Public Health Heroes...

Public Health Villains

ADAMS, ARAPAHOE AND DOUGLAS COUNTIES
Public health was defined by Yale professor Charles Winslow as “The science and art of preventing disease, prolonging life, and promoting physical health and efficiency through organized community efforts for the sanitation of the environment, the control of community infections, the education of the individual in principles of personal hygiene, the organization of medical and nursing service for the early diagnosis and preventive treatment of disease, and the development of the social machinery which will ensure to every individual in the community a standard of living adequate for the maintenance of health.”

Wow! That certainly sounds heroic, but it is the basis for what public health workers do every single day, and often without recognition ... because the vast scope of public health is rarely understood by the general public and when it works as planned, it is virtually invisible.

Saving someone from smoking a burning cigarette is not quite as dramatic as saving someone from a burning building ... but not only is it saving their life, in many similar instances, public health heroes are saving a person from a lifetime of illness or disability as well.

However, history belongs not only to the victors but also to the villains, who oftentimes inspire us to fight the good fight and overcome difficult challenges.

You will also recognize many of our villains – the germs and diseases our heroes have prevented or eliminated – including the Black Plague, Spanish Influenza, smallpox, polio, cholera, diphtheria, yellow fever and malaria. Some are such rarities in the U.S. that many doctors may have never seen a case personally, but many still exist and reappear as sporadic epidemics. Unfortunately, most are only an international airline flight away.

Other contemporary villains that public health is up against include obesity, tobacco, foodborne illnesses, emerging infections, HIV/AIDS, and a colossal global public health threat – the tiny mosquito.

Our environmental health adversaries include air and water pollution, E. coli O157:H7, lead-based paint, toxic gasoline additives, asbestos, radon, chlorofluorocarbons, pesticide runoff, factory farm excrement lagoons, deforestation, and numerous hazardous chemicals.

Unfortunately, often the worst villains we face are a lack of education or living in poverty, both of which can defeat any good intentions and promote the most unhealthy conditions.

Prevention, not Treatment of Illnesses

“If you have your health, you have everything” is what people often say, and public health is a primary reason people stay healthy to begin with. Our many public health heroes help you to forget having to hear “Get well soon” since they help you to stay healthy longer.

This annual report focuses on the accomplishments of Tri-County Health Department in 2006, along with the milestones of notable public health heroes.

You will recognize many of the illustrious names, since they comprise a who’s who of historical public health celebrities and Nobel prizewinners: Hippocrates, Florence Nightingale, Paul Revere, Benjamin Franklin, James Lind, Louis Pasteur, Alexander Fleming, Margaret Sanger, Walter Reed, Jonas Salk, Albert Sabin and Edward Jenner.

"The legacy of heroes is the memory of a great name and the inheritance of a great example."

– Benjamin Disraeli

The annual report focuses on the accomplishments of Tri-County Health Department in 2006, along with the milestones of notable public health heroes.
Public health heroes have gone beyond infectious disease prevention efforts by tackling challenges as diverse as chronic diseases, emergency preparedness and health disparities. Chronic diseases – such as heart disease, stroke, diabetes and cancer – are now the leading causes of death worldwide. Tragically, many of these deaths could have been prevented, or at least have been treated with early screening and intervention. Though heart attacks and strokes seem like sudden events, they may actually have been years in the making and simple lifestyle changes could have prevented many of them.

Recognizing All of Our Conquering Heroes

Throughout this annual report, we recognize many diverse examples of heroes, and that includes you. Yes, you can easily be a public health hero with some simple interventions: complete all children’s immunizations, cover your cough, use birth control, stop smoking, eat right and exercise, use antibiotics as prescribed, disinfect surfaces, cook your food to proper temperatures, wear insect repellent, practice safe sex, brush and floss, get a yearly influenza shot and above all else, utilize the world’s number-one disease prevention measure ... wash your hands with soap and water!

The great depression and rationing during two world wars have led to generations of Americans who have become massive consumers. But our overconsumption has led to increasing waste and waistlines ... and these excesses are directly related to our ongoing environmental, nutritional and health problems.

Even with an all-time high average life expectancy of 77.9 years, Americans live shorter, less healthy lives than people in most other industrialized countries, ranking 45th in the world. But we spend $6,000 per person per year on healthcare, an amount that is higher than any other country. Now, more than ever, we need some heroes to come to the rescue. And often those heroes can be found right here, working in public health.

“‘I think a hero is an ordinary individual who finds strength to persevere and endure in spite of overwhelming obstacles.’”
– Christopher Reeve

“No one notices it much when everything is going well, they only notice it when something goes wrong. And since our staff does such a great job, our own public health heroes often remain virtually unseen.”
– Richard L. Vogt, MD, Executive Director

Inside this report you will learn about the ongoing work of the 448,254 public health workers in the U.S. who share a commitment to improve health and ensure a long, healthy life for everyone.

And you will read about Tri-County Health Department’s numerous accomplishments, with photos of many of our 340 employees, whose dedication touches your lives everyday.

We are proud of their achievements, and they are our heroes in every sense of the word.
Disease Prevention and Control

In 1854, after using a map to illustrate how cases of cholera were centered around a community well, Dr. John Snow famously removed the pump handle so residents were forced to get water elsewhere and the outbreak ended. This pioneering accomplishment can be regarded as the founding event in the science of epidemiology – the incidence, distribution and control of diseases.

Today, Tri-County Health Department’s champion epidemiologists help prevent infectious diseases that can be spread by person-to-person contact, by animals or through food and water. A combined system of surveillance, reporting and control is very effective in preventing widespread outbreaks, and is practiced by virtually all health departments across the nation. During an outbreak, our disease control staff trace the cause of an illness to its source, determine who else is at risk, and put control measures into place, such as immunizing the at-risk population, issuing glove orders for restaurant workers or establishing quarantines.

Tri-County Health Department also tracks infectious disease data across the region through the Colorado Electronic Disease Reporting System (CEDRS), which is a confidential early-warning system that allows us to follow disease trends and put urgent prevention measures into place in order to protect our community.

A total of 65 different diseases and conditions must be reported to us by physicians and health care providers. These notifiable conditions include 11 vaccine-preventable diseases such as measles, mumps, whooping cough, poliomyelitis and tetanus; 16 different agents that cause foodborne illnesses including botulism, Escherichia coli, hepatitis A and salmonellosis; 5 sexually transmitted diseases including HIV/AIDS, gonorrhea and syphilis; 13 animal- and vector-borne diseases including hantavirus, Lyme disease, plague, rabies and West Nile virus; and other diseases and conditions such as encephalitis, meningitis, Legionnaire’s disease and tuberculosis.

In 2006, Tri-County Health Department conducted 823 notifiable disease investigations in Adams, Arapahoe and Douglas Counties.

There are also many newly emerging infections to challenge us, such as E. coli, hantavirus, HIV/AIDS, SARS, West Nile virus and avian influenza. And some old germs are reappearing as multi-drug resistant infections. It is estimated that more than 50% of the antibiotics used in the U.S. are given to chickens, pigs and cattle, but the livestock’s antibiotic resistant strains of Salmonella, Campylobacter and E. coli can then cause antibiotic resistant infections in humans.

Emerging Infections - Villains Throughout History

Three historical events that devastated the global population have inspired the heroes of public health for centuries: The Black Plague of the 1340s, which was one of the most devastating pandemics in human history; Spanish explorers unknowingly brought the deadly European diseases smallpox, influenza, measles and typhus to the New World (and took tobacco back with them); and World War I air travel and mass movement of troops hastened the spread of the deadly Spanish influenza of 1918, killing between 25 and 100 million people across the globe.

The contemporary version of these global pandemics is HIV/AIDS, which in just 25 years, has spread relentlessly from a few widely scattered areas to virtually every country in the world, killing 25 million and currently infecting 40 million people … many of whom do not know they are infected. AIDS is now the fourth leading cause of death worldwide.

Tri-County Health Department has a contract with Denver Health to provide STD, HIV/AIDS, and tuberculosis (TB) screening and services to residents of our three-county region. In 2006, Denver Health provided STD screening and services to 2,800 of our residents, and screened and treated 1,708 of our residents for tuberculosis.

Heroic Innovators

Antoni van Leeuwenhoek made some of the first primitive microscopes. In 1676, he described the appearance of a tremendous number of “very little animals” and historians have surmised that Leeuwenhoek had become the first person to ever see bacteria.

Over the centuries, hundreds of millions of people contracted smallpox. An estimated 300 million people died from it in the 20th century alone, but thanks to a victorious global effort of immunizations, the last case of smallpox reported in the U.S. was in 1949, and the world’s last outbreak was in nomads in Somalia, in 1977. Smallpox thus became the first infectious disease to be wiped out.

In 1862, French chemist Louis Pasteur discovered that heating kills the microscopic germs in liquids, thus preventing bacterial growth, food spoilage and foodborne illnesses. His method eventually gained acceptance as a sanitary treatment for milk – a prime source of tuberculosis. He also developed vaccines for anthrax and rabies. His achievements make him the “big cheese” of modern microbiology.

“In the fields of observation, chance favors only the prepared mind.”
– Louis Pasteur

“Intellectuals solve problems, geniuses prevent them.”
– Albert Einstein
With the introduction of anesthesia in the 1840s, operations became more frequent, but many patients died from infection following surgery. The reason was unknown, but it was believed to be something in the air. In 1867, Joseph Lister used carbolic acid (phenol) to wash hands, sterilize surgical instruments and clean wounds. His innovative methods transformed the practice of surgery from a possibly life-threatening risk into a relatively safe procedure. He also persuaded Charles Goodyear to manufacture rubber gloves for his nurse, since the disinfectant irritated her hands. Listerine mouthwash and the bacterial genus *Listeria* are named after him.

Dr. Robert Koch was the first scientist to verify the Germ Theory of Disease by demonstrating in 1876 that the bacterium *Bacillus anthracis* causes anthrax, a disease of animals and humans. It was the first time that a specific germ was shown to be the cause of a specific disease, rather than just the prevailing theory of “bad air.” Koch also discovered the bacteria that cause tuberculosis and cholera. This luminary is considered a founder of bacteriology.

In 1928, Alexander Fleming accidentally discovered that mold in a petri dish resisted bacteria. His monumental discovery, penicillin, was not commercially developed until the 1940s and first used extensively in World War II. By the end of the war, it had saved millions of lives. Pneumonia, syphilis, gonorrhea, diphtheria, scarlet fever and many other infections that once killed indiscriminately suddenly became treatable, and infectious diseases dropped dramatically as the major causes of death in the U.S.

In 1900, American physician and army surgeon Walter Reed confirmed Cuban scientist Carlos Finlay’s theory that yellow fever is transmitted by mosquitoes. The eradication of mosquitoes permitted the completion of the Panama Canal by the U.S.

The mosquito is a real public health menace and is, in fact, the deadliest creature on Earth. Insects, rodents and other animals can spread many diseases that harm humans including malaria, plague, hantavirus, yellow fever, rabies and West Nile virus.

Alexander Langmuir (1910-1993) was chief epidemiologist at the CDC for 21 years. He stressed the importance of communication in public health and developed the two-year Epidemic Intelligence Service (EIS) training program, which provides hands-on field training and is recognized as the premier epidemiology training program in the world. Only 65 to 75 positions are available each year, and Tri-County Health Department has been awarded an EIS Officer for two consecutive appointments.

### Select Notifiable Diseases: Adams, Arapahoe and Douglas Counties 2006 vs. 5-Year Median

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<tr>
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*Three County Totals, 2006  5-Year Median, 2001-2005*

At the turn of the 20th century, Typhoid Fever was associated with poor sanitation, slums and poverty, but in 1906, several new cases appeared in wealthy Oyster Bay, Long Island. Investigators ruled out the water supply and local shellfish, and learned that typhoid outbreaks followed one household’s former cook wherever she went. In 1907, “Typhoid Mary” became the first American carrier of the disease to be identified and traced. She was the first known asymptomatic person to spread the germs without exhibiting the symptoms, so she constantly denied her role in spreading disease. She refused to stop working as a cook – though she remained contagious her entire adult life – and eventually sickened even more people as a cook at the Sloane Maternity Hospital in New York. In total, she was linked to at least 47 illnesses and three deaths.

The story of “Typhoid Mary” exemplified the public’s fear of disease, along with the conflicting priorities of the media, civil liberties and public health. She spent 26 years in quarantine on an island in the East River, died ten years before antibiotic treatment, and became something of an urban legend.

Both isolation and quarantine are public health strategies that have proven effective in stopping the spread of infectious diseases. Today, the term “Typhoid Mary” has become a cliché for someone who spreads misfortune, but her case continues to hold lessons for us 100 years later, as evidenced by current concerns about multidrug-resistant infectious diseases, international travel, quarantine and isolation.
Occupational Hazards and Industrial Hygiene

The understanding of occupational diseases dates back to 1700, when Italian physician Bernardino Ramazzini wrote “Diseases of Workers.” This was the first systematic study of occupational hazards and diseases ever published. Therefore, Ramazzini is regarded as the father of occupational medicine. Tri-County Health Department provides industrial hygiene consultations and sampling for environmental contaminants to industry and local government.

The Importance of Sanitation

Hungarian physician Ignaz Semmelweis (1818-1865) noticed that deaths from infections were much more numerous among women in labor who were attended by doctors and medical students who had just examined other patients or performed autopsies, than among those attended by midwives.

He hypothesized that “particles” caused disease, and that these particles were spread on the hands of the doctors and students. He ordered that hands and instruments be washed in a chlorine solution before each new examination. Mortality rates quickly dropped from 18% to 1% but since the Germ Theory of Disease had not yet been developed at the time, few people believed him.

Colorado’s Own Local Heroine

In 1944, while in her seventies, world famous scientist and Colorado native Florence Sabin (1871-1953) came out of retirement to accept Colorado governor John Vivian’s request to chair a committee on health.

In December of 1947, she was appointed Manager of Denver’s Department of Health and Charities, and proceeded to campaign for more preventive health care, as well as against sub-standard restaurant and hospital sanitation, contaminated milk and rat infestations. After her reforms, Denver’s death rate from tuberculosis fell from 54 to 27 per 100,000, and the incidence of syphilis dropped from 700 to 60 per 100,000.

Her extensive research showed Colorado’s morbidity and mortality rates to be unacceptably high, and its public health infrastructure to be antiquated and unacceptable, resulting in the “Sabin Health Laws,” which modernized Colorado’s public health system. Her foresight set the standards for Tri-County Health Department and all public health activities in Colorado today.

Unique Local Disease Investigations

Among our most interesting disease investigations of 2006, a large multi-state outbreak of mumps originated in Iowa. Tri-County Health Department investigated 82 suspect cases with confirmation of 15 cases. Nationwide, there were 5,783 cases in the U.S., the largest mumps outbreak since 1988.

In 2006, our dedicated staff also identified 18 cases of salmonellosis among children and adults in a child care center. The investigation focused on food preparation because of the simultaneous onset of illness in children who did not share bathroom facilities. We found that ground turkey was considered to be the source of the outbreak, which was controlled.

Norovirus is a frequent cause of outbreaks of gastrointestinal illness on cruise ships and in long-term care facilities. Because these outbreaks can quickly become quite large, affecting both residents and staff, rapid investigation and implementation of infection control measures are very important. There were 20 separate gastrointestinal outbreaks in long-term care facilities across our region during 2006.

We learned that some facilities share healthcare and/or food service employees, so we concluded that having shared staff members among facilities can increase the likelihood of the spread of norovirus among these facilities.

We also investigated an outbreak of staphylococcal infections among high school wrestlers. Because two of the 13 individuals failed treatment on standard antibiotics, the strain was presumed to be methicillin-resistant Staphylococcus aureus. We followed the treatment guidelines of the National Collegiate Athletic Association (NCAA), and no new infections were reported after the end of wrestling season.

“We do not have to become heroes overnight. Just a step at a time, meeting each thing that comes up, seeing it is not as dreadful as it appeared, discovering we have the strength to stare it down.”

– Eleanor Roosevelt

“There are only two things a child will share willingly – communicable diseases and mother’s true age.”

– Benjamin Spock
Emergency Preparedness

Across the nation, public health agencies are being included in all levels of emergency preparedness and planning, including helping people make their own family disaster plan and emergency preparedness kits.

A perfect example of the importance of emergency preparedness were the back-to-back blizzards of December 2006, which strained public services, closed supermarkets and emphasized the importance of home stockpiles of food, medicine and other essential supplies.

In 2006, Tri-County Health Department improved community preparedness for pandemic influenza or a bioterrorism threat through planning, presentations and exercises involving many of our school districts, local governments, businesses and special needs communities. These key efforts reinforce the need for communication plans and preparedness kits – from the individual family level up to the diverse concerns of businesses, schools and local governments.

We also are part of the CDC’s nationwide Health Alert Network, a high-speed communication system that enables us to dispense urgent information to a network of hospitals, physicians, schools and emergency agencies. In 2006, we sent 19 health advisories to the 2,941 contacts in our network of hospitals, physicians, schools, police, fire and government offices; and participated in numerous preparedness exercises, pictured above.

The Red Cross

Clara Barton was a nurse in the Civil War (1861-65). She earned the nickname “the Angel of the Battlefield” and founded the American Red Cross in 1881. The Red Cross provides disaster relief and blood donation services, along with emergency preparedness, public health and safety programs. The International Red Cross was founded by Jean-Henri Dunant in 1864. He received the very first Nobel Prize for Peace, in 1901.

Vital Records

British physician William Farr (1807-1883) was the Registrar of Births and Deaths in England and Wales, a position he held for over forty years. In his annual reports, facts and figures came to life to tell a devastating story of suffering and premature death, which moved foresighted political leaders to take action on public health reforms. His contemporaries included Florence Nightingale, John Snow and others who became the leaders of the nineteenth-century Sanitary Revolution. William Farr is recognized as a founding father of vital statistics.

The Tri-County Health Department Vital Records office issues legal, certified copies of birth and death certificates. A hospital birth certificate with a baby footprint is suitable for framing, but is not a legal document. Certified birth certificates protect against identity theft and are legal documentation for proof of employment, school enrollment, passport applications and to apply for a Social Security card. In 2006, we issued 20,806 birth certificates and 53,077 death certificates.

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Essential Public Health Services

Tri-County Health Department is guided by ten specific public health services. These are the public health activities that should be undertaken in all communities and they provide a guiding framework for the responsibilities of local public health systems:

• Monitor health status to identify and solve community health problems
• Diagnose and investigate health problems and health hazards in the community, and empower people about health issues
• Mobilize community partnerships and action to identify and solve health problems
• Develop policies and plans that support individual and community health efforts
• Enforce laws and regulations that protect health and ensure safety
• Link people to needed personal health services and assure the provision of health care when otherwise unavailable
• Assure competent public and personal health care workforce
• Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
• Research for new insights and innovative solutions to health problems

These essential services have become such an integral part of America’s standard of living that most people simply take them for granted, but at Tri-County Health Department, we don’t – because the benefits to you are crucial, and the lack of these services can be tragic.
Nursing and Health Services

Florence Nightingale (1820-1910) is world famous for founding the nursing profession. At a time when hospital wards were crawling with rodents and lice, she stated that “the very first requirement in a hospital is that it should do the sick no harm.” She set a standard of commitment to patient care, and started the first scientifically-based nursing school.

“I am convinced that the greatest heroes are those who do their duty in the daily grind of domestic affairs.”

– Florence Nightingale

The nursing profession consistently is at the top of the list of most admired and trusted professions and they are definitely heroes in the public’s mind, since they help sick people get well. Public health nurses are particularly heroic in that they work to prevent illnesses and keep people from getting sick in the first place.

Vaccine and Immunization Heroism

The development of vaccines is one of man’s greatest achievements. In 1796, Dr. Edward Jenner discovered that milkmaids infected with the mild disease cowpox were naturally immune to the similar, yet fatal, smallpox. He purposely infected others through a knife cut as a prevention measure and called the discovery vaccination after vaca, Latin for cow. Vaccination became considerably more effective half a century later with the invention of the hypodermic needle.

Severe polio epidemics killed or paralyzed many people, mostly children and young adults, until Jonas Salk’s 1955 injectable vaccine and Albert B. Sabin’s 1961 oral vaccine virtually eliminated polio in the United States by the early 1960s. Polio still continued to spread in developing countries, paralyzing hundreds of thousands of children. In 1988, the World Health Organization, UNICEF and the Rotary Foundation began a global vaccination campaign to eradicate the infantile paralysis disease. In 2006, only four countries in the world (Nigeria, India, Pakistan, and Afghanistan) were reported to have endemic polio, with a total of 1,985 cases reported worldwide. Muslim clerics in Nigeria had claimed that polio immunizations are part of an American conspiracy to sterilize their population, which led to an increase in cases there and to the reemergence of the disease in 17 countries.

Immunizations have virtually eliminated the spread of many childhood diseases, including measles, mumps, rubella, pertussis (whooping cough), diphtheria and polio. However, the pervasive viruses and bacteria that cause disease and death still exist and can be passed on to people who are not protected by vaccines.

About 40,000 people die of pneumococcal pneumonia in the U.S. each year, making it the leading cause of death among vaccine-preventable diseases. Yet only 46 percent of Americans over the age of 65 receive the pneumococcal vaccine. In addition, an estimated 36,000 Americans die from seasonal influenza each year, which can be prevented with an annual vaccination.

Getting immunized is an easy way to prevent getting sick, and many infant and toddler immunizations protect children for the rest of their lives. In 2006, Tri-County Health Department gave a total of 48,834 shots, and 40,189 of these were children’s immunizations. Prices are very reasonable and no one is ever turned away because of inability to pay. Weekly immunization clinics are held at our offices and other community locations.

Adults need immunizations and booster shots too. Each year thousands of adults die unnecessarily from influenza, pneumonia and hepatitis B, or from common diseases that travelers are exposed to in foreign countries.

In 2006, Tri-County Health Department administered 8,195 adult and travel immunizations. Getting travel immunizations will help assure that souvenirs are the only thing you bring back from overseas.

Call 303-451-0123 for more information on all Tri-County Health Department immunization services.

Family Planning

Family planning services allow people the freedom to decide when to start a family, giving them the chance to improve their social and economic situation without fear of an unexpected pregnancy.

Margaret Sanger’s heroic nationwide crusade to legalize birth control began when she witnessed her mother’s deteriorating health and eventual death following 18 pregnancies and 11 live births.

While working as a public health nurse in New York City, she saw impoverished, ill women overwhelmed with children. This led to her educating the masses about the benefits of planned births at spaced intervals, coining the phrase “birth control.”
In 1916, Sanger opened the first family planning and birth control clinic in the U.S. and founded the American Birth Control League in 1921, which later became the Planned Parenthood Federation of America. Sanger died in 1966, a few months after the landmark U.S. Supreme Court decision of *Griswold v. Connecticut*, which legalized the use of contraceptives for married couples.

Doctors John Rock and Gregory Pincus created the oral contraceptive. “The Pill” was introduced in 1960, and resulted in widespread changes in birth control and social behavior – giving women a safe, discreet way to control their fertility and plan each family. And David P. Wagner designed a circular pill dispenser for the birth control pills, brilliantly organizing a monthly supply into daily doses. He designed the dispenser to be the size and appearance of a makeup compact, so women could carry it discreetly in their purses, instead of in a bottle of pills that rattle.

Tri-County Health Department provides confidential family planning services which help prevent unintended pregnancies and sexually transmitted diseases. In 2006, we provided 8,054 clients (782 of them under 18 years old) with examinations, birth control counseling, contraceptive supplies, and testing for pregnancy, STDs and HIV/AIDS.

Women’s Cancer Screening
Cancerous tumors have been described in ancient Egyptian writings that date to 1600 B.C., but in 1800 Frenchman Marie Bichat proposed that cancer was an overgrowth of cells and they were first seen after the invention of the microscope in 1830. In 1858, German pathologist Rudolf Virchow first theorized that cells divide from other cells, which explained the growth of cancer cells.

In 1953, British doctors James Watson and Francis Crick discovered the chemical structure of DNA, which in turn led to discoveries of how genes are damaged by chemicals, radiation, viruses or mutations that often lead to the development of cancer. By the 1970s, cancer had become the nation’s second-leading cause of death.

Each premature or low-weight birth costs an average of $59,700 more in the first year of care.

Tri-County Health Department has three nurse case management programs: Nurse Family Partnership, Prenatal Plus and Mothers First. The programs target high-risk pregnant and parenting women and their families in an effort to improve birth outcomes – specifically to improve the chances of a healthy mother and child. Families receive prenatal support and education, parenting and child development information, and referrals to community services that address the health and social needs of the family.

Nurse-Family Partnership follows first-time mothers through pregnancy and for two years after the baby’s birth. In 2006, our Nurse-Family Partnership nurses provided 2,757 home visits to 257 clients. Prenatal Plus focuses specifically on women at risk for a low birthweight baby and nurses, nutritionists and mental health professionals work together to provide support services and up to ten home visits. In 2006, we served 282 Prenatal Plus clients. Mothers First provides nurse case management to pregnant and parenting women from Adams County who receive Temporary Assistance for Needy Families. In 2006, our Mothers First nurses served 168 clients.

In our world of big names, curiously, our true heroes tend to be anonymous, and often proves to be the unsung hero: the teacher, the nurse, the mother, the honest cop, the hard worker at lonely, underpaid, unglamorous, unpublicized jobs.”

Daniel J. Boorstin

Mother and Child Health
It has been said that every baby born in a modern hospital anywhere in the world is looked at first through the eyes of Dr. Virginia Apgar. She revolutionized the care of newborns by devising a five-part test that scores a child’s heart rate, respiration, muscle tone, color and reflexes. The Apgar Newborn Scoring System, first published in 1953, quickly indicates if a child requires medical attention. Apgar scores are also a predictable indicator of a child’s rate of development, and their use produced a significant reduction in infant mortality.

Infant mortality is an important measure of a community’s health. Today, fewer than one in 100 American babies die in infancy. A century ago, as many as one in six infants died.
In 1928 George Papanicolaou first reported that uterine cancer could be diagnosed by means of a vaginal smear. His invention, Papanicolaou’s test, now known as the Pap smear, is used worldwide for the detection and prevention of cervical cancer. Once a major cause of death in the U.S., cervical cancer has markedly decreased due to the Pap test.

The Race for the Cure
Susan G. Komen died from breast cancer in 1980 at the age of 36. Her sister, Nancy Goodman Brinker, promised that she would do everything in her power to end breast cancer forever and in 1982, that promise became the Susan G. Komen Foundation.

Today, with a new name, Komen for the Cure is the world’s largest grassroots network of breast cancer survivors and activists, as well as a foundation that has given nearly $1 billion to the fight against breast cancer. In 2006, the Komen Foundation provided $70,621 to Tri-County Health Department for mammograms and cancer screenings for low-income women.

Other public health heroes include former first lady Betty Ford, for her openness about having breast cancer in 1974, during an era when such topics were not publicly discussed; and Katie Couric, for raising awareness after her 42-year-old husband died of colon cancer in 1998.

Pap tests and mammograms are crucial, since early detection increases a woman’s chance of survival. Tri-County Health Department provides uninsured women with free breast and cervical cancer screenings and with referrals to additional care, if needed. In 2006, we provided cancer screenings to 910 women.

Dental Services
In 1728, Pierre Fauchard debunked the idea of “tooth worms” and theorized that sugar can cause dental cavities. He is credited as the “father of modern dentistry” and accurately described periodontal disease, introduced dental fillings and said that teeth should be cleaned periodically by a professional.

Tri-County Health Department provides dental services for low-income seniors living in Arapahoe County. In 2006, we served 214 clients with exams, x-rays, cleanings, fillings, bridges, crowns and dentures.

Chronic Disease Prevention
Tobacco Cessation
Tobacco use is the leading preventable cause of death in the United States. Each year, over 440,000 people die of diseases caused by smoking—that’s about 20% of all deaths. Tobacco claims more lives than drugs, alcohol, firearms and motor vehicle accidents combined.

“Cigarette smoking is slow motion suicide.”
– Joseph Califano, Jr., former U.S. Secretary of Health, Education, and Welfare, a heavy smoker who quit at the urging of his children

Lung cancer is the leading cause of cancer death in men and women, and smoking is a primary cause in 87 percent of all lung cancers. Smoking is directly responsible for most cases of lung cancer, chronic bronchitis and emphysema, and it is a major factor in coronary heart disease and stroke. Currently 22 percent of Americans and 18.6 percent of Coloradans smoke.

Dr. Luther Terry’s landmark 1964 Surgeon General’s report on smoking and health presented pivotal scientific evidence about the multiple health hazards of tobacco, which led to widespread anti-smoking campaigns and the Surgeon General’s health warnings that appear on cigarette packages.

Smoking Bans and Secondhand Smoke
Restaurant and bar workers are the occupational group most heavily exposed to secondhand smoke. During one shift in a smoke-filled restaurant or bar, workers can breathe in the equivalent of actively smoking 1.5 to 2 packs of cigarettes. Secondhand smoke is so toxic it causes more deaths each year than all of the EPA’s regulated chemical work hazards combined, and every year an estimated 35,000 deaths from coronary heart disease and 3,000 lung cancer deaths are attributed to secondhand smoke ... in non-smokers.

Pope Urban VII initiated the world’s first known public smoking ban in 1590 when he threatened to excommunicate anyone who used tobacco inside a church. And in 1975, Minnesota became the first U.S. state to ban smoking in most public spaces.

Public health hero and former Surgeon General C. Everett Koop boldly promoted smoke-free work environments and published a report stating that nicotine has an addictiveness similar to that of heroin or cocaine. As a result, his ten-year tenure is said to have seen the greatest decline in smoking by Americans ever.

“Heroes are people who rise to the occasion and then slip quietly away.”
– Tom Brokaw

“Life affords no greater responsibility, no greater privilege, than raising of the next generation.”
– C. Everett Koop
In a major victory for public health, Colorado’s heroic voters banned smoking statewide in restaurants, bars and most other indoor public places starting July 1, 2006.

Tri-County Health Department partners with communities in each of our three counties to achieve four goals: preventing youth tobacco use; increasing adult cessation of tobacco; reducing exposure to secondhand smoke; and serving disparately affected populations.

It makes more sense to encourage people to quit smoking now rather than to have to treat them for lung cancer in 20 years, and the good news is that tobacco prevention programs work. It is worth it, since many of the effects of smoking are reversible over time once a person has quit. In 2006, 10,829 Tri-County residents initiated tobacco quit attempts through the statewide toll-free QuitLine (1-800-639-QUIT), www.co.quitnet.com.

LiveWell Commerce City
Our LiveWell Commerce City program is a comprehensive approach to combating the epidemic of chronic disease associated with obesity/overweight through healthy eating and active living programs, policies and environmental changes. Formerly known as “Thriving Communities Commerce City,” our LiveWell program empowers a partnership of people who live, work and play in historic Commerce City to flourish through a lifetime of healthy eating and active living.

An interdisciplinary team of residents, local non-profit organizations, businesses, the City of Commerce City and the Adams County School District 14 have been collaborating on projects to provide practical solutions intended to increase healthy eating and active living opportunities. This team addresses issues on land use and zoning codes to foster neighborhoods that are more conducive to walking and biking, as well as working with the local schools to make healthy changes, ensuring that children have access to nutrient-rich foods throughout the school day.

As part of LiveWell Commerce City, our Nutrition Division worked with the organization Operation Frontline to provide comprehensive cooking and nutrition classes to local clients. This successful program will be expanded to include other Tri-County Health Department communities.

Peak Wellness
Our Peak Wellness program helps to prevent heart disease and stroke in women ages 40-64 by screening for high blood pressure, high cholesterol, diabetes and obesity. We also provide proven interventions to promote healthy eating, increase physical activity and reduce smoking.

Community Outreach
Benjamin Franklin (1706-1790) was a diplomat, scientist, inventor, co-founder of America’s first public hospital – and a public health hero.

In his day, many beliefs about health and disease were based on superstition, but Franklin came up with some astonishingly accurate ideas and inventions that relate to public health, including the hazards of lead poisoning, experiments in refrigeration and food storage, and the benefits of regular exercise. He was one of our first environmentalists, improving sanitation and speaking out against the pollution of rivers. Franklin also coined dozens of popular sayings, including the public health saying “An ounce of prevention is worth a pound of cure.”

Tri-County Health Department joined the Denver Museum of Nature & Science in promoting the exhibition “Benjamin Franklin: In Search of a Better World.” We also promoted the museum’s Hall of Life, a permanent exhibition with hands-on science activities that show children how their body works and what they can do to keep it healthy.

Other community health partnerships included educational booths at the 9Health Fair, the promotion of the nationwide PBS series “Take One Step for Better Health” with Channel Six and outreach at numerous community events in each of our three counties.

Clear communication is vital in every public health situation – to inform people of risk, to motivate healthy changes, and to provide accurate information.

We create health education materials that are shared free-of-charge with other agencies nationwide, including the “Fight the Bite” West Nile virus campaign which is in use in 18 states and Canada. The logo is also used as a merit badge for Girl Scouts and Boy Scouts in Florida.

We also developed the “Give Your Child a Shot at Success” immunization campaign, which the Colorado Department of Public Health and Environment adopted for use throughout Colorado.

“Never doubt that a group of thoughtful, committed citizens can change the world. Indeed, it’s the only thing that ever has.”
– Margaret Mead
Environmental Health Services

One of the basic functions of public health is to protect the environment from human carelessness and protect the population from health threats in the environment – including polluted air and water, chemicals, toxins, animals, safety hazards and unsafe food.

“We have not inherited the Earth from our ancestors, but have borrowed it from our children.”
– Native American Saying

In 1820, chemist Frederick Accum published his landmark book *Adulterations of Food and Culinary Poisons*, which captured the public's attention about the importance of food safety and additives, and the resulting widespread publicity in newspapers is one of the first examples of using mass media to educate the public about public health issues.

Food safety is the scientific discipline of the handling, preparation, and storage of food in ways that prevent foodborne illness. Developed by the Pillsbury company and NASA in 1959 as a way to eliminate the hazards of foodborne illnesses while in outer space, Hazard Analysis and Critical Control Points (HACCP) is the current standard preventive approach to food safety used to identify potential food safety hazards throughout the production process... as opposed to inspection of just the finished products. In an outbreak, we utilize HACCP standards as part of our foodservice inspection process.

The ALERT initiative is a new USDA, FDA and CDC food defense program that industry and businesses can use to decrease the risk of intentional food contamination. It is designed to help keep all aspects of the food supply safe from tampering, from the farm to the table. In 2006, Tri-County Health Department reviewed the key elements of this food protection program with 1,644 food service establishments.

Protecting the Public’s Health

Preventing foodborne illness and death remains a major public health challenge as we saw with recent national recalls of packaged spinach contaminated with *E. coli* and peanut butter contaminated with *Salmonella*. Foodborne illness, often called food poisoning, can be very dangerous, especially to young children, older adults, pregnant women and people with weakened immune systems.

Upton Sinclair’s 1906 book, *The Jungle*, revealed conditions in the U.S. meat packing industry and caused a public uproar that partly contributed to the passage of the Pure Food and Drug Act and the Meat Inspection Act. Sinclair believed that the main point of *The Jungle* was lost on the public. His main goal was to demonstrate the unsafe and inhumane conditions for workers, not to inspire numerous public health reforms. Sinclair lamented that “I aimed at the public’s heart, and by accident I hit it in the stomach.”

Tri-County Health Department performs inspections of restaurants, child care facilities, public swimming pools and home septic systems. We kept the public healthy in 2006 through 6,742 inspections of 4,315 restaurants that included sanitation, food handling and proper temperatures for refrigeration, cooking and serving. You can view an inspection report for any restaurant in our three-county region with our database of restaurant inspections, located on our website at www.tchd.org/restaurants.html.

In 2006, we inspected almost 600 individual child care centers serving about 55,000 children and provided consultations on food preparation, sanitation, diapering, handwashing, disease prevention and safety. We tested public swimming pools, hot tubs and spas to help prevent gastrointestinal and respiratory diseases, and we certified pool operators through classes. We issued 577 septic system permits, reviewed plans and inspected systems in order to prevent groundwater contamination.

Protecting the Environment

*Silent Spring*, the 1962 bestseller by Rachel Carson, is widely credited with launching the environmentalism movement in the U.S. Carson was a well-known writer on natural history and she accused the chemical industry of spreading falsified information and public officials of blindly accepting industry claims.

Carson never advocated banning helpful pesticides, but encouraged responsible use, with an awareness of the chemicals’ impact on the entire ecosystem. Her bestseller inspired widespread public concerns with pesticides and pollution of the environment. It facilitated the ban of the pesticide DDT in the U.S. in 1972.

The first Earth Day, in 1970, was the a turning point in America’s recognition of the importance of environmental health. It led to the creation of the Environmental Protection Agency (EPA). Other national agencies followed the EPA, including the Occupational Safety and Health Administration (OSHA) and the Consumer Product Safety Commission.

“Unhappy is the land that is in need of heroes.”
– Bertolt Brecht
Protecting the Community’s Health

In 1978, Lois Gibbs discovered that her 7-year-old son’s elementary school in Niagara Falls, New York was built on a toxic waste dump. Subsequent investigation revealed that her entire neighborhood had been built on top of that same dump, the Love Canal. She rallied her neighbors and formed the Love Canal Homeowners Association, leading her community in a battle against local, state, and federal governments. After years of struggle, 833 families were eventually evacuated, and cleanup of the Love Canal began.

National press coverage made Lois Gibbs a folk hero, and her efforts led to the creation of the EPA’s “Superfund,” which is used to locate and clean up toxic sites throughout the United States. Superfund is the common name for the United States environmental law officially known as the Comprehensive Environmental Response, Compensation, and Liability Act, which was enacted in 1980 in response to the Love Canal.

Tri-County Health Department is dedicated to community health and has been instrumental in the cleanup of the former Rocky Mountain Arsenal Superfund site in Adams County. The Arsenal originally produced chemical weapons and bombs. In 1946, the Army leased manufacturing facilities to private industries, and Shell Oil Company produced hazardous agricultural chemicals there until 1982.

Tri-County Health Department’s Rocky Mountain Arsenal Oversight Program monitors water and air surrounding the Arsenal to verify that cleanup activities are protective to workers and the community. We sample domestic water wells, oversee contractors during construction, and report our activities to the community. Cleanup and final transfer of the land to the Department of Interior as a national wildlife refuge is expected to be completed in 2011.

Urban Planning and Public Health

Georges Haussmann (1809-1891) was a French civic planner charged with the rebuilding of Paris which at the time was a dirty, crowded and unhealthy metropolis, populated with makeshift shanties, widespread poverty and an inadequate sewer system. He designed a city with uniform building codes, grand boulevards, parks, improved housing and a sanitary infrastructure.

Global Warming

Svante Arrhenius was a little-known Swedish chemist who in the 1890s issued a remarkable warning: Keep pumping carbon dioxide into the air the way humanity has been doing since the dawn of the industrial age, around 1750, and you can double the level of the heat-trapping gas in the atmosphere, raising temperatures dramatically. Nobel Prize winner Arrhenius was the first to describe and predict the effects of carbon dioxide on the temperature of the earth. Today we call this “the greenhouse effect.” The major human cause of increased greenhouse gas production is the burning of fossil fuels such as coal, oil and natural gas. Electricity, transportation, generation, and heating and cooling for industrial processes each contribute almost equally.

Global warming was the overwhelming environmental health topic of 2006, and though the debate continues, we know that the hazardous wastes of polluting industries include such public health hazards as air particulates, lead, and mercury, which cause birth defects.

Some stalwart corporate leaders are realizing that smart environmental practices can improve their bottom line as well as increase their market share. It is possible to sustain the profitable growth of a business in healthy and environmentally responsible ways and we salute them.

Public health concerns from an unhealthy environment are abundant: air pollution to respiratory diseases such as bronchitis and asthma; the overuse of antibiotics in farm animals to antibiotic-resistant bacteria; and pesticides and toxic chemicals to birth defects and cancers.

Reduce. Reuse. Recycle. With the major emphasis on reduce. Pollution prevention programs help prevent hazardous chemical damage to the environment and injuries to individuals. In 2006, Tri-County Health Department organized six Household Chemical Roundups, which collected 213 tons of house and garden chemicals, auto fluids, batteries, paint products and tires from 4,243 households for proper disposal and recycling.

“A hero is simply someone who rises above his own human weaknesses, for an hour, a day, a year, to do something stirring.”

– Betty Deramus
Nutrition Services

Tri-County Health Department’s broad nutrition services focus on the benefits of healthy eating and the impact of physical activity. We provide community education to prevent obesity and other chronic diseases by addressing these two important areas.

“I have never been especially impressed by the heroics of people convinced that they are about to change the world. I am more awed by those who struggle to make one small difference after another.”
— Ellen Goodman

At the top of our list of nutrition heroes is Mom. She was right about making you eat your vegetables. (And dear old dad was right, too, when he ordered you to wash your hands first.) Other nutrition heroes include breastfeeding moms; the school lunchroom lady; physical education teachers; and of course, legendary spinach spokesperson, Popeye.

In addition to spinach, our delicious list of heroic foods include fruits and vegetables, beans, whole grains, lean poultry, lean meat, soy, fish, nuts, low-fat dairy products and pure water. These super foods provide us with healthy proteins, fats, carbohydrates, vitamins, minerals and fiber.

Inspirational fitness heroes we admire include former “97-pound weakling” Charles Atlas; Joseph Pilates; fitness and nutrition guru Richard Simmons (who lost 123 pounds); Judi Sheppard Missett, creator of Jazzercise; bodybuilder Arnold Schwarzenegger; Coloradan Jim Hill, creator of America on the Move; and fitness visionary Jack LaLanne, who at 92-years-old proclaims, “Your waistline is your lifeline!”

We relish our opportunity to educate people about nutrition, and we partner with local schools, businesses, Food Stamp offices, child care providers, Head Start locations, grocery stores and fitness centers to reinforce key obesity and chronic disease prevention messages. People who eat a healthy diet, include regular physical activities and who maintain a healthy weight reduce their risk for cardiovascular disease, diabetes, high blood pressure, arthritis-related disabilities and some cancers, along with the need for medication and hospitalization.

WIC – Women, Infants and Children

Our flagship nutrition program is the Special Supplemental Nutrition Program for Women, Infants and Children. This nationwide program provides nutrition counseling and vouchers for nutritious foods to income-eligible women who are pregnant, postpartum or breastfeeding, and children from birth to age five. WIC was first established as a pilot program in 1972 by Senator Hubert Humphrey and became a permanent U.S. program in 1974. Participants have lower Medicaid costs for themselves and their babies along with higher birthweights and lower infant mortality rates. WIC contributes to improved pregnancies and healthier children, increases the entire family’s knowledge of the benefits of good nutrition, and results in better health and savings in medical care costs. A total of 46,000 merchants nationwide accept WIC vouchers.

Tri-County Health Department has the largest network of WIC clinics in Colorado, serving an average caseload of 24,867 clients in 2006. This federal program provided $14,384,858 in direct assistance to local Tri-County families with a monthly average of $48 worth of food per person. Only specific nutritious foods are available, including milk, cheese, eggs, cereal, peanut butter, beans, fruit juices and infant formula.

Our dedicated staff help educate our WIC clients about healthy nutrition and physical activity, and also connect them to our other services including childhood immunizations; breastfeeding education; tobacco prevention and secondhand smoke education; prevention of diseases; and cancer and chronic disease screenings for eligible women. In 2006, our proportion of overweight WIC clients between the ages of two and five remained steady at 10.2%, far below the national average of 14.7%. Also in 2006, we changed our clients’ food packages to include low-fat milk instead of whole milk. As a result, 98% of our clients drink low-fat milk.

Breastfeeding

Breastfeeding moms are our heroines and Tri-County Health Department promotes breastfeeding because mother’s milk has just the right amount of nutrients needed for a baby’s growth and development. Breastfeeding is the superior form of infant nutrition and most babies find mother’s milk easier to digest than formula. It also has antibodies that help infants fight off infection and disease.

Tri-County Health Department has a breastfeeding peer counseling program, which substantially improves both the initiation and duration of breastfeeding among our clients. Peers have the ability to influence and support their fellow mothers in a way that standard health professionals are unable to do. These services include educating pregnant and breastfeeding moms about the many benefits of breastfeeding, teaching classes, individual counseling and overseeing weekly breastfeeding support groups.

Healthy Weights for Children

According to the American Academy of Pediatrics, being overweight is now the most common medical condition of childhood, having doubled over the past 20 years. Nearly one of every three children is at risk, and one of every six is overweight. Childhood obesity can lead to Type II diabetes, which was formerly called adult-onset diabetes, but has been renamed due to the increasing incidence in children.
The onset of diabetes at any age carries with it the probability of cardiovascular disease within two decades, along with numerous diseases and premature death.

Fortunately, the risk of diabetes and heart disease can be greatly reduced by maintaining a healthy weight, so we are working to change the perception of obesity from concerns about appearance to concerns about health.

Keeping the idea of healthy families and kids in mind, the Nutrition Division developed a partnership with area physicians to provide current accurate nutrition and health information to residents of our three counties. Tri-County Health Department provides resource kits to doctors’ offices, which contain nutrition assessment tools, counseling or nutrition education tips, obesity reduction messages and breastfeeding information. The goals of this collaboration are for physicians to view their local health department as a valuable community resource, and to help their clients by decreasing childhood obesity rates and increasing breastfeeding rates.

Obesity-related diseases in adults and children account for more than 300,000 deaths annually, with more than $100 billion per year in treatment costs. Because of obesity, for the first time in U.S. history, health experts are warning that the life expectancy of children may be shorter than that of their parents.

**Nutritional Villains**

Two nutrition villains are high fructose corn syrup and trans fats. Super-sized villains in the form of excessively large portions of food also add to the problem of supersizing our kids.

German chemist Wilhelm Normann patented the hydrogenation of oil in 1901, and the first hydrogenated shortening, Crisco, appeared in 1911. Hydrogenated fats replaced natural fats and oils in many baked goods, fast foods, snack foods and fried foods because they are cheaper and have a longer shelf life before becoming rancid. However, trans fatty acids in hydrogenated oils are believed to be a cause for “hardening of the arteries,” resulting in coronary heart disease and stroke.

According to the FDA, adult Americans on average consume about 5.8 grams of trans fats per day, and medical research shows that the daily intake of about 5 grams of trans fat is associated with a 25% increase in the risk of heart disease. The U.S. government first required the disclosure of trans fats on product labels starting January 1, 2006. This has made it easier for consumers to begin making informed choices about reducing their intake of this harmful ingredient.

High fructose corn syrup is a cheaper ingredient than granulated sugar, but it is still “sugar” and adds a significant amount of calories to the average American’s diet. The food industry uses it extensively in soft drinks, fruit juice, breads, crackers, pastries, cereals, candy, salad dressing, canned goods and sauces. The USDA recommends limiting added sugars to 40 grams (10 teaspoons) per day for a 2,000-calorie diet. Sweetened soft drinks are the primary source of added sugar in the daily diet of children. Each 12-oz. soda contains the equivalent of 10 teaspoons of sugar and 150 calories.

In a study of preschoolers ages 1-4, a child’s risk of being overweight increased by 6% for every hour of TV watched per day. Tri-County WIC offices have partnered with Kaiser Permanente to promote “TV Turnoff Week.” Another program supporting healthy eating and active lifestyles is Fit WIC. A pilot program in our Pecos clinic showed that 67% of staff and 35% of clients increased their fruit and vegetable consumption by two or more servings per day. Staff and clients also participated in weekly challenges to increase walking and water intake as part of the Fit WIC program.

So, after reading about all of these challenges, what can a parent do? You may sometimes feel bad for not letting kids eat what they want, but you can be a hero for their health.

Get the family to exercise; teach your children where food comes from by visiting a farm or planting vegetables in a garden or on a windowsill; ask a registered dietitian for some practical ideas; read the Nutrition Facts printed on food packages; get involved in your school’s wellness program; have the children help prepare dinner; make a conscious decision to eat healthier; and support locally-owned family farms and farmers markets.

For example, Tri-County Health Department has an ongoing partnership with Delaney Farm, a shared community garden that provides fresh produce to participating WIC families in exchange for weeding and cultivating. Gardening helps encourage physical activity for the entire family and increases the consumption of healthy fruits and vegetables. In 2006, over 200 WIC moms and kids worked in and benefitted from the Delaney Farm.

Other exciting Tri-County Health Department nutrition programs include our nationally accredited dietetic internship, one of the few in the country focused on public health nutrition. We also work with the Colfax Community Network to reach low-income transient families, providing WIC services, food, hygiene products, nutrition classes and medical referrals. In 2006, we served 1,525 adults and children living in motels and we also assisted this agency in becoming a free summer lunch program site.
Office Locations and Services Available

**Administration**
7000 East Bellevue Avenue, #301, Greenwood Village, CO 80111 (303) 220-9200

**Alton-Colfax**
(Formerly Havana) 9000 East Colfax Avenue #105, Aurora, CO 80010 (303) 361-6010

**Aurora**
15400 East 14th Place, Commerce City, CO 80022 (303) 288-6816

**Castle Rock**
4400 Castleton Court, Castle Rock, CO 80109 (303) 663-7650

**Commerce City**
4201 East 72nd Avenue, Commerce City, CO 80022 (303) 288-6816

**Englewood**
4857 South Broadway, Englewood, CO 80113 (303) 761-1340

**Iliff**
15559 East Iliff Avenue, Aurora, CO 80013 (303) 745-5858

**Lone Tree**
9350 Heritage Hills Circle, Lone Tree, CO 80124 (303) 784-7866

**Northglenn**
10190 Bannock Street, #100, Northglenn, CO 80260 (303) 452-9547

**Pecos**
7290 Samuel Drive, #130, Denver, CO 80221 (303) 426-5232

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### 2006 Revenues

**January 1 - December 31, 2006 - Audited**

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**Total County Appropriations $7,811,077**

(A per capita contribution of $6.56)

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**Total Revenues $25,950,387**

### 2006 Expenditures

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**Total Expenditures $24,936,912**

### 2006 Population Base

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**Estimated Total Population 1,191,217**

### Public Health Services Provided in 2006

- Child care center inspections: 407
- Family Planning program clients: 8,054
- Meth lab reports and complaints: 34
- Total immunizations given: 48,384
- Children’s immunizations: 40,189
- Adult and Travel Clinic immunizations: 8,195
- New septic system permits issued: 577
- Notifiable disease investigations: 823
- Nurse/Family Partnership home visits: 2,757
- Prenatal Plus program clients: 282
- Restaurant/retail food establishment inspections: 6,742
- Vital Statistics, total certificates issued: 73,883
- Birth certificates: 20,806
- Death certificates: 53,077
- WIC - Women, Infants and Children caseload: 24,867
- WIC supplemental food vouchers retail value: $14,384,858
- Women’s cancer screening program clients: 910