Eliminating the Public Health Problem of Hepatitis B and C in the United States
Background on The National Academy of Medicine

- Established by Congress in 1970 as the *Institute of Medicine of the National Academies*

- Part of the National Academies of Sciences (1863) and Engineering (1964)

- Now called National Academies of Sciences, Engineering, and Medicine
National Academy of Medicine

• Private, non-profit society of distinguished scholars engaged in research

• Serve as advisers to the federal government and act independently on critical issues in health, medicine, and related policy

• Goal of spurring public action
National Academy of Medicine

• Consensus (committee) studies may be commissioned

• Bring a question or questions to an Academy through a specific Statements of Task

• Academy selects group of independent experts to deliberate, examine evidence, and issue a report

• Reports are reviewed by independent experts, and the committee responds to each reviewer’s comments
A National Strategy for the Elimination of Hepatitis B and C

• Sponsors:
  – Division of Viral Hepatitis
  – HHS Office of Minority Health
Statement of Task

PHASE I

• The IOM will determine whether HBV and HCV elimination goals for the United States are feasible; and
• Identify possible critical success factors.

• Tools: Literature review and two in-person meetings.
• Time frame: Approximately 60 days from first meeting to report.
Overall Key Findings of Committee

• The elimination of hepatitis B and C poses challenges, both in defining what qualifies as “elimination” and in monitoring progress toward those goals.

• It is feasible in the relatively short term to control hepatitis B and C—meaning to reduce their incidence and prevalence (and their sequelae).

• Eliminating the public health problem of hepatitis B and C—meaning that the diseases may remain but transmission will stop and the most undesirable manifestations will be prevented completely—is also feasible, but considerable barriers face any elimination program.
Overall Consensus Conclusion

• After analyzing the problems of hepatitis B and hepatitis C in the United States, the committee concluded that control is feasible in the relatively short term.

• Eliminating the public health problems of hepatitis B and C will take more time and will require considerable public will, resources, and attention to the barriers discussed in the report.
HBV Framework

Goal 1: End transmission
• Perinatal
• Children
• Adults

Goal 2: Reduce morbidity and mortality
• Slow progression to cirrhosis
• Reduce deaths
HCV Framework

Goal 1: End transmission
  • Focus on PWID

Goal 2: Eliminate chronic infection
  • Focus on treatment and adherence

Goal 3: Reduce morbidity and mortality
  • Slow progression to cirrhosis
  • Reduce deaths
Clinical barriers to HBV elimination

• While there are effective antiviral drugs to reduce disease progression and disease morbidity and mortality, there is no curative treatment for hepatitis B.

• HBV treatment is not recommended for all people living with chronic HBV infection.

• Risk of developing liver cancer is still present for those with liver damage even if undergoing HBV treatment.

• Many chronically infected HBV patients eventually require immunosuppressive drugs for cancer, autoimmune disease or organ transplantation. Without prophylactic antiviral treatment, these drugs can reactivate suppressed HBV, a serious complication that can lead to liver failure.
Policy and other barriers to HBV elimination

- HBV disease surveillance is inconsistent across jurisdictions and under-funded.
  - Impacts accuracy of prevalence and incidence estimates
  - Enhanced surveillance could support identification of high-risk contacts for testing and vaccination.
  - Tracking vaccination across jurisdictions is not currently possible.
  - Consistent disease surveillance in all jurisdictions will be needed to evaluate elimination efforts.

- Chronic HBV infection carries a social stigma for some populations that could undermine elimination efforts.
  - Education and changes to social norms may alleviate stigma. Such change is possible, but takes time.
Policy and other barriers to HBV elimination (2)

• Restrictions on access to care for uninsured or undocumented foreign-born people could reduce the impact of improved screening and testing efforts.
  – Increased screening of chronic HBV cases is needed to reduce morbidity and mortality
  – Current screening recommendations are poorly understood and implemented
  – Screening should be accompanied by a method to enroll and retain patients in care.

• Only limited funding is available for expanded adult HBV immunization programs.

• Research on reactivation, better vaccines, and a curative treatments would facilitate HBV elimination.
Clinical barriers to HCV elimination

• No preventative vaccine is available.
  – HCV is highly infectious in blood, making prevention of HCV among people who inject drugs more complex.

• Asymptomatic acute and chronic infections

• Curing HCV after development of fibrosis and cirrhosis does not eliminate the risk of hepatocellular carcinoma.
Policy and Other Barriers to Hepatitis C Elimination

• Surveillance for HCV infection is sporadic and underfunded in the US, which limits our ability to know true prevalence and incidence and to evaluate
  – People who inject drugs drive most transmission in US, but are less likely to be tested or included in surveillance.

• Limited access to comprehensive prevention services; role of treatment as prevention untested

• Half of all chronically infected people are estimated to be undiagnosed.

• Many insurers and three-quarters of states’ Medicaid programs have responded to the cost of DAAs by restricting access. Only about one in ten people with chronic hepatitis C receives curative treatment.

• Stigma can undermine any elimination effort
Further Barriers to Hepatitis C Elimination

- Even at the current prices, these drugs are cost-effective. The benefits of treatment outweigh the costs.

- Eliminating Hepatitis C would require near universal access to treatment, something that appears unfeasible given the current pricing, clinical workforce, and policy environment.

- Though HCV is more than twice as common as HIV and causes more deaths, it is less of a public priority, far fewer resources are allocated to its prevention, testing, treatment, and research.

- Almost a third of the United States’ chronic hepatitis C cases are found in prisons, but managing the infection is not usually within the capacity of a prison health system.
What is Next?

• Phase II: Consensus Report
  – Elimination and control goals and a plan of action to achieve the goals
    • Medical and substance abuse, community-based, and correction health services
    • Barriers including potential solutions
    • Specific stakeholders and their responsibilities
  – Three meetings will be held: the first is an open meeting on June 8-9, 2016, in Washington, DC, focusing on testing and access to care
  – Final report to be issued in 2017
Some of the questions that will need to be addressed in Phase II

• What is the time frame for control and elimination of HBV and HCV?

• What specific programs, services, and policies will be needed to address identified barriers?

• What additional research would support elimination efforts?

• Stakeholders roles in achieving the identified goals