HEPATITIS PREVENTION AND CONTROL PLAN FOR THE STATE OF NEVADA

SEPTEMBER 2004

Nevada State Health Division Department of Human Resources

Kenny C. Guinn, Governor Michael J. Willden, Director Department of Human Resources Alex Haartz, Administrator Dr. Bradford Lee, State Health Officer Nevada State Health Division

Building and Strengthening Public Health through Communication and Partnerships

Ackr	nowledgments	iii
I.	Summary	1
II.	Mission	1
III.	Vision	2
IV.	Guiding Principles	2
V.	Organizational History	3
	Hepatitis B	6
	Hepatitis C	6
VI.	Goals and Objectives	7
	Surveillance	7
	Goal 1	7
	Goal 2	8
	Prevention	9
	Goal 3	9
	Goal 4	9
	Intervention and Control	10
	Goal 5	10
	Goal 6	10
	Collaboration	11
	Goal 7	12
Appe	endix A	
	Strategic Plan Workgroup Members, External Reviewers, and Facilitators	14
Appe	endix B	
	Selected Nevada Revised Statutes Citations	17
	Selected Nevada Administrative Code Citations	17
	Other Relevant Statutes and Regulations Relating to Hepatitis in Nevada	21

TABLE OF CONTENTS

Appendix C

-	Reported Hepatitis Cases by Gender and Race in Nevada, 1996-2003	24
	Chart 1A, Reported Hepatitis A in Nevada by Gender, 1996-2003	25
	Chart 1B, Reported Hepatitis A in Nevada by Race, 1996-2003	25
	Chart 2A, Reported Hepatitis B in Nevada by Gender, 1996-2003	26
	Chart 2A, Reported Hepatitis B in Nevada by Race, 1996-2003	26
	Chart 3A, Reported Hepatitis C in Nevada by Gender, 1996-2003	27
	Chart 3B, Reported Hepatitis C in Nevada by Race, 1996-2003	27
	Nevada Vaccine Preventable Diseases, 1992-2003	28
Append	lix D	
	Clark County Health District Office of Epidemiology Disease Statistics, 1999-2003	30
	Clark County Health District Disease Statistics, July 2004	32
Append	lix E	
	Washoe County Hepatitis Epidemiological Data, Fiscal Years 2000 through 2003	
	Acute Hepatitis A	35
	Acute Hepatitis B	36
	Chronic Hepatitis B	37
	Acute Hepatitis C	38
	Chronic Hepatitis C	39
Append	lix F	
	Recommended Bibliographic References	41

ACKNOWLEDGMENTS

This strategic plan is the product of work by many individuals and partners throughout the State of Nevada. They represent a cross section of public health, local and state government, and the private sector. The Nevada State Health Division extends its sincere appreciation and thanks to their contributions and dedication to this plan.

We also owe appreciation and thanks to the following people who facilitated the strategic planning process. Without their guidance, this plan would not have been possible in three meetings.

Doug Banghart, R.N., M.S.P.H. Theresa Cress Charlene Herst Brady Jaynes Luana J. Ritch, Ph.D., Strategic Plan Lead Facilitator Jennifer Stoll-Hadayia Dana Woolley, R.N.

In addition to our facilitators, we would like to extend our thanks to our external reviewers Dr. Robert Gish and Dr. Amy Khan.

Finally, this entire project would not have been possible without the generous financial and technical support of the Council of State and Territorial Epidemiologists. Thank you!

I. SUMMARY

Viral hepatitis describes those infections that can cause inflammation or damage to the liver, are infectious, and are caused by viruses. In response to the growing burden of viral hepatitis in the State of Nevada, the Nevada State Health Division (NSHD) initiated the development of a statewide plan for hepatitis prevention and control to articulate the mission, vision, and values of a state hepatitis program as well as to identify objectives based on the needs of the state.

Mechanisms currently exist in Nevada for communicable disease outreach related to human immunodeficiency virus (HIV) infection, sexually transmitted disease (STD), and tuberculosis (TB) to vulnerable populations such as injecting drug users (IDU), men who have sex with men (MSM), STD clinic clients, and persons who are incarcerated. Outreach activities include counseling, testing, and making referrals. System collaboration exists between HIV/AIDS, STD, and TB. However, to achieve an integration of hepatitis control and collaboration between all private and public agencies, a process of strategic planning was necessary to identify opportunities for linking resources and activities. This effort, although difficult because of the history of categorical funding and functioning, is possible because funded programs exist, data suggests that clients have co-occurring disease, and community planning groups request system change. The opportunity for a comprehensive, collaborative and organized approach by partners across Nevada to address the public health problems associated with viral hepatitis has been identified as a priority for the viral hepatitis program in the state.

This strategic plan, the state's first such plan on viral hepatitis, was developed through an evidence-based participatory community planning process. A workgroup was established that included a multi-disciplinary body of health care providers, data experts, and community members impacted by the disease. The workgroup met twice to outline the problem and develop goals, objectives, and activities that resulted in the body of this plan. The members of the group, the external reviewers, and the facilitators are identified in Appendix A.

The *Hepatitis Prevention and Control Plan for the State of Nevada* is a four-year guide that will serve to integrate services and to prevent and control viral hepatitis in the state. The plan was developed for use by all groups and organizations in Nevada with the primary objective of achieving the goals set forth in *Healthy People 2010*, which was published by the United States Department of Health and Human Services.

Viral hepatitis comprises several different diseases with specific routes of transmission, prevention tactics, and intervention techniques related to each type. For the purposes of this plan, the workgroup focused on hepatitis A, hepatitis B, and hepatitis C, and developed strategies to coordinate efforts with other stakeholders to maximize resources and minimize duplication. The objectives and activities stated in the plan address goals to improve surveillance, prevention, intervention and control, and collaboration.

II. MISSION

The mission of the *Hepatitis Prevention and Control Plan for the State of Nevada* is to outline a coordinated, comprehensive, culturally appropriate, and systematic approach that will prevent

the spread of viral hepatitis in Nevada, limit the progression and complications of hepatitisrelated liver disease, and advocate for policies and resources to assist persons who have hepatitis.

III. VISION

The vision for hepatitis prevention and control is a coordinated local and statewide effort supported by public and private partnerships providing comprehensive, evidenced-based services that assure:

- Reduction in the number of new hepatitis infections and hepatitis-related deaths;
- Collection and analysis of viral hepatitis morbidity data, including fulminant liver failure, cirrhosis, liver transplantation, liver cancer, and dissemination of these findings to stakeholders;
- Education of patients, providers, policymakers, and the public about hepatitis; and
- Affordable and accessible hepatitis counseling, screening, education, treatment, harm reduction, and prevention efforts available to all persons in need.

IV. GUIDING PRINCIPLES

As part of its process, the workgroup identified several guiding principles as critically important. According to these principles, the *Hepatitis Prevention and Control Plan for the State of Nevada*:

- Supports activities and policies that are data driven and evidenced-based;
- Builds hepatitis prevention and control services through the integration of existing services relating to HIV, STDs, immunizations, inmate populations, and methadone, alcohol, and other drug treatment systems for common target populations;
- Recognizes that there are groups that are disproportionately affected by hepatitis and seeks to make funding allocations to decrease disparities;
- Acknowledges the importance of a standardization of testing, services, data collection, and surveillance;
- Advocates for hepatitis services that are culturally appropriate, accessible and nondiscriminatory;
- Recognizes the social and economic impact of hepatitis infections on families, communities, and the health care system;

- Recognizes that hepatitis prevention and control is a shared responsibility between the public and private sector; and
- Strives to improve quality of life for persons who are affected by hepatitis infections.

V. ORGANIZATIONAL HISTORY

The NSHD implemented a hepatitis program in 1991 that still targets the prevention of the perinatal transmission of hepatitis B from infected mothers to their infants at birth. In 1992, Chapter 441A, "Communicable Diseases," of the *Nevada Administrative Code* (NAC), was changed to require that all pregnant women be tested for hepatitis B (HBsAg), and infants born to infected mothers are required to be referred to the respective public health authority for follow-up vaccination and testing (NAC 441A.570). In 1991, the Centers for Disease Control and Prevention (CDC), Advisory Committee on Immunization Practices (ACIP), recommended the universal vaccination of infants and children against hepatitis B. This practice was implemented in Nevada in 1992. In October 1999, the ACIP recommended the routine vaccination of all children against hepatitis A. This recommendation was made to eleven Western states, including Nevada, which had hepatitis A rates that exceeded twice the national average (21 cases per 100,000 in population in Nevada, 1987-1997). Because of these ACIP recommendations, in September 2001, the State Board of Health amended NAC 392.105 and NAC 394.190 to require hepatitis A and hepatitis B vaccinations for all children entering school effective July 1, 2002.

Also in 2001, the Epidemiology and Laboratory Capacity Cooperative Agreement provided for the establishment of a Viral Hepatitis Program. The goals of the program are to promote the prevention of viral hepatitis by increasing disease awareness and prevention activities, disseminating educational materials about services, communicating strategies for detection and treatment, and integrating hepatitis program activities into existing relevant programs that serve high-risk and other vulnerable populations. Staff consists of a hepatitis program coordinator.

In 2002, the Immunization Program, in collaboration with Nevada's Department of Corrections, completed a seroprevalence survey of new inmates entering two Nevada prisons to determine the prevalence of hepatitis markers (A, B, and C). The purpose of the survey was to: (1) assess the burden of hepatitis B and C infection in these inmate populations; (2) examine risk factors associated with hepatitis B and C infection; and (3) identify individuals for either hepatitis vaccination and/or further medical evaluation.

The table identifies the prevalence of infection as it was revealed in the survey. Logistic regression showed that age, county of residence, previous imprisonment, injecting drug usage, tattooing, blood transfusion before 1989, sharing personal items (razors, toothbrush, earrings, et cetera), liver disease, and previous hepatitis B vaccination are significant indicators for HBV or HCV infection or HBV/HCV coinfection. A total of 50 inmates infected with hepatitis C were identified for hepatitis A and B

TYPE OF INFECTION IN INMATE POPULATION	PREVALENCE
HCV	23.8 percent
HBV	16.7 percent
Coinfection: HBV; HCV	9.4 percent

vaccination, 32 inmates for hepatitis B vaccination, and 15 inmates for hepatitis A vaccination. The study's results demonstrated that routine hepatitis screening tests are strongly encouraged in the correctional setting, especially among high-risk inmates, to identify persons who may need hepatitis vaccination.

In terms of reporting obligations in Nevada, Chapter 441A of the *Nevada Revised Statutes* (NRS) addresses "Communicable Diseases." Hepatitis is defined as a communicable disease by NAC 441A.040. *Nevada Revised Statutes* 441A.150, which was enacted in 1989, requires reporting of communicable diseases to the relevant health authority. This statute states:

NRS 441A.150 Reporting occurrences of communicable diseases to health authority.

1. A provider of health care who knows of, or provides services to, a person who has or is suspected of having a communicable disease shall report that fact to the health authority in the manner prescribed by the regulations of the Board. If no provider of health care is providing services, each person having knowledge that another person has a communicable disease shall report that fact to the health authority in the manner prescribed by the regulations of the Board.

2. A medical facility in which more than one provider of health care may know of, or provide services to, a person who has or is suspected of having a communicable disease shall establish administrative procedures to ensure that the health authority is notified.

3. A laboratory director shall, in the manner prescribed by the Board, notify the health authority of the identification by his medical laboratory of the presence of any communicable disease in the jurisdiction of that health authority. The health authority shall not presume a diagnosis of a communicable disease on the basis of the notification received from the laboratory director.

4. If more than one medical laboratory is involved in testing a specimen, the laboratory that is responsible for reporting the results of the testing directly to the provider of health care for the patient shall also be responsible for reporting to the health authority.

(Added to NRS by 1989, 295)

The State Board of Health adopted regulations in 1992 that made cases of hepatitis A, B, and C reportable conditions. These regulations are identified in Chapter 441A of the NAC. Following is a summary of the required reporters:

- Health care providers (NAC 441A.230);
- The director or other person in charge of a medical laboratory in which a test or examination of any specimen derived from the human body yields evidence suggesting the presence of any communicable disease (NAC 441A.235);
- The director or other person in charge of a medical facility who knows of or suspects the presence of a communicable disease within the medical facility (NAC 441A.240);

- The principal, director or other person in charge of a school, child care facility or correctional facility who knows of or suspects the presence of a communicable disease within the school, child care facility, or correctional facility (NAC 441A.245);
- A person in charge of a blood bank in which a test or examination of any specimen derived from the human body yields evidence suggesting the presence of a communicable disease (NAC 441A.250);
- Each insurer who requires or requests an applicant for a policy of life insurance or any other person to be examined or subjected to any medical, clinical, or laboratory test that produces evidence consistent with the presence of AIDS, hepatitis A, hepatitis B, hepatitis C, HIV, syphilis, or TB (NAC 441A.252); and
- Any person who reasonably suspects or knows that another person has a communicable disease and knows that the other person is not receiving health care services from a health care provider (NAC 441A.255).

A list of the relevant statutes and regulations is included in Appendix B.

To assist with the required reporting, the NSHD's Epidemiology Unit, the Clark County Health District, and the Washoe County District Health Department have each created individual hepatitis registries in their respective jurisdictions. The state's Epidemiology Unit receives case reports from the rural areas, the Clark County Health District, and the Washoe County District Health Department regarding the number of acute cases of hepatitis. The Epidemiology Unit is responsible for transmitting these case reports to the CDC on a weekly basis. The number of chronic cases of hepatitis B and C are not reported to the CDC but are maintained within the individual databases of the respective health authorities.

Data compiled by the Epidemiology Unit, using the National Electronic Transmission Surveillance System, or NETSS, shows the following number of cases of acute hepatitis in Nevada during the period between 1996 and 2003:

- 1,523 cases of acute hepatitis A;
- 581 cases of acute hepatitis B; and
- 151 cases of acute hepatitis C.

See Appendix C for statewide yearly data for the years 1996 through 2003, including data by gender and race. These numbers represent a minimum estimate for the following reasons:

- Hepatitis infection surveillance reports may not be representative of all persons infected with hepatitis infections, since it is likely that not all infected persons have been tested.
- Surveillance activities differ among health care providers and facilities, and reporting practices differ from county to county in Nevada.

• Persons with viral hepatitis are often asymptomatic or have mild symptoms. The current reportable disease system does not reliably capture the chronic viral hepatitis disease burden.

Appendices D and E provide data specific to Clark and Washoe Counties concerning hepatitis A, B, and C.

Hepatitis B

Since 1991, the NSHD has conducted follow-up activities on all reported cases of a hepatitis B positive pregnant woman to prevent hepatitis B transmission from a mother to her infant at birth. Hepatitis B screening in all pregnant women is required by NAC 441A.570 and is a standard of care for all pregnant women. A pregnant woman must be screened by her health care provider for the presence of hepatitis B surface antigen. Health care providers are required to refer a pregnant woman who is positive for hepatitis B surface antigen to the respective health authority for counseling and recommendations on testing and immunizing contacts. Additional follow up of these reports requires the health care provider of an infant born to a woman carrying hepatitis B surface antigen to ensure that the infant is given hepatitis B immune globulin and hepatitis B vaccine within 12 hours of birth with the vaccine series being completed on a schedule established by the division.

Hepatitis C

According to data contained in "Recommendations for Prevention and Control of Hepatitis C Virus (HCV) Infection and HCV-Related Chronic Disease" (*Morbidity and Mortality Weekly Report*, October 16, 1998, 47 (RR19); 1-39), the Third National Health and Nutrition Examination Survey, or NHANES III, conducted between 1988 and 1994, indicated that an estimated 1.8 percent of Americans are infected with HCV. Based on this estimate, approximately 41,338 people in Nevada are infected with HCV.¹

The MMWR indicates that most of these persons are chronically infected and might not be aware of their infection because they are not clinically ill. Infected persons are a source of transmission to others, and they are at risk for chronic liver disease or other HCV-related chronic diseases during the first two or more decades following initial infection. Approximately 75 percent of persons who become infected with HCV develop chronic liver disease. In Nevada, that amounts to approximately 31,004 people who will develop chronic liver disease.

In addition, the MMWR reports that chronic liver disease is the tenth leading cause of death among adults in the U.S. and accounts for approximately 1 percent of all deaths. In 2002, there

¹ According to *Nevada County Population Estimates July 1, 1986, to July 1, 2003, Includes Cities and Towns*, which was prepared by the Nevada State Demographer's Office, Jeff Hardcastle, AICP, Nevada State Demographer, for the Nevada Department of Taxation in conjunction with the Nevada Small Business Development Center, Nevada had an estimated population of 2,296,566 people on July 1, 2003. The estimated population multiplied by the estimated percentage of people in the U.S. who have hepatitis C yields the estimate that 41,338 people in Nevada are infected with HCV.

were 16,664 deaths in Nevada. Of these, 262 deaths were due to chronic liver disease and cirhossis. 2

The MMWR reports that population-based studies indicate that 40 percent of chronic liver disease is HCV-related. There are medical and work-loss costs of HCV-related acute and chronic liver disease, and HCV-associated end-stage liver disease is the most frequent indication for liver transplantation among adults. Because most HCV-infected persons are aged 30 to 49 years, the number of deaths attributable to HCV-related chronic liver disease could increase substantially during the next 10 to 20 years as this group of infected persons reaches ages at which complications from chronic liver disease typically occur.

A list of recommended bibliographic references is included at Appendix F. This list may be used to access additional information about hepatitis.

VI. GOALS AND OBJECTIVES

The following section identifies seven goals and their associated objectives and activities as they were characterized by members of the strategic plan work group. These goals and objectives are time bound and will serve as a guide to address issues relating to hepatitis in Nevada.

SURVEILLANCE

The purpose of hepatitis surveillance is to identify new cases and monitor trends in the disease, determine risk factors for infection and hepatitis transmission, assess how widely and among whom the disease is found, and identify infected persons for counseling and medical follow-up.

The following goals and objectives are high priorities in developing an effective surveillance system for hepatitis.

Goal 1: Improve current surveillance mechanisms.

Objective 1.1: Identify all laboratory sources of hepatitis data statewide.

<u>Activities</u>

By January 2005, obtain a list of laboratories through the appropriate regulatory agency.

By July 2005, negotiate with all laboratories to obtain electronic data on all acute and chronic hepatitis.

² Nevada Interactive Health Database System, Mortality Module, 1990 to 2002, at Internet link: http://health2k.state.nv.us/nihds/measures/mortality/long_form.html.

Objective 1.2: Maintain a consistent, centralized hepatitis data repository.

Activities

By July 2005, evaluate, define, and standardize statewide hepatitis data.

By September 2005, distribute information regarding reporting requirements for hepatitis to all laboratories, health care providers, local health departments, and service providers and post the information on state and district Web sites.

By September 2005, develop and conduct quarterly instructional seminars for health care providers, local health departments, and service providers on the topic of reporting requirements for hepatitis.

By February 2006, create a centralized hepatitis data repository.

Objective 1.3: Improve utilization of viral hepatitis data for evidence-based decision making.

Activities

By January 2005, establish an advisory committee.

By July 2006, develop and provide hepatitis epidemiological data summary reports to health care providers, policymakers, and other interested parties.

Goal 2: Improve identification of hepatitis cases.

Objective 2.1: Offer hepatitis education to 100 percent of the state's licensed health care providers.

<u>Activities</u>

By January 2005, identify health care providers and service providers that work directly with high-risk populations.

By September 2005, provide training with continuing education units.

Beginning January 2005, include hepatitis education in epidemiological newsletters statewide at least two times per year.

By January 2005, post links for continuing education on district and state Web sites.

By July 2005, organize an annual meeting for community partners and stakeholders.

PREVENTION

Prevention is the process of providing information and education services to healthy populations to allow them to make decisions that will reduce their risk and protect them from contracting the

disease. Prevention also includes immunizing at-risk populations. The following goals, objectives, and activities are priorities for the development of an effective prevention program.

Goal 3: Prevent infection.

Objective 3.1: Educate members of the public concerning interventions and effective strategies to prevent infection.

Activities

By March 2005, develop a communication plan that identifies the target population and strategies to reach the population.

By January 2006, develop and/or utilize an existing media campaign to publicize immunization resources and awareness about hepatitis.

By December 2006, integrate hepatitis education into relevant existing programs.

Objective 3.2: Educate health care providers about interventions and effective strategies to prevent infection.

<u>Activities</u>

By July 2005, conduct a statewide assessment of the need for hepatitis education among health and community services professionals and students.

By July 2006, make hepatitis training and educational materials available to target groups identified in the assessment.

Objective 3.3: Analyze current laws and practices to determine whether changes should be made that would enhance prevention efforts in the state.

Activities

By July 2007, discuss existing immunization requirements for hepatitis A and B to determine the feasibility of requiring immunizations for all children rather than limiting the immunization requirements to children newly entering school.

By July 2008, develop prevention activities directed toward injecting drug users.

Goal 4: Improve hepatitis A and hepatitis B immunization rates.

Objective 4.1: Immunize people in sensitive occupations, high-risk adults, and incarcerated populations.

Activities

By July 2008, educate policymakers about the public health benefits of requiring adults in sensitive occupations to be vaccinated for hepatitis A and hepatitis B (i.e., daycare workers, food service workers, et cetera).

By July 2005, coordinate with childhood immunization programs to place a higher priority on adult hepatitis A and hepatitis B.

By September 2005, develop a distribution plan to strategically stock low cost vaccines at convenient locations for individuals at most risk and those most capable of transmission.

By January 2006, collaborate with Nevada's Department of Corrections to increase the number of hepatitis A and hepatitis B vaccinations and to provide information to inmates.

INTERVENTION AND CONTROL

Intervention and control of hepatitis is the process of identifying as many hepatitis infected persons as possible and offering effective and accessible services to prevent or limit the progression and complications of hepatitis infection.

The following goals, objectives, and activities are priorities in developing intervention and control services for persons infected with hepatitis.

Goal 5: Prevent disease.

Objective 5.1: Offer post exposure prophylaxis (PEP) to all persons exposed to HBV or HAV infection, as appropriate. There is no PEP for HCV.

<u>Activities</u>

By March 2005, assure that 100 percent of contacts identified through case investigations of acute hepatitis A and hepatitis B are offered PEP.

Objective 5.2: Offer appropriate vaccination to susceptible persons with chronic hepatitis infection.

<u>Activities</u>

By January 2006, develop methods to link persons with chronic hepatitis infection to sites and health care providers where they may access treatment services.

Goal 6: Improve the availability of comprehensive services to those clients infected with viral hepatitis.

Objective 6.1: By 2006, identify barriers and improve access to medical care and treatment for viral hepatitis.

Activities

By June 2005, identify and publish a directory of physicians that provide medical care and treatment.

By June 2005, identify and publish a directory of providers that offer medical services for persons who are indigent and uninsured.

By August 2005, develop referral protocols for persons infected with hepatitis A, hepatitis B, and/or hepatitis C.

Objective 6.2: Ensure availability of counseling, case management, referral, and treatment for persons found to be infected with viral hepatitis.

<u>Activities</u>

By September 2005, participate in and provide hepatitis data and information to existing statewide and community HIV/AIDS, STD, Immunization, and Alcohol and Drug Abuse taskforces.

By August 2005, compile a comprehensive hepatitis resource referral list and make it available on state and local Web sites.

Objective 6.3: Enhance the knowledge and skills of health care professionals to deliver comprehensive hepatitis services.

Activities

By May 2005, identify key experts in the state who are willing to act as a resource to other providers.

By November 2005, coordinate with local providers, professional educational organizations, and pharmaceutical companies to develop an annual education plan to keep the service provider community updated about hepatitis A, hepatitis B, and hepatitis C.

By December 2005, coordinate and distribute educational materials and information collected from various associations and national programs.

COLLABORATION

The implementation of the objectives and activities described in this plan require the collaboration of state and local partners. The following items are priorities for the progression of hepatitis prevention and control activities in Nevada.

Goal 7: Ensure sustainability of the statewide hepatitis plan.

Objective 7.1: Improve collaboration and coordination between state and local public health and community-based organizations.

Activities

Continue meetings of statewide hepatitis plan stakeholders. This is an ongoing activity.

Objective 7.2: Provide information and education about hepatitis to policymakers and key stakeholders.

<u>Activities</u>

By June 2005, identify key organizations and policymakers to collaborate with and share resources to ensure support for plan implementation.

By September 2005, identify centers of excellence that can be used as resources to educate policymakers and key stakeholders.

Continuously and actively track and support federal hepatitis legislation.

APPENDIX A

STRATEGIC PLAN WORKGROUP MEMBERS, EXTERNAL REVIEWERS, AND FACILITATORS

APPENDIX A

Strategic Plan Workgroup Members, External Reviewers, and Facilitators

NAME	TITLE	ORGANIZATION	LOCATION
Barbara Aranosian		Clark County Social Services	Las Vegas, NV
Gary Buckett		Centers for Disease Control	Atlanta, GA
Julene A. Bertuleit, B.S.	Senior Executive Vaccine Account Manager	GlaxoSmithKline	Sparks, NV
Patty Charles, Ph.D.		School of Medicine University of Nevada, Reno	Reno, NV
Lei Chen, Ph.D.	Public Health Epidemiologist	Washoe County District Health Department	Reno, NV
Lisa Dettling, B.A.	Director Health and Wellness	Saint Mary's Health Network	Reno, NV
Karen Gedney, M.D.		Nevada Department of Corrections	Carson City, NV
Mary Ellen Harrell, R.N.	Public Health Nurse Manager, Communicable Disease	Clark County Health District	Las Vegas, NV
Steve Kutz, R.N., B.S.N.	STD/HIV/Immunization Public Health Nurse Supervisor	Washoe County District Health Department	Reno, NV
Alex Lapasaran		Digestive Health Associates	Reno, NV
Bernice Mathews	Nevada State Senator	Nevada Legislature	Reno, NV
Heidi Montijo	Clinical Specialist, Hepatology	Roche Pharmaceuticals Clinical Team	Tucson, AZ
Fran Nelson	Director of Quality Improvement	Health Plan of Nevada	Las Vegas, NV
Dino Raiser		Hepatitis Awareness Channel	Las Vegas, NV
Rick Reich	Communicable Disease/AIDS Services Supervisor	Clark County Health District	Las Vegas, NV
Chris Reynolds	Disease Investigation and Intervention Specialist II	Office of AIDS, Clark County Health District	Las Vegas, NV
Patricia Rowley, M.P.H.	Epidemiology Manager	Clark County Health District	Las Vegas, NV
Robert Salcido, M.P.H.	Immunization Program Manager	Nevada State Health Division	Carson City, NV
Lynnie Shore, R.N., B.S.N.	Public Health Nurse	Washoe County District Health Department	Reno, NV
Bonnie Sorenson, R.N., B.S.N.	Public Health Nurse Manager	Clark County Health District	Las Vegas, NV
Sedrick Spencer	Regional Manager, State Government Affairs	Roche Pharmaceuticals	Sacramento, CA
	Allalis		

NAME	TITLE	ORGANIZATION	LOCATION
Denise Stokich, R.N., B.S.N.	Community Health	Washoe County District Health	Reno, NV
	Epidemiologist	Department	
Sharon Walker	Advocate		Las Vegas, NV
Di An Willis	Insurance Consultant	Insurance Management Services	Winnemucca, NV
Allen Wong		Merck Vaccine	Fair Oaks, CA

EXTERNAL REVIEWERS

Dr. Robert Gish Medical Director Liver Transplant Program California Pacific Medical Center Amy J. Khan, M.D., M.P.H. CDC Career Epidemiology Field Officer Nevada State Health Division

FACILITATORS

NAME	TITLE	ORGANIZATION	LOCATION
Doug Banghart, R.N., M.S.P.H.	Immunization	Nevada State Health Division	Carson City, NV
	Program		
	Coordinator		
Theresa Cress	Arthritis Program	Bureau of Community Health,	Carson City, NV
	Manager	Nevada State Health Division	
Charlene Herst	Chronic Disease	Nevada State Health Division	Carson City, NV
	Prevention		
	Programs Manager		
Brady Jaynes	Hepatitis Program	Nevada State Health Division	Carson City, NV
	Coordinator		
Luana J. Ritch, Ph.D.	Strategic Plan Lead	Nevada State Health Division	Carson City, NV
	Facilitator		
Jennifer Stoll-Hadayia	Sexually	Nevada State Health Division	Carson City, NV
	Transmitted Disease		
	Program		
	Coordinator		
Dana Woolley, R.N.		Nevada State Health Division	Carson City, NV

APPENDIX B

Nevada Revised Statutes and Nevada Administrative Code Citations

APPENDIX B

Selected Nevada Revised Statutes Citations

NRS 441A.150 Reporting occurrences of communicable diseases to health authority.

1. A provider of health care who knows of, or provides services to, a person who has or is suspected of having a communicable disease shall report that fact to the health authority in the manner prescribed by the regulations of the Board. If no provider of health care is providing services, each person having knowledge that another person has a communicable disease shall report that fact to the health authority in the manner prescribed by the regulations of the Board.

2. A medical facility in which more than one provider of health care may know of, or provide services to, a person who has or is suspected of having a communicable disease shall establish administrative procedures to ensure that the health authority is notified.

3. A laboratory director shall, in the manner prescribed by the Board, notify the health authority of the identification by his medical laboratory of the presence of any communicable disease in the jurisdiction of that health authority. The health authority shall not presume a diagnosis of a communicable disease on the basis of the notification received from the laboratory director.

4. If more than one medical laboratory is involved in testing a specimen, the laboratory that is responsible for reporting the results of the testing directly to the provider of health care for the patient shall also be responsible for reporting to the health authority.

(Added to NRS by 1989, 295)

Selected Nevada Administrative Code Citations

The following regulations in the State of Nevada relate to the prevention and control of viral hepatitis.

NAC 441A.230 Duty of health care provider to report case or suspected case; content of report.

1. A health care provider who knows of, or provides services to a case or suspected case shall report the case or suspected case to the health authority having jurisdiction where the office of the health care provider is located. The report must be made in the manner provided in NAC 441A.225.

2. The report must include:

(a) The communicable disease or suspected communicable disease.

(b) The name and the address or telephone number of the case or suspected case.

(c) The name and the address or telephone number of the health care provider making the report.

(d) The occupation, employer, age, sex, race and date of birth of the case or suspected case, if available.

(e) The date of onset and the date of diagnosis of the communicable disease.

(f) Any other information requested by the health authority, if available.

(Added to NAC by Bd. of Health, eff. 1-24-92)

NAC 441A.560 Hepatitis A: Generally.

1. The health authority shall investigate each report of a case having hepatitis A to confirm the diagnosis, to identify any contacts or other cases, to identify the source of the infection, to determine if the case is employed in a sensitive occupation or is a child attending a child care facility and to determine the need for prophylactic administration of immune globulin to contacts of the case.

2. Except as otherwise provided in this section, a case having hepatitis A and any contact residing in the same household as a case having hepatitis A shall not work in a sensitive occupation. The health authority may waive the provisions of this section if a case or contact is considered not to be infectious.

3. Except as otherwise provided in this section, a child having hepatitis A shall not attend a childcare facility. The health authority may waive the provisions of this section if the child is considered not to be infectious.

4. If a case having hepatitis A is in a medical facility, the medical facility shall provide care to the case in accordance with enteric precautions or other appropriate disease specific precautions.

5. The health authority shall instruct cases having hepatitis A and contacts of cases having hepatitis A of the need and proper method of hand washing after defecation.

6. Upon learning of a contact through his investigation, the health authority shall offer and provide immune globulin to the contact if the contact's last contact to the case having hepatitis A was within the preceding 2 weeks and while the case was in a communicable stage.

7. If a food or beverage handler has hepatitis A, the health authority shall determine the potential for transmission of the communicable disease within the food establishment. If the health authority determines that there is a potential for transmission of the communicable disease, he shall:

(a) Offer immune globulin to other food and beverage handlers in the workplace who have had contact with the food or beverage handler having hepatitis A.

(b) If warranted under the circumstances, make a public announcement to inform patrons of their potential exposure.

8. The employer of a food or beverage handler who declines immune globulin pursuant to paragraph (a) of subsection 7, shall observe the food or beverage handler and report to the health authority if the food or beverage handler develops any symptoms of hepatitis A during the 45 days after refusing immune globulin.

9. The employer of a food or beverage handler shall instruct the food and beverage handler of the need and proper method of hand washing after defecation.

(Added to NAC by Bd. of Health, eff. 1-24-92)

NAC 441A.565 Hepatitis A: Presence of case in childcare facility.

1. If a case having hepatitis A is an employee or a child in a childcare facility and there are no children in diapers in the childcare facility, the health authority shall offer immune globulin to all employees and children in contact with the case.

2. The health authority shall offer immune globulin to all employees and enrolled children in a child care facility if a child in diapers is enrolled in the child care facility and:

(a) A case having hepatitis A is an employee or a child in the child care facility; or

(b) A case having hepatitis A has occurred in the households of two or more children in the childcare facility.

3. If recognition of an outbreak of hepatitis A is delayed by 3 or more weeks from the onset of the index case, or if hepatitis A has occurred in three or more families of children enrolled in a child care facility, the health authority shall offer immune globulin to all employees and enrolled children in the child care facility and to contacts residing in the same household as a child 3 years of age, or less, who is enrolled in the child care facility.

4. If a case having hepatitis A is an employee or a child in a child care facility, the principal, director, or other person in charge of the child care facility shall notify, in writing, the employees of the child care facility and the parents or legal guardians of children enrolled in the child care facility to hepatitis A, of the recommendations for immune globulin and of the need for surveillance for development of symptoms.

(Added to NAC by Bd. of Health, eff. 1-24-92)

NAC 441A.570 Hepatitis: B; C; Delta; unspecified.

1. The health authority shall investigate each report of:

(a) An acute case of hepatitis B, C, Delta or unspecified hepatitis; or

(b) A pregnant woman who is positive for hepatitis B surface antigen upon testing of a blood specimen by a medical laboratory, to confirm the diagnosis, to identify any carriers or other cases, to identify the source of the infection and to determine the need for hepatitis B immune globulin and immunization for contacts.

2. The health authority shall encourage a case who has hepatitis B, C, Delta or unspecified to notify any persons with whom he has had sexual relations and any person with whom he has shared a needle, of their potential exposure, of the availability of counseling, of their potential need for hepatitis B immune globulin prophylaxis and immunization and of testing for the presence of hepatitis B, C, Delta or unspecified. If the case fails to provide notice to the persons potentially exposed, the health authority shall provide such notice and counseling.

3. Upon the request of a case having hepatitis B, C, Delta or unspecified, or upon the request of the health care provider of the case, the health authority shall use epidemiologic methods to confidentially locate, counsel and refer for medical evaluation and treatment any contact of the case.

4. A pregnant woman shall be screened by her health care provider for the presence of hepatitis B surface antigen. The health care provider shall refer a pregnant woman who is positive for hepatitis B surface antigen to the health authority for counseling and recommendations on testing and immunizing contacts.

5. The health care provider of an infant born to a woman carrying hepatitis B surface antigen shall ensure that the infant is given hepatitis B immune globulin and hepatitis B vaccine within 12 hours of birth with the vaccine series being completed on a schedule established by the division.

6. If a case having hepatitis B, C, Delta or unspecified, or a carrier of hepatitis B, C, Delta or unspecified, is in a medical facility, the medical facility shall provide care to the case or carrier in accordance with blood and body fluid precautions and universal precautions.

(Added to NAC by Bd. of Health, eff. 1-24-92)

IMMUNIZATION AGAINST DISEASE

NAC 392.105 Mumps, hepatitis A, hepatitis B and varicella. (NRS 392.435, 439.200)

1. The state board of health hereby declares the diseases of mumps, hepatitis A, hepatitis B and varicella to be communicable diseases.

2. Unless excused because of religious belief or medical condition, a child may not be enrolled in a public school in this state unless he has been immunized against the mumps.

3. Except as otherwise provided in subsection 4, unless excused because of religious belief or medical condition, a child may not be enrolled in a public school in this state:

(a) After June 30, 2002, unless he has been immunized against hepatitis A and hepatitis B; and

(b) After June 30, 2003, unless he has been immunized against varicella.

4. The provisions of:

(a) Paragraph (a) of subsection 3 do not apply to a child who is enrolled in a public school in this state before July 1, 2002; and

(b) Paragraph (b) of subsection 3 do not apply to a child who is enrolled in a public school in this state before July 1, 2003.

(Added to NAC by Bd. of Health, eff. 6-30-88; A by R075-01, 10-23-2001)

NAC 394.190 Immunization against mumps, hepatitis A, hepatitis B and varicella. (NRS 394.192, 439.200)

1. The state board of health hereby declares the diseases of mumps, hepatitis A, hepatitis B and varicella to be communicable diseases.

2. Unless excused because of religious belief or medical condition, a child may not be enrolled in a private school in this state unless he has been immunized against the mumps.

3. Except as otherwise provided in subsection 4, unless excused because of religious belief or medical condition, a child may not be enrolled in a private school in this state:

(a) After June 30, 2002, unless he has been immunized against hepatitis A and hepatitis B; and

(b) After June 30, 2003, unless he has been immunized against varicella.

4. The provisions of:

(a) Paragraph (a) of subsection 3 do not apply to a child who is enrolled in a private school in this state before July 1, 2002; and

(b) Paragraph (b) of subsection 3 do not apply to a child who is enrolled in a private school in this state before July 1, 2003.

(Added to NAC by Bd. of Health, eff. 6-30-88; A by R075-01, 10-23-2001)

OTHER RELEVANT STATUTES AND REGULATIONS RELATING TO HEPATITIS IN NEVADA*

NOTE: This is not a comprehensive list of relevant statutes and regulations. It is provided for informational purposes only.

CITATION	TITLE OR SUBJECT
	Nevada Administrative Code
NAC 392.105	Mumps, hepatitis A, hepatitis B and varicella.
NAC 394.190	Immunization against mumps, hepatitis A, hepatitis B and varicella.
NAC 439.500	Fees and donations for provision of services and medications.
NAC 439.560	Fees for certain tests of samples of blood.
NAC 441A.040	"Communicable disease" defined.
NAC 441A.140	"Proof of immunity to hepatitis B," "proof of immunity to measles," "proof of immunity to rubella" and "proof of immunity to tetanus, diphtheria and mumps" defined.
NAC 441A.252	Duty of insurer to report results of test indicating presence of certain communicable diseases; content of report; method of communication.
NAC 441A.305	Duty of health officer to disclose information of personal nature to certain persons; duties of firemen, police officers, and persons providing emergency medical services; limitation on power of health authority to order test or examination.
NAC 441A.310	Authority of state board of health and health authority to disseminate to blood bank identifying data relating to viral hepatitis.
NAC 441A.560	Hepatitis A: Generally.
NAC 441A.565	Hepatitis A: Presence of case in child care facility.
NAC 441A.570	Hepatitis: B; C; Delta; unspecified.
NAC 441A.585	Leptospirosis.
NAC 441A.775	"Sexually transmitted disease" defined for purpose of NRS.
NAC 442.600-442.792	SERVICES UNDER SOCIAL SECURITY ACT
NAC 446.211	Food handler required to report on health and diseases; presence of infected or ill food handler prohibited.
NAC 446.214	Return to work of food handler infected with hepatitis A virus.
NAC 449.522	Construction, space and design; physical environment; restrictions for treatment of patients with hepatitis B.
NAC 449.5315	Hepatitis B: Vaccinations for certain staff members; postvaccination screening; adoption of related provisions.
NAC 449.532	Hepatitis B: Vaccinations for certain patients.
NAC 449.5325	Hepatitis B surface antigen: Screening of patients; additional serologic screening.
NAC 449.534	Hepatitis B surface antigen: Treatment of patients who test positive.
NAC 449.540	Program of quality assurance; recordation of accidents and incidents; reporting of certain events.

TITLE OR SUBJECT
Orientation program for new employees; continuing education.
Staff that repairs or maintains equipment used to provide care to patients.
Medical history and physical examination.
Transient patients.
Discharge or transfer of patients; removal of records.
HUMAN BLOOD AND BLOOD PRODUCTS
Definitions.
Severability.
Identifying data.
Blood banks: Restrictions on use of blood.
Determination of physical and mental fitness to engage in unarmed
combat; examination and testing; results of medical tests required.
Adoption by reference of guidelines adopted by Centers for Disease
Control.
Nevada Revised Statutes
Testing of person who may have exposed law enforcement officer, correctional officer, emergency medical attendant, fireman or other person employed by agency of criminal justice to contagious disease.
Identifying data concerning person with history of viral hepatitis may be furnished to blood bank; confidentiality and unlawful use of data; penalty.
"Accident benefits" defined.
"Injury" and "personal injury" defined. (See the Annotations at the end of the citation.)
Exposure of police officer or fireman to contagious disease: Reporting and testing requirements; eligibility for compensation.
Certain contagious diseases as occupational diseases.
Hepatitis as occupational disease of police officer, fireman or

*All referenced citations may be accessed via the Internet at http://www.leg.state.nv.us/law1.cfm.

APPENDIX C

REPORTED HEPATITIS CASES BY GENDER AND RACE IN NEVADA, 1996-2003

REPORTED HEPATITIS CASES BY GENDER AND RACE IN NEVADA, 1996-2003

HEPATITIS A

		Ge	ender			Race						
					Native	e Unknown/						
Year	Male	Female	Unknown	Total	American	Asian	Black	White	Other	Total	Cases	%
1996	287	161	0	448	10	4	21	388	25	448	47	10.5
1997	264	173	0	437	6	3	19	394	15	437	82	18.8
1998	127	99	1	227	2	4	23	187	11	227	42	18.5
1999	88	58	0	146	0	1	3	134	8	146	56	38.4
2000	51	39	0	90	2	2	3	79	4	90	33	36.7
2001	47	23	0	70	3	0	3	57	7	70	27	38.6
2002	29	25	0	54	2	0	0	49	3	54	18	33.3
2003	30	21	0	51	0	2	0	45	4	51	12	23.5

HEPATITIS B

		Ge	ender			Race						
					Native	Unknown/						
Year	Male	Female	Unknown	Total	American	Asian	Black	White	Other	Total	Cases	%
1996	63	32	0	95	3	3	15	66	8	95	10	10.5
1997	49	31	0	80	0	8	12	55	5	80	6	7.5
1998	56	24	1	81	0	4	7	53	17	81	9	11.1
1999	35	24	0	59	1	6	8	40	4	59	3	5.1
2000	48	7	0	55	1	4	6	40	4	55	5	9.1
2001	40	12	0	52	0	3	0	43	6	52	12	23.1
2002	54	17	0	71	1	2	9	51	8	71	7	9.9
2003	60	28	0	88	1	6	9	64	8	88	14	15.9

HEPATITIS C

		Ge	ender			Race						
					Native	tive Unknown/						
Year	Male	Female	Unknown	Total	American	Asian	Black	White	Other	Total	Cases	%
1996	13	6	0	19	2	0	0	16	1	19	1	5.3
1997	10	9	0	19	2	0	0	15	2	19	2	10.5
1998	13	6	0	19	2	0	3	13	1	19	2	10.5
1999	8	2	0	10	0	1	0	5	4	10	0	0
2000	13	5	0	18	2	0	0	10	6	18	2	11.1
2001	8	1	0	9	0	0	0	8	1	9	2	22.2
2002	20	10	0	30	1	0	1	28	0	30	3	10.0
2003	20	7	0	27	0	0	1	26	0	27	4	14.8

Source: National Electronic Transmission Surveillance System, 1996-2003.



Chart 1A, Reported Hepatitis A in Nevada by Gender, 1996-2003

Chart 1B, Reported Hepatitis A in Nevada by Race, 1996-2003





Chart 2A, Reported Hepatitis B in Nevada by Gender, 1996-2003

Chart 2B, Reported Hepatitis B in Nevada by Race, 1996-2003





Chart 3A, Reported Hepatitis C in Nevada by Gender, 1996-2003

Chart 3B, Reported Hepatitis C in Nevada by Race, 1996-2003



	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
*DIPHTHERIA	0	0	0	0	0	2	0	0	0	0	0	0
**H.FLU INVASIVE	30	64	52	29	22	18	17	4	6	12	12	10
< 6 yrs of age				0	0	1	0	0	1	2	6	4
, ,												
HEPATITIS A	213	329	253	334	448	437	227	146	90	70	54	51
(Statewide)												. –
Hepatitis A				209	272	385	188	110	70	49	27	17
(Clark County) Hepatitis A				75	140	37	29	30	17	12	18	29
(Washoe County)						•••						
Hepatitis A				50	36	15	10	6	3	9	9	5
(Rural Counties)												
HEPATITIS B	202	143	59	65	95	80	81	59	55	52	71	87
(Statewide)				39	59	53	41	32	42	39	57	66
Hepatitis B (Clark County)				39	09	55	41	52	42	39	57	00
Hepatitis B				16	27	17	21	19	10	11	10	9
(Washoe County)												
Hepatitis B				10	9	10	19	8	3	2	4	12
(Rural Counties)		~ ~				10						
HEPATITIS C/NANB	15	20	20	20	19	19	19	10	18	9	30	27
LYME DISEASE	2	9	1	6	2	2	6	2	4	4	2	3
Clark Co.				5	1	1	4	1	3	3	1	3
*MEASLES	2	1	9	1	5	2	0	1	7	1	1	0
Clark Co.				1	4	0	0	0	5	1	1	0
MENINGOCOCCAL	19	22	11	18	13	20	10	8	5	8	20	8
DISEASE Clark Co.				9	6	10	4	5	2	7	14	6
*MUMPS	26	43	18	12	15	9	14	5	6	4	6	6
Clark Co.	20	40	10	8	8	5	9	1	4	3	5	2
*PERTUSSIS	4	7	3	119	41	51	41	14	15	41	48	35
Clark Co.			Ũ	16	20	8	11	12	3	6	23	22
*POLIO	0	0	0	0	0	0	0	0	0	0	0	0
*RUBELLA	4	2	1	0	1	0	1	1	1	0	1	0
Clark Co.	·	-		0	0	0	0	1	0	0	1	0
#STREPTOCOCCI	10	8	38	10	10	14	18	24	17	17	17	15
PNEUMONIAE		-										
< 6 yrs of age	0	1	16	3 (2)	1 (1)	7 (7)	10 (10)	12 (13)	1	6	3	3
*TETANUS	0	0	0	1	0	0	0	0	0	0	0	0
# ()1995-1999 Hospi					* sc	hool re	quirem	ent	** day	ycare re	equiren	nent
2003 active surveillar				nic Tra	nemiee	ion Su	rvoillan		tom) de	atahasi	a 1002	<u> </u>

Nevada Vaccine Preventable Diseases 1992-2003

Source: Nevada NETSS (National Electronic Transmission Surveillance System) database, 1992-2003

APPENDIX D

CLARK COUNTY HEALTH DISTRICT OFFICE OF EPIDEMIOLOGY DISEASE STATISTICS 1999-2003

CLARK COUNTY HEALTH DISTRICT OFFICE OF EPIDEMIOLOGY DISEASE STATISTICS* 1999-2003

DISEASE	1999	2000	2001	2002	2003				
VACCINE PREVENTABLE DIS	VACCINE PREVENTABLE DISEASES								
HAEMOPHILIS INFLUENZA	0	3	6	8	8				
HEPATITIS A	<mark>108</mark>	<mark>71</mark>	<mark>49</mark>	<mark>26</mark>	<mark>17</mark>				
HEPATITIS B	<mark>32</mark>	<mark>41</mark>	<mark>39</mark>	<mark>53</mark>	<mark>62</mark>				
INFLUENZA	16	25	29	59	207				
MEASLES (RUBEOLA)	0	5	1	1	0				
MUMPS	1	4	3	5	2				
PERTUSSIS	12	3	6	23	20				
RUBELLA	1	0	0	1	0				
SEXUALLY TRANSMITTED D	ISEASES								
AIDS	209	240	187	244	t				
CHLAMYDIA	1973	2781	4074	4442	4719				
GONORRHEA	1096	1374	1831	1748	2085				
HIV INFECTION	207	234	159	181	†				
SYPHILIS (PRIMARY	7	3	4	7	8				
SYPHILIS (EARLY LATENT)	30	8	6	6	20				
ENTERICS									
AMEBIASIS	7	3	4	23	17				
BOTULISM- Intestinal	0	1	0	0	1				
CAMPYLOBACTER	68	108	135	111	103				
CHOLERA	0	0	0	0	0				
CRYPTOSPORIDIOSIS	4	3	4	2	5				
E. COLI 0157:H7	5	9	8	14	17				
GIARDIA	121	147	141	119	94				
ROTAVIRUS	474**	529	567	436	531				
SALMONELLOSIS	127	145	149	176	118				
SHIGELLOSIS	54	104	54	33	53				
YERSINIOSIS	4	4	0	0	0				

DISEASE		1999		2000	2001
OTHER					
COCCIDIOIDOMYCOSIS	28	23	37	39	33
ENCEPHALITIS	6	1	0	2	2
FOODBORNE DISEASE	1320	1929	1823	1210	924
HANSEN'S DISEASE (LEPROSY)	3	0	1	0	0
HEMOLYTIC UREMIC SYNDROME	1	0	0	0	1
HEPATITIS C	<mark>1</mark>	<mark>0</mark>	<mark>0</mark>	<mark>4</mark>	<mark>3</mark>
HEPATITIS D	<mark>0</mark>	<mark>0</mark>	<mark>0</mark>	1	<mark>0</mark>
LEGIONELLOSIS	6	1	4	5	10
LEPTOSPIROSIS	0	0	0	0	0
LISTERIOSIS	1	5	5	1	3
LYME DISEASE	1	3	3	1	3
MALARIA	4	2	3	3	2
MENINGITIS, VIRAL/ASEPTIC	52	66	87	95	136
MENINGITIS, BACTERIAL	21	46	18	27	25
MENINGOCOCCAL DISEASE	2	2	8	14	6
Q FEVER	0	0	0	1	0
RELAPSING FEVER	0	3	0	0	0
RESPIRATORY SYNCYTIAL VIRUS	1932**	1310	1555	2103	1537
ROCKY MOUNTAIN SPOTTED	1	2	1	2	0
TOXIC SHOCK SYNDROME	0	1	0	1	3
TUBERCULOSIS	66	82	71	62	74
UNUSUAL ILLNESS					
ERLICHIOSIS CHAFFEENSIS	0	0	0	0	1
MICROSPORIDIA SPP.	0	0	0	1	0
NORWALK-LIKE VIRUS	0	0	0	0	1
SCOMBROID	0	0	0	0	1
STREP-INVASIVE	0	0	0	0	1
VIBRIO PARAHAEMOLYTICUS	0	0	0	0	1

Brucellosis	Polio	
Chancroid	Rabies (Human)	
Dengue	Tetanus	
Diptheria	Tularemia	
Granuloma inguinale	Typhoid	
Hantavirus	Yersiniosis	

**May include duplicates †For HIV/AIDS statistics, please call the Clark County Health District Office of AIDS at (702) 759-0730.

CLARK COUNTY HEALTH DISTRICT DISEASE STATISTICS* JULY 2004

DISEASE	CASES R	EPORTED	YEAR TO DATE		
	July 2003	July 2004	2003	2004	
VACCINE PREVENTABLE DISEASES					
DIPTHERIA	0	0	0	0	
HAEMOPHILUS INFLUENZA	0	2	4	6	
(invasive) HEPATITIS A	0	1	9	4	
HEPATITIS A HEPATITIS B	0 3	<u> </u>	38	4 37	
INFLUENZA	0	0	47	53	
	0	0	0	0	
MEASLES	-	-	-	-	
	0	0	1	0	
MUMPS					
	2	0	9	2	
PERTUSSIS POLIONVELITIS	0	0	0	0	
POLIOMYELITIS	0	0	0	0	
RUBELLA	U	U	U	U	
TETANUS	0	0	0	0	
	Ŭ		0	0	
SEXUALLY TRANSMITTED DISEASES	**				
	380	527	2673	2251	
CHLAMYDIA					
	149	264	1043	1156	
GONORRHEA	-		-		
SYPHILIS	2	6	6	14	
(Primary & Secondary)	1	2	16	8	
SYPHILIS (Early Latent)	1	2	10	o	
	1		1		
ENTERICS					
AMEBIASIS	2	0	11	8	
BOTULISM-INTESTINAL (INFANT)	0	0	1	0	
	5	16	47	49	
CAMPYLOBACTERIOSIS					
CHOLERA	0	0	0	0	
CRYPTOSPORIDIOSIS	2	0	5	0	
E-COLI 0157:H7	1	0	5	2	
GIARDIASIS	7	6	48	41	
ROTAVIRUS	23 8	<u>14</u> 12	456 56	412	
SALMONELLOSIS	ð	12	50	57	
SALMORELLOSIS	2	2	21	18	
TYPHOID FEVER	0	0	0	0	
VIBRIO	0	3	0	4	
YERSINIOSIS	0	0	0	0	

DISEASE	CASES R	EPORTED	YEAR T	O DATE
	July 2003	July 2004	2003	2004
OTHER				
ANTHRAX	0	0	0	0
BOTULISM INTOXICATION	0	0	0	0
BRUCELLOSIS	0	0	0	0
COCCIDIOIDOMYCOSIS	0	5	18	41
ENCEPHALITIS	0	0	2	0
HANTAVIRUS	0	0	0	0
HEMOLYTIC UREMIC SYNDROME	0	0	0	0
(HUS)				
HEPATITIS C	0	0	<mark>3</mark>	2
HEPATITIS D	0	0	0	1
LEGIONELLOSIS	1	0	3	5
LEPROSY (HANSEN'S DISEASE)	0	0	0	1
LEPTOSPIROSIS	0	0	0	1
LISTERIOSIS	0	1	1	5
LYME DISEASE	2	0	3	2
MALARIA	0	1	1	13
MENINGITIS, ASEPTIC/VIRAL	11	3	57	25
MENINGITIS, BACTERIAL	1	2	17	5
MENINGOCOCCAL DISEASE	0	0	3	0
PLAGUE	0	0	0	0
RABIES (HUMAN)	0	0	0	0
RELAPSING FEVER	0	0	0	0
RSV (RESPIRATORY SYNCTIAL	6	5	1342	1043
VIRUS)				
ROCKY MOUNTAIN SPOTTED	0	0	0	0
FEVER				
TOXIC SHOCK SYNDROME	0	0	1	3
TUBERCULOSIS	1	7	37	27
TULAREMIA	0	0	0	1
(WNV) WEST NILE VIRUS	0	4	0	0

*Numbers include confirmed and probable cases. **For HIV/AIDS statistics, please call the Clark County Health District Office of AIDS @ (702) 759-0730.

APPENDIX E

WASHOE COUNTY HEPATITIS EPIDEMIOLOGICAL DATA FISCAL YEARS 2000 THROUGH 2003

WASHOE COUNTY HEPATITIS EPIDEMIOLOGICAL DATA FISCAL YEARS 2000 THROUGH 2003

	Acute H	Acute Hepatitis AAcute Hepatitis AAcute Hepatitis AFY 2000-2001FY 2001-2002FY 2002-2003		lepatitis A	Total		
Demographic/Exposure Category	FY 20			01-2002	FY 20	02-2003	
Race/Ethnicity	Number	Percentage Total	Number	Percentage Total	Number	Percentage Total	
White, Not Hispanic	10	55.6	15	100.0	23	82.1	48
Black, non Hispanic	0	0.0					0
Hispanic	5	27.8			5	17.9	10
Asian/Pacific Islander	1	5.6					1
Not Specific	2	11.1					2
Total	18	100.0	15	100.0	28	100.0	61
Gender							
Male	16	88.9	9	60.0	16	57.1	41
Female	2	11.1	6	40.0	12	42.9	20
Total	18	100.0	15	200.0	28	100	61
Age @ Diagnosis							
<13	2	11.1	2	13.3	4	14.3	8
13-19	1	5.6	0	0.0	1	3.6	2
20-44	9	50.0	9	60.0	17	60.7	35
45+	6	33.3	4	26.7	6	21.4	16
Total	18	100.0	15	100.0	28	100	61
Exposure Category (Not mutually exclusive)							
During the 2-6 Weeks prior to illness							
In Day Care	1	5.6					1
Day Care Contact	5	27.8	2	13.3	2	7.1	9
Hep A Contact	4	22.2	4	26.7	1	3.6	9
Raw Shell Fish	2	11.1	3	20.0			5
Foreign Travel	4	22.2	2	13.3			6
During the 6 weeks - 6 months prior to illness							0
Hep B or NA NB Contact					3	10.7	3
Medical/Dental work	1	5.6	1	6.7	2	7.1	4
Blood or Blood Product Transfusion							0
Dialysis			1	6.7			1
IDU	1	5.6	9	60.0	17	60.7	27
MSM	6	33.3	2	13.3	1	3.6	9
Dental	6	33.3	1	6.7	2	7.1	9
Surgery	1	5.6	1	6.7	2	7.1	4
Acupuncture							0
Tattooing							0
Accidental Needle Stick					1	3.6	1
Total	18		15		28		61

	Acute H	lepatitis B	Acute H	lepatitis B	Acute I	lepatitis B	Total
Demographic/Exposure Category	FY 20	00-2001	FY 20	FY 2001-2002		FY 2002-2003	
Race/Ethnicity	Number	Percentage Total	Number	Percentage Total	Number	Percentage Total	Number
White, Not Hispanic	7	63.6	9	81.8	3		19
Black, non Hispanic							0
Hispanic	2	18.2	1	9.1	1		4
Asian/Pacific Islander			1	9.1	1		2
Not Specific	2	18.2					2
Total	11	100.0	11	100.0	5		27
Gender							
Male	7	63.6	6	54.5	2		15
Female	4	36.4	5	45.5	3		12
Total	11	100.0	11	100.0	5		27
Age @ Diagnosis							
<13							
13-19							
20-44	7	63.6	7	63.6	3		17
45+	4	36.4	4	36.4	2		10
Total	11	100.0	11	100.0	5		27
Exposure Category (Not mutually exclusive)							
During the 2-6 Weeks prior to illness							
In Day Care			1	9.1			1
Day Care Contact	1	9.1	2	18.2			3
Hep A Contact	2	18.2	1	9.1	1		4
Raw Shell Fish							0
Foreign Travel	1	9.1					1
During the 6 weeks - 6 months prior to illness							0
Hep B or NA NB Contact	2	18.2	2	18.2	1		5
Medical/Dental work	1	9.1			1		2
Blood or Blood Product Transfusion	1	9.1					1
Dialysis							0
IDU	3	27.3	5	45.5	2		10
MSM							0
Dental	3	27.3	1	9.1	1		5
Surgery	2	18.2	2	18.2	1		5
Acupuncture							0
Tattooing	1	9.1	1	9.1	3		5
Accidental Needle Stick							0
Total	11		11		5		

	Chronic Hepatitis B Chronic Hepatitis B			Hepatitis B	Chronic	Total	
Demographic/Exposure Category	FY 20	FY 2000-2001		01-2002	FY 20	02-2003	
Race/Ethnicity	Number	Percentage Total	Number	Percentage Total	Number	Percentage Total	Number
White, Not Hispanic	33	50.8	22	33.3	16	26.7	71
Black, non Hispanic	7	10.8	7	10.6	4	6.7	18
Hispanic	1	1.5	2	3.0	4	6.7	7
Asian/Pacific Islander	23	35.4	32	48.5	31	51.7	86
Not Specific	1	1.5	3	4.5	5	8.3	9
Total	65	100.0	66	100.0	60	100.0	191
Gender							
Male	41	63.1	42	63.6	38	63.3	121
Female	24	36.9	24	36.4	22	36.7	70
Total	65	100.0	66	100.0	60	100.0	191
Age @ Report							
<13		0.0	1	1.5		0.0	1
13-19	6	9.2	2	3.0	3	5.0	11
20-44	34	52.3	30	45.5	38	63.3	102
45+	25	38.5	33	50.0	19	31.7	77
Total	65	100.0	66	100.0	60	100.0	191
Exposure Category							
Men – have sex w/ Men							
Injection Drug Users							
MSM and IDU							
Hemophilia							
Heterosexuals		NO DATA	WERE CO	LLECTED FO	R THIS CA	ATEGORY.	
Blood Transfusion							
Risk Not Reported							
Mother at Risk							
Risk not Reported							
Total							

	Acute H	lepatitis C	Acute H	lepatitis C	Acute Hepatitis C		Total
Demographic/Exposure Category	FY 20	00-2001	FY 20	01-2002	FY 20	FY 2002-2003	
Race/Ethnicity	Number	Percentage Total	Number	Percentage Total	Number	Percentage Total	Number
White, Not Hispanic	3		1		6		10
Black, non Hispanic							0
Hispanic							0
Asian/Pacific Islander							0
Not Specific	1						1
Total	4		1		6		11
Gender							
Male	3		1		3		7
Female	1				3		4
Total	4		1		6		11
Age @ Diagnosis							
<13			1				1
13-19							
20-44	4				6		10
45+							0
Total	4		0		6		11
Exposure Category (Not mutually exclusive)							
During the 2-6 Weeks prior to illness							
In Day Care							
Day Care Contact	1				2		3
Hep A Contact					1		1
Raw Shell Fish	1				1		2
Foreign Travel							
During the 6 weeks - 6 months prior to illness							
Hep B or NA NB Contact	1				1		2
Medical/Dental work					1		1
Blood or Blood Product Transfusion							
Dialysis		ļ		ļ			
IDU					4		4
MSM							
Dental	3				L		3
Surgery							
Acupuncture							
Tattooing					L		
Accidental Needle Stick	A		-				
Total	4		1		6		

	Chronic Hepatitis C Chronic Hep		Hepatitis C	Chronic	Hepatitis C	Total	
Demographic/Exposure Category	FY 2000-2001		FY 2001-2002		FY 2002-2003 (Total N=1213)		
Race/Ethnicity	Number	Percentage Total	Number	Percentage Total	Number	Percentage Total	Number
White, Not Hispanic					570	47.0	
Black, non Hispanic					40	3.3	
Hispanic					62	5.1	
Asian/Pacific Islander					9	0.7	
Not Specific					516	42.5	
Total					1197	98.7	
Gender							
Male					741	61.1	
Female					458	37.8	
Total					1199	98.8	
Age @ Report							
<13					4	0.3	
13-19					9	0.7	
20-44					412	34.0	
45+					718	59.2	
Total					1143	94.2	
Exposure Category (Not mutually exclusive)							
MSM	Data	were not o	ollected	during			
Blood transfusion.organ	the	time peri	od. Enha	anced	84	6.9	
transplant prior to 1992 Receipt of clotting factor	survei	llance beg	an in M	ay, 2002	2	0.2	
concentrates made prior to 1987					2	0.2	
Hemodialysis					6	0.5	
IDU					368	30.3	
Multiple sex partners					78	6.4	
Contact to hepatitis					69	5.7	
Employment involving contact with human blood					38	3.1	
Other risk factors (tattooing, body piercing, etc.)					81	6.7	
Unknown					97	8.0	
l							
Total					1213		
Total					1213		

APPENDIX F

RECOMMENDED BIBLIOGRAPHIC REFERENCES

RECOMMENDED BIBLIOGRAPHIC REFERENCES

NOTE: Most references were not cited in the text of the strategic plan.

- 1. Morbidity and Mortality Weekly Report, October 16, 1998, 47 (RR19); 1-39
- 2. Morbidity and Mortality Weekly Report, Prevention and Control of Infections with Hepatitis Viruses in Correctional Settings, January 24, 2003/ Vo.52 /No. RR-1.
- 3. Centers for Disease Control and Prevention (CDC): Academy of Educational Development. September 2002. Viral Hepatitis and the Criminal Justice System. IDU HIV Prevention.
- 4. Centers for Disease Control and Prevention (CDC): National Center for Infectious Disease: Division of Viral Hepatitis. Summer 2001. National Hepatitis C Prevention Strategy: A Comprehensive Strategy for the Prevention and Control of Hepatitis C Virus Infection and its Consequences (http://www.cdc.gov/ncidod/diseases/hepatitis/c/plan/strategy.pdf).
- 5. Centers for Disease Control and Prevention (CDC). November 2002. Prevention and Control of Viral Hepatitis: The National Strategy, Integrating Services for Prevention of Viral Hepatitis, HIV/AIDS, and STDs (presentation by Richard Moyer, MPA).
- 6. Abbott Diagnostics Educational Services. 2001. Hepatitis Learning Guide.
- 7. Capitol Outcomes Research, Inc. March 2001. Vaccination of Prison Inmates Against Hepatitis B: Economic Considerations.
- 8. Centers for Disease Control and Prevention (CDC). Practical Evaluation of Public Health Programs (PHTN Course # VC0017).
- 9. Florida Department of Health. May 2002. Hepatitis A and B Vaccination in High Risk Adults: Florida's Experience with Integrating Services (presentation by Sandra W. Roush, MT, MPH).
- 10. Hepatitis B Outbreak in a State Correctional Facility, 2000. MMWR 2001: 50 (25): pp. 529 532.
- 11. Hepatitis C: What Clinicians and Other Health Professionals Need to Know. MMWR 1998; 47 (No. RR-19).
- 12. National Institutes of Health. June 2002. Consensus Development Conference Statement: Management of Hepatitis C: 2002.
- 13. Nolan, PA. April 1999. Rhode Island Must Continue the Fight Against the Hepatitis C Epidemic (http://www.healthri.org/publications/hpb9906.htm).
- 14. Pennsylvania Department of Health. Hepatitis B Vaccination in the High Risk Adolescent and Adult Population (presentation by Joeanne Maljevac, RNC, BSN).
- 15. Project Curriculum: Clark County Health District.