



# Changing Epidemiology of Acute Hepatitis A in Texas

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## School Entry Vaccination Requirements

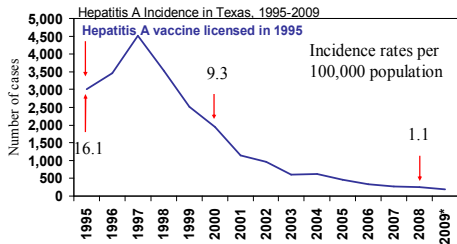
In 1999, Texas introduced a requirement for children entering kindergarten, 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> grade or a licensed day care facility to be vaccinated against hepatitis A. The requirement was only applicable in Texas's 32 border counties (counties within 100 miles of the Mexican border).

In 2003, this school/day care entry requirement was applied to an additional seven counties. Each of these counties had an incidence of over 30 cases per 100,000. In 2005, children in all counties were required to be vaccinated against hepatitis A to enter day care. One additional county was added to the list of counties with a requirement for school entry. While not required in every county, hepatitis A vaccine became available state-wide through Texas's Vaccine for Children programs in 2005.

Starting in 2009, 2 doses of hepatitis A vaccine were required for entry into kindergarten in every county in Texas.

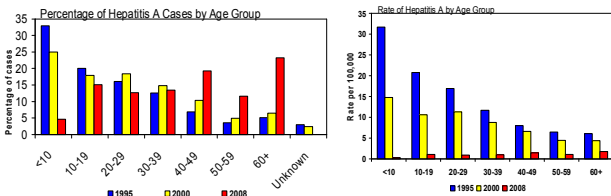
## Hepatitis A Incidence

The incidence of hepatitis A has decreased over 93% from 1995 to 2009. In 1995, there were 3,001 reported cases (incidence rate=16.1). In 2008, only 259 cases were reported for an incidence rate of 1.1. Provisional numbers for 2009 indicate that the number of cases and incidence rate have continued to decline.

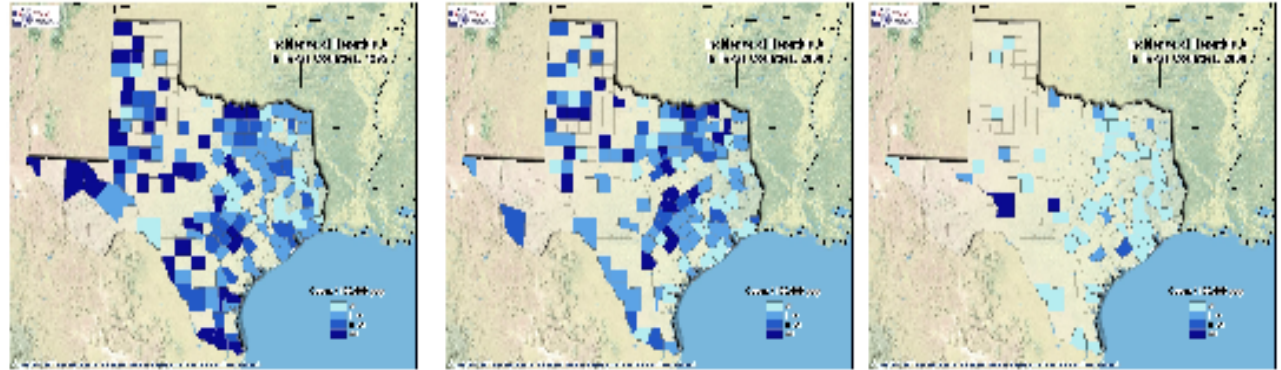


## Age Distribution of Hepatitis A

The age distribution of hepatitis A cases has shifted from younger cases to older. In 1995, the incidence of hepatitis A in children under 10 was 31.7 cases per 100,000 population. In 2008, that incidence rate had decreased to 0.33. The age group with the highest incidence of cases in 2008 was the 60+ category, with a rate of 1.74, although that is down from 6.1 in 1995.



## Changes in Geographic Distribution of Hepatitis A, 1995-2008

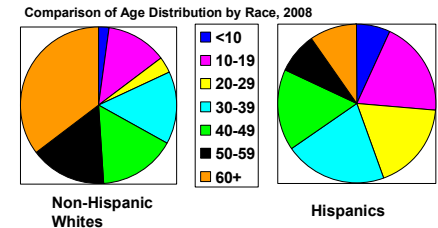
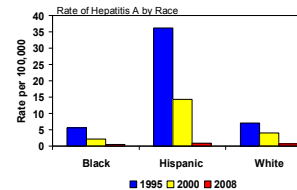
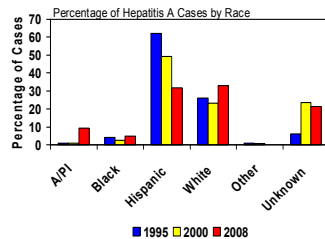


In 1995 hepatitis A was widespread throughout Texas (in 142 of 254 counties, with 39 counties reporting incidence rates over 20 cases per 100,000. In 2000, after the vaccine had been available for 5 years and required in border counties for 1, hepatitis A was still present in 127 counties but only 23 counties reported incidence rates over 20 per 100,000. As of 2008, only 58 counties reported any hepatitis A cases and only 2 counties had incidence rates over 20.

## Reducing Racial Disparity in the Burden of Hepatitis A Disease

In 1995, over 60% of cases reported were of Hispanic ethnicity. By 2000, this had dropped to under 50% and in 2008, only 32% of cases were Hispanic. The incidence rate of hepatitis A in Hispanics has decreased dramatically from 36 in 1995 to less than 1 per 100,000 in 2008. Hispanics, Whites and Blacks now have similar rates of hepatitis A—all under 1 per 100,000.

The age distribution among non-Hispanic Whites and Hispanics varies, though. Hispanics with hepatitis A tend to be between the ages of 10-50, with each 10 year age category making up 15-20% of Hispanic cases. Compared to non-Hispanic Whites, Hispanics have three times the percentage of cases under 10 years of age. Non-Hispanic Whites with hepatitis A are more likely to be over the age of 60, although the 30-39, 40-49, and 50-59 age categories each make up about 15%.



## Summary

Reports of hepatitis A have decreased since the advent of a vaccine, with the most dramatic reductions taking place after school and childcare entry requirements were put in place in Texas. As expected when a vaccine campaign is successful, the distribution of cases has shifted from a younger to older population. The number of counties reporting hepatitis A cases has decreased, even where there has been no school entry requirement. The racial disparity in the burden of hepatitis A disease has also been leveled; Hispanics, Whites and Blacks all have similar rates of disease. The requirement for vaccine for school entry has now expanded to the entire state and we hope that the decrease in hepatitis A incidence will continue.

## Acknowledgements

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