

# Roundup Memorial Healthcare

Community Health Assessment  
Survey Report

Survey conducted by  
Roundup Memorial Healthcare  
Roundup, Montana

In cooperation with  
The Montana Office of Rural Health  
The National Rural Health Resource Center

January 2013



**MONTANA**  
STATE UNIVERSITY

Office of Rural Health  
Area Health  
Education Center



NATIONAL  
RURAL HEALTH  
RESOURCE CENTER

**Roundup Memorial Healthcare  
Community Needs Assessment**

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**Roundup Memorial Healthcare Community Survey  
Summary Report  
January, 2013**

**I. Introduction**

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Roundup Memorial Healthcare (RMH) is a 25-bed Critical Access Hospital based in Roundup, Montana. RMH has a service area of just under two thousand square miles and provides medical services to the Musselshell County population of approximately 4,538 people. RMH conducted a community health survey administrated by the Montana Office of Rural Health and the National Rural Health Resource Center (NRHRC) in Duluth, Minnesota.

In the fall of 2012, Roundup Memorial Healthcare's service area was surveyed about its health care system. This report shows the results of the survey in both narrative and chart formats. At the end of this report, we have included a copy of the survey instrument (Appendix B). Readers are invited to familiarize themselves with the survey instrument and then look at the findings. Our narrative report touches on the highlights while the charts present data for virtually every question asked. Note: A comparison was made of the 2012 survey data with data from the 2008 survey when applicable. If any statistical significance exists, it will be reported. Significance level was set at 0.05.

**II. Survey Methodology**

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**Survey Instrument**

In October 2012, surveys were mailed out to the residents in Roundup Memorial Healthcare's service area. The survey was based on a design that has been used extensively in the states of Washington, Wyoming, Alaska, Montana and Idaho. The survey was designed to provide each facility with information from local residents regarding:

- Respondent demographics
- Perception of community and personal health
- Needed local healthcare services
- Barriers to accessing healthcare services

**Sampling**

Roundup Memorial Healthcare provided the National Rural Health Resource Center with a list of outpatient and inpatient admissions. Those zip codes with the greatest number of admissions were selected to be included in the survey. A random list of 650 residents was then selected from Prime Net Data Source. Residence was stratified in the initial sample selection so that each area would be represented in proportion to the overall served population and the proportion of past admissions. (Note: Although the survey samples were proportionately selected, actual surveys returned from each population area varied, which may result in slightly less proportional results).



## **Information Gaps**

### **Data**

It is a difficult task to define the health of the rural and frontier communities in Montana due to the large geographic size, economic and environmental diversity, and low population density. Obtaining reliable, localized health status indicators for rural communities continue to be a challenge in Montana.

There are many standard health indices used to rank and monitor health in an urban setting that do not translate as accurately in rural and frontier areas. In the absence of sufficient health indices for rural and frontier communities in Montana, utilizing what is available is done with an understanding of access to care in rural and frontier Montana communities and barriers of disease surveillance in this setting.

The low population density of rural and frontier communities require regional reporting of many major health indices including chronic disease burden and behavior health indices. The Montana BRFSS [Behavioral Risk Factor Surveillance System], through a cooperative agreement with the Center for Disease Control (CDC), is used to identify regional trends in health-related behaviors. The fact that many health indices for rural and frontier counties are reported regionally makes it impossible to set the target population aside from the five more-developed Montana counties.

### **Limitations in Survey Methodology**

A common approach to survey research is the mailed survey. However, this approach is not without limitations. There is always the concern of non-response as it may affect the representativeness of the sample, thus a mixture of different data collection methodologies is recommended.

### **Survey Implementation**

In October, the community health services survey, a cover letter from the National Rural Health Resource Center with Roundup Memorial Healthcare's Chief Executive Officer's signature on Roundup Memorial Healthcare's letter head, and a postage paid reply envelope were mailed to 650 randomly selected residents in Roundup Memorial Healthcare's targeted region. A news release was sent to local newspapers prior to the survey distribution announcing that Roundup Memorial Healthcare would be conducting a community health services survey throughout the region in cooperation with the Montana Office of Rural Health.

As shown in the table below, 152 surveys were returned out of 650. Of that 650, 58 surveys were returned undeliverable for a 26% response rate. From this point on, the total number of surveys will be out of 592. Based upon the sample size, we can be 95% confident that the responses to the survey questions are representative of the service area population, plus or minus 6.02%.

### III. Survey Respondent Demographics

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A total of 592 surveys were distributed amongst Roundup Memorial Healthcare's service area. One hundred fifty-two were completed for a 26% response rate. The following tables indicate the demographic characteristics of the survey respondents. Information on location, gender, age, and employment is included. Percentages indicated on the tables and graphs are based upon the total number of responses for each individual question, as some respondents did not answer all questions.

#### Place of Residence (Question 11)

While there are some large differences in the percentages below, the absolute differences are small. The returned surveys are skewed toward the Roundup population which is reasonable given that this is where most of the services are located. Four respondents chose not to answer this question.

Location	Zip Code	2008		2012	
		Count	Percent	Count	Percent
Roundup	59072	189	81.1%	121	81.8%
Musselshell	59059	13	5.6%	7	4.7%
Lavina	59046	10	4.3%	7	4.7%
Winnett	59087	11	4.7%	6	4.1%
Melstone	59054	10	4.3%	5	3.4%
Ryegate	59074	0	0	2	1.4%
<b>TOTAL</b>		<b>233</b>	<b>100.0%</b>	<b>148</b>	<b>100.0%</b>

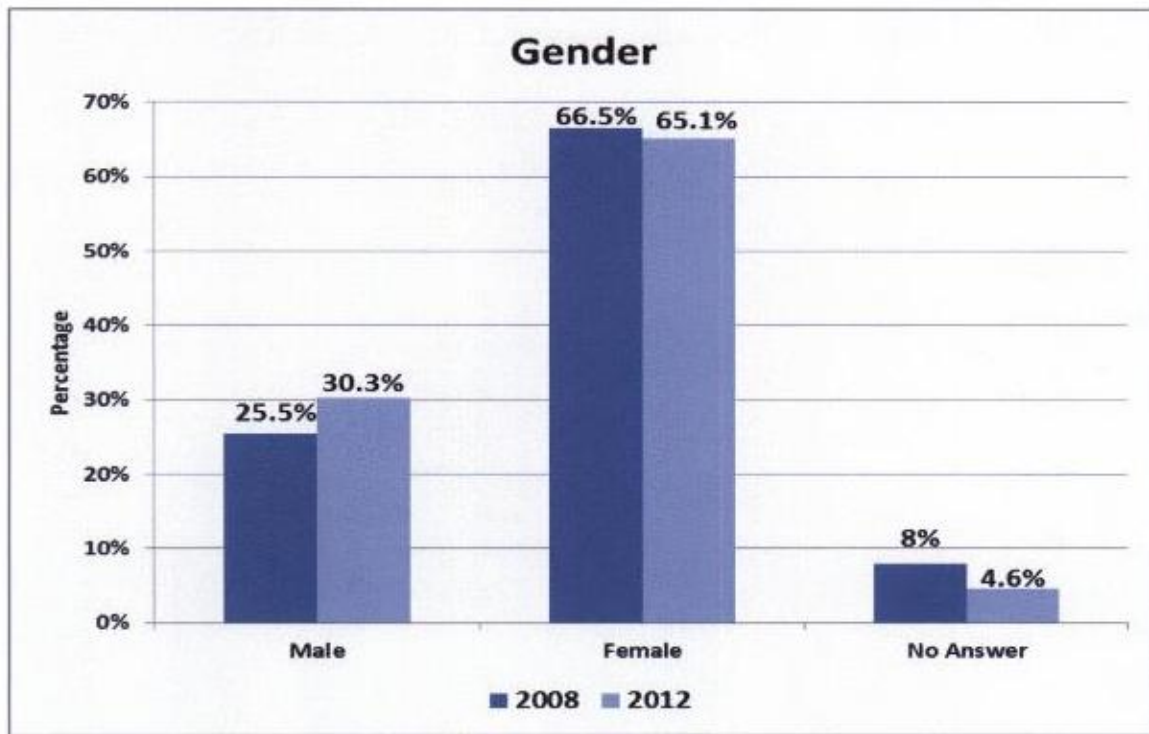


### Gender (Question 12)

2008 N= 251

2012 N= 152

Of the 152 surveys returned, 65.1% (n=99) of survey respondents were female; 30.3% (n=46) were male, and 4.6% (n=7) chose not to answer this question. The survey was distributed to a random sample consisting of 50% women and 50% men. It is not unusual for survey respondents to be predominantly female, particularly when the survey is health care oriented since women are frequently the health care decision makers for families.

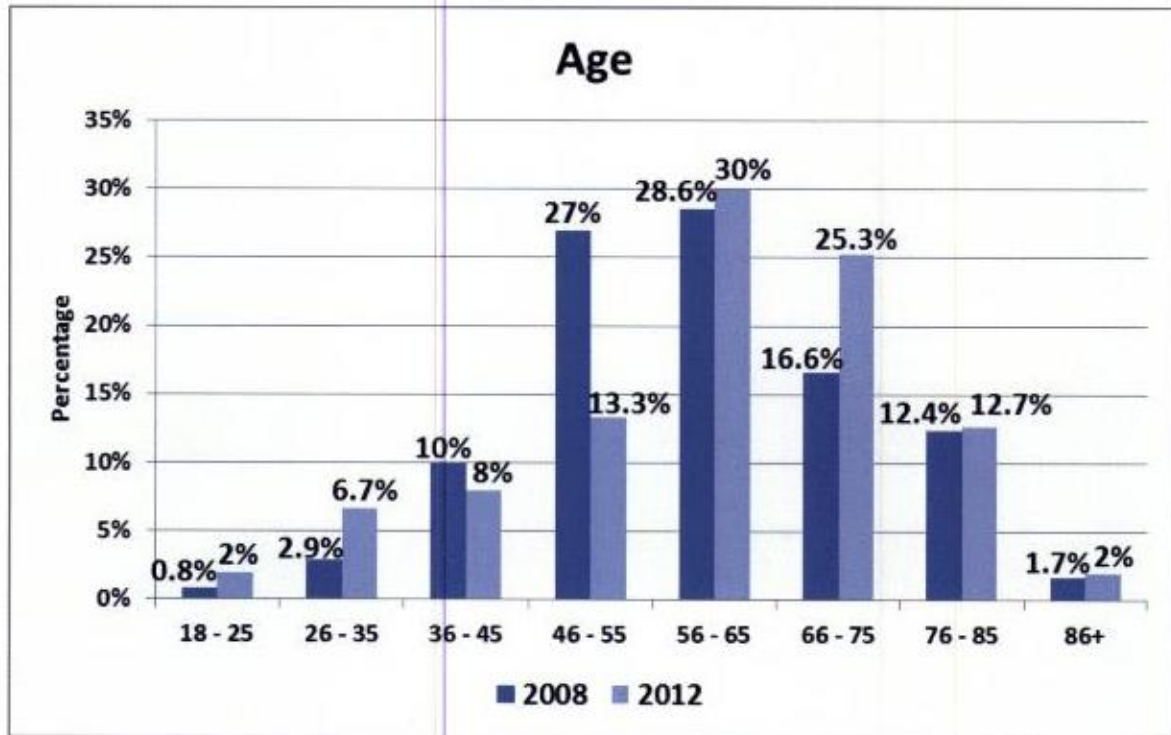


### Age of Respondents (Question 13)

2008 N= 241

2012 N= 150

Thirty percent of respondents (n=45) were between the ages of 56-65. Twenty-five percent of respondents (n=38) were between the ages of 66-75 and 13.3% of respondents (n=20) were between the ages of 46-55. This statistic is comparable to other Critical Access Hospital demographics. The increasing percentage of elderly residents in rural communities is a trend which is seen throughout Montana and will likely have a significant impact on the need for health care services during the next 10-20 years. However, it is important to note that the survey was targeted to adults and therefore no respondents are under age 18. Older residents are also more invested in health care decision making, and therefore are more likely to respond to health care surveys, as reflected by this graph.



“Other” comments:

- Can't afford [Medicare] Part B

## IV. Survey Findings

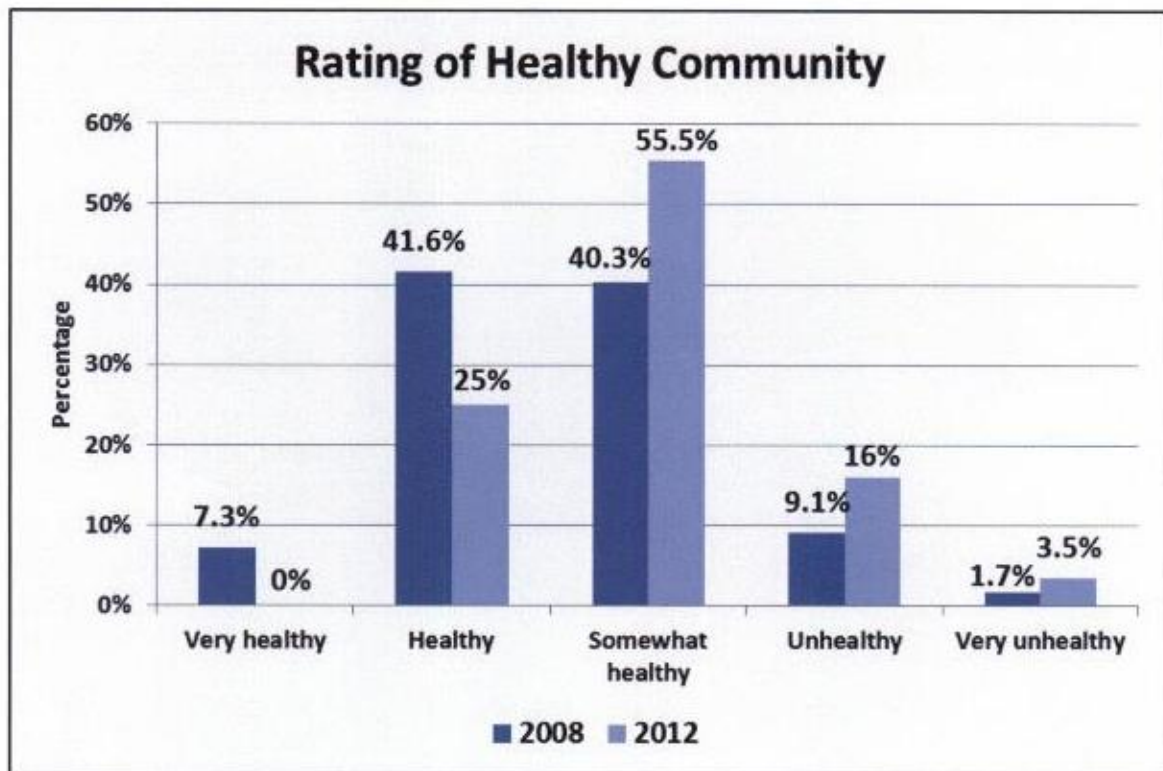
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### Impression of Community (Question 1)

2008 N= 231

2012 N= 144

Respondents were asked to indicate how they would rate the general health of their community. Fifty-six percent of respondents (n=80) rated their community as “Somewhat healthy.” Twenty-five percent of respondents (n=36) felt their community was “Healthy” and 16% (n=23) felt their community was “Unhealthy.”



“Other” comments:

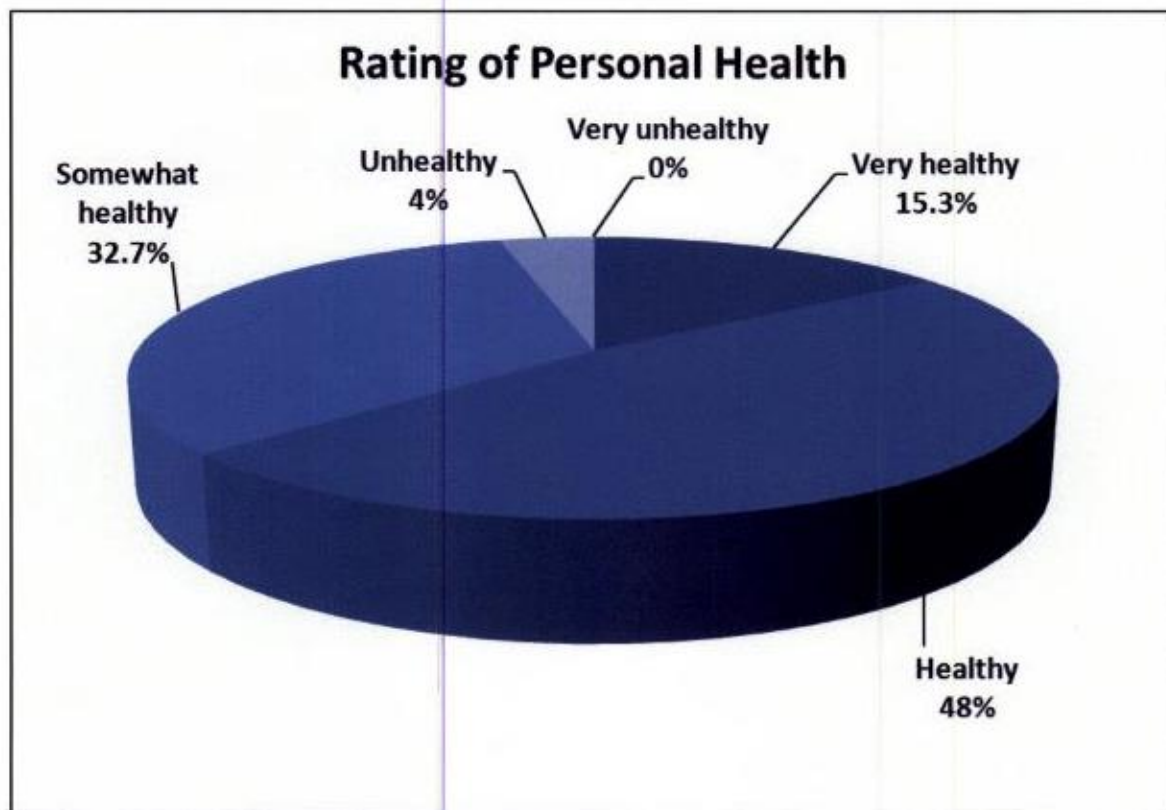
- Haven't lived here long enough to rate it



### Rating of Personal Health (Question 2)

N= 150

Respondents were asked to rate their overall personal health. Forty-eight percent of respondents (n=72) rated their overall health as “Healthy”. Thirty-three percent (n=49) rated their health as “Somewhat healthy” and 15.3% (n=23) rated themselves as “Very healthy”. Two respondents chose not to answer the question.



### Health Concerns for Community (Question 3)

2008 N= 251

2012 N= 152

Respondents were asked what they felt the three most serious health concerns were in their community. The number one health concern identified by respondents was “Alcohol/substance abuse” at 68.4% (n=104). “Overweight/obesity” was the second highest response at 40.8% (n=62) followed by “Cancer” at 37.5% (n=57). Respondents were asked to pick their top three serious health concerns so percentages do not equal 100%.

Health Concern	2008		2012	
	Count	Percent	Count	Percent
Alcohol/substance abuse*	127	50.6%	104	68.4%
Overweight/obesity***	35	13.9%	62	40.8%
Cancer	92	36.7%	57	37.5%
Heart disease	37	14.7%	33	21.7%
Diabetes	40	15.9%	29	19.1%
Tobacco use	42	16.7%	28	18.4%
Mental health issues**	17	6.8%	25	16.4%
Depression/anxiety	Not asked in 2008		22	14.5%
Lack of exercise	38	15.1%	22	14.5%
Lack of access to health care	35	13.9%	15	9.9%
Lack of dental care	19	7.6%	14	9.2%
Child abuse/neglect	19	7.6%	13	8.6%
Motor vehicle accidents	15	6.0%	10	6.6%
Domestic violence	15	6.0%	7	4.6%
Work related accidents/injuries	Not asked in 2008		4	2.6%
Stroke	15	6.0%	3	2.0%
Recreation related accidents/injuries	Not asked in 2008		1	0.7%
Other	12	4.8%	4	2.6%

\*In 2012 significantly more respondents cite alcohol/substance as a serious health concern than in 2008; (2012-68.4%, 2008-50.6%).

\*\*In 2012 significantly more respondents stated that mental health issues are one of the 3 most serious health concerns than in 2008; (2012-16.4%, 2008-6.8%).

\*\*\*In 2012 significantly more respondents cite overweight/obesity as a serious health concern than in 2008; (2012-40.8%, 2008-13.9%).

“Other” comments:

- Lack of affordable healthcare
- City water is bad (2)
- Over-dependence on prescription drugs
- Drugs, etc.

#### Components of a Healthy Community (Question 4)

2008 N= 251

2012 N= 152

Respondents were asked to identify the three most important things for a healthy community. Sixty-two percent of respondents (n=94) indicated that “Access to health care and other services” is important for a healthy community. “Good jobs and healthy economy” was the second most indicated component at 54.6% (n=83) and third was “Healthy behaviors and lifestyles” at 34.2% (n=52). Respondents were asked to identify their top three choices thus the percentages will not add up to 100%.

Important Component	2008		2012	
	Count	Percent	Count	Percent
Access to health care and other services	132	52.6%	94	61.8%
Good jobs and healthy economy	128	51.0%	83	54.6%
Healthy behaviors and lifestyles*	54	21.5%	52	34.2%
Strong family life	56	22.3%	39	25.7%
Good schools	65	25.9%	35	23.0%
Religious or spiritual values	41	16.3%	30	19.7%
Clean environment	39	15.5%	29	19.1%
Low crime/safe neighborhoods	51	20.3%	25	16.4%
Affordable housing	40	15.9%	24	15.8%
Community involvement	29	11.6%	14	9.2%
Low death and disease rates	6	2.4%	8	5.3%
Tolerance for diversity	10	4.0%	8	5.3%
Arts and cultural events	7	2.8%	4	2.6%
Low level of domestic violence	10	4.0%	3	2.0%
Parks and recreation	6	2.4%	2	1.3%
Other	10	4.0%	3	2.0%

\*In 2012 significantly more respondents indicated healthy behaviors and lifestyles as an important component of a health community than in 2008; (2012 – 34.2%, 2008 - 21.5 %.)

“Other” comments:

- Good water is #1 concern. Drill a well!



### Desired Local Health Care Services (Question 5)

N= 152

Respondents were asked to indicate which health services are needed in their community. Respondents indicated the most interest in having “Home health” at 52% (n=79) followed by “Respiratory health” at 26.3% (n=40). Thirty-eight respondents (25%) indicated a need for a “Diabetic clinic.” Respondents were asked to check all that apply, so percentages do not equal 100%.

Health Care Services	Count	Percent
Home health	79	52.0%
Respiratory health	40	26.3%
Diabetic clinic	38	25.0%
Other	26	17.1%

“Other” comments:

- Dental
- Affordable services
- Free mental health counseling
- Free clinic
- Alcohol/substance abuse (2)
- Parenting classes
- Education
- Doctors (2)
- Good, young doctors
- Weight clinic
- All
- Heart health (3)
- Mental health services (2)
- Diagnostic Equipment
- Affordable shopping
- None
- Exercise routines (2)
- More efficiency at the clinic – not such long waits
- Physicians who will stay and bond with our community
- More options at the hospital
- We need another water source because it is undrinkable
- Not sure
- Youth/adult center
- Aftercare hospice
- Some surgical procedures

### How Respondents Prefer to Receive Health Education Information (Question 6)

N= 152

“Pamphlets or other printed materials” was the most frequent method of receiving health education information at 42.1% (n=64). “Classes in the community” was the second most frequent response at 41.4% (n=63) and “Newspaper” was reported at 17.8% (n=27). Respondents could select more than one method so percentages do not equal 100%.

<b>Method</b>	<b>Count</b>	<b>Percent</b>
Pamphlets or other printed materials	64	42.1%
Classes in the community	63	41.4%
Newspaper	27	17.8%
Internet/Web	24	15.8%
Radio	8	5.3%
TV	7	4.6%

“Other” comments:

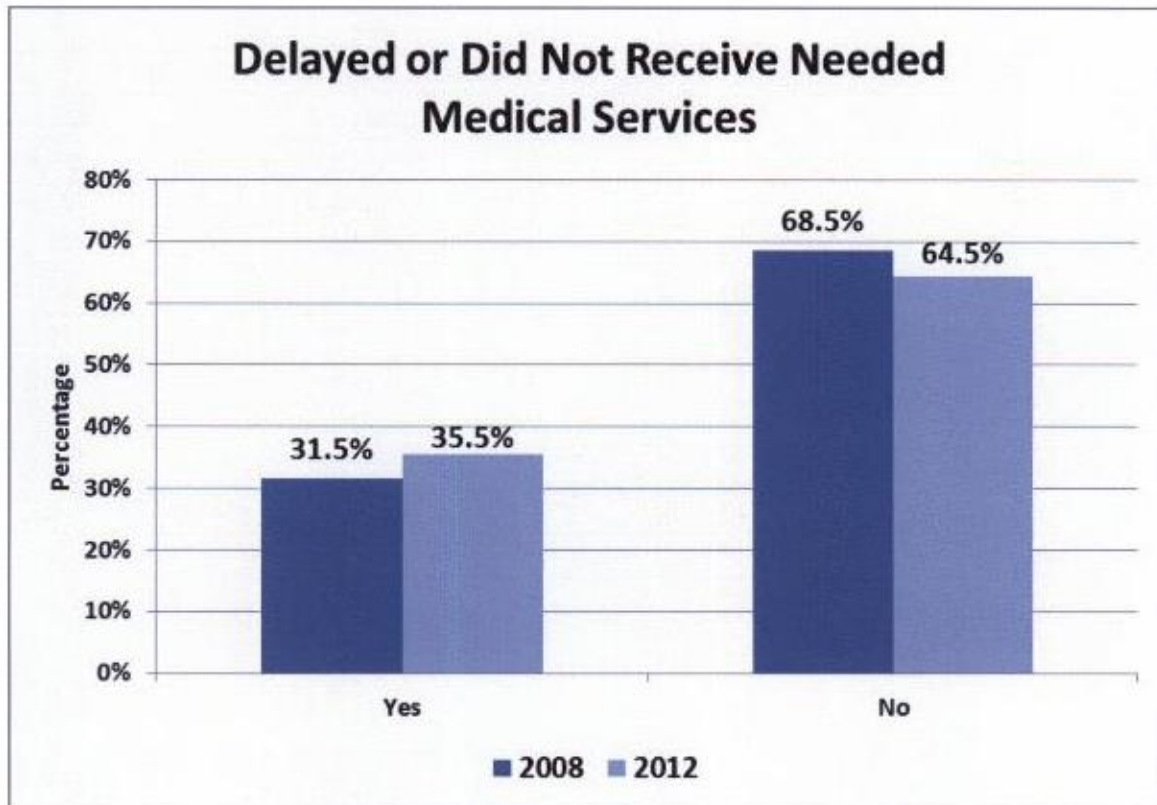
- Any of these ways would be okay
- Cable TV
- Set an example

### Needed/Delayed Hospital Care During the Past Three Years (Question 7)

2008 N= 241

2012 N= 141

Of the 152 surveys returned, 35.5% of respondents (n=50) reported that they or a member of their household thought they needed health care services, but did not get it or delayed getting it. Sixty-five percent of respondents (n=91) felt they were able to get the health care services they needed without delay.





**Reasons for NOT Being Able to Receive Services or Delay in Receiving Health Care Services (Question 8)**

2008 N= 76

2012 N= 50

For those who indicated they were unable to receive or had to delay services, the reasons most cited were: “It cost too much” (58%, n=29), “No insurance” (42%, n=21) and “Too long to wait for an appointment” (26%, n=13). Respondents were asked to indicate their top three choices thus percentages do not total 100%.

Reason	2008		2012	
	Count	Percent	Count	Percent
It cost too much	37	48.7%	29	58.0%
No insurance	29	38.2%	21	42.0%
Too long to wait for an appointment	17	22.4%	13	26.0%
Office wasn't open when I could go	9	11.8%	8	16.0%
Not treated with respect*	2	2.6%	8	16.0%
Don't like doctors	10	13.2%	7	14.0%
Unsure if services were available	9	11.8%	6	12.0%
My insurance didn't cover it	16	21.1%	6	12.0%
Could not get an appointment	4	5.3%	4	8.0%
Too nervous or afraid	6	7.9%	4	8.0%
Could not get off work	4	5.3%	3	6.0%
Transportation problems	1	1.3%	3	6.0%
It was too far to go	4	5.3%	2	4.0%
Had no one to care for the children	0	0	1	2.0%
Didn't know where to go	6	7.9%	1	2.0%
Language barrier	1	1.3%	0	0
Other	16	21.1%	12	24.0%

\*In 2012 significantly more respondents delayed health care because they felt not treated with respect; (2012 – 16.0%, 2008 – 2.6%.)

“Other” comments:

- Hoped it would clear up on its own
- Respect some of the health care providers but not all at RMH (Roundup Memorial Healthcare)
- Provider in Billings
- Too long of a wait (2)
- They don't follow through with prescriptions!
- Did not trust doctors, etc.
- Was seen by a nurse and physician's assist
- I prefer to establish a long-term relationship with one doctor (2)
- Dis-concern

### Reasons for Selecting another Hospital (Question 9)

N= 152

Of the respondents who routinely seek primary health care services outside of Roundup Memorial Healthcare, "Prior relationship with other provider" was reported most often at 34.9% (n=53). "Quality of staff" was selected by 30.3% of the respondents (n=46) and 22.4% (n=34) selected "Quality of equipment." Note that respondents were asked to select all answers that applied to them; therefore the percentages do not equal 100%.

Reason	Count	Percent
Prior relationship with other provider	53	34.9%
Quality of staff	46	30.3%
Quality of equipment	34	22.4%
I/we utilize RMH services	28	18.4%
More privacy	22	14.5%
Cost of care	19	12.5%
VA/Military requirement	11	7.2%
Closest to home	10	6.6%
Required by insurance plan	10	6.6%
Closest to work	7	4.6%
Other	18	11.8%

#### "Other" comments:

- Services not offered at RMH (Roundup Memorial Healthcare)
- Haven't seen a doctor in over two years
- Heart defibrillator not done here
- N/A
- Consistent Roundup Memorial Healthcare providers (2)
- Have only accessed dental care, which I receive locally
- Heart specialist
- More services and choices available elsewhere. I also moved from Billings, so I already had a doctor
- Need for cancer specialist
- Hours available
- Aftercare service that doesn't cost an arm and leg
- I might add that Dr. Lewis is a really good doctor. I will use her as my primary doctor
- Providers do not stay long enough at our local facility (2)
- Specialist in a certain field (3)
- No accounting problems
- Good doctors



### Barriers to Having Health Insurance (Question 10)

2008 N= 251

2012 N= 152

Respondents who do not have medical insurance were asked to indicate why they did not. Twenty-three percent (n=35) reported they did not have health insurance because they could not afford to pay for it and 3.3% (n=5) indicated "Choose not to have medical insurance." Respondents were asked to mark all answers that applied, thus the percentages do not equal 100%.

Reason	2008		2012	
	Count	Percent	Count	Percent
Cannot afford to pay for medical insurance	38	15.1%	35	23.0%
Choose not to have medical insurance	5	2.0%	5	3.3%
Employer does not offer insurance	5	2.0%	4	2.6%
Cannot get medical insurance due to medical issues	10	4.0%	4	2.6%
Other	5	2.0%	8	5.3%

#### "Other" comments:

- Only through my work – have to go there
- Medicaid (3)
- Republican political control at state and national level
- Self-employed (2)
- Medicare (4)
- Veteran's Affairs (VA) Health Care
- I've got insurance



## **V. Summary**

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One hundred fifty-two surveys were completed in Roundup Memorial Healthcare's service area for a 26% response rate. Of the 152 returned, 81.8% of the respondents reside in Roundup. Sixty-five percent of the respondents were female, and 30.3% were male. Seventy percent of respondents were 56 years of age or older.

Eighty-one percent of the respondents rated their community as "Somewhat healthy" or "Healthy." Ninety-six percent of respondents rated their personal health as "Somewhat healthy," "Healthy," or "Very healthy." The majority of participants identified "Alcohol/substance abuse," "Obesity," and "Cancer" to be the top health concerns for their community.

Respondents indicated a desire for additional local health care services such as home health, respiratory health, and a diabetic clinic.

## Appendix A- Survey Cover Letter



Roundup Memorial  
Healthcare



October 1, 2012

Dear Resident:

This letter and survey concern the future of healthcare in Musselshell County and the surrounding area. Your help is critical in determining health priorities and future needs.

You are probably aware of many challenges facing rural healthcare, such as access to services and affordability. Unfortunately, many of the factors that threaten healthcare services in other rural areas challenge our local healthcare system as well. However, by completing the enclosed survey, you can help guide Roundup Memorial Healthcare in developing comprehensive and affordable healthcare services to our area residents.

Roundup Memorial Healthcare received grant funding from the Montana Office of Rural Health/Area Health Education Center to administer a community health survey. The purpose of the survey is to obtain information from a wide range of area residents to assist in planning programs, services, and facilities to meet present and future healthcare needs.

Please take a few moments to complete the enclosed survey by **November 12, 2012**. **Your name was selected at random and your answers will be kept confidential.** Your response is very important because your comments will represent others in the area. Even if you don't use healthcare services with Roundup Memorial Healthcare, your input is still helpful. We know your time is valuable so we have made every effort to keep the survey brief. It should take less than 15 minutes to complete. **Your help is much appreciated in responding to this survey.**

Once you complete your survey, simply **return it in the enclosed self-addressed, postage paid envelope.** All survey responses will go to the National Rural Health Resource Center in Duluth, Minnesota, the organization that is assisting with this project. If you have any questions about the survey, please call the Montana Office of Rural Health at 406-994-6001. We believe, with your help, we can continue to improve healthcare services in our region.

Thank you for your assistance. We appreciate your effort.

Sincerely,

*BC Howell*

Brad Howell, CEO  
Roundup Memorial Healthcare

Hospital • 1202 Third Street West • PO Box 40 • Roundup, MT 59072 • 406-323-2301 • Fax 406-323-3681



## Appendix B- Survey Instrument

### Community Health Services Development Survey - Roundup, Montana

INSTRUCTIONS: Please use a #2 pencil or ink pen to complete the survey and return it in the enclosed postage paid envelope. All responses must be made by filling in the circle next to the corresponding answer. *If you need assistance filling out this survey, please contact the Montana Office of Rural Health at 406-994-6001. Participation is voluntary. You can choose to not answer any question that you do not want to answer, and you can stop at any time.*

1. How would you rate the general health of our community?

- Very healthy     Healthy     Somewhat healthy     Unhealthy     Very unhealthy

2. How would you rate your own personal health?

- Very healthy     Healthy     Somewhat healthy     Unhealthy     Very unhealthy

3. In the following list, what do you think are the **three** most serious health concerns in our community? (Select 3 that apply)

- |   |   |   |
|---|---|---|
| <input type="radio"/> Alcohol abuse/substance abuse | <input type="radio"/> Heart disease                 | <input type="radio"/> Recreation related accidents/injuries |
| <input type="radio"/> Cancer                        | <input type="radio"/> Lack of access to health care | <input type="radio"/> Stroke                                |
| <input type="radio"/> Child abuse/neglect           | <input type="radio"/> Lack of dental care           | <input type="radio"/> Overweight/obesity                    |
| <input type="radio"/> Depression/anxiety            | <input type="radio"/> Lack of exercise              | <input type="radio"/> Tobacco use                           |
| <input type="radio"/> Diabetes                      | <input type="radio"/> Mental health issues          | <input type="radio"/> Work related accident/injuries        |
| <input type="radio"/> Domestic violence             | <input type="radio"/> Motor vehicle accidents       | <input type="radio"/> Other _____                           |

4. Select the **three** items below that you believe are **most important** for a healthy community. (Select 3 that apply)

- |  |  |
|--|--|
| <input type="radio"/> Access to health care and other services | <input type="radio"/> Low crime/safe neighborhoods   |
| <input type="radio"/> Affordable housing                       | <input type="radio"/> Low death and disease rates    |
| <input type="radio"/> Arts and cultural events                 | <input type="radio"/> Low level of domestic violence |
| <input type="radio"/> Clean environment                        | <input type="radio"/> Parks and recreation           |
| <input type="radio"/> Community involvement                    | <input type="radio"/> Religious or spiritual values  |
| <input type="radio"/> Good jobs and healthy economy            | <input type="radio"/> Strong family life             |
| <input type="radio"/> Good schools                             | <input type="radio"/> Tolerance for diversity        |
| <input type="radio"/> Healthy behaviors and lifestyles         | <input type="radio"/> Other _____                    |

5. What additional health services are needed in our community? (Select all that apply)

- Diabetic clinic     Home health     Respiratory health     Other \_\_\_\_\_



6. How would you prefer to receive health education information (diabetes, weight loss, fitness, etc.) from Roundup Memorial Healthcare?

- Pamphlets or other printed materials       Radio       TV  
 Classes in the community       Newspaper       Internet/Web

7. In the past three years, was there a time when you or a member of your household thought you needed health care services but **did NOT** get or delayed getting medical services?

- Yes     No      (If no, skip to question 9)

8. If yes, what were the **three** most important reasons why you **did NOT** receive health care services? (Select 3 that apply)

- Could not get an appointment       It cost too much       Not treated with respect  
 Too long to wait for an appointment       Could not get off work       Too nervous or afraid  
 Office wasn't open when I could go       Didn't know where to go       Language barrier  
 Unsure if services were available       It was too far to go       Transportation problems  
 Had no one to care for the children       My insurance didn't cover it       Don't like doctors  
 No insurance       Other \_\_\_\_\_

9. If you routinely seek primary health care services outside of Roundup Memorial Healthcare (RMH), why? (Select all that apply)

- Cost of care       Quality of staff       VA/Military requirement  
 Closest to home       Prior relationship with other provider       I/we utilize RMH services  
 Closest to work       More privacy       Other \_\_\_\_\_  
 Quality of equipment       Required by insurance plan

10. If you **do NOT** have medical insurance, why? (Select all that apply)

- Cannot afford to pay for medical insurance       Employer does not offer insurance  
 Choose not to have medical insurance       Other \_\_\_\_\_  
 Cannot get medical insurance due to medical issues

11. Where do you currently live by zip code?

- 59072 Roundup       59059 Musselshell       59054 Melstone  
 59087 Winnett       59074 Ryegate       59046 Lavina

12. What is your gender?     Male     Female

13. What is your age range?

- 18-25     26-35     36-45     46-55     56-65     66-75     76-85     86+

**THANK YOU VERY MUCH FOR YOUR TIME**  
Please note that all information will remain confidential

## Appendix C- Responses to Other and Comments

### 1. How would you rate the general health of our community?

- Haven't lived here long enough to rate it

### 3. In the following list, what do you think are the three most serious health concerns in our community?

- Lack of affordable healthcare
- City water is bad (2)
- Over-dependence on prescription drugs
- Drugs, etc.

### 4. Select the three items below that you believe are most important for a healthy community.

- Good water is #1 concern. Drill a well!

### 5. What additional health services are needed in our community?

- Dental
- Affordable services
- Free mental health counseling
- Free clinic
- Alcohol/substance abuse (2)
- Parenting classes
- Education
- Doctors (2)
- Good, young doctors
- Weight clinic
- All
- Heart health (3)
- Mental health services (2)
- Diagnostic Equipment
- Affordable shopping
- None
- Exercise routines (2)
- More efficiency at the clinic – not such long waits
- Physicians who will stay and bond with our community
- More options at the hospital
- We need another water source because it is undrinkable
- Not sure
- Youth/adult center
- Aftercare hospice
- Some surgical procedures

### 6. How would you prefer to receive health education information (diabetes, weight loss, fitness, etc.) from Roundup Memorial Healthcare?

- Any of these ways would be okay
- Cable TV
- Set an example



**8. If yes, what were the three most important reasons why you did NOT receive health care services?**

- Hoped it would clear up on its own
- Respect some of the health care providers but not all at RMH (Roundup Memorial Healthcare)
- Provider in Billings
- Too long of a wait (2)
- They don't follow through with prescriptions!
- Did not trust doctors, etc.
- Was seen by a nurse and physician's assist
- I prefer to establish a long-term relationship with one doctor (2)
- Dis-concern

**9. If you routinely seek primary health care services outside of Roundup Memorial Healthcare (RMH), why?**

- Services not offered at RMH (Roundup Memorial Healthcare)
- Haven't seen a doctor in over two years
- Heart defibrillator not done here
- N/A
- Consistent Roundup Memorial Healthcare providers (2)
- Have only accessed dental care, which I receive locally
- Heart specialist
- More services and choices available elsewhere. I also moved from Billings, so I already had a doctor
- Need for cancer specialist
- Hours available
- Aftercare service that doesn't cost an arm and leg
- I might add that Dr. Lewis is a really good doctor. I will use her as my primary doctor
- Providers do not stay long enough at our local facility (2)
- Specialist in a certain field (3)
- No accounting problems
- Good doctors

**10. If you do NOT have medical insurance, why?**

- Only through my work – have to go there
- Medicaid (3)
- Republican political control at state and national level
- Self-employed (2)
- Medicare (4)
- Veteran's Affairs (VA) Health Care
- I've got insurance

**13. What is your age range?**

- Can't afford [Medicare] Part B



## Appendix D – Secondary Data

### County Profile

Musselshell County  
Secondary Data Analysis  
July 23, 2012



**MONTANA**  
STATE UNIVERSITY

Office of Rural Health  
Area Health  
Education Center

Leading Causes of Death	County <sup>1</sup>	Montana <sup>1,2</sup>	Nation <sup>2</sup>
	1. Heart Disease 2. Cancer 3. CLRD*	1. Cancer 2. Heart Disease 3. CLRD*	1. Heart Disease 2. Cancer 3. CLRD*

<sup>1</sup>Community Health Data, MT Dept of Health and Human Services (2010)

<sup>2</sup>Center for Disease Control and Prevention (CDC), National Vital Statistics (2012)

\*Chronic Lower Respiratory Disease

Chronic Disease Burden <sup>1</sup>	Region 3	Montana	Nation <sup>3,4</sup>
Stroke prevalence	2.8%	2.5%	2.6%
Diabetes prevalence	6.9%	6.2%	8.3%
Acute Myocardial Infarction prevalence (Heart Attack)	4.3%	4.1%	6.0%
All Sites Cancer	510.8	455.5	543.2

<sup>1</sup>Community Health Data, MT Dept of Health and Human Services (2010)

Region 3 (South Central) – Judith Basin, Fergus, Petroleum, Wheatland, Golden Valley, Musselshell, Sweet Grass, Stillwater, Yellowstone, Big Horn, and Carbon

<sup>3</sup>Center for Disease Control and Prevention (CDC) (2012)

<sup>4</sup>American Diabetes Association (2012)

Chronic Disease Hospitalization Rates	County	Montana
Stroke <sup>1</sup> Per 100,000 population	137.9	182.2
Diabetes <sup>1</sup> Per 100,000 population	127.3 (Region 3)	115.4
Myocardial Infarction <sup>1</sup> Per 100,000 population	124.3	147.3

<sup>1</sup>Community Health Data, MT Dept of Health and Human Services (2010)

Demographic Measure (%)		County			Montana			Nation <sup>5,6</sup>		
Population <sup>1</sup>		4,498			989,415			308,745,538		
Population Density <sup>1</sup>		2.4			6.7			Not relevant		
Age <sup>1</sup>		<5	18-64	65+	<5	18-64	65+	<5	15-64	65+
		5%	63%	18%	6%	63%	14%	7%	62%	13%
Gender <sup>1</sup>		Male		Female	Male		Female	Male		Female
		48.6%		51.4%	50.1%		49.9%	49.2%		50.8%
Race/Ethnic Distribution		White <sup>1</sup>			91.5%			72.4%		
		American Indian or Alaska Native <sup>1</sup>			6.8%			0.9%		
		Other <sup>1</sup>			1.7%			26.7%		

<sup>1</sup>Community Health Data, MT Dept of Health and Human Services (2010)

<sup>6</sup>Black, Asian/Pacific Islanders, Hispanic & Non-Hispanic Ancestry  
<sup>5</sup>US Census Bureau (2010)

<sup>2</sup>County Health Ranking, Robert Wood Johnson Foundation (2012)

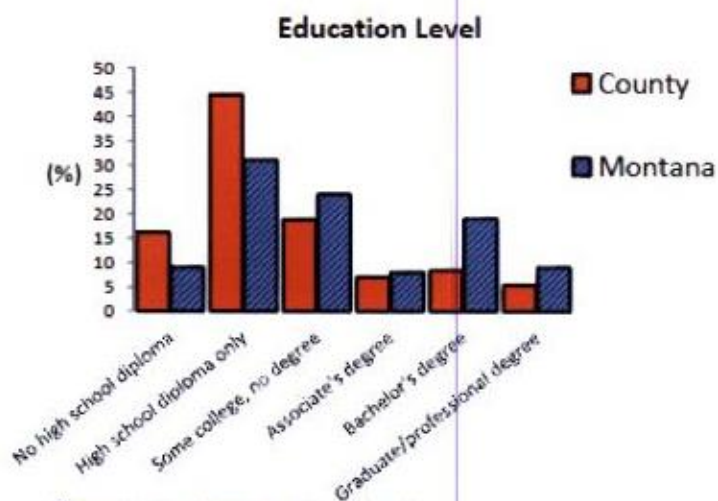
Socioeconomic Measures <sup>1</sup> (%)	County	Montana	Nation <sup>7,8</sup>
Median Income <sup>1</sup>	\$32,919	\$43,000	\$51,914
Unemployment Rate <sup>7</sup>	5.7%	6.3%	7.7%
Persons Below Poverty Level <sup>1</sup>	20.0%	14.0%	13.8%
Uninsured Adults (Age <65) <sup>1</sup>	26.7%	19.0%	18.2%
Uninsured Children (Age <18) <sup>9</sup>	N/A	11.0%	10.0%

<sup>1</sup>Community Health Data, MT Dept of Health and Human Services (2010)

<sup>7</sup>Montana Dept of Labor and Industry, Research & Analysis Bureau. Local Area Unemployment Statistics (LAUS). Non-Seasonally Adjusted Unemployment Rate. (Retrieved April 2012)

<sup>8</sup>Center for Disease Control and Prevention (CDC), Health Insurance Coverage (2011)

<sup>9</sup>Montana KIDS COUNT (2009)



<sup>10</sup>Indicators Northwest, Imp. Graph (2011)



Behavioral Health <sup>1,2</sup>	Region 3	Montana
Childhood Immunization Up-To-Date (UTD) % Coverage <sup>11,††</sup> Age 24-35 months, population size: 12,075 (% sampled: 35.9%)	60.0% (County)	64.3%
Tobacco Use <sup>1</sup>	18.7%	19.3%
Alcohol Use (binge + heavy drinking) <sup>1</sup>	20.8%	22.8%
Obesity <sup>1</sup>	24.2%	21.6%
Overweight <sup>1</sup>	38.3%	37.8%
No Leisure time for physical activity <sup>1</sup>	22.0%	20.7%

<sup>1</sup>Community Health Data, MT Dept of Health and Human Services (2010)

<sup>2</sup>Center for Disease Control and Prevention (CDC), National Vital Statistics (2012)

<sup>11</sup>County Childhood Immunization Coverage, MT Dept of Health and Human Services (2010-2011).

<sup>††</sup>Childhood immunization percent coverage was determined following the CDC developed and validated AFIX [Assessment, Feedback, Incentives, & Exchange] strategy designed to raise immunization levels. The Montana Immunization Program is required to participate in this process. Fifty percent of immunization providers are assessed each year. All children's records per provider assessed are reviewed to determine if the child is up-to-date with recommendations of the Advisory Council on Immunization Practices (ACIP).



Screening <sup>1</sup>	Region 3	Montana
Cervical Cancer (Pap Test in past 3 yrs) <sup>1</sup>	84.7%	83.0%
Breast Cancer (Mammogram in past 2 yrs) <sup>1</sup>	73.5%	71.9%
Blood Stool <sup>1</sup> Sigmoidoscopy or Colonoscopy <sup>1</sup>	26.5%	25.3%
	54.5%	54.3%
Diabetic Screening <sup>5</sup> Percent of Medicare enrollees who received HbA1c screening	75.0% (County)	79.0%

<sup>1</sup>Community Health Data, MT Dept of Health and Human Services (2010)

<sup>5</sup>County Health Ranking, Robert Wood Johnson Foundation (2012)

Mortality <sup>1,2,12</sup>	County	Montana	Nation <sup>2,13</sup>
Suicide Rate per 100,000 population <sup>1</sup>	36.0	20.3	12.0
Unintentional Injury Death Rate per 100,000 population <sup>1</sup>	63.0	58.8	38.4
Percent Motor Vehicle Crashes Involving Alcohol <sup>1</sup>	13.3%	10.0%	32.0%
Pneumonia/Influenza Mortality per 100,000 population <sup>1</sup>	13.5	19.0	17.5
Diabetes Mellitus <sup>2</sup>	63.0	27.1	21.8

<sup>1</sup>Community Health Data, MT Dept of Health and Human Services (2010)

<sup>12</sup>Center for Disease Control and Prevention (CDC), Web-based Injury Statistics Query and Reporting System (WISQARS) (2011)

<sup>2</sup>Center for Disease Control and Prevention (CDC), National Vital Statistics (2012)

<sup>13</sup>Kaiser State Health Facts, National Diabetes Death Rate (2008)

Maternal Child Health <sup>1</sup>	County	Montana	Nation <sup>14,15</sup>
Infant Mortality (death within 1 <sup>st</sup> year) Rate per 1,000 live births <sup>1</sup>	6.1 (Region 3)	6.1	6.7
Entrance into Prenatal care in 1 <sup>st</sup> Trimester Percent of Live Births <sup>1</sup>	81.3%	83.9%	69.0%
Birth Rate <sup>3</sup> Babies born per 1,000 people	9.1	12.8	13.5
Low Birth Weight (<2500 grams) Percent of live births <sup>1</sup>	8.2%	7.3%	8.3%
Neonatal Mortality (under 28 days of age) Rate per 1,000 live births <sup>1</sup>	3.5 (Region 3)	3.3	4.5
Post Neonatal Mortality (28 through 364 days of age) Rate per 1,000 live births <sup>1</sup>	2.6 (Region 3)	2.7	2.2
Pre-Term Birth (<37 completed weeks gestation) Percent of Live Births <sup>1</sup>	11.1%	10.1%	12.5%

<sup>1</sup>Community Health Data, MT Dept of Health and Human Services (2010)

<sup>3</sup>Montana KIDS COUNT (2009)

<sup>14</sup>Child Health USA, U.S. Dept of Health and Human Services – Human Resources & Services Administration (HRSA) (2008-2009)

<sup>15</sup>Center for Disease Control and Prevention (CDC), Preterm Birth (2012)



## Economic Impact Assessment

### Demographic Trends and Economic Impacts: A Report for Roundup Memorial Healthcare

William Connell  
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Research and Analysis Bureau  
Montana Department of Labor and Industry

#### Introduction

This report responds to requests by MHA for the location quotient of the hospital sector in Musselshell County and for information on the county's demographics. In addition, the report includes analysis of the economic impact of the hospital sector on Musselshell County's economy. Section I gives location quotients for the hospital sector in Musselshell County using both state and national employment as the basis of comparison. Section II looks at the demographic profile of Musselshell County. Section III presents the results of an input-output analysis of the impact of Roundup Memorial Healthcare on the county's economy.

#### Section I Location Quotients

A location quotient measures how the level of employment concentration in a geographic area compares with that of another geographic area. For example, if 20 percent of workers in county A worked in manufacturing and 10 percent of the workers in that county's state worked in manufacturing, then the location quotient for county A would be:

$$\frac{\text{County A Percent employed in manufacturing}}{\text{State Percent employed in manufacturing}} = \frac{20\%}{10\%} = 2.0$$

Intuitively, county A's location quotient of 2 indicates that its employment in manufacturing is about double what one would expect given the size of manufacturing employment in the state.

Two location quotients for hospital employment in Musselshell County were calculated. The first compares Musselshell County's hospital employment concentration to that of the State of Montana, and the second compares it to hospital employment in the United States. The calculations use 2010 annual averages.

**Hospitals Location Quotient (compared to State of MT) = 1.46**

**Hospitals Location Quotient (compared to U.S.) = 1.68**

A location quotient near 1 indicates that the employment concentration in the county mirrors that of the larger geographic region. In the case of Musselshell County, the location quotient of 1.46 indicates that hospital employment in the county is 46 percent higher than one would expect given statewide employment patterns. When compared to the nation, the location quotient of 1.68 reveals that the percentage of total county employment accounted for by the hospital is 68 percent higher than the percentage of total U.S. employment coming from the hospital sector.

Another way to look at the location quotient is to ask how many employees would be employed in the hospital sector if Musselshell County's employment patterns mirrored the state or the nation. Roundup Memorial Healthcare employment averaged 96 employees in 2010. This is 30 more than expected given the state's employment pattern and 39 more than expected given the national employment pattern. In 2010, Roundup Memorial Healthcare accounted for 7.8% of county nonfarm employment and 6.2% of the county's total wages.

(Source of Employment Data: Quarterly Census of Employment and Wages, Research and Analysis Bureau, Montana Department of Labor and Industry)

## **Section II Age Demographics**

The Census Bureau reported that there were 4,538 residents of Musselshell County according to the 2010 Census. The breakdown of these residents by age is presented in Figure 1. Musselshell County's age profile is similar to that of many of Montana's rural counties. In 2010, baby boomers were between the ages of 45 and 60 and their presence is evident in the graph. Following the baby boom came the "baby bust," which is evidenced by the lack of 25 to 39 year olds in the county. In many rural Montana counties, the baby bust is exacerbated by out-migration of young adults.



Figure 1: Age Distribution of Musselshell County Residents

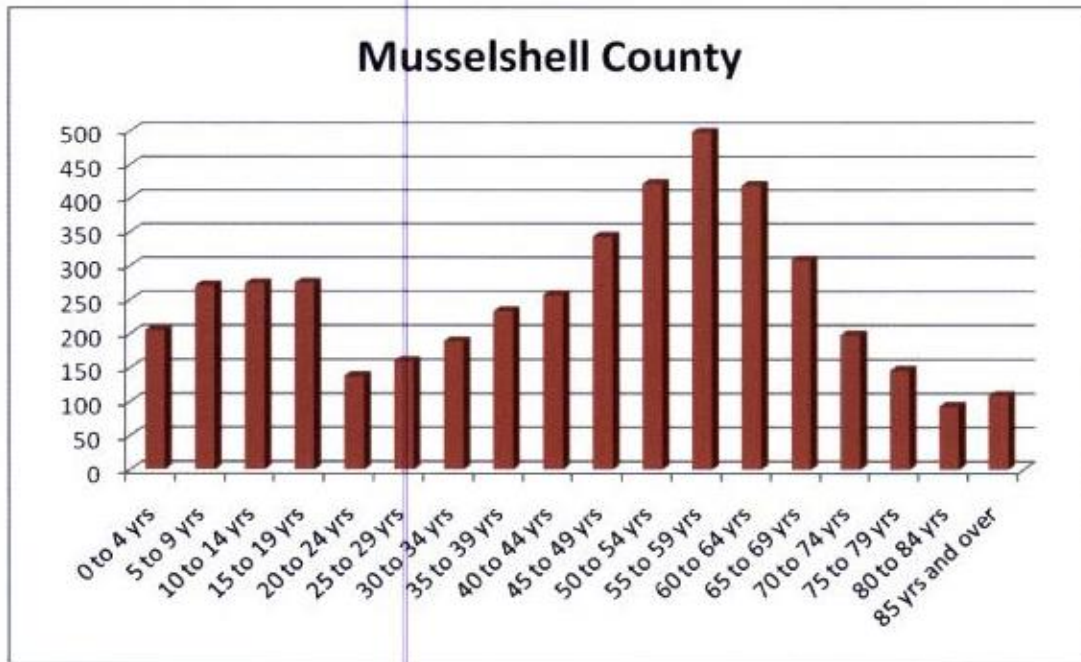


Figure 2: Percent of the population by age groups, Musselshell County vs. Montana

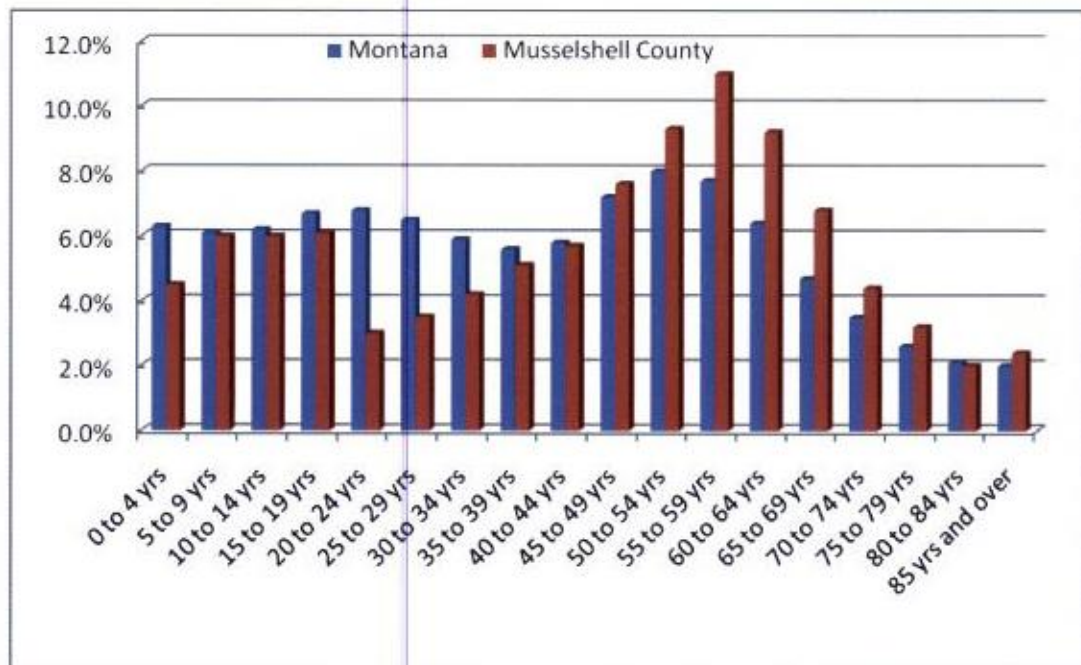


Figure 2 shows how Musselshell County’s population distribution compares to Montana’s. A careful examination of Figure 2 and the underlying data reveals that compared with the State as a whole, Musselshell County has a lower percentage of people under 45 years old (44.4percent vs. 55.9



percent) and a higher percentage of people aged 45 to 79 (51.5 percent vs. 40.1 percent). According to the 2010 Census, Musselshell County was the 12th oldest county in Montana, with a median age of 49.1. These demographics are important when planning for healthcare delivery now and in the future.

### **Section III Economic Impacts**

Businesses have an economic impact on their local communities that exceeds the direct amount of people they employ or wages they pay. For example, individuals employed at Roundup Memorial Healthcare spend a portion of their salary on goods and services produced in Musselshell County, thus supporting jobs and income in those local businesses. Likewise, the hospital itself may purchase goods and services from local suppliers. These businesses and employees then spend a portion of their income on local goods and services, which in turn supports other local jobs and companies. Thus, the effect of one dollar of wages is multiplied as it circulates through the community.

The amount of jobs and income in a local community attributable to a particular industry sector can be determined by calculating its employment and income multipliers. Industries with the highest multipliers generally are those who buy supplies, services, and labor from the local community, sell products and services outside the local community, and pay a high income to their employees. Although hospitals in rural areas do not usually sell their services to non-residents, they can still generate significant multiplier effects for their communities given that much of their funding comes from outside the region in the form of public and private insurance reimbursements. The relatively high wages earned by hospital employees also tend to boost hospitals' multipliers.

Multipliers are calculated using a methodology called input-output modeling. The Research and Analysis Bureau uses IMPLAN software to do regional input-output modeling. The R&A staff is able to correct the underlying IMPLAN data with confidential employment and earnings data from the unemployment insurance system, which allows us to produce more accurate multipliers than would otherwise be possible.

According to the input-output analysis, the hospital industry sector in Musselshell County has the following multipliers:

**Hospital Employment Multiplier = 1.17**

**Hospital Employee Compensation Multiplier = 1.14**

**Hospital Output Multiplier = 1.19**

What do these numbers mean? The employment multiplier of 1.17 can be interpreted to mean that for every job at Roundup Memorial Healthcare, another .17 jobs are supported in Musselshell County. Another way to look at this is that if Roundup Memorial Healthcare suddenly went away, about 17 additional non-hospital jobs would also be lost in the county (based on 2010 hospital employment of 96). The employee compensation multiplier of 1.14 simply states that for every dollar in wages and benefits paid to the hospital's employees, another 14 cents of wages and benefits are created in other local jobs in Musselshell County. Put another way, if Roundup Memorial Healthcare suddenly went away, about \$393,560 in additional annual wages would be lost from other jobs in the county. Finally, the output multiplier indicates that for every dollar of goods and services produced by Roundup Memorial Healthcare, output in the county increases by another 19 cents.

There are other potential economic impacts of hospitals beyond those identified by the input-output analysis. Novak (2003)<sup>1</sup> observes that "...a good healthcare system is an important indication of an area's quality of life. Healthcare, like education, is important to people and businesses when deciding where to locate" (pg. 1). Thus all other things being equal, the presence of a quality healthcare system gives communities an advantage when competing for new businesses. An effective healthcare system can also attract retirees to the community. Finally, healthcare may provide an opportunity for young people to stay in the communities where they were raised and still earn a high wage. In areas of the state where economic opportunities are scarce, many hospitals are experiencing shortages of qualified workers. In this situation "growing your own" workforce may be a viable option.

This study has sought to outline the economic importance Roundup Memorial Healthcare to the county economy. Tangible economic impacts have been presented, and intangible economic development impacts have also been discussed. Any questions regarding the data or methodology can be addressed to the author.

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<sup>1</sup> Novak, Nancy L. (2003) "Bridging the Gap in Rural Healthcare" *The Main Street Economist: Commentary on the Rural Economy*, Center for the Study of Rural America: Federal Reserve Bank of Kansas City. September 2003