Decreasing Liver-Related Mortality Associated With A Decreasing Prevalence of HCV Coinfection: Data From the HIV Atlanta VA Cohort Study (HAVACS)

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Background

- Mortality rates among HIV-infected persons has declined dramatically since 1996 and deaths are often from causes other than AIDS
- Although several cohort studies have suggested that liver-related deaths, especially associated with HCV, are now an important cause of mortality, we have previously reported decreasing liver-related mortality in our cohort
- Possible causes for this observation will be discussed

Methods – 1

- The Atlanta VA Cohort Study (HAVACS) is a prospective study collecting clinical, laboratory, and treatment data on all HIV-infected patients seen at the Atlanta VA since 1982
- Electronic data capture substantiates that 95% of patients have follow-up and outcome data available
- Cause of death was determined by review of electronic medical records and death certificate data, when necessary
- Liver-related deaths included hepatic failure of any cause, hepatocellular carcinoma, esophageal bleeding, or hepatic encephalopathy

Methods – 2

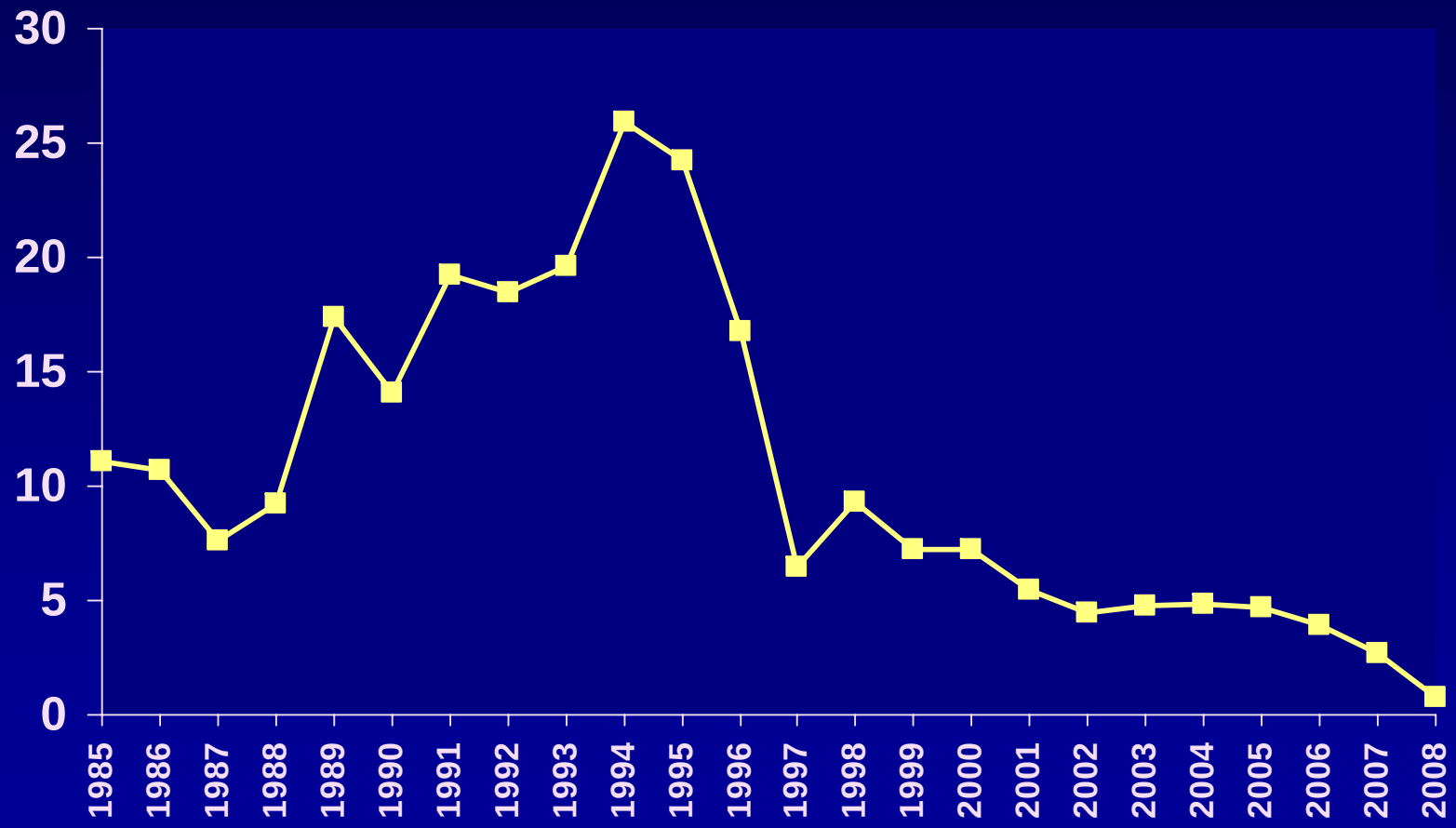
- The HIV and hepatitis C clinical case registries of the VA were used to generate annual prevalence of coinfection and trends in median age

Results

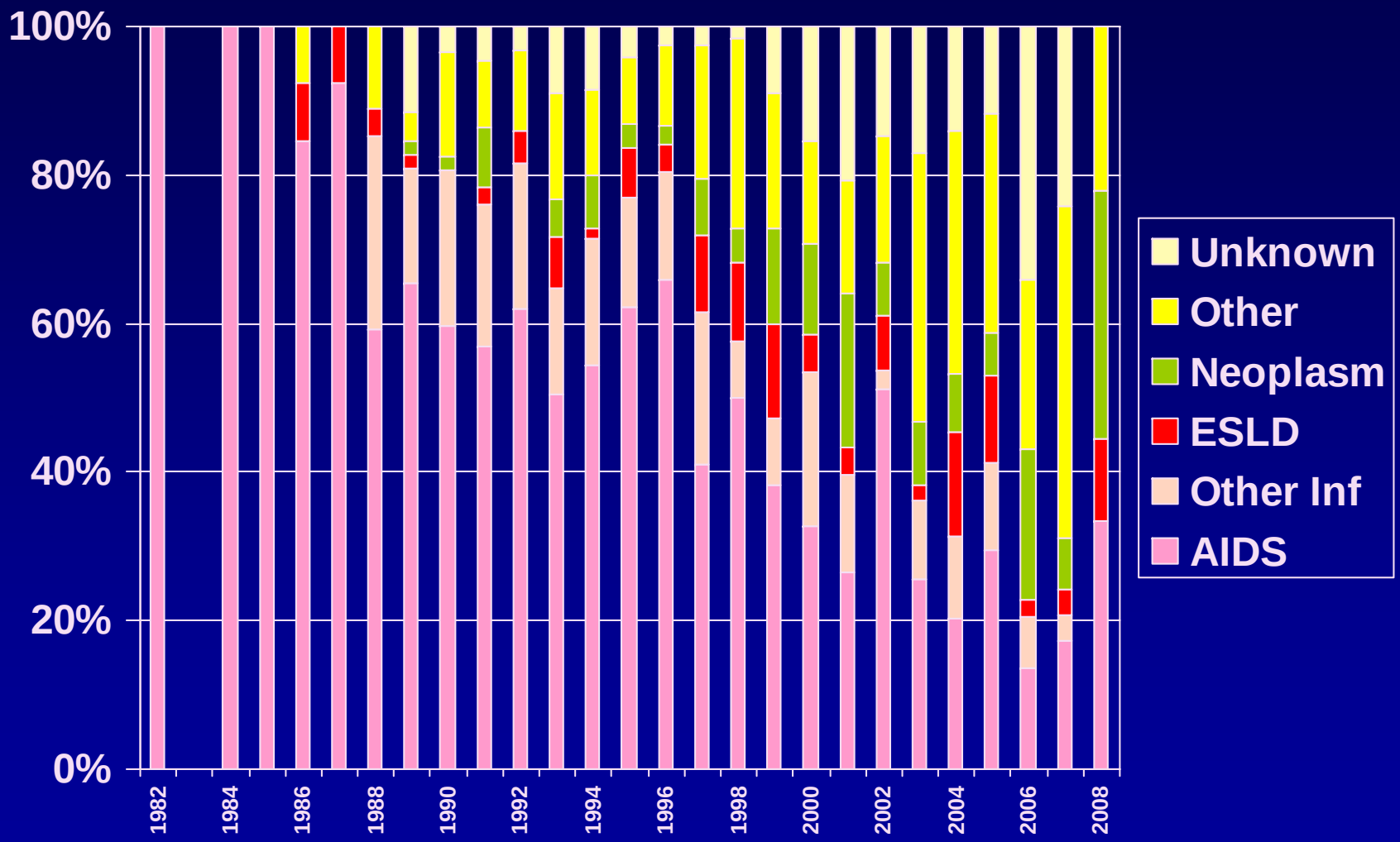
- Total patients seen from 1982 through 8/27/08: 3270 with 16,164 patient-years of follow-up
- High prevalence of
  - HCV: 31%[1]
  - HBV: 11%[2]
  - Alcohol abuse (>6 drinks/day): 27%[3]
- Very low HCV treatment rate: 11/1113= 0.9%
- Total deaths: 1394
  - Total liver-related: 77 (5.5%)
  - Total HCV-related: 33 (2.6%)

1. Anderson KB, et al. *Clin Infect Dis*. 2004;39:1507-13. 2. Osborn MK, et al. *HIV Med*. 2007;8:271-9. 3. Justice AC, et al. *Med Care*. 2006;44:S13-S24.

HIV Mortality at Atlanta VAMC
Rate per 100 Patients Seen

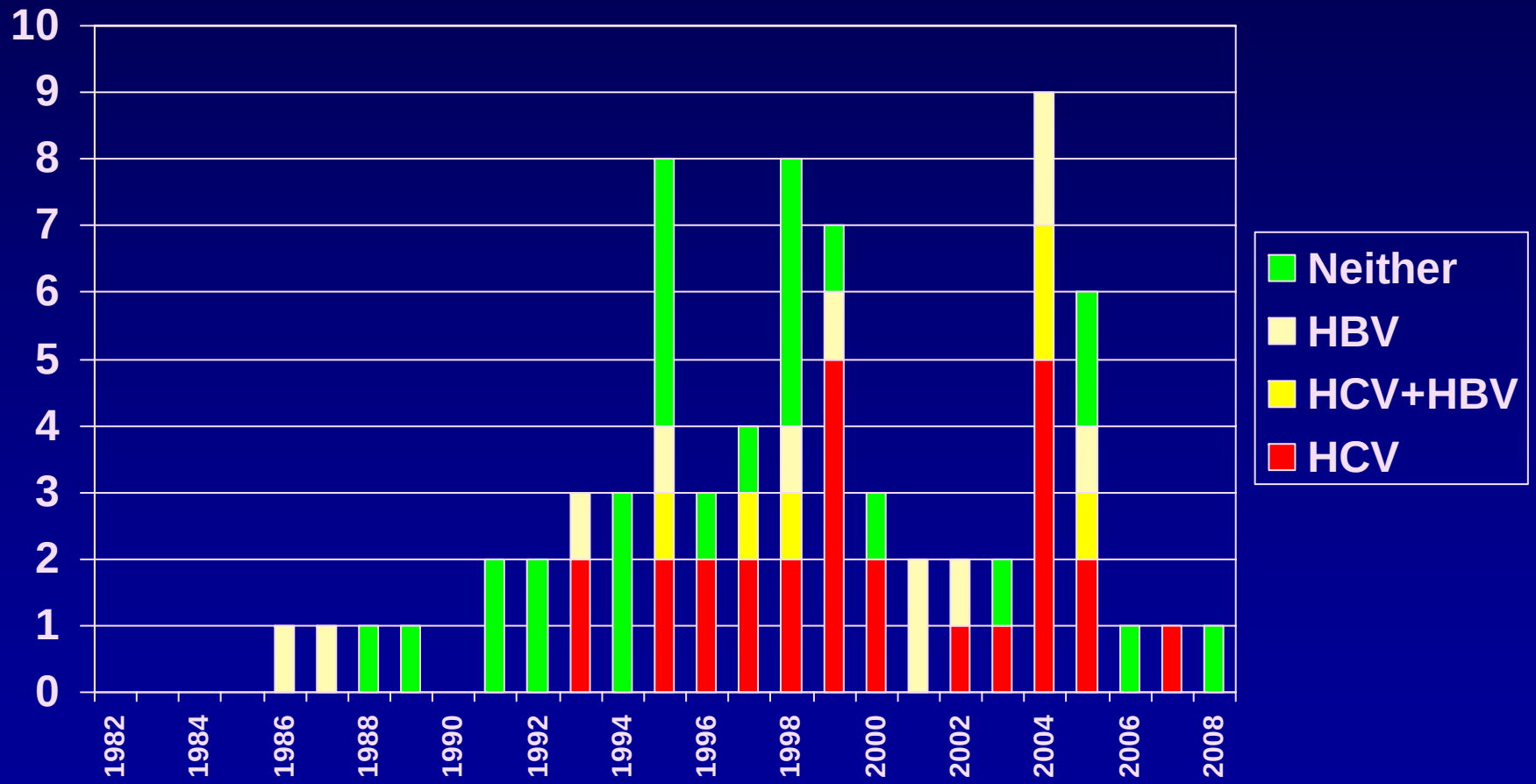


Causes of Death*



*Through August 27, 2008.

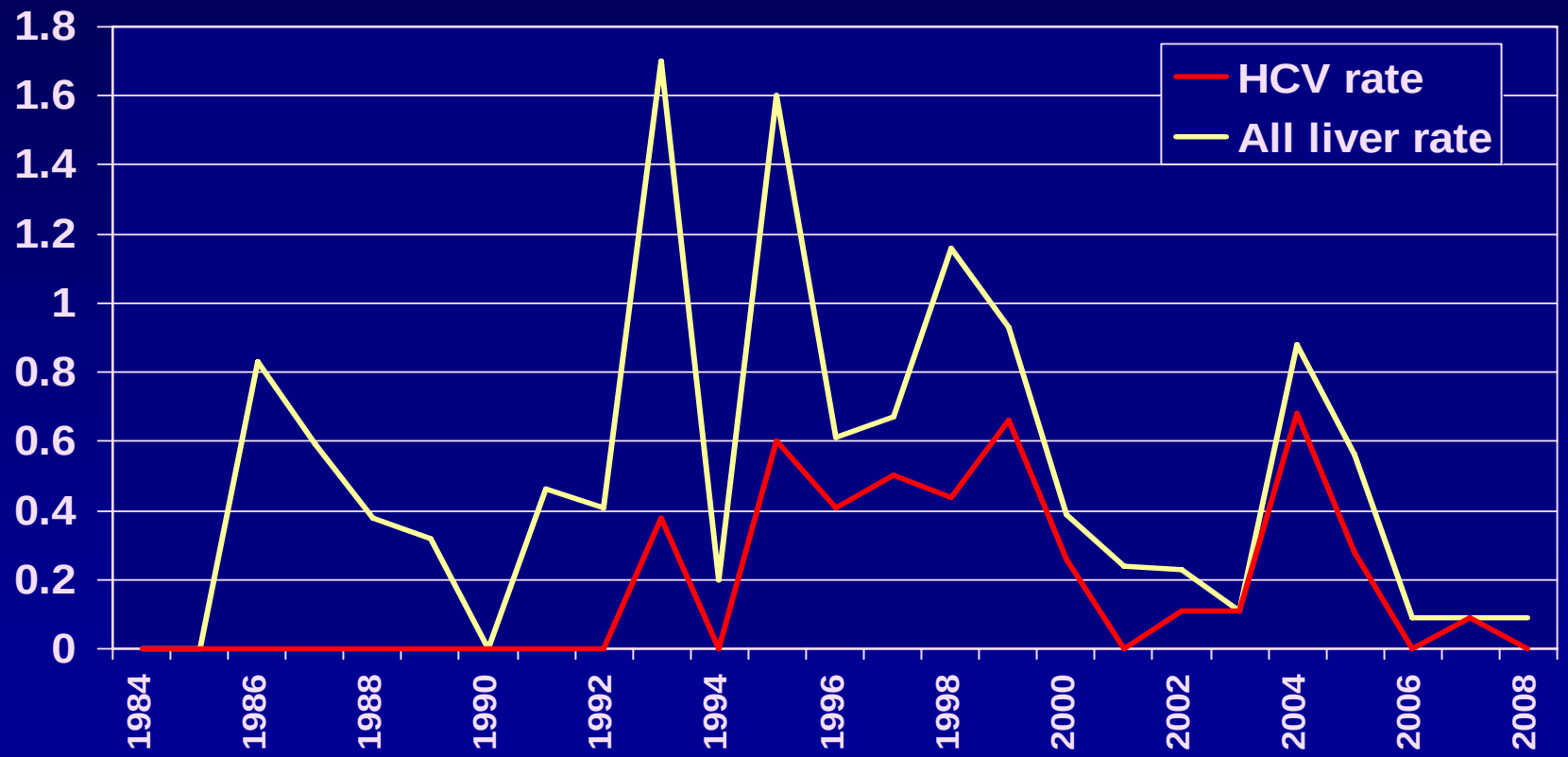
Liver-Related Deaths by Etiology



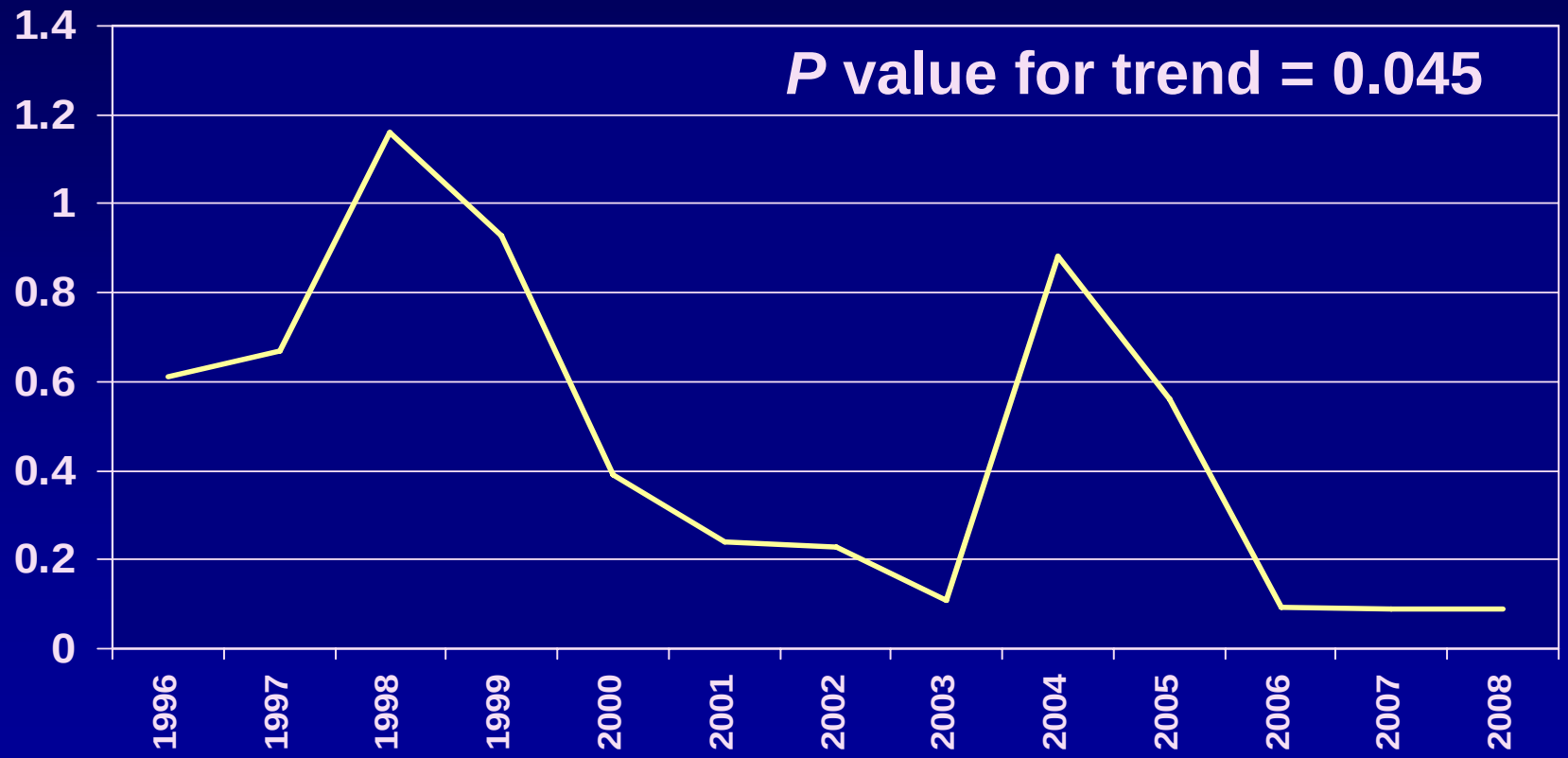
Liver-Related Deaths as a Percentage of All Deaths

	Pre-HAART	Early HAART	Late HAART
	1982–1995	1996–2000	2001–2008
All liver-related	3.92	8.0	6.7
HCV-related	0.70	4.8	3.4

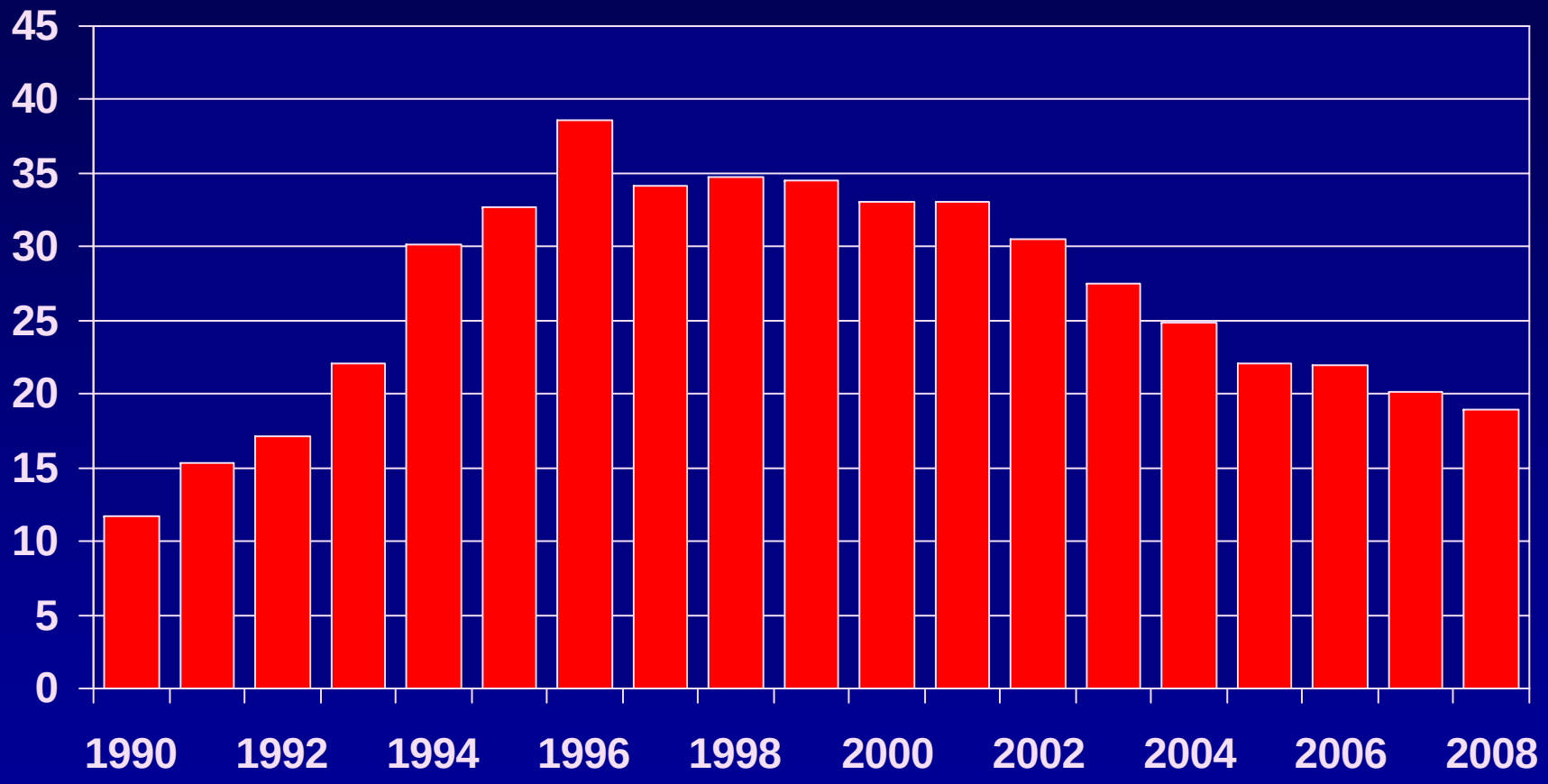
Liver-Related Deaths Per 100 Patients Per Year



Liver-Related Deaths Per 100 Patients Per Year (cont)

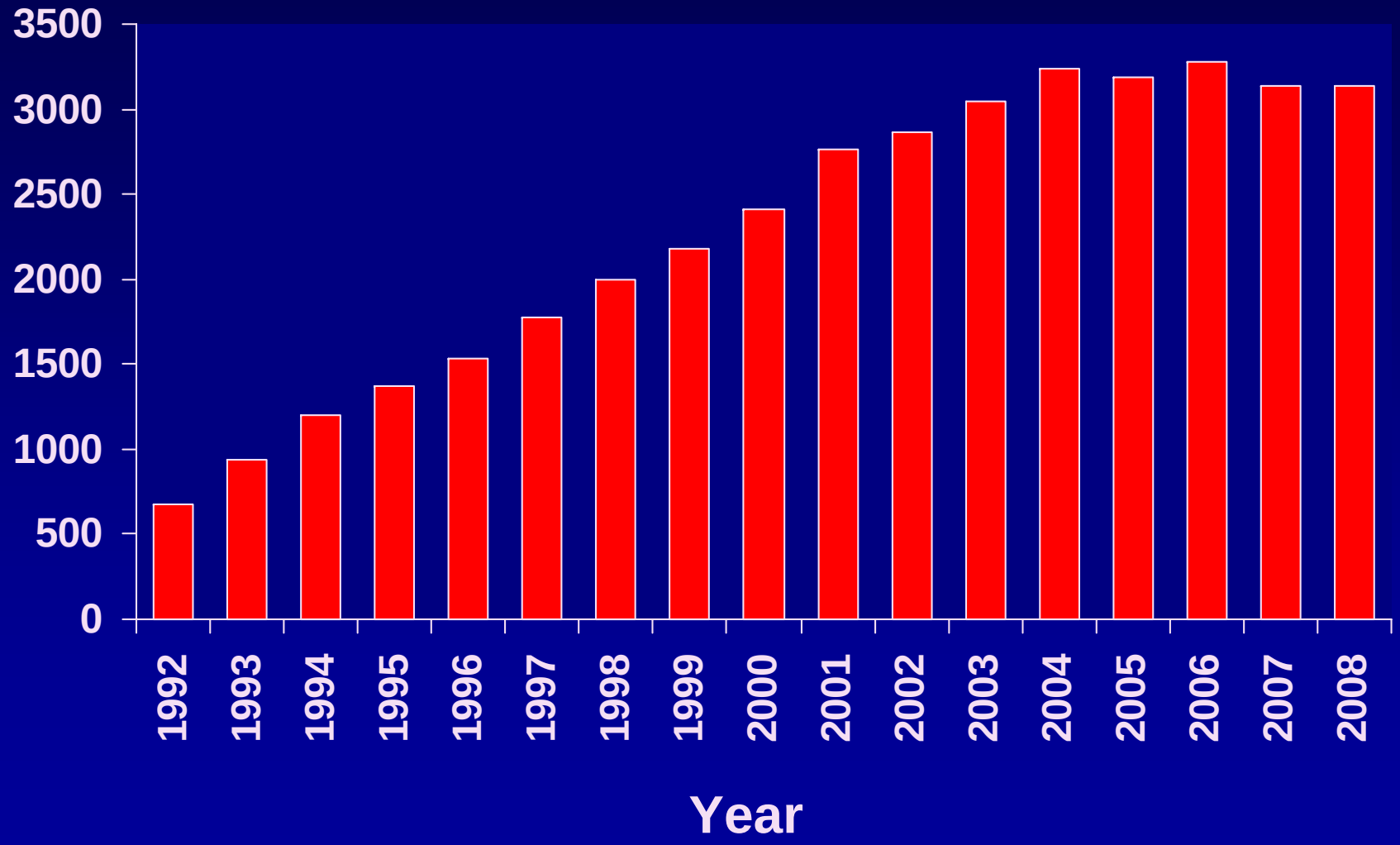


Prevalence of HCV in HAVACS

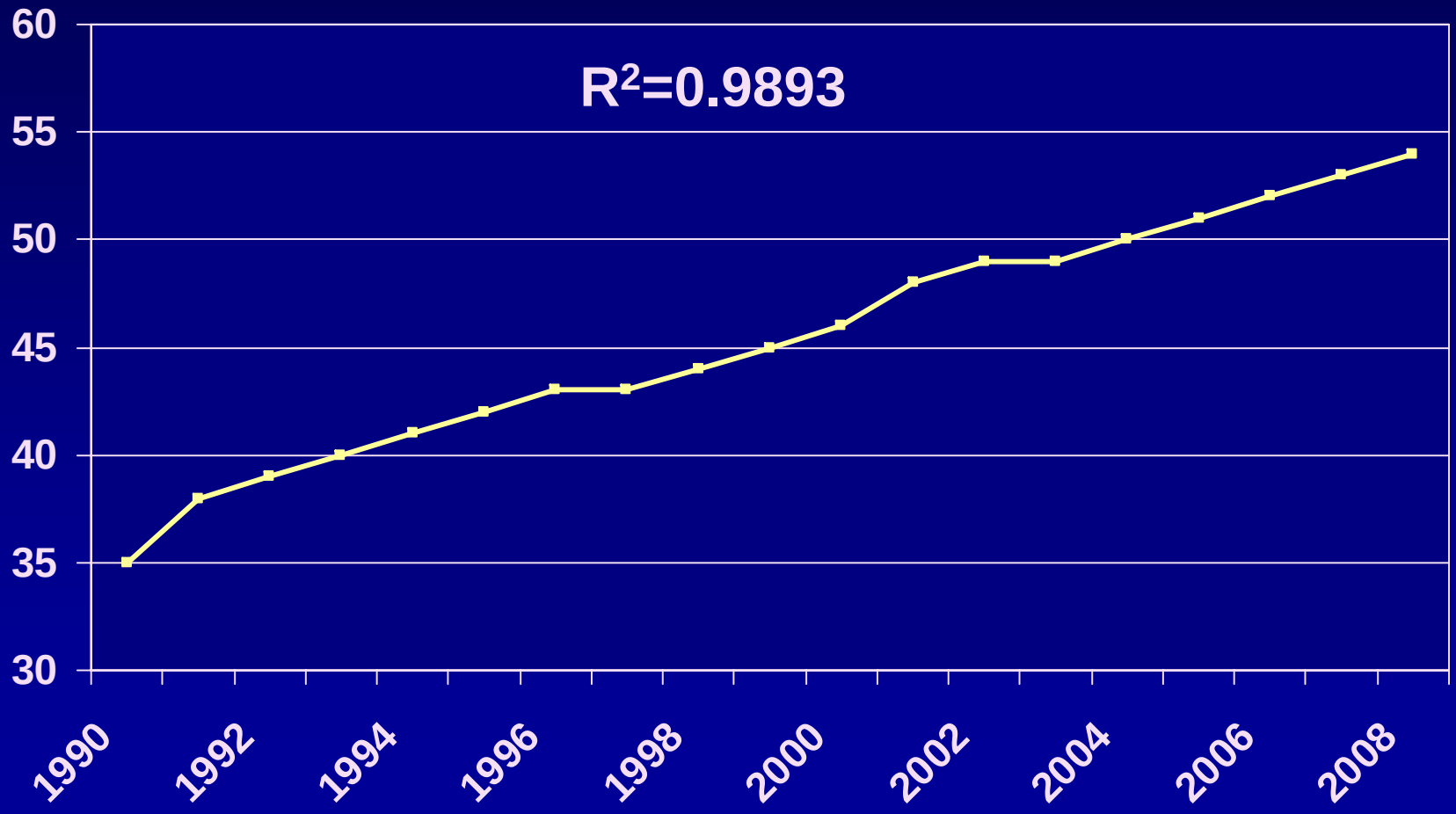


Decrease since 1996: R^2=0.9542

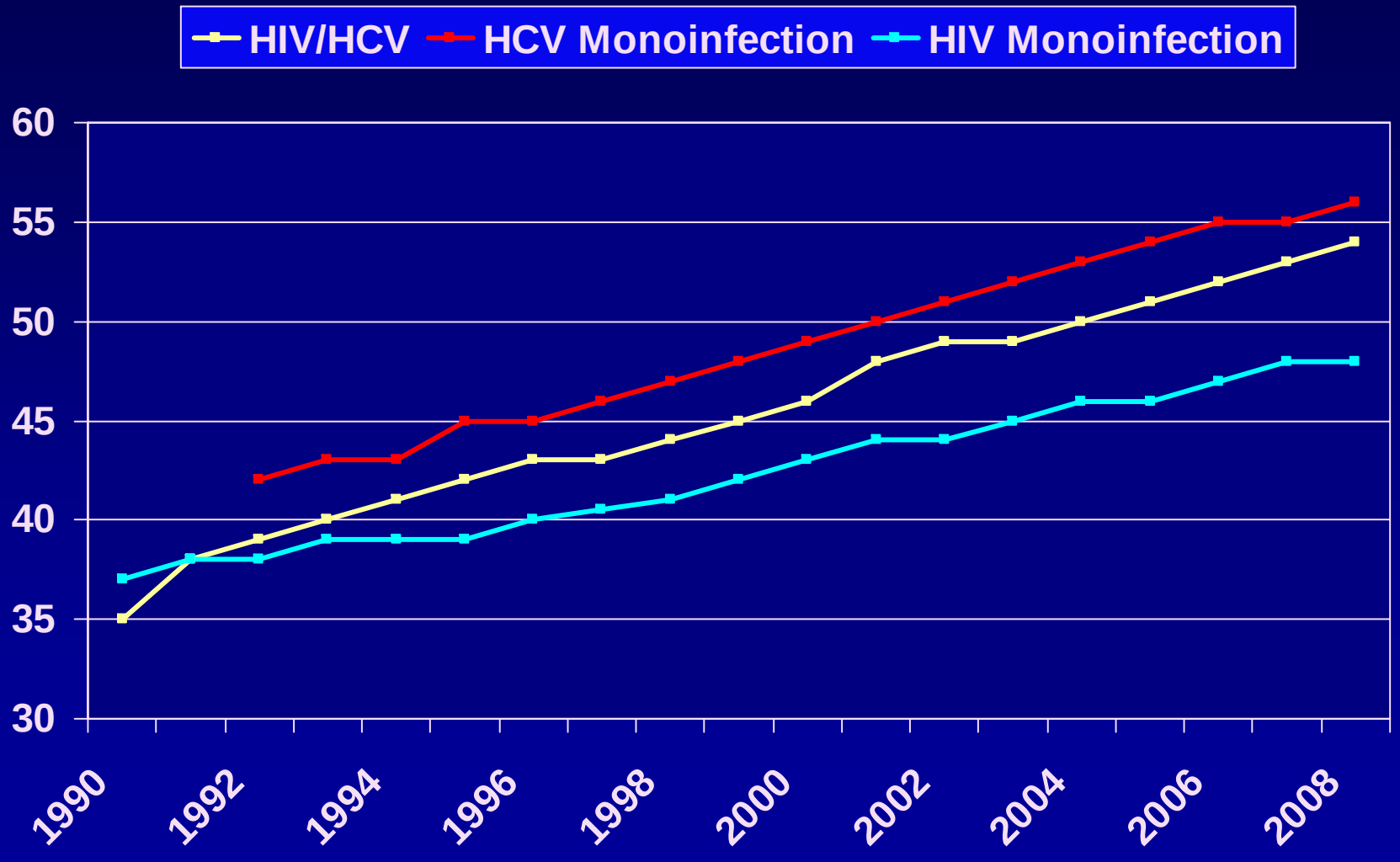
HCV Workload at the Atlanta VAMC



Median Age of HIV/HCV Coinfected Patients



Median Age of HIV, HCV, and Coinfected Patients



Conclusions

- In this cohort with a high prevalence of HCV, HBV, and alcohol abuse, liver-related mortality is a minor cause of death when calculated either as a percentage of all deaths or as an annual rate
- The rate of liver-related deaths is decreasing in the recent HAART era

Potential Differences in Studies Compared With HAVACS

- Inclusion of all deaths, in contrast to only in-hospital deaths
- Lower proportion of IVDU
- Large population
- Effect of HAART and improved CD4
- Decreasing prevalence of HCV
- Survival bias

  - older patients may have other causes of mortality