



Department of Employee Relations

**Tom Barrett**  
Mayor

**Maria Monteagudo**  
Director

**Michael Brady**  
Employee Benefits Director

**Deborah Ford**  
Labor Negotiator

January 12, 2015

Alderman Nik Kovac, Chairman  
Members of the Common Council Finance and Personnel Committee  
200 East Wells Street, Room 205  
Milwaukee, WI 53202

**File No: 141356, Health Outcomes Report from Willis of Wisconsin**

Dear Alderman Kovac:

Willis of Wisconsin has prepared the attached ten-page **Health Outcomes Report** for the City comparing a one-year period, July 2012 to June 2013, with a current one-year period, July 2013 to June 2014. Willis and the Department of Employee Relations will share this report and discuss the outcomes with members of the Finance and Personnel Committee on Wednesday January 14, 2015. Willis will be providing these Health Outcome Reports every six months.

This report includes all city members, 22,486 persons: active employees, retirees under 65, Medicare retirees, spouses and dependents. Future reports will break out active employees from retirees.

This data is prepared to help the City address specific goals:

- Improve employee population health
- Control healthcare cost
- Attract, recruit and retain the best talent, and
- Improve overall employee engagement and productivity

The Executive Summary on page three describes the population and their current medical needs.

Representatives of Willis and the Department of Employee Relations will be available to answer questions and explain the attached Health Outcomes Report.

Sincerely,

Michael Brady  
Employee Benefits Director

CC: Maria Monteagudo  
Deborah Ford  
Dennis Yaccarino  
Renee Joos



# WillisMed Health Outcomes Report

**CITY OF MILWAUKEE**

**December 15, 2014**

**Willis**



# WillisMed Health Outcomes Report

**CITY OF MILWAUKEE**

**December 15, 2014**

## Table of Contents

1. Executive Summary
2. Plan Cost
3. Plan Utilization
4. Relative Risk Score and Care Gap Index
5. Preventative Measures
6. Top Chronic Conditions
7. Gaps in Care
  - Diabetes
  - Cardiovascular
  - Congestive Heart Failure
  - Pulmonary
  - Asthma
8. Case Management
9. Call to Action
10. Strategy Continuum

The WillisMed Health Outcomes Report provides an analysis of the healthcare information for CITY OF MILWAUKEE. The information is based on eligibility, medical claims, and pharmacy claims data for employees and their families during the reporting period Jul 2013 through Jun 2014 on a paid basis.

## Objective

We use WillisMed to stratify your total population in order to create targeted interventions for health management, including but not limited to:

- Wellness Program Opportunities
- Disease Management Opportunities
- Case Management Opportunities
- Plan Design Opportunities
- Health Outcomes Incentive Design

## Normative Database

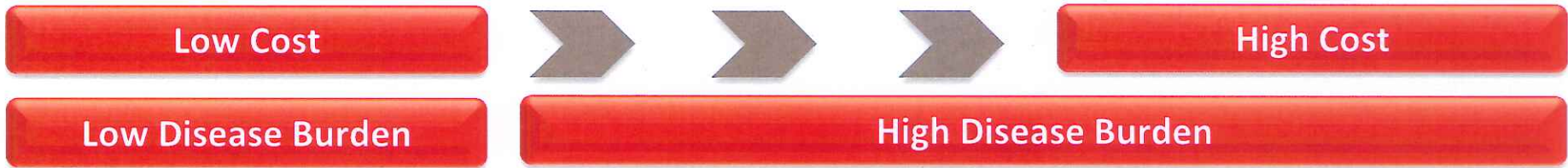
Willis uses the Verisk normative database in order to compare your population's performance to a normative database containing data from 2,371 distinct employer groups and 9.91 million members. The benchmarks include a representative cross-section of data by geography, age, and gender.

## Year Over Year Trend Periods

Period One (P1): Paid from Jul 2012 to Jun 2013

Period Two (P2): Paid from Jul 2013 to Jun 2014

# Executive Summary



**70%** of the population  
**10%** of total medical expenses

**25%** of the population  
**38%** of total medical expenses

**5%** of the population  
**52%** of total medical expenses

## Wellness Interventions

- Evidence based preventative services
- Health Risk Assessment (HRAs), with biometrics
- Targeted health education and communication
- Culture of health
- Tobacco-free workplace
- Incentives for engagement and health outcomes
- Engagement in lifestyle behavior change programs



## Disease Management

- Identifying individuals who are likely to incur high medical costs because of chronic illness
- Communication and resources for appropriate adherence to treatment guidelines
- Incentives for compliance with disease management programs

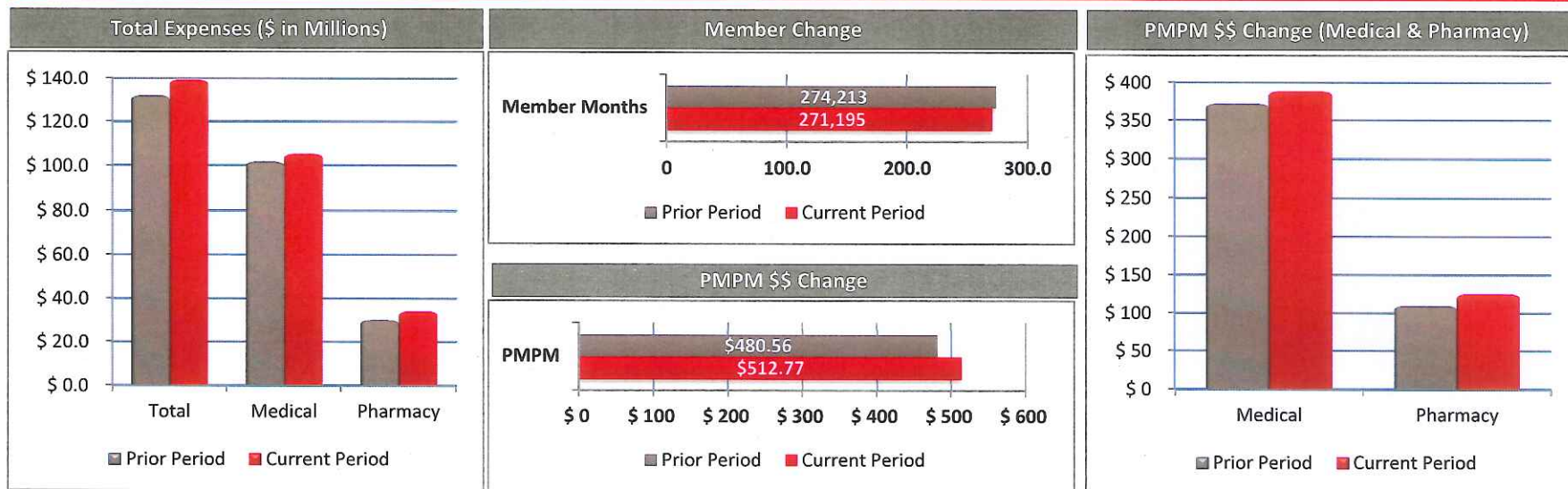


## Case Management

- Manage high cost
- Help members navigate system
- Quality of life measures
- Patient satisfaction
- Direct and indirect health care cost
- Morbidity / mortality data



## Plan Costs



Cost Summary	Current Period	Prior Period	% Chg PP	Adj Norm	% Chg Norm
--------------	----------------	--------------	----------	----------	------------

### Medical (Place of Service PMPM Spend)

Inpatient	\$123.4	\$118.0	4.6%	\$99.2	24.4%
Outpatient	\$153.3	\$141.6	8.2%	\$105.0	45.9%
Office, Imaging, Etc.	\$110.9	\$111.4	(0.4%)	\$94.5	17.4%
Pharmacy	\$125.2	\$109.6	14.3%	\$98.0	27.8%

Cost Distribution	Members	Costs	Cst/Member	% of Cost	Norm	• Norm
-------------------	---------	-------	------------	-----------	------	--------

### Expense Distribution

1%	253	\$35,424,375	\$140,134	25.5%	30.5%	(5.1%)
2-5%	1,011	\$36,329,209	\$35,928	26.1%	27.7%	(1.6%)
6-15%	2,528	\$33,105,288	\$13,096	23.8%	22.7%	1.1%
16-30%	3,792	\$19,992,954	\$5,273	14.4%	12.1%	2.2%
31-60%	7,584	\$12,603,434	\$1,662	9.1%	6.4%	2.7%
61-100%	10,112	\$1,605,806	\$159	1.2%	0.6%	0.6%
<b>Total</b>	<b>25,279</b>	<b>\$139,061,066</b>	<b>\$5,501</b>			

### Comments

- Total expenses increased by 5.5% over the prior period driven by a 6.7% increase in PMPM cost, offset by a (1.1%) decrease in member months
- PMPM Medical cost increased by 4.5%, while PMPM Pharmacy cost increased by 14.3%
- Inpatient and Outpatient services represent 71.4% and all other services comprise 28.6%
- Total spend is skewed slightly more toward the low cost end of the distribution compared to the norm

## Plan Utilization

Plan Demography and Risk Review	Current Period	Prior Period	% Chg PP	Norm	% Chg Norm	Member Profile
Current Employees	9,897	10,047	(1.5%)			
Current Members	22,486	22,736	(1.1%)			
Dependent Ratio	2.3	2.3	0.4%			
Average Age	41.0	42.2	(2.8%)	35.7	14.8%	
Utilization				Adj Norm	% Chg Norm	
<b>Emergency Room Metrics</b>						
ER Visits (per 1000)	297.2	289.7	2.6%	276.5	7.5%	
% ER Visits Resulting in Admission	45.9%	45.3%	1.2%	45.5%	0.8%	
Paid per ER Visit	\$1,014	\$1,013	0.0%	\$894	13.4%	
<b>Inpatient Metrics</b>						
Inpatient Days (per 1000)	541.8	544.1	(0.4%)	523.3	3.5%	
Average Length of Stay (Days)	5.2	5.2	(0.6%)	5.7	(9.0%)	
Total Admissions (per 1000)	104.5	104.4	0.1%	93.2	12.1%	
Medical	44.2	46.4	(4.6%)	40.2	10.1%	
Surgical	32.1	34.0	(5.5%)	33.0	(2.7%)	
Perinatal	19.2	15.8	21.6%	14.8	29.5%	
Behavioral	9.0	8.2	9.2%	5.1	76.1%	
<b>Drug Utilization</b>						
Pharmacy Scripts (per 1000)	16,256.4	16,562.2	(1.8%)	13,158.2	23.5%	
Pharmacy Scripts - % Generic Drugs	83.9%	82.3%	1.9%	80.4%	4.4%	
<b>Office Visit Utilization</b>						
Total Office Visits (per 1000)	5,365.8	5,465.7	(1.8%)	4,371.1	22.8%	
Regular Office Visits	3,847.4	3,893.3	(1.2%)	3,356.4	14.6%	
Preventative Office Visits	501.2	493.9	1.5%	428.1	17.1%	
Behavioral Health Office Visits	766.3	830.1	(7.7%)	408.1	87.8%	
CT Scan	126.8	136.9	(7.4%)	95.1	33.4%	
MRI Scan	96.2	103.1	(6.7%)	78.8	22.0%	
On-Site Clinic Visits	-	-	-	-	-	
Urgent Care Visits	22.8	22.0	3.5%	-	-	

### Comments

- 50.8% of the members are male and 49.2% of the members are female
- 'ER visits', 'admission rates' and 'paid amounts for ER visits' were all more than the norm.
- Medical, Perinatal, Behavioral are higher than the norm, while Surgical is lower than the norm
- Generic drug utilization is more than 'norm' and 'prior period'
- Preventative office visits accounted for 9.3% of total office visits



## Relative Risk Score (RRS) and Care Gap Index (CGI) within the Population

We have used two factors to understand the association between disease burden, quality and cost within your population.

1. The **Relative Risk Score (RRS)** is a measure of resource use - in total cost or count of outcomes events - relative to an average person (RRS = 1.00).

A relative risk score of 1.00 means that the person's risk burden (and predicted cost) is equal to the mean (average) in the sample. While an individual with a RRS of 1.50 is predicted to spend one and a half times (50% more) in resources compared to the average person in the benchmark sample.

2. The **Care Gap Index (CGI)** quantifies the gaps in appropriate medical care that a member is receiving. Depending on the diseases that a member has, the extent of care gaps present serves as one assessment of the quality of care they receive.

Members are grouped by RRS and then by CGI. This allows us to see the cost impact of those members with gaps in compliance with evidence-based care guidelines, either through member non-compliance or peer provider quality.

64.3% of the population is classified with a 'Low Care Gap Index' and the 'Average Care Gap Index' of 2.47 is higher than the norm of 1.14.

	Members	Percent of Members	Average PMPY	Spend (\$ in millions)	Percent of Spend	Average Age
<b>Low Relative Risk Score (&lt; = 1.13)</b>						
Low Care Gap Index (0 -2)	11,389	50.9%	\$1,540	\$46.8	15.0%	
Medium Care Gap Index (3 -4)	1,558	7.0%	\$2,560	\$11.6	3.7%	28.9
High Care Gap Index (+5)	452	2.0%	\$3,430	\$4.5	1.4%	
<b>Subtotal Low RRS</b>	<b>13,399</b>	<b>59.9%</b>	<b>\$1,722</b>	<b>\$63.0</b>	<b>20.2%</b>	
<b>Medium Relative Risk Score (&gt; 1.13 and &lt; = 2.69)</b>						
Low Care Gap Index (0 -2)	2,370	10.6%	\$5,670	\$36.8	11.8%	
Medium Care Gap Index (3 -4)	1,477	6.6%	\$5,990	\$25.8	8.3%	53.1
High Care Gap Index (+5)	1,405	6.3%	\$5,520	\$22.8	7.3%	
<b>Subtotal Medium RRS</b>	<b>5,252</b>	<b>23.5%</b>	<b>\$5,720</b>	<b>\$85.3</b>	<b>27.4%</b>	
<b>High Relative Risk Score (&gt; 2.69)</b>						
Low Care Gap Index (0 -2)	636	2.8%	\$17,470	\$29.6	9.5%	
Medium Care Gap Index (3 -4)	780	3.5%	\$18,550	\$41.5	13.3%	65.0
High Care Gap Index (+5)	2,312	10.3%	\$13,700	\$92.6	29.7%	
<b>Subtotal High RRS</b>	<b>3,728</b>	<b>16.7%</b>	<b>\$15,358</b>	<b>\$163.7</b>	<b>52.5%</b>	
<b>Total</b>	<b>22,379</b>		<b>\$4,932</b>	<b>\$312.0</b>		

## Preventative Measures

Evaluation of your populations compliance with evidence-based preventative services is critical and should be a key starting point. The U.S. spends billions on healthcare services of questionable value, while basic, evidence-based preventative services are not being performed as often as recommended.

The following details screening and preventative tests - and the associated compliance with these tests - for the entire population. This data is based on Verisk definitions and may differ from the Carrier/ASO standards.

Description	Members with Gap	Members	Actual	Norm
All individuals without any claim in the last 12 months	2,006	21,221	9.4%	14.1%
All individuals without flu vaccination in the last 12 months	15,974	21,221	75.3%	82.9%
All individuals between 6 months and 5 years old without flu vaccination in the last 12 months	278	760	36.6%	48.3%
All individuals > 50 years old without flu vaccination in the last 12 months	6,032	8,058	74.9%	81.1%
All individuals > = 51 years old without long office visit in the last 24 months	632	7,853	8.0%	15.9%
All individuals without a follow-up office visit within 2 weeks of a Chest pain-related ER visit	260	750	34.7%	43.4%
All individuals > = 50 years old without any colorectal cancer screening in the last 24 months	6,248	8,168	76.5%	72.4%
Men > 50 years old without PSA level in the last 24 months (controversial test)	2,355	3,767	62.5%	51.1%
Women > 20 years old without pap smear in the last 24 months	4,343	7,205	60.3%	49.9%
Women between 21 and 65 years old without pap smear in the last 24 months	2,994	5,770	51.9%	47.6%
Women between 40 and 49 years old without mammogram in the last 24 months	408	1,405	29.0%	47.3%
Women > = 49 years old without mammogram in last 12 months	2,369	4,309	55.0%	57.2%



## Top Chronic Conditions

The following chart contains the top chronic conditions / diseases based on total paid. This chart also presents utilization patterns of members with chronic conditions, for total office visits, emergency room visits and hospital admissions.

Diseases	Members per 1000		Total paid	PMPY		Office Visits per 1000		ER Visits per 1000		Admission per 1000	
	Actual	Adj Norm		Actual	Adj Norm	Actual	Norm	Actual	Norm	Actual	Norm
Hypertension	216	126	\$ 52,715,628	\$ 11,379	\$ 9,442	8,538.5	7,826.5	487.2	422.9	248.7	166.8
Hyperlipidemia	179	72	\$ 37,761,842	\$ 9,713	\$ 8,035	8,265.9	7,600.5	386.1	276.2	177.0	98.6
Osteoarthritis	98	46	\$ 29,618,635	\$ 14,088	\$ 13,796	11,124.8	11,425.1	548.4	540.6	300.6	265.1
Diabetes	95	58	\$ 28,166,596	\$ 14,017	\$ 11,670	9,289.3	8,634.4	524.5	483.0	272.7	206.2
Coronary Artery Disease (incl. MI)	57	35	\$ 17,385,321	\$ 14,328	\$ 15,931	10,557.0	10,358.4	762.3	784.5	473.9	450.0
Congestive Heart Failure	17	11	\$ 11,344,848	\$ 31,506	\$ 28,345	12,583.2	13,677.8	1,349.7	1,569.8	999.8	1,117.0
Cerebrovascular Disease	29	16	\$ 10,363,550	\$ 17,342	\$ 19,984	11,441.1	11,620.1	1,005.7	1,150.0	644.3	643.8
Congenital Anomalies	21	9	\$ 9,931,274	\$ 22,813	\$ 22,329	10,598.8	10,197.1	535.2	570.3	303.2	327.3
Asthma	41	19	\$ 9,524,302	\$ 10,768	\$ 9,595	9,652.9	9,189.1	651.2	694.1	184.3	156.5
Chronic Renal Failure	21	11	\$ 9,427,633	\$ 21,764	\$ 27,410	11,464.4	13,007.5	1,073.5	1,023.8	748.0	678.7

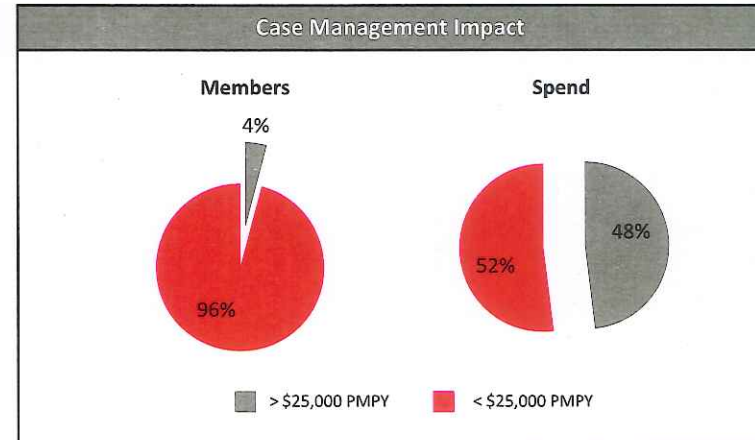
### Comments

- Total paid represents all costs, including those for claims unrelated to the disease, for members with the disease. For example, a member with two chronic conditions would be counted under both chronic conditions along with their total paid dollars for all of their conditions.
- High specificity criteria of one inpatient or two outpatient claims is used to identify a member with a disease; Outpatient claims includes all non-inpatient claims.
- Ranking conditions by total paid for the member per year allows us to focus on the largest clinical drivers of cost.
- The Risk Index is based on a combination of diagnosed diseases, recommended procedures completed to address the diseases and prescription drugs administered to address the diseases. The organization's overall 'Risk Index' of 11.67 is higher than the norm of 5.76, with a higher than or equal to norm prevalence for 10 of the top 10 chronic conditions.

## Case Management

The following summarizes patients who have incurred a high total spend (>\$25,000 PMPY), based on total cost and diagnosis. These members will generally benefit from Case Management.

Top Paid Diagnosis	Members	Cost	Average Spend
Osteoarthritis	89	\$4,719,904	\$53,033
Cancer Therapies	36	\$3,252,638	\$90,351
Procedure Complications	21	\$3,106,089	\$147,909
Intervertebral Disc Disorders	40	\$2,806,454	\$70,161
Joint Derangement	68	\$2,458,158	\$36,149
CAD	32	\$1,778,625	\$55,582
Renal Failure	14	\$1,728,281	\$123,449
Septicemia	22	\$1,580,171	\$71,826
Lower GI Disorders	24	\$1,296,465	\$54,019
Musculoskeletal Disorders	28	\$1,271,310	\$45,404
Back Pain	20	\$1,269,173	\$63,459
Rehabilitation Therapies	16	\$1,109,376	\$69,336
Congenital Anomalies	15	\$1,056,872	\$70,458
Multiple Myeloma	9	\$1,035,641	\$115,071
Myocardial Infarction	16	\$1,012,186	\$63,262
Misc Skin Diseases	15	\$1,005,876	\$67,058
Atrial Fibrillation	14	\$977,290	\$69,806
Misc Cancers	6	\$941,940	\$156,990
Rheumatoid Arthritis	18	\$931,752	\$51,764
Complicated GI Disorders	12	\$913,560	\$76,130
All Other	537	\$32,559,665	\$60,633
<b>Total &gt; \$25,000 PMPY</b>	<b>1,052</b>	<b>\$66,811,428</b>	<b>\$63,509</b>



### Comments

- Understand the case management vendor trigger points for identification of members to participate
- Understand how the vendor reaches out to the member to engage in the program
  - What is their success rate in members accepting?
  - What are the reasons that a member would not engage?
- Understand how the vendor reports cost savings from the case management program
- Understand the reporting provided by case management vendor



## Call To Action

The data and analysis contained in the WillisMed Health Outcomes Report is intended to identify cost and utilization drivers for the purposes of creating a road map that outlines comprehensive health management strategies for the future - we term 'Call To Action'. Working with CITY OF MILWAUKEE, we understand that a data driven strategic plan is vital to address the overall human capital needs for your organization and essential for managing your bottom line.

This document is intended to address the following overall goals that we understand to be important to you:

- Control healthcare cost
- Improve employee population health
- Attract, Recruit and Retain the best talent
- Improve overall employee engagement and productivity

As demonstrated in the WillisMed Health Outcomes Report; the continuum of strategies employers are using to address their human capital concerns spans from the most basic to the cutting edge aggressive. Understanding you as our client, we have laid out an actionable and measurable road map to help you achieve the goals important to your organization while focusing on the specific risks affecting your employee population.



As we look to implement the suggested strategies, we want to define the metrics that will measure program success; these points will be both financial and non financial in nature.

### Employee Metrics

1. Utilization of specific programs including: wellness program activities, disease management programs and case management programs
2. Population health risks
3. Participation and satisfaction with programs and services

### Organization Metrics

1. Medical and Pharmacy cost versus projected including: preventative screenings services usage, decreased chronic disease CGI and decreased RRS