Prevention bulletin
Publication of the Division of Public Health Services
March/April 2004, Vol. 18, No. 2

Your Role in Preventing Smoking Related Diseases

by Will Humble

Cigarette smoking is the leading cause of preventable death in Arizona. Each year, cigarette smoking causes serious illnesses among an estimated 172,000 Arizonans, including approximately 8,800 deaths. Annual health-related economic costs from cigarette smoking in Arizona are approximately $3 billion.

A recent survey conducted by the Arizona Department of Health Services and the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System found that approximately 27 percent of men and 20 percent of women in Arizona reported that they smoke tobacco. These values were very close to the U.S. Median of 26 percent for men and 21 percent for women.

Clearly, we can all do better. As front-line health care professionals, you are a critical part of our overall plan to reduce smoking in Arizona. Research shows that healthcare providers can make a big difference in their patients' decisions to quit smoking.

Arizona Smokers' Helpline, 1.800.556.6222

Ashline: www.ashline.org

Overwhelming evidence suggests that smoking cessation interventions, if delivered in a timely and effective manner, greatly reduce the smoker's risk of suffering from smoking-related diseases. The following Five "A's" for smoking cessation intervention guidelines are effective when talking to patients that use tobacco:

- **A**sk about tobacco use at every visit.
- **A**dvise the patient that quitting smoking would improve their long-term health.
- **A**ssess the patient's willingness to quit.
- **A**ssist the patient in finding cessation services.
- **A**rrange for follow-up.

Arizona physicians have multiple options when referring patients to cessation services. The Arizona Department of Health Services' Tobacco Education and Prevention Program funds telephone-based cessation counseling provided by the Arizona Smokers' Helpline, 1.800.556.6222 and group classes offered by county health departments.

The Helpline offers a menu of bilingual services including multi-session telephone counseling, telephone information, referrals to community based classes, and self-help publications. The Helpline not only provides cessation services, it also acts as an information hub for tobacco users who want to learn about class offerings. The Arizona Smokers' Helpline maintains a separate website, called the Ashline, *www.ashline.org*, which offers a wide range of cessation information.

For most of your patients who smoke, helping them to quit will be the single most important intervention you can provide. But, it doesn't end there. Research suggests that it makes good business sense. Patients' overall satisfaction with office visits is improved when tobacco use is addressed *(Preventive Medicine, December 2001)*. Patients who were asked about their tobacco use or counseled about quitting were more likely to be very satisfied with the physician. And, patient satisfaction increased with the intensity of service offered.

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Arizona Department of Health Services

Visit the ADHS Web site at www.hs.state.az.us

Smoke-Free Environments Building Momentum in Arizona

by Will Humble

More and more cities, towns and counties in Arizona are passing ordinances that ensure smoke-free environments. Statewide support for smoke-free environments is particularly strong.

In a poll conducted in December 2003 by the Arizona Republic, 42 percent of Arizonans supported a statewide ban on public indoor smoking compared to 36 percent polled in December 2002. Overall, 73 percent are in favor of "some sort of" smoking limitation, compared to 65 percent in 2002.

The tumblers are falling into place to ensure smoke-free environments statewide, in part because several municipalities have implemented a wide variety of limitations on public smoking. Bar and restaurant owners in cities with strict, anti-smoking ordinances claim to be losing business as patrons flee to more smoking-friendly cities. Some of these business owners are among those pushing for statewide smoke-free environments.

- Tempe and Guadalupe have restrictions that have strict limitations on smoking in all public places, including bars and restaurants. Mesa allows smoking in bars and small bars that are part of restaurants when they have separate ventilation. Chandler recently implemented a smoking ordinance similar to the one in Mesa.
- Peoria recently passed an ordinance that bans smoking in all new bars and restaurants, but allows smoking in existing bars if they are separated by a floor-to-ceiling barrier and are independently ventilated. Prescott voters passed a workplace ban in November; however, bars are exempt from enforcement until 2005.
- Coconino County has implemented an ordinance that prohibits smoking in all indoor places of employment including restaurants; but there is an exemption for stand-alone bars. The City of Tucson prohibits smoking in any public vehicle (including taxicabs), enclosed structures such as lobbies, hallways, restrooms, shopping malls, stores, restaurants, theaters, lockers and conference rooms.

The public health justification for ensuring smoke-free environments is solid. Secondhand smoke contains several hundred recognized toxic substances, including numerous carcinogens. The U.S. Environmental Protection Agency has classified secondhand smoke as a known cause of cancer in humans. Employees of bars and restaurants are exposed to the greatest amount of secondhand smoke, creating an occupational health risk so great that it would not be tolerated if the source were anything except tobacco smoke.

Children exposed to secondhand tobacco smoke are at increased risk of lower respiratory tract infections such as pneumonia and bronchitis. Secondhand smoke also increases the number of episodes and severity of symptoms in thousands of asthmatic children in Arizona. Children exposed to secondhand smoke are also more likely to have reduced lung function and symptoms of respiratory irritation like cough, excess phlegm, and sneezing. Secondhand smoke may also increase the risk for sudden infant death syndrome.

Clinicians play a unique role in health-related public policy debates – especially this one. If you would like to play your part, you can contact **Arizonans Concerned About Smoking** at 623.465.2227 or *http://members.aol.com/acasinc.*

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Arizona Municipalities with 100% Smoke-free Environments

Municipality	100 % Smoke-free Workplaces	100% Smoke-free Restaurants	100% Smoke-free Bars
Chandler	✔		
Coconino County	✔	✔	
Gilbert	✔		
Goodyear	✔		
Guadalupe	✔	✔	✔
Nogales	✔		
Prescott	✔		
Santa Cruz County	✔		
Surprise	✔		
Tempe	✔	✔	✔

Identifying Depression

By Lisa Shumaker

- Depression is the leading cause of disability and is a risk factor for heart disease and high blood pressure.
- Nearly 5% of all adults suffer from depression and it is more prevalent in women.
- White men over the age of 85 have the highest suicide rate in the nation.
- 75% of seniors have visited a doctor within one month of committing suicide.
- People suffering from depression can be helped with medication and/or psychotherapy.

Signs and Symptoms

- Persistent sadness or irritability.
- Loss of interest or pleasure in almost all activities of the day, every day.
- Unplanned weight loss or gain.
- Poor appetite or overeating.
- Trouble sleeping or excessive sleeping.
- Being unusually restless or slow moving.
- Fatigue or loss of energy.
- Feeling worthless, guilty, or hopeless.
- Difficulty controlling emotions.
- Trouble concentrating or solving problems.
- Thoughts of suicide or suicide attempts.
- Poor self-esteem.
- Use of alcohol or illegal drugs.
- Chronic headaches or fatigue.
- Poor personal hygiene.

Additional Symptoms for Youth

- Increased anger or hostility.
- Failure to gain expected weight.
- Problems in school, frequent absences
- Impulsivity.
- Extreme sensitivity to failure or rejection.

Risk Factors for Developing Depression

General risk factors for all people

- Family conflict and divorce.
- Death of friend, family, or partner.
- Family history of depression.
- Breakup of a romantic relationship.
- Disability, chronic illness, or pain.
- Financial problems and unemployment.
- Loneliness.
- Exposure to trauma or stress.

Additional Risk Factors for Youth

- Being gay, lesbian, bisexual, intersexual, or transgendered.
- Unplanned pregnancy and parenting.
- Poor bonding with parent.
- Parent depression or use of substances.
- Abuse, neglect, or rejection by parents.
- Malnutrition.
- Attention, conduct, or learning disorders.

See page 4 for resource information

Depression Resources

IMPORTANT CRISIS & BEHAVIORAL HEALTH NUMBERS

Dial 911 for life threatening situations

EMPACT-SPC
1.866.205.5229
Services to victims of sexual assault, abuse, or family violence, or individuals and families needing crisis or suicide intervention or critical incident debriefing.

Southern Arizona Center Against Sexual Assault
1.800.400.1001
Crisis intervention, specialized therapy, and advocacy for victims of sexual assault.

Teen Life Line
1.800.248.8336
Peer and crisis counseling for teens.

Wingspan
1.800.553.WDVP
Crisis intervention and other services for lesbian, gay, bisexual, and transgender persons in southern Arizona.

Arizona Department of Health Services
Division of Behavioral Health Services
602.364.4558

REGIONAL BEHAVIORAL HEALTH AUTHORITIES

Community Partnership of Southern Arizona
(Pima, Graham, Greenlee, Cochise, and Santa Cruz Counties)
1.800.771.9889

Value Options
(Maricopa County)
1.800.631.1314

Pinal Gila Behavioral Health Association
(Pinal and Gila Counties)
1.800.982.1317

Gila River Health Care Corporation
Gila River Indian Community)
1.800.259.3449

The Excel Group
(Yuma & La Paz Counties)
1.800.880.8901

Northern Arizona Regional Behavioral Health Authority
1.800.640.2123

SARS, Avian Influenza, and Guidelines Aplenty

By Bob England MD

Many of you have recently received multiple alerts and advisories about SARS and avian influenza. As the situation changes anywhere in the world, modifications may be made.

We know that it is unrealistic to expect clinicians to keep up with all of these. So please remember just the following three principles. If we adhere to these well, we'll do fine:

- Promote **respiratory hygiene** guidelines previously distributed: *www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm* (i.e. droplet precautions for patients with respiratory symptoms).
- Ask all of your patients with respiratory symptoms for a **travel history** in the past 10 days.
- If you suspect possible avian influenza or SARS-CoV, **call your local health department**. The local health department will walk you through current recommendations, help you assess risk, and arrange for appropriate testing when needed.

The single change that will be most noticeable to most healthcare workers and patients is the implementation of respiratory hygiene guidelines. This means a lot of masks, a lot of hand sanitizer, and a lot of encouraging patients to use them. We may feel like we're nagging. It may seem like overkill. It will work, however, and our waiting rooms will stop transmitting so much colds and flu to boot.

As always, you may most easily keep up with events regarding SARS, avian influenza, or any other emerging infectious disease at the Centers for Disease Control and Prevention website, *www.cdc.gov.*

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World TB Day and Arizona

By Cheryl McRill, MD

March 24 is World TB Day. Arizona has a long association with tuberculosis (TB). Many of our current hospitals began as TB sanatoriums in the days before the development of drugs to treat TB. Doctors from all over the country sent their patients here to heal (or die) in our beautiful, dry, desert climate. How ironic that we should now be one of the few states to not share the national experience of a decade of decline in this still devastating disease.

The year 1992 marked the end of the well-known resurgence of TB in the United States, which was attributed to the increase in HIV, immigration from high-risk countries, and neglect of public health infrastructure. Between 1992 and 2002 (the last year for which national statistics are available), the national TB case rate declined 51%, from 10.5/100,000 population to 5.2/100,000, and the total number of cases declined 43%. During that same period in Arizona, our state case rate only declined 28%, from 6.7/100,000 to 4.8/100,000, and our annual number of cases was essentially unchanged. In 2003, our total cases increased 12.2% to 295. Our TB case rate for 2003 increased to 5.2/100,000, which will likely exceed the national average for the first time in our state history (national figures are not yet available for 2003). (See Figure 1).

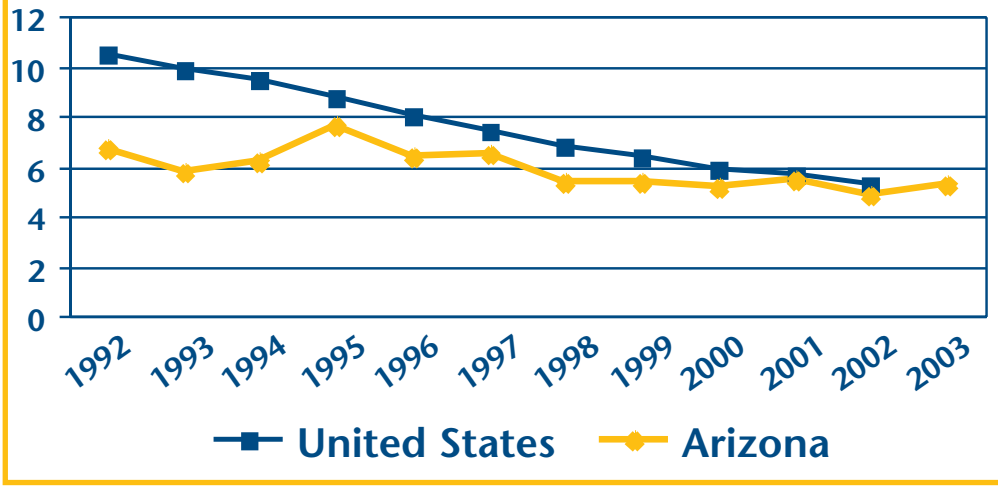
Why are we so out of synch with the declining TB trend seen nationally? While it is tempting to blame our proximity to the border, the truth is that in 2002, 52% of the TB cases in Arizona were born in other countries, not significantly different than the 51% observed nationally. Arizona does exceed the national average for proportion of cases among the homeless (12% Arizona vs. 6% U.S.) and in correctional facilities (7% vs. 3%). However, we have fewer TB cases who are also HIV infected (4% vs. 8%). Arizona is similar to the rest of the nation in that all of these groups are significantly at risk for tuberculosis.

The challenge for public health is to devise intervention strategies to reduce disease in at-risk populations, but we need your help. The Arizona Department of Health Services urges physicians to think TB when evaluating patients with symptoms suggestive of tuberculosis, especially if the patient is foreign-born, has a history of homelessness or incarceration, or has risk factors for HIV infection. Early detection and treatment of disease reduces transmission and is the best prevention of future TB cases.

For more information on TB in Arizona visit our website at *www.hs.state.az.us/phs/oids/tuberculosis/index.htm* or call the Arizona Department of Health Services' TB Control Program at 602.364.4750.

Figure 1

Tuberculosis Case Rates per 100,000 Population, Arizona and United States, 1992-2003



SUMMARY OF SELECTED REPORTABLE DISEASES

Year to Date (January - December, 2003)[1, 2]

	Jan - Dec 2003	Jan - Dec 2002	5 Year Median Jan - Dec
VACCINE PREVENTABLE DISEASES:			
Haemophilus influenzae, serotype b invasive disease (<5 years of age)	8 (3)	7 (5)	6 (4)
Measles	1	0	1
Mumps	0	1	2
Pertussis (<12 years of age)	101 (69)	280 (131)	238 (131)
Rubella (Congenital Rubella Syndrome)	0 (0)	0 (0)	1 (0)
FOODBORNE DISEASES:			
Campylobacteriosis	835	733	619
E.coli O157:H7	42	40	40
Listeriosis	10	18	19
Salmonellosis	802	825	825
Shigellosis	593	668	598
VIRAL HEPATITIDES:			
Hepatitis A	288	305	466
Hepatitis B: acute	318	252	178
Hepatitis B: non-acute[3]	978	1,125	1,026
Hepatitis C: acute	7	6	14
Hepatitis C: non-acute[3] (confirmed to date)	9,350 (3,480)	10,262 (5,129)	6,085 (2,300)
INVASIVE DISEASES:			
Streptococcus pneumoniae	504	789	783
Streptococcus Group A	146	314	214
Streptococcus Group B in infants <30 days of age	21	27	42
Meningococcal Infection	14	32	33
SEXUALLY TRANSMITTED DISEASES:			
Chlamydia	12,817	14,904	12,492
Gonorrhea	3,581	3,772	4,100
P/S Syphilis (Congenital Syphilis)	187 (19)	201 (19)	185 (26)
DRUG-RESISTANT BACTERIA:			
TB isolates resistant to at least INH (resistant to at least INH & Rifampin)	14 (2)	11 (1)	11 (2)
Vancomycin resistant *Enterococci* isolates	713	1,031	939
VECTOR-BORNE & ZOONOTIC DISEASES:			
Hantavirus Pulmonary Syndrome	0	1	3
Plague	0	0	0
Animals with Rabies[4]	75	143	102
ALSO OF INTEREST IN ARIZONA:			
Coccidioidomycosis	2,665	3,118	1,917
Tuberculosis	295	263	262
HIV	538	503	503
AIDS	480	457	504

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.*

Top 10 Public Health Improvements of the 20th Century

by Will Humble

During the 20th Century, the health and life expectancy of persons residing in the United States improved dramatically. The average lifespan has lengthened by greater than 30 years in the last century. While advances in diagnosis and treatment of disease has played a significant role in increasing life expectancy, most of this gain is attributable to advances in public health.

The top 10 advances in public health were highlighted recently by the Centers for Disease Control and Prevention.

10. **Fluoridation of drinking water.** Fluoridation of drinking water began in 1945. Nearly half of all Americans now have fluoridated water. Fluoridation has played an important role in the reduction in tooth decay (40 percent to 70 percent in children) and of tooth loss in adults (40 percent to 60 percent).

9. **Eliminating lead in gasoline, paint, and food containers.** The removal of lead from gasoline, paint, and food cans has led to a precipitous drop in the blood lead levels in Americans. The removal of these lead sources from the environment has probably been the single most effective environmental health intervention of the last 100 years.

8. **Family planning.** Access to family planning and contraceptive services has altered social and economic roles of women. Family planning has provided health benefits such as smaller family size and longer intervals between the birth of children; increased opportunities for preconception counseling and screening; fewer infant, child and maternal deaths.

7. **Healthier mothers and babies.** Thanks to better hygiene and nutrition, availability of antibiotics, greater access to health care and technologic advances in maternal and neonatal medicine, the world has healthier mothers and babies. Since 1900, infant mortality has decreased 90 percent, and maternal mortality has decreased 99 percent.

6. **Safer and healthier foods.** Since 1900, safer and healthier foods have resulted from decreases in microbial contamination and increases in nutritional content. Identifying essential micronutrients and establishing food-fortification programs have almost eliminated major, nutritional deficiency diseases such as rickets, goiter and pellagra in the United States.

5. **Identification of tobacco as a health hazard.** Since the 1964 Surgeon General's report on the health risks of smoking, the prevalence of smoking among adults has decreased, and millions of smoking-related deaths have been prevented. Better public awareness has resulted in smoking cessation. Since 1972, death rates for coronary heart disease have decreased 51 percent.

4. **Control of infectious diseases.** Control of infectious diseases has resulted from clean water and improved sanitation. Infections such as typhoid and cholera transmitted by contaminated water, a major cause of illness and death early in the 20th Century, have been reduced dramatically by improved sanitation.

3. **Safer workplaces.** Work-related health problems, such as coal workers' pneumoconiosis (black lung) and silicosis — common at the beginning of the century — have come under better control. Severe injuries and deaths related to mining, manufacturing, construction and transportation have also decreased.

2. **Motor vehicle safety.** Improvements in motor vehicle safety have resulted from engineering efforts to make both vehicles and highways safer and from successful efforts to change personal behavior, such as increased use of safety belts, child safety seats and motorcycle helmets, and decreased drinking and driving. These efforts have contributed to large reductions in motor vehicle related deaths.

1. **Vaccination.** This century, vaccines have been developed or licensed against 21 diseases, 11 of which are recommended for all U.S. children. Substantial achievements have been made in the control of many vaccine-preventable diseases. Smallpox has been eradicated, polio is nearly eradicated worldwide, and rates for nine vaccine-preventable diseases and their complications are much lower.

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Prevention bulletin

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This publication is supported by the Preventive Health and Health Services Block Grant from the Centers for Disease Control and Prevention (CDC).
Its contents do not necessarily represent the views of the CDC.
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Arizona's Children & the Environment

by Will Humble

The Arizona Department of Health Services, Office of Environmental Health, has recently published a report that assesses the environmental exposures facing Arizona's children. The full report, entitled "Arizona's Children and the Environment," examines in detail the primary environmental exposures that affect Arizona's children. The full report is posted on the Arizona Department of Health Services' website at: *www.hs.state.az.us/phs/oeh/index.htm*

The report examines the public health impact of the environmental exposures, shown in figure 1, that affect Arizona children:

The report also includes a number of specific strategies and objectives for public health and environmental interventions to reduce the types and amounts of contaminants that adversely affect the health of Arizona's children.

In addition to the environmental health assessment report published by the Arizona Department of Health Services, the Arizona Department of Environmental Quality has developed an action plan to improve environmental conditions that affect the health of children in Arizona. The Arizona Department of Environmental Quality's action plan is published on their website at: *www.adeq.state.az.us/function/news/2004/action.pdf*

Figure 1

Environmental Exposures Significantly Affecting Children In Arizona

Ambient Air Pollutants
Airborne Allergens
Secondhand Tobacco Smoke
Coccidioidomycosis (Valley Fever)
Lead Poisoning
Sun Exposure (UV Radiation)
Methyl Mercury in Fish
Pesticide Exposure

The plan outlines the Arizona Department of Environmental Quality's efforts during the next year to confront a growing number of environmental concerns identified by the Arizona Department of Health Services' report ranging from environmental triggers for childhood asthma to children's exposure to idling school bus exhaust and pesticides in schools to air quality along the U.S.-Mexico border.

There is a clear need to better coordinate efforts and maximize resources to protect children's environmental health in Arizona. By improving the types and quality of health and environmental data that we collect, we can collaborate to develop public health, environmental and public policy interventions to improve children's health in Arizona.

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