



Table of Contents

1. D2HawkeyeReport Summary of Findings	3
2. Claims Expense Distribution	4
3. Membership Overview	6
4. Summary of Health Care Costs	7
5. Hospital Admission Analysis	12
6. Health Plan Key Metrics Analysis	13
7. Prescription 'Switch To' Opportunities	14
8. In-Network/Out-of-Network Provider Analysis	15
9. D2Hawkeye <i>Care Management Cost Avoidance</i> Opportunities.	16
10. Adjudication Review	17
11. Plan Utilization Analysis	18
12. D2Hawkeye <i>Quality & Risk Measure</i> Analysis	19
13. Chronic Conditions Utilization Analysis	22
14. D2Hawkeye <i>Risk Index</i> Analysis	23
Addendum	25
Addendum I	25
D2Hawkeye <i>Quality & Risk Measures</i> Descriptions	
Addendum II	33
Glossary of Terms	

1. D2HawkeyeReport Summary of Findings

This report contains clinical and other analyses of General Hospital 1,554 current employees (3,109 current members), incurring total medical and pharmacy costs of \$15,996,583.35 for the period March 2002 through February 2004.

Summary of Health Plan Costs (March 2002 thru February 2004)

a. Medical Claims Paid	\$14,288,037.57
b. Pharmacy Claims Paid	\$1,708,545.79
c. Total Claims Paid	\$15,996,583.35
d. Member Months	44,536
e. Per Member Per Month (PMPM)	\$359.18

Focused Case Management/Disease Management Opportunities

Members At Risk

106 members have an Adjusted Risk Index (ARI) greater than 20. These members had claims expenses totaling \$5,370,410.84. The 'at risk' members represents 3.41% of your membership and account for 39.74% of your claims costs. The care history of these members should be reviewed to determine if they would benefit from clinical and/or design plan intervention

Quality & Risk Measures

The member population has been reviewed against 35 Quality & Risk Measures. A review of these Measures will help identify quality of care concerns and examples of evolving medical risk and cost.

Case Management Cost Avoidance Opportunities \$630,935.42

Case Management assumptions include a 10% reduction in total cost of the population being managed. This is believed to be a conservative estimate. To achieve this reduction, D2Hawkeye estimates members will require an average of two hours of Case Management services per year. Assume that this will cost \$125 per hour. The cost of the Case Management is netted to yield the total savings at 10%.

Prescription Cost Avoidance Opportunities

Prescription 'Switch-To' Cost Avoidance Opportunities \$32,008.16

Utilizing a brand name only formulary, as shown in this report, could significantly reduce pharmacy costs. An analysis of generic substitutions would potentially provide further savings.

Prescription Drug Cost \$686,640.64

This is the total amount spent on drugs with a high unit cost (defined as greater than \$10 per unit). Plan design or formulary changes may achieve cost reductions where drug unit costs are higher than this amount.

2. Claims Expense Distribution

Table 2.1 shows member expenses by cost percentile. Reviewing Expense Distribution provides an overview of total claims by percentile for the reporting period. For most groups that the top 15% of the population consumes 75 - 85% of total health plan resources. The top band (1-5% of members) is likely to already be engaged in some form of care management. The second band (6-15% of members) is typically an important group to review as many of the members lack coordination of care and may benefit from quality management, disease management and / or focused care management. Table 2.2 lists the top 50 claimants. The list should be reviewed to verify that all current members have been evaluated for case or disease management services.

Table 2.1: Historical Expense Distribution by Percent Spending Band

Band	# Members	Total Costs	Cumulative Members	Cumulative Total Costs	Avg. Cost per Member	% Paid
1%	52	\$6,043,402.02	52	\$6,043,402.02	\$116,219.27	38
2-5%	208	\$4,016,642.57	260	\$10,060,044.59	\$19,310.78	25
6-15%	519	\$3,505,722.67	779	\$13,565,767.26	\$6,754.76	22
16-30%	778	\$1,765,383.74	1,557	\$15,331,151.01	\$2,269.13	11
31-60%	1,558	\$665,659.00	3,115	\$15,996,810.00	\$427.25	4
61-100%	2,076	\$-226.65	5,191	\$15,996,583.35	\$-.11	0

NOTE: The cumulative members (current and termed) represent only those members having a claim during cycle period.

Figure 2.1: % of Total Dollars Paid for Members by Claims Expense Distribution Band

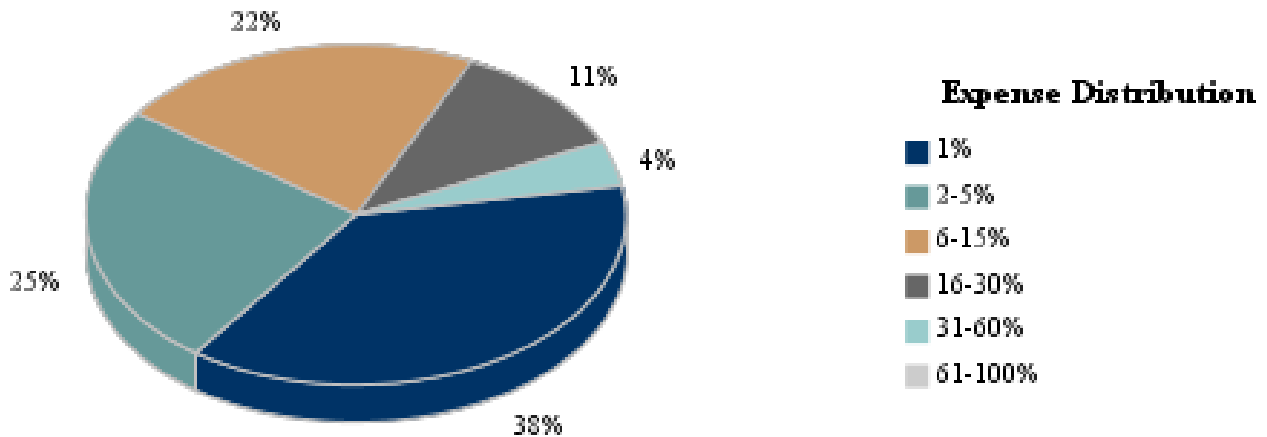


Table 2.2: Top 35 Claimants (Current Members, Blinded Member ID)

Blinded Member ID	Relationship	Gender	Age	Claims Paid
1	U	M	41	\$558,676.39
2	U	F	62	\$330,012.41
3	U	F	45	\$275,069.17
4	U	F	54	\$260,479.55
5	U	F	26	\$214,648.73
6	U	F	63	\$179,581.99
7	U	M	56	\$162,247.25
8	U	F	25	\$157,070.18
9	U	F	40	\$155,468.36
10	U	F	11	\$151,213.53
11	U	M	55	\$130,880.14
12	U	M	60	\$126,596.83
13	U	F	21	\$124,814.30
14	U	M	41	\$121,154.39
15	U	M	47	\$104,090.98
16	U	F	31	\$103,860.29
17	U	F	53	\$102,554.10
18	U	M	17	\$97,168.92
19	U	F	48	\$91,341.81
20	U	F	56	\$88,256.26
21	U	M	75	\$75,833.63
22	U	F	62	\$74,993.71
23	U	M	64	\$69,135.26
24	U	M	64	\$69,091.39
25	U	F	63	\$67,524.95
26	U	F	62	\$64,344.08
27	U	F	44	\$59,347.77
28	U	F	61	\$56,666.90
29	U	F	48	\$55,803.37
30	U	F	48	\$53,293.26
31	U	M	50	\$52,538.69
32	U	M	59	\$52,160.07
33	U	M	57	\$51,080.17
34	U	M	69	\$47,547.07
35	U	F	34	\$43,449.55

NOTE: The cumulative members (current and termed) represent only those members having a claim during cycle period.

Legend:

* Relationship Flag - E: Employee; S: Spouse; D: Children; U: Unknown

3. Membership Overview

This information serves as a basis for reviewing health plan costs and benefit design, Table 3.1 provides a membership breakout by relationship, age and gender with gross charges and claims paid comparisons. Figure 3.1 presents claims paid by Gender and Age groupings. Table 3.2 provides a demographic overview of current members. Table 3.1: Breakdown of Membership by Relationship Average.

Table 3.1: Breakdown of Membership by Relationship

	Average Age	Members		Gross Charges	Plan Paid
		Total	Current		
Unknown	31.5	5,162	3,109	\$31,573,452.60	\$15,996,583.35

Figure 3.1: Claims Paid by Gender and Age

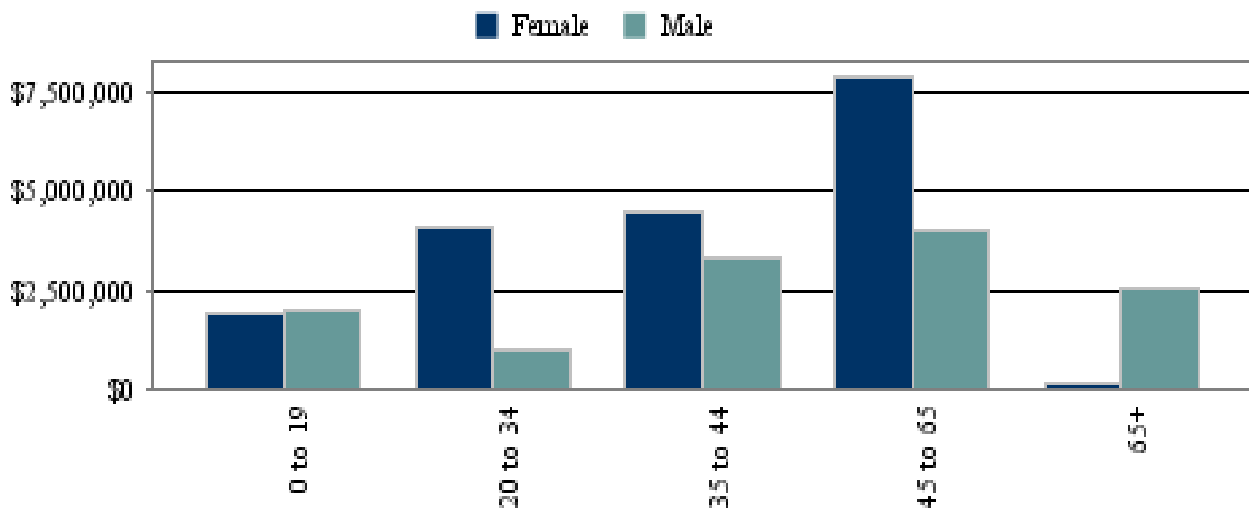


Table 3.2: Current Membership Profile

	Female		Male		Total	
	Lives	% of Lives	Lives	% of Lives	Lives	% of Lives
Unknown	1,865	59.99%	1,242	39.95%	3,109	100.00%

Average Age: Male	31.3
Average Age: Female	33.3

4. Summary of Health Care Costs

Table 4.1 summarizes medical and pharmacy claims for the reporting period. Figure 4.1 is a month-to-month analysis of health care cost trends.

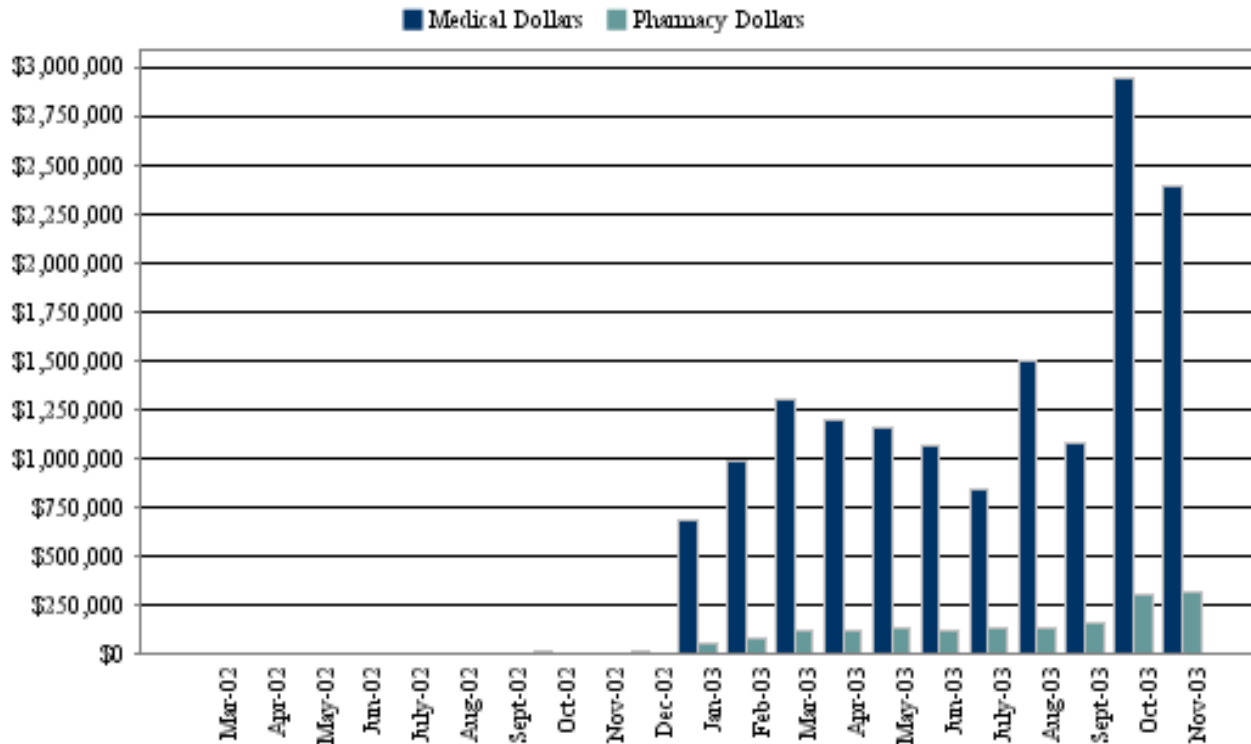
Table 4.1: Health Care Cost

Claim Type	Claims Paid	Claims PMPM
Medical Claims	\$14,288,037.57	\$320.82
Pharmacy Claims	\$1,708,545.79	\$38.36
Total Claims	\$15,996,583.35	\$359.18

Member Months:	44,536
Current Members:	3,109
Current Subscribers:	1,554

Source: D2HawkeyeExplorer (Forms 109, 545 and D20)

Figure 4.1: Health Care Cost Trends



NOTE: The most recent three months are not displayed as incurred but not reported (INBR) claims would distort the trend line.

Tables 4.2 through 4.8 presents medical and/or pharmacy claims data by Providers, Place of Service, Specialties, Diagnostic Group, Procedures, Therapeutic Classes and Prescription Drugs.

Table 4.2: Top 10 Providers, by medical claims paid for that category.

For each listing the claims paid is shown as a % of all claims in that table.

Provider	# Claims	% of Claims	Claims Paid
Childrens Hospital	12,631	21.22%	\$3,030,717.75
Lakeside Medical Center	3,910	17.03%	\$2,424,292.89
St. Anthony's Hospital	1,294	8.08%	\$1,148,910.43
LDP Hospital	937	2.93%	\$413,509.12
Medical Services	1,935	2.69%	\$382,869.40
Kindred Hospital	32	1.80%	\$250,606.52
Same Day Surgery Center	80	1.34%	\$187,715.69
Mountain Medical	2,393	1.31%	\$185,913.88
Hospitals East, LLC	22	1.30%	\$181,302.57
Raceway Memorial Hospital	205	1.28%	\$180,205.60

Source: D2HawkeyeExplorer (Form 113e)

Table 4.3: Top 10 Place of Service, by medical claims paid for that category.

For each listing the claims paid is shown as a % of all claims in that table.

Service	# Claims	% of Claims	Claims Paid
Inpatient Hospital	10,583	39.30%	\$5,590,912.15
Outpatient Hospital	30,374	35.09%	\$5,013,846.06
Office	49,869	14.84%	\$2,120,305.79
Emergency Room Hospital	5,604	5.83%	\$826,139.78
Ambulatory Surgical Center	445	2.27%	\$316,899.31
Home	1,867	1.40%	\$197,254.01
Other Place of Service	1,458	.86%	\$121,926.42
Independent Laboratory	1,560	.31%	\$44,485.35
Comprehensive Inpatient Rehabilitation Facility	175	.17%	\$24,327.32
Ambulance - Land	120	.16%	\$22,140.63

Source: D2HawkeyeExplorer (Form 113a)

Table 4.4: Top 10 Specialties, by medical claims paid for that category.

For each listing the claims paid is shown as a % of all claims in that table.

Specialty	# Claims	% of Claims	Claims Paid
Diagnostic Laboratory	6,827	11.99%	\$1,713,051.17
Unknown - NA	8,402	11.84%	\$1,687,762.89
Room & Board	1,454	11.42%	\$1,629,475.84
[Inpatient Hospital]	392	8.88%	\$1,246,595.47
Radiology	6,388	5.26%	\$751,327.25
CT Scan	710	5.01%	\$711,975.65
Operating Room	386	4.80%	\$675,397.36
Misc Medical Proc incl Infusion	1,132	3.28%	\$458,027.27
Office Visit - Established	7,816	3.01%	\$430,763.51
Inpatient Days	327	2.91%	\$414,075.54

Source: D2HawkeyeExplorer (Form 113b)

Table 4.5: Top 10 Diagnostic Group, by medical claims paid for that category.

For each listing the claims paid is shown as a % of all claims in that table.

Diagnostic Group	# Claims	% of Claims	Claims Paid
Acute Respiratory failure	268	4.29%	\$598,517.20
Intestinal Obstruction and Other Bowel Dysfunction	485	2.96%	\$415,919.27
CAD +/- CABG	941	2.60%	\$363,559.98
Intracranial Hemorrhage	511	2.43%	\$339,428.54
Diseases of the ear and mastoid process	1,465	2.22%	\$314,555.32
Gynecological Disorders	2,009	2.17%	\$306,933.15
Arthritis, excluding back pain	2,201	1.93%	\$273,933.36
Other diseases of upper respiratory tract	2,015	1.89%	\$263,742.72
Intervertebral Disc Disorders	671	1.65%	\$231,180.22
Procedure Complication	344	1.56%	\$217,566.05

Source: D2HawkeyeExplorer (Form 113c)

Table 4.6: Top 10 Procedures, by medical claims paid for that category.

For each listing the claims paid is shown as a % of all claims in that table.

Procedure	# Claims	% of Claims	Claims Paid
Room & Board	1,637	13.85%	\$1,976,136.18
Diagnostic Laboratory	7,315	13.09%	\$1,869,891.62
Operating Room	474	6.65%	\$945,650.72
OUTPATIENT SURGICAL FACILITY	130	6.43%	\$897,960.33
Radiology	6,878	5.79%	\$826,569.36
CT Scan	749	5.35%	\$760,875.44
Office Visit - Established	9,455	3.63%	\$518,846.82
Supplies	1,345	3.63%	\$517,046.79
Inpatient Days	384	3.53%	\$501,686.54
Misc Medical Proc incl Infusion	1,267	3.30%	\$461,392.41

Source: D2HawkeyeExplorer (Form 113d)

Table 4.7: Top 10 Therapeutic Classes, by medical claims paid for that category.

For each listing the claims paid is shown as a % of all claims in that table.

Rx Class	# Claims	% of Claims	Claims Paid
Antidepressants	2,923	10.09%	\$172,003.66
GASTROINTESTINAL DRUGS, MISC.	1,156	7.56%	\$127,248.06
Antihyperlipidemic Drugs	1,678	6.49%	\$109,646.79
Unknown - Blank	24,926	4.83%	\$82,563.49
Unclassified Agents	935	3.81%	\$64,374.71
Contraceptive, Oral Combination	2,950	3.79%	\$64,197.88
Antihistamines & Comb.	1,415	3.78%	\$64,147.02
Anticonvulsants, Misc.	495	3.44%	\$57,882.08
Antivirals	348	3.19%	\$54,080.36
Opiate Agonists	1,624	3.09%	\$52,447.30

Source: D2HawkeyeExplorer (Form 548)

Table 4.8: Top 10 Prescription Drugs, by medical claims paid for that category.

For each listing the claims paid is shown as a % of all claims in that table.

Drug	# Claims	% of Claims	Claims Paid
Unknown - Blank	24,679	3.99%	\$68,163.73
PREVACID	356	2.70%	\$45,372.94
LIPITOR	583	2.54%	\$42,672.09
NEXIUM	342	2.10%	\$35,278.36
EFFEXOR-XR	385	2.03%	\$34,205.21
ZOLOFT	401	1.80%	\$30,512.66
SINGULAIR	394	1.66%	\$27,985.28
WELLBUTRIN SR	312	1.63%	\$27,550.40
AMBIEN	368	1.41%	\$23,772.52
ZOCOR	249	1.34%	\$22,613.08

Source: D2HawkeyeExplorer (Form 549b)

5. Hospital Admission Analysis

This analysis compares hospital admissions, claims paid and the average cost per admission. Figure 5.2 lists the providers.

Table 5.1: Hospital Admissions

	# Admissions	Total Paid	Paid/Admit
Company	1,976	\$4,972,763.51	\$2,516.58
Book of Business	1,468	\$3,853,246.37	\$656.43

Table 5.2: Top Hospitals, by total claims paid

Hospital Name	# Admissions	Total Paid	Paid/Admit
Lakeside Medical Center	111	\$1,548,679.33	\$13,952.07
St. Anthony's Hospital	23	\$536,719.10	\$23,335.61
Childrens Hospital	20	\$252,137.37	\$12,606.87
Kindred Hospital	5	\$250,606.52	\$50,121.30
LDP Hospital	46	\$224,790.85	\$4,886.76
Medical Services	92	\$184,956.64	\$2,010.40
Hospitals East, LLC	5	\$181,302.57	\$36,260.51
Provider 5966	2	\$114,011.05	\$57,005.53
PRS Gen. Hosp.	5	\$100,530.61	\$20,106.12
Raceway Memorial Hospital	9	\$97,686.20	\$10,854.02
MPE General Hospital	1	\$89,837.77	\$89,837.77
CKS Memorial Hospital	1	\$85,575.14	\$85,575.14
University Hospital and Clinic	1	\$81,082.66	\$81,082.66
Lakeside Anesthesia Services	60	\$72,652.53	\$1,210.88
University Community Hospital	8	\$57,095.53	\$7,136.94
REL Memorial Hospital	2	\$54,264.37	\$27,132.18
PES Hospital	5	\$48,564.82	\$9,712.96
Southside Hospital	3	\$47,670.03	\$15,890.01
Provider 4899	7	\$45,515.95	\$6,502.28
Provider 6376	3	\$36,527.51	\$12,175.84

6. Health Plan Key Metrics Analysis

Tables 6.1 and 6.2 present a year-to-year comparison of key health plan membership and cost metrics. They are intended to aid in the evaluation of plan design, measure performance and identify trends for further review.

Table 6.1: Key Population Metrics

Category	3/2002 - 11/2002	3/2003 - 11/2003	% Variance
Total Lives	2	3,521	175,950.00%
Current life count	2	3,193	159,550.00%
Total Employee	2	1,743	87,050.00%
Current Employee count	2	1,583	79,050.00%
Emergency Room Claimants	123	481	291.06%
Office Visits Claimants	1,118	2,444	118.60%

Table 6.2: Key Cost Metrics

Category	3/2002 - 11/2002	3/2003 - 11/2003	% Variance
Total Medical Paid	\$24,190.89	\$10,560,513.56	43,554.92%
Total Pharmacy Paid	\$0.00	\$1,241,133.49	100.00%
Paid for Top 20 Diagnosis	\$7,101.95	\$3,287,583.55	46,191.27%
Medical PEPY	\$12,095.45	\$6,079.67	49.74%
Pharmacy PEPY	\$0.00	\$714.49	100.00%
Hospital In-patient Total Paid	\$551,509.93	\$5,039,402.22	813.75%
Emergency Room Total Paid	\$77,396.12	\$358,696.09	363.45%
Office Visits Total Paid	\$118,905.68	\$688,274.45	478.84%

7. Prescription 'Switch To' Opportunities

'Switch To' analysis is a cost comparison between two therapeutically equivalent drugs. Substantial cost differences can exist between therapeutically equivalent drugs, whether they are branded or generic. These cost differences are a function of a Pharmacy Benefits Manager's (PBM) purchasing terms, cost of manufacture, the competitive landscape for particular drugs, administrative fees, and rebate structures. For a given drug, any or all of these issues may be a contributing factor.

In practice, both physician prescribing patterns and formulary benefit design drive drug utilization. Analysis of these factors, and the cost opportunity associated with them, can permit effective intervention to lower prescription claims cost.

These 'switch to' opportunities are for comparison purposes only. Any changes of medication for an individual member should always be reviewed with the prescribing physician. Formulary changes should be reviewed by a physician committee.

Table 7.1: 'Switch To' Opportunities

Current Brand	Cost	Alternate Brand	Potential Savings
ZOCOR	\$22,613.08	LIPITOR	\$11,978.50
PREMARIN	\$8,448.98	MENEST	\$5,579.73
OMNICEF	\$3,759.41	CEPHALEXIN	\$3,124.75
CEFZIL	\$3,428.16	CEPHALEXIN	\$2,763.08
ZITHROMAX Z-PAK	\$7,772.39	BIAXIN	\$2,740.27
ADDERALL	\$1,416.76	RITALIN	\$1,245.18
PRILOSEC	\$6,002.98	PREVACID	\$1,112.15
PROZAC	\$1,250.29	ZOLOFT	\$1,034.41
PROZAC	\$1,250.29	PAXIL	\$997.78
AUGMENTIN	\$749.35	AMOXICILLIN	\$654.70
BIAXIN FILMTAB	\$1,277.00	BIAXIN	\$546.24
ZITHROMAX	\$2,334.50	BIAXIN	\$231.35

Source: D2HawkeyeExplorer (Form A17)

8. In-Network/Out-of-Network Provider Analysis

Most benefit plans have at their core a provider network contracted at a lower cost than usual and customary fees. Some Out-of-Network (so-called 'non par') utilization is expected; examples are members seeing a provider while away from home ('out of area' claims), or seeing an out of network provider for an urgent or emergent health care condition. Out-of-Network claims result in higher than expected claims expense.

A high incidence of Out-of-Network provider visits is usually an indication that there are access issues. These issues may include deficiency of a certain type of provider, geographic insufficiency, and/or a problem with the hours that providers are available. These access issues can be impacted through network restructuring and benefit design changes.

Table 8.1 compares In Network (PAR) and Out-of-Network (NON-PAR) costs. Table 8.2 presents a list of the Out-of-Network providers.

Table 8.1: Network Analysis

Provider	Total		PAR		NON PAR		
	Paid	\$MPM	Paid	\$MPM	Paid	\$MPM	% of Total
Health Network	\$5,744,980.82	\$129.83	\$5,744,980.82	\$129.83	\$0.00	\$0.00	.00%
Health Network EPO	\$4,414,193.77	\$99.83	\$4,414,193.77	\$99.83	\$0.00	\$0.00	.00%
General Network	\$1,232,151.70	\$27.80	\$0.00	\$0.00	\$1,232,151.70	\$27.80	1.00%
PHS	\$1,174,227.32	\$26.67	\$1,174,227.32	\$26.67	\$0.00	\$0.00	.00%
Savings Network	\$433,204.16	\$9.87	\$433,204.16	\$9.87	\$0.00	\$0.00	.00%
PHS/Health Wise	\$402,496.09	\$9.15	\$402,496.09	\$9.15	\$0.00	\$0.00	.00%
Eastcare	\$310,004.48	\$7.04	\$310,004.48	\$7.04	\$0.00	\$0.00	.00%
Integrated Health	\$249,880.68	\$5.67	\$249,880.68	\$5.67	\$0.00	\$0.00	.00%
General IPA	\$151,516.02	\$3.45	\$151,516.02	\$3.45	\$0.00	\$0.00	.00%
Wrap Plan	\$64,008.03	\$1.46	\$64,008.03	\$1.46	\$0.00	\$0.00	.00%
Single Claim, High Cost	\$46,682.81	\$1.06	\$46,682.81	\$1.06	\$0.00	\$0.00	.00%
Healthcare Alliance	\$42,595.72	\$.97	\$42,595.72	\$.97	\$0.00	\$0.00	.00%
American Coalition	\$22,095.96	\$.50	\$22,095.96	\$.50	\$0.00	\$0.00	.00%

Source: D2HawkeyeExplorer (Form NU107B)

Table 8.2: Out-of-Network Providers

Provider	Total Paid	\$MPM
General Network	\$1,232,151.70	\$27.80

9. D2Hawkeye Care Management Cost Avoidance Opportunities.

The categories listed in Table 9.1 are historically among the highest cost claims for health plans. They provide opportunities for case management interventions. This table presents the number of plan members and claims paid against these categories for the reporting period. D2Hawkeye has applied a financial formula that reflects the cost of addressing these health issues through activities such as disease management, wellness and educational programs as well as the potential overall savings that these programs could generate. The final column in this chart presents the potential cost avoidance opportunity. It is intended only as a guide for further analysis, review and action.

Table 9.1: Cost Avoidance Opportunities

Category	# of Members	Total Paid	Potential Cost Avoidance Opportunity
High Drug Cost Members	341	\$3,649,608.90	\$194,460.89
ER Frequent Fliers	28	\$1,557,317.62	\$141,731.76
CAD	118	\$1,907,552.48	\$131,755.25
Diabetes	85	\$1,098,881.37	\$67,388.14
Back Pain	48	\$735,420.78	\$49,542.08
CHF	8	\$309,559.56	\$26,955.96
Asthma	123	\$735,814.88	\$12,081.49
COPD	56	\$350,198.60	\$7,019.86
Totals			\$630,935.42

10. Adjudication Review

Table 10.1 presents a summary of claims activity, from charges through actual amount paid by payor/employer for the prior and current reporting periods.

Table 10.1: Claims activity

Metrics	3/2002 - 11/2002	3/2003 - 11/2003	% Variance
Billed Amount	\$540,214.98	\$21,902,797.38	3,954.45%
Paid Amount	\$24,190.89	\$10,560,513.56	43,554.91%
Coinsurance	\$10,040.00	\$4,911,710.00	48,821.41%
Deductible	\$2,261.42	\$485,478.88	21,367.87%
Copayment	\$858.53	\$413,332.66	48,044.23%
COB Amount	\$0.00	\$0.00	.00%
Not Allowed Amount	\$0.00	\$0.00	.00%
Plan Limit Exclusions	\$0.00	\$0.00	.00%

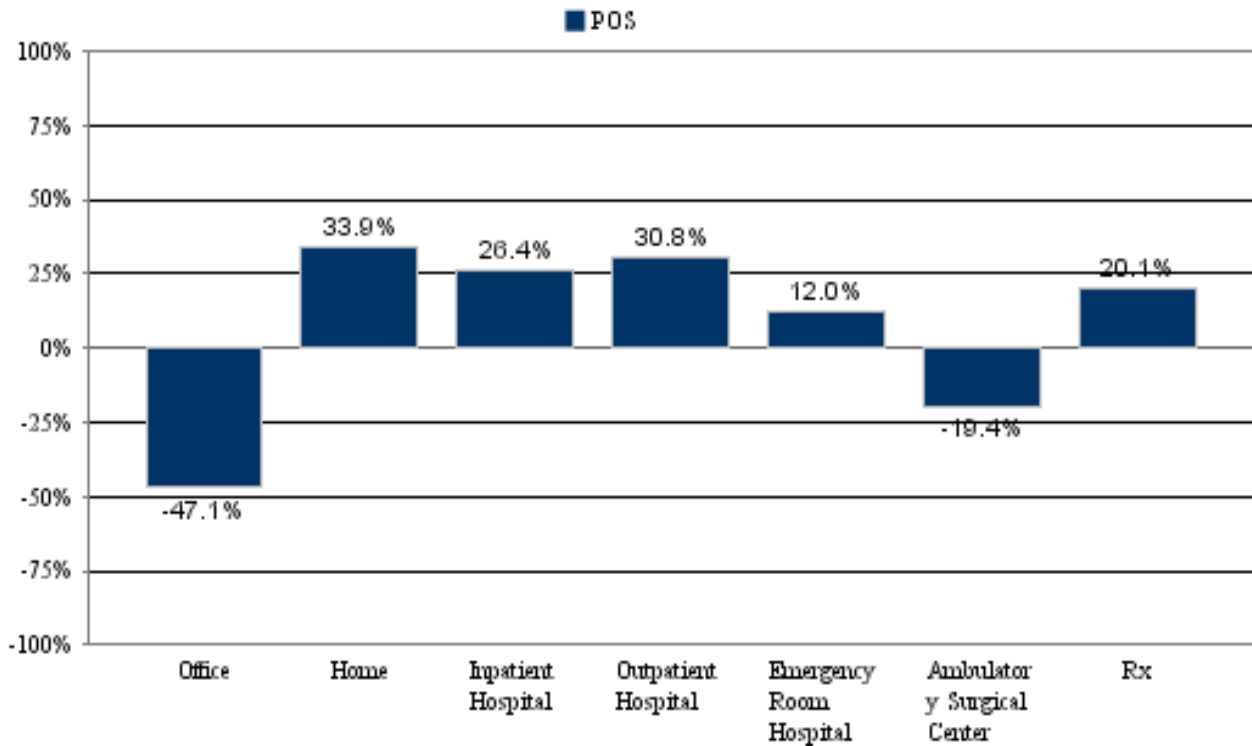
11. Plan Utilization Analysis

Table 11.1 compares utilization among Office, Home, Inpatient Hospital, Outpatient Hospital, Emergency Room Hospital, Ambulatory Surgical Center and Prescriptions.

Table 11.1: Plan Utilization Comparison

Place of Service	# per 1000	Book of Business per 1000	% Difference
Office	14,425	21,215	47.1%
Home	6,596	4,357	33.9%
Inpatient Hospital	7,056	5,196	26.4%
Outpatient Hospital	15,974	11,054	30.8%
Emergency Room Hospital	2,672	2,352	12.0%
Ambulatory Surgical Center	406	485	19.4%
Rx	194,983	155,842	20.1%

Figure 11.1: Plan Utilization Comparison



12. D2Hawkeye Quality & Risk Measure Analysis

D2Hawkeye has developed proprietary Quality & Risk Measure criteria utilizing industry standard HEDIS measures plus other industry best practices for a number of health plan issues. For the reporting period, D2Hawkeye's Quality & Risk Measures have identified members who do not meet the Quality & Risk Measure criteria listed for a specific health issue. This provides guidance for reviewing care management programs, plan utilization and quality of care issues for those members.

Table 12.1: Quality & Risk Measure

Issue	Indicator Type	Criteria	# of Members with Issue	% of Members Not Meeting Criteria
DIABETES	Monitoring	Members with diabetes having at least one HgbA1c test per year.	111	23.42%
DIABETES	Monitoring	Diabetic members having an eye exam performed at least yearly by an ophthalmologist.	111	80.18%
DIABETES	Monitoring	Members with diabetes having a lipid profile performed at least yearly.	111	26.13%
Atrial Fibrillation	Primary Prevention	Members with atrial fibrillation treated with anticoagulating agent (coumadin/warfarin).	8	87.50%
Atrial Fibrillation	Monitoring	Members with atrial fibrillation, on an anticoagulating agent, having at least monthly measurement of clotting parameters.	8	87.50%
Women >20 y/o	Screening	Women having a Pap Smear performed at least as frequently as every two years.	1,424	79.85%
Women 40 to 49 years	Screening	Women age 40 to 49 having a mammogram performed at least every two years.	447	61.07%
Women with Breast Ultrasound	Theraupetic Professional Services	Women followed up in the office within 30 days of breast ultrasound evaluation.	48	52.08%
Women >49 Years	Screening	Women over age 49 having a mammogram performed at least yearly.	412	58.50%
CHF	Rx	Members with CHF treated with an ACE inhibitor (or ARB or hydralazine/isosorbide).	15	46.67%
CHF	Rx	Members with CHF treated with both an ACE inhibitor (or ARB or hydralazine/isosorbide) and a beta blocker.	15	66.67%
Patients on drugs recalled by FDA	Incidence & Prevalence	Identify all patients on Rezulin, Baycol, Propulsid, Lotronex, Redux, and Posicor.	2,146	100.00%
ER w/ Chest Pain	Theraupetic Professional Services	Members seen on an outpatient basis by PCP or Cardiologist within	36	100.00%

Issue	Indicator Type	Criteria	# of Members with Issue	% of Members Not Meeting Criteria
CAD	Rx	two weeks following ER visit (and not admitted) for complaint of chest pain. Members with history of myocardial infarction on beta-blockers.	52	100.00%
CAD	Rx	Members with history of myocardial infarction on a statin.	52	100.00%
Patients seen w/ Chronic Back Pain	Incidence & Prevalence	% of members with Chronic Back Pain who have had EMG evaluation.	245	98.78%
Pharmacy Utilization	Utilization Metrics	Members with at least one pharmacy claim and pharmacy costs < 50% of medical cost.	2,146	30.89%
ER Visits	Incidence & Prevalence	Members not presenting to the ER on Saturday and/or Sunday.	463	34.77%
Members with ER Visits	Incidence & Prevalence	Members who have had two or more visits to the ER within past year.	463	77.97%
Members with >\$1,000 ambulatory cost	Incidence & Prevalence	At least one Office Visit recorded for members with more than \$1000 of outpatient medical cost.	1,282	4.13%
ER Visits	Theraupetic Professional Services	Members with office visit within four days of ER Visit.	457	70.24%
Members >60 y/o with > three Rx	Theraupetic Professional Services	Members > 60y/o with > three prescription medications having an office visit at least every six months.	89	100.00%
Hospitalized Members	Theraupetic Professional Services	Members having an office visit within seven days following hospital discharge.	222	68.02%
Members seeing > two types of specialists	Theraupetic Professional Services	Members seeing more than 2 types of specialist, and having an office visit at least every 3 months.	325	100.00%
Proton Pump Inhibitors	Rx	Members on proton pump inhibitors with a diagnosis of Barrett's esophagus or related esophagitis.	131	97.71%
Rheumatoid Arthritis	Rx	Members with rheumatoid arthritis, on TNF Rx, with H/O treatment with first and/or second line medication (eg methotrexate).	14	92.86%
Anti-Hyperlipidemic Agents	Monitoring	Members on antihypertensive agents having liver function tests performed at least annually.	190	25.26%
Pregnancy	Rx	Pregnant members taking prenatal vitamins.	43	53.49%
Physical Medicine	Incidence & Prevalence	Members making less than ten physical medicine visits per year.	193	38.86%
Cancer	Case Selection for Case Management or Disease Management	Members receiving injectable chemotherapeutics for a diagnosis of cancer.	74	87.84%
DME Utilization	Utilization Metrics	Members with DME expense	128	87.50%

Issue	Indicator Type	Criteria	# of Members with Issue	% of Members Not Meeting Criteria
Migraine Headaches	Incidence & Prevalence	greater than \$1,000 in specified time period. Members with migraine headaches making fewer than two ER visits for headache per year.	71	91.55%
Current Members	Utilization Metrics	Current Members with claims reported within specified time period.	3,109	15.66%
Patients on Anti-Hyperlipidemic Agents	Monitoring	Evidence of Liver function tests performed at least once annually.	41	14.63%
Current Members	Incidence & Prevalence	Members with less than 3 ER visits in the last 12 months.	3,109	1.32%

Source: D2HawkeyeExplorer (Form 670)

NOTE: This analysis is based upon the full cycle period of data within D2HawkeyeExplorer; this is typically a 24-month period. The results displayed in this module are based on all members.

13. Chronic Conditions Utilization Analysis

Monitoring the utilization patterns for chronic conditions offers valuable insights into benefit design and/or care and disease management programs. This analysis presents utilization patterns of members with chronic conditions for Office visits, ER visits and Hospital admissions.

Table 13.1: Chronic Condition

Chronic Condition	# of Members	Members per 1000	Office Visits/1000	ER Visits/1000	Admissions/1000
Coronary Artery Disease	38	7.32	14.26	5.59	2.31
Diabetes	57	10.98	33.90	4.24	1.35
Major Depression	21	4.05	1.35	3.08	.77
Congestive Heart Failure	5	.96	.77	2.89	.39
Chronic Obstructive Pulmonary Disease	7	1.35	1.73	.58	.39
Hypertension-Essential	111	21.38	47.20	4.05	.19
Osteoarthritis	11	2.12	6.74	.19	.19
Ulcerative Colitis	2	.39	.19	3.08	.19
Post Solid Organ Transplant	1	.19	.19	.00	.00
Rheumatoid Arthritis	3	.58	1.73	.00	.00
Multiple Sclerosis	4	.77	1.73	.00	.00
Cirrhosis	1	.19	.77	.00	.00
Asthma	20	3.85	10.98	1.16	.00
Bipolar Affective Disorder	2	.39	.00	.00	.00
Hepatitis	3	.58	1.73	.00	.00

14. D2Hawkeye Risk Index Analysis

D2Hawkeye has developed a proprietary 'Adjusted Risk Index' program to identify and quantify 'at risk' members. The Risk Index score is a formula based on key Diagnostic ICD9, Procedural CPT and Prescription NDC codes. D2Hawkeye has factored into this formula the clinical impact of our Quality & Risk Measures (See section 12) to determine an 'Adjusted Risk Index' score. A member with an Adjusted Risk Index (ARI) greater than 20 represents a very high statistical health and claim risk. The member's care history should be reviewed to determine if he or she would benefit from clinical and/or health plan intervention.

Table 14.1: High Risk Members Claims

	ARI > 20	All Other Members	Total
Members	106	3003	3109
Claims Expenses	\$5,370,410.84	\$8,140,888.97	\$13,511,299.81

Figure 14.1: High Risk Members

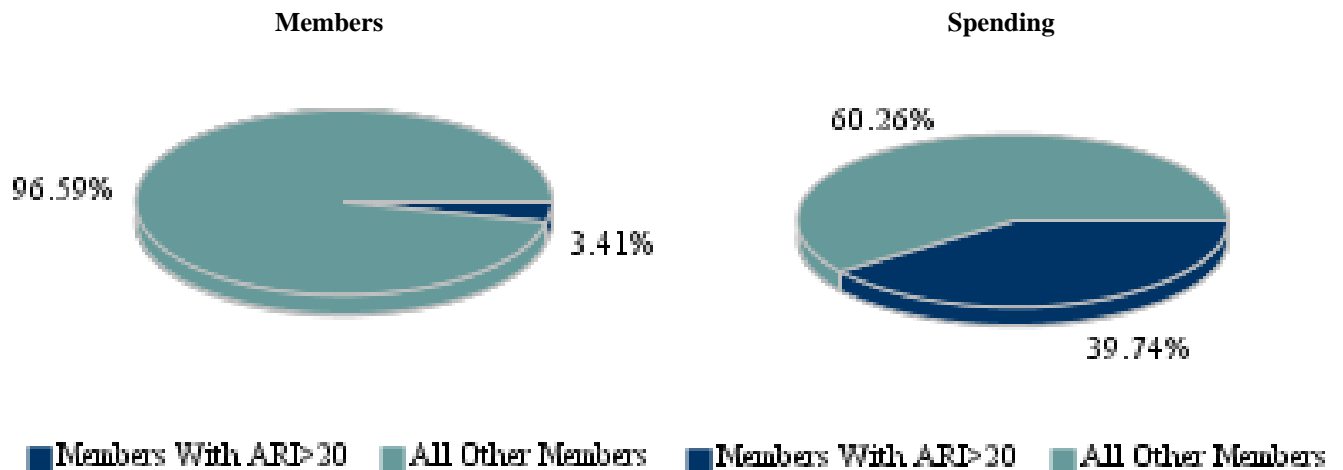


Table 14.2: Members-at-Risk

Blinded Member ID	Risk Index	Adjusted Risk Index	Current*	Relationship Flag*	CM Status*	Medical Cost	Pharmacy Cost	Total Cost
1	70.2	112.3	Y	D	N	\$558,271.10	\$405.29	\$558,676.39
2	48.7	97.4	Y	D	N	\$37,893.98	\$2,611.02	\$40,505.01
3	44.9	89.8	Y	S	N	\$85,203.05	\$3,053.21	\$88,256.26
4	44.6	89.2	Y	S	N	\$260,089.11	\$390.44	\$260,479.55
5	53.9	86.2	Y	S	N	\$253,879.13	\$21,190.04	\$275,069.17
6	40.5	81.0	Y	S	N	\$27,324.11	\$2,107.41	\$29,431.52
7	47.1	75.4	Y	D	N	\$125,453.64	\$1,143.19	\$126,596.83
8	37.0	74.0	Y	D	N	\$64,534.05	\$4,557.34	\$69,091.39
9	46.2	73.9	Y	S	N	\$152,228.70	\$3,239.66	\$155,468.36
10	36.4	72.8	Y	S	N	\$152,925.17	\$4,145.01	\$157,070.18
11	35.5	71.0	Y	S	N	\$70,036.10	\$4,957.61	\$74,993.71
12	50.4	70.6	Y	S	N	\$214,648.73	\$0.00	\$214,648.73
13	41.6	66.6	Y	S	N	\$175,620.56	\$3,961.43	\$179,581.99
14	40.8	65.3	Y	D	N	\$327,660.53	\$2,351.88	\$330,012.41
15	37.0	59.2	Y	D	N	\$67,221.41	\$1,913.85	\$69,135.26
16	29.6	59.2	Y	D	N	\$25,272.78	\$5,068.60	\$30,341.38
17	35.4	56.6	Y	S	N	\$162,150.59	\$96.65	\$162,247.25
18	33.3	53.3	Y	S	N	\$18,685.43	\$3,138.69	\$21,824.12
19	26.5	53.0	Y	D	N	\$29,347.11	\$646.57	\$29,993.68
20	26.4	52.8	Y	S	N	\$14,581.44	\$2,074.60	\$16,656.04

Source: D2HawkeyeExplorer (Form 301)

Legend:

- * Membership Status - Y: Current; N: Inactive
- * Relationship Flag - E: Employee; S: Spouse; D: Children; U: Unknown
- * CM Status - Y: In Case Management; N: Not in Case Management

Addendum I **D2Hawkeye Quality & Risk Measures Descriptions**

Criteria: One HgbA1c test annually

Quality Issue#: 001001
Issue: Diabetes
Indicator Type: Monitoring

Unlike the fasting plasma glucose (FPG) or blood glucose (BG), the Glycated Hemoglobin (HgbA1C) test is a measure of the 'average control' of diabetes over a prolonged period of time. Lowering glycated hemoglobin (A1C) has been associated with a reduction of microvascular and neuropathic complications of diabetes. Lowering A1C may also lower the risk of myocardial infarction and cardiovascular death. The American Diabetic Association advises that the management plan be developed or adjusted to achieve normal or near -normal glycemia with an A1C goal of < 7%. Recommendations for frequency of testing are generally more stringent than the parameter in this indicator. Thus, according to virtually any national organization or specialty society making recommendations about diabetic care, not performing a HgbA1C at least annually would represent deficient care of a diabetic.

Criteria: Annual eye exam by ophthalmologist.

Quality Issue#: 001002
Issue: Diabetes
Indicator Type: Monitoring

Micro vascular complications of diabetes include damage to the retina ('diabetic retinopathy'). If undiagnosed and /or untreated, diabetic retinopathy can lead to blindness. Treatment modalities exist that can prevent or delay the onset of diabetic retinopathy, as well as prevent loss of vision, in a large proportion of patients with diabetes. *The Diabetes Control and Complications Trial and the United Kingdom Prospective Diabetes Study established that glycemic and blood pressure control can prevent and delay the progression of diabetic retinopathy in patients with diabetes.* According to the American Diabetic Association: 'Examinations for both type 1 and type 2 diabetic patients should be repeated annually by an ophthalmologist or optometrist who is knowledgeable and experienced in diagnosing the presence of diabetic retinopathy and is aware of its management. Examinations will be required more frequently if retinopathy is progressing.'

Criteria: Annual lipid profile

Quality Issue#: 001003
Issue: Diabetes
Indicator Type: Monitoring

The same risk factors that contribute to CAD in the general population contribute to CAD in patients who have diabetes, but the overall effect of each risk factor is greater. Thus, detection of elevated lipids is critical in diabetics. Excellent control will reduce the relative risk of cardiac events and other vascular complications. *According to the American College of Endocrinology, 'A complete, fasting lipid panel should be measured at least yearly in adults with diabetes.'*

Criteria: Treated with anticoagulant (coumadin /warfarin)

Quality Issue#: 002001
Issue: Atrial Fibrillation
Indicator Type: Primary Prevention

Atrial fibrillation is a rapid irregular beat of the upper chambers (atria) of the heart. This irregular heart motion

allows blood clots to form in the atria; when the heart rhythm becomes more regular, these clots can be pumped through and out of the heart, lodge in peripheral structures (brain, legs), and cause significant damage (e.g. stroke or loss of leg). *It is possible to greatly reduce the probability that these clots will form through the administration of anticoagulant medication (generally coumadin /warfarin).* The AHA and ACC state that it is standard of care to: 'Administer antithrombotic therapy to all patients with atrial fibrillation, except those with lone atrial fibrillation, to prevent thromboembolism.'

Criteria: Anticoagulated monthly protime

Quality Issue#: 002002
Issue: Atrial Fibrillation
Indicator Type: Monitoring

Coumadin administration must be monitored to avoid either bleeding events (with too much coumadin), or formation of clots (with too little coumadin). These complications of therapy can be life -threatening. The test used to measure effectiveness of coumadin is the prothrombin time. The result of this test is expressed as the 'normalized ratio'. *The ACC and AHA state that: 'The international normalized ratio should be determined at least weekly during the initiation of oral anticoagulation therapy and monthly when the patient is stable.'*

Criteria: Pap Smear at least every two years

Quality Issue#: 003001
Issue: Women > 40 y /o
Indicator Type: Screening

The U.S. Preventive Services Task Force (USPSTF) is a government - sponsored task force charged with developing guidelines concerning diseases and health conditions. It is considered the preeminent body issuing developing preventative clinical standards. *The USPSTF strongly recommends screening for cervical cancer in women who have been sexually active and have a cervix. The USPSTF recommends against routinely screening women older than age 65 for cervical cancer if they have had adequate recent screening with normal Pap smears and are not otherwise at high risk for cervical cancer.* The USPSTF found good evidence from multiple observational studies that screening with cervical cytology (Papanicolaou [Pap] smears) reduces incidence of and mortality from cervical cancer. Direct evidence to determine the optimal starting and stopping age and interval for screening is limited. Indirect evidence suggests most of the benefit can be obtained by beginning screening within 3 years of onset of sexual activity or age 21 (whichever comes first) and *screening at least every 3 years.*

Criteria: Mammogram every two years

Quality Issue#: 003002
Issue: Women > 40 y /o
Indicator Type: Screening

The U.S. Preventive Services Task Force (USPSTF) is a government - sponsored task force charged with developing guidelines concerning diseases and health conditions. It is considered the preeminent body issuing developing preventative clinical standards. *The U.S. Preventive Services Task Force (USPSTF) recommends screening mammography, with or without clinical breast examination (CBE), every 1 - 2 years for women aged 40 and older.* The USPSTF found evidence that mammography screening every 12 - 33 months significantly reduces mortality from breast cancer. Evidence is strongest for women aged 50 - 69, the age group generally included in screening trials. For women aged 40 - 49, the evidence that screening mammography reduces mortality from breast cancer is weaker, and the benefit of mammography is smaller than it is for older women. It is reasonable to expect that women between 40 and 49 should be screened every other year.

Criteria: Office visit within 30 days

Quality Issue#: 003003
Issue: Women > 40 y /o
Indicator Type: Professional Services

There is no absolute standard regarding office follow up of patients who have undergone outpatient procedures. Nevertheless community standards of clinical practice (which may vary from region to region) provide credible guidance to practitioners. Breast ultrasound examination follow up is an example of such a situation. A breast ultrasound is usually performed as a follow up test when a mammogram is abnormal. It may be performed as a pure diagnostic procedure, or to guide a needle biopsy. In any case the report is generally quickly available. It is reasonable to expect that a woman would be seen, to review results, by her physician within several weeks after the test.

Criteria: Annual mammogram

Quality Issue#: 003004
Issue: Women > 49 y /o
Indicator Type: Screening

The U.S. Preventive Services Task Force (USPSTF) is a government - sponsored task force charged with developing guidelines concerning diseases and health conditions. It is considered the preeminent body issuing developing preventative clinical standards. *The U.S. Preventive Services Task Force (USPSTF) recommends screening mammography, with or without clinical breast examination (CBE), every 1 - 2 years for women aged 40 and older.* The USPSTF found evidence that mammography screening every 12 - 33 months significantly reduces mortality from breast cancer. Evidence is strongest for women aged 50 - 69, the age group generally included in screening trials. For women aged 40 - 49, the evidence that screening mammography reduces mortality from breast cancer is weaker, and the benefit of mammography is smaller than it is for older women. It is reasonable to expect that women 50 years of age and older be screened annually.

Criteria: ACE Inhibitor or ARB or vasodilator

Quality Issue#: 004001
Issue: CHF
Indicator Type: Rx

It is a standard of care to treat CHF patients with an ACE inhibitor to reduce diastolic ('resting') load on the heart. By doing so, the heart is able to pump the same amount of blood with a lower workload. This effect reduces symptoms and serves to prevent further damage to the heart; ACE inhibitors slow disease progression, improve exercise capacity, and decrease hospitalizations and mortality. The Heart Failure Society of America states that: *'Angiotensin - converting enzyme inhibitors rather than angiotensin II receptor blockers continue to be the agents of choice for blockade of the renin - angiotensin system in heart failure, and they remain the cornerstone of standard therapy for patients with left ventricular systolic dysfunction with or without symptomatic heart failure.'* This recommendation is generally accepted by all national organizations and specialty societies.'

Criteria: ACE Inhibitor (or ARB or vasodilator) and a beta blocker

Quality Issue#: 004002
Issue: CHF
Indicator Type: Rx

Beta blockers reduce the work performed by the heart through several mechanisms including reduction of heart rate, reduction of blood pressure, and direct reduction of energy expended by heart muscle as the heart pumps blood. There is general agreement that beta blockers are an important component of treatment for CHF when added to other therapies (e.g. ACE inhibitors). Beta - blockers decrease hospitalizations and mortality, but have little or no effect on objective measures of exercise duration. In individuals with CHF and coronary artery disease, there is an additional benefit: beta blockers have been shown to reduce the mortality rate associated with

myocardial infarction. The Heart Failure Society of America states that: *'Beta - blocker therapy should be routinely administered to clinically stable patients with left ventricular systolic dysfunction (left ventricular ejection fraction less than or equal to 40%) and mild to moderate heart failure symptoms (that is, New York Heart Association class II - III) who are on standard therapy, which typically includes angiotensin -converting enzyme (ACE) inhibitors, diuretics as needed to control fluid retention, and digoxin.'*

Criteria: Oral steroids not taken during data cycle

Quality Issue#: 007001
Issue: Carpal Tunnel
Indicator Type: Rx

There is no absolute standard regarding treatment of patients who have carpal tunnel syndrome. Nevertheless community standards of clinical practice (which may vary from region to region) provide credible guidance to practitioners. Steroids can be considered for use in individuals with acute and chronic pain, this class of drugs is felt to be useful in individuals with acute neuropathic pain. Pain stemming from carpal tunnel syndrome is neuropathic. Steroids may be of more benefit if injected directly into the carpal tunnel. Patients with this condition who are receiving steroids should be considered to have severe pain. They may require more intensive treatment, including surgery.

Criteria: Tricyclics not taken during data cycle

Quality Issue#: 007002
Issue: Carpal Tunnel
Indicator Type: Rx

There is no absolute standard regarding treatment of patients who have carpal tunnel syndrome. Nevertheless community standards of clinical practice (which may vary from region to region) provide credible guidance to practitioners. Tricyclics can be considered for use in individuals with acute and chronic pain, this class of drugs is felt to be particularly useful in individuals with neuropathic pain. Pain stemming from carpal tunnel syndrome is neuropathic. Patients with this condition who are receiving tricyclics should be considered to have severe pain. They may require more intensive treatment, including surgery.

Criteria: PCP or Cardiologist visit within two weeks of ER visit

Quality Issue#: 009001
Issue: ER with Chest Pain
Indicator Type: Professional Services

There is no absolute standard regarding office follow up of patients who have recently been seen in ERs. Nevertheless community standards of clinical practice (which may vary from region to region) provide credible guidance to practitioners. Follow up for emergency room visits is an example of such a situation. Presentation to the emergency room with the complaint of chest pain is a significant health event. It is reasonable to expect that such a member would be seen in follow up by his /her physician within 2 weeks of the ER visit.

Criteria: Myocardial infarction on beta - blockers

Quality Issue#: 010001
Issue: CAD
Indicator Type: Rx

Administration of a drug from the beta - blocker class is now considered to be a standard of care. Beta - blockers reduce both cardiac work and blood pressure; several studies have shown that these effects reduce the risk of a subsequent MI. The Institute for Clinical Systems Improvement produces high quality nationally recognized

guidelines through use of a large panel of expert clinicians. The Institute's Myocardial Infarction guideline states: *Beta - blockers reduce mortality, readmission and reinfarction for both CAD and CHF. They should be instituted and / or continued whenever possible.* Intravenous esmolol should be considered if a clinician is concerned about potential adverse effects of beta - blockers. Patients who prove intolerant in the hospital after a large infarct should be considered for beta - blocker treatment after discharge.

Criteria: Myocardial infarction on a statin

Quality Issue#: 010002
Issue: CAD
Indicator Type: Rx

Most if not all of a group of individuals having an acute myocardial infarction will have elevated blood lipids, and should be treated with a statin. Although an occasional individual will have normal lipids, for practical purposes, everyone who has had a myocardial infarction should be on statin therapy. The Institute for Clinical Systems Improvement produces high quality nationally recognized guidelines through use of a large panel of expert clinicians. The Institute's Myocardial Infarction guideline states: "The large majority of patients who have an acute myocardial infarction have high serum lipid levels. *Lipid treatment, including administration of statins, should be addressed as soon as possible.* A patient's lipid status should be determined within the first 24 hours. If the low - density lipoprotein (LDL) level is > 100 mg / dl, the patient should be started on a statin."

Criteria: Pharmacy cost < 50% of medical cost

Quality Issue#: 012001
Issue: Pharmacy Utilization
Indicator Type: Utilization Metrics

This is a 'trigger' indicator. Individuals with high pharmacy cost relative to medical cost are in one of three situations:

- » Poor medical follow up.
- » A drug-intense illness (such as HIV) that is a risk factor for dramatically increased claims expense.
- » Use of very expensive brand name medicines.

Effective intervention is possible in all 3 of these situations.

Criteria: No ER visits on Saturday and Sunday

Quality Issue#: 013002
Issue: Incidence & Prevalence
Indicator Type: ER Visits

This is a trigger indicator. Member populations (or individuals) with disproportionate numbers of Saturday and Sunday ER visits are of interest. This situation indicates either poor follow - up that puts a member at risk for ER use, or poor network access (to lower cost care venues).

Criteria: Visit PCP within four days

Quality Issue#: 013003
Issue: Professional Services
Indicator Type: Members with ER Visits (not hospitalized)

There is no absolute standard regarding office follow up of patients who have recently been seen in ERs.

Nevertheless community standards of clinical practice (which may vary from region to region) provide credible guidance to practitioners. Follow up for emergency room visits is an example of such a situation. It is reasonable to expect that a member would be seen promptly by his / her physician after being seen in the ER.

Criteria: Visit PCP every six months

Quality Issue#: 013004
Issue: ER Visits
Indicator Type: Incidence & Prevalence

There is no absolute standard regarding office follow up of older patients who are taking multiple medications. Nevertheless community standards of clinical practice (which may vary from region to region) provide credible guidance to practitioners. Patients taking multiple medications are at risk for adverse drug reactions, and presumably have significant health conditions or illnesses. The potential for problems (with drugs or diseases) is higher with advanced age. It is reasonable to expect that individuals in this situation would be followed more carefully than usual.

Criteria: Visit PCP with seven days

Quality Issue#: 013005
Issue: Hospitalized Members
Indicator Type: Professional Services

There is no absolute standard regarding office follow up of patients who have recently been hospitalized. Nevertheless community standards of clinical practice (which may vary from region to region) provide credible guidance to practitioners. Follow up for hospital discharge is an example of such a situation. A reasonable standard is to expect that an individual who has been discharged from the hospital would be seen within a week following discharge.

Criteria: Visit PCP no less than every three months

Quality Issue#: 013006
Issue: > two types of specialists
Indicator Type: Professional Services

There is no absolute standard regarding process of care or office follow up of individuals seeing multiple specialists. In such situations, the chance for 'uncoordinated care' and problems with communication is much higher. Particularly if the patient is older, coordination of care by a single physician is important. An interval of 3 months is appropriate for coordinating physician visits.

Criteria: Barrett's or related esophagitis

Quality Issue#: 014001
Issue: Proton Pump Inhibitors
Indicator Type: Rx

The general class of GI drugs is almost always one of the three most expensive drug groups in commercial populations. This observation is driven by a single therapeutic class, the PPIs. Proton Pump Inhibitors (PPIs) are approved for use only for GERD, erosive esophagitis, and in a combination regimen intended for use to eradicate H. Pylori. These drugs are often prescribed for less severe illnesses such as common heartburn or indigestion. While not harmful in these circumstances, the drugs are extremely expensive. There are equally effective and less expensive alternatives available.

Criteria: TNF Rx: Previous R.A. Rx

Quality Issue#: 015001
Issue: Rheumatoid Arthritis
Indicator Type: Rx

TNF is a tertiary treatment for rheumatoid arthritis. It is extraordinarily costly, and should only be prescribed when first and second line therapies have been exhausted. The British Society for Rheumatology recommends that: Prior to being treated with biological response modifiers, patients should have failed treatment on methotrexate and at least one other disease modifying agent.

Criteria: Annual liver function test

Quality Issue#: 016001
Issue: Monitoring
Indicator Type: Anti - Hyperlipidemic Agents

Evidence of liver function tests performed at least once annually. A substantial number of members receive one of a class of blood lipid ('cholesterol') lowering agents. The cholesterol -lowering agents, known as statins, have been in use for 15 years and are among the most commonly prescribed drugs. Pre -marketing clinical trials have given signals of hepatotoxicity (liver toxicity), primarily minor elevations in serum alanine aminotransferase enzyme (ALT) levels. For that reason, all of the cholesterol -lowering drugs have labeling that requires periodic monitoring of liver enzymes. *After the initial treatment phase, yearly liver test monitoring is reasonable.*

Criteria: Serum potassium annually

Quality Issue#: 017001
Issue: Monitoring
Indicator Type: Diuretics

Evidence of serum potassium test performed at least annually. No specific guidelines addressing the frequency of serum potassium determination exist. It is well -documented that diuretics routinely used in the treatment of hypertension, CHF, and other disorders cause decreased serum potassium. This electrolyte disturbance can have significant adverse effects. Performing a serum potassium test at least annually is appropriate in patients taking diuretics.

Criteria: Prenatal Vitamins

Quality Issue#: 018001
Issue: Pregnancy
Indicator Type: Rx

Percent of women diagnosed as pregnant taking prenatal vitamins. Adequate nutrition is critical to normal fetal development. Specific serious developmental disorders (in addition to more general conditions such as retarded fetal growth) have been proven to occur as a result of deficient nutrition. For example, folate deficiency during pregnancy is known to increase the probability of a neural tube developmental defect such as spina bifida.

Criteria: <10 physical medicine /PT visits per year

Quality Issue#: 019001
Issue: Physical Medicine /PT
Indicator Type: Incidence & Prevalence

This is a trigger indicator. Individuals with more than 10 physical therapy visits per year may have chronic pain

syndromes. Alternatively, the member may be suffering from a significant musculoskeletal disorder.

Criteria: Injectable chemotherapeutics treatments

Quality Issue#: 020001

Issue: Cancer

Indicator Type: CM /DM

This is a trigger indicator. Individuals receiving injectable chemotherapy are at high risk for significant health events in the future.

Criteria: < \$1,000 DME claims in data cycle

Quality Issue#: 021001

Issue: DME Utilization

Indicator Type: Utilization Type

This is a trigger indicator. Examination of records of these patients may reveal conditions that are over diagnosed and should be reviewed. For example, sleep disorders.

Criteria: <Two ER visits per year

Quality Issue#: 023001

Issue: Migraine Headaches

Indicator Type: Incidence & Prevalence

This is a trigger indicator. Individuals receiving appropriate and effective therapy for migraines should not be seen in the ER for that diagnosis.

Criteria: Claims reported within data cycle vs. whole cycle

Quality Issue#: 024001

Issue: Current Members

Indicator Type: Utilization Metrics

This is an Administrative metric.

Addendum II Glossary of Terms

<i>ACE Inhibitor</i>	Any of a class of drugs that cause vasodilatation (the expanding of a blood vessel) and are used to treat hypertension and heart failure.
<i>Ambulatory</i>	Services performed in an outpatient setting.
<i>Anticoagulant</i>	Chemical that prevents the clotting of blood.
<i>Atrial Fibrillation</i>	Muscular twitching involving individual muscle fibers of the atria acting without coordination; carries with it a significant risk for stroke.
<i>ASW</i>	Age Sex Weight. This is a factor used to adjust population results based upon age and sex. D2Hawkeye uses your data to create a population specific ASW factor for comparative purposes.
<i>Barrett's Esophagus</i>	Pre-cancerous condition arising in members with chronic reflux of stomach contents into the esophagus.
<i>Beta Blocker</i>	Any of various drugs used in treating hypertension or arrhythmia; decreases force and rate of heart contractions by blocking certain receptors of the autonomic nervous system.
<i>CABG</i>	Coronary Artery Bypass Graft. Procedure that involves replacing diseased (narrowed) coronary arteries with veins obtained (grafted) from the patients lower extremities. This procedure has proven to extend the lives of individuals with coronary artery disease.
<i>CAD</i>	Coronary Artery Disease. When the coronary arteries become narrowed or completely occluded; ultimately, this is the underlying cause of a heart attack.
<i>Carpal Tunnel Syndrome</i>	A condition characterized by pain and numbing or tingling sensations in the hand and caused by compression of a nerve in the carpal tunnel at the wrist.
<i>CCI</i>	Correct Coding Initiative. The Centers for Medicare and Medicaid Services (CMS) developed the National Correct Coding Initiative to promote national correct coding methodologies and to eliminate improper coding. The CCI edits are based on CPT coding conventions, current standards of medical and surgical coding practice, input from specialty societies, and analysis of current coding practice.
<i>CHF</i>	Congestive Heart Failure.
<i>CMMS</i>	Centers for Medicare and Medicaid Services (Formerly HCFA). The organization is a division within US Health and Human Services and is responsible for administering the Medicare program.
<i>Colonoscopy</i>	Visual examination of the colon with a lighted scope.
<i>Co-morbidity</i>	The presence of coexisting or additional diseases with reference to an initial diagnosis or with reference to the index condition that is the subject of study; having two or more conditions at one time.

<i>COPD</i>	Chronic Obstructive Pulmonary Disease.
<i>CPT-4</i>	Common Procedural Terminology. Standard codes for procedures and services. Licensed from the AMA. Currently in its 4th edition. Nomenclature: five numeric digits (12345).
<i>Cycle Period</i>	Beginning and end date of claims contained in database; based on incurred date of service.
<i>Diagnosis</i>	The act or process of identifying or determining the nature and cause of a disease or injury through evaluation of patient history, examination, and review of laboratory data. The opinion derived from such an evaluation.
<i>Diuretics</i>	Substance that causes less water to be reabsorbed by the kidney; causing water to be excreted from the body.
<i>DME</i>	Durable Medical Equipment. These items assist the recovering patients receive their care at home and the following items are representative of the category: canes, walkers, wheelchairs, and oxygen tanks.
<i>DRG</i>	Diagnosis-Related Group. A system for classifying inpatient care by relating common characteristics such as diagnosis, treatment, and age to an expected consumption of hospital resources and length of stay. Its purpose is to provide a framework for specifying case mix and to reduce hospital costs and reimbursements and it forms the cornerstone of the prospective payment system.
<i>Dx</i>	Diagnosis. Please see Diagnosis.
<i>ERM</i>	Evaluate and Management CPT4 procedure codes.
<i>Esophagitis</i>	Inflammation of the esophagus (long tube that runs from the pharynx to the stomach).
<i>ETG</i>	Episode Treatment Groups. An industry standard for illness classification that captures all clinically relevant services and prescriptions provided during a patient's treatment and organizes the data into 'episodes of care'
<i>Event</i>	Usually events equals claims line. Some clients use business rules to classify all the treatments associated with one hospital admission as a single event.
<i>Events per 1000</i>	The per 1000 represents 1000 members for a complete year. The most typical Event per 1000 is Hospital Days / 1000. Benchmarks are developed to compare one group to another to determine the effectiveness of their plans.
<i>HEDIS</i>	Health Plan Employer Data and Information Set. Standardized performance measurements designed to ensure that purchasers and consumers have information necessary to reliably compare the performance of managed health care plans. Sponsored and maintained by the National Committee for Quality Assurance (NCQA). Currently in its 3rd edition.
<i>HIPAA</i>	Health Insurance Portability and Accountability Act
<i>IBNR</i>	Incurred But Not Reported. This is an accounting term that estimates the dollar amount of medical expenses that have been incurred but not yet paid.

<i>ICD-9</i>	International Classification of Diseases. Standard diagnoses codes used to identify member's medical problem or condition. It is used by most ambulatory care settings and recognized by most insurance carriers. Currently in it's 9th revision.
<i>In-Network</i>	Member that has services provided within a predefined network of providers and vendors, typically at a nominal cost to member. Also referred to as 'PAR'
<i>Inpatient Days</i>	An aggregate of all inpatient day-related procedural codes.
<i>Lipid Profile</i>	Usually includes the total cholesterol, high density lipoprotein cholesterol, triglycerides, and the calculated low density lipoprotein cholesterol.
<i>Member</i>	A member is either a subscriber or a dependent. When all Subscribers and Dependents are combined together, they represent the total membership.
<i>Member Months</i>	Each month that a member has medical coverage is considered a "member month". A member having coverage for a complete year has 12 member months.
<i>Myocardial Infarction</i>	Destruction of heart tissue resulting from obstruction of the blood supply to the heart muscle. Also called a "heart attack".
<i>National Drug Code.</i>	Industry standard for drug classification and serves as a universal product identifier for human drugs. Nomenclature: 10-digit, 3-segment number.
<i>Panel</i>	A group of members that are assigned to a PCP or business unit. (Levels I - IV in D2HawkeyeExplorer are considered panels of members.)
<i>Plan Type</i>	Can be either Commercial or Medicare. Plan Type also refers to the highest level of data aggregation within the D2HawkeyeExplorer hierarchy.
<i>PMPM</i>	Per Member per Month. Medical costs are typically expressed in PMPM. The calculation is a function of total spend (for selected category) over total applicable member months. Please see Member Months.
<i>Place of Service</i>	This type of plan allows members to "opt-out" of getting a referral from their PCP prior to treatment. However, the member usually will have a higher co-payment or coinsurance.
<i>PPO</i>	Preferred Provider Organization. This type of plan allows members to see any physician or allied health care provider in the network without a referral. Typically PPOs have a coinsurance and co-payment.
<i>Prescribing Physician</i>	The physician who writes the prescription for the drug for the patient.
<i>Procedure</i>	The member has a treatment performed by an allied health provider. The treatment may be laboratory, radiology, surgery, etc.
<i>Proton Pump Inhibitor</i>	A group of anti-ulcer medications.
<i>Provider</i>	Institution or professional that provides health care services to patients
<i>Revenue Code</i>	Standardized hospital major revenue-producing centers; identifies categories of service like lab, pharmacy and nuclear medicine. Hospitals use codes to group

charges for itemized hospital services. Nomenclature: alphanumeric (R-123).

<i>Rx</i>	This is a standard abbreviation for a Prescription or Pharmacy claim.
<i>Rx Class</i>	Please see Therapeutic Class.
<i>Service Units</i>	These are also referred to as treatment units. Certain ancillary procedures perform multiple treatment units during a visit. Physical Therapy and Respiratory Therapy are examples. The intensity of the service is measured by review of the number of service units per visit on average for the population. D2HawkeyeExplorer defines a Service Unit as a claim.
<i>Specialty</i>	An area of concentration, focus or expertise for the healthcare professional. Examples include Pediatrics, Cardiology, Physical Therapy, Oncology, Internal Medicine, etc.
<i>Spike</i>	Fluctuation in cost or utilization compared to similar entities. The average cost or utilization being defined as 1.0. A spike of 3.0 indicates the cost of utilization is 300 percent or three times the average for the providers in the database.
<i>Statins</i>	Any of a class of lipid-lowering drugs that reduce serum cholesterol.
<i>Subscriber Flag</i>	Identifies member's status within the health plan where "E" is used for the subscriber, "S" for spouse and "D" for dependent.
<i>Therapeutic Class</i>	Classification of drugs relating to the treatment of like diseases or disorders. EG: Therapeutic class = Antihistamines. Drugs within this class include (brand name) = Allegra, Claritin, Flonase, etc.
<i>TNF</i>	Tumor Necrosis Factor.
<i>TOS</i>	Type of Service. Please see Service.
<i>Total Cost for Cohort</i>	The cost incurred for the Age/Sex band on the Member Demographics for the whole
<i>About</i>	This form describes the analysis of medical \$