/polaris/>].
- 3 Folkhälsomyndigheten [The Public Health Agency of Sweden]. Data & Statistics: Hepatitis C, 1999-2020. : Folkhälsomyndigheten; 2020 [Available from: <https://www.folkhalsomyndigheten.se/folkhalsorapportering-statistik/statistikdatabaser-och-visualisering/sjukdomsstatistik/hepatit-c/>].
- 4 WHO. Global health sector strategy on viral hepatitis 2016–2021, Towards ending viral hepatitis. Geneva, Switzerland: World Health Organization June 2016.