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**CHRONIC CONDITIONS IN MINNESOTA:
New Estimates of Prevalence, Cost and
Geographic Variation for Insured Minnesotans, 2012**

SUPPLEMENTAL TECHNICAL INFORMATION | APRIL 2016

MDH Minnesota
Department of Health

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CHRONIC CONDITIONS IN MINNESOTA: New Estimates of Prevalence, Cost and Geographic Variation for Insured Minnesotans, 2012

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SUPPLEMENTAL TECHNICAL INFORMATION

Overview

Chronic Conditions in Minnesota: New Estimates of Prevalence, Cost and Geographic Variation for Insured Minnesotans, 2012

In January 2016, the Health Economics Program of the Minnesota Department of Health (MDH) released a report on chronic conditions prevalence and spending for Minnesotans with health insurance coverage using 2012 calendar year data from the Minnesota All Payer Claims Database (MN APCD).¹ The report presented findings on the number and rate of insured Minnesota residents who had a chronic condition, along with the average and total annual amount of health care spending for Minnesota residents with and without a chronic condition. The data were presented at both the overall state and county levels. The report also presented findings on the number and rate of insured Minnesota residents who had one or more of ten select and common chronic

conditions, along with the average and total annual amounts of health care spending for residents with those conditions.

This document provides detailed supplemental tables to discriminating readers, including point estimates for observed and expected prevalence, given certain population demographics, and spending for select chronic conditions at the county level. The supplemental data allow for statistical comparisons of county level estimates to the state average.

Also included are rates per thousand residents at the county level for those with any chronic condition and for ten select conditions, each broken down into three age categories: 1) under 18 years of age; 2) between 18 and 64 years of age; and 3) 65 years of age and older. Rates based on fewer than 11 residents are masked to ensure privacy. The rates reported are raw rates, meaning they have not been adjusted for differences in demographic factors across the geographies.

¹ The report is available online: <http://www.health.state.mn.us/healthreform/allpayer/publications.html>

Methods

MDH conducted this study using data from the MN APCD, a large repository of health insurance claims, enrollment information, and costs for health care services and pharmacy benefits provided to Minnesota residents.² Both private and public insurers of Minnesota residents submit information on health care and pharmacy transactions to the MN APCD.

Some health care transactions are not included in the MN APCD. These include:

- Care provided to non-Minnesota residents, or paid for by the Indian Health Service, U.S. Department of Veterans Affairs, Workers' Compensation, Tricare, or the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS);³
- Care provided to the uninsured – such claims are typically not presented to payers of health care costs who are data submitters to the MN APCD;
- Medicare services for the fee-for-services population with substance abuse conditions - the federal government currently withholds such claims from submission;
- Care paid for by health plans that have a small footprint in the state, with annual medical claims less than \$3 million or pharmacy claims less than \$300,000.

The estimates presented in this supplement document and its accompanying report are likely conservative because in order to be identified with a chronic disease, a patient must have sought care, had at least two diagnoses for the same disease recorded, and had the claim considered valid by an insurance company. In other words, patients who do not present for care, or do not have an insurer pay for a portion of the care, are not included in these estimates.

The analysis was limited to Minnesota residents with at least three months of

documented enrollment in both medical and pharmacy insurance in 2012. County level estimates were based on the ZIP Code of each patient's residence. Two approaches were used to identify the presence of chronic disease, both relying on software developed at the Johns Hopkins Bloomberg School of Public Health:⁴

- To identify the presence of any chronic condition, patients needed to have two or more diagnoses for at least one of the conditions listed in Appendix A of the report.
- To identify the ten select chronic conditions that we examined more closely, patients generally needed to have two or more diagnoses, or use medication that treats the condition.⁵

The comparison of county level prevalence and spending to statewide averages was prepared with indirect standardization to adjust for differences in age, sex, length of enrollment, payer mix (private, Medicaid, Medicare), as well as the degree to which residents were eligible for both Medicaid and Medicare (dual eligible).⁶

Definitions

Observed prevalence, or raw prevalence, is simply the number of people within each county who were diagnosed with a specific chronic condition. People with conditions residing in ZIP Codes that crossed county lines were assigned by proportion to each county, relative to the proportion of the total U.S. Census 2010 ZIP Code population located within that county. MDH derived these proportions using TIGER/Line Shapefiles data⁷ in ESRI ArcGIS.⁸

Expected prevalence is the number of people in the population who have the chronic condition, adjusting for factors that are directly related to prevalence.

² Additional information about the MN APCD is available online: www.health.state.mn.us/healthreform/allpayer/

³ Individuals with multiple sources of insurance coverage, for example, employer-based coverage in addition to coverage for certain services through the U.S. Department of Veterans Affairs, are most likely represented in the data.

⁴ The analysis used version 10.0 of the Johns Hopkins ACG® System with stringent selection criteria that err on the side of under-identifying chronic diseases. We used version 11 of the ACG System to more accurately identify patients with rheumatoid arthritis.

⁵ The second approach raises estimates of prevalence by about three percentage points.

⁶ For the remainder of this technical supplement, data on Medicaid enrollees broadly include residents eligible for Minnesota public health programs, including MinnesotaCare.

⁷ Census 2010 TIGER/Line Shapefiles data. <https://www.census.gov/geo/maps-data/data/tiger-line.html>

⁸ ESRI ArcGIS 10.2.2 for Desktop. Environmental Systems Research Institute, Redlands, CA.

Expected prevalence and spending were derived using indirect standardization. For expected prevalence, steps included:

Step 1) Breaking out categories (i.e., stratifying) by:

- a. Age (under 18, 18-24, 25-34, 35-44, 45-54, 55-64, 65 and older);
- b. Sex (male or female);
- c. Payer category (Medicare, Medicaid, or private insurance);
- d. Dual eligibility (Medicare/Medicaid dual or not); and
- e. Length of enrollment (12 months versus less than 12 months).

Step 2) Calculating the rate (per 1,000 residents) at the state level for each combination of categories.

Step 3) Multiplying the state rates by the number of residents at the county level for each combination.

Step 4) Summing the results across the combinations (strata) to derive an expected county prevalence.

The same process was used for spending, except that average spending for people with each condition was calculated for each stratum at the state level, then multiplied by the number of residents at the county level for each combination, and then summed and divided by the number of residents in each county to derive expected average spending.

Many tables present counts of people with conditions, but no rates. If needed, rates can be calculated by dividing the observed counts by the number of residents for that county and then multiplying by 1,000 for a rate per 1,000 residents. Standard errors and significance levels in the tables are for county comparisons with the overall state count or spending average. We do not recommend making direct county-to-county comparisons based on these data because such a comparison would not account for the fact that rates

across counties may vary considerably by differences in age, sex, payer, and dual-eligibility composition. County-to-county comparisons would require standardizing counties to the demographic make-up of an index population.

Standard errors (StdErr) for counts were calculated using the following formula:

$$StdErr = \sqrt{\frac{\text{observed count} / \text{expected count}}{\text{expected count}}}$$

Standard errors for spending were calculated using the following formula:

$$StdErr = \sqrt{\frac{\text{observed average spending} / \text{expected average spending}}{N}}$$

Significance levels were based on a 95 percent confidence interval around the Standardized Morbidity Ratio (SMR), which is calculated using these formulas:

SMRs for counts were calculated using the following formula:

$$SMR = \frac{\text{observed count}}{\text{expected count}}$$

SMRs for spending were calculated using the following formula:

$$SMR = \frac{\text{observed average spending}}{\text{expected average spending}}$$

Confidence intervals (CI) were calculated using the following formula:

$$CI = SMR \pm (1.96 \times StdErr)$$

If the upper confidence limit fell below 1.0, or the lower confidence limit was above 1.0, then the prevalence (count) or average spending was significantly lower or higher than expected.

Supplemental Table 1: County-Level Prevalence and Average Spending for MN Residents with a Chronic Condition (2012)

Statewide	N=4,531,066	PREVALENCE				SPENDING			
		1,602,035				\$12,843			
MN county	Number of Residents	Obs ⁹	Exp ¹⁰	StdErr ¹¹	Sig ¹²	Obs ¹³	Exp ¹⁴	StdErr	Sig
Aitkin	13,595	5,989	6,234	0.012	*	\$14,189	\$13,944	0.013	
Anoka	291,400	102,831	98,262	0.003	*	\$12,312	\$12,292	0.003	
Becker	26,928	10,412	10,808	0.009	*	\$12,954	\$13,808	0.009	*
Beltrami	34,777	14,009	13,275	0.009	*	\$13,216	\$13,978	0.008	*
Benton	32,578	11,255	10,964	0.010	*	\$13,077	\$12,800	0.010	*
Big Stone	4,211	1,785	1,821	0.023		\$14,947	\$14,219	0.024	*
Blue Earth	47,449	17,388	17,305	0.008		\$13,698	\$13,518	0.008	
Brown	22,005	8,069	8,499	0.011	*	\$13,817	\$13,099	0.011	*
Carlton	31,560	11,419	11,532	0.009		\$13,597	\$13,246	0.009	*
Carver	81,554	24,218	25,318	0.006	*	\$11,297	\$11,663	0.006	*
Cass	25,717	10,228	10,900	0.009	*	\$13,883	\$13,873	0.010	
Chippewa	10,878	4,049	4,201	0.015	*	\$13,600	\$13,124	0.016	*
Chisago	46,654	16,213	16,060	0.008		\$12,365	\$12,293	0.008	
Clay	37,025	14,682	13,726	0.009	*	\$13,304	\$13,357	0.008	
Clearwater	7,065	2,633	2,873	0.018	*	\$13,327	\$14,675	0.019	*
Cook	4,354	1,707	1,836	0.022	*	\$11,064	\$12,897	0.022	*
Cottonwood	10,816	4,022	4,250	0.015	*	\$13,043	\$13,576	0.015	*
Crow Wing	54,136	20,809	21,413	0.007	*	\$13,078	\$13,443	0.007	*
Dakota	337,573	116,185	111,993	0.003	*	\$12,326	\$12,186	0.003	*
Dodge	17,932	5,025	5,903	0.012	*	\$14,253	\$12,390	0.015	*
Douglas	32,697	12,127	13,015	0.008	*	\$13,178	\$13,899	0.009	*
Faribault	11,842	4,568	4,906	0.014	*	\$13,466	\$13,354	0.015	
Fillmore	16,834	5,740	6,537	0.012	*	\$12,982	\$13,493	0.013	*
Freeborn	26,615	10,003	10,595	0.009	*	\$12,657	\$13,418	0.010	*

Supplemental Table 1: Continued

Statewide	N=4,531,066	PREVALENCE				SPENDING			
		1,602,035				\$12,843			
MN county	Number of Residents	Obs ⁹	Exp ¹⁰	StdErr ¹¹	Sig ¹²	Obs ¹³	Exp ¹⁴	StdErr	Sig
Goodhue	39,041	13,691	14,399	0.008	*	\$13,331	\$12,906	0.009	*
Grant	5,169	2,026	2,105	0.021		\$13,353	\$13,523	0.022	
Hennepin	994,152	350,658	340,968	0.002	*	\$12,609	\$12,651	0.002	
Houston	12,774	4,539	5,193	0.013	*	\$12,473	\$13,999	0.014	*
Hubbard	16,198	6,479	6,969	0.012	*	\$12,563	\$13,940	0.012	*
Isanti	32,981	12,049	11,380	0.010	*	\$12,890	\$12,590	0.009	*
Itasca	38,388	16,152	15,800	0.008	*	\$13,321	\$13,822	0.008	*
Jackson	9,326	3,602	3,573	0.017		\$13,569	\$13,397	0.017	
Kanabec	13,570	5,224	5,357	0.013		\$13,831	\$13,595	0.014	
Kandiyohi	38,771	14,057	14,616	0.008	*	\$12,676	\$13,604	0.008	*
Kittson	3,713	1,495	1,544	0.025		\$13,267	\$13,899	0.025	
Koochiching	9,414	4,081	4,202	0.015		\$14,806	\$14,502	0.016	
Lac qui Parle	6,241	2,467	2,604	0.019	*	\$15,227	\$13,688	0.021	*
Lake	8,349	3,473	3,550	0.017		\$12,794	\$13,547	0.016	*
Lake of the Woods	3,150	1,228	1,369	0.026	*	\$13,409	\$14,251	0.028	*
Le Sueur	23,544	8,142	8,527	0.011	*	\$12,568	\$12,609	0.011	
Lincoln	5,083	2,105	2,093	0.022		\$13,448	\$13,478	0.022	
Lyon	22,164	7,859	7,775	0.011		\$13,562	\$12,949	0.012	*
Mahnomen	4,795	1,861	1,894	0.023		\$15,278	\$14,694	0.024	
Marshall	8,182	3,324	3,145	0.018	*	\$13,407	\$13,216	0.017	
Martin	17,975	7,153	7,260	0.012		\$13,452	\$13,824	0.012	*
McLeod	32,808	11,291	11,750	0.009	*	\$12,657	\$12,603	0.009	
Meeker	20,349	7,142	7,642	0.011	*	\$12,801	\$13,299	0.012	*
Mille Lacs	23,257	8,193	8,435	0.011	*	\$13,663	\$13,007	0.011	*

Supplemental Table 1: Continued

Statewide	N=4,531,066	PREVALENCE				SPENDING			
		1,602,035				\$12,843			
MN county	Number of Residents	Obs ⁹	Exp ¹⁰	StdErr ¹¹	Sig ¹²	Obs ¹³	Exp ¹⁴	StdErr	Sig
Morrison	28,679	9,795	10,866	0.009	*	\$13,195	\$13,669	0.010	*
Mower	36,279	12,952	13,373	0.009	*	\$13,054	\$13,505	0.009	*
Murray	7,701	2,879	3,089	0.017	*	\$15,095	\$13,467	0.020	*
Nicollet	27,242	9,652	9,624	0.010		\$12,672	\$12,533	0.010	
Nobles	19,435	6,250	6,842	0.012	*	\$12,308	\$13,423	0.012	*
Norman	5,596	2,054	2,287	0.020	*	\$13,375	\$14,203	0.021	*
Olmsted	132,566	40,449	43,630	0.005	*	\$14,731	\$12,528	0.005	*
Otter Tail	48,005	18,387	19,543	0.007	*	\$12,901	\$13,709	0.007	*
Pennington	13,299	5,302	4,772	0.015	*	\$12,500	\$12,935	0.014	*
Pine	23,658	8,813	9,370	0.010	*	\$14,443	\$13,746	0.011	*
Pipestone	8,211	2,847	3,128	0.017	*	\$13,604	\$13,632	0.019	
Polk	24,715	9,035	9,557	0.010	*	\$13,839	\$14,043	0.010	
Pope	9,883	3,711	3,938	0.015	*	\$13,257	\$13,723	0.016	*
Ramsey	451,915	163,902	162,331	0.002	*	\$13,096	\$13,207	0.002	*
Red Lake	3,812	1,364	1,407	0.026		\$13,364	\$13,066	0.027	
Redwood	13,005	4,609	5,080	0.013	*	\$13,953	\$13,470	0.015	*
Renville	13,464	5,054	5,183	0.014		\$12,957	\$13,182	0.014	
Rice	51,980	17,080	17,787	0.007	*	\$12,578	\$12,409	0.008	
Rock	7,721	2,801	2,993	0.018	*	\$13,592	\$13,254	0.019	
Roseau	11,930	3,627	4,313	0.014	*	\$14,311	\$13,415	0.017	*
Scott	111,080	33,292	33,735	0.005	*	\$11,454	\$11,524	0.005	
Sherburne	74,692	23,505	23,590	0.006		\$12,293	\$12,085	0.007	*
Sibley	13,573	4,732	4,923	0.014	*	\$12,949	\$12,813	0.015	
St. Louis	159,133	66,774	62,552	0.004	*	\$13,892	\$13,825	0.004	

Supplemental Table 1: Continued

Statewide MN county	N=4,531,066 Number of Residents	PREVALENCE 1,602,035				SPENDING \$12,843			
		Obs ⁹	Exp ¹⁰	StdErr ¹¹	Sig ¹²	Obs ¹³	Exp ¹⁴	StdErr	Sig
Stearns	121,983	41,545	42,600	0.005	*	\$12,456	\$12,787	0.005	*
Steele	32,391	10,302	11,465	0.009	*	\$13,628	\$12,908	0.010	*
Stevens	7,868	2,749	2,880	0.018	*	\$15,753	\$13,214	0.021	*
Swift	8,211	3,207	3,306	0.017		\$13,388	\$13,994	0.017	*
Todd	20,845	7,131	8,154	0.010	*	\$13,728	\$14,082	0.012	*
Traverse	3,193	1,350	1,380	0.027		\$13,714	\$14,240	0.027	
Wabasha	17,864	5,920	6,772	0.011	*	\$14,161	\$13,196	0.013	*
Wadena	11,429	4,200	4,596	0.014	*	\$15,133	\$14,645	0.016	*
Waseca	15,825	5,593	5,845	0.013	*	\$14,001	\$13,099	0.014	*
Washington	210,736	72,684	69,902	0.004	*	\$11,455	\$11,818	0.004	*
Watonwan	9,725	3,277	3,585	0.016	*	\$13,907	\$13,071	0.018	*
Wilkin	4,762	1,871	1,926	0.022		\$13,150	\$14,075	0.022	*
Winona	34,685	12,177	13,151	0.008	*	\$13,786	\$13,643	0.009	
Wright	109,066	34,135	34,649	0.005	*	\$12,088	\$12,029	0.005	
Yellow Medicine	9,152	3,277	3,458	0.017	*	\$14,125	\$13,204	0.018	*

⁹ Observed prevalence count.

¹⁰ Expected prevalence count.

¹¹ Standard Error.

¹² Significance at the p<0.05 level.

¹³ Observed average spending.

¹⁴ Expected average spending.

Supplemental Table 2: County-Level Prevalence for MN Residents with High Blood Pressure, High Cholesterol, or Asthma (2012)

Statewide MN County	N=4,531,066 Number of Residents	HIGH BLOOD PRESSURE 943,218				HIGH CHOLESTEROL 696,093				ASTHMA 508,031			
		Obs ¹⁵	Exp ¹⁶	StdErr ¹⁷	Sig ¹⁸	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Aitkin	13,595	4,461	4,338	0.015	*	3,029	3,271	0.017	*	1,785	1,741	0.024	*
Anoka	291,400	58,254	55,383	0.004	*	44,089	40,677	0.005	*	34,335	31,937	0.006	*
Becker	26,928	6,921	6,833	0.012	*	4,881	5,054	0.014	*	2,835	3,291	0.016	*
Beltrami	34,777	8,105	7,563	0.012	*	5,704	5,445	0.014	*	4,302	4,336	0.015	
Benton	32,578	6,241	6,124	0.013	*	4,774	4,466	0.015	*	3,480	3,613	0.016	*
Big Stone	4,211	1,400	1,245	0.030	*	880	932	0.032		497	524	0.043	
Blue Earth	47,449	10,137	10,223	0.010		7,842	7,537	0.012	*	4,831	5,443	0.013	*
Brown	22,005	5,696	5,511	0.014	*	4,054	4,149	0.015		2,155	2,502	0.019	*
Carlton	31,560	7,785	7,051	0.013	*	4,872	5,234	0.013	*	3,383	3,551	0.016	*
Carver	81,554	12,903	14,073	0.008	*	9,239	10,434	0.009	*	8,506	8,369	0.011	*
Cass	25,717	7,110	7,075	0.012		4,949	5,271	0.013	*	2,972	3,229	0.017	*
Chippewa	10,878	2,815	2,674	0.020	*	1,952	1,996	0.022		1,138	1,266	0.027	*
Chisago	46,654	9,781	9,533	0.010	*	7,177	7,118	0.012		5,627	5,027	0.015	*
Clay	37,025	8,879	8,176	0.012	*	6,268	5,941	0.013	*	3,679	4,363	0.014	*
Clearwater	7,065	1,854	1,785	0.024	*	1,218	1,299	0.027	*	763	900	0.031	*
Cook	4,354	1,129	1,266	0.027	*	827	969	0.030	*	409	505	0.040	*
Cottonwood	10,816	2,889	2,707	0.020	*	1,965	2,009	0.022		1,057	1,294	0.025	*
Crow Wing	54,136	13,591	13,592	0.009		9,707	10,131	0.010	*	5,794	6,438	0.012	*
Dakota	337,573	63,356	63,969	0.004	*	49,438	47,276	0.005	*	37,540	36,080	0.005	*
Dodge	17,932	3,266	3,310	0.017		2,515	2,440	0.021	*	1,975	1,957	0.023	
Douglas	32,697	8,090	8,380	0.011	*	5,582	6,282	0.012	*	3,338	3,849	0.015	*
Faribault	11,842	3,527	3,283	0.018	*	2,559	2,455	0.021	*	1,366	1,423	0.026	*
Fillmore	16,834	4,026	4,188	0.015	*	3,173	3,126	0.018		1,848	1,965	0.022	*
Freeborn	26,615	7,039	6,830	0.012	*	5,467	5,094	0.015	*	2,970	3,168	0.017	*

Supplemental Table 2: Continued

Statewide MN County	N=4,531,066 Number of Residents	HIGH BLOOD PRESSURE 943,218				HIGH CHOLESTEROL 696,093				ASTHMA 508,031			
		Obs ¹⁵	Exp ¹⁶	StdErr ¹⁷	Sig ¹⁸	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Goodhue	39,041	9,186	9,055	0.011	*	6,854	6,801	0.012		4,565	4,350	0.016	*
Grant	5,169	1,398	1,380	0.027		980	1,035	0.030		602	617	0.040	
Hennepin	994,152	189,112	196,912	0.002	*	139,638	144,119	0.003	*	114,658	108,883	0.003	*
Houston	12,774	3,499	3,428	0.017	*	2,581	2,568	0.020		1,385	1,514	0.025	*
Hubbard	16,198	4,359	4,542	0.015	*	3,084	3,389	0.016	*	1,825	2,053	0.021	*
Isanti	32,981	7,141	6,514	0.013	*	4,755	4,778	0.014		3,942	3,687	0.017	*
Itasca	38,388	11,164	10,109	0.010	*	7,831	7,534	0.012	*	5,448	4,716	0.016	*
Jackson	9,326	2,396	2,270	0.022	*	1,813	1,701	0.025	*	1,024	1,077	0.030	*
Kanabec	13,570	3,555	3,295	0.018	*	2,334	2,430	0.020	*	1,625	1,658	0.024	
Kandiyohi	38,771	9,030	8,795	0.011	*	6,372	6,515	0.012	*	4,000	4,555	0.014	*
Kittson	3,713	1,169	1,036	0.033	*	851	774	0.038	*	440	451	0.047	
Koochiching	9,414	3,087	2,848	0.020	*	2,195	2,125	0.022	*	1,247	1,211	0.029	*
Lac qui Parle	6,241	1,843	1,768	0.024	*	1,321	1,329	0.027		713	750	0.036	*
Lake	8,349	2,407	2,405	0.020		1,608	1,819	0.022	*	902	998	0.030	*
Lake of the Woods	3,150	939	923	0.033		620	695	0.036	*	284	392	0.043	*
Le Sueur	23,544	5,397	5,258	0.014	*	3,921	3,938	0.016		2,364	2,629	0.018	*
Lincoln	5,083	1,458	1,423	0.027		980	1,063	0.029	*	537	608	0.038	*
Lyon	22,164	4,737	4,555	0.015	*	3,659	3,361	0.018	*	2,350	2,492	0.019	*
Mahnomen	4,795	1,181	1,098	0.031	*	741	782	0.035		630	621	0.040	
Marshall	8,182	2,508	2,034	0.025	*	1,816	1,520	0.028	*	897	941	0.032	*
Martin	17,975	5,224	4,702	0.015	*	4,002	3,514	0.018	*	1,947	2,155	0.020	*
McLeod	32,808	7,423	7,195	0.012	*	5,142	5,366	0.013	*	3,475	3,639	0.016	*
Meeker	20,349	4,723	4,792	0.014		3,489	3,587	0.016		2,016	2,334	0.019	*
Mille Lacs	23,257	5,242	5,036	0.014	*	3,779	3,709	0.017	*	2,633	2,678	0.019	

Supplemental Table 2: Continued

Statewide	N=4,531,066	HIGH BLOOD PRESSURE				HIGH CHOLESTEROL				ASTHMA			
		943,218				696,093				508,031			
MN County	Number of Residents	Obs ¹⁵	Exp ¹⁶	StdErr ¹⁷	Sig ¹⁸	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Morrison	28,679	6,642	6,704	0.012		4,575	4,956	0.014	*	3,195	3,372	0.017	*
Mower	36,279	7,759	8,017	0.011	*	6,011	5,913	0.013	*	3,865	4,242	0.015	*
Murray	7,701	2,118	2,047	0.022	*	1,534	1,541	0.025		957	902	0.034	*
Nicollet	27,242	5,609	5,686	0.013		4,478	4,223	0.016	*	2,748	3,028	0.017	*
Nobles	19,435	4,294	3,995	0.016	*	3,119	2,922	0.019	*	2,374	2,245	0.022	*
Norman	5,596	1,606	1,461	0.027	*	1,025	1,071	0.030		588	701	0.035	*
Olmsted	132,566	22,547	24,063	0.006	*	18,115	17,656	0.008	*	14,997	14,392	0.009	*
Otter Tail	48,005	12,998	12,910	0.009		9,148	9,685	0.010	*	4,741	5,702	0.012	*
Pennington	13,299	3,512	2,831	0.021	*	2,694	2,091	0.025	*	1,568	1,512	0.026	*
Pine	23,658	6,218	5,827	0.014	*	4,226	4,312	0.015		2,868	2,868	0.019	
Pipestone	8,211	2,032	1,975	0.023	*	1,380	1,457	0.026	*	822	967	0.030	*
Polk	24,715	6,608	5,866	0.014	*	4,381	4,287	0.015	*	2,937	2,988	0.018	
Pope	9,883	2,695	2,567	0.020	*	1,708	1,922	0.022	*	1,083	1,165	0.028	*
Ramsey	451,915	88,647	90,918	0.003	*	66,665	65,620	0.004	*	52,540	53,284	0.004	*
Red Lake	3,812	1,040	881	0.037	*	761	659	0.042	*	419	434	0.047	
Redwood	13,005	3,417	3,276	0.018	*	2,424	2,454	0.020		1,356	1,517	0.024	*
Renville	13,464	3,617	3,276	0.018	*	2,575	2,452	0.021	*	1,188	1,564	0.022	*
Rice	51,980	10,396	10,610	0.010	*	7,065	7,899	0.011	*	5,193	5,599	0.013	*
Rock	7,721	2,046	1,930	0.023	*	1,434	1,442	0.026		767	896	0.031	*
Roseau	11,930	3,032	2,657	0.021	*	1,875	1,971	0.022	*	1,281	1,344	0.027	*
Scott	111,080	17,251	17,924	0.007	*	13,634	13,053	0.009	*	11,720	11,519	0.009	*
Sherburne	74,692	12,808	12,648	0.009	*	9,570	9,223	0.011	*	8,189	7,981	0.011	*
Sibley	13,573	3,182	3,039	0.019	*	2,120	2,261	0.020	*	1,403	1,528	0.025	*
St. Louis	159,133	40,350	39,202	0.005	*	27,266	29,102	0.006	*	18,990	18,831	0.007	*

Supplemental Table 2: Continued

Statewide	N=4,531,066	HIGH BLOOD PRESSURE				HIGH CHOLESTEROL				ASTHMA			
		943,218				696,093				508,031			
MN County	Number of Residents	Obs ¹⁵	Exp ¹⁶	StdErr ¹⁷	Sig ¹⁸	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Stearns	121,983	24,249	24,873	0.006	*	18,457	18,364	0.007		12,131	13,574	0.008	*
Steele	32,391	6,704	6,745	0.012		5,099	4,988	0.014	*	3,307	3,652	0.016	*
Stevens	7,868	2,005	1,802	0.025	*	1,412	1,349	0.028	*	1,023	881	0.036	*
Swift	8,211	2,387	2,129	0.023	*	1,595	1,581	0.025		877	993	0.030	*
Todd	20,845	4,849	5,149	0.014	*	3,544	3,819	0.016	*	1,990	2,496	0.018	*
Traverse	3,193	1,044	950	0.034	*	773	706	0.039	*	357	398	0.047	*
Wabasha	17,864	4,273	4,313	0.015		3,204	3,246	0.017		2,078	2,023	0.023	*
Wadena	11,429	2,945	2,846	0.019	*	1,949	2,080	0.021	*	1,337	1,432	0.026	*
Waseca	15,825	3,711	3,559	0.017	*	2,669	2,651	0.019		1,548	1,814	0.022	*
Washington	210,736	39,338	40,923	0.005	*	31,078	30,602	0.006	*	23,172	22,093	0.007	*
Watonwan	9,725	2,328	2,267	0.021	*	1,769	1,686	0.025	*	863	1,101	0.027	*
Wilkin	4,762	1,282	1,230	0.029	*	866	904	0.033		514	588	0.039	*
Winona	34,685	8,495	8,188	0.011	*	6,708	6,095	0.013	*	4,204	3,994	0.016	*
Wright	109,066	19,331	19,202	0.007		14,046	14,119	0.008		11,728	11,555	0.009	*
Yellow Medicine	9,152	2,363	2,192	0.022	*	1,567	1,635	0.024		992	1,051	0.030	*

¹⁵ Observed prevalence count.

¹⁶ Expected prevalence count.

¹⁷ Standard Error.

¹⁸ Significance at p<0.05 level.

Supplemental Table 3: County-Level Prevalence for MN Residents with Diabetes, Depression, or Congestive Heart Failure (2012)

Statewide MN County	N=4,531,066 Number of Residents	DIABETES 287,918				DEPRESSION 262,210				CONGESTIVE HEART FAILURE 105,044			
		Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Aitkin	13,595	1,278	1,339	0.027	*	759	953	0.029	*	527	541	0.042	
Anoka	291,400	18,325	16,779	0.008	*	17,207	16,393	0.008	*	5,367	5,780	0.013	*
Becker	26,928	2,109	2,117	0.022		1,791	1,746	0.024	*	901	830	0.036	*
Beltrami	34,777	2,934	2,424	0.022	*	2,754	2,387	0.022	*	1,057	906	0.036	*
Benton	32,578	1,902	1,887	0.023		1,963	1,861	0.024	*	595	678	0.036	*
Big Stone	4,211	384	382	0.051		193	277	0.050	*	225	157	0.096	*
Blue Earth	47,449	3,090	3,148	0.018	*	3,543	2,894	0.021	*	1,092	1,164	0.028	*
Brown	22,005	1,700	1,640	0.025	*	1,064	1,264	0.026	*	635	636	0.040	
Carlton	31,560	2,344	2,176	0.022	*	1,705	1,882	0.022	*	876	802	0.037	*
Carver	81,554	3,353	4,141	0.014	*	3,433	3,927	0.015	*	1,327	1,395	0.026	*
Cass	25,717	2,115	2,197	0.021	*	1,488	1,745	0.022	*	819	857	0.033	*
Chippewa	10,878	887	804	0.037	*	559	649	0.036	*	376	308	0.063	*
Chisago	46,654	2,859	2,863	0.019		2,733	2,548	0.021	*	963	1,003	0.031	*
Clay	37,025	2,742	2,535	0.021	*	2,936	2,310	0.023	*	1,174	986	0.035	*
Clearwater	7,065	562	572	0.041		432	494	0.042	*	253	227	0.070	*
Cook	4,354	291	377	0.045	*	217	260	0.057	*	106	144	0.071	*
Cottonwood	10,816	916	821	0.037	*	551	659	0.036	*	382	325	0.060	*
Crow Wing	54,136	3,798	4,161	0.015	*	3,227	3,405	0.017	*	1,532	1,597	0.025	*
Dakota	337,573	19,764	19,139	0.007	*	18,629	17,965	0.008	*	6,364	6,702	0.012	*
Dodge	17,932	1,017	996	0.032		898	936	0.032	*	335	356	0.051	*
Douglas	32,697	2,335	2,549	0.019	*	1,866	2,031	0.021	*	1,023	990	0.032	*
Faribault	11,842	964	991	0.031		648	739	0.034	*	457	397	0.054	*
Fillmore	16,834	1,224	1,272	0.028	*	766	1,004	0.028	*	463	497	0.043	*
Freeborn	26,615	2,112	2,071	0.022		1,648	1,639	0.025		827	808	0.036	

Supplemental Table 3: Continued

Statewide MN County	N=4,531,066 Number of Residents	DIABETES 287,918				DEPRESSION 262,210				CONGESTIVE HEART FAILURE 105,044			
		Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Goodhue	39,041	2,690	2,708	0.019		2,037	2,181	0.021	*	1,019	1,025	0.031	
Grant	5,169	413	419	0.049		310	326	0.054		204	164	0.087	*
Hennepin	994,152	56,915	60,422	0.004	*	59,246	56,786	0.004	*	21,517	21,695	0.007	*
Houston	12,774	928	1,037	0.029	*	638	800	0.032	*	402	411	0.049	
Hubbard	16,198	1,322	1,405	0.026	*	1,013	1,115	0.029	*	590	549	0.044	*
Isanti	32,981	2,110	1,987	0.023	*	1,885	1,897	0.023		850	710	0.041	*
Itasca	38,388	3,782	3,157	0.019	*	2,684	2,598	0.020	*	1,167	1,210	0.028	*
Jackson	9,326	639	684	0.037	*	556	551	0.043		354	263	0.072	*
Kanabec	13,570	1,078	1,029	0.032	*	839	908	0.032	*	480	384	0.057	*
Kandiyohi	38,771	2,826	2,680	0.020	*	2,219	2,381	0.020	*	982	998	0.031	
Kittson	3,713	322	317	0.057		170	238	0.055	*	182	129	0.105	*
Koochiching	9,414	932	891	0.034	*	688	679	0.039		372	361	0.053	
Lac qui Parle	6,241	609	534	0.046	*	372	388	0.050		254	216	0.074	*
Lake	8,349	714	727	0.037		518	531	0.043		263	286	0.057	*
Lake of the Woods	3,150	243	287	0.054	*	190	220	0.063	*	129	111	0.102	*
Le Sueur	23,544	1,567	1,572	0.025		1,190	1,297	0.027	*	549	584	0.040	*
Lincoln	5,083	416	430	0.047		233	309	0.049	*	244	180	0.087	*
Lyon	22,164	1,643	1,380	0.029	*	1,264	1,247	0.029		674	513	0.051	*
Mahnomen	4,795	463	359	0.060	*	361	344	0.055		165	139	0.092	*
Marshall	8,182	701	617	0.043	*	408	479	0.042	*	348	243	0.077	*
Martin	17,975	1,450	1,438	0.026		1,109	1,154	0.029	*	650	559	0.046	*
McLeod	32,808	2,342	2,139	0.023	*	1,737	1,804	0.023	*	1,078	797	0.041	*
Meeker	20,349	1,503	1,453	0.027	*	1,022	1,184	0.027	*	491	547	0.040	*
Mille Lacs	23,257	1,662	1,550	0.026	*	1,277	1,379	0.026	*	593	577	0.042	

Supplemental Table 3: Continued

Statewide		DIABETES				DEPRESSION				CONGESTIVE HEART FAILURE			
N=4,531,066		287,918				262,210				105,044			
MN County	Number of Residents	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Morrison	28,679	1,860	2,067	0.021	*	1,397	1,771	0.021	*	720	792	0.034	*
Mower	36,279	2,649	2,460	0.021	*	2,143	2,159	0.021		854	931	0.031	*
Murray	7,701	594	613	0.040		333	460	0.040	*	333	242	0.075	*
Nicollet	27,242	1,771	1,707	0.025	*	1,793	1,525	0.028	*	590	618	0.039	*
Nobles	19,435	1,312	1,214	0.030	*	716	1,075	0.025	*	545	466	0.050	*
Norman	5,596	489	453	0.049	*	320	372	0.048	*	210	184	0.079	*
Olmsted	132,566	7,151	7,328	0.012	*	7,151	7,221	0.012		2,102	2,557	0.018	*
Otter Tail	48,005	3,598	3,929	0.015	*	2,586	2,979	0.017	*	1,697	1,561	0.026	*
Pennington	13,299	1,026	867	0.037	*	716	784	0.034	*	460	323	0.066	*
Pine	23,658	1,943	1,817	0.024	*	1,391	1,564	0.024	*	692	685	0.038	
Pipestone	8,211	585	599	0.040		342	490	0.038	*	347	238	0.078	*
Polk	24,715	1,983	1,834	0.024	*	1,624	1,609	0.025		856	719	0.041	*
Pope	9,883	771	782	0.036		583	610	0.040	*	420	308	0.067	*
Ramsey	451,915	29,230	28,522	0.006	*	30,487	28,889	0.006	*	9,648	10,219	0.010	*
Red Lake	3,812	308	268	0.065	*	174	215	0.061	*	133	103	0.112	*
Redwood	13,005	1,024	987	0.032	*	588	768	0.032	*	396	387	0.051	
Renville	13,464	1,107	987	0.034	*	711	800	0.033	*	413	377	0.054	*
Rice	51,980	2,960	3,176	0.017	*	2,630	2,749	0.019	*	1,133	1,154	0.029	
Rock	7,721	556	573	0.041		347	445	0.042	*	330	227	0.080	*
Roseau	11,930	850	813	0.036	*	396	673	0.030	*	370	314	0.061	*
Scott	111,080	5,068	5,358	0.013	*	4,884	5,431	0.013	*	1,820	1,813	0.024	
Sherburne	74,692	3,758	3,832	0.016	*	3,643	3,918	0.015	*	1,219	1,301	0.027	*
Sibley	13,573	1,019	912	0.035	*	648	754	0.034	*	429	347	0.060	*
St. Louis	159,133	12,373	12,227	0.009	*	11,516	10,469	0.010	*	4,584	4,635	0.015	*

Supplemental Table 3: Continued

Statewide	N=4,531,066	DIABETES				DEPRESSION				CONGESTIVE HEART FAILURE			
		287,918				262,210				105,044			
MN County	Number of Residents	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Stearns	121,983	7,078	7,532	0.011	*	6,586	6,905	0.012	*	2,353	2,739	0.018	*
Steele	32,391	2,108	2,033	0.023	*	1,803	1,833	0.023		784	743	0.038	*
Stevens	7,868	568	538	0.044	*	402	434	0.046	*	427	207	0.100	*
Swift	8,211	719	653	0.041	*	490	525	0.042	*	259	259	0.062	
Todd	20,845	1,616	1,603	0.025		1,122	1,321	0.025	*	548	623	0.038	*
Traverse	3,193	324	292	0.062	*	210	210	0.069		198	124	0.113	*
Wabasha	17,864	1,253	1,295	0.027	*	780	1,019	0.027	*	468	496	0.044	*
Wadena	11,429	977	902	0.035	*	671	786	0.033	*	394	356	0.056	*
Waseca	15,825	1,155	1,077	0.032	*	887	923	0.032	*	407	399	0.051	
Washington	210,736	11,747	12,051	0.009	*	11,015	10,722	0.010	*	3,874	4,208	0.015	*
Watonwan	9,725	780	681	0.041	*	514	536	0.042		331	268	0.068	*
Wilkin	4,762	384	380	0.052		317	313	0.057		208	155	0.093	*
Winona	34,685	2,603	2,510	0.020	*	1,973	2,127	0.021	*	967	948	0.033	
Wright	109,066	5,602	5,766	0.013	*	4,848	5,517	0.013	*	1,975	2,014	0.022	*
Yellow Medicine	9,152	725	663	0.041	*	477	529	0.041		314	258	0.069	*

Supplemental Table 4: County-Level Prevalence for MN Residents with Ischemic Heart Disease, COPD, Chronic Kidney Disease, or Rheumatoid Arthritis (2012)

		ISCHEMIC HEART DISEASE				COPD				CHRONIC KIDNEY DISEASE				RHEUMATOID ARTHRITIS			
Statewide		96,920				54,259				58,936				52,954			
MN County	Number of Residents	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Aitkin	13,595	510	540	0.042	*	358	299	0.063	*	254	324	0.049	*	203	214	0.067	
Anoka	291,400	6,031	5,292	0.015	*	3,263	2,900	0.020	*	3,772	3,140	0.020	*	3,630	3,244	0.019	*
Becker	26,928	781	786	0.036		476	450	0.048	*	424	486	0.042	*	385	354	0.055	
Beltrami	34,777	1,102	826	0.040	*	609	506	0.049	*	556	529	0.045	*	454	405	0.053	*
Benton	32,578	601	604	0.041		369	346	0.056	*	359	374	0.051	*	396	357	0.056	
Big Stone	4,211	178	148	0.090	*	94	86	0.113		112	94	0.113	*	74	63	0.137	
Blue Earth	47,449	1,080	1,070	0.031		627	610	0.041		641	663	0.038	*	523	571	0.040	*
Brown	22,005	654	610	0.042	*	311	327	0.054	*	416	366	0.056	*	260	293	0.055	*
Carlton	31,560	767	751	0.037		495	424	0.053	*	438	457	0.046	*	422	388	0.053	
Carver	81,554	1,021	1,276	0.025	*	515	652	0.035	*	504	728	0.031	*	778	844	0.033	*
Cass	25,717	932	847	0.036	*	568	472	0.051	*	371	509	0.038	*	369	355	0.054	
Chippewa	10,878	281	291	0.058		234	161	0.095	*	157	177	0.071	*	127	142	0.079	
Chisago	46,654	1,015	963	0.033	*	583	505	0.048	*	565	556	0.043		597	542	0.045	*
Clay	37,025	941	893	0.034	*	521	524	0.044		625	569	0.044	*	495	442	0.050	*
Clearwater	7,065	199	208	0.068		145	128	0.095	*	89	134	0.070	*	94	92	0.105	
Cook	4,354	100	148	0.068	*	51	76	0.095	*	48	84	0.082	*	65	64	0.126	
Cottonwood	10,816	336	306	0.060	*	153	173	0.071	*	156	190	0.066	*	132	140	0.082	
Crow Wing	54,136	1,815	1,546	0.028	*	1,020	853	0.037	*	693	931	0.028	*	691	716	0.037	
Dakota	337,573	6,229	6,154	0.013		2,876	3,296	0.016	*	3,828	3,631	0.017	*	3,951	3,738	0.017	*
Dodge	17,932	304	328	0.053	*	186	176	0.078		150	194	0.063	*	181	191	0.071	
Douglas	32,697	939	954	0.032		449	524	0.040	*	501	581	0.039	*	380	440	0.044	*
Faribault	11,842	364	381	0.050	*	251	212	0.075	*	161	233	0.054	*	166	167	0.077	
Fillmore	16,834	456	472	0.045	*	239	262	0.059	*	344	286	0.065	*	211	219	0.066	

Supplemental Table 4: Continued

		ISCHEMIC HEART DISEASE				COPD				CHRONIC KIDNEY DISEASE				RHEUMATOID ARTHRITIS			
Statewide		96,920				54,259				58,936				52,954			
MN County	Number of Residents	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Freeborn	26,615	908	776	0.039	*	492	431	0.051	*	427	474	0.044	*	378	356	0.055	
Goodhue	39,041	987	982	0.032		551	524	0.045	*	486	584	0.038	*	484	492	0.045	
Grant	5,169	137	159	0.073	*	94	87	0.111		68	96	0.086	*	83	71	0.128	
Hennepin	994,152	17,843	19,499	0.007	*	9,949	11,122	0.009	*	13,345	12,026	0.010	*	10,296	11,312	0.009	*
Houston	12,774	330	393	0.046	*	166	219	0.059	*	400	242	0.083	*	154	178	0.070	*
Hubbard	16,198	598	544	0.045	*	330	303	0.060	*	287	328	0.052	*	230	230	0.066	
Isanti	32,981	644	653	0.039		435	362	0.058	*	487	393	0.056	*	478	374	0.058	*
Itasca	38,388	1,083	1,164	0.028	*	735	661	0.041	*	661	712	0.036	*	631	530	0.047	*
Jackson	9,326	322	249	0.072	*	153	138	0.089	*	150	152	0.080		117	120	0.090	
Kanabec	13,570	370	362	0.053		295	210	0.082	*	223	222	0.067		223	178	0.084	*
Kandiyohi	38,771	747	939	0.029	*	458	528	0.041	*	478	574	0.038	*	436	474	0.044	
Kittson	3,713	175	120	0.111	*	76	69	0.126		78	75	0.117		55	53	0.140	
Koochiching	9,414	356	343	0.055		215	201	0.073		198	216	0.065	*	124	146	0.076	*
Lac qui Parle	6,241	161	205	0.062	*	134	116	0.100	*	89	127	0.074	*	91	90	0.106	
Lake	8,349	254	286	0.056	*	151	152	0.081		157	170	0.074	*	123	123	0.090	
Lake of the Woods	3,150	127	109	0.103	*	75	62	0.139	*	52	66	0.110	*	54	47	0.157	
Le Sueur	23,544	499	561	0.040	*	259	296	0.054	*	278	330	0.051	*	285	287	0.059	
Lincoln	5,083	130	169	0.067	*	96	96	0.102		87	106	0.088	*	67	72	0.113	
Lyon	22,164	477	473	0.046		277	264	0.063		273	289	0.057	*	251	253	0.063	
Mahnomen	4,795	156	123	0.102	*	119	80	0.136	*	88	82	0.115		69	56	0.148	
Marshall	8,182	401	230	0.087	*	179	127	0.105	*	205	140	0.102	*	124	106	0.105	
Martin	17,975	508	529	0.043	*	344	302	0.061	*	290	328	0.052	*	281	246	0.068	*
McLeod	32,808	788	756	0.037	*	408	401	0.050		529	449	0.051	*	321	397	0.045	*
Meeker	20,349	437	524	0.040	*	267	287	0.057	*	286	314	0.054	*	243	256	0.061	

Supplemental Table 4: Continued

		ISCHEMIC HEART DISEASE				COPD				CHRONIC KIDNEY DISEASE				RHEUMATOID ARTHRITIS			
Statewide		96,920				54,259				58,936				52,954			
MN County	Number of Residents	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Mille Lacs	23,257	523	541	0.042	*	349	304	0.061	*	362	329	0.058	*	322	277	0.065	*
Morrison	28,679	616	738	0.034	*	440	422	0.050		302	457	0.038	*	354	362	0.052	
Mower	36,279	1,106	868	0.038	*	679	495	0.053	*	530	537	0.043		350	432	0.043	*
Murray	7,701	271	233	0.071	*	173	128	0.103	*	106	141	0.073	*	96	106	0.093	
Nicollet	27,242	563	583	0.041	*	325	311	0.058		333	344	0.053	*	326	318	0.057	
Nobles	19,435	590	430	0.056	*	303	243	0.071	*	250	266	0.059	*	196	213	0.066	
Norman	5,596	144	168	0.072	*	99	100	0.100		95	108	0.091	*	88	75	0.125	
Olmsted	132,566	2,002	2,291	0.020	*	1,002	1,269	0.025	*	958	1,375	0.023	*	1,482	1,424	0.027	
Otter Tail	48,005	1,346	1,506	0.024	*	839	831	0.035		738	918	0.030	*	639	664	0.038	
Pennington	13,299	377	295	0.066	*	232	168	0.091	*	223	182	0.082	*	201	158	0.090	*
Pine	23,658	671	653	0.040		509	373	0.061	*	364	398	0.048	*	320	311	0.057	
Pipestone	8,211	200	216	0.065	*	141	125	0.095	*	128	137	0.082	*	108	104	0.099	
Polk	24,715	924	651	0.047	*	514	391	0.058	*	494	417	0.053	*	337	310	0.059	
Pope	9,883	271	292	0.056	*	149	164	0.074	*	125	179	0.063	*	123	134	0.083	
Ramsey	451,915	9,619	9,105	0.011	*	4,908	5,513	0.013	*	6,208	5,736	0.014	*	5,000	5,134	0.014	
Red Lake	3,812	144	98	0.123	*	77	54	0.163	*	80	58	0.153	*	49	47	0.150	
Redwood	13,005	314	375	0.047	*	179	204	0.066	*	208	226	0.064	*	132	169	0.068	*
Renville	13,464	298	360	0.048	*	195	199	0.070		216	218	0.067		141	173	0.069	*
Rice	51,980	973	1,097	0.028	*	560	580	0.041	*	475	648	0.034	*	612	591	0.042	
Rock	7,721	246	215	0.073	*	128	117	0.096		91	131	0.073	*	106	102	0.101	
Roseau	11,930	389	295	0.067	*	167	163	0.079		145	180	0.067	*	153	145	0.086	
Scott	111,080	1,581	1,616	0.025	*	793	844	0.033	*	1,003	937	0.034	*	1,045	1,095	0.030	
Sherburne	74,692	1,156	1,178	0.029	*	702	630	0.042	*	752	694	0.040	*	847	763	0.038	*
Sibley	13,573	311	327	0.054	*	202	178	0.080	*	214	197	0.074	*	136	165	0.071	*

Supplemental Table 4: Continued

		ISCHEMIC HEART DISEASE				COPD				CHRONIC KIDNEY DISEASE				RHEUMATOID ARTHRITIS			
Statewide		96,920				54,259				58,936				52,954			
MN County	Number of Residents	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
St. Louis	159,133	4,486	4,324	0.015	*	3,193	2,512	0.022	*	2,992	2,700	0.020	*	2,347	2,128	0.023	*
Stearns	121,983	2,335	2,548	0.019	*	1,299	1,392	0.026	*	1,321	1,537	0.024	*	1,346	1,399	0.026	
Steele	32,391	592	694	0.035	*	357	379	0.050	*	246	417	0.038	*	392	375	0.053	
Stevens	7,868	227	196	0.077	*	115	106	0.101		84	119	0.077	*	106	97	0.106	
Swift	8,211	265	241	0.068	*	139	139	0.085		131	152	0.075	*	97	111	0.089	
Todd	20,845	549	588	0.040	*	332	337	0.054		331	363	0.050	*	271	270	0.061	
Traverse	3,193	98	115	0.086	*	62	67	0.117	*	65	74	0.110	*	49	47	0.150	
Wabasha	17,864	419	479	0.043	*	252	254	0.062		175	284	0.047	*	197	231	0.061	*
Wadena	11,429	384	328	0.060	*	209	198	0.073		134	211	0.055	*	148	148	0.082	
Waseca	15,825	368	380	0.051		172	207	0.063	*	184	228	0.059	*	196	194	0.072	
Washington	210,736	4,189	3,971	0.016	*	1,866	2,020	0.021	*	2,057	2,274	0.020	*	2,589	2,374	0.021	*
Watsonwan	9,725	185	255	0.053	*	146	140	0.087		140	155	0.076	*	104	119	0.086	
Wilkin	4,762	149	141	0.087		86	84	0.111		87	91	0.102		57	64	0.118	
Winona	34,685	852	890	0.033	*	541	503	0.046	*	640	546	0.046	*	423	442	0.047	
Wright	109,066	1,852	1,853	0.023		1,005	975	0.033		1,021	1,085	0.029	*	1,182	1,134	0.030	
Yellow Medicine	9,152	252	242	0.066		167	135	0.096	*	141	149	0.080		101	116	0.086	

Supplemental Table 5: County-Level Average Spending for MN Residents with High Blood Pressure, High Cholesterol, or Asthma (2012)

Statewide MN County	HIGH BLOOD PRESSURE				HIGH CHOLESTEROL				ASTHMA			
	Obs ¹⁹	Exp ²⁰	StdErr ²¹	Sig ²²	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Aitkin	\$13,232	\$13,301	0.015		\$13,683	\$13,172	0.019	*	\$14,697	\$14,641	0.024	
Anoka	\$12,638	\$12,339	0.004	*	\$12,182	\$12,017	0.005	*	\$11,424	\$11,262	0.005	*
Becker	\$12,599	\$13,580	0.012	*	\$12,050	\$13,226	0.014	*	\$13,558	\$13,863	0.019	
Beltrami	\$14,186	\$14,483	0.011		\$14,162	\$14,120	0.013		\$12,664	\$12,865	0.015	
Benton	\$13,544	\$13,186	0.013	*	\$13,292	\$12,682	0.015	*	\$11,613	\$11,289	0.017	
Big Stone	\$14,375	\$13,308	0.028	*	\$14,534	\$13,372	0.035	*	\$13,690	\$13,532	0.045	
Blue Earth	\$13,644	\$13,361	0.010	*	\$13,326	\$13,101	0.011		\$12,631	\$12,526	0.014	
Brown	\$13,058	\$12,612	0.013	*	\$13,000	\$12,247	0.016	*	\$13,026	\$12,510	0.022	
Carlton	\$12,473	\$12,963	0.011	*	\$12,991	\$12,919	0.014		\$13,433	\$12,778	0.018	*
Carver	\$10,934	\$11,728	0.009	*	\$10,338	\$11,258	0.010	*	\$9,193	\$9,836	0.010	*
Cass	\$12,946	\$13,482	0.012	*	\$12,837	\$13,280	0.014	*	\$13,401	\$13,996	0.018	*
Chippewa	\$12,645	\$12,704	0.019		\$12,805	\$12,316	0.023		\$13,606	\$13,150	0.030	
Chisago	\$12,041	\$12,129	0.010		\$11,991	\$11,926	0.012		\$11,123	\$11,334	0.013	
Clay	\$13,421	\$13,563	0.011		\$13,451	\$13,391	0.013		\$13,462	\$12,824	0.017	*
Clearwater	\$12,763	\$14,626	0.022	*	\$13,334	\$14,235	0.028	*	\$13,776	\$14,608	0.035	
Cook	\$10,905	\$12,218	0.028	*	\$10,519	\$11,860	0.033	*	\$10,530	\$12,978	0.045	*
Cottonwood	\$12,204	\$13,274	0.018	*	\$12,523	\$12,894	0.022		\$12,442	\$12,855	0.030	
Crow Wing	\$12,766	\$13,063	0.008	*	\$12,780	\$12,794	0.010		\$12,935	\$13,029	0.013	
Dakota	\$12,471	\$12,265	0.004	*	\$11,995	\$11,942	0.005		\$10,921	\$10,736	0.005	*
Dodge	\$12,205	\$12,542	0.017		\$12,239	\$12,228	0.020		\$10,906	\$10,812	0.023	
Douglas	\$12,601	\$13,223	0.011	*	\$12,788	\$13,101	0.013		\$12,392	\$13,241	0.017	*
Faribault	\$12,296	\$13,041	0.016	*	\$12,273	\$12,724	0.019		\$13,166	\$13,470	0.027	
Fillmore	\$11,915	\$13,056	0.015	*	\$11,846	\$12,931	0.017	*	\$11,698	\$13,101	0.022	*

Supplemental Table 5: Continued

Statewide MN County	HIGH BLOOD PRESSURE \$12,911				HIGH CHOLESTEROL \$12,582				ASTHMA \$11,746			
	Obs ¹⁹	Exp ²⁰	StdErr ²¹	Sig ²²	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Freeborn	\$11,703	\$13,055	0.011	*	\$11,826	\$12,945	0.013	*	\$11,002	\$12,740	0.017	*
Goodhue	\$12,339	\$12,560	0.010		\$12,504	\$12,374	0.012		\$11,854	\$12,287	0.015	*
Grant	\$13,159	\$12,828	0.027		\$12,467	\$12,543	0.032		\$13,216	\$12,927	0.041	
Hennepin	\$13,298	\$12,998	0.002	*	\$12,708	\$12,576	0.003	*	\$11,517	\$11,420	0.003	*
Houston	\$10,906	\$13,133	0.015	*	\$10,826	\$12,986	0.018	*	\$11,407	\$13,487	0.025	*
Hubbard	\$12,171	\$13,521	0.014	*	\$12,393	\$13,266	0.017	*	\$12,213	\$13,834	0.022	*
Isanti	\$12,878	\$12,587	0.012		\$12,574	\$12,310	0.015		\$12,216	\$11,634	0.016	*
Itasca	\$12,713	\$13,939	0.009	*	\$13,375	\$13,702	0.011	*	\$13,584	\$14,000	0.013	*
Jackson	\$12,545	\$12,935	0.020		\$12,591	\$12,757	0.023		\$11,687	\$12,179	0.031	
Kanabec	\$13,178	\$13,423	0.017		\$13,612	\$13,320	0.021		\$14,264	\$13,554	0.025	*
Kandiyohi	\$11,836	\$13,260	0.010	*	\$12,007	\$13,081	0.012	*	\$11,444	\$12,379	0.015	*
Kittson	\$12,771	\$13,277	0.029		\$12,936	\$13,007	0.034		\$13,121	\$12,895	0.048	
Koochiching	\$13,384	\$13,865	0.018	*	\$13,099	\$13,813	0.021	*	\$15,204	\$15,250	0.028	
Lac qui Parle	\$14,384	\$13,023	0.024	*	\$14,697	\$12,729	0.030	*	\$15,215	\$13,415	0.040	*
Lake	\$12,181	\$12,885	0.020	*	\$12,273	\$12,534	0.025		\$13,617	\$13,793	0.033	
Lake of the Woods	\$12,964	\$13,424	0.032		\$12,597	\$13,274	0.039		\$15,132	\$15,926	0.058	
Le Sueur	\$11,791	\$12,392	0.013	*	\$11,807	\$12,123	0.016		\$10,901	\$11,578	0.020	*
Lincoln	\$13,006	\$13,049	0.026		\$13,410	\$12,818	0.033		\$15,505	\$13,465	0.046	*
Lyon	\$13,951	\$12,764	0.015	*	\$13,571	\$12,392	0.017	*	\$12,901	\$12,130	0.021	*
Mahnomen	\$15,322	\$15,046	0.029		\$15,358	\$14,952	0.037		\$15,822	\$13,954	0.042	*
Marshall	\$13,066	\$12,754	0.020		\$13,510	\$12,808	0.024	*	\$13,660	\$12,528	0.035	*
Martin	\$12,114	\$13,348	0.013	*	\$12,182	\$13,106	0.015	*	\$12,695	\$13,451	0.022	*
McLeod	\$12,378	\$12,378	0.012		\$12,592	\$12,070	0.014	*	\$11,653	\$11,290	0.017	
Meeker	\$12,192	\$12,922	0.014	*	\$12,040	\$12,650	0.017	*	\$12,488	\$12,589	0.022	

Supplemental Table 5: Continued

Statewide MN County	HIGH BLOOD PRESSURE				HIGH CHOLESTEROL				ASTHMA			
	\$12,911				\$12,582				\$11,746			
	Obs ¹⁹	Exp ²⁰	StdErr ²¹	Sig ²²	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Mille Lacs	\$13,132	\$13,111	0.014		\$12,573	\$12,815	0.016		\$12,605	\$12,038	0.020	*
Morrison	\$12,593	\$13,394	0.012	*	\$11,810	\$12,978	0.014	*	\$11,273	\$12,339	0.017	*
Mower	\$13,027	\$13,530	0.011	*	\$13,475	\$13,465	0.013		\$11,588	\$12,349	0.016	*
Murray	\$13,774	\$12,735	0.023	*	\$14,728	\$12,697	0.027	*	\$14,775	\$13,128	0.034	*
Nicollet	\$12,747	\$12,571	0.013		\$12,344	\$12,211	0.015		\$11,514	\$11,262	0.019	
Nobles	\$12,002	\$13,188	0.015	*	\$12,229	\$13,184	0.017	*	\$10,126	\$11,276	0.019	*
Norman	\$11,962	\$13,811	0.023	*	\$12,021	\$13,477	0.030	*	\$13,734	\$14,183	0.041	
Olmsted	\$13,640	\$12,654	0.007	*	\$12,621	\$12,269	0.008	*	\$10,976	\$10,553	0.008	*
Otter Tail	\$12,132	\$13,166	0.008	*	\$11,913	\$12,847	0.010	*	\$13,072	\$13,641	0.014	*
Pennington	\$12,651	\$12,863	0.017		\$13,371	\$12,788	0.020	*	\$12,455	\$11,885	0.026	
Pine	\$13,494	\$13,318	0.013		\$14,117	\$13,310	0.016	*	\$14,310	\$13,875	0.019	
Pipestone	\$12,962	\$13,172	0.022		\$12,438	\$12,883	0.026		\$12,421	\$12,591	0.035	
Polk	\$12,845	\$13,774	0.012	*	\$13,538	\$13,563	0.015		\$13,325	\$13,333	0.018	
Pope	\$12,427	\$13,125	0.019	*	\$13,343	\$12,977	0.025		\$12,904	\$13,253	0.030	
Ramsey	\$14,167	\$13,597	0.003	*	\$13,477	\$13,211	0.004	*	\$12,286	\$12,223	0.004	
Red Lake	\$12,493	\$12,692	0.031		\$13,996	\$12,912	0.038	*	\$13,257	\$12,065	0.051	
Redwood	\$12,248	\$12,716	0.017	*	\$12,360	\$12,439	0.020		\$12,200	\$12,567	0.027	
Renville	\$11,793	\$12,657	0.016	*	\$12,117	\$12,480	0.019		\$13,024	\$12,628	0.029	
Rice	\$11,945	\$12,315	0.010	*	\$12,352	\$12,211	0.012		\$10,913	\$11,424	0.014	*
Rock	\$12,448	\$12,693	0.022		\$11,861	\$12,149	0.026		\$14,197	\$12,679	0.038	*
Roseau	\$12,255	\$12,668	0.018		\$12,859	\$12,743	0.023		\$12,745	\$12,717	0.028	
Scott	\$11,707	\$11,844	0.008		\$10,816	\$11,462	0.008	*	\$9,460	\$9,833	0.009	*
Sherburne	\$12,540	\$12,302	0.009	*	\$11,826	\$11,898	0.010		\$10,832	\$10,550	0.011	*
Sibley	\$12,467	\$12,492	0.018		\$12,722	\$12,368	0.022		\$11,722	\$11,741	0.027	

Supplemental Table 5: Continued

Statewide MN County	HIGH BLOOD PRESSURE \$12,911				HIGH CHOLESTEROL \$12,582				ASTHMA \$11,746			
	Obs ¹⁹	Exp ²⁰	StdErr ²¹	Sig ²²	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
St. Louis	\$14,034	\$13,654	0.005	*	\$14,327	\$13,534	0.006	*	\$14,204	\$13,506	0.007	*
Stearns	\$12,448	\$12,765	0.006	*	\$12,095	\$12,382	0.007	*	\$11,044	\$11,271	0.009	*
Steele	\$12,327	\$12,763	0.012	*	\$11,966	\$12,534	0.014	*	\$11,530	\$11,659	0.017	
Stevens	\$15,095	\$12,720	0.024	*	\$16,336	\$12,754	0.030	*	\$14,969	\$12,136	0.035	*
Swift	\$12,617	\$13,531	0.020	*	\$13,119	\$13,260	0.025		\$13,086	\$13,760	0.033	
Todd	\$13,175	\$13,863	0.014	*	\$13,085	\$13,360	0.017		\$13,731	\$14,081	0.022	
Traverse	\$13,179	\$13,744	0.030		\$13,218	\$13,688	0.035		\$14,025	\$14,726	0.052	
Wabasha	\$12,209	\$12,665	0.015	*	\$12,229	\$12,458	0.018		\$11,621	\$12,425	0.021	*
Wadena	\$14,363	\$14,283	0.018		\$14,909	\$14,184	0.023	*	\$14,768	\$14,334	0.028	
Waseca	\$12,654	\$12,885	0.016		\$12,663	\$12,692	0.019		\$12,104	\$12,141	0.025	
Washington	\$11,849	\$11,867	0.005		\$11,102	\$11,446	0.006	*	\$10,016	\$10,429	0.006	*
Watonwan	\$12,882	\$12,756	0.021		\$13,060	\$12,544	0.024		\$13,958	\$12,871	0.035	*
Wilkin	\$12,312	\$13,757	0.026	*	\$12,646	\$13,360	0.033		\$13,101	\$13,452	0.044	
Winona	\$12,310	\$13,275	0.010	*	\$12,119	\$13,110	0.012	*	\$11,948	\$12,746	0.015	*
Wright	\$12,078	\$12,123	0.007		\$11,602	\$11,844	0.008	*	\$10,506	\$10,588	0.009	
Yellow Medicine	\$13,290	\$12,752	0.021	*	\$13,646	\$12,621	0.026	*	\$14,293	\$12,756	0.034	*

¹⁹ Observed average spending.

²⁰ Expected average spending.

²¹ Standard Error.

²² Significance at the p<0.05 level.

Supplemental Table 6: County-Level Average Spending for MN Residents with Diabetes, Depression, or Congestive Heart Failure (2012)

Statewide	DIABETES				DEPRESSION				CONGESTIVE HEART FAILURE			
	\$16,284				\$18,574				\$25,944			
MN County	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Aitkin	\$17,103	\$16,825	0.028		\$20,600	\$20,935	0.036		\$30,407	\$27,293	0.046	*
Anoka	\$15,930	\$15,439	0.008	*	\$17,987	\$17,735	0.008		\$27,208	\$25,393	0.014	*
Becker	\$16,741	\$17,364	0.021		\$19,288	\$20,293	0.023	*	\$23,266	\$26,829	0.031	*
Beltrami	\$18,857	\$18,182	0.019	*	\$18,565	\$19,528	0.019	*	\$25,745	\$27,490	0.030	*
Benton	\$17,799	\$16,496	0.024	*	\$19,627	\$18,724	0.023	*	\$29,721	\$26,678	0.043	*
Big Stone	\$18,480	\$17,679	0.052		\$19,484	\$21,303	0.069		\$24,419	\$26,703	0.064	
Blue Earth	\$16,808	\$16,802	0.018		\$18,089	\$19,290	0.016	*	\$27,182	\$26,191	0.031	
Brown	\$15,751	\$15,823	0.024		\$19,712	\$19,261	0.031		\$27,725	\$26,110	0.041	
Carlton	\$16,297	\$16,415	0.021		\$19,039	\$18,395	0.025		\$24,685	\$27,370	0.032	*
Carver	\$14,581	\$14,716	0.017		\$16,201	\$16,513	0.017		\$22,398	\$23,856	0.027	*
Cass	\$17,339	\$17,122	0.022		\$21,536	\$20,054	0.027	*	\$26,941	\$27,201	0.035	
Chippewa	\$15,663	\$15,830	0.033		\$20,388	\$20,366	0.042		\$24,771	\$26,424	0.050	
Chisago	\$15,309	\$15,257	0.019		\$18,024	\$17,861	0.019		\$25,891	\$25,401	0.033	
Clay	\$17,289	\$17,091	0.019		\$19,630	\$19,502	0.019		\$23,723	\$24,951	0.028	
Clearwater	\$16,129	\$18,216	0.040	*	\$19,096	\$20,459	0.046		\$23,233	\$27,752	0.057	*
Cook	\$13,070	\$15,539	0.054	*	\$17,634	\$18,888	0.066		\$24,802	\$25,806	0.095	
Cottonwood	\$15,206	\$16,725	0.032	*	\$18,944	\$20,245	0.041		\$23,727	\$27,598	0.047	*
Crow Wing	\$16,997	\$16,492	0.016		\$19,203	\$19,677	0.017		\$25,730	\$26,339	0.025	
Dakota	\$15,412	\$15,391	0.007		\$18,367	\$17,646	0.007	*	\$25,306	\$24,756	0.013	
Dodge	\$15,409	\$15,931	0.031		\$18,083	\$16,862	0.035	*	\$25,640	\$25,946	0.054	
Douglas	\$16,650	\$16,934	0.021		\$21,570	\$21,849	0.023		\$27,621	\$27,193	0.032	
Faribault	\$15,371	\$16,387	0.031	*	\$18,881	\$19,617	0.039		\$23,820	\$26,130	0.045	*
Fillmore	\$14,756	\$16,484	0.027	*	\$18,450	\$19,657	0.035		\$27,072	\$27,915	0.046	

Supplemental Table 6: Continued

Statewide MN County	DIABETES \$16,284				DEPRESSION \$18,574				CONGESTIVE HEART FAILURE \$25,944			
	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Freeborn	\$14,752	\$16,450	0.021	*	\$17,219	\$20,127	0.023	*	\$24,445	\$26,730	0.033	*
Goodhue	\$15,889	\$15,918	0.019		\$18,620	\$19,336	0.022		\$25,473	\$26,774	0.031	
Grant	\$15,956	\$16,145	0.049		\$21,473	\$20,524	0.058		\$24,416	\$25,914	0.068	
Hennepin	\$16,788	\$16,426	0.004	*	\$18,539	\$18,253	0.004	*	\$26,125	\$25,560	0.007	*
Houston	\$14,760	\$16,498	0.031	*	\$16,967	\$21,351	0.035	*	\$21,984	\$26,254	0.046	*
Hubbard	\$15,865	\$16,959	0.027	*	\$18,204	\$20,095	0.030	*	\$23,864	\$26,476	0.039	*
Isanti	\$16,296	\$15,588	0.022	*	\$18,693	\$17,766	0.024	*	\$24,935	\$25,087	0.034	
Itasca	\$17,037	\$17,667	0.016	*	\$18,462	\$19,375	0.019	*	\$26,780	\$27,999	0.029	
Jackson	\$15,749	\$16,347	0.039		\$18,931	\$20,066	0.041		\$21,950	\$26,579	0.048	*
Kanabec	\$16,702	\$16,786	0.030		\$20,061	\$19,033	0.035		\$26,437	\$26,897	0.045	
Kandiyohi	\$14,851	\$16,911	0.018	*	\$18,178	\$19,718	0.020	*	\$20,706	\$26,603	0.028	*
Kittson	\$16,575	\$16,598	0.056		\$20,127	\$22,146	0.073		\$21,118	\$26,994	0.066	*
Koochiching	\$16,737	\$17,769	0.032		\$19,683	\$21,435	0.037	*	\$28,264	\$27,514	0.053	
Lac qui Parle	\$18,376	\$16,327	0.043	*	\$23,564	\$21,570	0.054		\$29,881	\$26,593	0.067	
Lake	\$15,903	\$16,135	0.037		\$17,841	\$20,256	0.041	*	\$26,929	\$27,038	0.062	
Lake of the Woods	\$16,188	\$17,832	0.061		\$20,759	\$21,834	0.071		\$24,112	\$27,602	0.082	
Le Sueur	\$15,038	\$15,650	0.025		\$16,939	\$18,287	0.028	*	\$26,000	\$26,224	0.042	
Lincoln	\$15,962	\$16,606	0.048		\$21,058	\$21,163	0.065		\$22,615	\$26,329	0.059	*
Lyon	\$16,039	\$15,652	0.025		\$18,697	\$19,120	0.028		\$28,230	\$26,229	0.040	
Mahnomen	\$19,485	\$19,705	0.046		\$22,867	\$19,410	0.057	*	\$30,439	\$28,601	0.080	
Marshall	\$16,046	\$16,125	0.038		\$20,852	\$19,569	0.051		\$25,624	\$26,483	0.053	
Martin	\$15,835	\$17,096	0.025	*	\$19,719	\$20,208	0.030		\$23,222	\$26,960	0.036	*
McLeod	\$15,530	\$15,492	0.021		\$18,586	\$18,803	0.024		\$24,622	\$25,770	0.030	
Meeker	\$15,485	\$16,389	0.025	*	\$19,895	\$19,924	0.031		\$26,657	\$27,116	0.045	

Supplemental Table 6: Continued

Statewide MN County	DIABETES				DEPRESSION				CONGESTIVE HEART FAILURE			
	\$16,284				\$18,574				\$25,944			
	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Mille Lacs	\$16,587	\$15,999	0.025		\$19,629	\$18,350	0.029	*	\$26,637	\$26,809	0.041	
Morrison	\$16,672	\$16,956	0.023		\$19,580	\$19,255	0.027		\$27,839	\$27,988	0.037	
Mower	\$15,645	\$16,979	0.019	*	\$18,706	\$19,775	0.021	*	\$29,068	\$27,145	0.035	*
Murray	\$16,443	\$15,998	0.042		\$24,253	\$20,788	0.059	*	\$28,367	\$26,576	0.057	
Nicollet	\$15,040	\$15,849	0.023	*	\$16,791	\$17,679	0.023	*	\$23,885	\$24,686	0.040	
Nobles	\$15,325	\$17,141	0.026	*	\$19,373	\$20,307	0.036		\$24,728	\$26,794	0.041	
Norman	\$15,145	\$17,030	0.043	*	\$16,913	\$21,118	0.050	*	\$23,975	\$27,800	0.064	*
Olmsted	\$16,426	\$16,037	0.012	*	\$19,624	\$17,263	0.013	*	\$26,797	\$25,256	0.022	*
Otter Tail	\$15,558	\$16,739	0.016	*	\$20,026	\$20,406	0.019		\$24,651	\$26,907	0.023	*
Pennington	\$16,772	\$16,387	0.032		\$17,890	\$18,122	0.037		\$23,619	\$25,724	0.045	
Pine	\$17,340	\$16,593	0.023		\$20,967	\$19,676	0.028	*	\$28,288	\$27,055	0.039	
Pipestone	\$16,314	\$16,726	0.041		\$23,019	\$21,023	0.057		\$22,706	\$27,146	0.049	*
Polk	\$16,899	\$17,509	0.022		\$18,256	\$20,311	0.024	*	\$23,380	\$27,242	0.032	*
Pope	\$16,920	\$16,837	0.036		\$18,867	\$20,555	0.040	*	\$24,736	\$26,519	0.047	
Ramsey	\$17,379	\$17,090	0.006	*	\$18,527	\$19,108	0.006	*	\$28,113	\$26,234	0.011	*
Red Lake	\$17,237	\$16,705	0.058		\$21,353	\$20,257	0.078		\$25,417	\$26,839	0.085	
Redwood	\$15,600	\$16,290	0.031		\$19,082	\$19,447	0.041		\$25,011	\$26,826	0.049	
Renville	\$14,391	\$16,171	0.028	*	\$17,898	\$19,294	0.036	*	\$25,502	\$26,891	0.048	
Rice	\$14,723	\$15,500	0.018	*	\$17,759	\$17,610	0.020		\$22,774	\$25,005	0.028	*
Rock	\$14,270	\$15,763	0.040	*	\$21,301	\$21,128	0.054		\$20,227	\$25,326	0.049	*
Roseau	\$15,512	\$16,486	0.033		\$19,055	\$19,882	0.049		\$22,564	\$27,216	0.047	*
Scott	\$14,629	\$14,950	0.014		\$16,699	\$16,394	0.014		\$24,155	\$23,884	0.024	
Sherburne	\$15,837	\$15,263	0.017	*	\$18,443	\$17,438	0.017	*	\$26,596	\$25,552	0.029	
Sibley	\$16,303	\$15,831	0.032		\$18,426	\$18,768	0.039		\$24,652	\$26,367	0.047	

Supplemental Table 6: Continued

Statewide MN County	DIABETES				DEPRESSION				CONGESTIVE HEART FAILURE			
	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
	\$16,284				\$18,574				\$25,944			
St. Louis	\$17,658	\$17,133	0.009	*	\$19,338	\$19,484	0.009		\$26,986	\$27,277	0.015	
Stearns	\$15,866	\$16,039	0.012		\$17,895	\$18,433	0.012	*	\$27,453	\$25,853	0.021	*
Steele	\$14,907	\$16,179	0.021	*	\$19,377	\$18,637	0.024		\$23,304	\$24,557	0.035	
Stevens	\$21,054	\$16,145	0.048	*	\$22,150	\$19,182	0.054	*	\$25,368	\$25,024	0.049	
Swift	\$16,735	\$17,626	0.036		\$18,096	\$20,923	0.042	*	\$31,013	\$28,343	0.065	
Todd	\$16,159	\$17,405	0.024	*	\$20,574	\$20,956	0.030		\$25,508	\$27,699	0.041	
Traverse	\$16,063	\$18,210	0.052	*	\$17,422	\$22,697	0.060	*	\$22,968	\$26,669	0.066	*
Wabasha	\$14,609	\$16,086	0.027	*	\$20,118	\$19,844	0.036		\$25,776	\$26,404	0.046	
Wadena	\$18,011	\$17,907	0.032		\$20,969	\$21,598	0.038		\$28,908	\$28,136	0.051	
Waseca	\$14,978	\$16,035	0.028	*	\$18,976	\$18,789	0.034		\$24,445	\$25,785	0.048	
Washington	\$14,758	\$14,791	0.009		\$16,678	\$17,057	0.009	*	\$24,113	\$23,906	0.016	
Watonwan	\$16,637	\$16,098	0.036		\$18,576	\$20,006	0.042		\$23,691	\$26,517	0.052	*
Wilkin	\$14,787	\$17,494	0.047	*	\$20,013	\$20,792	0.055		\$23,447	\$27,051	0.064	*
Winona	\$15,634	\$16,796	0.019	*	\$19,919	\$20,396	0.022		\$24,955	\$26,289	0.031	
Wright	\$15,185	\$15,254	0.013		\$18,440	\$17,278	0.015	*	\$26,602	\$25,430	0.023	*
Yellow Medicine	\$17,249	\$16,213	0.038		\$19,984	\$19,957	0.046		\$28,760	\$27,502	0.058	

Supplemental Table 7: County-Level Average Spending for MN Residents with Ischemic Heart Disease, COPD, or Chronic Kidney Disease (2012)

Statewide	ISCHEMIC HEART DISEASE				COPD				CHRONIC KIDNEY DISEASE			
	\$27,174				\$31,117				\$34,454			
MN County	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Aitkin	\$32,210	\$27,294	0.048	*	\$31,056	\$30,776	0.053		\$39,336	\$34,873	0.067	
Anoka	\$26,853	\$26,830	0.013		\$30,467	\$30,261	0.018		\$32,780	\$33,364	0.016	
Becker	\$27,333	\$28,196	0.035		\$28,831	\$32,087	0.043	*	\$34,848	\$35,549	0.048	
Beltrami	\$26,197	\$28,891	0.029	*	\$29,432	\$32,846	0.038	*	\$37,472	\$36,927	0.043	
Benton	\$29,538	\$27,954	0.042		\$31,648	\$31,557	0.052		\$38,696	\$34,828	0.056	*
Big Stone	\$30,415	\$27,640	0.079		\$33,589	\$32,015	0.105		\$37,215	\$35,815	0.096	
Blue Earth	\$27,644	\$27,534	0.030		\$31,603	\$31,333	0.040		\$32,313	\$34,253	0.038	
Brown	\$28,375	\$26,757	0.040		\$31,576	\$30,456	0.058		\$34,788	\$32,960	0.050	
Carlton	\$26,584	\$27,781	0.035		\$29,091	\$31,348	0.043		\$32,572	\$35,230	0.046	
Carver	\$25,228	\$26,537	0.031		\$28,814	\$29,822	0.043		\$33,957	\$33,454	0.045	
Cass	\$26,134	\$27,522	0.032		\$28,898	\$31,526	0.040	*	\$35,070	\$34,806	0.052	
Chippewa	\$27,738	\$26,730	0.061		\$32,790	\$31,603	0.067		\$32,364	\$33,982	0.078	
Chisago	\$26,308	\$26,668	0.031		\$29,657	\$30,377	0.041		\$33,032	\$33,107	0.042	
Clay	\$25,497	\$27,184	0.032	*	\$31,765	\$31,345	0.044		\$33,632	\$34,701	0.039	
Clearwater	\$27,527	\$28,885	0.069		\$31,984	\$34,100	0.080		\$30,516	\$35,134	0.099	
Cook	\$31,355	\$26,588	0.109		\$28,619	\$28,807	0.140		\$34,132	\$31,723	0.150	
Cottonwood	\$26,550	\$27,729	0.053		\$31,508	\$31,052	0.082		\$34,782	\$35,095	0.080	
Crow Wing	\$24,804	\$26,803	0.023	*	\$29,397	\$31,221	0.030		\$36,392	\$34,774	0.039	
Dakota	\$26,204	\$26,609	0.013		\$31,428	\$30,397	0.019		\$34,924	\$33,953	0.016	
Dodge	\$30,846	\$27,733	0.060		\$29,936	\$31,447	0.072		\$39,518	\$34,490	0.088	
Douglas	\$25,493	\$27,218	0.032	*	\$34,217	\$31,928	0.049		\$31,343	\$33,586	0.043	
Faribault	\$30,997	\$27,332	0.056	*	\$28,266	\$30,129	0.061		\$36,828	\$32,941	0.083	
Fillmore	\$27,988	\$28,130	0.047		\$29,773	\$31,747	0.063		\$29,100	\$32,981	0.051	*

Supplemental Table 7: Continued

Statewide MN County	ISCHEMIC HEART DISEASE \$27,174				COPD \$31,117				CHRONIC KIDNEY DISEASE \$34,454			
	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Freeborn	\$24,626	\$27,453	0.031	*	\$25,589	\$31,215	0.041	*	\$32,421	\$34,519	0.047	
Goodhue	\$28,704	\$27,569	0.032		\$28,131	\$30,569	0.041		\$34,202	\$33,986	0.046	
Grant	\$29,178	\$26,692	0.089		\$27,555	\$30,121	0.099		\$34,961	\$32,711	0.126	
Hennepin	\$27,580	\$27,311	0.008		\$32,636	\$31,167	0.010	*	\$34,883	\$34,794	0.009	
Houston	\$22,735	\$27,060	0.050	*	\$26,072	\$30,685	0.072	*	\$23,148	\$32,300	0.042	*
Hubbard	\$25,821	\$27,068	0.040		\$27,998	\$31,032	0.052		\$32,086	\$33,318	0.058	
Isanti	\$27,975	\$26,986	0.040		\$29,491	\$31,095	0.047		\$33,169	\$34,147	0.045	
Itasca	\$27,140	\$27,708	0.030		\$29,434	\$31,371	0.036		\$31,929	\$34,458	0.037	*
Jackson	\$21,669	\$26,513	0.050	*	\$28,375	\$30,706	0.078		\$29,869	\$33,328	0.077	
Kanabec	\$30,379	\$28,237	0.054		\$32,817	\$31,863	0.059		\$39,596	\$35,502	0.071	
Kandiyohi	\$22,833	\$27,166	0.034	*	\$27,670	\$31,499	0.044	*	\$29,439	\$34,861	0.042	*
Kittson	\$26,611	\$28,150	0.073		\$30,004	\$31,881	0.111		\$29,557	\$34,592	0.105	
Koochiching	\$29,486	\$27,200	0.055		\$36,187	\$31,272	0.073	*	\$35,126	\$35,900	0.070	
Lac qui Parle	\$31,400	\$27,363	0.085		\$37,444	\$32,246	0.093		\$37,671	\$34,160	0.111	
Lake	\$27,921	\$26,850	0.064		\$28,358	\$30,803	0.078		\$30,279	\$33,262	0.076	
Lake of the Woods	\$29,782	\$27,767	0.092		\$32,558	\$30,509	0.119		\$37,299	\$34,105	0.144	
Le Sueur	\$28,020	\$26,797	0.046		\$30,098	\$30,261	0.062		\$33,634	\$33,358	0.060	
Lincoln	\$28,776	\$27,189	0.090		\$33,024	\$31,625	0.104		\$29,140	\$31,840	0.103	
Lyon	\$29,893	\$26,251	0.049	*	\$31,675	\$30,992	0.061		\$35,744	\$32,944	0.063	
Mahnomen	\$31,489	\$30,929	0.081		\$37,726	\$33,911	0.097		\$38,359	\$38,123	0.107	
Marshall	\$26,181	\$27,259	0.049		\$34,523	\$31,013	0.079		\$30,040	\$32,353	0.067	
Martin	\$28,016	\$27,719	0.045		\$31,923	\$31,950	0.054		\$34,043	\$34,244	0.059	
McLeod	\$28,839	\$26,718	0.037	*	\$30,298	\$31,150	0.049		\$35,870	\$32,890	0.045	*
Meeker	\$27,742	\$27,175	0.048		\$29,301	\$31,989	0.059		\$34,944	\$33,196	0.061	

Supplemental Table 7: Continued

Statewide MN County	ISCHEMIC HEART DISEASE \$27,174				COPD \$31,117				CHRONIC KIDNEY DISEASE \$34,454			
	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
Mille Lacs	\$29,445	\$27,403	0.045		\$30,399	\$31,000	0.053		\$35,209	\$34,852	0.053	
Morrison	\$27,862	\$27,634	0.040		\$30,127	\$32,052	0.046		\$39,024	\$35,659	0.060	
Mower	\$25,137	\$26,882	0.029	*	\$25,832	\$30,776	0.035	*	\$32,310	\$33,968	0.042	
Murray	\$29,102	\$26,358	0.064		\$33,570	\$30,108	0.080		\$38,497	\$34,964	0.102	
Nicollet	\$26,362	\$26,406	0.042		\$28,400	\$30,244	0.054		\$33,119	\$32,903	0.055	
Nobles	\$23,587	\$27,241	0.038	*	\$29,420	\$31,073	0.056		\$35,958	\$36,088	0.063	
Norman	\$28,984	\$28,955	0.083		\$27,396	\$31,843	0.093		\$27,176	\$34,828	0.091	*
Olmsted	\$29,575	\$27,471	0.023	*	\$31,720	\$31,562	0.032		\$40,623	\$36,579	0.034	*
Otter Tail	\$26,485	\$26,815	0.027		\$29,518	\$31,540	0.033		\$33,816	\$34,383	0.037	
Pennington	\$27,512	\$27,661	0.051		\$35,040	\$31,536	0.069		\$31,824	\$34,518	0.064	
Pine	\$30,398	\$27,978	0.040	*	\$31,307	\$31,407	0.044		\$37,359	\$34,093	0.055	
Pipestone	\$26,725	\$27,489	0.070		\$31,817	\$32,128	0.084		\$33,120	\$34,852	0.086	
Polk	\$25,133	\$27,923	0.031	*	\$31,319	\$32,170	0.044		\$29,486	\$34,911	0.041	*
Pope	\$27,504	\$28,118	0.060		\$33,677	\$31,256	0.085		\$40,425	\$33,884	0.098	*
Ramsey	\$27,751	\$27,272	0.010		\$33,219	\$31,273	0.015	*	\$36,333	\$35,475	0.013	
Red Lake	\$26,101	\$27,211	0.082		\$31,761	\$31,720	0.114		\$32,407	\$33,981	0.109	
Redwood	\$26,447	\$26,252	0.057		\$30,017	\$30,482	0.074		\$29,506	\$32,361	0.066	
Renville	\$29,525	\$27,130	0.060		\$31,911	\$31,086	0.073		\$33,855	\$33,929	0.068	
Rice	\$28,232	\$27,171	0.033		\$29,917	\$30,439	0.042		\$35,954	\$33,755	0.047	
Rock	\$23,146	\$26,323	0.060	*	\$31,780	\$29,527	0.092		\$38,315	\$35,526	0.109	
Roseau	\$26,294	\$26,941	0.050		\$33,950	\$31,120	0.081		\$31,776	\$33,597	0.081	
Scott	\$26,060	\$26,464	0.025		\$31,704	\$30,145	0.036		\$33,248	\$33,288	0.032	
Sherburne	\$28,420	\$27,208	0.030		\$30,802	\$30,929	0.038		\$33,943	\$34,072	0.036	
Sibley	\$30,218	\$26,807	0.060	*	\$30,946	\$30,687	0.071		\$34,842	\$33,594	0.070	

Supplemental Table 7: Continued

Statewide MN County	ISCHEMIC HEART DISEASE \$27,174				COPD \$31,117				CHRONIC KIDNEY DISEASE \$34,454			
	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig	Obs	Exp	StdErr	Sig
St. Louis	\$27,249	\$27,758	0.015		\$29,624	\$31,698	0.017	*	\$31,840	\$35,099	0.017	*
Stearns	\$26,908	\$26,757	0.021		\$31,237	\$30,596	0.028		\$34,109	\$34,062	0.028	
Steele	\$28,424	\$27,103	0.042		\$29,755	\$31,374	0.052		\$36,826	\$34,921	0.065	
Stevens	\$34,956	\$27,542	0.075	*	\$39,288	\$31,854	0.104	*	\$53,834	\$36,542	0.132	*
Swift	\$30,476	\$28,805	0.063		\$31,896	\$31,965	0.085		\$37,188	\$35,659	0.089	
Todd	\$26,124	\$27,633	0.041		\$30,417	\$32,144	0.053		\$31,014	\$34,386	0.052	
Traverse	\$29,961	\$26,741	0.107		\$32,621	\$32,171	0.128		\$30,732	\$34,726	0.117	
Wabasha	\$30,781	\$27,442	0.052	*	\$30,945	\$32,206	0.062		\$37,433	\$34,465	0.079	
Wadena	\$27,351	\$27,801	0.051		\$32,664	\$32,924	0.069		\$40,692	\$35,680	0.092	
Waseca	\$28,085	\$26,670	0.053		\$31,244	\$30,859	0.077		\$36,505	\$34,977	0.075	
Washington	\$24,575	\$25,974	0.015	*	\$29,273	\$30,007	0.023		\$34,275	\$33,483	0.022	
Watonwan	\$29,871	\$26,969	0.077		\$30,613	\$31,271	0.082		\$35,797	\$34,420	0.086	
Wilkin	\$23,038	\$27,663	0.075	*	\$26,550	\$30,870	0.100		\$32,581	\$34,809	0.104	
Winona	\$28,562	\$27,735	0.035		\$29,268	\$31,728	0.041		\$32,348	\$34,159	0.038	
Wright	\$27,185	\$26,938	0.023		\$33,198	\$31,357	0.032		\$37,188	\$33,906	0.033	*
Yellow Medicine	\$32,636	\$28,216	0.068	*	\$37,486	\$31,791	0.084	*	\$36,910	\$33,096	0.089	

Supplemental Table 8: County-Level Average Spending for MN Residents with Rheumatoid Arthritis (2012)

RHEUMATOID ARTHRITIS				
Statewide	\$21,663			
MN County	Obs	Exp	StdErr	Sig
Aitkin	\$22,611	\$22,420	0.070	
Anoka	\$21,502	\$21,437	0.017	
Becker	\$22,325	\$22,810	0.050	
Beltrami	\$19,473	\$22,618	0.044	*
Benton	\$23,767	\$21,954	0.052	
Big Stone	\$20,941	\$22,086	0.113	
Blue Earth	\$22,590	\$21,778	0.045	
Brown	\$22,426	\$21,867	0.063	
Carlton	\$20,536	\$22,374	0.047	
Carver	\$21,597	\$21,066	0.036	
Cass	\$20,603	\$22,801	0.050	
Chippewa	\$24,139	\$21,199	0.095	
Chisago	\$20,951	\$21,255	0.041	
Clay	\$20,704	\$21,820	0.044	
Clearwater	\$19,185	\$21,465	0.097	
Cook	\$26,388	\$21,249	0.138	
Cottonwood	\$22,313	\$21,725	0.088	
Crow Wing	\$22,760	\$22,182	0.039	
Dakota	\$22,489	\$21,249	0.016	*
Dodge	\$20,440	\$21,611	0.072	
Douglas	\$21,413	\$22,082	0.050	
Faribault	\$20,679	\$22,302	0.075	
Fillmore	\$17,282	\$21,722	0.061	*
Freeborn	\$16,288	\$21,597	0.045	*

RHEUMATOID ARTHRITIS				
Statewide	\$21,663			
MN County	Obs	Exp	StdErr	Sig
Goodhue	\$19,549	\$21,922	0.043	*
Grant	\$21,853	\$23,402	0.106	
Hennepin	\$22,112	\$21,463	0.010	*
Houston	\$17,124	\$21,815	0.071	*
Hubbard	\$20,313	\$22,468	0.063	
Isanti	\$19,786	\$21,893	0.043	*
Itasca	\$22,188	\$23,048	0.039	
Jackson	\$19,017	\$21,411	0.087	
Kanabec	\$23,201	\$22,149	0.069	
Kandiyohi	\$19,750	\$21,579	0.046	
Kittson	\$20,612	\$21,689	0.131	
Koochiching	\$25,575	\$23,070	0.095	
Lac qui Parle	\$24,039	\$21,938	0.110	
Lake	\$22,420	\$22,045	0.091	
Lake of the Woods	\$19,974	\$22,517	0.129	
Le Sueur	\$20,206	\$22,180	0.056	
Lincoln	\$17,984	\$21,538	0.112	
Lyon	\$22,600	\$22,017	0.064	
Mahnomen	\$22,314	\$24,156	0.116	
Marshall	\$20,373	\$21,709	0.087	
Martin	\$18,516	\$21,802	0.055	*
McLeod	\$22,843	\$21,770	0.057	
Meeker	\$23,075	\$21,710	0.066	
Mille Lacs	\$21,565	\$22,273	0.055	

Supplemental Table 8: Continued

RHEUMATOID ARTHRITIS				
Statewide	\$21,663			
MN County	Obs	Exp	StdErr	Sig
Morrison	\$22,045	\$22,259	0.053	
Mower	\$17,914	\$22,207	0.048	*
Murray	\$22,823	\$22,104	0.104	
Nicollet	\$22,299	\$21,389	0.057	
Nobles	\$20,368	\$21,796	0.069	
Norman	\$23,622	\$23,646	0.106	
Olmsted	\$20,867	\$21,470	0.026	
Otter Tail	\$21,099	\$22,111	0.039	
Pennington	\$21,434	\$21,329	0.071	
Pine	\$21,985	\$22,510	0.055	
Pipestone	\$25,131	\$22,657	0.101	
Polk	\$21,457	\$22,170	0.054	
Pope	\$24,613	\$21,948	0.096	
Ramsey	\$22,745	\$21,897	0.014	*
Red Lake	\$20,959	\$22,080	0.139	
Redwood	\$18,065	\$21,733	0.079	*
Renville	\$21,378	\$21,879	0.083	
Rice	\$20,560	\$21,208	0.040	
Rock	\$20,444	\$21,610	0.094	
Roseau	\$23,096	\$21,355	0.084	

RHEUMATOID ARTHRITIS				
Statewide	\$21,663			
MN County	Obs	Exp	StdErr	Sig
Scott	\$20,525	\$20,915	0.031	
Sherburne	\$20,521	\$21,075	0.034	
Sibley	\$17,236	\$22,281	0.075	*
St. Louis	\$22,395	\$22,351	0.021	
Stearns	\$21,780	\$21,257	0.028	
Steele	\$19,234	\$21,881	0.047	*
Stevens	\$26,679	\$21,668	0.108	*
Swift	\$21,412	\$22,419	0.099	
Todd	\$23,317	\$22,728	0.062	
Traverse	\$17,579	\$21,974	0.128	
Wabasha	\$18,210	\$21,510	0.066	*
Wadena	\$26,995	\$22,921	0.089	*
Waseca	\$23,076	\$21,430	0.074	
Washington	\$21,056	\$21,035	0.020	
Watsonwan	\$19,940	\$21,499	0.095	
Wilkin	\$21,900	\$22,375	0.131	
Winona	\$21,234	\$21,736	0.048	
Wright	\$21,267	\$21,070	0.029	
Yellow Medicine	\$20,197	\$21,876	0.096	

Supplemental Table 9: County-Level Rates Per Thousand Residents for Any Chronic Condition and Ten Select Conditions, by Age (2012)

Rates Per 1,000 Residents												
MN County	Age	Any Chronic Condition	High Blood Pressure	High Cholesterol	Asthma	Diabetes	Depression	Congestive Heart Failure	Ischemic Heart Disease	COPD	Chronic Kidney Disease	Rheumatoid Arthritis
Aitkin	<18	178.5	18.0	#	116.5	4.3	19.4	#	#	#	#	#
	18 thru 64	390.8	248.1	156.4	121.5	69.0	70.6	15.6	14.0	13.2	4.0	14.7
	>64	687.8	656.3	472.8	157.0	192.1	53.9	101.7	100.3	64.5	54.9	23.3
Anoka	<18	197.1	18.3	0.7	123.5	4.1	20.6	0.4	#	0.2	0.3	1.5
	18 thru 64	342.0	178.9	134.6	104.7	57.3	72.7	11.4	10.8	6.0	5.6	13.7
	>64	731.2	682.1	547.9	171.5	212.8	71.2	90.8	113.1	60.2	75.8	29.2
Becker	<18	173.0	16.7	#	89.1	3.7	20.9	#	#	#	#	#
	18 thru 64	353.9	206.4	140.6	98.4	65.7	81.8	18.7	12.1	9.5	6.6	15.3
	>64	711.0	655.9	488.2	140.9	194.5	80.4	107.9	103.8	58.0	56.3	27.7
Beltrami	<18	192.6	30.4	#	129.3	3.3	29.5	#	#	#	#	1.5
	18 thru 64	395.6	202.7	140.4	113.2	81.4	101.4	19.6	16.2	9.5	8.4	13.5
	>64	794.0	688.2	528.3	149.2	235.9	91.6	117.7	138.8	74.5	68.8	31.8
Benton	<18	196.4	29.5	1.4	129.9	3.3	22.0	#	#	#	#	#
	18 thru 64	332.3	163.7	130.1	91.1	48.1	74.0	10.2	8.7	6.4	3.9	13.2
	>64	718.6	661.0	526.9	132.8	221.6	75.3	93.2	102.4	57.6	67.4	30.9
Big Stone	<18	151.7	18.4	#	153.7	#	19.7	#	#	#	#	#
	18 thru 64	346.2	247.8	150.4	98.7	69.9	54.6	23.9	15.6	11.1	10.2	19.1
	>64	771.6	724.5	474.2	127.8	198.4	48.6	148.8	123.8	60.2	76.2	27.6
Blue Earth	<18	183.9	18.8	#	103.5	3.0	19.0	#	#	#	#	#
	18 thru 64	342.3	168.0	132.7	89.4	54.8	93.9	11.8	10.0	7.1	5.0	11.9
	>64	727.3	671.2	530.7	144.5	195.6	87.5	97.6	103.4	55.0	64.4	23.1

Supplemental Table 9: Continued

MN County	Age	Rates Per 1,000 Residents										
		Any Chronic Condition	High Blood Pressure	High Cholesterol	Asthma	Diabetes	Depression	Congestive Heart Failure	Ischemic Heart Disease	COPD	Chronic Kidney Disease	Rheumatoid Arthritis
Brown	<18	161.6	17.3	#	111.3	3.6	17.2	#	#	#	#	#
	18 thru 64	313.3	191.5	139.2	81.8	56.4	56.6	10.8	11.3	6.0	5.2	11.1
	>64	714.8	680.6	488.4	127.0	206.6	58.1	105.0	108.3	49.8	74.0	24.2
Carlton	<18	175.5	17.2	#	98.3	4.9	23.1	#	#	#	#	#
	18 thru 64	331.0	207.4	126.0	99.1	63.0	65.7	13.3	11.9	8.8	5.9	13.7
	>64	732.5	707.9	471.9	149.5	211.6	52.9	119.5	103.8	63.1	62.3	28.6
Carver	<18	170.0	14.0	0.4	120.9	3.5	16.1	0.7	#	#	#	1.1
	18 thru 64	288.1	142.3	105.9	90.3	36.6	51.9	10.1	6.3	2.9	2.4	10.3
	>64	684.9	633.5	455.6	142.1	166.9	53.9	93.7	82.0	42.1	44.0	27.6
Cass	<18	165.3	22.8	#	108.1	3.2	22.8	#	#	#	#	#
	18 thru 64	360.5	210.4	138.9	108.8	65.4	77.5	17.1	17.1	12.2	6.0	14.8
	>64	699.6	660.4	490.6	137.1	193.9	49.5	93.1	111.7	64.2	46.0	25.9
Chippewa	<18	152.5	22.9	#	95.8	#	14.5	#	#	#	#	#
	18 thru 64	344.3	206.3	147.5	93.4	68.5	59.3	13.8	13.0	9.6	3.3	11.7
	>64	699.2	672.0	471.3	145.8	205.6	71.2	131.2	90.8	79.1	61.0	23.8
Chisago	<18	176.5	16.7	#	121.6	3.3	18.8	#	#	#	#	1.3
	18 thru 64	331.3	179.5	127.1	112.1	51.6	71.1	11.6	10.7	6.1	4.6	14.3
	>64	704.7	664.4	527.3	156.1	200.6	70.8	93.2	106.2	60.5	64.4	25.8
Clay	<18	212.5	28.4	1.1	86.9	3.7	26.2	#	#	#	#	#
	18 thru 64	366.3	192.3	130.7	96.1	64.2	101.2	19.1	9.8	7.4	6.3	13.2
	>64	753.9	688.9	528.6	127.3	205.5	90.4	114.1	109.0	54.7	73.2	32.2
Clearwater	<18	149.9	20.1	#	99.2	#	22.7	#	#	#	#	#
	18 thru 64	352.1	222.8	137.8	98.1	64.2	76.1	19.2	14.1	10.0	4.8	14.6
	>64	690.4	650.4	464.1	142.9	209.3	70.2	120.1	96.7	71.4	46.9	24.7

Supplemental Table 9: Continued

MN County	Age	Rates Per 1,000 Residents										
		Any Chronic Condition	High Blood Pressure	High Cholesterol	Asthma	Diabetes	Depression	Congestive Heart Failure	Ischemic Heart Disease	COPD	Chronic Kidney Disease	Rheumatoid Arthritis
Cook	<18	157.3	#	#	75.4	#	24.3	#	#	#	#	#
	18 thru 64	323.6	180.4	140.8	86.6	50.2	59.9	7.3	10.9	5.7	#	12.9
	>64	712.7	614.5	435.5	123.6	148.2	45.5	80.0	66.4	33.6	37.3	28.2
Cottonwood	<18	166.1	18.7	#	106.1	4.5	19.5	#	#	#	#	#
	18 thru 64	327.9	203.6	142.5	83.6	70.5	64.3	11.9	12.9	6.6	5.7	12.4
	>64	713.0	703.3	483.6	121.5	210.7	55.5	131.5	109.9	47.9	51.9	25.0
Crow Wing	<18	165.7	16.0	#	105.7	3.3	20.1	#	#	#	#	1.2
	18 thru 64	342.5	191.9	128.6	98.5	53.2	74.4	14.8	12.9	9.5	4.4	13.3
	>64	734.8	664.5	508.8	130.5	188.1	64.9	94.3	124.1	63.8	48.4	24.1
Dakota	<18	192.3	16.6	0.6	124.4	3.7	18.2	0.6	#	0.3	0.3	1.5
	18 thru 64	329.8	160.6	128.2	98.6	53.1	67.3	11.0	8.6	4.0	5.1	12.6
	>64	716.0	659.1	525.4	145.7	194.0	70.7	93.0	102.6	46.7	63.4	27.7
Dodge	<18	141.0	15.7	#	109.4	2.4	21.1	#	#	#	#	#
	18 thru 64	280.0	155.5	125.8	102.6	47.0	64.1	10.0	7.1	5.0	3.0	10.5
	>64	598.8	683.7	524.5	146.1	224.8	51.8	100.0	100.7	57.0	50.7	28.0
Douglas	<18	153.9	13.2	#	119.1	2.7	18.8	#	#	#	#	2.1
	18 thru 64	320.1	179.7	123.4	91.3	54.6	67.2	13.0	10.3	5.7	4.4	11.7
	>64	714.4	650.8	459.5	112.6	181.9	69.1	107.5	103.8	47.6	57.9	20.9
Faribault	<18	180.9	25.5	#	112.6	4.1	23.2	#	#	#	#	#
	18 thru 64	325.3	214.3	157.4	98.7	62.2	66.7	17.1	13.7	9.3	4.4	14.2
	>64	687.2	705.6	523.8	152.2	187.8	57.1	116.0	92.4	63.7	44.2	24.6
Fillmore	<18	130.0	14.0	#	102.1	#	10.6	#	#	#	#	#
	18 thru 64	297.0	169.3	141.5	99.8	54.7	57.4	8.2	9.6	6.0	3.5	12.3
	>64	690.4	673.0	520.7	144.6	198.7	52.7	109.0	103.4	51.2	87.1	26.1

Supplemental Table 9: Continued

MN County	Age	Rates Per 1,000 Residents										
		Any Chronic Condition	High Blood Pressure	High Cholesterol	Asthma	Diabetes	Depression	Congestive Heart Failure	Ischemic Heart Disease	COPD	Chronic Kidney Disease	Rheumatoid Arthritis
Freeborn	<18	172.7	20.9	#	123.0	2.7	22.2	#	#	#	#	#
	18 thru 64	331.7	195.1	152.3	97.2	67.1	75.5	13.4	12.6	9.9	5.0	14.5
	>64	695.4	686.9	548.2	133.7	189.6	71.7	105.2	121.0	57.9	58.8	27.5
Goodhue	<18	157.6	16.5	#	108.6	3.7	14.2	#	#	#	#	#
	18 thru 64	315.4	180.1	138.8	106.7	54.4	62.9	12.6	10.7	7.1	4.4	12.9
	>64	700.0	677.7	506.7	158.7	194.7	66.8	99.5	101.5	53.0	52.2	25.1
Grant	<18	142.7	22.1	#	130.1	#	26.6	#	#	#	#	#
	18 thru 64	349.0	196.9	132.1	100.0	58.7	67.9	13.8	12.3	7.4	4.4	14.6
	>64	723.7	672.2	497.6	141.6	200.4	72.6	135.9	83.6	59.9	44.5	30.6
Hennepin	<18	201.4	13.7	0.7	136.0	3.4	16.5	0.7	#	0.3	0.2	1.2
	18 thru 64	327.6	155.4	114.1	99.4	51.0	72.8	13.5	8.1	5.2	5.8	10.6
	>64	728.1	653.1	501.3	151.2	178.7	74.7	94.4	93.4	48.5	70.6	25.2
Houston	<18	137.2	13.6	#	105.6	#	15.6	#	#	#	#	#
	18 thru 64	284.4	191.1	141.8	90.9	46.0	58.1	11.1	7.5	5.1	7.4	11.7
	>64	714.4	698.3	521.9	151.1	196.7	61.8	105.4	91.1	42.7	114.6	23.2
Hubbard	<18	179.0	25.9	#	109.1	#	27.7	#	#	#	#	#
	18 thru 64	352.9	203.3	139.2	107.0	65.9	82.3	19.5	16.8	11.1	6.0	14.0
	>64	699.6	627.9	469.6	127.7	186.4	53.8	104.2	112.2	58.1	58.1	27.1
Isanti	<18	181.8	19.0	#	120.1	3.3	21.8	#	#	#	#	1.8
	18 thru 64	363.8	195.4	125.0	111.0	57.7	72.3	15.9	10.6	8.2	5.6	15.9
	>64	726.3	688.9	505.0	155.2	208.4	60.1	116.3	95.9	60.0	82.0	33.0
Itasca	<18	227.0	47.2	10.1	138.8	16.8	39.2	3.4	#	#	#	3.7
	18 thru 64	383.3	235.8	162.2	136.1	82.9	87.4	16.4	13.0	11.0	6.1	16.5
	>64	716.7	683.2	511.2	160.1	222.9	56.8	94.2	96.4	59.7	63.4	29.4

Supplemental Table 9: Continued

MN County	Age	Rates Per 1,000 Residents										
		Any Chronic Condition	High Blood Pressure	High Cholesterol	Asthma	Diabetes	Depression	Congestive Heart Failure	Ischemic Heart Disease	COPD	Chronic Kidney Disease	Rheumatoid Arthritis
Jackson	<18	178.9	25.5	#	147.8	#	24.6	#	#	#	#	#
	18 thru 64	337.0	189.8	150.5	84.9	51.4	68.9	12.4	11.7	9.0	5.9	11.8
	>64	759.1	706.4	537.9	134.2	190.2	74.2	150.6	136.9	55.3	62.7	28.2
Kanabec	<18	177.3	23.0	#	103.0	4.4	20.9	#	#	#	#	#
	18 thru 64	367.4	221.1	140.5	113.1	67.7	78.9	19.2	12.7	14.4	6.3	16.7
	>64	704.0	692.0	486.5	161.3	211.2	62.4	128.9	106.6	71.5	68.3	34.5
Kandiyohi	<18	158.8	14.6	#	116.9	2.7	16.5	#	#	#	#	#
	18 thru 64	343.2	188.7	140.5	90.4	64.0	75.2	11.9	7.5	6.1	4.9	11.3
	>64	712.2	682.7	472.4	124.7	200.4	57.3	104.1	84.2	46.6	53.4	25.6
Kittson	<18	144.0	26.3	#	138.1	#	#	#	#	#	#	#
	18 thru 64	340.2	252.0	174.9	101.2	61.8	50.3	18.3	19.7	8.6	11.0	16.9
	>64	766.6	706.4	549.8	140.5	215.7	65.3	159.1	150.3	65.0	61.4	20.8
Koochiching	<18	165.6	22.6	#	111.9	#	25.1	#	#	#	#	#
	18 thru 64	379.7	247.4	174.9	121.8	78.4	94.4	17.5	17.2	10.0	5.4	12.0
	>64	731.1	703.8	513.1	167.9	206.1	67.2	110.2	104.8	63.7	66.2	24.3
Lac qui Parle	<18	146.6	22.6	#	132.8	#	16.5	#	#	#	#	#
	18 thru 64	338.6	224.3	159.4	97.4	70.3	66.5	15.7	7.4	8.9	6.7	14.5
	>64	713.8	662.2	489.7	134.1	227.1	80.0	125.0	84.5	64.9	40.6	26.0
Lake	<18	171.1	10.5	#	97.9	#	23.8	#	#	#	#	#
	18 thru 64	351.2	198.8	130.2	95.0	60.5	76.7	9.8	12.4	8.5	5.0	14.3
	>64	730.7	679.7	464.6	143.3	199.0	58.9	100.4	90.7	51.1	61.6	25.0
Lake of the Woods	<18	150.6	#	#	68.4	#	28.2	#	#	#	#	#
	18 thru 64	330.4	231.0	156.0	73.8	65.6	69.7	17.6	15.7	7.8	#	12.1
	>64	705.4	669.1	438.3	143.5	162.4	63.5	124.9	126.5	77.8	62.0	40.9

Supplemental Table 9: Continued

MN County	Age	Rates Per 1,000 Residents										
		Any Chronic Condition	High Blood Pressure	High Cholesterol	Asthma	Diabetes	Depression	Congestive Heart Failure	Ischemic Heart Disease	COPD	Chronic Kidney Disease	Rheumatoid Arthritis
Le Sueur	<18	163.9	16.6	#	101.7	3.7	18.4	#	#	#	#	#
	18 thru 64	323.0	184.1	138.3	93.6	55.0	62.8	10.6	10.4	6.0	4.7	13.0
	>64	678.0	677.8	493.8	120.7	193.2	56.1	96.6	86.4	43.1	51.6	25.2
Lincoln	<18	153.7	23.4	#	114.1	#	19.2	#	#	#	#	#
	18 thru 64	344.0	199.2	147.9	83.7	59.4	51.0	15.8	5.9	7.9	#	13.5
	>64	759.7	667.3	435.7	139.3	186.8	58.6	146.5	83.0	54.6	58.8	22.9
Lyon	<18	150.8	15.7	#	109.4	4.1	18.6	#	#	#	#	#
	18 thru 64	337.8	178.6	146.0	85.8	69.1	70.6	15.6	8.5	6.6	4.8	12.4
	>64	769.6	686.0	519.6	174.5	214.2	73.5	135.2	106.3	55.2	61.3	25.3
Mahnomon	<18	171.1	21.9	#	131.8	#	26.4	#	#	#	#	#
	18 thru 64	391.6	219.7	130.8	116.0	89.5	100.5	17.8	19.2	18.0	9.8	16.4
	>64	734.2	695.0	480.8	177.2	272.0	80.2	139.9	125.9	83.7	74.1	31.0
Marshall	<18	167.0	19.4	#	124.3	9.4	16.8	#	#	#	#	#
	18 thru 64	357.6	247.8	171.5	91.9	62.5	55.9	18.1	15.1	7.0	6.2	16.7
	>64	791.1	769.2	592.3	140.9	228.6	69.4	151.7	191.3	83.8	101.4	26.7
Martin	<18	181.6	28.0	#	122.9	5.6	25.7	#	#	#	#	#
	18 thru 64	356.5	221.7	178.9	97.6	61.5	77.0	17.2	10.0	12.0	4.6	14.4
	>64	719.9	728.0	555.5	120.5	204.4	59.7	119.4	102.1	56.5	60.6	33.7
McLeod	<18	154.2	14.3	#	133.2	3.2	20.2	#	#	#	#	#
	18 thru 64	312.7	180.8	128.1	87.9	58.5	64.4	12.6	9.0	5.7	5.1	10.8
	>64	718.8	678.6	474.6	127.5	211.3	61.4	146.7	108.1	52.2	75.9	18.7
Meeker	<18	142.4	13.3	#	114.3	2.8	17.0	#	#	#	#	#
	18 thru 64	324.4	182.7	141.3	81.1	59.5	60.9	10.2	9.2	6.7	4.8	12.6
	>64	699.0	661.4	481.4	133.5	208.2	61.2	95.8	85.8	49.1	59.2	23.7

Supplemental Table 9: Continued

MN County	Age	Rates Per 1,000 Residents										
		Any Chronic Condition	High Blood Pressure	High Cholesterol	Asthma	Diabetes	Depression	Congestive Heart Failure	Ischemic Heart Disease	COPD	Chronic Kidney Disease	Rheumatoid Arthritis
Mille Lacs	<18	183.9	28.6	#	114.3	5.1	22.4	#	#	#	#	#
	18 thru 64	334.3	194.1	143.0	104.8	65.1	69.3	13.2	11.3	8.3	5.5	15.1
	>64	682.5	646.3	487.1	139.9	199.1	58.4	107.4	96.4	60.9	73.7	29.3
Morrison	<18	168.3	21.4	#	139.1	3.0	24.4	#	#	#	#	#
	18 thru 64	299.1	186.6	130.3	96.0	49.5	60.1	11.3	9.1	8.5	3.6	12.3
	>64	695.4	641.6	454.5	121.0	191.9	46.7	98.6	86.5	55.7	44.6	28.2
Mower	<18	164.1	20.9	#	122.5	3.7	19.7	#	#	#	#	#
	18 thru 64	320.6	166.0	129.1	95.0	60.7	73.3	9.6	11.6	8.0	4.7	10.8
	>64	760.8	652.7	528.4	117.4	215.8	75.5	101.4	134.3	79.5	66.7	20.0
Murray	<18	138.8	8.7	#	155.4	#	20.3	#	#	#	#	#
	18 thru 64	313.8	202.6	141.2	95.4	53.7	46.2	17.7	14.5	11.7	5.0	12.2
	>64	730.1	688.8	517.7	161.7	199.3	57.8	141.4	115.6	67.9	47.0	23.9
Nicollet	<18	171.5	16.8	#	112.9	3.4	20.2	#	#	#	#	#
	18 thru 64	335.0	170.1	135.6	86.5	53.5	83.2	11.6	8.6	5.3	4.4	12.3
	>64	726.9	652.8	543.6	137.2	209.9	72.5	95.8	101.4	56.7	62.1	29.2
Nobles	<18	129.2	11.7	#	168.8	2.3	11.6	#	#	#	#	#
	18 thru 64	294.4	186.3	132.1	78.0	58.4	47.0	11.6	11.9	6.3	5.9	10.4
	>64	763.1	716.8	545.7	173.1	216.9	52.3	130.0	144.0	72.3	58.3	27.1
Norman	<18	172.8	31.5	#	97.5	#	18.4	#	#	#	#	#
	18 thru 64	318.9	220.0	147.8	92.9	72.4	69.5	19.7	12.4	6.7	7.5	17.6
	>64	688.2	717.8	462.3	140.8	210.4	72.0	115.9	83.9	62.1	57.0	28.0
Olmsted	<18	166.0	13.9	0.5	122.8	2.8	17.5	0.6	#	#	0.4	1.0
	18 thru 64	297.0	148.2	124.6	105.5	48.7	68.8	9.5	7.0	4.3	3.4	12.8
	>64	664.8	642.1	510.5	131.5	198.6	57.8	84.7	92.7	41.7	43.2	25.7

Supplemental Table 9: Continued

MN County	Age	Rates Per 1,000 Residents										
		Any Chronic Condition	High Blood Pressure	High Cholesterol	Asthma	Diabetes	Depression	Congestive Heart Failure	Ischemic Heart Disease	COPD	Chronic Kidney Disease	Rheumatoid Arthritis
Otter Tail	<18	147.6	21.0	#	87.0	3.7	20.0	1.0	#	#	#	#
	18 thru 64	336.4	200.2	142.0	87.1	57.1	65.3	14.9	10.6	7.9	4.3	13.8
	>64	704.4	659.8	475.0	136.1	180.8	58.9	113.3	93.4	55.1	54.5	23.6
Pennington	<18	169.7	23.4	#	119.2	4.6	19.4	#	#	#	#	#
	18 thru 64	393.8	240.3	181.7	112.2	65.1	66.6	19.1	12.7	9.7	6.4	15.5
	>64	770.5	723.6	592.1	136.9	233.5	60.3	143.7	129.4	73.1	79.8	35.4
Pine	<18	157.4	14.9	#	98.3	3.5	21.3	#	#	#	#	#
	18 thru 64	351.9	215.7	135.4	119.2	69.7	74.4	15.5	14.7	11.7	6.1	15.0
	>64	688.2	693.7	515.5	154.2	211.4	58.8	103.0	101.2	75.5	60.1	24.4
Pipestone	<18	140.5	17.6	#	119.7	#	12.9	#	#	#	#	#
	18 thru 64	288.5	194.9	135.1	73.4	59.1	49.7	18.9	9.2	6.7	7.1	14.5
	>64	760.2	676.3	467.7	143.9	192.0	57.8	156.1	94.4	65.7	57.1	26.5
Polk	<18	167.9	23.8	#	123.2	3.8	20.4	1.8	#	#	#	#
	18 thru 64	331.1	224.1	141.4	103.4	69.3	81.1	16.5	16.6	11.7	7.8	14.4
	>64	713.8	698.8	502.9	157.1	208.3	79.4	127.6	144.1	72.6	80.0	27.7
Pope	<18	144.2	17.1	#	119.4	#	17.2	#	#	#	#	#
	18 thru 64	326.0	207.1	125.9	94.6	56.0	69.4	15.1	9.6	5.8	3.7	12.7
	>64	723.5	684.7	457.3	138.1	206.7	73.0	152.4	98.8	53.3	47.6	23.7
Ramsey	<18	192.6	14.3	0.9	122.5	2.8	15.5	0.4	#	0.3	0.3	1.0
	18 thru 64	349.0	164.2	123.8	104.7	60.0	88.3	12.6	10.4	6.5	7.0	11.9
	>64	737.2	669.6	520.7	153.6	199.8	76.1	97.3	107.0	49.0	67.0	26.2
Red Lake	<18	137.0	20.8	#	121.0	#	#	#	#	#	#	#
	18 thru 64	337.2	240.4	167.7	91.7	60.9	61.2	16.7	13.6	11.3	#	12.6
	>64	724.9	718.6	571.7	150.0	246.3	51.6	135.5	162.1	73.8	98.1	28.6

Supplemental Table 9: Continued

MN County	Age	Rates Per 1,000 Residents										
		Any Chronic Condition	High Blood Pressure	High Cholesterol	Asthma	Diabetes	Depression	Congestive Heart Failure	Ischemic Heart Disease	COPD	Chronic Kidney Disease	Rheumatoid Arthritis
Redwood	<18	139.9	18.6	#	114.4	#	17.2	#	#	#	#	#
	18 thru 64	308.0	191.1	144.9	85.9	61.1	56.3	11.8	7.1	6.3	5.3	8.5
	>64	696.1	696.7	484.9	137.2	203.2	48.6	106.9	91.0	45.2	58.6	24.4
Renville	<18	156.0	13.5	#	99.9	#	18.9	#	#	#	#	#
	18 thru 64	343.4	223.4	155.4	75.6	67.5	64.2	13.8	10.1	7.0	4.8	10.6
	>64	727.0	700.3	519.9	109.9	219.8	61.4	114.3	82.4	52.5	66.7	22.3
Rice	<18	166.7	13.3	#	105.5	3.5	17.2	#	#	#	#	#
	18 thru 64	303.9	160.7	109.5	87.3	47.6	62.9	11.1	7.8	4.7	3.1	12.8
	>64	689.8	658.4	460.5	139.5	181.1	57.9	98.0	91.5	51.6	47.1	25.9
Rock	<18	134.2	13.9	#	99.6	#	9.4	#	#	#	#	#
	18 thru 64	314.7	205.0	144.7	83.3	55.8	53.2	18.9	14.2	6.4	8.3	13.5
	>64	733.1	688.8	490.8	137.5	187.3	65.0	147.8	109.7	59.1	33.2	28.6
Roseau	<18	118.9	13.0	#	97.3	3.5	5.2	#	#	#	#	#
	18 thru 64	278.8	222.4	133.2	88.5	59.7	41.7	11.5	14.9	5.7	4.9	13.3
	>64	646.2	696.2	455.6	180.8	203.5	46.2	134.7	134.6	60.1	52.3	27.8
Scott	<18	173.0	13.5	0.5	111.8	3.9	15.7	0.5	#	#	#	1.2
	18 thru 64	297.1	144.6	115.9	95.8	41.4	54.9	10.6	7.5	3.8	4.1	10.9
	>64	696.5	647.1	532.3	146.9	196.8	61.4	99.6	98.6	48.6	66.4	24.8
Sherburne	<18	177.8	17.7	0.6	116.9	3.2	18.0	0.6	#	#	#	1.2
	18 thru 64	314.5	163.5	123.0	98.8	47.7	61.4	10.9	8.5	5.4	4.4	13.2
	>64	698.9	648.5	515.3	152.4	197.8	61.3	91.9	99.1	58.2	71.0	28.9
Sibley	<18	162.4	18.1	#	117.5	3.1	16.6	#	#	#	#	#
	18 thru 64	312.8	185.6	126.7	84.4	63.7	56.7	11.7	9.3	6.4	4.8	10.6
	>64	720.7	688.7	466.6	142.3	211.3	63.8	136.3	97.3	61.8	71.6	21.0

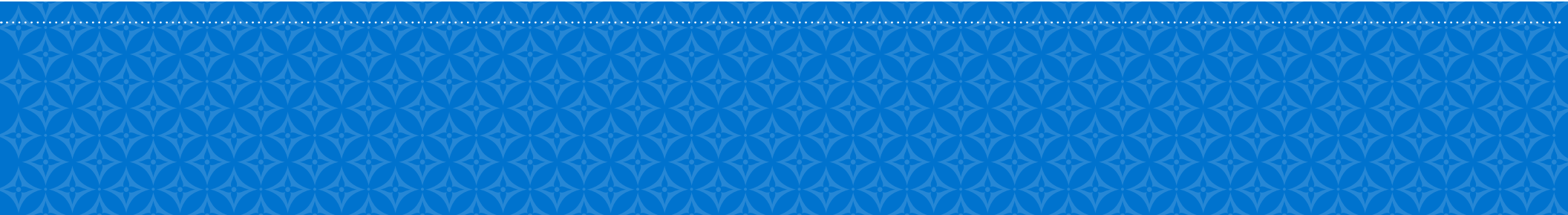
Supplemental Table 9: Continued

MN County	Age	Rates Per 1,000 Residents										
		Any Chronic Condition	High Blood Pressure	High Cholesterol	Asthma	Diabetes	Depression	Congestive Heart Failure	Ischemic Heart Disease	COPD	Chronic Kidney Disease	Rheumatoid Arthritis
St. Louis	<18	205.5	23.5	0.3	113.7	3.7	27.3	#	#	#	#	1.2
	18 thru 64	383.9	198.9	133.1	113.9	63.0	92.1	12.9	13.1	11.2	6.3	15.0
	>64	764.1	673.9	476.5	142.1	204.4	60.9	109.1	105.4	69.1	77.6	29.0
Stearns	<18	178.7	23.2	0.7	123.8	3.5	20.7	0.8	#	#	#	0.9
	18 thru 64	315.5	160.3	126.5	83.7	48.0	66.0	9.6	7.9	4.9	4.0	11.5
	>64	711.8	645.8	502.6	120.3	189.3	62.8	88.4	95.4	50.7	55.6	26.4
Steele	<18	158.1	13.7	#	107.2	4.0	22.3	1.6	#	#	#	#
	18 thru 64	309.3	168.6	132.1	88.8	58.1	69.7	13.5	7.9	5.5	2.8	13.2
	>64	622.6	676.6	517.9	142.0	194.7	61.3	101.9	87.5	50.1	37.9	26.9
Stevens	<18	157.8	14.8	#	127.3	#	20.0	#	#	#	#	#
	18 thru 64	295.0	198.0	138.6	113.6	51.1	61.9	20.1	9.0	6.1	4.0	12.5
	>64	751.1	725.0	525.4	181.9	219.4	58.8	222.3	123.7	57.1	43.8	31.5
Swift	<18	163.3	22.2	#	107.2	#	26.0	#	#	#	#	#
	18 thru 64	343.7	223.8	150.6	94.0	69.6	70.7	14.0	13.1	5.9	5.8	10.6
	>64	734.4	725.0	495.6	137.3	216.6	66.8	104.8	111.7	60.5	56.6	26.4
Todd	<18	139.6	15.9	#	89.9	4.3	18.9	#	#	#	#	#
	18 thru 64	299.7	176.7	132.6	84.8	61.1	65.7	10.1	10.4	9.0	4.7	13.0
	>64	691.2	634.3	467.7	130.6	206.6	62.7	99.7	99.6	52.9	64.0	26.5
Traverse	<18	155.8	22.6	#	119.3	#	18.8	#	#	#	#	#
	18 thru 64	331.5	229.7	156.5	99.3	66.3	71.2	15.9	#	8.4	6.7	17.6
	>64	775.5	716.3	566.0	127.5	235.7	90.9	186.3	95.6	52.3	58.6	22.9
Wabasha	<18	140.6	13.6	#	109.7	#	13.2	#	#	#	#	#
	18 thru 64	298.5	182.8	138.9	109.9	51.5	50.4	10.8	8.6	6.0	3.5	11.7
	>64	645.3	660.9	501.6	142.4	201.6	59.3	100.2	93.5	53.3	38.9	20.8

Supplemental Table 9: Continued

MN County	Age	Rates Per 1,000 Residents										
		Any Chronic Condition	High Blood Pressure	High Cholesterol	Asthma	Diabetes	Depression	Congestive Heart Failure	Ischemic Heart Disease	COPD	Chronic Kidney Disease	Rheumatoid Arthritis
Wadena	<18	149.4	18.3	#	106.5	3.8	15.5	#	#	#	#	#
	18 thru 64	337.9	210.8	134.6	109.3	71.7	79.2	15.4	11.0	10.1	4.0	13.2
	>64	709.0	668.7	469.7	149.1	220.3	60.4	124.3	131.5	61.1	45.1	26.3
Waseca	<18	170.7	19.6	#	98.7	#	17.0	#	#	#	#	#
	18 thru 64	331.9	191.3	138.4	89.8	63.9	71.3	15.3	10.4	6.2	4.9	15.1
	>64	685.0	682.7	507.7	122.8	203.6	62.6	95.0	98.4	41.3	49.6	20.7
Washington	<18	188.9	15.9	0.9	126.1	3.9	18.6	0.3	#	0.2	0.4	1.5
	18 thru 64	326.3	157.5	127.7	96.3	48.6	63.2	10.8	9.1	3.8	4.1	13.0
	>64	727.0	646.3	517.4	143.1	187.4	64.8	87.9	108.0	48.6	54.3	29.4
Watonwan	<18	149.1	12.3	#	85.6	4.9	18.5	#	#	#	#	#
	18 thru 64	296.0	187.6	152.5	69.6	69.7	63.0	13.3	7.2	5.9	5.4	10.8
	>64	696.8	680.2	503.5	142.9	209.0	72.8	133.4	75.6	59.1	57.1	24.1
Wilkin	<18	190.9	27.3	#	90.7	#	20.3	#	#	#	#	#
	18 thru 64	351.7	203.6	142.6	105.9	67.3	84.8	21.2	9.6	9.3	#	15.4
	>64	701.3	675.8	464.3	131.4	192.9	73.5	140.8	114.1	57.1	69.7	16.7
Winona	<18	150.3	16.7	#	116.1	2.6	17.0	2.0	#	#	#	#
	18 thru 64	321.1	185.0	149.9	109.2	59.4	66.2	13.0	9.5	7.0	6.6	11.6
	>64	683.8	703.9	558.7	164.7	210.4	75.2	105.4	100.8	61.0	76.9	27.1
Wright	<18	165.5	13.6	0.3	115.6	2.8	15.2	0.7	#	#	#	1.2
	18 thru 64	311.4	159.9	116.8	93.5	47.2	56.6	10.8	9.0	4.8	3.5	12.0
	>64	686.5	669.6	507.1	157.9	192.5	56.2	97.7	99.0	53.7	61.5	28.8
Yellow Medicine	<18	150.2	14.7	#	120.0	#	22.4	#	#	#	#	#
	18 thru 64	318.3	211.9	137.3	84.4	66.5	56.2	12.5	12.7	7.4	5.2	12.2
	>64	719.2	681.0	471.7	161.2	206.1	76.6	135.4	102.0	70.3	62.8	19.8

indicates insufficient data





Contact Information

For further information about the MN APCD:

Online: www.health.state.mn.us/healthreform/allpayer/index.html

Email: health.apcd@state.mn.us

