

## Regional Summary

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This regional summary contains both an aggregation of existing data and findings from the *RHAP-05* survey. The report includes data for the counties of Adair, Clark, Knox, Lewis, Linn, Macon, Putnam, Schuyler, Scotland, Shelby and Sullivan, which make up the Northeast Missouri Rural Health Network service area. Sources for the aggregate data include the websites of the Office of Social and Economic Data Analysis and the Missouri Information for Community Assessment.

### Prevalent Health Problems

Existing data demonstrates that the following northeastern counties show a higher percentage than the state average for the listed prevalent health problems:

- **High blood pressure** (2003) – Adair (30.8%), Lewis (28.7%), Linn (34.8%), Putnam (31.6%), and Shelby (29.3%) counties all rank above the state average of 28.5%.
- **High cholesterol** (2003) – Adair (41.4%), Clark (44.8%), Knox (44.8%), Linn (39.1%), Macon (50.1%), Putnam (42.1%), Schuyler (41.4%), Scotland (44.8%) and Sullivan (42.1%) counties were each above the state average of 37.3% in ages 35 and older.
- **Diabetes** (2003) – Clark (7.7%), Knox (7.7%), Lewis (7.7%), Scotland (7.7%) and Shelby (8.9%) counties all rank above the state average of 7.2%.

### Causes of Death and Rates

Following is a comparison of the leading causes of death and rates for the nation, state and the counties included in the assessment:

<b>Indicator</b>	<b>U.S.</b>	<b>Missouri</b>	<b>NE Region</b>
Heart disease	232.3	263.0	255.1
Cancer	190.1	201.1	204.5
Stroke	53.5	57.3	58.2
Respiratory disease	43.3	47.9	48.3
Diabetes	25.3	26.9	22.2
Influenza/pneumonia	22.0	26.0	17.6
Alzheimer's disease	21.4	20.6	21.0

2003 rates are age-adjusted per 100,000 population

### Social Indicators

Social circumstances often create an impact on health status. Following is a state and regional comparison of specific social indicators:

- **High School Graduation Rate (2004)** – Missouri 85.5%, NE Region 90.2%
- **Median Household Income (2002)** – Missouri \$40,309, NE Region \$28,816
- **Percent of People Below Poverty Level (2002)** – U.S. 12.1%, Missouri 11.3%, NE Region 14.3%
- **No Health Insurance (2003)** – Missouri 12.3%, NE Region 18.42%

The *RHAP-05* survey asked respondents to describe themselves via six demographic indicators (county of residence, age, gender, ethnicity, culture and education), and to describe their household with three additional indicators (number of people, type of health coverage, and annual income). Questions also addressed health concerns, affordable health care, local health care, and other needs.

### **Demographic Information (1,033 respondents)**

- The most common age of respondents to this survey were within the 45-64 age group (39.6%), followed by the age group of 25-44 (29.5%). The majority of respondents to the survey were female (69.4%).
- The largest group of respondents (42.3%) reported having group insurance coverage for themselves or household members.
- All ethnic categories were represented, however the majority of respondents (97.0%) indicated that they were white. Of the respondents, 0.4% replied that they belonged to the cultural community of Amish and 1.5% responded they belonged to the cultural community of Mennonite.
- Among respondents, 36.3% reported having a high school diploma, 25.6% reported having some college, and 30.0% reported a college degree or higher.
- One-half of the respondents reported an annual household income at or below \$40,000 with 9.9% reporting less than \$10,000 annually. In detail, the reported annual household income levels were: \$10,000-\$25,000 (26.7%), \$25,001-\$40,000 (24.2%), \$40,001-\$55,000 (16.2%), \$55,001-\$70,000 (14.2%) and >\$70,000 (8.9%).

### **Health Concerns**

#### Lifestyle Health Risks:

- The top three lifestyle health risks indicated to be **important** by survey respondents were: adequate immunizations (84.0%), child abuse/neglect (85.0%), and illegal drug use (83.3%).
- The top two lifestyle health risks that survey respondents indicated to be **not important** were: lead in homes (11.5%) and helmet use (11.9%).

- The three lifestyle health risks recognized by survey respondents as being **adequately met** were: adequate immunizations (70.5%), seat belt use (57.6%), and child safety seat use (57.0%).
- The four highest lifestyle health risks recognized by survey respondents as **not adequately met** were: underage drinking (54.7%), illegal drug use (49.3%), tobacco use (48.2%), and obesity (47.8%).

#### Diseases:

- The top three diseases indicated to be **important** by respondents were: cancer (85.3%), heart disease (82.4%), and Alzheimer's disease (74.4%).
- There were no diseases that were recognized as **not being important** to the respondents of this survey.
- The three disease categories recognized as being **adequately met** by survey respondents were: influenza (50.6%), high blood pressure (48.8%), and pneumonia (45.5%).
- The three diseases with the highest number of respondents indicating that the problem was **not adequately being met** were: depression (31.9%), cancer (29.2%), and dental problems (28.2%).

#### Environmental

- The top three environmental health concerns listed as **important** by respondents were: drinking water quality (86.0%), crime prevention (78.0%), and restaurant inspection (73.6%).
- The top two environmental concerns listed as **not important** by survey respondents were: bioterrorism at (15.7%) and domestic animal control (14.4%).
- The top three concerns that survey respondents listed as **adequately being met** were: trash disposal (63.8%), drinking water quality (53.8%), and community safety (49.7%).
- Recycling (32.5%) and domestic animal control (29.3%) were the top two environmental health concerns listed by survey respondents as **not being adequately met**.

#### **Affordable Health Care**

- Over half the respondents (56.3%) indicated that health insurance was not affordable.
- Over half the respondents (52.0%) indicated that prescription drugs were not affordable.
- A large number of respondents (44.8%) indicated a belief that emergency care was not affordable.
- Of the respondents, 36.9% **did not know** if mental health care was affordable.

### Local Health Care

- The highest percentage of respondents listed private physicians (41.3%) and the county health department (44.7%) as excellent.
- One-fifth (20.0%) of the respondents indicated that the local hospital was poor.
- Telehealth is a very unused service with 95.6 % of survey respondents reporting that they had not used it within the last year. Furthermore, 69.5% reported that they did not know how to rate telehealth services.
- The top reason given for not utilizing local health care services was: “went to a larger city with more medical resources” (24.6%).

### Other Needs

- The top three services indicated by survey respondents as being **excellently met** were: immunizations for children (42.7%), WIC (39.5%), and issuing birth and death certificates (34.6%).
- The top three services indicated by survey respondents to be **poorly met** were: consumer insurance education programs (54.2%), chronic disease support groups (43.7%), and daycare facility inspections (43.6%).
- Blood pressure screenings (75.6%), flu shots (74.8%), and pap smears (74.7%) were recognized as being **needed** in responding counties.
- Radiology (20.1%), newborn home visits (14.8%), and nutrition education/counseling (14.5%) were the most common responses to services **not needed** in responding counties.

# Regional Data Results

Report for All Counties      Number of Respondents - 1,033      Response Rate - 20.89%

## I. Demographic Information

### A. Age of person responding to survey:

<i>Age</i>	<i>Number</i>	<i>Percent</i>
18-24	45	4.7
25-44	283	29.5
45-64	380	39.6
65-84	222	23.1
85+	30	3.1

### B. Sex of person responding to survey:

<i>Sex</i>	<i>Number</i>	<i>Percent</i>
Male	305	30.6
Female	692	69.4

### C. Number of people living in household of respondent: 3,774

	<i>Age 0-5</i>	<i>Age 6-17</i>	<i>Age 18-24</i>	<i>Age 25-44</i>	<i>Age 45-64</i>	<i>Age 65-84</i>	<i>Age 85+</i>
Female(s)	168	189	106	290	400	226	40
Male(s)	102	166	109	238	346	166	18

### D. Type of health coverage of members of the household:

<i>Type of Health Coverage</i>	<i>Number</i>	<i>Percent</i>
		+
None	351	9.3
Private Insurance	502	13.3
Group Insurance	1595	42.3
Medicare with supplement	587	15.6
Medicare without supplement	220	5.8
Medicaid	261	6.9
MC+	258	6.8

\*Percentages were calculated using the total of individuals living in the household as the denominator (item C), regardless of whether the respondent left an entry blank or counted two types of health insurance for the same individual (item D).

### E. Ethnicity of person responding to survey:

<i>Ethnicity</i>	<i>Number</i>	<i>Percent</i>
White	992	97.0
Black	5	1.0
American Indian or Alaskan Native	13	1.0
Asian	4	<1.
Hispanic or Latino	6	1.0
Native Hawaiian or other Pacific Islander	2	<1.
Other	1	<1.

### F. Membership in cultural community:

<i>Cultural Community</i>	<i>Number</i>	<i>Percent</i>
Amish	4	<1.
Mennonite	16	<1.
Other	56	<1.

**G. Education level of person responding:**

<i>Education Level:</i>	<i>Number</i>	<i>Percent</i>
Less Than High School	80	8.2
High School Diploma	353	36.3
Some College	249	25.6
College Degree or Higher	291	30.0

**H. Annual household income level:**

<i>Income Level</i>	<i>Number</i>	<i>Percent</i>
Under \$10,000	94	9.9
\$10,000-\$25,000	254	26.7
\$25,001-\$40,000	231	24.2
\$40,001-\$55,000	154	16.2
\$55,001-\$70,000	135	14.2
\$70,000+	85	8.9

**II. Health Concerns:** In your opinion, how important are the following health/safety issues in your community? Also, please indicate if you think adequate services are available.

**A. Lifestyle Health Risks**

	<i>Not Important</i>		<i>Somewhat Important</i>		<i>Important</i>		<i>Adequately being met?</i>					
							<i>Yes</i>		<i>No</i>		<i>Don't Know</i>	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Abuse/neglect:</b>												
<b>a. Child</b>	6	1.0	135	14.4	799	85.0	292	30.6	244	25.6	418	43.8
<b>b. Spouse</b>	28	3.1	225	24.7	659	72.3	278	27.7	339	33.8	387	38.5
<b>c. Elder</b>	20	2.2	196	22.0	676	75.8	252	27.1	165	17.8	512	55.1
<b>Adequate immunization</b>	16	1.7	133	14.3	781	84.0	656	70.5	69	7.4	205	22.0
<b>Condom use</b>	80	8.9	244	27.0	579	64.1	159	17.1	190	20.4	582	62.5
<b>Injury of elders in home</b>	31	3.4	264	28.6	628	68.0	248	26.5	133	14.2	554	59.3
<b>Lack of exercise</b>	41	4.3	293	30.9	614	64.8	233	24.6	422	44.6	291	30.8
<b>Lead in homes</b>	105	11.5	357	39.1	452	49.5	268	28.7	114	12.2	552	59.1
<b>Obesity</b>	56	6.0	209	22.2	675	71.8	197	20.3	464	47.8	310	31.9
<b>Oral hygiene/care</b>	53	5.6	291	31.0	596	63.4	316	30.9	289	28.3	417	40.8
<b>Prenatal care</b>	48	5.2	157	16.9	721	77.9	448	48.0	116	12.4	369	39.5
<b>Safety-vehicular:</b>												
<b>a. Helmet use</b>	111	11.9	252	27.1	567	61.0	399	41.2	214	22.1	355	36.7
<b>b. Child safety seat use</b>	79	8.2	120	12.6	754	79.1	545	57.0	153	16.0	258	27.0
<b>c. Seatbelt use</b>	104	10.9	184	19.2	670	69.9	553	57.6	171	17.8	236	24.6
<b>School violence</b>	64	7.0	181	20.0	660	72.9	329	35.6	184	19.9	411	44.5
<b>Substance use:</b>												
<b>a. Binge drinking</b>	45	4.7	240	25.1	673	70.3	150	15.7	356	37.3	448	47.0
<b>b. Illegal drug use</b>	34	3.5	127	13.2	803	83.3	203	20.9	478	49.3	288	29.7
<b>c. Tobacco use</b>	70	7.3	223	23.3	665	69.4	239	24.8	465	48.2	261	27.0
<b>d. Underage drinking</b>	23	2.4	144	15.0	791	82.6	160	16.7	524	54.7	274	28.6
<b>Suicide</b>	45	4.8	212	22.8	673	72.4	187	19.8	205	21.7	554	58.6
<b>Teen pregnancy</b>	19	2.0	158	16.6	774	81.4	162	16.8	417	43.3	384	39.9

**II. Health Concerns (cont.):** In your opinion, how important are the following health/safety issues in your community? Also, please indicate if you think adequate services are available.

**B. Diseases**

	<i>Not Important</i>		<i>Somewhat Important</i>		<i>Important</i>		<i>Adequately being met?</i>					
							<i>Yes</i>		<i>No</i>		<i>Don't Know</i>	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Alzheimer's disease</b>	10	1.0	241	24.6	728	74.4	278	29.0	253	26.4	428	44.6
<b>Arthritis</b>	31	3.4	289	31.8	589	64.8	350	36.3	208	21.6	405	42.1
<b>Asthma</b>	25	2.6	353	36.8	581	60.6	330	34.8	143	15.1	475	50.1
<b>Cancer</b>	7	1.0	135	13.9	827	85.3	353	36.8	280	29.2	327	34.1
<b>Dental problems</b>	37	3.8	335	34.7	594	61.5	333	35.0	268	28.2	351	36.9
<b>Depression</b>	37	3.8	286	29.6	644	66.6	207	21.6	306	31.9	445	46.5
<b>Hearing loss</b>	44	4.6	393	41.0	519	54.2	288	30.1	198	20.7	472	49.3
<b>Heart disease</b>	8	1.0	163	16.8	800	82.4	388	40.3	208	21.6	366	38.0
<b>High blood pressure</b>	12	1.3	246	26.1	684	72.6	471	48.8	169	17.5	326	33.7
<b>High cholesterol</b>	16	1.7	269	27.8	681	70.5	420	43.5	172	17.8	373	38.7
<b>HIV/AIDS</b>	51	5.4	231	24.6	658	70.0	235	23.8	214	21.7	537	54.5
<b>Influenza</b>	27	2.8	325	34.0	604	63.2	478	50.6	157	16.6	310	32.8
<b>Lung disease</b>	29	3.0	284	29.6	647	67.4	268	28.0	171	17.8	518	54.1
<b>Mental disorders</b>	33	3.4	286	29.8	640	66.7	203	21.3	258	27.1	492	51.6
<b>Osteoporosis</b>	28	2.9	377	38.9	564	58.2	296	30.8	177	18.4	487	50.7
<b>Pneumonia</b>	47	5.0	334	35.7	555	59.3	436	45.5	110	11.5	413	43.1
<b>Pulmonary disease (COPD)</b>	53	5.5	300	31.1	613	63.5	282	29.7	156	16.5	510	53.8
<b>Vision loss</b>	33	3.4	273	28.3	660	68.3	361	37.6	192	20.0	406	42.3

**II. Health Concerns:** How important are services on the following issues in your community? Also, please indicate if you think adequate services are available.

**C. Environmental Health**

	<i>Not Important</i>		<i>Somewhat Important</i>		<i>Important</i>		<i>Adequately being met?</i>					
							<i>Yes</i>		<i>No</i>		<i>Don't know</i>	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Bioterrorism</b>	145	15.7	371	40.1	410	44.3	220	24.2	198	21.8	490	54.0
<b>Community safety</b>	34	3.6	270	28.6	640	67.7	457	49.7	180	19.6	282	30.7
<b>Crime prevention</b>	22	2.3	187	19.7	740	78.0	422	45.0	263	28.1	252	26.9
<b>Domestic animal control</b>	137	14.4	430	45.3	383	40.3	410	43.6	276	29.3	255	27.1
<b>Drinking water quality</b>	21	2.2	113	11.8	826	86.0	512	53.8	197	20.7	242	25.4
<b>Hazardous materials handling</b>	56	5.9	283	30.0	605	64.1	284	30.3	113	12.1	539	57.6
<b>Housing safe and adequate</b>	73	7.7	326	34.5	547	57.8	323	34.6	200	21.4	411	44.0
<b>Indoor air quality</b>	103	10.9	344	36.4	499	52.7	298	32.0	161	17.3	473	50.8
<b>Lead poisoning inspection</b>	109	11.6	352	37.4	479	51.0	268	28.6	168	17.9	501	53.5
<b>Onsite sewage inspection</b>	111	11.9	375	40.1	449	48.0	269	29.0	147	15.8	513	55.2
<b>Outdoor air quality</b>	83	8.8	308	32.6	553	58.6	336	35.9	144	15.4	455	48.6
<b>Pest control (insects, rats)</b>	77	8.1	349	36.6	528	55.3	355	37.8	155	16.5	430	45.7
<b>Recreational water quality</b>	99	10.5	397	42.1	448	47.5	379	40.7	108	11.6	444	47.7
<b>Recycling</b>	68	7.1	386	40.3	504	52.6	384	40.8	306	32.5	251	26.7
<b>Restaurant inspection</b>	31	3.3	217	23.1	693	73.6	297	31.4	216	22.9	432	45.7
<b>Trash disposal</b>	27	2.8	246	25.7	684	71.5	612	63.8	129	13.4	219	22.8
<b>Workplace safety/health</b>	32	3.4	262	28.0	643	68.6	441	47.4	130	14.0	360	38.7

**III. Affordable Health Care:** In your opinion, how affordable are the following services in your community?

	<i>Not affordable</i>		<i>Somewhat affordable</i>		<i>Affordable</i>		<i>Don't Know</i>	
	#	%	#	%	#	%	#	%
<b>Dental care</b>	362	36.8	442	44.9	122	12.4	59	6.0
<b>Health insurance</b>	556	56.3	314	31.8	63	6.4	54	5.5
<b>Medical care</b>	412	41.6	443	44.7	93	9.4	42	4.2
<b>Mental health care</b>	358	36.9	220	22.7	33	3.4	358	36.9
<b>Prescription drugs</b>	516	52.0	371	37.4	77	7.8	28	2.8
<b>Preventative screenings</b>	279	28.7	397	40.8	140	14.4	157	16.1
<b>Urgent or emergency care</b>	447	44.8	331	33.2	107	10.7	113	11.3
<b>Vision</b>	311	31.9	476	48.9	102	10.5	85	8.7

**IV. Local Health Care:** How would you rate the services offered by the following health providers in your area? Also, indicate if you have received services from these providers during the last year.

	<i>Poor</i>		<i>Adequate</i>		<i>Excellent</i>		<i>Don't Know</i>		<i>Used in last year?</i>			
									<i>Yes</i>		<i>No</i>	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>County Ambulance District</b>	46	4.8	398	41.5	285	29.7	230	24.0	106	13.0	710	87.0
<b>County Health Department</b>	32	3.3	360	37.6	428	44.7	138	14.4	430	50.7	418	49.3
<b>Community Health Clinic (other than Health Dept.)</b>	52	5.8	298	33.5	143	16.1	396	44.5	194	26.0	551	74.0
<b>Private Physician</b>	84	8.6	430	44.2	401	41.3	57	5.9	713	84.1	135	15.9
<b>Local Hospital</b>	187	20.0	455	48.6	195	20.8	99	10.6	432	53.7	372	46.3
<b>Telehealth Services</b>	63	7.5	126	15.1	66	7.9	582	69.5	28	4.4	605	95.6

If you have NOT used the above services, please check ALL the reasons that apply:

	#	%
<b>Not physically accessible</b>	29	2.8
<b>Have no means to pay for these services</b>	132	12.8
<b>These do not provide the services my family needs</b>	121	11.7
<b>Went to a larger city with more medical resources</b>	254	24.6
<b>Did not know these services were provided in my area</b>	107	10.6
<b>Medical provider did not speak my language</b>	54	5.2
<b>Open hours not convenient</b>	56	5.4
<b>Have no transportation</b>	59	5.7
<b>Other</b>	136	13.2

**V. Other Needs:** How well are the following services being met by the health providers in your area? Do you think these services should be available in your county?

	<i>Poor</i>		<i>Adequate</i>		<i>Excellent</i>		<i>County Needs?</i>					
							<i>Yes</i>		<i>No</i>		<i>Don't Know</i>	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Cardiac rehabilitation</b>	208	25.6	453	55.7	153	18.8	533	61.3	94	10.8	243	27.9
<b>Cancer screenings:</b>												
<b>a. Colon</b>	259	32.1	425	52.7	123	15.2	579	65.8	92	10.5	209	23.8
<b>b. Prostate</b>	248	30.9	437	54.4	118	14.7	560	61.9	118	13.0	227	25.1
<b>c. Skin</b>	278	34.8	406	50.8	115	14.4	561	64.0	85	9.7	230	26.3
<b>Chronic disease support groups</b>	307	43.7	324	46.2	71	10.1	413	47.4	90	10.3	368	42.3
<b>Communicable disease control</b>	218	28.9	437	58.0	99	13.1	437	51.2	100	11.7	316	37.0
<b>Community health education</b>	207	26.3	473	60.1	107	13.6	521	59.8	105	12.1	245	28.1
<b>Daycare facility inspection</b>	422	43.6	421	43.5	125	12.9	475	53.7	88	9.9	322	36.4
<b>Family planning</b>	227	29.9	411	54.2	120	15.8	500	58.2	105	12.2	254	29.7
<b>Flu shots</b>	193	21.6	399	44.6	303	33.9	663	74.8	110	12.4	113	12.8
<b>Home visits for the elderly</b>	208	25.2	413	50.0	205	24.8	619	70.2	81	9.2	182	20.6
<b>Immunizations for adults</b>	187	22.2	454	53.8	203	24.1	597	68.9	92	10.6	178	20.5
<b>Immunizations for children</b>	85	9.9	405	47.4	365	42.7	635	73.5	92	10.6	137	15.9
<b>Investigating public health complaints</b>	206	28.7	399	55.6	112	15.6	470	54.2	86	9.9	311	35.9
<b>Issuing birth and death certificates</b>	97	12.1	427	53.3	277	34.6	565	65.4	82	9.5	217	25.1
<b>Lab services</b>	175	21.1	452	54.4	204	24.5	596	68.5	88	10.1	186	21.4
<b>Newborn home visits</b>	254	36.0	313	44.4	138	19.6	409	47.0	129	14.8	332	38.2
<b>Nutrition counseling/education</b>	243	31.9	378	49.7	140	18.4	473	54.6	126	14.5	268	30.9
<b>Physical therapy</b>	146	17.1	444	52.1	262	30.8	623	71.9	89	10.3	155	17.9
<b>Programs</b>												
<b>a. Consumer insurance education</b>	389	54.2	257	35.8	72	10.0	460	53.2	100	11.6	305	35.3
<b>b. Personal fitness/wellness</b>	307	37.8	370	45.6	135	16.6	593	67.3	93	10.6	195	22.1
<b>c. Respite/hospice</b>	180	22	397	48.5	242	29.5	604	67.6	103	11.5	187	20.9
<b>d. Support groups</b>	278	36.1	367	47.7	125	16.2	520	59.6	85	9.7	268	30.7
<b>Public health policy development</b>	208	30.6	381	56.0	91	13.4	418	49.4	81	9.6	347	41.0
<b>Radiology (X-ray)</b>	193	23.5	465	56.6	164	20.0	212	40.6	105	20.1	205	39.3
<b>Respiratory therapy</b>	181	23.0	455	57.8	151	19.2	554	64.4	85	9.9	221	25.7
<b>School health services</b>	154	18.7	467	56.6	204	24.7	574	65.8	84	9.6	214	24.5
<b>Screenings</b>												
<b>a. Blood pressure</b>	120	14.0	453	52.9	283	33.1	656	75.6	63	7.3	148	17.1
<b>b. Bone density</b>	210	25.8	429	52.6	176	21.6	573	65.6	84	9.7	212	24.4
<b>c. Cholesterol</b>	152	18.1	461	55.0	225	26.8	616	70.2	87	9.9	175	19.9
<b>d. Diabetic testing</b>	168	20.1	458	54.9	209	25.0	621	71.0	72	8.2	182	20.8
<b>STD testing/treatment</b>	186	27.1	357	52.0	143	20.8	475	59.4	37	4.6	288	36.0
<b>Women's health services</b>												
<b>a. Mammograms</b>	186	24.3	395	51.7	183	24.0	603	72.7	60	7.2	166	20.0
<b>b. Pap smear</b>	139	17.5	434	54.7	221	27.8	622	74.7	64	7.7	147	17.6
<b>c. Pregnancy testing</b>	81	9.9	517	63.4	217	26.6	392	61.1	59	9.2	191	29.8
<b>d. WIC</b>	73	9.7	381	50.8	296	39.5	574	68.9	69	8.3	190	22.8