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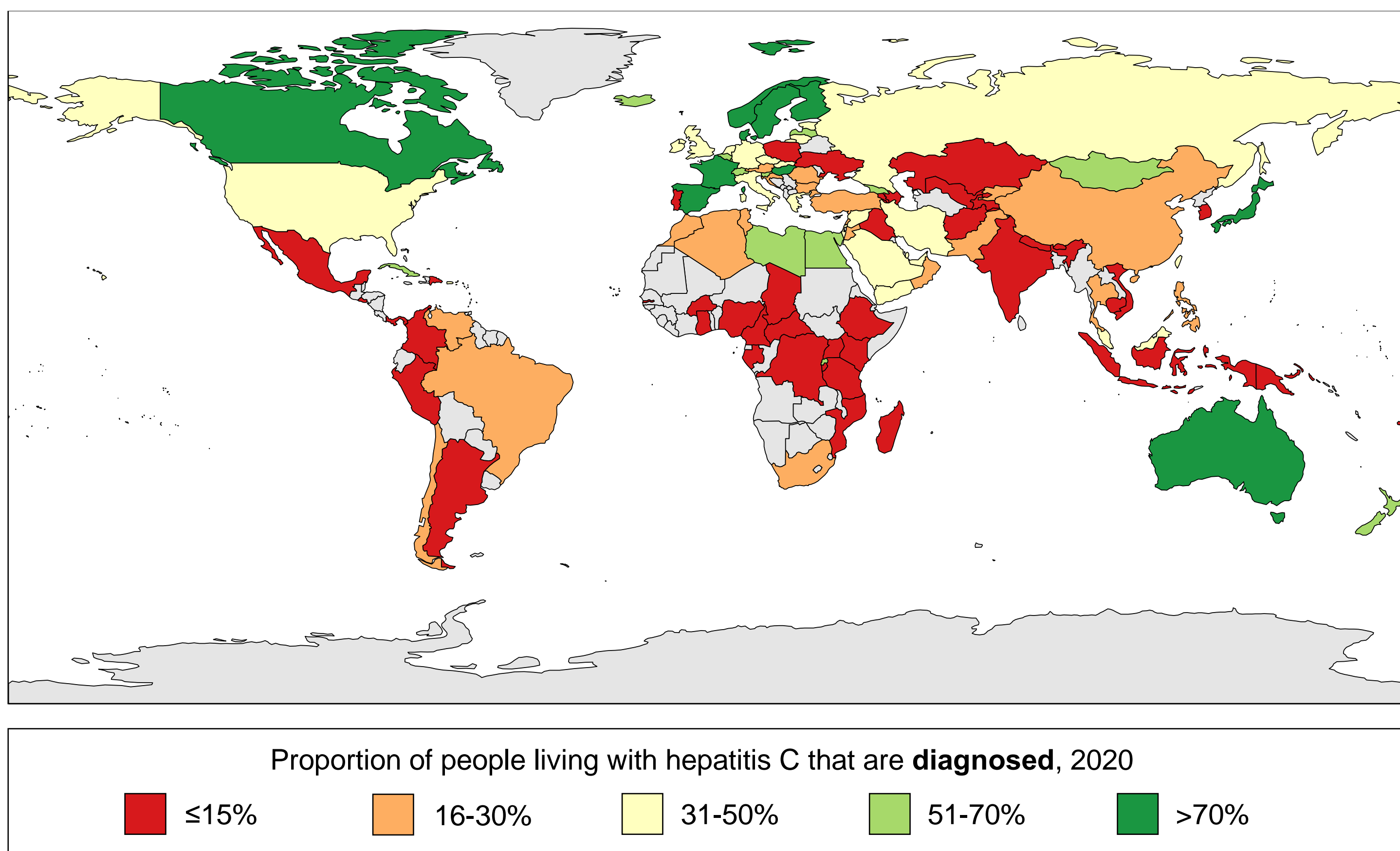
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BACKGROUND

- For elimination of Hepatitis C to be feasible, the number of people cured with treatment needs to be consistently higher than new infections, worldwide.
- Direct-acting antivirals, such as sofosbuvir-velpatasvir (SOF/VEL) and sofosbuvir-daclatasvir (SOF/DAC) can cure over 90% of people treated.
- However, the high cost of treatment is a barrier to treatment uptake.

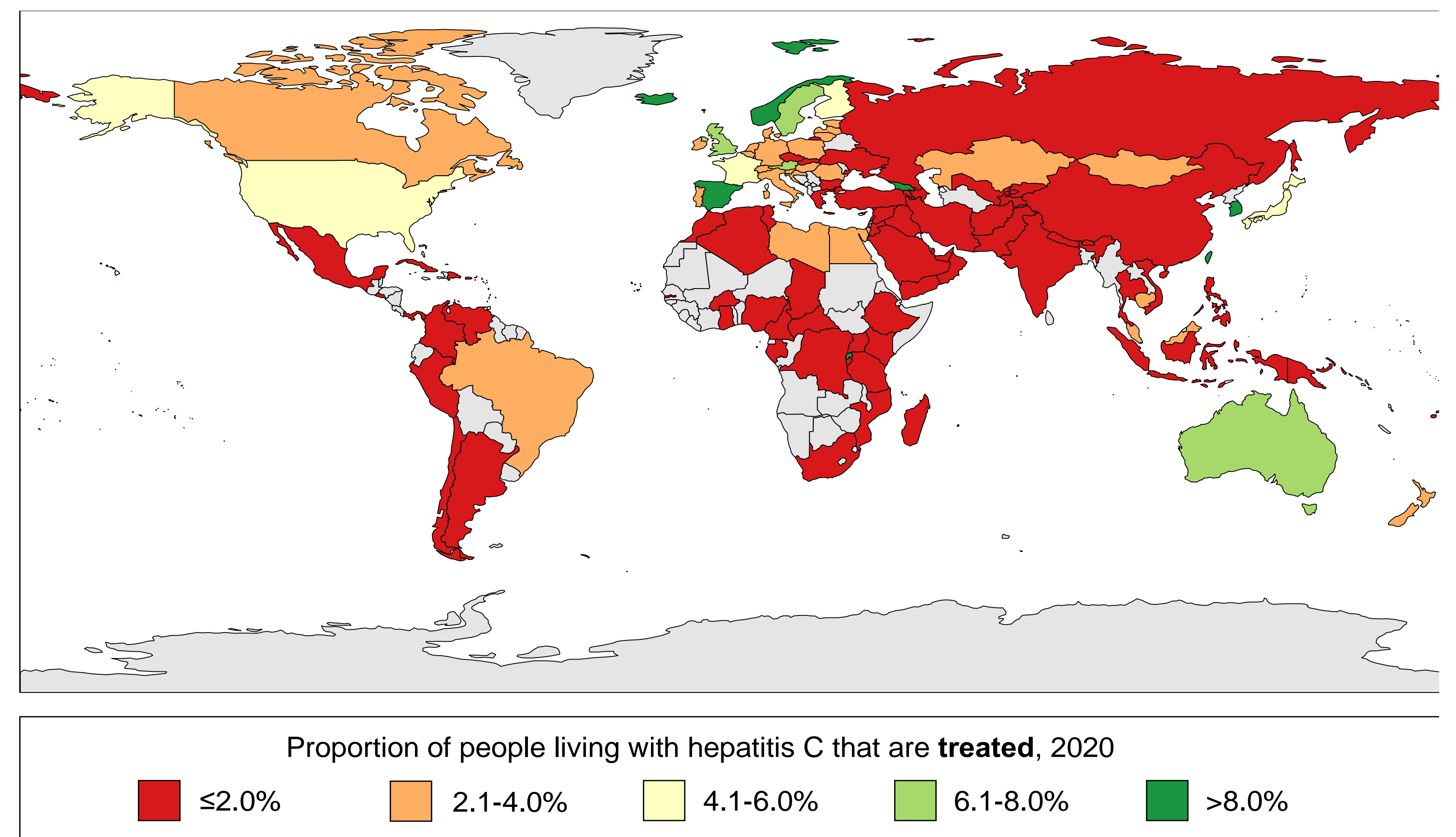
Summary of the global hepatitis C epidemic, 2020

Number of people with hepatitis C	51.8 million	} Total = 1.69 million
Number of new hepatitis C infections	1.5 million	
Number of people treated	674,000	
Number of hepatitis C deaths	239,000	
Number of non-hepatitis C deaths	777,000	



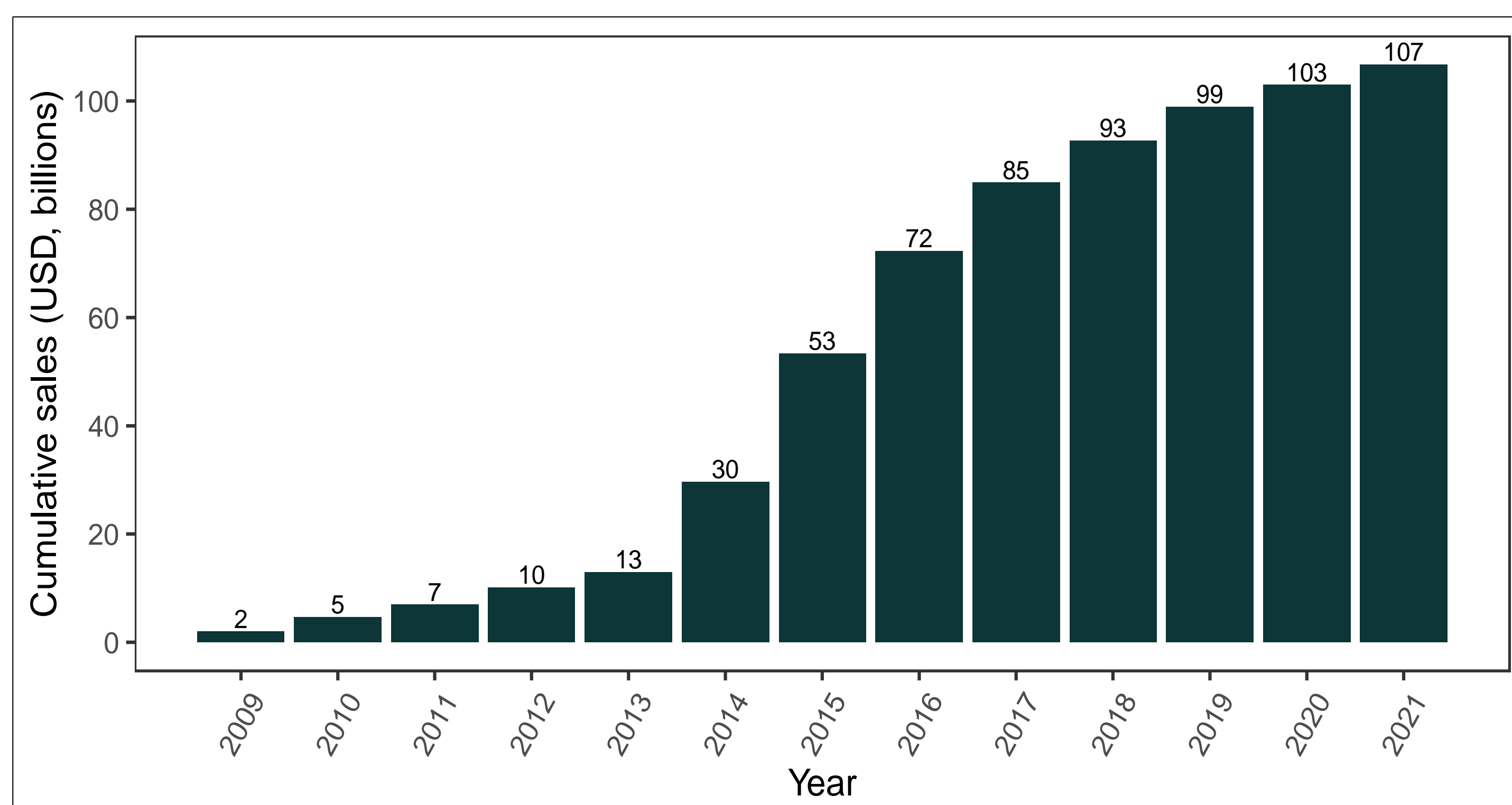
METHODS

- The per-person cost of hepatitis C treatment was estimated by analysing exports of Active Pharmaceutical Ingredients (1). Annual pharmaceutical sales for drugs to treat hepatitis C were compiled from quarterly sales reports (2).
- Epidemiological data on the HCV epidemic for 110 countries were extracted from the Polaris Observatory (<https://cdafound.org/polaris/>).
- The number of new annual infections was estimated to be 1.5 million (3). Non-HCV related deaths were estimated at 1.5% of the total viraemic population.
- The annual net change was calculated by subtracting the number treated, HCV-related and non-HCV related deaths from the number of new infections.

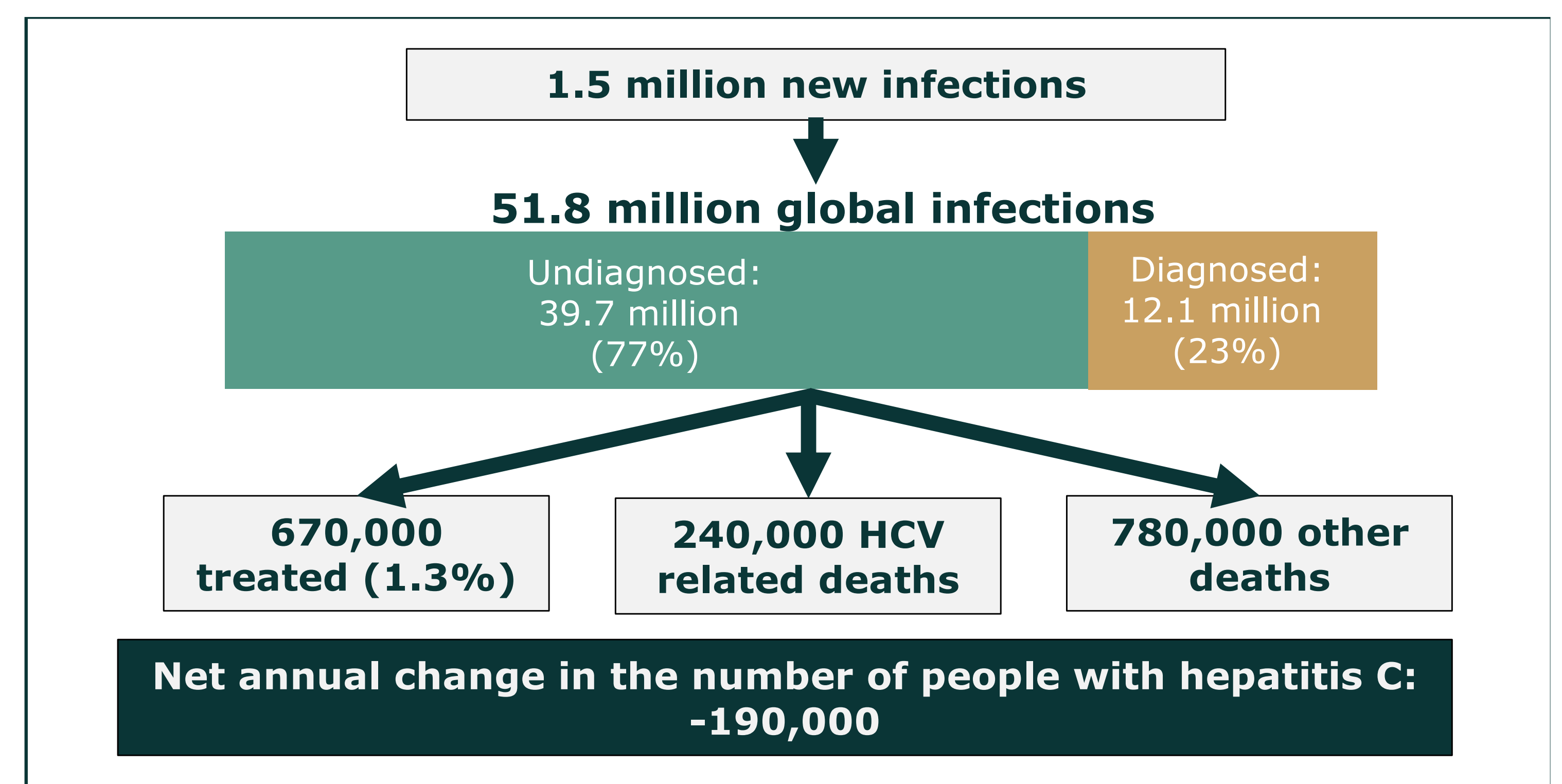


RESULTS

- In 2020, there were an estimated 1.5 million new Hepatitis C infections. There were 674,000 people treated and cured, and 1 million deaths. The net annual change in the number of people with hepatitis C was estimated to be -190,000 (0.4%).
- In 2020, the global sales to treat 674,000 people (1.3%) totally USD \$4.1 billion.



- The estimated cost of cure with generic drugs was USD \$79 for SOF/VEL and USD \$35 for SOF/DAC. The current list price of SOF/VEL in the USA is just over USD \$24,000, which is over 300 times higher than the cost price.
- If all 51.6 million people with Hepatitis C in the 110 countries in this study were treated for USD \$35, the total cost would be USD \$1.8 billion, equivalent to 6 months of current pharmaceutical sales.



DISCUSSION AND CONCLUSIONS

- Despite approximately USD \$100 billion spent on treatment, there is no potential for elimination at current rates of treatment.
- In 2020, for every person cured, two more were newly infected. Most people living with Hepatitis C are undiagnosed.
- In 2020, the number of people with Hepatitis C changed from 51.8 million to 51.6 million, a decrease of only 0.4%.
- The prices of hepatitis C treatment need to be reduced significantly. This could allow mass treatment worldwide at affordable costs.

References:

- (1) Hill A, Wang J, Levi J, Heath K, Fortunak J. Minimum costs to manufacture new treatments for COVID-19. *J virus Erad.* 2020 Apr;6(2):61–9.
 (2) Barber MJ, Gotham D, Khwairakpam G, Hill A. Price of a hepatitis C cure: Cost of production and current prices for direct-acting antivirals in 50 countries. *J Virus Erad* [Internet]. 2020;6(3):100001. Available from: <https://www.sciencedirect.com/science/article/pii/S2055664020300017>
 (3) World Health Organization. Hepatitis C: Fact Sheet [Internet]. 2022 [cited 2022 Jun 23]. Available from: <https://www.who.int/news-room/fact-sheets/detail/hepatitis-c>