Oregon's first state viral hepatitis epidemiologic profile Ann Thomas, Judith Leahy, Jeff Capizzi and Keenan Williamson

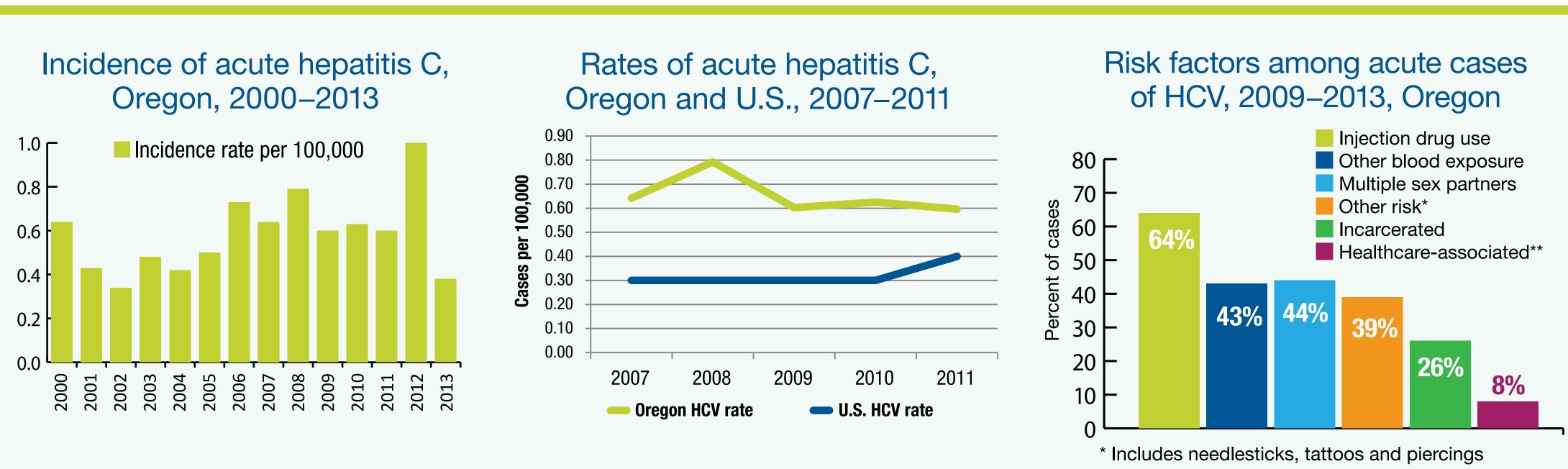
Objective

The purpose of Oregon's viral hepatitis epidemiologic profile is to document the burden of disease associated with viral hepatitis in Oregon, focusing on chronic infection with hepatitis C virus (HCV). We sought to increase awareness of screening recommendations for HCV; provide useful data to local health departments, other state agencies and healthcare systems for planning purposes; and inform policies for viral hepatitis prevention and care.

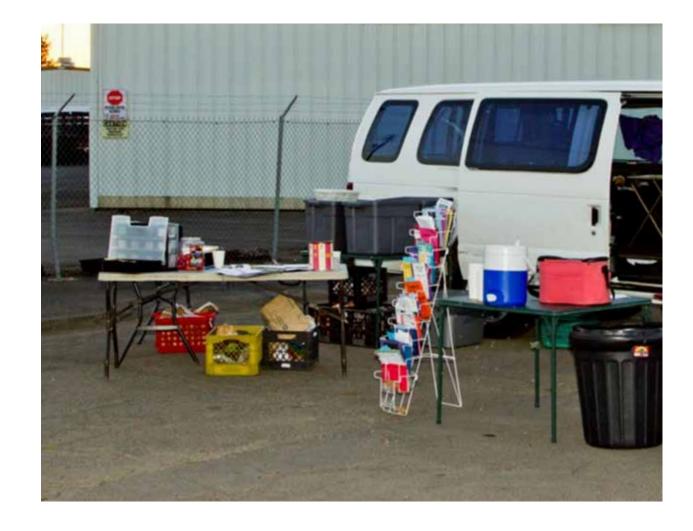
Methods

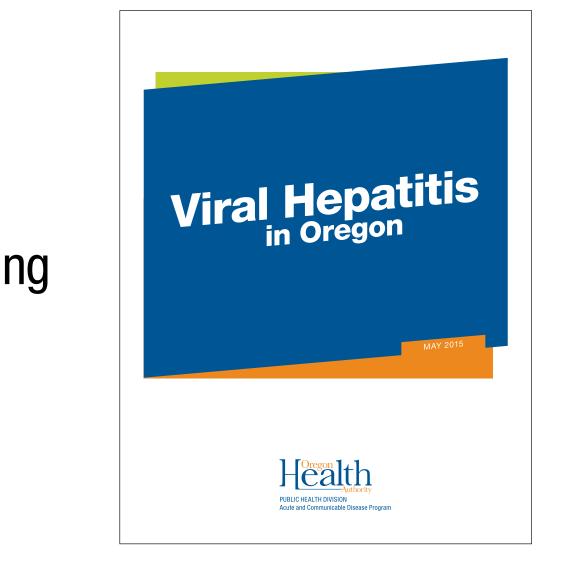
We:

- Relied primarily on surveillance data from cases of acute and chronic HCV infection reported to the Acute and Communicable Disease Program of the Oregon Public Health Division, focusing on the time period 2009-2013;
- Matched chronic HCV cases to the Oregon State Cancer Registry to identify liver cancer cases associated with HCV infection;
- Analyzed inpatient hospitalization discharge to identify hospitalizations associated with HCV; and
- Reviewed death certificates to estimate HCV-associated mortality.



PUBLIC HEALTH DIVISION Acute and Communicable Disease Program





Results

- Rates of acute HCV infection during 2009–2013 were fairly stable, averaging 25 cases per year and largely attributable to injection drug use (64%).
- The average rate of acute HCV in Oregon was 50% higher than the national rate between 2007 and 2011.
- In the same 5-year period, we received 25,437 reports of positive HCV laboratory tests; 64% were born between 1945 and 1965.
- Persons with HCV accounted for 20% of liver cancer cases between 2005 and 2012. They accounted for 47% of liver cancer cases by 2012.
- Nearly 800 hospitalizations due to HCV occurred in Oregon each year between 2008–12. Seventy percent occurred in persons aged 50–64, and 62% occurred in persons whose insurance payer was either Medicare or Medicaid.
- Deaths from HCV rose steadily between 2009 and 2013, averaging more than 400 annually. The average rate of HCV mortality was six times higher than Oregon's HIV mortality rate in 2009–2013, and 1.8 times higher than the U.S. HCV mortality rate in 2011.
- American Indians/Alaska Natives and Blacks and African Americans had higher rates of positive HCV laboratory reports, liver cancer and deaths than whites did.

** Includes transfusions, infusions, dialysis or surgery

Lengths of stay and total charges related to HCV hospitalizations, by category of liver disease, Oregon, 2008–2012 (n=3,917)

Condition*	Mean length of hospital stay in days					Mean health care charges per admission
(n = 3,917)	2008	2009	2010	2011	2012	Five-year average
Cirrhosis	4.6	4.5	4.4	4.1	4.1	\$23,942
Decompensated cirrhosis	4.9	5.0	4.9	4.8	4.8	\$27,234
Other chronic liver disease	4.7	5.0	4.1	4.4	4.1	\$22,230
Liver cancer	5.3	5.5	4.6	4.1	5.7	\$52,345
Liver transplant	5.7	11.7	7.1	4.9	5.1	\$34,281
Total	4.9	5.0	4.7	4.6	4.6	\$26,961

* These categories are not mutually exclusive, because patients can have more than one discharge diagnosis consistent with advanced liver disease.

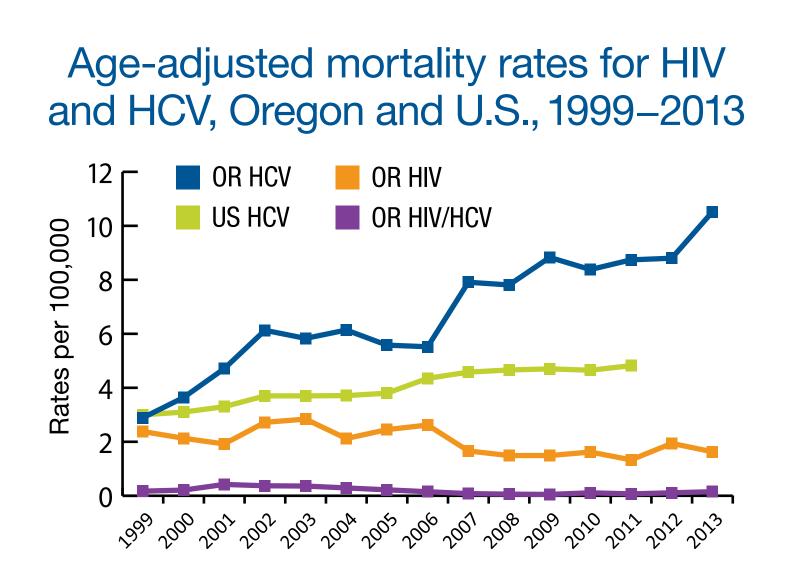
Conclusion

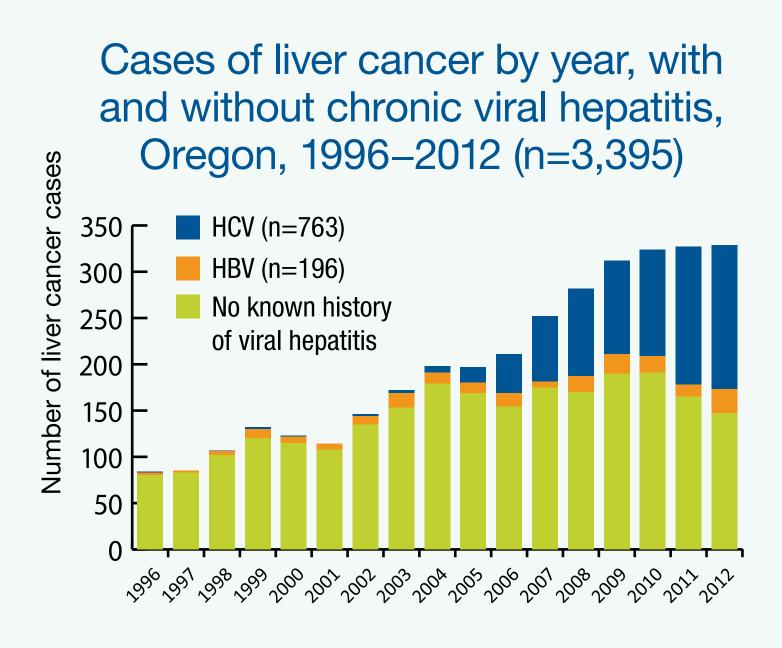
Combining routine surveillance data with other public health data sources painted a sobering picture of the burden of disease of HCV in Oregon, and uncovered significant racial disparities. Our findings highlight the need to:

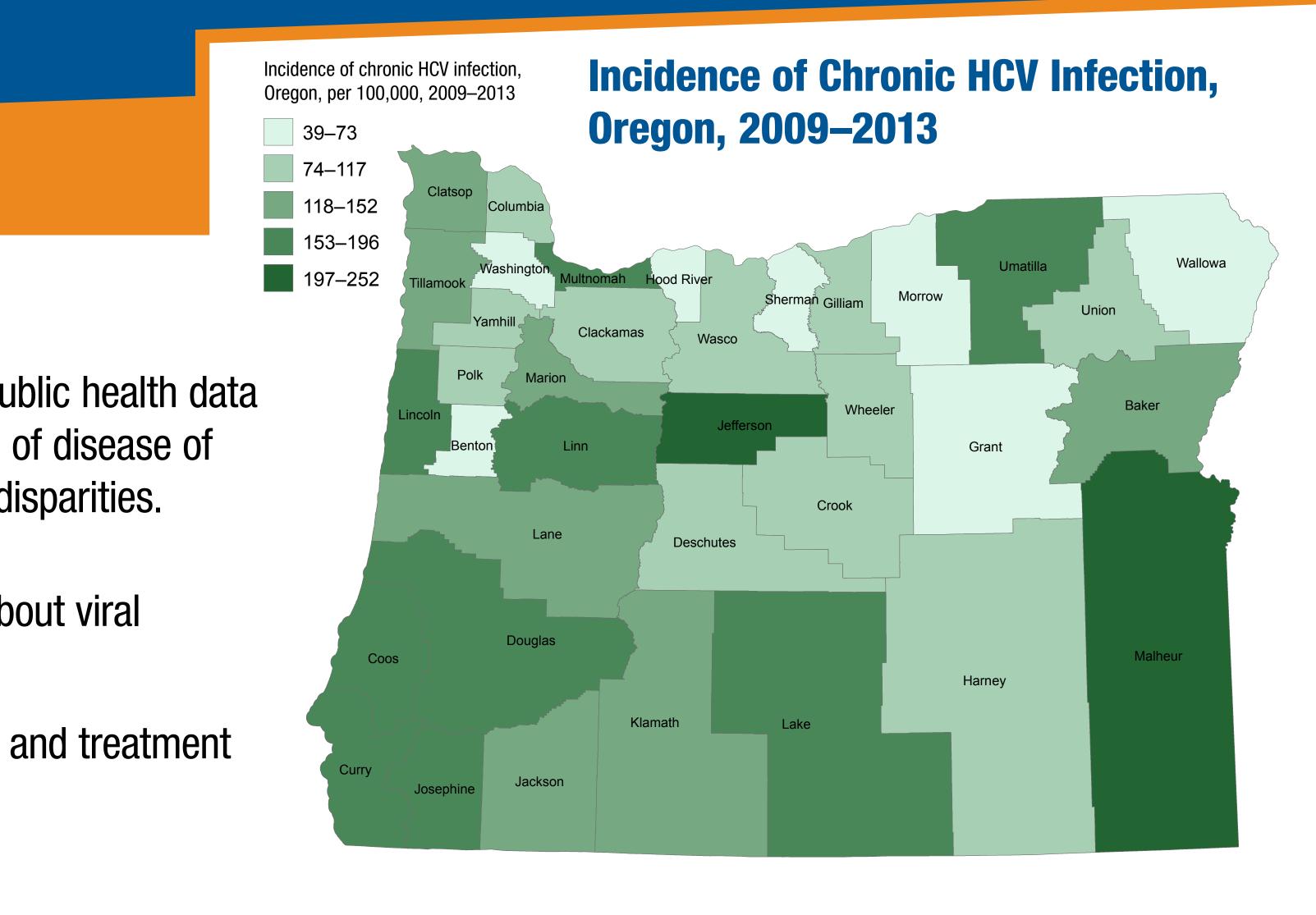
- Educate providers and communities at risk about viral hepatitis prevention and screening; and
- Support access to culturally competent care and treatment for disproportionately affected populations.

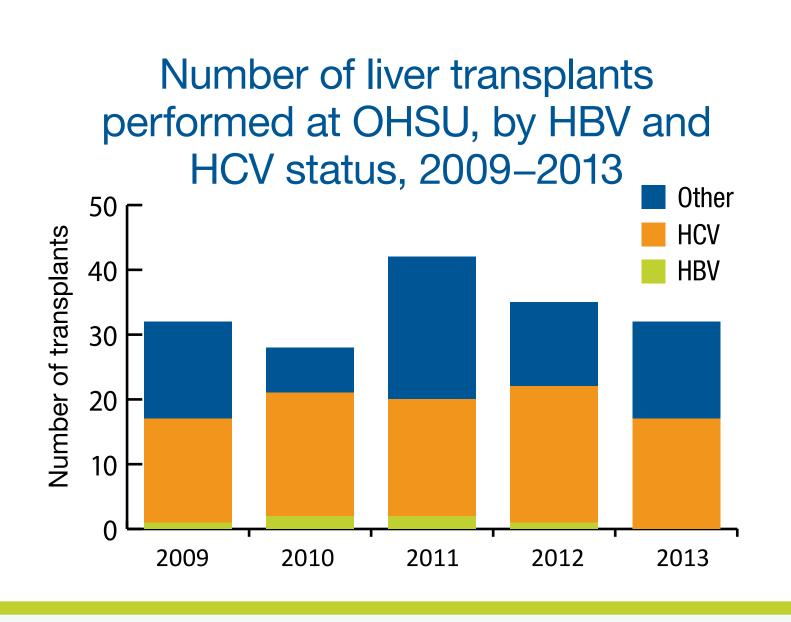
Acknowledgments

Funding: Association of State and Territorial Epidemiologists Graphics: Steven Hernandez, Oregon Health Authority

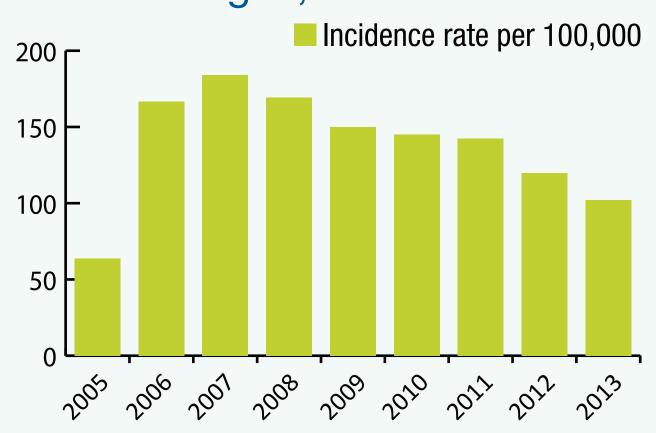




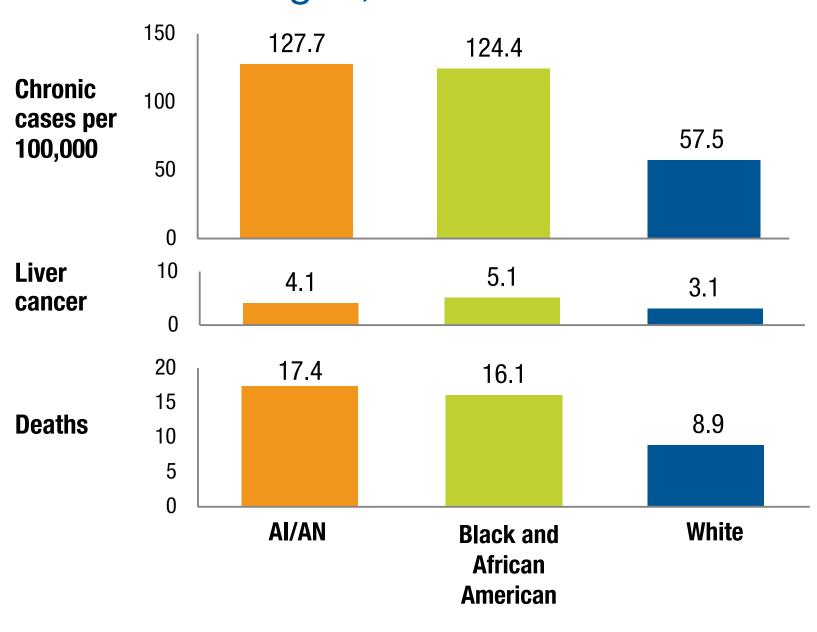




Incidence of chronic hepatitis C, Oregon, 2005–2013



Incidence of chronic HCV, HCV-related liver cancer and HCV mortality, by race, Oregon, 2009–2013



Year of birth among cases of chronic HCV reported in 2009–2013, Oregon

