

# Kansas Health Statistics

Kansas Department of Health and Environment – Center for Health and Environmental Statistics – Vol. 1 No. 4 February 2000

## Kansas Changes to Year-2000 Standard for Calculation of Age-Adjusted Death Rates

Death rates in reports from the Kansas Department of Health and Environment's Center for Health and Environmental Statistics have traditionally been calculated as crude rates, *i.e.* number of occurrences per 100,000 population, or as age-adjusted death rates (ADR). Age adjusting of rates allows comparison of rates between populations with varying age distributions.

For example, a comparison of crude death rates between two states with equal populations, one with a higher proportion of older individuals, would probably show a much higher rate for that state simply because of the greater risk of death as people age. To equalize the effects of variations in population, a series of weights is given to the different age groups, applied as a multiplying factor to each age-specific death rate. The sum of these weighted age-specific rates, the age-adjusted rate, is defined as the death rate that would occur if the observed age specific death rates were present in a population with an age distribution equal to that of a standard population.

Since 1943, the Centers for Disease Control and Prevention, National Center for Health Statistics (NCHS), and many states have used the 1940 United States population as the standard population for age-adjusting death rate calculations. In 1991 and 1997 NCHS sponsored workshops to consider implementing a more up-to-date standard, reflecting the aging of the population since 1940. The result was a recommendation, approved by the Secretary of the Department of Health and Human Services, to use the projected year 2000 population proportions as the standard for calculating age-adjusted death rates, effective September 1998.

It is to be expected that the change to the year 2000 standard will result in an increase in the magnitude of age-adjusted death rates, since more weight is given to older age groups. In comparing the deaths which occurred in Kansas from 1990 to 1998, using both standards, the average age-adjusted death rate for total deaths using the 2000 standard (851.3 per 100,000 population) was almost twice as high as the rate using the 1940 standard (456.0). The age-adjusted rate using the year 2000 standard approximates the crude death rate more closely than does that using the older standard.

The effect of switching to the new standard will vary greatly when calculating rates for different causes of death. Those causes of death, such as heart disease and cancer, which occur at higher rates among older population groups will show the greatest increase because of the increased weight given to those age groups. Meanwhile, rates for other causes, such as suicide and homicide, will be virtually unchanged.

Although the change in standard results in a change in magnitude of the age-adjusted death rate, generally the trend upward or downward over time is preserved (Figure 1). For example, from 1990-1998, the age-adjusted death rate (1940) for heart disease declined 15.8 percent, while the ADR (2000) for heart disease declined 15.4 percent.

One potential disadvantage of using age-adjusted death rates is that they may mask important information if the age-specific rates in the populations being compared do not have a consistent relationship. For example, if age-specific death rates

increase in younger populations while declining in older populations (or vice versa) the age-adjusted death rate may remain relatively unchanged, thereby not indicating the underlying trends in mortality. In cases where age standardization may mask important age-specific trends, age-specific rates should also be considered.

The disadvantage of using age-adjusted death rates calculated by the year-2000 standard will be the need to recalculate rates for past years, which used the 1940 standard, in order for

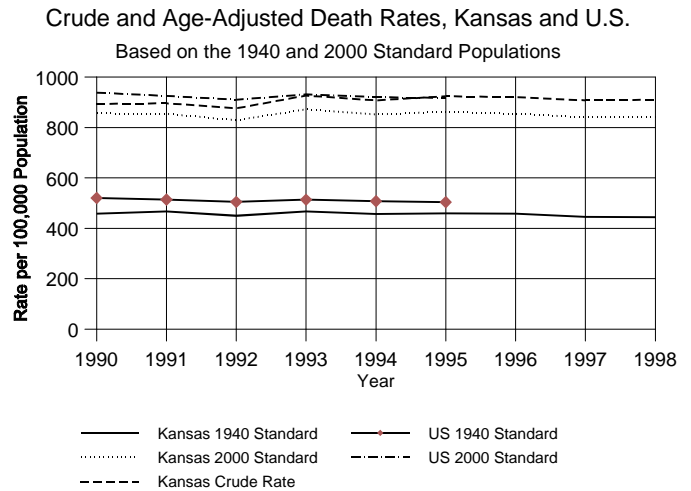


Figure 1

them to be comparable to rates calculated in the future. The advantage will be that Kansas' rates will be comparable to those of the United States and other states, which will be implementing the new standard.

Researchers and pro-program managers should be mindful of these changes as they evaluate ADR.

Joy Crevoiserat  
Vital Statistics Data Analysis

## 1997 BRFSS Study

The KDHE Bureau of Health Promotion has issued *Health Risk Behaviors of Kansans 1997*, summarizing results from the bureau's Behavioral Risk Factor Surveillance System (BRFSS). During the calendar year BRFSS staff surveyed 2,004 individuals.

The findings include:

- ! one-ninth of Kansans (11%) reported their general health as fair or poor;
- ! nine percent reported they lacked health insurance,

### Inside

Age Adjusting to Year 2000 . . . . .	1
BRFSS Notes Health Risks . . . . .	1
Infant Mortality Drops . . . . .	2
Annual Summary Issued . . . . .	2
HIPAA Standards Detailed . . . . .	3
MEPS Survey of Uninsured . . . . .	3
E-coding Needed . . . . .	3
National Hospital Discharge Survey . . . . .	4
1998 FOI Report Issued . . . . .	4
Rural Demographics Changing . . . . .	5
Web Resources . . . . .	5
1999 Provisional Data . . . . .	6

- ! one-fifth (21%) reported having hypertension;
- ! among those who have had blood cholesterol screening, 28 percent reported they had high blood cholesterol;
- ! nearly one-fourth (23%) reported they were current cigarette smokers;
- ! three percent had been told by a doctor they have diabetes;
- ! nearly half (46%) failed to always use a safety belt when they drove or rode in an automobile; and
- ! four percent of Kansans reported they felt sad, blue, or depressed for 14 or more days during the past 30 days.

The report provides public health policy makers with reliable data to formulate intervention strategies, justify resources to support these strategies, evaluate the impact of interventions and programs, and propose new policies or legislation. It's been estimated that 80 percent of the factors leading to premature death can be modified.

To obtain a copy of the report, contact the Bureau of Health Promotion at 785-296-1207.

*Health Risk Behaviors of Kansans 1997  
KDHE Bureau of Health Promotion*

## Infant Mortality Drops in Kansas

The Kansas infant mortality rate – a measure of the number of babies who die before the age of one – was 6.9 deaths per 1,000 births in 1998. This rate, which is identical to the 1995 rate, is the lowest ever recorded for Kansas residents, according to data released by the Center for Health and Environmental Statistics in its 1998 *Annual Summary of Vital Statistics* (see companion article).

The decline in the infant mortality rates for all races has exceeded the target rates set for the year 2000. However, still more Kansas black infants die during their first year of life when compared to white infants.

National research shows the decline in infant mortality is due to in part to the availability of improved obstetric services, special care for newborns, and expectant mothers beginning care during the first three months of pregnancy. The percentage of Kansas women obtaining prenatal care in the first trimester has increased from 80.3% to 85.2% between 1992 and 1998.

The Center will monitor infant mortality declines, especially the black infant mortality rate, to determine whether rates represent the beginning of a trend.

There were 38,372 live births and 263 infant deaths to Kansas residents in 1998. The 1998 rate represents a 6.8 percent decline from the 1997 rate of 7.4 per 1,000 live births and a 64.8 percent decline from the 1968 rate of 19.6.

The 1998 black infant mortality rate of 9.7 for Kansas is the lowest recorded for black infants. The 1998 black infant mortality rate is a 41.2 percent decline from the 1997 rate of 16.5 and a 71.5 percent decline from the 1968 rate of 34.0.

Even though the black infant mortality rate declined, it was still 1.4 times higher than the rate of 6.8 for white infants. The white infant mortality rate increased 3.0 percent in 1998 from the 1997 rate of 6.6. The 1998 white infant mortality rate represents a 63.6 percent decline from the 1968 rate of 18.7.

*Karen Sommer  
Vital Statistics Data Analysis*

## Annual Summary Identifies Health Issues

The *Annual Summary of Vital Statistics*, published by the KDHE Center for Health and Environmental Statistics (CHES), is a summary of data compiled from vital records for the calendar year. It includes data on live births, deaths, fetal deaths, abortions, marriages, and marriage dissolutions documented by certificates and reports filed with CHES.

The annual report found several recent trends continuing into 1998.

Marriages and marriage dissolutions continued a decline that began in the early 1990's. The 20,403 marriages that occurred in Kansas in 1998 represented a 0.7 percent decrease from the previous year. The 10,363 marriage dissolutions (10,010 divorces and 353 annulments) occurring in Kansas decreased 2.4 percent from the previous year.

Teen pregnancy rates declined, continuing a five year trend. The pregnancy rate for females ages 10-19 decreased 8.0 percent from 35.2 pregnancies per 1,000 in 1993 to 32.4 in 1998. Teen pregnancy rates for females ages 10-17 decreased 13.2 percent during this same time frame.

The out-of-wedlock birth ratio has continued an upward trend over the years in both Kansas and the U.S. Out-of-wedlock births comprised 27.8 percent of all live births that occurred to Kansas residents in 1998, a 54.4 percent increase from the 18.0 percent of live births in 1988.

Heart disease continued as the number one cause of death for Kansas residents in 1998, claiming 7,164 lives. Unintentional injury deaths remained the leading cause of death for individuals age 1-44.

The number of HIV/AIDS deaths for Kansas residents declined to 27 in 1998, a 43.8 percent decline from 1997. This figure mirrors a national trend that individuals are living longer with HIV/AIDS.

Requests for single, printed copies of the Annual Summary should be made to the Office of Health Care Information at 785-296-8627. It's also available at <http://www.kdhe.state.ks.us/hci/>.

*Karen Sommer  
Vital Statistics Data Analysis*

## Proposed Standards for Privacy of Individually Identifiable Health Information

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) requires privacy standards be developed to protect health information. The Department of Health and Human Services (HHS) has developed a proposed rule, which would:

- ! allow health information to be used and shared easily for treatment and for payment of health care;
- ! allow health information to be disclosed without an individual's authorization for certain national priority purposes, but only under defined circumstances;
- ! require written authorization for use and disclosure of health information for other purposes, and
- ! create a set of fair information practices to inform people of how their information is used and disclosed, ensure that they have access to information about them, and require health plans and providers to maintain administrative and physical safeguards to protect the confidentiality of health information and protect against unauthorized access.

Entities covered by the proposed rule include:

- ! health care providers who transmit health information electronically;
- ! health plans; and
- ! health care clearinghouses.

Acceptable uses of health information include national priority activities such as:

- ! oversight of the health care system, including quality assurance activities;
- ! public health, and in emergencies affecting life or safety;
- ! research;
- ! judicial and administrative proceedings;
- ! law enforcement;
- ! to provide information to next-of-kin;
- ! for identification of the body of a deceased person, or the cause of death;
- ! for government health data systems;
- ! for facilities' (hospitals, etc.) directories;
- ! to financial institutions, for processing payments for health care; and
- ! in other situations where disclosure is mandated by other laws, consistent with the requirements of those laws.

Although these provisions provide for the use of health information for the reasons listed above, it will become more difficult and more documentation will be necessary to obtain this information. To comply with HIPAA, entities collecting health information will become formal and bureaucratic – requiring greater documentation from users.

Comments on these proposed rules, accepted through February 17, 2000, will be addressed by HHS. Transaction standards are the next hurdle for HIPAA implementation. These standards are being touted as Y2K2. For more HIPAA information, refer to: <http://www.aspe.os.dhhs.gov/admsimp/>.

*Dr. Elizabeth W. Saadi*

*Office of Health Care Information*

## MEPS Surveys Uninsured

Results of the national Medical Expenditure Panel Survey of the Uninsured in America – 1997 showed that during the first half of that year, 16.8 percent of all Americans were uninsured. The Agency for Health Care Policy and Research report noted that among Americans under 65 years of age, more than one third of Hispanics (35%) and 23 percent of blacks were uninsured during the first half of the year, compared with 15 percent of whites.

Young adults ages 19-24 were more at risk of being uninsured than any other age group. More than a third (35%) of young adults were uninsured.

Even though Hispanics represented only 12 percent of the non-elderly population, they accounted for 22 percent of the entire uninsured population.

During the first half of 1997,

among people under age 65, those who were separated from their spouse were more likely to be uninsured (34%) than people of any other marital status.

The uninsured were defined as persons not covered by various government programs or private full-service health insurance programs.

*MEPS Highlights*

Agency for Health Care Policy and Research

## Increasing Awareness of Need for External-Cause-of-Injury Coding in Hospital Discharge Data Systems

In 1998, the Health Care Data Governing Board recognized the need for improved external-cause-of-injury coding (E-coding) in hospital discharge and other data systems. These codes are critical in identifying the cause of an injury rather than the kind of injury. For example, E-codes provide information on whether a leg was broken in a fall from a bicycle or fall from a ladder.

A proposal was approved that was directed toward improving E-code hospital discharge reporting. The Technical Task Force of the Governing Board met a number of times to discuss and analyze the process of E-code data generation and collection.

Discussion indicated that some Kansas hospitals have reported having difficulty including E-codes in the electronic records submitted for billing and abstraction. Problems identified included 1) rejection of all records with E-codes, 2) being required to file paper claims for E-coded records, 3) stripping of the E-code from the record, and 4) differing data requirements from different data processors. In order to understand the process more clearly, members created a flow chart containing data pathways for identification of problem sites. (Figure 2).

The Kansas Hospital Association (KHA) agreed to spearhead the effort to improve E-code reporting to their central database.

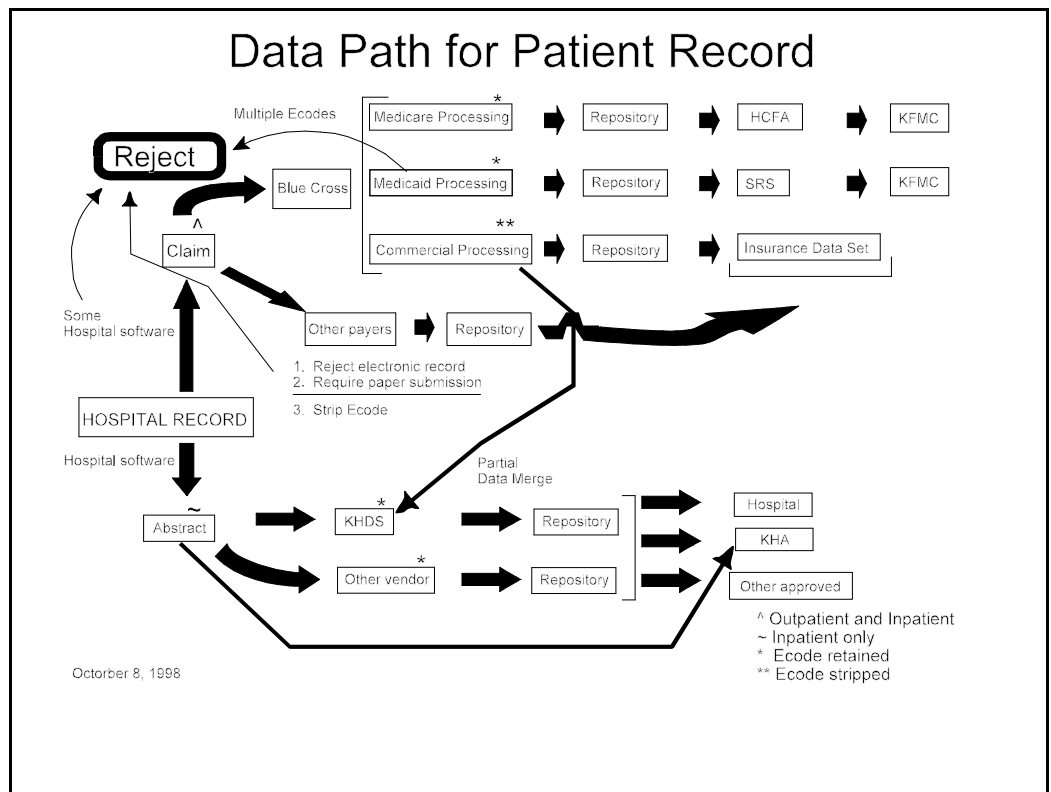


Figure 2

Subsequently, representatives of the Technical Task Force and KHA prepared a pamphlet for distribution to hospital administrators to assist with raising awareness for E-coding data.

The pamphlet indicated the use of E-codes has been endorsed by numerous clinical and medical record professional groups nationwide. A brief policy statement on E-codes of the American Academy of Pediatrics may be found at <http://www.aap.org/policy/333.html>. The pamphlet also cited a 1990 Washington State study stating that the cost of E-coding data is relatively low on a per record basis.

The keying cost is estimated at 75 cents per record, and approximately two additional minutes of staff time is required per record. Furthermore, only about 15 percent of hospital discharges involve an injury which needs an E-code, so not all records require E-coding. KDHE Staff have offered to assist by funding training that might be needed to improve E-coding data efforts.

A recent review of data collected shows that consciousness raising about the need for E-coding may be improving data quality. This data element was evaluated in 1994 data and indicated that only 41% of the records that should have E-codes actually contained them. A more recent review of 1997 discharge data indicated some improvement with approximately 50% of discharges representing injuries containing E-codes. Although improvement is apparent, more is needed. For E-coding, a 90% collection rate is established as the national standard for the most effective use of E-codes.

<sup>1</sup> Rivara, Fredrick P., Peter Morgan, Abraham B. Bergman, and Ronald V. Maier, "Cost Estimates for Statewide Reporting of Injuries by E Coding Hospital Discharge Abstract Data Base Systems", *Public Health Reports in Brief*, November-December 1990, Vol. 105. No. 6, pp. 635-638.

Rachel Lindbloom  
Health Care Data Analysis

## National Hospital Discharge Survey

The National Center for Health Statistics' 1997 Summary: National Hospital Discharge Survey presents national estimates of the use of non-Federal short-stay hospitals in the U.S. Conducted since 1965, the sampling of inpatient records from a national sample of hospitals showed an estimated 30.9 million discharges of inpatients, excluding newborn infants, from short-stay non-Federal U.S. hospitals in 1997. The discharge rate was 1,143.1 per 10,000 population and the average length of stay was 5.1 days. Persons 65 years of age and over accounted for 39 percent of all discharges.

The report does not break out the data to the state level. Numbers and rates of discharges, diagnoses, and procedures are reported by age and sex. Discharges are also shown by geographic region.

Advance Data, Number 308  
National Center for Health Statistics

## US Life Tables Issued

The National Center for Health Statistics has published United States Life tables, 1997. The report uses new methodology that replaces the abridged life table methodology used previously. Life expectancy and other life table values are shown for ages 85 to 100 years for the first time as part of the annual US life tables.

In 1997 the overall expectation of life at birth was 76.5 years, an increase of 0.4 years compared with life expectancy in 1996.

Life expectancy for females was 79.4 years, an increase of 0.3 year from 1996. Life expectancy was 73.6 years for males, a 0.5-year increase from 1996 to 1997. The difference in life

expectancy between the sexes was 5.8 years in 1997, a slight narrowing from the 6.0 year difference reported in 1996.

The report is available at <http://www.cdc.gov/nchs/products/pubs/pubd/nvsr/47-pre/47-pre.htm>.

National Vital Statistics Report  
Vol. 47, No.28

## 1998 CFOI Released

The 1998 Census of Fatal Occupational Injuries (CFOI) will be available to the public during February. In 1998 there were 98 fatal occupational injuries, making it the third highest year since

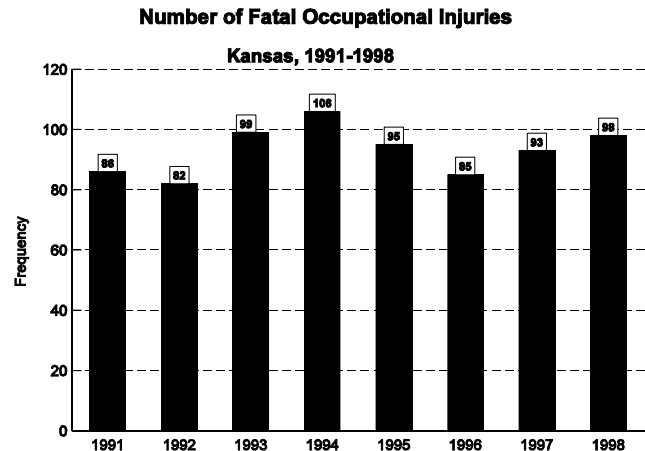


Figure 3

Kansas joined the CFOI program in 1991 (Figure 3). An unusually high number of fatalities in the service industry (12) contributed significantly to the increase in 1998, making this the highest number yet for this industry (Table 1).

The agriculture, forestry, and fishing industry has experienced an increase in the number of fatalities every year for the last four years. In the years 1995 through 1998, this industry experienced 17, 18, 22, and 23 deaths, respectively.

The transportation and public utilities industry experienced a decline from this industry's all time high of 17 fatal occupational injuries in 1997. In fact, 1998 saw the same number of occupational deaths as 1995, an all time low. Only nine workers died on the job in this industry in 1998.

Retail trade work related deaths increased to seven in 1998, breaking a three year decline for this industry. Four of the seven fatalities occurred in eating and drinking establishments.

Vehicles were, once again, the number one source of fatal occupational injuries in 1998, contributing to 46 deaths. Motor vehicles were involved in 36 work related fatalities. Of those 36, eight were automobiles, 24 were trucks, three were passenger or light delivery vans, and one was not publishable. Seven workers were also fatally injured by plant and industrial powered vehicles, five of those accidents involved tractors.

Machinery was the source of injury in 11 work related deaths in 1998. Agricultural and garden machinery were the source of four worker deaths, and construction, logging, and mining machinery were the source of five work related deaths.



Source of Injury	Fatalities	
	Number	Percent
<b>Total</b>	<b>98</b>	<b>100</b>
Chemicals and chemical products	4	4
Containers	4	4
Machinery	11	11
Parts and materials	4	4
Persons, plants, animals, and minerals	5	5
Structures and surfaces	6	6
Tools, instruments, and equipment	4	4
Vehicles	46	47
Other sources	13	13

Table 1

Note: Totals for major categories may include subcategories not shown separately. In order for a source to be considered publishable the category must contain at least 3 fatal injuries. Percentages and numbers may not add up due to rounding and not publishable data.

Structures and surfaces accounted for six work related deaths in 1998. Floors, walkways, and ground surfaces accounted for four of the fatal injuries.

Other sources included 13 fatal occupational injuries. Ammunition was the source identified in three worker's deaths, and atmospheric and environmental conditions were the source in nine worker's deaths in 1998.

For a free copy of this publication please contact Charles Crevoiserat at 785-296-5641 or write to the Kansas Department of Health and Environment, Office of Health Care Information, Occupational Injury Surveillance Section, Landon State Office Building, 900 SW Jackson, Suite 1002 North, Topeka, KS, 66612-1220.

Charlie Sann  
Occupational Injury Surveillance

## Rural America Demographics

Rural America may be the future home of retiring baby boomers. Some surveys indicate as many as 77 million boomers will move to a new community following retirement. Many plan to move to a small town or rural area.

*American Demographics* reports hundreds of rural counties stand a good chance at getting retirees to move in. The Census Bureau reports many of the boomer movers will be wealthy and have a higher education level than those presently retiring.

One demographer expects the "new" West will lead the nation in elderly migrants to rural areas. States with small population, lots of space, and mild climates, like Utah, Alaska, Idaho, Wyoming and Colorado were the top picks.

Florida and Arizona will remain attractive to retirees, but many of the boomers will retire to communities in which they grew up and are familiar – smaller main street America.

*American Demographics, October 1999*

## Electronic Death Registration Planned

State Registrars in the United States are moving in a united front to implement electronic death registration (EDR). Several states have piloted EDR systems. Now, at the request of the Social Security Administration (SSA), the National Association for Public Health Statistics and Information Systems (NAPHSIS), comprised of State Registrars, has begun development of an EDR process that could be implemented nationally.

Once NAPHSIS outlines the EDR process, officials in Kansas and other states where a paper process exists will use the information to implement the electronic collection of death certificate information.

An EDR system would be able to transmit fact-of-death

information from funeral homes to State Registrars and ultimately to SSA within 24 hours and reduce turnaround times for funeral directors and families needing death certificates.

*The Journal  
National Association for Public Health  
Statistics and Information Systems*

## Web Resources

### Pennsylvania Public Health Statistics Technical Notes

One of the toughest challenges in providing statistical data is explaining it so the general public understands and policy makers and interest groups do not inadvertently misuse the results. Reports like the *Annual Summary of Vital Statistics* in Kansas include sections on definitions and technical notes on the data and how it was collected, processed, analyzed, and presented.

One of the most complete technical assistance sections is one maintained by the Pennsylvania Department of Health. The "Tools of the Trade," as they are called, offers detailed summaries of a number of data analyses and statistical measurements.

Concise and written for lay readers, the over 20 web pages are an excellent tool. The pages can be accessed at <http://www.health.state.pa.us/stats>.

*Pennsylvania Department of Health*

### Updated Inventory of Managed Care

The US Centers for Disease Control and Prevention has published an updated list of managed-care related projects at <http://www.cdc.gov/epo/dpram/managedcare/intro.html>. The list describes a wide range of CDC supported studies involving collaboration between public health and managed care communities. Besides summarizing the findings, the inventory provides benchmarks for new project development.

*Centers for Disease Control and Prevention*

### Maps and the Internet

A leader in mapping software, Environmental Systems Research Institute, Inc., has published *Serving Maps on the Internet*, to guide individuals on the wealth of geographic information available on the World Wide Web. Subjects in the publication range from building an Internet-based spatial data library, GIS on every desktop, and public-access GIS. Author Christian Harder laces the book with examples of Internet-based mapping applications and how GIS is used to improve customer service, increase employee efficiency, and inform the public.

*Environmental Systems Research Institute, Inc.*

## Kansas Health Statistics Offers Provisional Vital Data Summaries

This marks the first issue of *Kansas Health Statistics* in which near real time reporting of provisional vital events data is included. On pages 6 and 7, we've published a quarterly summary of births and deaths processed to date for the most recent occurrence year by county of residence. The quarters will generally lag by a few months to make the totals reported as complete as possible.

These data are preliminary and subject to change. Totals reflect only events for which processing has been completed. Incomplete records may not be included.

Users should exercise caution in drawing conclusions from these data. Totals may vary from the final figures eventually published in the *Annual Summary of Vital Statistics*.

1999 Kansas Resident Births and Deaths by Quarter (Provisional)

County	Births					Deaths				
	Q1	Q2	Q3	Q4	YTD	Q1	Q2	Q3	Q4	YTD
Allen.....	37	42	63		142	43	46	53		142
Anderson.....	23	26	32		81	21	21	23		65
Atchison.....	39	46	55		140	50	49	43		142
Barber.....	18	12	14		44	21	20	18		59
Barton.....	97	93	99		289	102	72	77		251
Bourbon.....	49	35	60		144	61	51	44		156
Brown.....	34	33	24		91	34	38	37		109
Butler.....	183	183	204		570	142	118	135		395
Chase.....	17	21	24		62	12	21	9		42
Chautauqua.....	7	6	12		25	12	14	19		45
Cherokee.....	72	61	77		210	74	58	59		191
Cheyenne.....	5	7	4		16	5	5	9		19
Clark.....	8	7	5		20	8	6	16		30
Clay.....	28	22	19		69	37	20	29		86
Cloud.....	26	19	32		77	36	46	28		110
Coffey.....	17	23	30		70	21	24	19		64
Comanche.....	6	3	3		12	12	11	5		28
Cowley.....	111	117	148		376	97	121	115		333
Crawford.....	117	126	156		399	125	114	102		341
Decatur.....	5	4	8		17	11	12	11		34
Dickinson.....	62	47	58		167	74	63	59		196
Doniphan.....	20	21	33		74	21	21	16		58
Douglas.....	295	304	280		879	134	117	115		366
Edwards.....	11	8	11		30	10	13	15		38
Elk.....	7	8	5		20	11	17	21		49
Ellis.....	69	91	104		264	57	58	55		170
Ellsworth.....	14	14	21		49	20	22	15		57
Finney.....	217	215	233		665	53	32	51		136
Ford.....	172	166	167		505	73	71	56		200
Franklin.....	93	86	100		279	69	43	52		164
Geary.....	144	121	176		441	73	42	42		157
Gove.....	6	9	11		26	12	12	10		34
Graham.....	7	8	5		20	6	11	10		27
Grant.....	36	41	49		126	13	12	13		38
Gray.....	24	20	28		72	12	4	9		25
Greeley.....	2	6	4		12	5	3	1		9
Greenwood.....	21	20	18		59	34	32	30		96
Hamilton.....	18	8	11		37	7	9	8		24
Harper.....	19	16	19		54	29	26	27		82
Harvey.....	116	123	110		349	111	83	67		261
Haskell.....	23	19	21		63	10	4	8		22
Hodgeman.....	7	8	7		22	9	7	4		20
Jackson.....	33	44	39		116	32	33	40		105
Jefferson.....	52	49	68		169	51	36	37		124
Jewell.....	9	6	11		26	12	13	16		41
Johnson.....	1,562	1,669	1,708		4,939	722	651	621		1,994
Kearny.....	25	21	28		74	15	6	14		35
Kingman.....	30	19	26		75	34	24	25		83
Kiowa.....	11	8	13		32	11	7	12		30
Labette.....	55	89	75		219	80	67	58		205
Lane.....	2	5	7		14	7	7	11		25
Leavenworth.....	218	213	217		648	150	132	98		380
Lincoln.....	8	6	12		26	15	11	7		33
Linn.....	36	25	23		84	40	33	26		99

1999 Kansas Resident Births and Deaths by Quarter (Provisional)

County	Births					Deaths				
	Q1	Q2	Q3	Q4	YTD	Q1	Q2	Q3	Q4	YTD
Logan.....	10	14	11		35	11	13	7		31
Lyon.....	134	135	130		399	88	59	69		216
Marion.....	30	36	44		110	54	46	34		134
Marshall.....	38	23	21		82	40	34	38		112
McPherson.....	71	77	105		253	95	78	74		247
Meade.....	20	14	20		54	16	10	10		36
Miami.....	95	96	110		301	62	60	49		171
Mitchell.....	16	13	16		45	26	22	31		79
Montgomery.....	100	114	122		336	121	130	103		354
Morris.....	18	17	14		49	18	16	22		56
Morton.....	12	14	12		38	5	7	7		19
Nemaha.....	42	36	41		119	30	30	34		94
Neosho.....	38	48	47		133	51	44	47		142
Ness.....	13	6	7		26	9	8	11		28
Norton.....	13	11	10		34	21	21	23		65
Osage.....	49	50	43		142	53	38	43		134
Osborne.....	11	15	9		35	30	11	13		54
Ottawa.....	24	12	19		55	26	19	24		69
Pawnee.....	25	17	20		62	20	18	21		59
Phillips.....	20	11	18		49	18	16	18		52
Pottawatomie...	55	72	63		190	57	30	33		120
Pratt.....	33	24	28		85	37	28	24		89
Rawlins.....	3	4	6		13	14	12	6		32
Reno.....	218	184	215		617	193	156	162		511
Republic.....	13	11	9		33	33	25	24		82
Rice.....	28	27	28		83	45	32	31		108
Riley.....	237	225	260		722	93	79	81		253
Rooks.....	10	17	19		46	23	14	25		62
Rush.....	6	7	14		27	19	12	12		43
Russell.....	20	15	13		48	38	20	29		87
Saline.....	163	176	183		522	121	97	109		327
Scott.....	14	25	23		62	17	8	20		45
Sedgwick.....	1,815	1,881	1,959		5,655	943	810	775		2,528
Seward.....	125	134	143		402	25	32	33		90
Shawnee.....	573	599	618		1,790	482	389	391		1,262
Sheridan.....	8	7	6		21	13	11	8		32
Sherman.....	13	23	26		62	18	20	18		56
Smith.....	8	5	5		18	21	16	20		57
Stafford.....	15	22	14		51	19	21	14		54
Stanton.....	14	10	8		32	3	3	9		15
Stevens.....	22	22	25		69	9	11	7		27
Sumner.....	77	81	85		243	85	74	58		217
Thomas.....	24	27	26		77	22	20	18		60
Trego.....	8	7	10		25	11	23	14		48
Wabaunsee.....	26	21	23		70	17	21	18		56
Wallace.....	8	9	1		18	5	4	6		15
Washington.....	20	13	18		51	34	21	16		71
Wichita.....	10	8	12		30	2	4	7		13
Wilson.....	37	36	30		103	40	46	39		125
Woodson.....	7	12	14		33	17	13	18		48
Wyandotte.....	671	703	733		2,107	455	379	373		1,207
Total	9,383	9,565	10,203		29,151	6,641	5,700	5,576		17,917

Residence data

Provisional data. May not include all events that occurred in each quarter

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