Kansas Health Statistics Report

Kansas Department of Health and Environment – Division of Health
Bureau of Public Health Informatics – No 42 – August 2009

Disparities Related to Arthritis in Kansas – 2007 Kansas BRFSS

Background

The term 'arthritis' means joint inflammation and is used to describe more than 100 diseases and conditions. Most of these conditions affect joints, the tissues which surround the joint and other connective tissue [1]. These conditions are characterized by pain, aching, stiffness, and swelling in and around joints or elsewhere in the musculoskeletal system [2]. Arthritis is one of the most common chronic diseases and the leading cause of disability in the United States [3]. In the United States, 46 million adults reported having doctor-diagnosed arthritis and 19 million had arthritis-attributable activity limitation [4]. Significant disparities related to arthritis exist at the national level [5].

Healthy People 2010 (HP 2010) provides a framework to assess and monitor arthritis-related issues and is adapted by many states [6]. Elimination of health disparities is one of the two overarching goals of HP 2010. The population-based surveillance information in Kansas shows that arthritis is a highly prevalent chronic disease among Kansans 18 years and older [7]. As arthritis is one of the highly prevalent conditions in Kansas, it is very important to understand the extent of arthritis related-disparities in population subgroups.

Objective

The objective of this article is to explore disparities related to arthritis burden among different population subgroups in Kansas.

Method

2007 Kansas Behavioral Risk Factors Surveillance System (BRFSS) data were used. Kansas BRFSS is an annual population-based random digit dial telephone survey, tracking health conditions and risk behaviors of non-institutionalized adults ages 18 years and older, residing in a private residence with a landline telephone. In Kansas, BRFSS is the only population-based data source for arthritis. Kansas BRFSS defined arthritis as diagnoses including rheumatism, polymyalgia rheumatica, osteoarthritis, tendonitis, bursitis, bunion, tennis elbow, carpal tunnel syndrome, tarsal tunnel syndrome, joint infection, Reiter's syndrome, ankylosing spondylitis; spondylosis, rotator cuff syndrome, connective tissue disease, scleroderma, polymyositis, Raynaud's syndrome and vasculitis. Information for doctor-diagnosed arthritis, age, sex, race, ethnicity, annual household income, education, employment status, disability status, Body Mass Index (BMI) and leisure time physical activity status were examined. Among adults with arthritis, activity limitation experienced (due to arthritis) was also analyzed. Weighted analysis of Kansas BRFSS data was performed using SAS software.

Results

2007 Kansas BRFSS interviewed a total of 8,495 respondents. Out of these, 3,038 respondents reported having doctor-diagnosed arthritis. The weighted survey data estimated that about 1 in 4 adults in Kansas (27.5%) have doctor-diagnosed arthritis.

Table 1. Prevalence of doctor-diagnosed arthritis in adults age 18 years and older by selected demographic characteristics in Kansas, 2007

Population Subgroups (by demographic characteristics)	Prevalence of Doctor-Diagnosed Arthritis		
		95% Confidence Interval	
	Weighted Percentage	Lower Limit	Upper Limit
Age Groups			
18-64 years	21.6	20.4	22.8
65+ years	55.2	53.1	57.4
Gender Groups			
Male	23.5	21.8	25.2
Female	31.3	29.8	32.8
Ethnicity Groups			
Hispanic	12.7	8.9	16.4
Non-Hispanic	28.5	27.3	29.6
Race Groups			
White Only	28.7	27.5	29.9
African American Only	29.2	23.0	35.5
Other Race Only*	14.6	10.8	18.3
More than One Race	20.6	11.5	29.7
Education Status			
Less than High School	30.8	25.9	35.7
High School Graduate or G.E.D.	32.5	30.2	34.8
Some College	28.5	26.4	30.7
College Graduate	22.2	20.5	23.8
Annual Household Income Levels			
Less than $15,000	39.2	33.5	44.9
$15,000-$24,999	33.6	30.1	37.0
$25,000-$34,999	32.2	28.5	36.0
$35,000-$49,999	27.7	24.9	30.4
$50,000+	22.2	20.6	23.8
Employment Status			
Employed for Wages / Self-Employed	20.5	19.2	21.8
Out of Work	21.1	14.0	28.3
Homemaker/ Student	19.9	16.4	23.5
Retired	54.5	52.2	56.7
Unable to Work	59.9	53.3	66.4

*Other race includes Asian, American Indian/Alaska Native, Native Hawaiian or Pacific Islander, or other race.

As shown in table 1, prevalence of arthritis increased significantly with age. More than half (55.2%) of the individuals age 65 years and older reported having arthritis as compared to 22 percent of the adults 18-64 years old. Arthritis affects women disproportionately. Women had higher prevalence of arthritis (31.3%) than men (23.5%). Arthritis prevalence did not vary significantly among different racial subgroups. Prevalence of arthritis was similar between African

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American (29.2%) and white population (28.7%). Ethnic disparity was observed in terms of arthritis. Non-Hispanics (28.5%) had a higher prevalence of arthritis than Hispanics (12.7%). The lower prevalence among Hispanics might be due to younger population distribution. Arthritis prevalence decreased with an increase in education status; however it was not statistically significant. Similarly, annual household income made a difference. An increase in annual household income corresponded to a decrease in arthritis prevalence, which was significant for categories less than $15,000 as compared to more than $50,000 per year. Disparities were seen among different employment subgroups also. About 60 percent of the adults who reported being unable to work had arthritis as compared to 20.5 percent adults who were employed for wages or self-employed.

Table 2. Prevalence of doctor-diagnosed arthritis in adults age 18 years and older by disability status and chronic disease risk factors in Kansas, 2007

Population Subgroups (by disability status and risk factors)	Prevalence of Doctor-Diagnosed Arthritis		
	Weighted Percentage	95% Confidence Interval	
		Lower Limit	Upper Limit
Disability Status			
Living with a Disability	57.4	54.7	60.1
Living without a Disability	19.9	18.8	21.1
Body Mass Index (BMI) Status			
Normal or Underweight (BMI<25)	22.0	20.2	23.8
Overweight (25 ≤ BMI < 30)	27.2	25.3	29.1
Obese (BMI ≥ 30)	35.4	33.0	37.7
Leisure Time Physical Activity Status			
Participated	24.5	23.3	25.8
Did Not Participate	37.5	35.0	40.0

Arthritis prevalence was significantly higher among individuals living with a disability. About 3 in 5 (57.4%) adults living with a disability had arthritis as compared to 1 in 5 (19.9%) adults living without a disability (table 2).

Disparities were observed in relation to the risk factors for arthritis as well. Obesity and lack of physical activities are among modifiable risk factors of arthritis [8]. In Kansas, according to 2007 BRFSS, more than one third (35.4%) of the obese and more than one fourth (27.2%) of overweight individuals had doctor diagnosed arthritis as compared to 22 percent of the normal or underweight adults. Disparity in arthritis prevalence was also observed among subgroups based on leisure time physical activity status. 37.5 percent of individuals who did not participate in leisure time physical activity had arthritis as compared to 24.5 percent of those who participated (table 2).

As shown in Table 3, disparities were observed in relation to other chronic conditions. Arthritis was highly prevalent among respondents having other chronic conditions. In the 2007 Kansas BRFSS, about half of adults with diabetes (51.6%) and hypertension (47.5%), more than one third of adults who were ever tested and had high blood cholesterol (43.8%) and more than one third of adults with current asthma (40.9%) reported having doctor-diagnosed arthritis. About 58 percent of the adults with heart disease (angina, coronary heart disease and heart attack) and 62 percent of the adults with stroke reported having arthritis. Arthritis prevalence was significantly higher among adults with these chronic conditions as compared to adults without them.

Table 3. Prevalence of doctor-diagnosed arthritis among adults age 18 years and older by other chronic conditions in Kansas, 2007

Population Subgroups (by other chronic conditions)	Prevalence of Doctor-Diagnosed Arthritis		
	Weighted Percentage	95% Confidence Interval	
		Lower Limit	Upper Limit
Diabetes			
Present	51.6	47.4	55.7
Absent	25.6	24.4	26.8
Hypertension			
Present	47.5	45.3	49.8
Absent	20.1	18.9	21.3
High Blood Cholesterol (Among those who were ever tested for cholesterol)*			
Present	43.8	41.7	45.9
Absent	26.3	24.8	27.8
Current Asthma			
Present	40.9	35.8	46.0
Absent	26.3	25.2	27.4
Heart Disease (Angina, Coronary Heart Disease and heart attack)			
Present	57.6	53.0	62.1
Absent	25.2	24.1	26.4
Stroke			
Present	61.6	55.4	67.8
Absent	26.6	25.5	27.7

*Prevalence of arthritis among these 2 categories was examined only among those adults who reported having been ever tested for high blood cholesterol.

Table 4. Prevalence of activity limitation experienced among adults who reported having doctor-diagnosed arthritis by selected population subgroups in Kansas, 2007

Selected Population Subgroups Among Adults With Doctor-Diagnosed Arthritis	Prevalence of Activity Limitation Among Adults With Doctor-Diagnosed Arthritis		
	Weighted Percentage	95% Confidence Interval	
		Lower Limit	Upper Limit
Body Mass Index (BMI) Status			
Normal or Underweight (BMI<25)	34.2	30.3	38.1
Overweight (25 ≤ BMI < 30)	32.2	28.9	35.5
Obese (BMI ≥ 30)	43.3	39.7	46.9
Leisure Time Physical Activity Status			
Participated	30.2	27.8	32.5
Did Not Participate	51.1	47.4	54.8
Gender Groups			
Male	34.0	30.6	37.3
Female	38.6	36.1	41.1
Race Groups*			
White Only	36.7	34.5	38.8
African American Only	46.1	35.3	56.9
Other Race Only**	28.0	17.6	38.5
More than One Race	42.8	23.1	62.6

*Due to small number of respondents among racial population subgroups, estimates should be interpreted with caution.
**Other race includes Asian, American Indian/Alaska Native, Native Hawaiian or Pacific Islander, or other race.

As shown in Table 4, arthritis is associated with substantial activity limitation [9]. Arthritis affects the quality of day-to-day life including work, doing household chores and engaging in social or recreational activities. Health-related quality of life is a key out-

come in arthritis [3]. In Kansas, among adults with arthritis, 36.7 percent reported experiencing activity limitation. Disparities were examined among individuals with arthritis who experienced activity limitation by selected population subgroups. Among adults with arthritis, obese individuals showed significantly higher prevalence of activity limitation (43.3%) than overweight (32.2%) and normal/underweight (34.2%) individuals. Among adults with arthritis, prevalence of activity limitation was significantly higher among individuals who did not participate in leisure time physical activity (51.1%) as compared to those who participated (30.2%). The differences in activity limitations among gender and race groups were not statistically significant.

Conclusion

In Kansas, arthritis is a major public health issue. Significant disparities related to arthritis exist among different population subgroups. Older adults, females, African Americans, adults with lower annual household income and lower education, adults living with disability, obese, overweight and physically inactive adults, and those having chronic diseases have a higher prevalence of arthritis. Addressing health disparities is a central focus of strategic plans for Healthy People 2010 and the National Arthritis Action Plan [10]. Based on the above reported results and to align with national level strategies, the Kansas Arthritis Program has directed its statewide efforts toward prevention of arthritis and to addressing associated disparities.

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References

1. http://cdc.gov/arthritis/arthritis/index.htm
2. Kristina A. Theis, Charles G. Helmick, Jennifer M. Hootman. Arthritis Burden and Impact are Greater among U.S. Women than Men: Intervention Opportunities. *Journal of Women's Health*. May 1, 2007, 16(4): 441-453
3. Kelli LD, Frank MA, Carol HG, Debra AH. Health-related quality of life among older adults with arthritis. *Health and Quality of Life Outcomes* 2004, 2:5
4. http://www.cdc.gov/arthritis/data_statistics/index.htm
5. http://www.healthypeople.gov/Document/HTML/Volume1/02Arthritis.htm
6. http://www.healthypeople.gov/About/whatis.htm
7. http://www.kdheks.gov/brfss/index.html
8. Okoro CA, Hootman JM, Strine TW, Balluz L, Mokdad AH. Disability, arthritis, and body weight among adults aged 45 and older. Results from the Behavioral Risk Factor Surveillance System, 2001. *Obesity Research* 2004;12(5):854–861
9. Hootman J, Bolen J, Helmick C, Langmaid G. Prevalence of doctor-diagnosed arthritis and arthritis-attributable activity limitation—United States, 2003-2005. MMWR 2006; 55(40): 1089–1092
10. http://www.cdc.gov/arthritis/misc/disparities.htm

Kansas Infant Mortality Rate Declines Slightly in 2008

The infant mortality rate in Kansas dropped in 2008 to 7.2 deaths per 1,000 live births compared to 7.9 per 1,000 in 2007, according to data released by the Kansas Department of Health and Environment Bureau of Public Health Informatics. The number of infant deaths statewide was 303 in 2008, 30 fewer than in 2007.

"Infant mortality is seen as a critical measurement of the health of a population," said Dr. Jason Eberhart-Phillips, State Health Officer and Director of Health at KDHE. "While last year's rate is an improvement, it remains unsatisfactorily high when compared to rates in many countries around the world. Further, the rate among some populations in the state continues to be disproportionately higher."

The 2008 infant mortality rate for non-Hispanic blacks was almost 13.3 per 1,000 live births, more than twice the 6.2 per 1,000 rate seen in non-Hispanic whites. The 2008 infant mortality rate for women of Hispanic origin was 8.4 deaths per 1,000 live births.

This year's reporting of infant mortality rates in Kansas comes as the Governor's Child Health Advisory Committee created a Blue Ribbon Panel on Infant Mortality to examine the issue closely and propose evidence-based solutions. The panel held its first meeting, July 17 in Topeka. Information on the advisory committee and the panel can be found at: http://www.datacounts.net/chac/.

"Clearly more needs to be done to reduce infant mortality, and this panel of experts has its work cut out for it to find solutions quickly," Dr. Eberhart-Phillips said. "While overall infant mortality rates have declined in the past 100 years, the trend in rates for recent years has been flat and has even increased for some population groups."

KDHE's Division of Health monitors infant mortality and supports programs that promote access to health services for mothers and infants. The division's Bureau of Public Health Informatics calculates the infant mortality rate as part of its preparation of the Annual Summary of Vital Statistics.

Bureau of Public Health Informatics

2009 Primary Care ARNP FTEs Increased

The Kansas Department of Health and Environment Office of Health Assessment (OHA) have completed the 2009 Primary Care Advanced Registered Nurse Practitioners Full-time Equivalency Report.

Health care professional data are critical to the role state government plays in assuring an adequate healthcare professional workforce, identifying healthcare provider shortage areas, evaluating geographic healthcare professional distribution, public health preparedness, recruitment and resource allocation, and preparation of workforce reports for development and planning. Certain federal and state benefits are linked to the designation of shortage areas, including Medicare and Medicaid payment enhancements, eligibility for scholarships, loan repayment assistance, certification of rural health clinics, grants and other advantages. Federal methodology for determination of Health Professional Shortage Areas is expected to change in the near future to add Advanced Registered Nurse Practitioners (ARNPs) to the calculation of full-time equivalency (FTEs) and determination of primary care provider-to-population ratios.

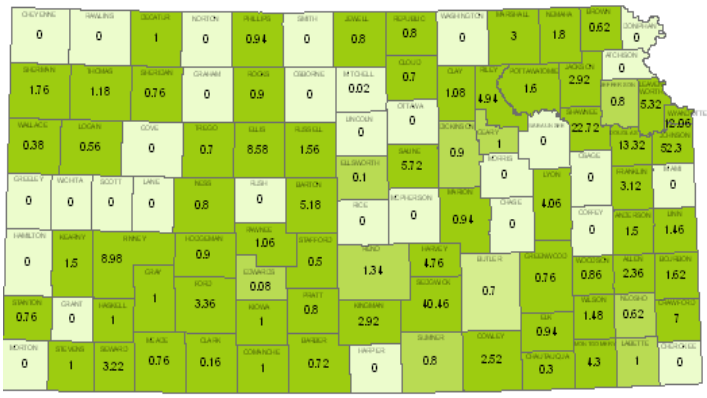
OHA used January 2009 licensure data obtained from the Kansas State Board of Nursing via the Kansas Health Policy Authority (KHPA) and supplemental practice location survey data to prepare the 2009 Primary Care ARNP FTE Report. The report contains information about the total FTEs (ratio of 40 service hours) provided by ARNPs currently engaged in direct patient care in primary care specialties by county.

To prepare the FTE report, 1,700 surveys were distributed to Kansas licensed ARNPs with a total return rate of 61.2%. Among these ARNPs, 908 contained Kansas practice location, practice specialty and service hour information. Of these, 393 ARNPs were identified as Primary Care practitioners, yielding an FTE total of 270.44.

The single previously published primary care ARNP FTE report of 2002, was completed by means of a mailed paper survey and contained 242.4 FTEs. Please see Figure 1 to review the distribution of ARNP FTEs across Kansas counties. Those counties with darker shading have fewer persons per ARNP FTE (receive more service per person); while those counties with lighter shading have more persons per ARNP FTE (receive less service per person).

The unduplicated count of ARNPs increased from 1,409 to 1,795 between 2002 and 2009. Although the number of and demand for ARNPs services has increased, it remains difficult to obtain data necessary to determine FTE distribution across Kansas counties.

Figure 1. Distribution of Kansas Primary Care Advanced Registered Nurse Practitioner (ARNP) FTEs by County, 2009



Ratio of 2008 Adjusted Population to Primary Care ARNP FTEs

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87,932 – 297,350
54.240 – 87,932
15,818 – 54,240
1,880 – 15,818

Adequate primary care access depends on a sufficient supply of primary health care providers. In the case of federal Health Professional Shortage Areas (HPSAs), access is considered inadequate when there is less than one FTE per 3,500 persons. Adequate data collection for the preparation of reliable reports is critical for determination of adequate health care access. It is crucial that survey return rates provide data sufficient to derive accurate FTE calculations. Mandatory reporting incorporated into the annual licensure renewal process is needed in order to assure accurate data collection and report generation.

With the possible change in federal methodology for determination of HPSAs, the implications of incorporating ARNPs into the mix of healthcare professionals used in determination of primary care service access for Kansas are great. There is an increased acceptance and reliance on the "mid-level" providers across the state. It is important that FTE calculations be made with accuracy, since these can affect many of the financial advantages and incentives associated with access to medical services and other benefits listed above that Kansans presently enjoy. Report summaries from the 2009 Primary Care ARNP FTE Report can be obtained by contacting OHA at 785-296-8627.

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As accreditation of state and local health departments nears, attention to these and other essential services and the core competencies will take on a sense of urgency. Community health assessment, though one of a variety of approaches, will be a task many communities will need to undertake.

The methods by which health assessment will be performed are still evolving. There is no one-size-fits all approach, and there is nothing that says that a community must go it alone on health assessment.

One such method was the preparation and publication of the Sedgwick County Health Department Data Book. The April 2009 report is the second such report prepared by the department's Office of Community Health Assessment. The Data Book serves as Sedgwick County's Local Health Status Assessment, one of four assessments recommended by the MAPP process.

Comprised of seven sections focusing on the traditional public health topics like population, morbidity, mortality, natality, access to care, and health indicators, the report provides brief summary tables and simple graphics. It also explores the disparities among population groups in Sedgwick County. Sources for the data included U.S. Census, Kansas Information for Communities, Behavior Risk Factor Surveillance System, KDHE Infectious Disease Reports, Kansas Department of Transportation, and Sedgwick County Health Department programs.

The report has been shared with community clinics in the county who use the data to support their grant writing. The department makes presentations to county commissioners each year on the health status of our community based on the data book. This presentation is usually during National Public Health Week.

The data book is not the end of the assessment process. The department is now beginning to develop issue briefs. It's hoped that these targeted community data reports will drive projects related to those data.

For example, the department is currently collaborating with the University of Kansas Medical Center – Wichita as they explore adolescent health issues. Researchers are looking to see what is known about the community's adolescent health in advance of a launch of a new Adolescent Health Clinic within the residency program.

So, is your community ready for health assessment; how would you implement health assessment in your community; and what barriers are there to the process? These are just a few of the topics open for discussion during a focus group that's being proposed for the administration section meeting of the Kansas Public Health Association Fall Meeting. Stay tuned for the conference materials with more information.

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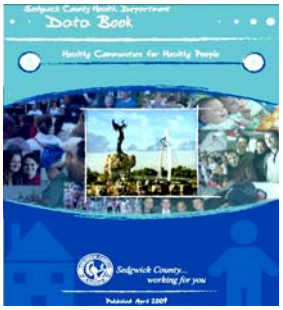
Health Assessment Report Example of Essential Service

Three of the ten essential services in public health – diagnose and investigate health problems and health hazards in the community; evaluate and improve programs; and monitor health status and understand health issues facing the community – call for assessment and evaluation. These competencies are necessary in the world of data-driven public health.



Kansas Births Decline

Births in Kansas declined slightly from 2007 to 2008. The drop in births was from 41,951 to 41,815, a change of 0.3 percent. The highest number of resident births occurred in Sedgwick County with 8,262. The fewest number of resident births occurred in Greeley and Wallace Counties with 14 each. The birth counts are part of the final vital statistics counts issued by the KDHE Bureau of Public Health Informatics and available in Table 5. Population based rates and other descriptive statistics will be included in the Annual Summary of Vital Statistics issued in the next few months.

Table 5. 2008 Kansas Vital Statistics Counts*

County of Residence	Live Births	Deaths	Marriages	Marriage Dissolutions
Kansas	41,815	24,896	18,717	9,818
Allen	183	164	65	32
Anderson	112	96	39	36
Atchison	204	181	115	51
Barber	69	66	49	9
Barton	383	348	180	102
Bourbon	239	199	135	76
Brown	155	120	60	35
Butler	840	548	293	192
Chase	29	35	23	6
Chautauqua	45	69	18	12
Cherokee	295	289	126	82
Cheyenne	22	37	20	8
Clark	26	30	7	6
Clay	100	123	59	27
Cloud	127	148	78	27
Coffey	99	105	53	152
Comanche	15	28	9	6
Cowley	505	407	235	152
Crawford	529	422	217	168
Decatur	16	61	14	7
Dickinson	221	235	133	104
Doniphan	84	79	46	14
Douglas	1,273	549	726	290
Edwards	34	39	16	18
Elk	25	42	16	14
Ellis	385	269	215	94
Ellsworth	50	85	27	51
Finney	791	202	264	116
Ford	724	235	268	110
Franklin	333	245	179	163
Geary	803	208	625	400
Gove	30	39	13	6
Graham	24	43	24	11
Grant	145	51	54	12
Gray	96	51	33	18
Greeley	14	9	4	7
Greenwood	86	104	26	32
Hamilton	43	31	15	8
Harper	74	93	44	23
Harvey	466	349	240	91
Haskell	77	32	26	3
Hodgeman	23	18	11	9
Jackson	175	154	81	30
Jefferson	196	159	73	36
Jewell	26	44	15	19
Johnson	7,843	3,358	2,871	1,002
Kearny	59	39	23	6
Kingman	91	89	43	25
Kiowa	23	34	8	4
Labette	294	293	100	104
Lane	19	30	6	13
Leavenworth	961	526	427	279
Lincoln	39	46	16	9
Linn	114	131	38	27
Logan	20	39	17	5
Lyon	494	258	233	82
Marion	123	179	60	45
Marshall	131	110	47	46
McPherson	381	376	200	103
Meade	66	50	30	7
Miami	392	269	179	114
Mitchell	69	102	39	29
Montgomery	504	478	249	137
Morris	58	78	27	15
Morton	43	36	15	10
Nemaha	122	139	62	40
Neosho	217	210	108	61
Ness	35	46	12	9
Norton	41	75	26	34
Osage	203	182	72	83
Osborne	43	63	27	11
Ottawa	58	71	31	9
Pawnee	71	83	36	31
Phillips	58	75	44	16
Pottawatomie	340	152	65	35
Pratt	142	116	79	43
Rawlins	22	50	9	8
Reno	851	692	441	327
Republic	53	68	38	18
Rice	116	140	64	29
Riley	1,061	317	723	197
Rooks	52	75	27	17
Rush	31	48	15	18
Russell	84	96	48	20
Saline	846	583	406	204
Scott	71	47	39	9
Sedgwick	8,262	3,836	3,793	2,596
Seward	561	137	199	82
Shawnee	2,566	1,756	1,179	487
Sheridan	32	33	17	8
Sherman	86	72	45	20
Smith	35	75	14	11
Stafford	49	56	26	11
Stanton	43	19	16	8
Stevens	86	43	25	23
Sumner	333	270	137	73
Thomas	108	94	53	36
Trego	30	41	13	13
Wabaunsee	83	58	33	19
Wallace	14	17	7	3
Washington	57	76	34	13
Wichita	25	20	20	7
Wilson	136	135	56	53
Woodson	27	66	13	11
Wyandotte	2,850	1,402	1,068	198

* Residence Data are presented for births and deaths
Occurrence Data are presented for Marriages and Marriage Dissolutions

Source: Kansas Department of Health & Environment
Bureau of Public Health Informatics

Center Becomes Bureau

The Center for Health and Environmental Statistics has become the Bureau of Public Health Informatics. The change was made as the department incorporates a health informatics model within its operations. The Offices of Health Assessment and Vital Statistics remain a part of the Bureau. The Bureau will continue to work with partners on health data issues.

The Office of Assessment (OHA) of the Kansas Department of Health and Environment's Bureau of Public Health Informatics produces *Kansas Health Statistics Report* to inform the public about availability and uses of health data. Material in this publication may be reproduced without permission; citation as to source, however, is appreciated. Send comments, questions, address changes and articles on health data intended for publication to: OHA, 1000 SW Jackson, Suite 130 Topeka, KS, 66612-1354, Kansas.Health.Statistics@kdheks.gov, or 785-296-8627. Roderick L. Bremby, Secretary KDHE; Jason Eberhart-Phillips, State Health Officer and Director, Division of Health; Elizabeth W. Saadi, PhD, Interim Director, BPHI, and Acting State Registrar; Elizabeth W. Saadi, PhD, Director, OHA; Greg Crawford, Editor.

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