

Background

According to the United States 2010 census, Kanawha County, West Virginia has a population of 193,063 living in 92,618 housing units and has a population density of 214.1 persons per square mile. In Kanawha County 89.1% of persons self-identified themselves as white and 7.3% self-identified as black. High school graduates comprise 85.9% of the population over 25 and 23.4% have a college degree. An estimated 13.7% of persons live below the poverty level in the county.

On May 21-22, 2012, the Kanawha-Charleston Health Department (KCHD) in collaboration with the West Virginia Department of Health and Human Resources (WVDHHR) conducted a county-wide household needs assessment using the Centers for Disease Control and Prevention (CDC) Community Assessment for Public Health Emergency Response (CASPER) toolkit. The objectives of the needs assessment were:

- Estimate the extent of emergency preparedness at the household level;
- Characterize the sources of information most likely to reach a large proportion of households in an emergency;
- Identify the proportion of households which have a resident with chronic medical diseases or conditions who would require special needs during an emergency event;
- Estimate the proportion of households which have a resident with limited access to medical, dental, mental health and substance abuse services;
- Characterize the level of concern regarding tobacco, alcohol and selected illicit drug use in the community;
- Characterize the reasons public shelters would not be used during an emergency;
- Characterize the proportion of households which have a resident that received an influenza vaccine in the past year, including age and place of vaccine administration.

Methods

Questionnaire Development

Questionnaire was developed by a team of epidemiologists at West Virginia Department of Health and Human Resources (WVDHHR). Questions were reviewed for relevancy by DHHR, local health departments and personnel from the CDC. The survey instrument was pilot-tested and revised based on pilot test results. In addition, KCHD developed five supplemental questions based on topic areas that were not covered in the core questionnaire but that they had an interest in collecting data. The final questionnaire is attached as an appendix.

Sampling Scheme

The household sampling scheme was developed by personnel at the University of North Carolina at Chapel Hill. Community Assessment for Public Health Emergency Response (CASPER) methods were followed. First, a sample of 40 clusters (census blocks) was randomly selected using the method of sample with replacement, with probability proportional to the estimated number of occupied

households. In the second stage, seven randomly generated global positioning system (GPS or latitude and longitude) waypoints were generated as starting points for the household survey. For Kanawha County, three clusters were selected twice during the first stage of sampling leading to a total of 37 selected clusters. For these clusters, 10 randomly generated GPS waypoints were selected. A total of 200 households were intended to be included in the sample.

Data Collection

Data were collected by trained interviewers from WVDHHR and KCHD on May 21-22, 2012. Fifteen teams of two interviewers conducted the household survey in Kanawha County. Each team was responsible for interviewing 5-10 households in two to three clusters. Interview teams went to the household closest to each of the randomly generated GPS waypoints and attempted an interview of a person in the household ≥ 18 years of age. If no household member agreed to an interview, the interview team attempted the interview at the next closest house. The process was continued until the interview team made contact with a resident household member aged 18 or older and an interview was initiated; or until all possible households in the vicinity of the GPS waypoint had been visited.

Data Analysis

The response (contact) rate was calculated as the number of surveys completed divided by the number of homes visited and the cooperation rate was calculated as the number of surveys completed divided by the number of homes where contact was made. The completion rate was calculated as the number of completed surveys divided by the goal number of interviews (200). The numerator for all three rates included both completed and partially completed surveys.

Data were entered and analyzed in Epi Info 7. Interview forms were checked against the Epi Info database and all identified data entry errors were corrected. Data were weighted based on the number of completed surveys obtained. The value for the weight was calculated as follows:

$$\text{WEIGHT} = \frac{\text{(Total number of housing units in sampling frame)}}{\text{(number of housing units interviewed within cluster)} * \text{(number of clusters selected)}}$$

WEIGHT = (number of housing units interviewed within cluster)*(number of clusters selected)

Weighted and unweighted proportions and 95% confidence intervals were calculated and displayed for each variable.

Results

A total of 200 homes (37 clusters of 5-10 homes) were included in the sample for the survey. Interview teams visited a total of 499 homes on May 21-22, 2012, made contact with someone at 266 homes, and conducted interviews at 181 homes; for a response (contact) rate of 36% and a cooperation rate of 68%. The completion rate was 91% (181/200).

Data on household characteristics are shown in Table 1. Most homes were single-family dwellings (74.3%), followed by multi-unit homes (15.3%). The majority of homes (72.4%) had 2-4 residents; with 18.5% of homes occupied by 1 resident; and 9.1% of homes occupied by 5 or more residents. The highest educational level in the household was a bachelor's or advanced degree for 37.1% of households; followed by high school graduate or equivalent for 32.0% of households.

Household members were asked how their household would be able to respond during an emergency affecting the community for 24 hours or more (Table 2a). Sixty-two percent of households reported that they have a plan for where everyone in the household would go during such an emergency. Access to a vehicle was high with 88.3% of households reporting that a personal vehicle was the main source of transportation and 92.2% reported that they would have access to a vehicle during an emergency. Households were more likely to report access to a 3-day supply of non-perishable food than a 3-day supply of water for every member of the household (89.5% versus 53.1%).

Fifty-seven percent of households reported having pets. Of these, 76% responded that they knew how they would care for their pets during an emergency and 85.6% have access to a 3-day supply of food and water for their pets. Few households (1.7%) reported having livestock.

Almost 20% of households have a working generator and 57.9% of households have a back-up heat source (Table 2a). While 95.4% of households reported having a working smoke detector, 69.4% reported having a working fire extinguisher and only 20.8% reported having a working carbon monoxide detector.

Television was most frequently (69.4%) reported as the primary source of information during an emergency from Kanawha County household respondents (Table 2b). Other reported sources of information during an emergency included telephone (8.9%), radio (8.0%), texting (5.4%), and Internet (5.1%). A small percentage (2.0%) of households also reported that they would rely on word of mouth communication for information during an emergency. Household respondents perceived rain/thunder storms (55.4%) as the most likely disaster to affect their community. Winter storms (43.8%) and chemical spills (40.4%) were also frequently reported as disasters of concern.

Kanawha County households were asked about household members with chronic medical conditions (Table 3). Diabetes, heart disease, and lung disease affect someone in 31.7%, 22.8% and 18.0% of households, respectively. The most common special need identified in this survey was impaired mobility. Sixteen percent of households have someone who needed a walking aid or wheelchair or have someone confined to bed. Fewer than 10% of households have a member who required oxygen, insulin, or in-home medical care. No households reported someone receiving dialysis.

More than 80% of households reported that all household members have a regular medical provider; however, 7.6% of households reported inability to access needed medical services within the past 12 months. In 20.3% of households, a household member was unable to obtain needed dental services

within the last 12 months. Lack of access was most commonly due to lack of medical or dental insurance (Table 4a). Lack of access to mental health or substance abuse services within the past 12 months was also reported by a small number of households (Table 4b).

Kanawha county residents generally did not report a high level of concern regarding alcohol and tobacco use (Table 5a); however 58.1% and 56.5% of household respondents reported they have “somewhat of a concern” or “great concern” regarding methamphetamine use and prescription drug abuse, respectively (Table 5b).

The most frequently reported reason that would prevent a household from going to an emergency shelter was that the household had friends/relatives that they could stay with (51.4%), followed by the household being confident in the construction of their home (31.9%) (Table 6). Additionally, 19.6% of Kanawha County household respondents reported that they would not go to an emergency shelter due to having a generator/backup heat source and sufficient supplies. Fourteen percent of households would not go to a shelter because they would not want to leave their pets. English was the primary language spoke in 95.7% of Kanawha County households and 11.8% reported speaking an additional language in the household.

Sixty-seven percent of Kanawha County household respondents reported that someone in the household received an influenza vaccine in the past 12 months. Among these households, 56% had someone between the ages of 19-65 years that received an influenza vaccine; 40.5% of households had someone ≥ 65 years of age that received an influenza vaccine. Doctor’s offices were reported most frequently (50.4%) as the place of vaccine administration.

Limitations

CASPER methodology has a number of limitations including:

- Households with someone home during business hours may be overrepresented. For example, unemployed persons, persons who work at home, and retired persons may be overrepresented.
- All data are based on the report of a self-identified spokesperson to the household and are subject to the usual limitations of self-reported data including information bias, social desirability bias and other potential inaccuracies.
- Low completion rates or high refusal rates may suggest that the data cannot be generalized to draw conclusions about the entire county.
- Opinions expressed by the household representative may not be generalizable to all household residents.

Conclusions and Recommendations

Kanawha County, West Virginia has a number of notable strengths for emergency preparedness, most notably:

- 62.2% of households report that they have a plan where everyone in the household would go in the event of a community-wide emergency lasting more than 24 hours.
- 88.3% of households have access to a personal vehicle and over 90% anticipate having access to a vehicle in an emergency.
- Almost 90% of households report access to 3 or more days of non-perishable food for everyone in the household.
- Among households with pets, over 75% have plans to care for their pets during an emergency and have a 3-day supply of food and water for their pets.
- Over 90% of households have a working smoke detector and 69.4% have a working fire extinguisher.
- Over 80% of households report that all household members have a regular medical provider.

However, there are also a number of recommendations that would enhance emergency preparedness county-wide. Kanawha County Health Department could educate households to:

- Secure a 3-day supply of drinking water stored in the event of an emergency. Almost half (46.9%) of households did not have a 3-day supply of drinking water (1 gallon per person per day) stored in the event of an emergency. This would be easy and inexpensive for households and enhance their preparedness.
- Improve household carbon monoxide prevention measures. Carbon monoxide detectors are inexpensive and easy to install and maintain. This is especially important since 57.9% of households have a back-up heat source and 19.7% of households have a working generator. In the event of a community-wide power outage, the county emergency management should strongly consider community-wide education regarding safe use of household generators and alternative heat sources.

Kanawha County residents have access to a wide variety of sources of information. County emergency management could use television, telephone (reverse 911), cellphone updates, radio and internet for communication during an emergency.

Shelter planners for Kanawha County should anticipate a high prevalence of chronic medical conditions in households. A small percent of residents will require help with mobility, oxygen, and other specialized medical needs.

Lack of access to dental care should be the highest priority issue for health planners in Kanawha County.

Data Tables

Table 1. Selected household characteristics, Kanawha County, May 2012

Household Characteristics	Sample Households No.	Sample Households % (95% CI)	Projected Households* No.	Projected Households* % (95% CI)
Household Structure Type				
Single-family home	139	76.8 (70.0-82.7)	68831	74.3 (74.0-74.6)
Multi-unit home	27	14.9 (10.1-21.0)	14150	15.3 (15.1-15.5)
Mobile home	15	8.3 (4.7-13.3)	9637	10.4 (10.2-10.6)
Household Size				
One person	35	19.3 (13.9-25.9)	17154	18.5 (18.3-18.8)
Two persons	77	42.5 (35.2-50.1)	36693	39.6 (39.3-39.9)
Three persons	30	16.6 (11.5-22.8)	19483	21.0 (20.8-21.3)
Four persons	22	12.2 (7.8-17.8)	108889	11.8 (11.6-12.0)
Five persons or more	17	9.4 (5.6-14.6)	8400	9.1 (8.9-9.3)
Household Age Composition				
Under 2	10	5.5 (2.7-9.9)	4659	5.0 (4.9-5.2)
Age 2-17	47	26.0 (19.8-33.0)	24065	26.0 (25.7-26.3)
Age 18-24	29	16.0 (11.0-22.2)	16173	17.5 (17.2-17.7)
Age 25-34	35	19.3 (13.9-25.6)	20929	22.6 (22.3-22.9)
Age 35-49	60	33.1 (26.3-40.5)	32799	35.4 (35.1-35.7)
Age 50-64	64	35.4 (28.4-42.8)	33466	36.1 (35.8-36.4)
Age 65+	72	39.8 (32.6-47.3)	33800	36.5 (36.2-36.8)
Highest Educational Level in Household†				
Less than high school	13	7.2 (3.9-12.0)	6633	7.2 (7.0-7.3)
High school graduate (includes equivalency)	56	30.9 (24.3-38.2)	29600	32.0 (31.7-32.3)
Some college, no degree	41	22.7 (16.8-29.5)	20700	22.3 (22.1-22.6)
Bachelor's degree	35	19.3 (13.9-25.9)	17578	19.0 (18.7-19.2)
Advanced degree	33	18.2 (12.9-24.6)	16730	18.1 (17.8-18.3)

Source: WVBPH, 2012 Rapids Needs Assessment Survey

*Projected number and percent based on 2010 US Census estimates for Kanawha County

†Response data unknown from 3 households

Table 2a. Number and percentage of households reporting select emergency preparedness characteristics, Kanawha County, May 2012

Emergency Preparedness Household Characteristics	Sample Households	Sample Households	Projected Households*	Projected Households*
	No.	% (95% CI)	No.	% (95% CI)
Household has a plan for where to go in an emergency	113	62.4 (54.9-69.5)	57643	62.2 (61.9-62.6)
Household main source of transportation				
Personal vehicle	158	87.3 (81.6-91.8)	81743	88.3 (88.1-88.5)
Family/friend	13	7.2 (3.9-12.0)	5597	6.0 (5.9-6.2)
Public transportation	7	3.9 (1.6-7.8)	3776	4.1 (3.9-4.2)
Other	1	0.6 (0.01-3.0)	501	0.5 (0.49-0.6)
Access to emergency transportation	166	91.7 (86.7-95.3)	85400	92.2 (92.0-92.4)
Access to a 1-week prescription medication supply	138	76.2 (69.3-82.2)	71793	77.5 (77.2-77.8)
Access to a 3-day drinking water supply	101	55.8 (48.2-63.2)	49222	53.1 (52.8-53.5)
Access to 3-day food supply	162	89.5 (84.1-93.6)	82897	89.5 (89.3-89.7)
Household has pets	104	57.5 (50.0-64.8)	52623	56.8 (56.5-57.1)
Household knows how to care for pets in emergency†	79	76.0 (66.6-83.8)		
Access to food and water for pets for 3 days†	89	85.6 (77.3-91.7)		
Households has livestock	3	1.7 (0.3-4.8)	3504	3.8 (3.7-3.9)
Household knows how to care for livestock in emergency†	3	100		
Access to food and water for livestock for 3 days†	3	100		
Responsible for the care of someone outside the household	42	23.2 (17.3-30.0)	22160	23.9 (23.7-24.2)
Reasons given for types of care responsible for†				
Transport†	31	73.8 (58.0-86.1)		
Shelter†	31	73.8 (58.0-86.1)		
Food†	28	66.7 (50.5-80.4)		
Medical care†	29	69.0 (52.9-82.4)		
Other†	2	4.8 (0.6-16.2)		
Items in Respondent Households				
Working generator	34	18.8 (13.4-25.3)	18204	19.7 (19.4-19.9)
3-day fuel supply for generator†	25	73.5 (55.6-87.1)		
Working smoke detector	172	95.0 (90.8-97.7)	88363	95.4 (95.3-95.5)
Working carbon monoxide detector	88	48.6 (41.1-56.2)	47018	20.8 (50.4-51.1)
Working fire extinguisher	123	68.0 (60.6-74.7)	64235	69.4 (69.1-69.7)
Back-up heat source	107	59.1 (51.6-66.4)	53666	57.9 (57.6-58.3)

Source: WVBPH, 2012 Rapid Needs Assessment Survey

Note: Missing response data varied by question.

*Projected number and percent based on 2010 US Census estimates for Kanawha County

† For those who answered yes to leading question

Table 2b. Number and percentage of households reporting select emergency preparedness characteristics, Kanawha County, May 2012

Emergency Preparedness Household Characteristics	Sample Households No.	Sample Households % (95% CI)	Projected Households* No.	Projected Households* % (95% CI)
Primary source of information during an emergency				
Television	122	67.4 (60.1-74.2)	64311	69.4 (69.1-69.7)
Newspaper	0	0	0	0
Radio	15	8.3 (4.7-13.3)	7412	8 (7.8-8.2)
Word of mouth	4	2.2 (0.6-5.6)	1815	2.0 (1.9-2.1)
Internet	10	5.5 (2.7-9.9)	4756	5.1 (5.0-5.3)
Social Media	0	0	0	0
County alert system	0	0	0	0
Telephone	18	9.9 (6.0-15.3)	8288	8.9 (8.8-9.1)
Cellphone	0	0	0	0
Texting	10	5.5 (2.7-9.9)	5034	5.4 (5.3-5.6)
Other	1	0.6 (0.01-3.0)	501	0.5 (0.49-0.6)
Missing	1	0.6 (0.01-3.0)	501	0.5 (0.49-0.6)
Disaster types of most concern				
Flood	48	26.5 (20.3-33.6)	27146	29.3 (29.0-29.6)
Tornado	42	23.2 (17.3-30.0)	21228	22.9 (22.7-23.2)
Earthquake	22	12.2 (7.8-17.8)	11723	12.7 (12.4-12.9)
Forest fire	60	33.1 (26.3-40.5)	30525	33.0 (32.7-33.3)
Winter storm	77	42.5 (35.2-50.1)	40531	43.8 (43.4-44.1)
Chemical spill	71	39.2 (32.1-46.7)	37409	40.4 (40.1-40.7)
Mudslide	22	12.2 (7.8-17.8)	11285	12.2 (12.0-12.4)
Act of terrorism	29	16.0 (11.0-22.2)	15923	17.2 (17.0-17.4)
Wind storm	72	39.8 (32.6-47.3)	35914	38.8 (38.5-39.1)
Rain/Thunder storm	99	54.7 (47.1-62.1)	51315	55.4 (44.3-44.9)

Source: WVBPH, 2012 Rapid Needs Assessment Survey

Note: Missing response data varied by question.

*Projected number and percent based on 2010 US Census estimates for Kanawha County

|| Respondents could choose multiple responses

Table 3. Number and percentage of households reporting select health-related conditions, Kanawha County, May 2012

Household Characteristics	Sample Households No.	Sample Households % (95% CI)	Projected Households* No.	Projected Households* % (95% CI)
Pre-Existing Chronic Conditions				
Cardiovascular disease	41	22.7 (16.8-29.5)	21110	22.8 (22.5-23.1)
Lung or breathing problems	28	15.5 (10.5-21.6)	16625	18.0 (17.7-18.2)
Diabetes	54	29.8 (23.3-37.1)	29399	31.7 (31.4-32.0)
Cancer and currently receiving treatment	3	1.7 (0.3-4.8)	1279	1.4 (1.3-1.5)
Kidney Disease	13	7.2 (3.9-12.0)	6696	7.2 (7.1-7.4)
Alzheimer's disease or dementia	8	4.4 (1.9-8.5)	3908	4.2 (4.1-4.4)
Hearing problem	33	18.2 (12.9-24.6)	16716	18.0 (17.8-18.3)
Vision impairment	26	14.4 (9.6-20.3)	15311	16.5 (16.3-16.8)
Special Medical Needs				
Oxygen supply	10	5.5 (2.7-9.9)	4881	5.3 (5.1-5.4)
Insulin	15	8.3 (4.7-13.3)	7510	8.1 (7.9-8.3)
Dialysis	0	0	0	0
In home medical care	11	6.1 (3.1-10.6)	4937	5.3 (5.2-5.5)
Walking aid or wheelchair	32	17.7 (12.4-24.0)	14289	15.4 (15.2-15.7)
Bed confinement	1	0.6 (0.01-3.0)	501	0.5 (0.49-0.6)
Other type of special care	11	6.1 (3.1-10.6)	7635	8.2 (8.1-8.4)
Special Population Medical Needs				
A household member under the age of 21 with special health needs	8	4.4 (1.9-8.5)	6216	6.7 (6.6-6.9)

Source: WVBPH, 2012 Rapids Needs Assessment Survey

Note: Missing response data varied by question.

*Projected number and percent based on 2010 US Census estimates for Kanawha County

Table 4a. Number and percentage of households reporting select access to health care characteristics, Kanawha County, May 2012

Household Characteristics	Sample Households No.	Sample Households % (95% CI)	Projected Households* No.	Projected Households* % (95% CI)
Health Care Access				
All household members have a regular medical provider	123	84.5 (78.4-89.5)	77481	83.7 (83.4-83.9)
No regular medical provider and utilized emergency room for non-emergent care within the past 12 months†	12	50.0 (29.1-70.9)		
All household members under the age of 21 had a well visit within the past 12 months	48	26.5 (20.3-33.6)	25943	28.0 (27.7-28.3)
A household member was unable to obtain healthcare services within the past 12 months	14	7.7 (4.3-12.6)	7072	7.6 (7.5-7.8)
Reasons given for the inability to obtain healthcare services				
No health insurance	9	64.3 (35.1-87.2)		
No transportation	3	21.4 (4.7-50.8)		
Insurance would not pay	3	21.4 (4.7-50.8)		
Services were not available in area	3	21.4 (4.7-50.8)		
Other	1	7.1 (0.2-33.9)		
Dental Care				
All household members had teeth cleaned by dentist/dental hygienist within the past 12 months	111	61.3 (53.8-68.5)	55453	59.9 (59.6-60.2)
All household members currently have dental insurance	96	53.0 (45.5-60.5)	49007	52.9 (52.6-53.2)
A household member was unable to obtain dental services within the past 12 months	33	18.2 (12.9-24.6)	18795	20.3 (20.0-20.6)
Reasons given for the inability to obtain dental services				
No dental insurance	24	72.7 (54.5-86.7)		
No transportation	4	12.1 (3.4-28.2)		
Health insurance would not pay or doctor would not accept health insurance	4	12.1 (3.4-28.2)		
Services were not available in area	1	3.0 (0.1-15.8)		
Other	6	18.2 (7.0-35.5)		

Source: WVBPH, 2012 Rapids Needs Assessment Survey

Note: Missing response data varied by question.

*Projected number and percent based on 2010 US Census estimates for Kanawha County

† For those who answered no to leading question (n=24)

||For those who answered yes to leading question. Respondents could choose multiple responses.

Table 4b. Number and percentage of households reporting select access to health care characteristics, Kanawha County, May 2012

Household Characteristics	Sample Households No.	Sample Households % (95% CI)	Projected Households* No.	Projected Households* % (95% CI)
Mental Health Services				
A household member was unable to obtain mental health services within the past 12 months	2	1.1 (0.1-3.9)	1001	1.1 (1.0-1.2)
Reasons given for the inability to obtain mental health services				
No insurance	1	50.0 (1.3-98.7)		
No transportation	1	50.0 (1.3-98.7)		
Insurance would not pay	1	50.0 (1.3-98.7)		
Services were not available in area	1	50.0 (1.3-98.7)		
Other	0	0		
Substance Abuse Services				
A household member was unable to obtain substance abuse services within the past 12 months	2	1.1 (0.1-3.9)	1126	1.2 (1.1-1.3)
Reasons given for the inability to obtain substance abuse services				
No insurance	2	100		
No transportation	1	50.0 (1.3-98.7)		
Insurance would not pay	0	0		
Services were not available in area	2	100		
Other	0	0		

Source: WVBPH, 2012 Rapids Needs Assessment Survey

Note: Missing response data varied by question.

*Projected number and percent based on 2010 US Census estimates for Kanawha County

||For those who answered yes to leading question. Respondents could choose multiple responses.

Table 5a. Number and percentage of households reporting perceived substance use problems in the community, Kanawha County, May 2012

Perceived Substance Use Problem in the Community	Sample Households No.	Sample Households % (95% CI)	Projected Households* No.	Projected Households* % (95% CI)
Alcohol use				
No concern	72	39.8 (32.6-47.3)	38806	41.9 (41.6-42.2)
Very little concern	45	24.9 (18.8-31.8)	21409	23.1 (22.8-23.4)
Somewhat of a concern	34	18.8 (13.4-25.3)	17884	19.3 (19.1-19.6)
Great concern	20	11.0 (6.9-16.6)	9762	10.5 (10.3-10.7)
Don't Know	7	3.9 (1.6-7.8)	3254	3.5 (3.4-3.6)
Tobacco use				
No concern	94	51.9 (44.4-59.4)	50551	54.6 (54.3-54.9)
Very little concern	26	14.4 (9.6-20.3)	12405	13.4 (13.2-13.6)
Somewhat of a concern	23	12.7 (8.2-18.5)	11132	12.0 (11.8-12.2)
Great concern	32	17.7 (12.4-24.0)	15777	17.0 (16.8-17.3)
Don't Know	3	1.7 (0.3-4.8)	1252	1.4 (1.3-1.4)

Source: WVBPH, 2012 Rapids Needs Assessment Survey

Note: Missing response data varied by question.

*Projected number and percent based on 2010 US Census estimates for Kanawha County

Table 5b. Number and percentage of households reporting perceived substance use problems in the community, Kanawha County, May 2012

Perceived Substance Use Problem in the Community	Sample Households No.	Sample Households % (95% CI)	Projected Households* No.	Projected Households* % (95% CI)
Marijuana use				
No concern	81	44.8 (37.4-52.3)	40677	43.9 (43.6-44.2)
Very little concern	26	14.4 (9.6-20.3)	13510	14.6 (14.4-14.8)
Somewhat of a concern	31	17.7 (11.9-23.4)	17008	18.4 (18.1-18.6)
Great concern	31	17.7 (11.9-23.4)	15728	17.0 (16.7-17.2)
Don't Know	10	5.5 (2.7-9.9)	4693	5.1 (4.9-5.2)
Cocaine use				
No concern	69	38.1 (31.0-45.6)	36734	39.7 (39.4-40.0)
Very little concern	15	8.3 (4.7-13.3)	6689	7.2 (7.1-7.4)
Somewhat of a concern	29	16.0 (11.0-22.2)	14352	15.5 (15.3-15.7)
Great concern	52	28.7 (22.3-35.9)	26624	28.7 (28.5-29.0)
Don't Know	14	7.7 (4.3-12.6)	7218	7.8 (7.6-8.0)
Methamphetamine use				
No concern	56	30.9 (24.3-38.2)	27890	30.1 (29.8-30.4)
Very little concern	11	6.1 (3.1-10.6)	5681	6.1 (6.0-6.3)
Somewhat of a concern	14	7.7 (4.3-12.6)	6682	7.2 (7.1-7.4)
Great concern	89	49.2 (41.7-56.7)	47171	50.9 (50.6-51.3)
Don't Know	9	5.0 (2.3-9.2)	4193	4.5 (4.4-4.7)
Prescription drug abuse				
No concern	52	28.7 (22.3-35.9)	27702	29.9 (29.6-30.2)
Very little concern	15	8.3 (4.7-13.3)	7829	8.5 (8.3-8.6)
Somewhat of a concern	32	17.7 (12.4-24.0)	15297	16.5 (16.3-16.8)
Great concern	72	39.8 (32.6-47.3)	37033	40.0 (39.7-40.3)
Don't Know	8	4.4 (1.9-8.5)	3755	4.1 (3.9-4.2)
Bath salt use				
No concern	76	42.0 (34.7-49.5)	40037	43.2 (42.9-43.6)
Very little concern	10	5.5 (2.7-9.9)	5034	5.4 (5.3-5.6)
Somewhat of a concern	23	12.7 (8.2-18.5)	11932	12.9 (12.7-13.1)
Great concern	32	17.7 (12.4-24.0)	16382	17.7 (17.4-17.9)
Don't Know	37	20.4 (14.8-27.1)	17731	19.1 (18.9-19.4)

Source: WVBPH, 2012 Rapids Needs Assessment Survey

Note: Missing response data varied by question.

*Projected number and percent based on 2010 US Census estimates for Kanawha County

Table 6. Kanawha-Charleston Health Department Supplemental CASPER Questions, Kanawha County, May 2012

Household Characteristics	Sample Households No.	Sample Households % (95% CI)	Projected Households* No.	Projected Households* % (95% CI)
Reasons that would prevent household from going to a shelter during an emergency				
Lack of transportation	15	8.3 (4.7-13.3)	7593	8.2 (8.0-8.4)
Don't want to leave pets	23	12.7 (8.2-18.5)	13357	14.4 (14.2-14.7)
Family members with special needs	10	5.5 (2.7-9.9)	4659	5.0 (4.9-5.2)
Don't want to go to a shelter	23	12.7 (8.2-18.5)	13079	14.1 (13.9-14.4)
Have friends/relatives to stay with	93	51.4 (41.1-56.2)	47595	51.4 (51.2-51.7)
Need to protect personal property/ fear of looting	26	14.4 (9.6-20.3)	15005	16.2 (16.0-16.4)
Have generator/backup heat source and sufficient supplies	40	22.1 (16.3-28.9)	18169	19.6 (19.4-19.9)
Confident in construction of home	64	35.4 (28.4-42.8)	29538	31.9 (31.6-32.2)
Financial reasons	12	6.6 (3.5-11.3)	8427	9.1 (8.9-9.3)
Other	5	2.8 (0.9-6.3)	2837	3.1 (3.0-3.2)
English primary language spoken in household	173	95.6 (91.5-98.1)	88675	95.7 (95.6-95.9)
Additional languages spoken in household	23	12.7 (8.2-18.5)	10951	11.8 (11.6-12.0)
Interested in registering in special population's registry	30	16.6 (11.5-22.8)	17891	19.3 (19.1-19.6)
Household member received flu shot in past 12 months	121	66.9 (59.5-73.7)	62114	67.1 (66.8-67.4)
Aged 0-4 years†	8	6.6 (2.9-12.6)		
Aged 5-18 years†	21	17.4 (11.1-25.3)		
Aged 19-64 years†	68	56.2 (46.9-65.2)		
Aged 65+ years†	49	40.5 (31.7-49.8)		
Flu shot received at school†	8	6.6 (2.9-12.6)		
Flu shot received at pharmacy†	27	22.3 (15.3-30.8)		
Flu shot received at provider/doctor's office†	61	50.4 (41.2-59.6)		
Flu shot received at health department†	12	9.9 (5.2-16.7)		
Flu shot received at other place†	35	28.9 (21.1-37.9)		

Source: WVBPH, 2012 Rapid Needs Assessment Survey

Note: Missing response data varied by question.

*Projected number and percent based on 2010 US Census estimates for Kanawha County

† For those who answered yes to leading question

|| Respondents could choose multiple responses

Questionnaire

West Virginia Community Assessment for Public Health Emergency Response 2012

Date: _____ Cluster No: _____ Interview No: _____

Y=yes
D/K=don't know
N=no
R=refused
NA=not applicable

This first set of questions asks for some basic information about your household.			
Q1. Type of structure: <input type="checkbox"/> Single family home <input type="checkbox"/> Multiple unit (duplex, apt.) <input type="checkbox"/> Mobile home <input type="checkbox"/> Other _____		Q2. How many people live in your household?	
		Q2a. How many are in each age category? ____<2yrs ____2-17yrs ____18-24yrs ____25-34yrs ____35-49yrs ____50-64yrs ____65+	
Q3. What is the highest level of education completed by anyone in your household?		<input type="checkbox"/> Did not complete high school or equivalent <input type="checkbox"/> High school graduate or equivalent <input type="checkbox"/> Some college (associate's degree or no degree) <input type="checkbox"/> Bachelor's degree (BA, BS, AB, etc.) <input type="checkbox"/> Advanced degree (MD, MS, PhD, JD, etc.) <input type="checkbox"/> D/K <input type="checkbox"/> R	
The next set of questions asks about your household's emergency preparedness. For these questions, we define "emergency" as an event that negatively affect the health and safety of your community for more than 24 hours. Examples include major flooding, winter storms, major chemical spills, and tornadoes.			
Q4. If you had to leave your home for 24 hours because of an emergency:		Q4a. Do have a plan for where everyone in your household would go? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
		Q4b. Does your household have any pets? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R IF YES → Q4c. Do you know how your household would care for your pets? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
		Q4d. Does your household have any livestock? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R IF YES → Q4e. Do you know how your household would care for your livestock? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
Q5. If you had to stay in your home during an emergency and had no utilities does your household have:		Q5a. A 3 day supply of bottled water (1 gal. per person/per day)? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
		Q5b. A 3 day supply of non-perishable food (per person)? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
		Q5c. Food and water for your pets for 3 days? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R <input type="checkbox"/> NA	
		Q5d. Food and water for your livestock for 3 days? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R <input type="checkbox"/> NA	
		Q5e. Prescription medications to last for at least 7 days? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R <input type="checkbox"/> NA	
Q6. In an emergency would your household have access to a vehicle for transportation? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R <input type="checkbox"/> NA		Q7. When at home what is your household's main source of information during an emergency? (check only one) <input type="checkbox"/> TV <input type="checkbox"/> Internet (news website, etc.) <input type="checkbox"/> Other: _____ <input type="checkbox"/> Newspaper <input type="checkbox"/> Social media (Twitter, Facebook, etc.) <input type="checkbox"/> Radio <input type="checkbox"/> Word of mouth/talking to people <input type="checkbox"/> Telephone <input type="checkbox"/> County alert system <input type="checkbox"/> Texting/cell phone	
Q8. During an emergency would anyone in your household be responsible for anyone outside of your home? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R <input type="checkbox"/> NA			
IF YES → Q8a. Would your household be responsible for: <input type="checkbox"/> Transportation <input type="checkbox"/> Food <input type="checkbox"/> Shelter <input type="checkbox"/> Medical care <input type="checkbox"/> Other: _____			
Q9. What type of emergencies do you feel are most likely to affect your household? (check all that apply) <input type="checkbox"/> Flood <input type="checkbox"/> Tornado <input type="checkbox"/> Earthquake <input type="checkbox"/> Chemical spill <input type="checkbox"/> Forest fire/brush fire <input type="checkbox"/> Mudslide <input type="checkbox"/> Act of terrorism <input type="checkbox"/> Rain/thunderstorm <input type="checkbox"/> Wind <input type="checkbox"/> Ice/snow storm <input type="checkbox"/> D/K <input type="checkbox"/> R			
Q10. Does your household have the following:		Q10a. A working smoke detector? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
		Q10b. A working carbon monoxide detector? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
		Q10c. A working fire extinguisher? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
		Q10d. A back up heat source (wood stove, fireplace, kerosene heater, etc.)? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
		Q10e. A working generator? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
		IF YES → Q10f. Do you have a 3 day fuel supply? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
The next set of questions asks about the health status and needs of members in your household.			
Q11. Has anyone in your household ever been told by a doctor, nurse, or other health professional that they had any of the following:		Q11a. Cardiovascular disease? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
		Q11b. Lung or breathing problems? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
		Q11c. Diabetes? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
		Q11d. Kidney disease? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
		Q11e. Alzheimer's disease or some other form of dementia? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
		Q11f. A hearing problem? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	
		Q11g. Vision impairment, even when wearing glasses? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	

Q12. Is there anyone in your household who...	Q12a. Uses oxygen supply? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R Q12b. Receives dialysis? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R Q12c. Currently receives insulin? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R Q12d. Receives in-home medical care? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R Q12e. Uses a walking aid/wheelchair? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R Q12f. Is confined to a bed? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R Q12g. Is currently receiving cancer treatment? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R Q12h. Needs other types of special care? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R IF YES → Q12i. If yes, specify _____
The next set of questions is about preventive health care in your household.	
Q13. Have all individuals in the household under the age of 21 had a well-child or preventive health screen within the past 12 months? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R <input type="checkbox"/> NA	Q14. Does anyone in your household under the age of 21 have special health care needs? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R <input type="checkbox"/> NA
Q15. Has everyone in your household had their teeth cleaned by a dentist or dental hygienist in the past 12 months? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	Q15a. Does everyone in your household have insurance to cover dental care? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R
Q16. Has anyone in your household ever needed dental services but not been able to get those services? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	IF YES → Q16a. If yes, was it for any of these reasons? (Check all that apply) <input type="checkbox"/> No dental insurance <input type="checkbox"/> No transportation <input type="checkbox"/> Dental insurance would not pay for services/ dentist would not accept my dental insurance <input type="checkbox"/> The services needed were not available in this area <input type="checkbox"/> Other: _____
The next set of questions will ask about your household's ability to obtain healthcare when needed.	
Q17. What is your household's main source of transportation? <input type="checkbox"/> Personal vehicle <input type="checkbox"/> Family/friend <input type="checkbox"/> Public transportation <input type="checkbox"/> Other _____	Q18. Does each person in your household have a medical home, family doctor, or primary care doctor? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R IF NO → Q18a. Has anyone in your household gone to the emergency room because they had nowhere else to go for care? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R
Q19. In the last twelve months has anyone in your household ever needed healthcare services but not been able to get those services? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	IF YES → Q19a. Was it for any of these reasons? (Check all that apply) <input type="checkbox"/> No health insurance <input type="checkbox"/> No transportation <input type="checkbox"/> Health insurance would not pay for services/ doctor would not accept my health insurance <input type="checkbox"/> The services needed were not available in this area <input type="checkbox"/> Other: _____
Q20. In the last twelve months has anyone in your household ever needed mental health services but not been able to get those services? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	IF YES → Q20a. Was it for any of these reasons? (Check all that apply) <input type="checkbox"/> No health insurance <input type="checkbox"/> No transportation <input type="checkbox"/> Health insurance would not pay for services/ doctor would not accept my health insurance <input type="checkbox"/> The services needed were not available in this area <input type="checkbox"/> Other: _____
Q21. In the last twelve months has anyone in your household ever needed substance abuse or addiction treatment services but not been able to get those services? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> D/K <input type="checkbox"/> R	IF YES → Q21a. Was it for any of these reasons? (Check all that apply) <input type="checkbox"/> No health insurance <input type="checkbox"/> No transportation <input type="checkbox"/> Health insurance would not pay for services/ doctor would not accept my health insurance <input type="checkbox"/> The services needed were not available in this area <input type="checkbox"/> Other: _____
The final set of questions is about substance use in your community.	
Q22. How concerned are you about the use of the following substances in your community? (Rate your answers on a scale from 1 to 4) 1-No concern 2-Very little concern 3-Somewhat of a concern 4-Great concern	Q22a. Alcohol in your community ____ <input type="checkbox"/> R <input type="checkbox"/> D/K Q22b. Tobacco in your community ____ <input type="checkbox"/> R <input type="checkbox"/> D/K Q22c. Marijuana in your community ____ <input type="checkbox"/> R <input type="checkbox"/> D/K Q22d. Cocaine/crack in your community ____ <input type="checkbox"/> R <input type="checkbox"/> D/K Q22e. Meth in your community ____ <input type="checkbox"/> R <input type="checkbox"/> D/K Q22f. Prescription drug abuse in your community ____ <input type="checkbox"/> R <input type="checkbox"/> D/K Q22g. Bath salts in your community ____ <input type="checkbox"/> R <input type="checkbox"/> D/K Q22h. Other _____

**West Virginia Community Assessment for Public Health Emergency Response 2012
Kanawha-Charleston Health Department Supplemental Questions**

Date: _____ Cluster No: _____ Interview No: _____

Y=yes D/K=don't know N=no R=refused NA=not applicable

<p>This final set of questions come your local health department. These questions are of particular interest to your community.</p>	
<p>Q1. If your household had to leave your home during a disaster, would any of these reasons prevent your household from seeking shelter? (check all that apply)</p> <p><input type="checkbox"/> Lack of transportation</p> <p><input type="checkbox"/> Don't want to leave pets</p> <p><input type="checkbox"/> Family members with special needs</p> <p><input type="checkbox"/> Don't want to go to a shelter</p> <p><input type="checkbox"/> Have friends/relatives to stay with</p> <p><input type="checkbox"/> Need to protect personal property/ fear of looting</p> <p><input type="checkbox"/> Have a generator and/or backup heat source and sufficient emergency supplies</p> <p><input type="checkbox"/> Confident in construction of home</p> <p><input type="checkbox"/> Financial reasons</p> <p><input type="checkbox"/> Other: _____</p>	
<p>Q2. Is English the primary language spoken in the household?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> D/K <input type="checkbox"/> R</p>	<p>Q2a. Are any additional languages spoken in the household?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> D/K <input type="checkbox"/> R</p> <p>IF YES → Q2a. Please specify: _____</p>
<p>Q3. If anyone in this household has special needs, would you or they be interested in registering in a special population's registry?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> D/K <input type="checkbox"/> R</p> <p>IF NO → Q3a. Why not? _____</p>	
<p>Q4. Did anyone in this household receive a flu shot in the past 12 months?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> D/K <input type="checkbox"/> R</p> <p>IF YES → Q4a. What were their age groups? (place the number of household members in each age category)</p> <p>Aged 0-4years: _____</p> <p>Ages 5-18 years: _____</p> <p>Aged 19-64 years: _____</p> <p>Aged 65+ years: _____</p> <p>Q4b. Where did people in your household receive their flu shot? (check all that apply)</p> <p><input type="checkbox"/> School</p> <p><input type="checkbox"/> Pharmacy</p> <p><input type="checkbox"/> Provider/Doctor's office</p> <p><input type="checkbox"/> Health Department</p> <p><input type="checkbox"/> Other: _____</p>	