TEAM KENTUCKY

CABINET FOR HEALTH AND FAMILY SERVICES

OFFICE OF DATA ANALYTICS
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BARRIERS TO HEPATITIS C TREATMENT IN KENTUCKY

Summary prepared by the Office of Data Analytics Division of Analytics

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What is Known on This Topic?
The Hepatitis-C Virus (HCV) is the most common blood-borne virus in the US.[1] Kentucky has the second highest HCV prevalence rate in the country, and the highest rate among pregnant women.

What Did this Project Do?
This analysis sought to analyze barriers to treatment for HCV among Medicaid beneficiaries and provide pathways to help lower the infection rate of HCV statewide.

What Could Medicaid Do with These Conclusions?
The results of this analysis can help better understand the population previously infected with HCV as well as those that remain at a high risk for continued infection. Additionally, barriers to treatment for these individuals are analyzed and recommendations are provided to help soften these barriers.

Introduction

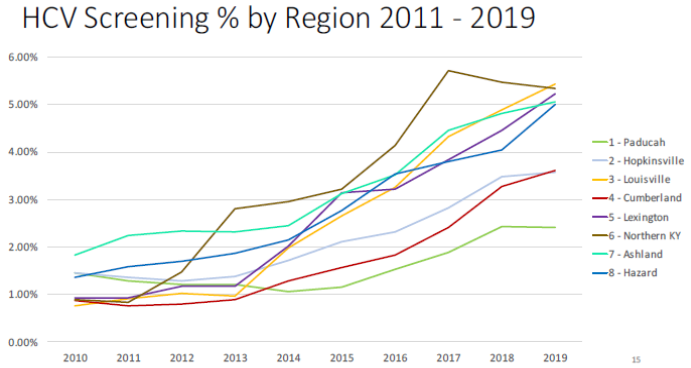
The Hepatitis-C Virus (HCV) is the most common blood-borne virus in the US, with historical routes of transmission being exposure through the skin, transfusion-transmission (TT), perinatal exposure, sex, and injection drug use. Today the primary route of transmission of HCV is injection drug use, with Kentucky being among the top five states with highest infection rates in men, and both non-pregnant and pregnant women.[2] In 2014 a new generation of Direct-Acting Antivirals (DAAs) were released with the hopes of curbing the spread of HCV and helping treat those currently fighting the infection. However, there still exists many barriers to treatment for HCV, making efforts to help eliminate the virus difficult.

Project Methods & Results

This analysis sought to analyze HCV in the Kentucky Medicaid population as well as to analyze barriers to treatment. Statistical models were implemented to compare Medicaid beneficiaries between 2010 and 2019 with HCV to those without to analyze disease risk factors between the two populations. Additional models were run to measure survival over time between those with HCV and those as well as comparing those that received treatment via DAAs to those who did not. Finally, barriers to treatment were examined to understand how to better treat the populations most of risk for HCV.

Overall, screening rates for HCV increased from around 2% in 2010 to slightly under 6% in 2019, although rates varied by region. Figure 1 displays these results.

Figure 1. *Hepatitis Screening by Kentucky Region*



From 2014 moving forward, screening rates among pregnant women trended upward. Pregnant women who identified their race as white went from a 16% screening rate to 37% in 2019, while those who identified their race as black went from a 10% screening rate to 44%. During this same time frame, estimated rates of HCV positive diagnoses fell for pregnant women, from 20% to 11% for those identifying as white, and from 5% to 1% for those identifying as black.

Looking at a breakdown of HCV diagnoses by age groups reveals two peaks where HCV diagnoses appear most prominently: a lower age group (20-40 years) as well as an older age group (50-75 years).

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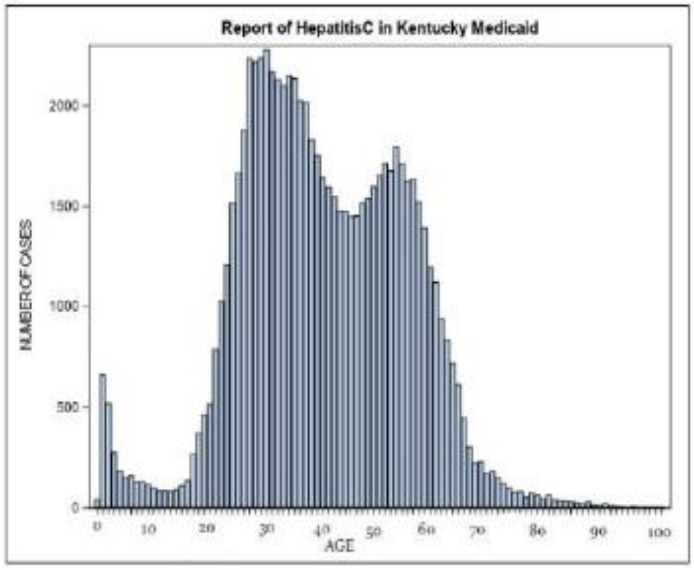
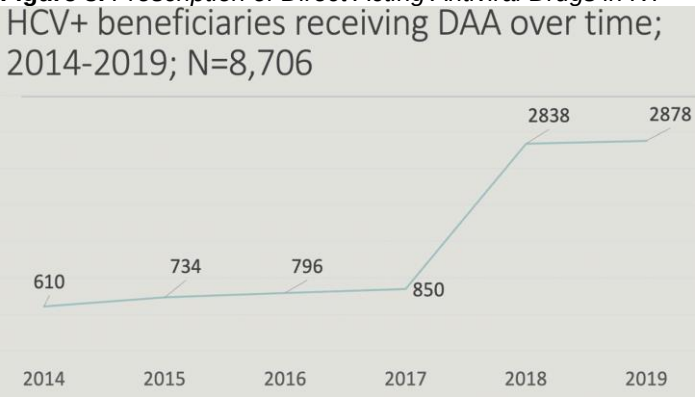
This gap between the younger age group and the "baby boomer" demographic group has been observed in supplementary data as well, with the younger group primarily receiving infection via injection drug use.

Figure 2. *Cases of Hepatitis in Kentucky, by Patient Age*



As mentioned, In 2014, a second generation of DAAs were launched and use of these antivirals became more common for HCV treatment. A sharp increase in DAA prescribing rates occurred in 2018, providing evidence that the removal of existing prescribing barriers resulted in an increased number of individuals being treated via DAAs.

Figure 3. *Prescription of Direct Acting Antiviral Drugs in KY*



Conclusion

Barriers to HCV treatment, particularly with the use of DAAs, have been controversial and very cost prohibitive, with an estimated cost of $140,000 per person when first introduced. A new generation of DAAs became available to Medicaid beneficiaries starting in 2014. Use of these DAAs started to gain traction, with a considerable increase observed starting in 2018, likely as a result of easing treatment restrictions. These policy changes impacted two age groups the most: those under 24, and those 55 or older.

Additional policy changes have led to increases in screening for HCV, particularly for pregnant beneficiaries which more than doubled from 15% to 38% between 2010 and 2019. This increase is likely related to the passage of SB250 in 2018, calling for HCV screening of pregnant women during each pregnancy, and to record perinatal exposure to HCV in the infant's permanent medical record. These recommendations were picked up by the CDC in 2020 as well as The American College of Obstetricians and Gynecologists (ACOG) in 2021. Recommended practices to improve HCV screening include:

- Ensuring Medicaid providers are reimbursed for screenings.
- Support for the adoption of opt-out language.
- Creation of measures that can monitor screening rates for pregnant beneficiaries, infants born to HCV+ mothers, as well as racial minorities.

Additionally, numerous research studies have provided opportunities to improve the treatment of HCV in populations:

- Treatment as prevention method – studies have found that this method is effective at reducing infection in a population of people who use and inject drugs (PWID) with HCV when the network population has an infection rate of 60% or less[3].
- The greatest increase in HCV acquisition between age cohorts occurred in those moving from the 15-24 group to the 25-34 group, for both men and women. Public health education targeting individuals between 10-20 years of age can help reduce this.
- The highest mortality rates for HCV+ individuals were those who were co-infected with either HBV or HAV. Therefore, recommendations include supporting universal vaccinations and coverage for these as the CDC did in June 2022.

References

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