



## Health Department Receives National Recognition

The National Association of County and City Health Officials (NACCHO) recognized the Kansas City Health Department for significant improvements in its ability to respond to public health emergencies. The Health Department was one of only 11 local public health agencies nationally recognized for meeting the requirements of the Project Public Health Ready. Nationwide, there are more than 3,000 county and city public health agencies.

The Health Department underwent reviews conducted by Project Public Health Ready, a first of its kind partnership program developed by NACCHO with support from the Centers for Disease Control and Prevention and the Columbia University Center for Public Health. Project Public Health Ready was established to help define local public health preparedness and develop a standard set of goals by which preparedness could be measured.

To gain recognition, Project Public Health Ready required the Health Department to achieve goals in three key areas: preparedness

planning, individual worker competence and demonstration of readiness through drills and exercises. The recognition confirms that the Kansas City Health Department has an emergency response plan in place, the plan is appropriately connected to other emergency response plans, staff members are trained, and the plan is exercised and used during public health and other community emergencies.

## Community Environmental Health Assessment

Historically cities have been unhealthy places to live, yet they were attractive to persons from rural areas for economic and other reasons. However, the density of people, the resultant waste and

pollution of the environment, and the lack of safe food, water, milk, etc, all contributed to high

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rates of infections and parasitisms, as well as mortality. Populations could reach levels where diseases, rather than being epidemic, became endemic and many of these “crowd diseases” extracted a severer toll on children rather than adults. Cities depended upon emigration to maintain or expand their populations because of the higher levels of mortality. It was not until the sanitary movements of the late 1800s and early 1900s that cities began to shake their dependence on emigration.

The sanitary movement concentrated on many facets of city life, one of which was the built structure or infrastructure of the communities. How water was delivered to neighborhoods and how wastes were removed, for example, became issues. In the area of public health, there was a great demand for “sanitary” engineers who could address how the built structure affected community life and health. Today, there is a growing interest, again, in the built structure of communities and the impact of structure on health. The urban sprawl of Kansas City with its low population density is an example of the challenges presented. Things such as lack of sidewalks in many neighborhoods and the dependence on the automobile to conduct the simple, basic functions of living in the community, contribute to the lack of physical inactivity and contribute to obesity, soon to be the number actual cause of death in the nation, according to the Centers for Disease Control and Prevention (JAMA 291:1238, 2004).

The Kansas City Health Department’s Division of Environmental Health has initiated a phased in approach for assessing the City’s environmental health using a process endorsed and promoted by the NACCHO. This approach is known as the Protocol for Assessing Community Excellence in Environmental Health (PACE-EH). The first step in the overall process was to conduct a survey of residents in order to identify their concern and priorities. This phase has been completed and in April, the Kansas City Health Department released its findings in a report entitled *Community Environmental Health Assessment*.

This assessment asked Kansas Citizens to rank the importance to themselves of various environmental issues affecting their home, their neighborhood, and the City as a whole. It was a convenience survey, meaning that it did not attempt to achieve statistical representativeness of the community. What it did accomplish was identification of citizen concerns and priorities.

In the area of home, the major concern to Kansas Citizens was asthma and indoor air pollutants/allergens. Nearly 20% of respondents felt that rodent control services were needed (the City stopped rodent control

services with fiscal year 2003-2004). There was an apparent lack of awareness of the public health threats posed by radon, lead-based paints, and carbon monoxide. And, few people felt that fertilizers and pesticides were a problem and accidents and injuries were not viewed as important issues.

With regard to the neighborhood, animal control and vacant housing were the major issues of concern. Illegal dumping and noise abatement also were issues. Surprisingly, 15% of respondents were unfamiliar with mosquito control as an environmental issue despite both local and national media coverage surrounding West Nile virus.

Among the community wide issues, the need for recycling was the top priority (Kansas City since initiated a recycling program). Recycling ranked higher in priority than secondhand smoke, safe drinking water, food safety, hazardous waste transport, or landfills. The health problems generated by urban sprawl also ranked higher than many of these issues. The findings suggest that that public takes for granted the more routine functions of public health and shifts their priorities to more global or media focused issues.

The report can be found at [www.kcmo.org/health](http://www.kcmo.org/health).

## Rise in Infant Mortality Rate

In 2002, the national infant mortality rate (IMR) increased for the first time since 1957-1958. The preliminary rate for the year is 7.0 per 1,000 live births and it rose for all races and ethnic groups. Likewise, increases were observed for Missouri (7.4) and in Kansas City (9.7). The national Health People 2010 IMR objective is 5.0. In Kansas City,

between 1997 and 2002, the IMR rates for whites and blacks have fluctuated annually, and in 2002 the rate for blacks was more than twice that of whites.

The infant mortality rate (IMR) measures the risk of dying during the first year of life among infants born alive. The rate ignores the fact that not all infants who die during a calendar year were born in that calendar year, and assumes that deaths balance out over time. It is based on the number infant deaths among infants 0-365 days old during the calendar year which is then divided by the number of live births that calendar year, and multiplied by 1,000 live births.

Four causes account for more than half of all infant deaths: birth defects, disorders relating to short gestation and low birth weight, sudden infant death syndrome (SIDS), and maternal complications of pregnancy.

### Causes of Infant Deaths, Kansas City, MO, 1998-2002

Cause of Death	Very Low Birth Weight Infants	Low & Normal Birth Weight Infants
Perinatal conditions	86.0%	16.1%
Congenital anomalies	5.5%	23.5%
Injury	1.2%	14.8%
SIDS	1.2%	30.2%
Other causes	6.1%	15.4%

## Potpourri

In the Missouri Legislature, HB 770 would repeal the current law regarding the wearing of motorcycle helmets and it replace it with a law would make helmets optional for persons 21 years of age and older. The bill comes at a time when the number of people killed in motorcycle accidents has increased. The National Highway Safety Traffic Administration's (NHSTA) preliminary findings for 2003 showed an 11% rise in deaths among motorcyclists; 3,592 were killed that year.

The move to repeal Missouri's motorcycle helmet law follows similar actions in Kentucky, Louisiana, Arkansas, Texas, and Florida. NHSTA released a study in October 2003 on the effect of the repeal of helmet laws in Kentucky and Louisiana. In both states motorcycle helmet use decreased substantially, nearly halving. Those declines were similar to what was observed in Arkansas and Texas following repeal of their laws. Following repeal, the number of crashes in which a motorcyclist was killed and the numbers of riders killed increased 50-100%. Some of this increase in fatalities, however, may have been part of a national trend of increasing motorcycle fatalities. Similarly there were increases of 37-40% in the number of motorcyclists injured in crashes. Again, both the rise in deaths and injuries paralleled the experiences in Arkansas and Texas following repeal of their laws.

In 1999, Edward Hooper published his theory that HIV was introduced and spread in Africa through administration of an oral polio vaccine that was contaminated with a chimpanzee retrovirus, latter to become HIV-1 in humans. This theory was first proposed in the early 1990s, but gained attention following the publication of Hooper's book, *The River: A Journey to the Source of HIV and AIDS*. It suggested that the polio vaccine was grown in kidney cell lines that harbored a simian immunodeficiency virus, SIVcpz. The vaccine was given to at least a

million people in what are now the Democratic Republic of Congo, Rwanda, and Burundi.

Considerable research effort has been expended by the international community to disprove Hooper's theory. Two strikes against the theory were the absence of SIVcpz or chimpanzee DNA in old stocks of the polio vaccine, and data suggesting HIV originated 30 years before the polio vaccine trials. A third strike comes from a recent study of chimpanzees from the Congo (where the alleged contamination took place) that showed these animals harbor a SIVcpz that is highly divergent from HIV-1 and therefore not the source of the SIVcpz that crossed to humans (Nature 428:820, 2004). These three lines of evidence provide convincing proof that the polio vaccine trials did not result in the emergence of HIV-1.

A human infection with avian influenza A/H7N2 virus last

fall has the Centers for Disease Control and Prevention (CDC) totally puzzled. A New York man was hospitalized for severe influenza, but he recovered. His virus isolate was tentatively identified as an H1N1 strain (an uncommon isolate) and submitted to CDC for confirmation. Because there were few H1N1 isolates being seen in the country, CDC set the isolate aside while it concentrated on more prevalent strains. It was not until February that CDC examined this isolate and found that it was not a H1 virus or an influenza B virus. Further tested showed it was influenza A virus, but not of the H1, H3, nor H5 subtypes. In

March, expanded tested revealed it was a H7N2 virus. Acute and convalescent serum samples from the man confirmed recent infection with H7N2 virus. Epidemiologic investigations failed to determine a source for the virus or any additional human cases.

In late April, federal officials seized several Giant African Land snails from classrooms in Wisconsin citing both a threat to agriculture and to human health. Newspaper articles stated the slime from these snails could cause meningitis in people. This was incorrect. The threat to humans comes from the fact that the snails could harbor the rat lungworm, *Angiostrongylus cantonensis*. Larvae of this parasite are expelled in rat feces, where they are ingested by snails and slugs. Rats become infected by eating infected snails or slugs. Humans also can

become infected by eating raw or undercooked snails or slugs. Giant African snails have been shown to be infected in other parts of the world and associated with human infection.



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