Prevention bulletin
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Influenza and Influenza Vaccine

by Karen Lewis, M.D.

As we begin the influenza vaccination season, one of the two manufacturers of influenza vaccine for the United States announced that it is unable to distribute any influenza vaccine this year. Chiron Corporation of the United Kingdom had its license to manufacture Fluvirin® suspended for three months, due to problems with Serratia contamination of some of its lots.

Vaccine Supply History

The vaccine supply for the U.S. was estimated at 100 million doses for the 2004-2005 season. Chiron Corporation was to have provided approximately half of this supply. Aventis Pasteur, Inc. is the remaining provider for inactivated influenza vaccine for the U.S., producing almost 54 million doses of Fluzone®. Additionally, MedImmune has produced approximately 1.1 million doses of live attenuated influenza vaccine (LAIV--FluMist®).

In 2002, about 92 million doses of influenza vaccine were produced, 79 million doses were sold, and 12 million went unused. In 2003, about 85 million doses were produced, and due to increased demand, almost all of the doses were used.

Indications

Yearly in the U.S. approximately 36,000 people die from influenza and over 200,000 are hospitalized. The elderly, people with chronic medical conditions, very young children, and pregnant women are at the highest risk for serious complications if they get influenza. Due to the decreased supply of vaccine, prioritization needs to be given to these people at highest risk for complications and death. Another way of protecting these high-risk people is by giving vaccine to those who care for them, such as health care workers and parents and caretakers of infants.

The Arizona Department of Health Services supports the Centers for Disease Control and Prevention's recommendations to prioritize the following groups to receive inactivated influenza vaccine (shots) this season:

- children aged 6–23 months;
- adults aged 65 years and older;
- persons aged 2–64 years with underlying chronic medical conditions (e.g. asthma, chronic lung or heart disease, chronic metabolic diseases including diabetes, hemoglobinopathies, immunodeficiency, renal disease)
- women who will be pregnant during the influenza season;
- residents of nursing homes and long-term care facilities;
- children aged 6 months–18 years on chronic aspirin therapy;
- out-of-home caregivers and household contacts of children aged less than 6 months;
- health-care workers involved in direct patient care.

Because it is important to prioritize the influenza shots (inactivated vaccine) for high-risk people, live attenuated influenza vaccine (FluMist®) is an excellent alternate for healthy people between the ages 5 to

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SUMMARY	Amantadine (Symmetrel®)	Rimantadine (Flumadine®)	Oseltamivir (Tamiflu®)	Zanamivir (Relenza®)
Works for Influenza A	Yes	Yes	Yes	Yes
Works for Influenza B	No	No	Yes	Yes
Mode	Oral	Oral	Oral	Inhaled
Treatment	> 1 y.o.	> 13 y.o.	> 1 y.o.	> 7 y.o.
Length of Treatment	3-5 days	3-5 days	5 days	5 days
Prophylaxis	> 1 y.o.	> 1 y.o.	> 13 y.o.	Not licensed

Arizona Department of Health Services

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Influenza and Influenza Vaccine

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49 years old who want to be vaccinated. This includes healthy parents and caretakers of infants less than 6 months of age.

Infants have just as high of risk of hospitalization as do the elderly, yet inactivated vaccine is not approved under age 6 months. Therefore, it is important to give influenza vaccine to parents and caretakers of children less than 6 months old.

Health care workers under the age of 50 can also receive FluMist® if they do not care for immunosuppressed patients during the time when they require protective isolation. Anyone who has received an FluMist® should not have contact with severely immunosuppressed patients for senen days after immunization.

Antiviral Medicines

With a shortage of influenza vaccines this winter, physicians should consider antiviral medicines for treatment and prophylaxis. They can speed recovery and decrease the severity of influenza if started within 48 hours of becoming ill.

The choice of antiviral medicines depends on what strain of influenza is circulating. Amantadine (Symmetrel®) and Rimantadine (Flumadine®) are effective only against influenza A. Oseltamivir (Tamiflu®) and Zanamivir (Relenza®) are effective against both influenza A and B, but are more expensive.

When influenza A is known to be circulating in a community, Amantadine and Rimantadine are the empiric drugs of choice. When influenza B is known to be circulating, Oseltamivir or Zanamivir should be used until the precise strain can be identified.

Amantadine, Rimantadine, and Oseltamivir are taken orally. All three are also available in a liquid form. Zanamivir is delivered by an inhaler. The use of antiviral medicines should be avoided in pregnant women.

All four antiviral medicines are approved for treatment for influenza, but the ages differ. Amantadine and Oseltamivir are approved for treatment of people over 1 year of age, and Rimantadine is approved for treating influenza in people > 13 years of age. Since Zanamivir has to be given by an inhaler, it cannot be used in young children, so it is approved for people > 7 years of age.

Treatment with Amantadine and Rimantadine should be stopped when clinically warranted, usually within 3 to 5 days of treatment, or within 24 to 48 hours after the disappearance of symptoms. Treatment with both Oseltamivir and Zanamivir is recommended for five days.

Three of the antivirals are approved for use as prophylaxis: Amantadine, Rimantadine, and Oseltamivir. Amantadine and Rimantadine are approved for people > 1 year of age. Oseltamivir is approved for people > 13 years of age, Zanamivir is only approved for *treatment* of influenza.

Prophylaxis involves prescribing antivirals to susceptible high-risk patients when influenza is circulating in the community. Prophylaxis can be given for the entire duration of the outbreak. Another use is in patients who have been immunized late in the season, and the vaccine will not be effective in preventing disease for two to three weeks. Antiviral medicines can then be given for two to three weeks after vaccination.

For more information about antiviral dosing, side effects, and dose adjustments, please refer to Morbidity and Mortality Weekly Report, May 28, 2004, at *http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5306a1.htm*

Karen Lewis is Medical Director, Bureau of Epidemiology and Disease Control, and can be reached at lewisk@azdhs.gov, 602.364.3574.

Substance Abuse Linked to Stressful Environments for Pregnant and Post Partum Women

Lisa Shumaker

Women with small children and substance abuse problems are more likely to live in stressful environments including situations like physical or sexual abuse, limited financial and social support, homelessness, legal problems, and major health problems. Their children are at greater risk of abuse, neglect, and development of behavioral health problems. Treatment of pregnant women and women with small children is particularly challenging because of co-occurring health care needs and the need to provide safety and security for children.

Medical providers can help women with substance abuse problems by referring them to programs designed to meet their unique needs and by coordinating their medical care with behavioral health providers.

The Division of Behavioral Health sponsors several specialty programs for pregnant and parenting women with small children. For example, the Center for Hope is a housing and recovery program for homeless, substance abusing women and their children. The services provided include gender-specific, comprehensive family-focused therapy, parenting skills, life skills, job skills, and educational opportunities.

Other specialty programs for mothers in recovery include the following:

Central and Northern Arizona

Native American Connections: 602.424.2060
Elba House: 602.276.4288
New Arizona Family, Inc.: 602.553.7300
Casa de Amigas: 602.265.9987
Center for Hope: 480.831.7566

Southern Arizona

CODAC Behavioral Health Services: 520.327.4505
Las Amigas: 520.882.5898
The Haven: 520.623.4590
Amity Foundation: 520.749.5980

Lisa Shumaker is Manager of Prevention, Division of Behavioral Health Services, and can be reached at shumakl@azdhs.gov, 602.364.4593.

HIV Trends Found in MSM Populations

By: S. Robert Bailey, Kelli M. Donley

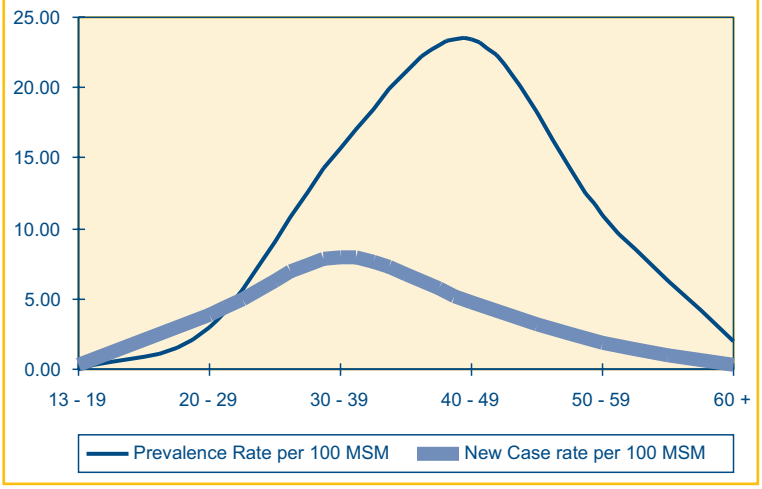
The Arizona Department of Health Services' Office of HIV/AIDS has developed current (2002) estimates of risk group populations, i.e. men-who-have-sex-with-men (MSM), Injection Drug Users, and High Risk Heterosexuals. Based upon these population estimates and reported cases of HIV infection through 2002, 9% of MSM in Arizona across all age groups, and 22% aged 35-49 are estimated to be currently infected with HIV. These are crude estimates and consider only reported cases. According to the CDC, reported cases constitute 70% of the actual number of infections, suggesting that actual rates may be higher.

In addition, the distribution of HIV/AIDS reports among racial and ethnic groups is noteworthy. Although Blacks are just 3.2% of the state's population total, they are 7.6% of new HIV/AIDS cases. A Black MSM is more than twice as likely to be infected with HIV/AIDS in Arizona than a White MSM. On the other hand, Hispanics constitute 27.1% of the state population, yet make up just 14.1% of new HIV/AIDS cases.

Figure 1 describes the epidemic among MSM by age category. While prevalent cases peak at age 40-44, the highest new case rates are reported among those aged 30-39. This divergence in mean ages of new cases and prevalence is influenced by the availability of effective anti-retroviral therapy since 1996. Persons with HIV/AIDS are living longer after diagnosis due to anti-retroviral therapy.

Figure 1

Prevalence and New Case Rates per 100 MSM by Age, Arizona, 2004



Rocky Mountain Spotted Fever on the Rise in Arizona

by Craig Levy

Until recently, cases of Rocky Mountain Spotted Fever (RMSF) were rare in Arizona. Only four cases were reported between 1990 and 2001, and three of these had out-of-state travel/exposure histories. Since 2002, eight cases of RMSF have been reported, including six cases (so far) in 2004. Two cases in young children were fatal. All of the recent patients reside in the White Mountain Region of eastern Arizona.

RMSF is a tick-borne disease caused by the bacterium Rickettsia rickettsii. RMSF transmission is seasonal with most cases reported from April through September. Tick bites are reported in approximately 60% of cases. Incubation period is five to ten days after a tick bite. Early symptoms may include fever, severe headache, muscle pain, nausea, vomiting, and lack of appetite. Rash often appears two to five days after onset and may be macular and/or petechial. Rash usually appears on extremities first (especially wrists and forearms), before becoming more generalized (rash may include palms and soles). In some cases rash may appear late or not at all (~10-15% of cases). Abnormal laboratory findings may include thrombocytopenia, hyponatremia, or elevated liver enzymes. Severe manifestations can include disseminated intravascular coagulopathy (DIC), encephalitis, pneumonitis and skin necrosis.

Because of the rise in RMSF incidence in Arizona, it should be considered in the differential diagnosis of compatible illnesses in patients who reside in, or visit, the White Mountains and the surrounding area. History of tick-bite is significant, however, absence of known tick-bite does not rule-out the possibility of RMSF. Any attached ticks should be saved and sent to the ADHS Vector-Borne and Zoonotic Diseases Program for species identification (see phone number and address at end). RMSF is a reportable condition in Arizona. Suspected cases should be reported to local health officials. Serologic testing for RMSF is available at the Arizona State Health Laboratory. Paired sera collected 2 to 4 weeks apart would be needed to confirm or rule-out RMSF infection.

RMSF is a severe and potentially life threatening disease. Treatment with appropriate antibiotics (e.g., doxycycline) should be promptly initiated when RMSF is suspected. The decision to treat should not be delayed while waiting for positive laboratory results.

For more information on RMSF, contact ADHS staff at 602.364.4562.

Tick specimens can be sent to:
Arizona Department of Health Services,
Vector-Borne and
Zoonotic Diseases Program,
150 North 18th Avenue,
Suite 140,
Phoenix, Arizona 85007.

Craig Levy, M.S., is Manager, Vector-Borne and Zoonotic Diseases' Program, and can be reached at levyc@azdhs.gov, 602.364.4562.

Co-infection with Hepatitis C and HIV Leads to Faster Disease Progression

By S. Robert Bailey, Kelli M. Donley, Michele Humphreys, Julie Karcis

Arizonans who are infected with HIV are 12 times more likely to be infected with hepatitis C than the general population. Of nearly 10,000 Arizonans currently reported with HIV, 830 are also hepatitis C positive. Co-infection is of concern because it has shown to lead to faster progression of both diseases.

Of particular concern are infected men-who-have-sex-with-men, or MSM. Of those co-infected, there is a cohort of MSM who report no intravenous drug use (IDU). These men may have become infected with hepatitis C from sexual acts that resulted in significant blood exchange with their partner.

Of the 830 Arizonans co-infected, 388 are MSM, 183 of which do not report IDU. In other words, 22% of co-infected Arizonans are MSM with no reported IDU.

The prevalence of HIV in Arizona is estimated to be 180 people per 100,000, the prevalence for hepatitis C is 700 per 100,000. Hepatitis C has been traditionally considered a blood borne disease and is currently transmitted via sharing of injection equipment by injection drug users. This matches Arizona data, where 66% of those co-infected with HIV and hepatitis C report IDU activity. In contrast, of those infected solely with HIV, 22% report IDU activity.

According to the Centers for Disease Control and Prevention (CDC), rapid liver disease progression is common among those co-infected. In 1999, the rapid progression of hepatitis C symptoms in co-infected patients pushed the United States Public Health Service to list the disease as an opportunistic infection for HIV patients – although hepatitis C is not considered an AIDS-defining illness. The recommendations include regularly testing HIV-infected patients for hepatitis C. Hospital records nationally show hepatitis C-related liver disease is a significant cause of hospital admissions and death for those infected with HIV.

The prevalence of HIV in Arizona is estimated at 180 people per 100,000, the prevalence for hepatitis C is 700 per 100,000.

Dual treatment of the viruses is complex. Highly Active Anti-Retroviral Therapy (HAART) is the life-extending prophylactic treatment for HIV/AIDS. CDC officials report this treatment has no influence on the hepatitis C virus; however, those co-infected may have increased liver toxicity. Two different treatments are used in the United States to treat chronic hepatitis C infection – monotherapy and combination therapy. The research continues on which treatment is more effective for HIV/hepatitis C co-infected patients.

Other health issues to consider when treating co-infected patients include alcohol and injection and non-injection drug use. Both HAART and the hepatitis C interferon treatment can be negatively influenced by alcohol and drug use; alcohol abstinence is required. Some patients may need to demonstrate a 6-month abstinence from alcohol before being prescribed interferon treatment. Considering intravenous drug use is a common mode of transmission for both HIV and hepatitis C transmission; a 6-month abstinence from use is also required before treatment. CDC recommends that health care workers pay particular attention to these patients and watch for warning signs of drug abuse. Substance abuse therapists should be contacted for both alcohol and intravenous drug use patients when necessary. Co-infected patients may also show signs of depression. Health care workers are encouraged to keep this concern in mind and have mental health specialists available for consultation.

Hepatitis C infection can be prevented among HIV patients. Recommendations to prevent co-infection include discontinuing intravenous drug use, not sharing personal items that may contain trace amounts of blood, such as toothbrushes or razors, and not engaging in risky sexual activity, such as having unprotected sex. The CDC MSM Information Center recommends, "comprehensive STD prevention services care for MSM, including testing for HIV, syphilis, gonorrhea, and clamydia at least annually, and vaccination against hepatitis A and B." The CDC and the Arizona Department of Health Services strongly recommend these vaccinations for the MSM population and sent a letter to public health programs and private providers in 2002 encouraging their participation in the vaccination campaign. For more information about the STD treatment guidelines for MSM, visit: *www.cdc.gov/ncidod/diseases/hepatitis/msm.*

S. Robert Baily is an Epidemiologist for ADHS and can be reached at baileys@azdhs.gov, 602.364.3596.

Kelli M. Donley is an Intern with the Office of HIV/AIDS and can be reached at donleyk@azdhs.gov., 602.364.3881.

Julie Karcis, R.N., M.S.N., is an Epidemiologist, STD Control Program, and can be reached at karcisj@azdhs.gov, 602.364.4761.

Michele Humphreys is Tribal Prepareness Coordinator, Office of Public Health Emergency Preparedness and Response, and can be reached at humphrm@azdhs.gov, 602.364.3655.

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November is Hepatitis C Awareness Month

by Judy Norton

The Centers for Disease Control and Prevention (CDC) estimate that 3.9 million people (1.8% of the population) are infected with the hepatitis C virus (HCV) nationwide; of these, approximately 2.7 million are thought to be chronically infected. Based on the above data, HCV infection is the most common blood borne viral infection in the United States. To raise awareness about hepatitis C in Arizona, Governor Janet Napolitano has declared November as "Hepatitis C Awareness Month." The incidence of hepatitis C has been declining in the U.S. since the mid-1980s. However, the magnitude of the chronically infected persons is of concern. Because it may take 10 years or more to develop the disease, most of the chronically infected do not exhibit signs of the disease, and thus are not aware of their infection. Besides spreading HCV to others, the undiagnosed and the non-informed infected persons are at risk for cirrhosis and liver cancer. More than 44,000 case reports of non-acute hepatitis C were received by the state Hepatitis C Program since its inception.

More than 44,000 case reports of non-acute hepatitis C were received by the state Hepatitis C Program since its inception.

The national recommendations for prevention and control of HCV infection issued in 1998 [CDC recommendations for prevention and control of HCV infection and HCV-related chronic diseases MMWR 1998; four (RR:19)] rely primarily on primary prevention activities to reduce HCV transmission. To address the secondary prevention needs, the Arizona program was re-structured to include health educators who offer education and counseling to HCV-infected persons. The education includes measures that should be taken to minimize progression to severe liver disease and, at the same time, reduce transmission to others.

Overall, the Hepatitis C Program is responsible for disease surveillance, and prevention activities such as harm reduction, education to persons living with hepatitis C, limited provision of hepatitis A and B vaccine to those who are not insured and cannot afford to pay for the vaccine, and public education. Seminars and workshops can also be arranged for health care providers. HCV-infected persons are counseled on the risks of alcohol consumption and other drug use. They are encouraged to be followed-up by a physician and are told of the importance of being vaccinated against hepatitis A and hepatitis B. Lastly, educational materials and information on local resources is provided.

Preliminary data from a six-month pilot project "Love Your Liver and Live Longer," (n=1,000 HCV positive patients) indicates some of the areas that need to be addressed:

- Injecting drug users continue to be at the highest risk for HCV infection.
- Nearly half of those interviewed claimed to be unaware of their HCV status despite a HCV positive test (EIA and/or confirmatory test) up to two months earlier. We cannot rule out that some of them may have been informed about the test results, but did not recall or did not understand the implications of being HCV-positive.
- Similarly, these patients were not aware of alcohol use as a risk factor for cirrhosis. The majority of interviewees claimed that they would follow their doctor's advice about not drinking.

Healthcare providers are encouraged to test patients with a history of injecting illegal drugs, patients who received a blood transfusion or an organ transplant before July 1992, patients with persistently abnormal ALT levels, hemophiliacs who received clotting factors before 1987, and patients who were ever on chronic hemodialysis for HCV. Others at risk include health care workers after a percutaneous or mucosal exposure to HCV-positive blood and children born to HCV-positive women.

If you would like health education materials or an in-service at your site, please call the county health department or the state program at 602.364.3658. State program staff can provide in-service trainings or help you arrange a more intensive 2-day Hepatitis C Train the Trainer course in the community. Please let us know if you would like to have other information included in the client education packet or information to the patient to ensure they understand important elements in the prevention and control of HCV. Additionally, the Arizona Hepatitis C Coalition offers an opportunity for professional networking and continuing education on hepatitis C-related issues. The mission of the Coalition is to mobilize resources for prevention and management of hepatitis C infection and its consequences by advocating, advising, educating and supporting Arizona's communities. Contact the Hepatitis C Program for more information on the Coalition at 602.364.3658 or 1.800.496.9660.

Additional information and a calendar of upcoming events and training opportunities can be found at *http://www.azdhs.gov/phs/oids/hepc/index.htm.*

Judy Norton is Manager, Hepatitis C Program, and can be reached at nortonj@azdhs.gov, 602.364.3658.

Flu Notes

by Victorio Vaz, Ph.D.

Options for Controlling Influenza This Year

Influenza is associated with approximately 36,000 deaths and more than 200,000 hospitalizations each year in the United States. The primary tool used to reduce the annual burden of disease associated with influenza in the U.S. is immunoprophylaxis with inactivated vaccine (killed virus) and live, attenuated vaccine. Thus, the current vaccine shortage for the 2004-05 influenza season dictates that (1) the limited available vaccine be prioritized and (2) other adjunct options considered. Antiviral drugs for chemoprophylaxis or treatment of influenza are not a substitute for vaccination, yet can be useful, particularly in the current situation.

Vaccine Supply: In 2002, about 80 of the 92 million doses of influenza vaccine available were used in the U.S. In 2003, almost all of the 85 million doses available were used due to increased demand. The supply projection for 2004 was 100 million doses. However, due to problems with contamination of some lots, Chiron Corporation, the manufacturer of Fluvirin®, had its license suspended for three months. This action is expected to reduce the national supply of vaccine for the 2004-05 in half, because Chiron and Aventis Pasteur, Inc. are the only two influenza vaccine suppliers to the U.S. Additionally, MedImmune produces a smaller amount of live, attenuated vaccine.

Who Should Get the Inactivated Vaccine: With the vaccine shortage, it is imperative to target the current limited supply of vaccine to the elderly, children 6 through 23 months of age, persons with chronic health conditions, such as asthma and diabetes, and people with weakened immune systems. Individuals, who are in close contact with these high-risk groups, should also receive the vaccine. Available vaccine should be given to persons in these groups on a first-come, first-served basis. Children aged less than 9 years who have not been previously vaccinated require two doses of vaccine, but the available vaccine should not be used to ensure a second dose. For more information please visit the Arizona Department of Health Services' web site at *http://www.azdhs.gov/flu.*

Who Should Get Live Attenuated Vaccine: Additionally, the live vaccine FluMist®, if available, should be considered for healthy persons who are aged 5 to 49 years, are not pregnant and/or fall into one of the high-risk groups, including health-care workers (except those who care for severely immunocompromised patients in special care units), and persons caring for children aged less than 6 months. For more information go to *http://www.cdc.gov/flu.*

Antiviral Medications: Centers for Disease Control and Prevention interim recommendations for the 2004-05 season can be found at *http://www.cdc.gov/flu/professionals/treatment/0405antiviralguide.htm.* Amantadine or rimantadine are recommended for chemoprophylaxis and oseltamivir or zanamivir for treatment. Again, people who fall into high-risk groups and any person experiencing a potentially life threatening influenza-related illness should be given priority and treated with antiviral medications. Persons at high risk for serious complications of influenza and who are within the first two days of illness onset should be treated with antiviral medications. (Pregnant women should consult their primary provider regarding use of influenza antiviral medications.) Please note that rimantadine is not approved for treatment of children aged less than 13 years. These children should receive amantadine and oseltamivir (children aged 1 to 12 years), or zanamivir (children aged 7 to 12 years).

Victorio Vaz, Ph.D., Chief, Office of Infectious Disease Services, can be reached at vazv@azdhs.gov, 602.364.4564.

Missed Opportunities to Prevent Congenital Syphilis

by Ashraf Lasee, M.P.H., Dr. P.H.

Arizona had 29 cases of congenital syphilis (CS) reported in 2003. This translates into 31.9 cases per 100,000 live births (LBs), the highest case rate nationwide. Additionally, while rates nationwide have declined from 14.5/100,000 LBs in 2000 to 10.3 in 2003, case rates in Arizona have remained high and relatively stable during the same timeframe (31.8 in 2000 and 31.9 in 2003). More importantly, CS case rates nationwide have paralleled the reduction in primary and secondary (P&S) syphilis among women. Of concern is the lack of decline in CS case rates in Arizona despite a decrease in P&S syphilis rates among women.

CS results in a heavy disease burden that can be prevented provided the mother is diagnosed and treated before the infant has been irreversibly affected. Lack of prenatal care, late or limited prenatal care and maternal use of illicit drugs have been associated with CS according to earlier national reports. In Arizona, most missed opportunities to prevent CS appear to be due to either failure to access prenatal care or failure to be screened for syphilis at the first visit or the third trimester. From 1998 to 2002, approximately 60% of the mothers who gave birth to a CS child in Arizona reported receiving no prenatal care.

We welcome any help that clinicians can provide in raising awareness of the risk of syphilis. The Centers for Disease Control and Prevention recommends syphilis testing for all women during the early stages of pregnancy and a subsequent test in the third trimester among women at high risk and women in areas where syphilis prevalence is high. Women who deliver a stillborn infant after 20 weeks' gestation should also be tested. Emergency departments, jails, prisons and other settings offer an opportunity for syphilis screening among women who otherwise may not seek or have access to prenatal care.

Ashraf Lasee, M.P.H., Dr. P.H., Manager - STD Control Program, and can be reached at laseea@azdhs.gov, 602.364.3661.

SUMMARY OF SELECTED REPORTABLE DISEASES

Year to Date (January - September, 2004)[1, 2]

	Jan - Sept 2004	Jan - Sept 2003	5 Year Median Jan - Sept
VACCINE PREVENTABLE DISEASES:			
Haemophilus influenzae, serotype b invasive disease (<5 years of age)	0 (0)	9 (6)	4 (3)
Measles	0	1	1
Mumps	1	0	1
Pertussis (<12 years of age)	107 (59)	100 (63)	59 (36)
Rubella (Congenital Rubella Syndrome)	0 (0)	0 (0)	0 (0)
FOODBORNE DISEASES:			
Campylobacteriosis	620	651	495
E.coli O157:H7	21	28	28
Listeriosis	6	10	11
Salmonellosis	543	535	535
Shigellosis	297	393	356
VIRAL HEPATITIDES:			
Hepatitis A	223	214	319
Hepatitis B: acute	197	215	148
Hepatitis B: non-acute[3]	1,009	819	819
Hepatitis C: acute	0	7	9
Hepatitis C: non-acute[3] (confirmed to date)	N/A	7,054 (2,892)	5,149 (2,803)
INVASIVE DISEASES:			
Streptococcus pneumoniae	493	543	609
Streptococcus Group A	176	183	166
Streptococcus Group B in infants <30 days of age	33	27	27
Meningococcal Infection	11	25	25
SEXUALLY TRANSMITTED DISEASES:			
Chlamydia	12,138	10,177	10, 177
Gonorrhea	2,883	2,806	2,941
P/S Syphilis (Congenital Syphilis)	133 (33)	148 (16)	148 (16)
DRUG-RESISTANT BACTERIA:			
TB isolates resistant to at least INH (resistant to at least INH & Rifampin)	17 (2)	6 (1)	8 (1)
Vancomycin resistant *Enterococci* isolates	984	721	721
VECTOR-BORNE & ZOONOTIC DISEASES:			
Hantavirus Pulmonary Syndrome	1	0	1
Plague	0	0	0
Animals with Rabies[4]	90	57	75
ALSO OF INTEREST IN ARIZONA:			
Coccidioidomycosis	2,772	1,866	1,466
Tuberculosis	158	158	158
HIV	411	345	349
AIDS	337	342	353

1 *Data are provisional and reflect case reports during this period except Lead Poisoning which is by date of diagnosis.*
2 *These counts reflect the year reported or tested and not the date infected.*
3 *Case counts for non-acute Hepatitis B and C are not available before 1998.*
4 *Based on animals submitted for rabies testing.*

Prevention bulletin

Arizona Department of Health Services
Public Information Office
150 North 18th Avenue
Phoenix, AZ 85007

Janet Napolitano, Governor
Catherine R. Eden, Ph.D., Director ADHS
Rose Conner, Assistant Director, Public Health Services

Contributors

S. Robert Bailey, Kelli M. Donley, Michele Humphreys, Julie Karcis, Ashraf Lasee, M.P.H., Dr. P.H. Craig Levy, Karen Lewis, M.D., Judy Norton, Lisa Shumaker, M.A., Victorio Vaz, D.V.M., Ph.D.

Managing Editor: Mary Ehlert, M.S., ABC
e-mail: ehlertm@azdhs.gov
Assistant to Mary Ehlert: Jennifer Slater

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Study Finds HIV/Syphilis Co-infection Common

By Kelli M. Donley, S. Robert Bailey, Julie Karcis

A recent study at the Arizona Department of Health Services has identified 687 cases of individuals who have histories of infection with HIV and syphilis during their lifetime. These cases occur among 16,149 persons reported with syphilis, and 17,208 persons reported with HIV infection from 1981 through 2003. Using the HIV diagnosis as a baseline, "concurrent infection" (those who became infected with syphilis while HIV positive) was established in 58% (n=399) of this group. Among persons in the "concurrent infection" group, 19 had multiple concurrent syphilis infections. Considering only primary, secondary and early latent syphilis cases, at least 16% (n=64) of HIV/syphilis "concurrent infection" cases demonstrate certain syphilis infection after HIV diagnosis.

The race/ethnicity among "concurrent infection" of HIV/syphilis is not substantially different from that of HIV alone.

Based on this study, persons with a syphilis diagnosis are at least 14 times more likely to be HIV positive than the general population of Arizona (0.0247 compared to 0.0017 for the general population). An apparent increasing trend in syphilis diagnosis among HIV positive persons has been observed since 1998.

The Centers for Disease Control and Prevention (CDC) reported 6,862 cases of syphilis nationally in 2002, a 12.4% increase from 2001. Men having sex with men have had the largest increase in reported syphilis. Hall Klausner and Bolan report the resurgence of syphilis is in part due to increased anonymous sexual contact, reduced condom use, increased use of methamphetamine and sildenafil (Viagra®) and increased use of the Internet for meeting sexual partners.

Patients who test positive for HIV or syphilis should be tested for other sexually transmitted diseases. A positive HIV or syphilis test should be considered a "sentinel event" in the patient's clinical history. Sexual behaviors, injection drug use, and medical history should be well documented. Persons testing positive for HIV can be referred to the Prevention for Positives Program, which began doing prevention case management in 2004. This initiative works with HIV positive persons to reduce ongoing risk behaviors.

Contact Scott Davies at the Southern Arizona Aids Foundation in Pima County 520.628.7223; Scott Haverstock at Body Positive in Maricopa County 602.307.5330; or Gerry Garvey with the Yavapai County Health Department 928.522.7891.

References:

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