HEPATITIS C CURRICULUM

Hepatitis C Incidence and Prevalence in the U.S.

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Hepatitis C Incidence and Prevalence in the U.S.: Outline

- HCV Incidence
- HCV Prevalence
- Awareness of Hepatitis C Infection
Hepatitis C Incidence and Prevalence

**HCV Incidence.** The number of people who become newly infected with HCV in a defined time period.

**HCV Prevalence.** The number of people living with HCV in a population at a point in time.

Source: CDC Division of Viral Hepatitis. Statistics and Surveillance.
HCV Incidence in the United States
Hepatitis C Incidence in United States, 1982-2010

Source: CDC Division of Viral Hepatitis. Statistics and Surveillance.
Hepatitis C Incidence in United States, 1982-2010

Number of Cases

- Surrogate testing of blood donors
- Anti-HCV test (1st gen) licensed
- Anti-HCV test (2nd gen) licensed

Decline among transfusion recipients

Decline among injection drug users
# New Hepatitis C Infections in the United States

## Incidence of New Hepatitis C Infections

<table>
<thead>
<tr>
<th>Type of Cases</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Clinical Cases Reported</td>
<td>1,223</td>
<td>891</td>
<td>758</td>
<td>694</td>
<td>802</td>
<td>849</td>
<td>878</td>
<td>781</td>
<td>853</td>
</tr>
<tr>
<td>Estimated Number of Acute Clinical Cases</td>
<td>4,800</td>
<td>4,500</td>
<td>4,200</td>
<td>3,400</td>
<td>3,200</td>
<td>2,800</td>
<td>2,900</td>
<td>2,600</td>
<td>2,800</td>
</tr>
<tr>
<td>Estimated Number of New Infections</td>
<td>29,000</td>
<td>28,000</td>
<td>26,000</td>
<td>21,000</td>
<td>19,000</td>
<td>17,000</td>
<td>18,000</td>
<td>16,000</td>
<td>17,000</td>
</tr>
</tbody>
</table>

**Source:** CDC. Division of Viral Hepatitis-Statistic and Surveillance.
Acute Hepatitis C Incidence by Age Group, United States, 1992-2009

<table>
<thead>
<tr>
<th>Year</th>
<th>0-19</th>
<th>20-29</th>
<th>30-39</th>
<th>40-49</th>
<th>50-59</th>
<th>≥60</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>1994</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1996</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>1998</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2000</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2002</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2004</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2006</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2008</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: CDC and Prevention and National Notifiable Disease Surveillance System.
Sentinel Counties Surveillance Project, 1982-2006
Acute Hepatitis C Incidence (per 100,000 Population) by Race

HCV Prevalence in the United States
Hepatitis C
Curriculum

Estimated Prevalence of Hepatitis C in U.S.

NHANES Survey

4.1 million Persons Antibody Positive for HCV

3.2 million Persons Living with Chronic HCV

Expanded Estimate of HCV Prevalence
Estimated Number of anti-HCV Positive Persons in U.S

HCV Prevalence Estimate: Expansion of NHANES Survey

- Addition of Groups
  - Incarcerated
  - Homeless
  - Nursing Home Residents
  - Hospitalized Persons
  - Active Military Duty

- Recalculation of Groups
  - Healthcare Workers
  - Chronic Hemodialysis
  - Veterans

5.2 million Antibody Positive for HCV

NHANES Survey and Expanded Prevalence
Estimated Number of anti-HCV Positive Persons in U.S.


Prevalence of HCV Antibody, by Year of Birth

Prevalence of HCV Antibody, by Year of Birth

![Graph showing the prevalence of HCV antibody by year of birth. The x-axis represents the year of birth, ranging from 1910 to 1990. The y-axis represents the HCV prevalence percentage, ranging from 0 to 7.0. The graph highlights the years 1945-1965 with a shaded area. Two lines represent the prevalence in different time periods: 1988-1994 (light blue) and 1999-2002 (purple).](image)

HCV Infection (Antibody Test or HCV RNA)

- Population: 865,659
- Tested: 109,575
- HCV Positive: 6,008
- HCV-Positive: 5.5%
- Tested: 109,575

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2.1 2.2 5.9 11.0 5.3 3.5 2.9

0 2 4 6 8 10 12 14

HCV Infected (%)

Age Group (years)

<30 30-39 40-49 50-59 60-69 70-79 >80

2.1 2.2 5.9 11.0 5.3 3.5 2.9

HCV infection defined as either positive anti-HCV or HCV RNA

Private Health Care Organizations, United States, 2006-2008

HCV Infection by Race

HCV infection defined as either positive anti-HCV or HCV RNA

Awareness of HCV Infection States
NHANES Survey, United States, 2001-2008
Awareness of HCV Infection Status

Knowledge of HCV Infection

Unaware 50%
Aware 50%

NHANES Survey, United States, 2001-2008
Lack of Knowledge of HCV Infection Status, by Age

NHANES Survey, United States, 2001-2008
Lack of Knowledge of HCV Infection Status, by Race

- White non-Hispanic: 49%
- Black non-Hispanic: 57%
- Hispanic/other/multiple: 44%

Private Health Care Organizations, United States, 2006-2008
Awareness of HCV Infection Status

Knowledge of HCV Infection

- Unaware: 43%
- Aware: 57%

Hepatitis C Incidence and Prevalence in the U.S.: Summary

- The HCV annual incidence has declined dramatically since the mid-1980’s.
- In 2010, an estimated 17,000 new cases of hepatitis have occurred.
- An estimated 4.2 to 5.1 million persons are HCV antibody positive.
- An estimated 3.2 to 4.1 million persons are living with chronic hepatitis C.
- The HCV prevalence is highest among persons born during 1945 to 1965.
- Approximately 50% of persons are unaware of their hepatitis C status.