Status of Caregiving in Kansas, 2017 KS Behavioral Risk Factor Surveillance System

Background

Caregivers providing regular care or assistance to a family or friend with health illnesses or disability conditions are a critical resource and a crucial component of long-term care [1]. Healthy People 2030 has two developmental objectives addressing increased surveillance of caregivers and needs that are unmet for caregiving support services [2]. In 2017, Kansas included ten questions caregiver module for the first time to examine burden and related information about caregivers.

Objective

The objective of this analysis is to examine the status of caregivers, related information about caregivers and its recipients, and demographic factors among Kansas adults 18 years and older.

Methods

The 2017 Kansas BRFSS data were used for this report. Kansas BRFSS is an ongoing, annual, population-based, random, digit-dial survey of non-institutionalized adults ages 18 years and older living in a private residence with landline and/or cell phone service in Kansas. Kansas BRFSS uses a split questionnaire design. The core section is asked of all respondents, and the survey then splits into two "branches" (version A or version B) consisting of state-selected optional modules/state-added modules. Approximately half of the respondents that are asked core questions are randomly assigned to either questionnaire version A or questionnaire version B of the survey. Caregiving module was part of questionnaire version A of the survey. Data from the 2017 Kansas BRFSS were analyzed to assess the prevalence of caregivers; relationship with the care recipient; amount of care; the types of assistance; recipient's illness type; most needed support services for caregivers; and the percent of adults who expect to be caregivers in two years. Descriptive analyses were conducted, prevalence estimates and 95% confidence intervals (CI) were calculated. All analyses were performed using SAS version 9.4 survey procedures to account for complex sample design and unequal selection probabilities.

Results

Approximately one in five (19.3%) of Kansas adults ages 18 years and older are caregivers.

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About one in seven non-caregivers expect to become caregivers within two years. A higher percentage of caregivers were women (59.7%), and adults aged 55 years old or older (47.7%). About 28.4% of caregivers are caring for a parent, 19.9% for a spouse, 13.1% for a non-relative or family friend, and 11.9% for a child. (Table 1).

Table 1.Caregiver and care recipient related characteristics in Kansas, 2017 BRFSS			
	Unweighted Frequency	Weighted Percentage	95% CI
Caregiver Gender			
Men	695	40.3	37.5-43.1
Women	1184	59.7	56.9-62.5
Caregiver Age			
18-24 years	54	6.9	5.0-8.8
25-34 years	121	11.2	9.0-13.4
35-44 years	220	15.8	13.5-18.1
45-54 years	303	18.4	16.2-20.6
55-64 years	514	22.8	20.6-24.9
65 years and older	667	24.9	22.8-27.0
Caregiver relationship to care recipient			
Parent (Mother/Father)	513	28.4	25.7-31.0
Spouse (Husband/Wife)	404	19.9	17.7-22.0
Non-relative/Family friend	265	13.1	11.2-14.9
Child	216	11.9	10.0-13.7
Brother or brother-in-law/Sister or sister-in-law	156	8.4	6.7-10.0
Parent-in-law (Mother-in-law/Father-in-law)	110	5.5	4.3-6.6
Other relative	101	6.4	4.9-7.9
Grandparent (Grandmother/Grandfather)	51	4.0	2.8-5.2
Grandchild	23	0.8	0.4-1.2
Same-sex partner/Unmarried Partner	22	1.8	0.7-2.9
Length of Care			
Less than 30 days	336	19.6	17.2-21.9
1 month to less than 6 months	207	11.4	9.4-13.5
6 months to less than 2 years	351	18.4	16.3-20.6
2 years to less than 5 years	384	20.6	18.2-22.9
5 years or more	562	30.0	27.4-32.6
Hours of care per week			
Up to 8 hours per week	1097	63.0	60.1-65.8
9 to 19 hours per week	177	10.6	8.6-12.5
20 to 39 hours per week	175	10.4	8.7-12.2
40 hours or more	282	16.0	14.0-18.1

See table footnote on next page

Table 1 (cont.) Caregiver and care recipient related characteristics in Kansas, 2017 BRFSS			
	Unweighted Frequency	Weighted Percentage	95% CI
Care recipient's main health problem			
Old age/infirmity/frailty	230	10.8	9.2-12.4
Dementia and other Cognitive Impairment Disorders such as Alzheimer's disease	177	8.7	7.2-10.2
Cancer	137	8.5	6.8-10.2
Heart Disease, Hypertension	132	7.9	6.3-9.5
Injuries, including broken bones	129	7.9	6.2-9.6
Arthritis/Rheumatism	91	5.2	3.9-6.5
Diabetes	83	5.1	3.9-6.3
Mental Illnesses, such as Anxiety, Depression, or Schizophrenia	77	4.8	3.5-6.2
Chronic respiratory conditions such as Emphysema or COPD	77	4.2	3.1-5.3
Developmental Disabilities such as Autism, Downs Syndrome, and Spina Bifida	74	4.4	3.2-5.7
Other organ failure or diseases such as kidney or liver problems	38	2.1	1.3-2.9
Asthma	10	1.0	0.1-1.8
Substance Abuse or Addiction Disorders	7	0.5	0.0-0.1
Human Immunodeficiency Virus Infection (HIV)	*	*	*
Other	505	28.8	26.1-31.5
Caregivers most unmet support services need			
Help in getting access to services	117	6.8	5.3-8.3
Respite care	57	2.8	2.0-3.6
Individual counseling to help cope with giving care	27	1.9	1.1-2.8
Support groups	30	1.6	0.9-2.4
Classes about giving care, such as giving medications	21	1.5	0.6-2.4
Don't need any of these support services	1519	85.3	83.2-87.5

* Insufficient sample
95% CI=95 percent Confidence Interval
Source: 2017 Kansas Behavioral Risk Factor Surveillance System, Bureau of Health Promotion, KDHE.

More than half of caregivers (50.5%) have provided care for at least two years and more than one in four caregivers (26.4%) have provided care for at least 20 hours per week. Care is given for a variety of recipient conditions. The most common conditions are: 10.8% give due to old age, 8.7% due to dementia and other cognitive impairment disorders, and 8.5% due to cancer. About 49.5% of caregivers assist with managing

personal care (giving medications, feeding, dressing, or bathing), and 77.8% assist with managing household tasks (cleaning, managing money, or preparing meals). Among those that reported not currently getting support services they need the most; help in getting access to services was the most necessary unmet support service, followed by respite care, counseling, support groups, and classes about giving care. (Table 1)

Conclusion

These findings from the data provided the caregiving burden, and their support services need in Kansas. This population-based information indicated providing information, education and support for caregivers are currently needed. The planning to address caregiver burden and needs will improve the health outcomes for caregivers and the recipient needing care and may help lower public health and social service costs.

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# Infant Mortality 2017 Report Released

Introduction

The Kansas Department of Health and Environment's Bureau of Epidemiology and Public Health Informatics has released Selected Special Statistics, Stillbirths and Infant Deaths, 2017, which summarizes vital records data on stillbirths and infant mortality. Infant mortality is an important indicator of community health. It is associated with a variety of factors such as economic development, general living conditions, social well-being where basic needs are met, rates of illness such as diabetes and hypertension, and quality of the environment [1]. The purpose of this report is to move beyond single-year statistics reported in the Annual Summary of Vital Statistics and provide a more long-term view of stillbirth and infant mortality data and statistics. To increase data reliability, years are combined. Trends are evaluated using 20 years.

Selected Findings

- In the last century, the Kansas single year infant mortality rate (IMR) has decreased dramatically from 73.5 deaths per 1,000 live births in 1912 (2,795 infant deaths) to 6.0 in 2017 (217 infant deaths).
- In the last 20 years (1998-2017), the IMR fluctuated from 6.7 in 2003, then reaching a high of 7.9 in 2007, and an overall low of 5.9 in 2015 and 2016. The IMR has been significantly decreasing since 2007.

- The Kansas single-year IMR in 2017 (6.0 deaths per 1,000 live births) increased 1.7 percent from 5.9 in 2016. The Kansas rate met the Healthy People 2020 (HP2020) objective of 6.0 deaths per 1,000 live births. The white non-Hispanic population IMR (4.7) met the HP 2020 target while the Hispanic IMR (7.2) and the black non-Hispanic IMR (11.8) did not.
- A population group comparison over 20 years based on five year moving averages shows the black non-Hispanic IMR has remained over twice that of the white non-Hispanic population, with an average disparity ratio of 2.5 (Figure 1).

Figure 1. Five-Year Average Infant Mortality Rates by Population Group of Mother, Kansas 1998-2017
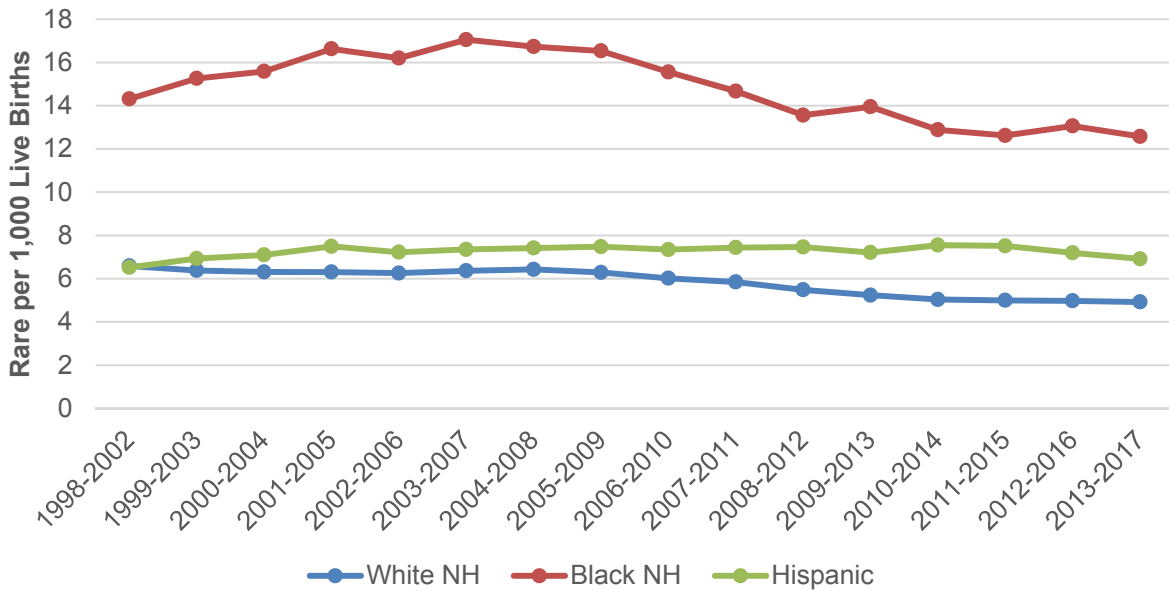
Cause of Death

The leading underlying cause of infant mortality (2013-2017) was congenital anomalies (23.3%), followed by prematurity or low birth weight (18.8%), SUID or sudden unexplained infant death (18.6%), and maternal factors and complications (9.6%).

County Rates

The counties with the highest number of infant deaths in the 2013-2017 cohort included Sedgwick (250), Johnson (154), Wyandotte (94), and Shawnee (88). These four counties accounted for half (50.4 percent) of all infant deaths.

The counties with the highest reliable (RSE ≤ 30%) infant mortality rates, included Reno (9.3 infant deaths per 1,000 live births), Butler (8.5), Harvey (8.4), Labette (8.2), and Shawnee (7.8); while the counties with the lowest (reliable) non-zero rates were Johnson (4.2), Riley (5.1), Crawford (5.3), Saline (5.5), and Geary (5.7). Infant death rates were not significantly different among Frontier, Rural, Densely-Settled Rural, Semi-Urban, or Urban peer groups.

Risk Factors-Linked Birth and Death Files (Death Cohort)

Analysis of the linked file revealed that low birthweight or prematurity were important risk factors for infant death even when the primary cause of death was not prematurity or low birthweight.

The 2013-2017 premature infant mortality rate of 42.3 deaths per 1,000 live births was over 23 times higher than the rate for infants born at term (1.8 deaths per 1,000 live births). The infant mortality rate for very premature infants was 199.0 deaths per 1,000 live births, approximately 110 times higher than infants born at term.

Additional notable risk factors for infant mortality were no prenatal care (5.1% of linked deaths) or starting prenatal care in the second trimester (17.3%), multiple births (13.4%), mothers who smoked during pregnancy (20.6%), out-of-wedlock births (49.3%), and Medicaid pay source (43.0%) or self-pay source (6.7%).

The full report can be found at: http://www.kdheks.gov/phi/index.htm.

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Reference

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Status of Serious Psychological Distress Among Kansas Adults: Kansas Behavioral Risk Factor Surveillance System, 2017

Background

Mental illness impacts millions of Americans across all demographics, affecting their thinking, feeling, mood, ability to relate to others, and daily functioning [1]. An estimated 18.3% of all U.S. adults experienced some type of mental illness in 2016 [2]. Serious mental illness (SMI), like major depression and schizophrenia, which interferes with major life activities, affects more than 10 million adults nationwide [2]. The economic cost associated with mental illness in the U.S. is huge. It is projected that mental health treatment spending will increase from $147 billion in 2009 to $239 billion by 2020 [3]. Serious psychological distress (SPD) is a measure obtained from the Kessler 6 Psychological Distress Scale (K6) that has been demonstrated as being significantly related to SMI, thus it is often used as a proxy indicator of probable SMI in a population [4].

Objective

The objective of this analysis is to examine the prevalence of SPD among adults aged 18 years and older by selected sociodemographic characteristics in Kansas. Also, the prevalence of chronic conditions among adults with SPD compared with adults without SPD will be examined.

Methods

Data from the 2017 Kansas BRFSS were analyzed to assess the prevalence of SPD among Kansas adults aged 18 years and older in various population subgroups. Further, the prevalence of chronic conditions among adults with SPD was compared with adults without SPD. The K6 measures levels of psychological distress by asking respondents how often in the last 30 days they experienced symptoms of psychological distress including feeling 1) nervous, 2) hopeless, 3) restless, 4) depressed, 5) like everything was an effort, and 6) worthless. Each response was scored on a five-point scale that indicates the frequency of the item, with responses from 0 (none of the time) to 4 (all of the time). The sum score from 0-24 was then used to classify SPD as having a total of 13 or greater. Prevalence estimates and 95% confidence intervals (CI) were calculated. Weighted analysis procedures were applied using SAS 9.4 software.

Results

An estimated 96,720 (4.4%) Kansas adults have SPD (Table 1). Higher prevalence of SPD was seen among females, adults aged 18-24 years, those with lower levels of education, those with lower annual household income, those living with a disability and those who were uninsured. The prevalence of SPD was also higher among those who were unable to work (21.5%) and out of work (11.3%) than among those who were employed for wages or self-employed (2.6%). Higher prevalence was also seen among those who were divorced or separated (8.4%) compared with those who were married or were a member of an unmarried couple (2.7%).

Table 1. Prevalence of Serious Psychological Distress among adults aged 18 years and older by sociodemographic characteristics in Kansas, 2017 Kansas BRFSS			
	Serious Psychological Distress (K6 score ≥ 13)		
Sociodemographic Characteristic	**Weighted Percentage**	**Lower 95% CL**	**Upper 95% CL**
Total	4.4%	3.8%	5.0%
Gender			
Male	3.4%	2.7%	4.2%
Female	5.4%	4.5%	6.3%
Age Group			
18-24 years	8.9%	6.2%	11.6%
25-34 years	3.8%	2.5%	5.1%
35-44 years	5.3%	3.6%	6.9%
45-54 years	4.6%	3.2%	5.9%
55-64 years	3.8%	2.9%	4.8%
65 years and older	1.8%	1.3%	2.4%

See table footnote on next page.

Table 1. (Cont.) Prevalence of Serious Psychological Distress among adults aged 18 years and older by sociodemographic characteristics in Kansas, 2017 Kansas BRFSS			
	Serious Psychological Distress (K6 score ≥ 13)		
Sociodemographic Characteristic	Weighted Percentage	Lower 95% CL	Upper 95% CL
Race/Ethnicity*			
White, Non-Hispanic	5.2%	2.5%	7.9%
African American, Non-Hispanic	3.6%	1.4%	5.8%
Other†/Multi-Race, Non-Hispanic	4.5%	3.8%	5.2%
Hispanic	6.8%	3.7%	9.8%
Education			
Less than high school	11.3%	7.6%	15.0%
High school graduate or G.E.D.	5.4%	4.2%	6.5%
Some college or technical school	4.0%	3.1%	4.9%
College graduate	1.9%	1.3%	2.4%
Employment Status			
Employed for wages or self-employed	2.6%	2.0%	3.2%
Out of work	11.3%	6.8%	15.8%
Retired	1.8%	1.2%	2.5%
Unable to work	21.5%	17.2%	25.9%
Homemaker or Student	6.5%	4.1%	9.0%
Annual Household Income			
Less than $15,000	15.9%	11.8%	20.0%
$15,000-$24,999	8.0%	6.1%	9.9%
$25,000-$34,999	5.6%	3.4%	7.7%
$35,000-$49,999	2.9%	1.6%	4.1%
$50000 or higher	1.6%	1.0%	2.2%
Marital Status			
Married/ member of an unmarried couple	2.7%	2.1%	3.3%
Divorced/Separated	8.4%	6.5%	10.4%
Widowed	4.1%	2.8%	5.4%
Never Married	6.9%	5.1%	8.7%
Disability Status			
Living with a disability	13.2%	11.3%	15.1%
Living without a disability	1.3%	1.0%	1.7%
Insurance Status			
Insured	3.8%	3.2%	4.4%
Uninsured	9.0%	6.6%	11.4%

CL = confidence limit
* Prevalence estimates for race and ethnicity were age-adjusted to the U.S. 2000 standard population.
† Other non-Hispanic group includes non-Hispanic American Indian or Alaskan Native, non-Hispanic Asian, non-Hispanic Native Hawaiian or other Pacific Islander.
Source: 2017 Kansas Behavioral Risk Factor Surveillance System, Bureau of Health Promotion, KDHE.

Compared with adults without SPD, adults with SPD had a higher prevalence of COPD (17.3% versus 6.1%), diabetes (17.7% versus 10.3%), kidney disease (8.3% versus 2.5%), coronary heart disease (8.5% versus 3.9%), heart attack (9.0% versus 3.9%) and stroke (7.4% versus 2.7%) (Table 2).

Table 2. Prevalence of selected chronic conditions among adults aged 18 years and older with and without Serious Psychological Distress, KS BRFSS 2017						
	COPD	Diabetes	Kidney Disease	Coronary Heart Disease	Heart Attack	Stroke
	% 95% CI	% 95% CI	% 95% CI	% 95% CI	% 95% CI	% 95% CI
Serious Psychological Distress (K6 score ≥ 13)	17.3 12.6-21.9	17.7 13.2-22.1	8.3 5.0-11.6	8.5 5.5-11.5	9.0 5.8-12.2	7.4 4.5-10.3
Without Serious Psychological Distress (0 ≤ K6 score ≤ 12)	6.1 5.5-6.6	10.3 9.6-11.1	2.5 2.2-2.9	3.9 3.5-4.3	3.9 3.5-4.3	2.7 2.3-3.1

%= Weighted percentage.
95% CI=95 percent confidence interval.
COPD=Chronic obstructive pulmonary disease
Source: 2017 Kansas Behavioral Risk Factor Surveillance System, Bureau of Health Promotion, KDHE.

Conclusion

Nearly one in twenty Kansas adults lives with SPD. Disparities among those with SPD exist within various sociodemographic subgroups. Higher percentages of adults with several chronic conditions were seen among adults with SPD as compared with adults without SPD. This population-based information indicates the need for public health strategies to address issues related to SPD and disparities in population subgroups in Kansas.

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Updates & Announcements

Kansas Health Matters Updated

During January & February 2019, several indicators within the Kansas Health Matters (KHM) system were updated with the most current information available. These indicators include Mortality, Years of Potential Life Lost (YPLL), Natality, Medicare 65 Part D Beneficiaries of Opioid Prescriptions and BRFSS information.

In January, CDC 500 Cities indicators were updated with the most recently released data! The update includes 2015 and 2016 time periods. The 500 Cities Project, first released in 2016 as a collaboration between CDC, the Robert Wood Johnson Foundation, and the CDC Foundation, reports city and census tract-level data for 28 chronic disease measures for the 497 largest cities in the United States.

Claritas Demographics and the SocioNeeds Index were updated with the 2019 population estimates.

New and updated KHM indicators are available for use at http://www.kansashealth matters.org/.

KIC Website Offers Emergency Department Data

The Kansas Department of Health and Environment (KDHE) has added a new dataset to its online health data query tool, Kansas Information for Communities (KIC). Emergency department data from the state's general hospitals is now available on the KIC page.

Using KIC, individuals and policy makers will be able to see the diagnoses that bring almost 900,000 residents to emergency departments at Kansas hospitals," said KDHE Acting Secretary and State Health Officer Lee A. Norman, M.D. "This information can provide an insight into the injuries and illnesses affecting Kansans, many of which are preventable."

Using the KIC emergency department data, individuals will be able to produce statistics on the number of ED visits by county, race, ethnicity, sex and various diagnosis categories. The diagnosis codes are grouped using a clinical classification software developed by the Agency for Healthcare Research and Quality. The same categories are used in the hospital discharge or inpatient diagnoses that are reported in the KIC hospital discharge query tool.

KIC can produce counts, rates and age-adjusted hospital ED or inpatient rates. Other datasets contained in KIC include hospital discharge procedures, births, deaths, pregnancies, cancer and population. Data used in KIC is deidentified with some small counts or unreliable rates suppressed. The KIC web site also hosts a variety of other statistics, data and resources. The URL is http://kic.kdheks.gov.

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