



## HEPATITIS C SURVEILLANCE UPDATE - WASHOE COUNTY

May 1, 2002 – December 31, 2005



The District Health Department's hepatitis C (HCV) surveillance program began on May 1, 2002. Between the starting date and December 31, 2005, laboratories reported positive HCV test results for 3953 persons to the Communicable Disease Control Program. Of these

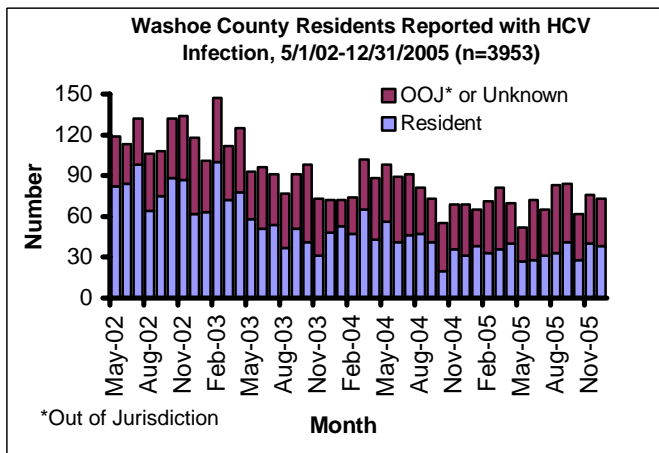
reports, 2896 (73%) were Washoe County residents, 479 (12%) were non-residents and residency was unknown for 578 (15%). Lab reports for non-residents were forwarded to the Nevada State Health Division, Office of Epidemiology.

Health care providers were asked to complete a *Hepatitis C Surveillance Case Report* form for each Washoe County resident patient with a positive HCV lab report. For the 2896 Washoe County residents reported by laboratories, health care providers completed and returned 2263 (78%) of the case report forms. The following statistics are based on data collected from 2263 completed HCV case reports.

### RESULTS

#### NUMBER OF PERSONS REPORTED

During nearly four years of surveillance, the number of newly reported Washoe County residents with positive HCV lab test results decreased over time as repeat tests were identified.



### DIAGNOSES

Case Classification* (n=2263)	No.	%
Acute	15	1
Past or present	1960	87
Unconfirmed	288	13
Year of Diagnosis	No.	%
2002-2005	326	14
Prior to 2002	349	15
Unknown or missing data	1588	70

\* Based on CDC case definitions.

Fifteen acute cases of HCV infection were reported during the surveillance period.

### DEMOGRAPHICS

Age Group (n=2258)	No.	%
<20	19	1
20-39	380	17
40-59	1637	72
>=60	222	10
Gender (n=2251)	No.	%
Male	1429	64
Female	822	36
Race/Ethnicity (n=1755)	No.	%
White	1457	83
Black	107	6
Hispanic	120	7
Other	71	4

Seventy-two percent (72%) of cases were in the 40-59 year age group. Twenty-two percent (22%) of the case reports were missing race/ethnicity information. Completeness of age and gender information was greater than 99%.

### REASONS FOR HCV TESTING

Reason for Testing (n=2263)	No.	%
Follow-up previous markers	736	33
Evaluation of liver enzymes	386	17
Screening patients w/risk factors	357	16
Prenatal screening	77	3
Blood or organ donor screening	51	2
Symptomatic	54	2
Screening patients w/o risk factors	32	1
Other reasons	190	8
Unknown or missing data	380	17

Half of the cases were tested during clinical follow-up for a previously positive marker for hepatitis or for evaluation of elevated liver enzymes. Only 23% of cases were tested for screening purposes. Diligent screening of persons with risk factors would identify more HCV infections.

## CLINICAL DATA

Condition	Yes		No		Unknown	
	No.	%	No.	%	No.	%
Cirrhosis	182	8	736	33	1345	59
Liver cancer	23	1	792	35	1448	64
Pregnancy	90	4	1803	80	370	16

## MORTALITY

Of 2263 cases, 56 (2.5%) were deceased. Two of 56 (2.5%) died of HCV infection as a primary cause of death, and 49 of 56 (88%) died of HCV infection as a secondary cause of death.

## RISK FACTOR IDENTIFICATION

### Past History

Overall, 63% of cases reported a history of at least one risk factor and 16% denied any risk factor. For 21%, risk factors were unknown. Reported risk factors included blood transfusion or organ transplant prior to 1992, receipt of clotting factor concentrates made prior to 1987, hemodialysis, injection drug use, employment involving contact with human blood, multiple sex partners, contact to a person with hepatitis, alcohol abuse, or other possible exposures including tattooing and past incarceration. Data on behavioral risk factors were based on chart reviews -- not on patient interviews.

### Current History

Beginning in January 2003, reported cases were asked about current behavioral risks (alcohol use and injecting drug use), hepatitis vaccination status and access to health care. One-third (33%) of cases reported current alcohol use and 24% had no health insurance. In a significant proportion of cases, hepatitis A and B vaccination status was unknown.

## RECOMMENDATIONS

- ◆ **Please participate in surveillance.** To date, nearly 100 providers, medical groups, and laboratories actively participated in HCV surveillance (see page 3 for a list of participants). Participation has almost doubled since surveillance was initiated in May 2002. However, 14 of every 100 case report forms

sent to providers for additional patient information are not returned. **If you have received HCV case report forms and need assistance or more information, please contact the Communicable Disease Control Program at 775-328-2447. All information is kept CONFIDENTIAL.**

- ◆ **Improve completeness of data for race/ethnicity and vaccination status.** Health care providers are asked to record the patient's race/ethnicity and vaccination status for hepatitis A and B. Collection of such information will help identify target populations for prevention education and intervention.
- ◆ **Increase screening of high-risk persons.** Overall, 23% of cases were tested for the purpose of HCV screening. Health care providers should ask patients about past or present risk factors for HCV infection, and encourage patients at risk to be screened.
- ◆ **Educate patients with chronic hepatitis C to avoid high-risk behaviors such as alcohol use.** Surveillance results show that 3 of every 10 current HCV patients are using alcohol. Patient education materials, such as *Hepatitis C Prevention, If You Have Hepatitis C*, and *Get Tested for Hepatitis C*, can be obtained free of charge from the National Viral Hepatitis Information Center at ... <http://www.cdc.gov/ncidod/diseases/hepatitis/source/materials.htm>. Both English and Spanish versions are available.
- ◆ **Follow-up HCV patients who report "Unknown" or "No" for their hepatitis A and B vaccination status.** It is highly recommended that persons with HCV be immunized for both hepatitis A and B to prevent life-threatening complications. Health care providers are also urged to document vaccination status for hepatitis A and B.

## ATTENTION

**The current HCV surveillance system was recently evaluated and will be continued. If you are a participating provider, you will receive a recently revised, simpler case report form to use after June 1. Selected providers and medical groups will be surveyed for additional feedback in the next few months. You may receive a phone call from us. Thank you!**

## ACKNOWLEDGEMENTS\*

1. ACADIA MEDICAL GROUP
2. ADMIRAND, WILLIAM MD
3. ALPINE INTERNAL MEDICINE
4. ARC MEDICAL CENTER
5. ARLINGTON CLINICAL INFUSIONS
6. ASSOCIATED FAMILY PHYSICIANS
7. BIOMAT USA, INC
8. BUCKLEY, CONOR MD
9. CASSIDY, DONALD MD
10. CHALLAPALLI, RAM & SRIDEVI MDs
11. CHAMBERLAIN, JAY MD
12. CONCENTRA MEDICAL SERVICES
13. CRAWFORD, CYNTHIA MD
14. DIGESTIVE HEALTH ASSOCIATES
15. EASTERN SIERRA MEDICAL GROUP
16. EASTERN SIERRA S. VALLEY
17. FAMILY MED ASSOCIATES
18. FENWICK, PETER MD
19. FORSYTHE, JW MD
20. FOULK, RUSSELL MD
21. GASTROENTEROLOGY CONSULTANTS
22. GENERAL & VASCULAR ASSOCIATES
23. GERLACH CLINIC
24. GRAY, JOHN MD
25. GREAT BASIN MEDICAL GROUP
26. HEALTH ACCESS WASHOE COUNTY (HAWC)
27. HERITAGE LABS INTL, LLC
28. HUNEYCUTT, HARRY MD
29. IBARRA, CORA MD HMD
30. INCLINE VILLAGE COMMUNITY HOSPITAL
31. LABCORP RENO
32. LAFFERTY, LINDA DO
33. LAKES CROSSING CENTER
34. LEMIEUX & GINI, MDs
35. LIFE CARE CENTER OF RENO
36. MCLENNAN, JAMES MD
37. MED SCHOOL ASSOCIATES NORTH
38. MEDWISE
39. MOJAVE ADULT & FAMILY SVCS RENO
40. NELL J REDFIELD HEALTH CENTER
41. NEVADA MEDICAL CONSULTANTS, INC
42. NEVADA STATE PUBLIC HEALTH LABORATORY
43. NORMAN, DANIEL MD
44. NORTHERN NEVADA ADULT MENTAL HEALTH SERVICES
45. NORTHERN NEVADA HOPES CLINIC RENO
46. NORTHERN NV MED CENTER
47. NORTHERN NV MED GROUP
48. NORTHWEST FAMILY PRACTICE
49. ORVIS SCHOOL OF NURSING
50. OUTREACH MEDICAL CLINIC (HAWC)
51. PAIVA, ROSE MD
52. PYRAMID HEALTH CENTER
53. PYRAMID LAKE HEALTH DEPT. NIXON
54. QUEST DIAGNOSTICS
55. RALSTON FAMILY PHYSICIANS
56. RENO FAMILY PHYSICIANS
57. RENO/SPARKS INDIAN COLONY HUMAN SERVICES
58. RILEY, ROBERT MD
59. SAGE ALLIANCE INTERNAL MEDICINE
60. SCHMERLER, ELLIOT MD
61. SCHROEDER, JAY MD HMD
62. SIERRA FAMILY HEALTH CTR
63. SIERRA INFECTIOUS DISEASES – FAIR OAKS CA
64. SIERRA INTEGRATIVE MEDICAL CENTER
65. SIERRA NEVADA FAMILY MEDICINE
66. SIERRA REG SPINE INSTITUTE
67. SIERRA WOMEN'S HEALTH
68. SMITH, EMILY MD
69. SPANISH SPRINGS MED GROUP
70. SPECIALTY HEALTH CLINIC
71. SPOGEN, DAN MD
72. ST. MARY'S REGIONAL MEDICAL CENTER
73. SWARTS, RAYMOND MD
74. TAHOE PACIFIC HOSPITAL
75. UNILAB, CALIFORNIA
76. UNITED BLOOD SERVICES
77. UNR FAMILY MEDICINE CENTER
78. UROLOGIC SURGEONS LTD
79. VAN REKEN, CALVIN MD
80. VETERANS AFFAIRS MEDICAL CENTER, RENO
81. VILLAGE FAMILY PRACTICE
82. VISTA FAMILY MEDICINE
83. WASHOE COUNTY CORONER-MEDICAL EXAMINER
84. WASHOE COUNTY DETENTION FACILITY
85. WASHOE FAMILY CARE –BARING BLVD, RYLAND AVE, VISTA BLVD & SOUTH MEADOWS PKY
86. WASHOE LIFESKILLS
87. WASHOE MEDICAL CENTER
88. WASHOE MEDICAL CENTER CLINIC
89. WASHOE PREGNANCY CENTER
90. WASHOE PROGRESSIVE CARE CENTER
91. WEST HILLS HOSPITAL
92. WILDCREEK FAMILY MED CTR

Special thanks to the following providers for returning completed survey questionnaires and assisting with program evaluation.

1. ARC MEDICAL CENTER
2. ASSOCIATED FAMILY PHYSICIANS
3. FORSYTHE, JW MD
4. GENERAL & VASCULAR ASSOCIATES
5. GI CONSULTANTS, LTD
6. GREAT BASIN MEDICAL GROUP
7. LAKES CROSSING CENTER
8. N. TAHOE FAMILY CARE
9. NELL J REDFIELD HEALTH CENTER
10. NORTHERN NV MED CENTER
11. NORTHERN NV MED GRP
12. OUTREACH MEDICAL CLINIC (HAWC)
13. PAIVA, ROSE MD
14. PYRAMID HEALTH CENTER
15. RENO/SPARKS INDIAN COLONY HUMAN SERVICES
16. SCHROEDER, JAY MD HMD
17. SIERRA INFECTIOUS DISEASES – FAIR OAKS CA
18. SIERRA INTEGRATIVE MEDICAL CENTER
19. VISTA FAMILY MEDICINE
20. WASHOE COUNTY DETENTION FACILITY
21. WASHOE FAMILY CARE –RYLAND AVE
22. WASHOE MEDICAL CENTER CLINIC
23. WASHOE PREGNANCY CENTER

\*In alphabetical order by ordering physician or medical group stated on lab report.