

Report to the Greater Milwaukee Business Foundation on Health

Key Factors Influencing 2003 – 2014
Southeast Wisconsin Commercial Payer
Hospital Payment Levels

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Study Background and Objectives

Background

- An initial study based on 2003 data for Milwaukee, Ozaukee, Washington, and Waukesha counties identified interplay of the following factors as contributing to the Milwaukee area's high health care costs:
 - Health system commercial market concentration
 - Hospital operating cost levels
 - Distribution of cost shift burden among health systems
 - Lack of fixed payment methods for hospitals
 - Commercial payer market concentration
- Previous studies measured changes in average hospital commercial payment levels and three of the five factors for an expanded seven county area from 2003 through 2012
 - Data to measure fixed payment methods and commercial payer market concentration was not available for any of the studies

2014 Study Objectives

- This study provides updated measures through 2014 for each measure in the previous studies
 - Average hospital commercial payment levels
 - Hospital operating cost levels
 - Distribution of cost shift burden among health systems
 - Health system commercial market concentration
- Evaluate change in each measure from 2003 through 2014
 - Emphasis is on results for 2012, 2013 and 2014

Study Parameters

Data Sources

- Wisconsin Hospital Association (WHA) Information Center
 - FY 2003 - 2014
 - Wisconsin Hospital Fiscal Survey
 - Wisconsin Hospital Inpatient Discharge Data

- United States Bureau of Labor Statistics
 - Hospital Component of Consumer Price Index (Hospital CPI)
 - Hospital Producer Price Index (Hospital PPI)

- Centers for Medicare and Medical Services
 - Hospital Market Basket (CMS Market Basket)
 - CMS-DRG weights
 - Medicare 5% sample data set

Included Hospitals and Health Systems

- Limited to health systems with substantial adult, acute care inpatient hospital operations in the following counties:
 - Milwaukee
 - Kenosha
 - Racine
 - Ozaukee
 - Washington
 - Walworth
 - Waukesha
- Includes specialty hospitals (Orthopedic Hospital of Wisconsin (CSM), Wisconsin Heart Hospital, and Midwest Orthopedic Specialty Hospital (Wheaton))
- Excludes Psychiatric, Rehabilitation, LTAC hospitals and Children's Hospital of Wisconsin

Included Hospitals and Health Systems

(continued)

- Hospital information from the following health systems was used as the basis for the comparisons:
 - Aurora Health Care (Aurora)
 - Columbia St. Mary's (CSM)
 - Froedtert Health (FH)
 - ProHealth Care (ProHealth)
 - United Hospital System (United)
 - Wheaton Franciscan Healthcare (Wheaton)

- Mercy Health Services (Lake Geneva and Janesville) and Columbia Center (Mequon) included for health system market concentration comparisons **ONLY**

2014 Study Interpretation Considerations

- The same hospitals included in the 2012 study are included in the 2014 analyses
- As a result of the FY 2009 merger between SynergyHealth and Froedtert Health, the following three financial measures in the study are reported as combined “FH” results for the full study period from 2003 through 2014
 - Hospital commercial payment levels
 - Hospital operating cost levels
 - Distribution of cost shift burden among health systems
- SynergyHealth and Froedtert Health market concentration is reported on a combined basis for 2009-2014 **ONLY**

2014 Study Interpretation Considerations

(continued)

- Since the release of our previous studies, certain information sources have changed and additional information has become available which may affect our previous analyses. Certain measures presented in our previous reports have been modified to incorporate the additional information or to be consistent with the presentation of our results in this report

Summary of Results

Hospital Commercial Payment Levels

- From 2003 through 2013 Southeast Wisconsin hospital commercial payment levels increased at rates significantly below the Hospital CPI
 - The total change in average SE Wisconsin payment levels during this period is slightly less than half of the Hospital CPI
- In 2014, the increase in average SE Wisconsin commercial hospital payment levels (6.5%) exceeded the national average increase (5.0%)
 - First annual increase above the national average since 2005

Hospital Operating Costs

- Average Southeast Wisconsin hospital operating costs have also increased at a substantially slower rate than national indices during the same period, particularly in recent years
- Annual increases in SE Wisconsin per-unit hospital operating costs averaged roughly 1.5% from 2003 through 2014
 - SE Wisconsin increases were less than one-half the national benchmark
- Average SE Wisconsin hospital per-unit operating costs **decreased** by 0.8% from 2013 to 2014
- Average 2014 SE Wisconsin hospital per-unit operating costs are almost equivalent to 2008 average levels

Cost Shift Burdens

- Approximately 36% of 2014 commercial hospital payments were used to offset government payment shortfalls, charity care costs and bad debts
 - Approximately 32% of commercial payments were used for this purpose in 2003
- Cost shift burdens increased significantly in 2014
 - 2014 increase accounts for roughly one-half of the increase in commercial payment percentage used for offsets since 2003
 - Governmental burdens increased 18% in 2014, in part as a result of changes in Medicare reimbursement linked to the Affordable Care Act
- Aggregate SE Wisconsin hospital cost shift burdens related to governmental payment sources exceeded \$1 billion in 2014

Commercial Market Concentration

- Average SE Wisconsin “Predominant Health System” inpatient market shares remain at the lowest levels during the study period
 - Essentially unchanged since 2012
- Significant local area changes have occurred since 2003
 - Almost 60% of SE Wisconsin zip codes experienced “significant” (>10%) changes in Predominant Health System market shares
 - Slightly more than 40% of SE Wisconsin zip codes have experienced significant declines in Predominant Health System market shares
 - Significant declines occurred in at least one zip code in 6 of 7 included counties
 - About 17% of SE Wisconsin zip codes have experienced significant increases in Predominant Health System market shares
 - Significant increases were primarily limited to zip codes in Milwaukee and Washington counties
 - Roughly 40% of SE Wisconsin zip codes experienced a change in their Predominant Health System between 2003 and 2014

Hospital Commercial Payment Comparisons

SE Wisconsin Health System Hospital Commercial Payment Level Comparisons

- Includes information regarding the relative changes in SE Wisconsin hospital commercial payment levels compared to:
 - National indices
 - SE Wisconsin health system averages
 - Average changes in hospital commercial payment level for other SE Wisconsin health systems
- Comparisons of relative SE Wisconsin health system commercial payment levels are also provided

Hospital Commercial Payment Level Comparisons – *Methods*

- Comparisons based on total net commercial revenues (billed amounts after contractual discounts) as reported in the Wisconsin State Hospital Fiscal Survey, including:
 - Average commercial inpatient payments per case mix adjusted discharge,
 - Average commercial hospital outpatient payment levels as a percentage of Medicare payment levels, and
 - Average composite (blended inpatient and outpatient) commercial payment levels relative to the market average

Hospital Commercial Payment Level Comparisons – *Methods* (continued)

- Average SE Wisconsin hospital commercial payments were converted to per-unit payment levels using “Adjusted Equivalent Discharges” (AED) to adjust for differences in:
 - Inpatient case mix and severity
 - Relative blend of inpatient / outpatient business
 - Outpatient service mix
- Changes in SE Wisconsin average payment levels were compared to changes in the Hospital Component of National Consumer Price Index (Hospital CPI)
 - Hospital CPI represents the annual change in hospital payments from commercial payers

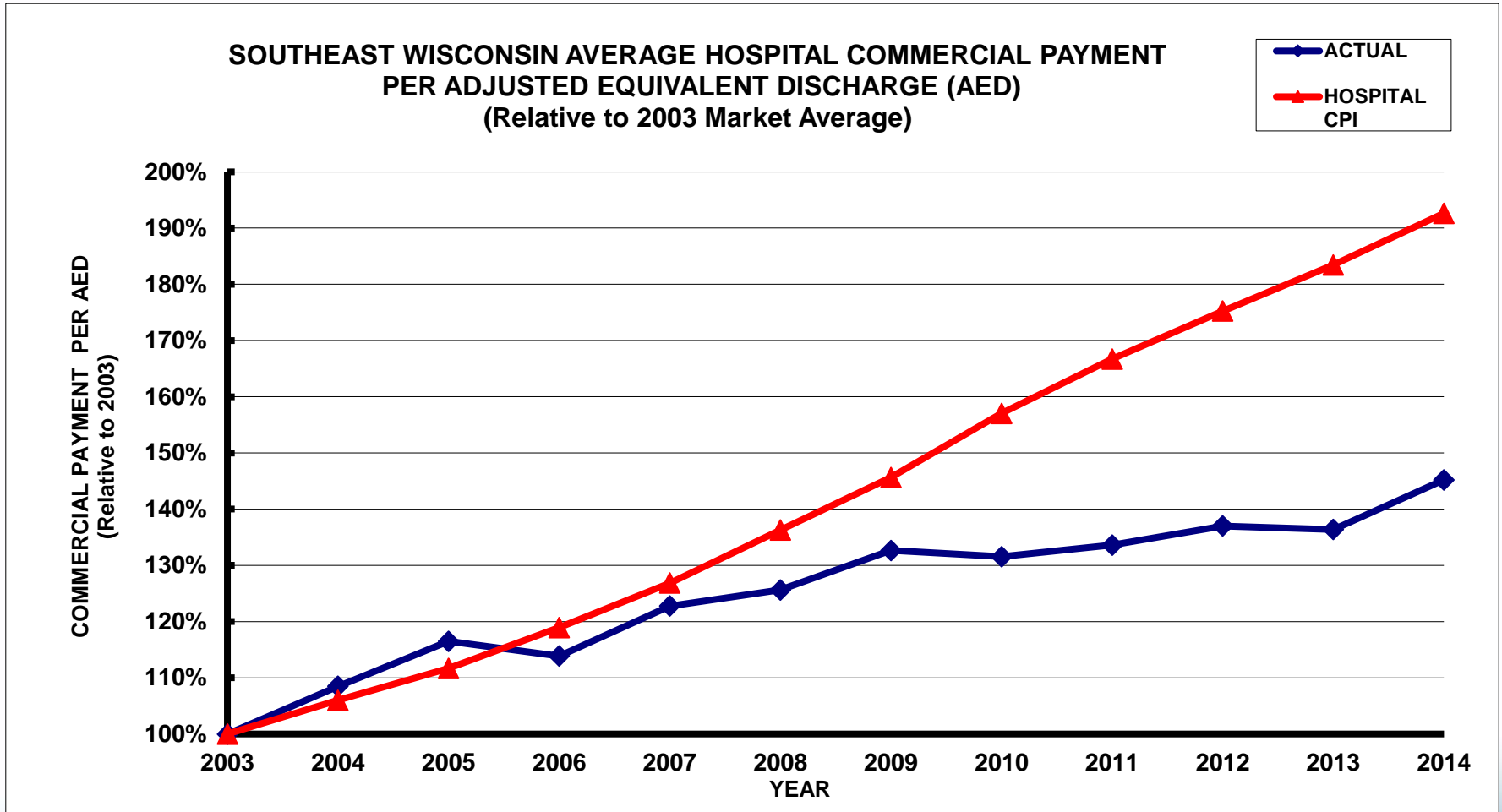
Potential Causes of Changes in Average Hospital Commercial Payment Levels

- Changes in contracted payment rates
- Changes in payment rate structures (discounted charges, fee schedules, population based payments, incentive programs, etc.)
- Service mix changes if average payment rates differ among services
- Shifts of commercial patients between hospitals with different average payment levels (between or within health systems)

Hospital Commercial Payment Level Change Comparisons – *Aggregate Results*

- Southeast Wisconsin hospital commercial payment levels increased 45% from 2003 through 2014
 - Increase was less than 50% of the rate of increase in the Hospital CPI (93%)
 - Average annual increase for SE Wisconsin Hospitals over this time period was approximately 3.4% vs. Hospital CPI of approximately 6.1%
- From 2011 through 2014, total SE Wisconsin hospital commercial payment level increases (8.7%) were also lower than Hospital CPI increases (15.6%)
- Average SE Wisconsin hospital increase in 2014 (6.5%) was higher than Hospital CPI (5%) for the first time since 2005

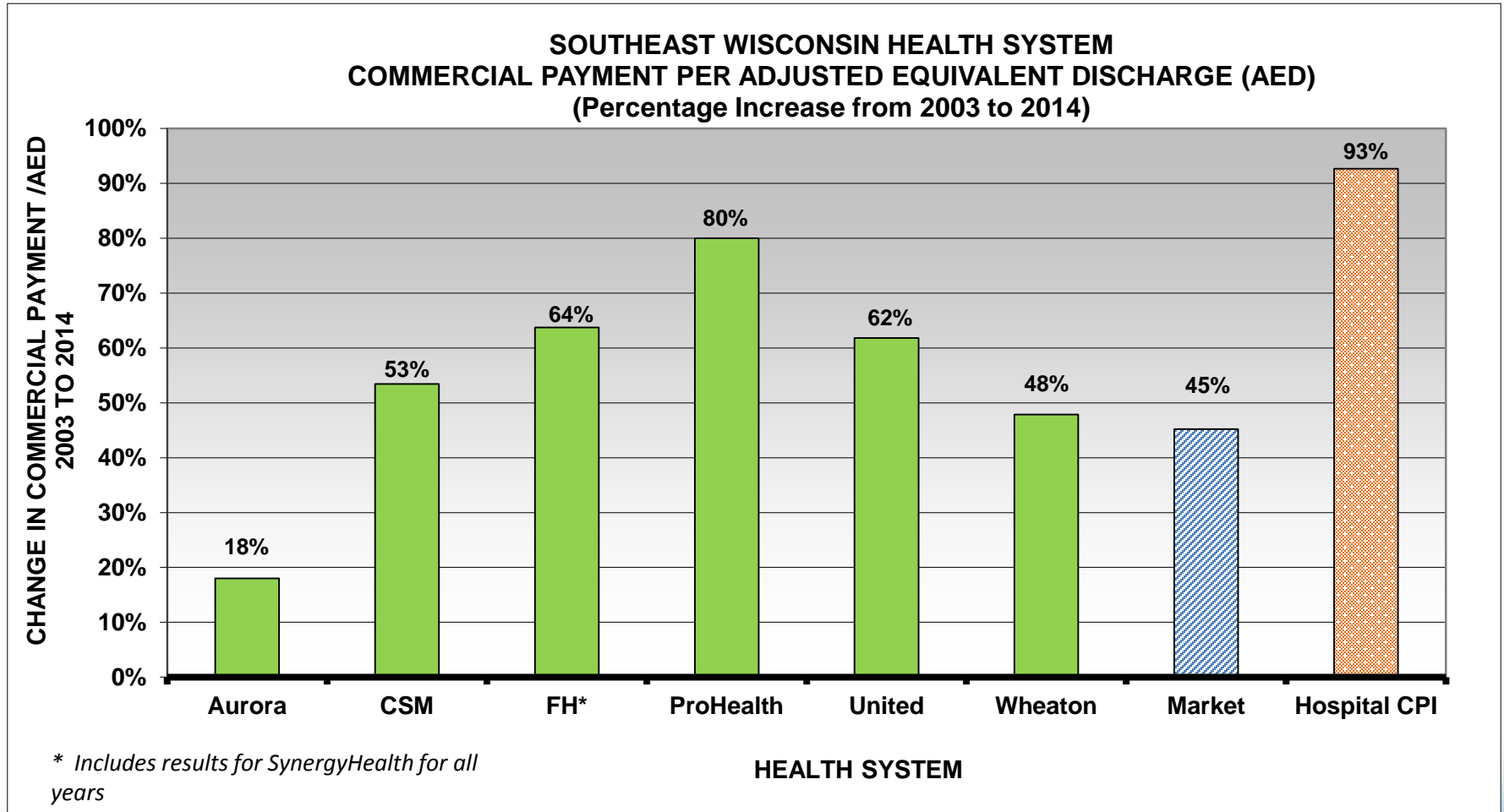
Average Southeast WI Hospital Commercial Payments vs National Hospital CPI



SE Wisconsin Health System Hospital Commercial Payment Changes Since 2003

- Each SE Wisconsin health system's aggregate commercial hospital payment level increase from 2003 - 2014 was below the Hospital CPI increase of 93% during this period
- Aurora's average payment rates increased by 18% during this period
- ProHealth's average payment rates increased by about 80% for the period
- All other SE Wisconsin Health Systems had aggregate increases ranging from roughly 48% to 64% from 2003 through 2014

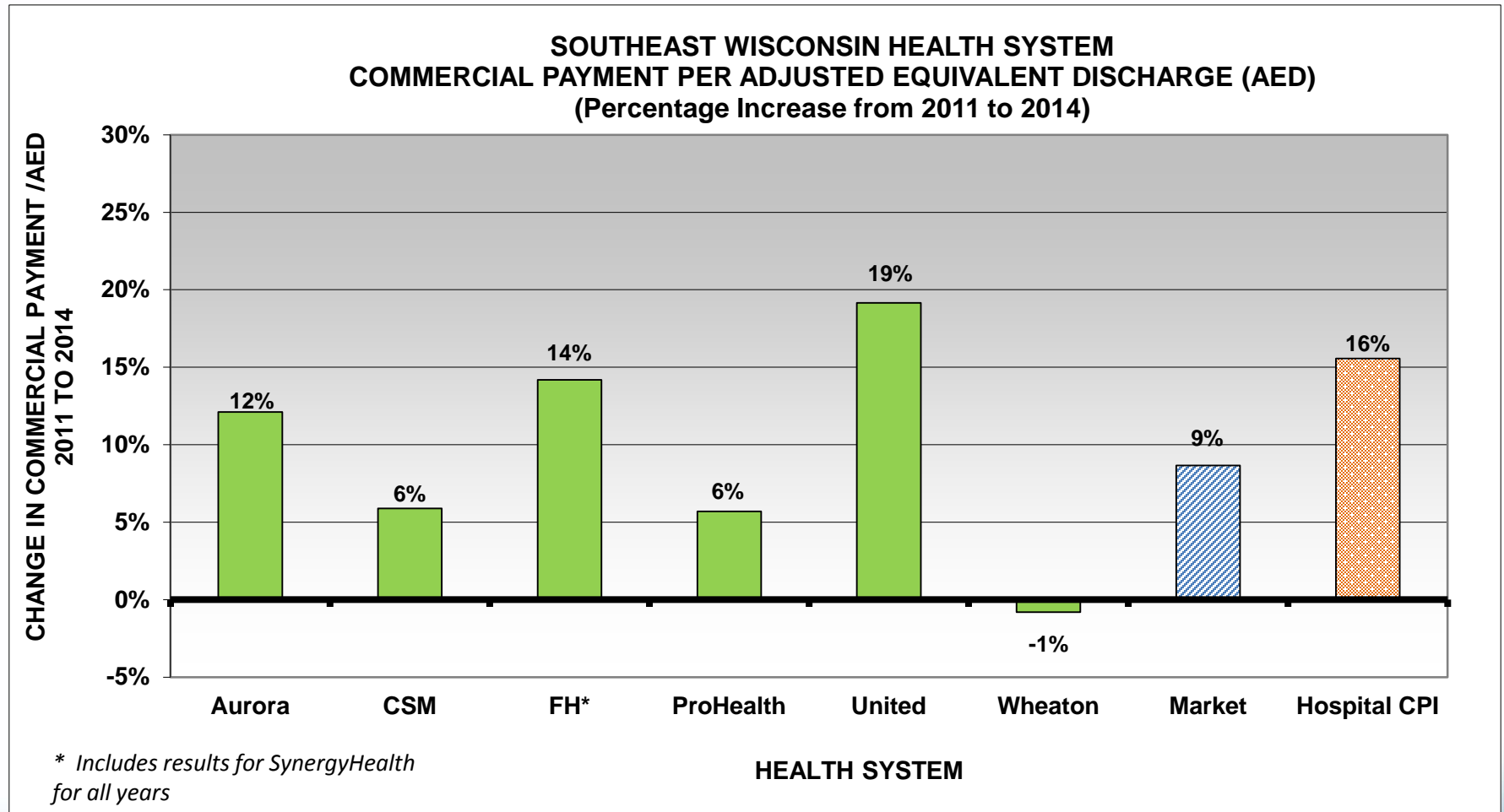
Aggregate SE Wisconsin Hospital Commercial Payment Increases (2003 – 2014)



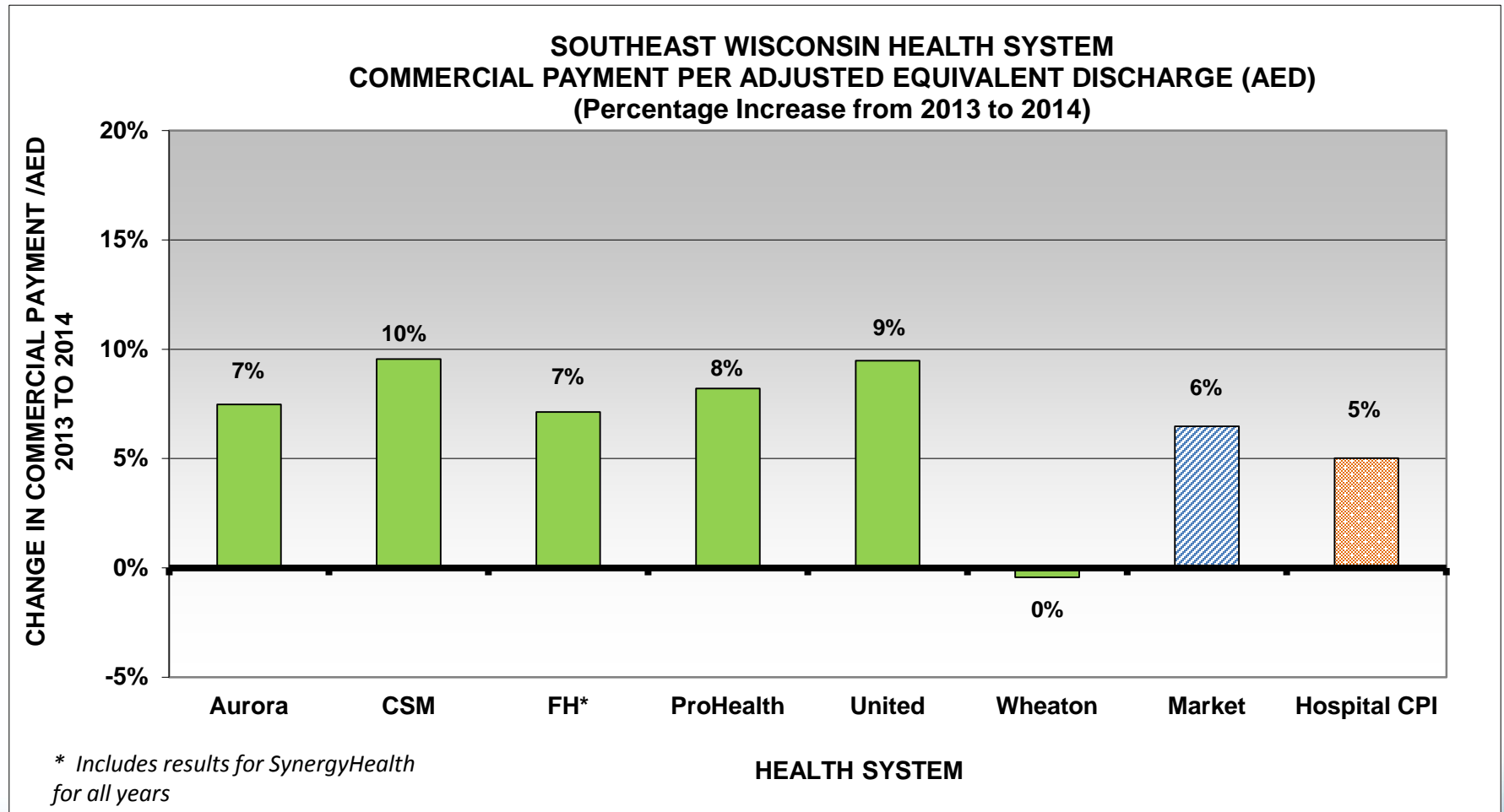
SE Wisconsin Health System Hospital Commercial Payment Changes (2011- 2014)

- Wheaton's average commercial payment levels declined by 1% from 2011 to 2014
 - No change between 2013 and 2014 average payment levels
- United's commercial payment level increase of 19% from 2011 through 2014 was higher than the Hospital CPI increase (16%) for the same period
 - Includes 9% increase from 2013 to 2014
- CSM and ProHealth commercial payment increases from 2011 to 2014 (6%) were less than 40% of the Hospital CPI increase for the same period
 - Aurora (12%) and Froedtert (14%) increases were also less than CPI increase
- In 2014, each health system except Wheaton reported hospital commercial payment level increases of 7% to 10% over 2013 levels
 - Increases were above the Hospital CPI increase of 5% from 2013
 - CSM increase (10%) was highest among SE Wisconsin health systems

SE Wisconsin Health System Hospital Commercial Payment Changes (2011 – 2014)



SE Wisconsin Health System Hospital Commercial Payment Changes (2013 – 2014)



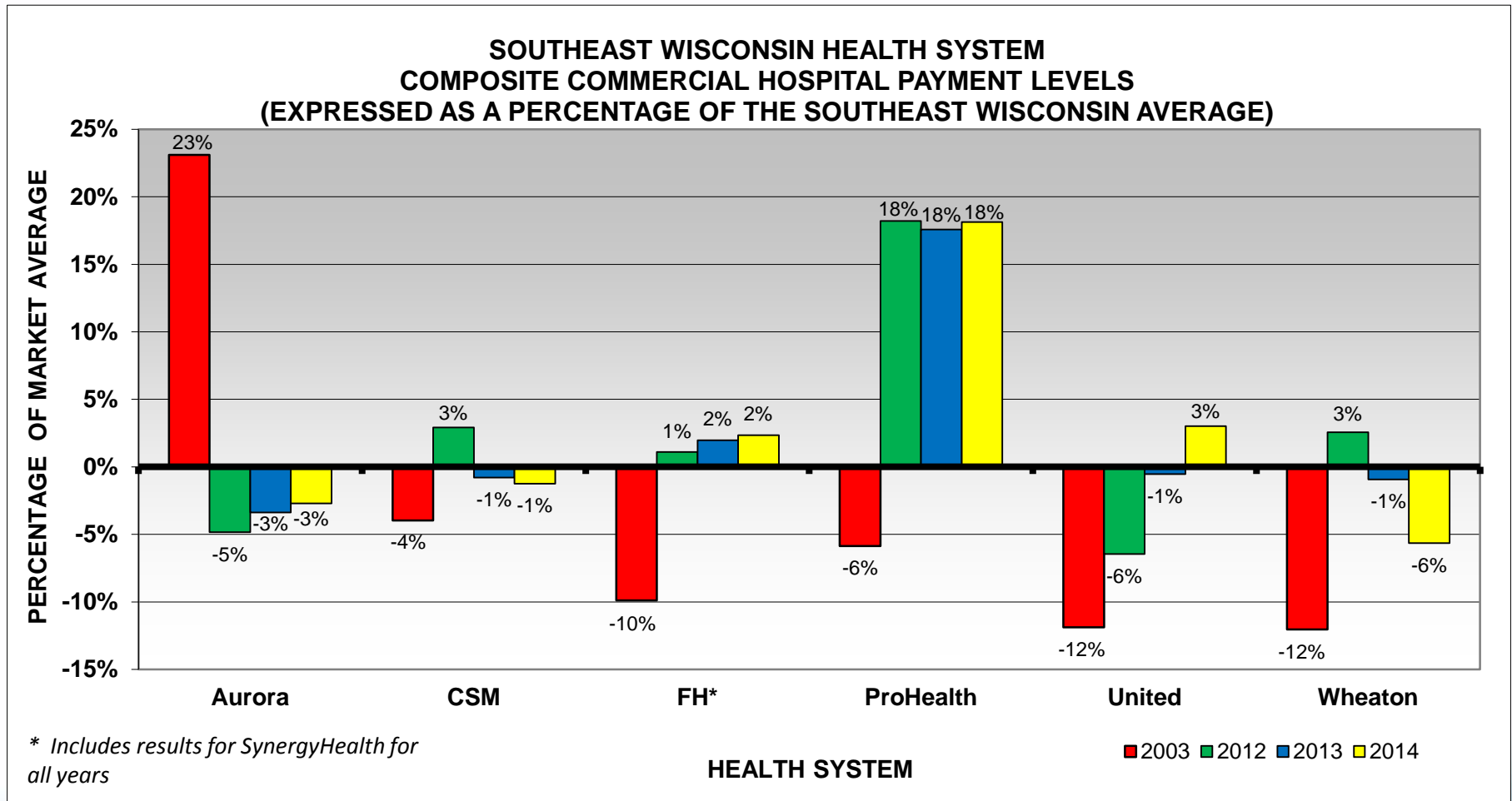
Comparisons of Individual Health System Hospital Commercial Payment Levels

- Comparisons of average hospital payment levels are based on each health system's relative average hospital commercial payment rates used in the previous comparisons
 - Hospital inpatient comparisons were based on each hospital's average case-mix adjusted payments per admission
 - Outpatient hospital commercial payment levels were estimated as a percentage of each hospital's average Medicare outpatient payment levels
- Composite commercial payment levels were developed by applying the market average blend of inpatient (36%) and outpatient (64%) services to each health system's relative inpatient and outpatient payment levels
 - Blend was 44% inpatient / 56% outpatient in 2003

Hospital Commercial Payment Level Comparisons – *Health System Results*

- Since 2003, there has been considerable narrowing of the variation in average **composite** hospital commercial payment levels among SE Wisconsin Health Systems
- In 2003 only two health systems (CSM and ProHealth) were within 6% of the market average
 - Aurora was 23% above the market average
 - Froedtert, United and Wheaton each were at least 10% below market
- In 2014, five of six health systems were within 6% of the market average
 - ProHealth's average payment levels were 18% above the market average

Composite Hospital Commercial Payment Levels Relative to the SE Wisconsin Average



2014 Hospital Inpatient and Outpatient Commercial Payment Level Comparisons

- Substantial variation existed among individual health systems' average 2014 hospital inpatient and outpatient payment levels
 - Average 2014 ***inpatient*** payment levels ranged from 11% above to 16% below SE Wisconsin averages
 - Average 2014 ***outpatient*** payment levels ranged from 24% above to 5% below SE Wisconsin averages
- Ranges of 2014 health system inpatient and outpatient results are less than corresponding 2003 ranges

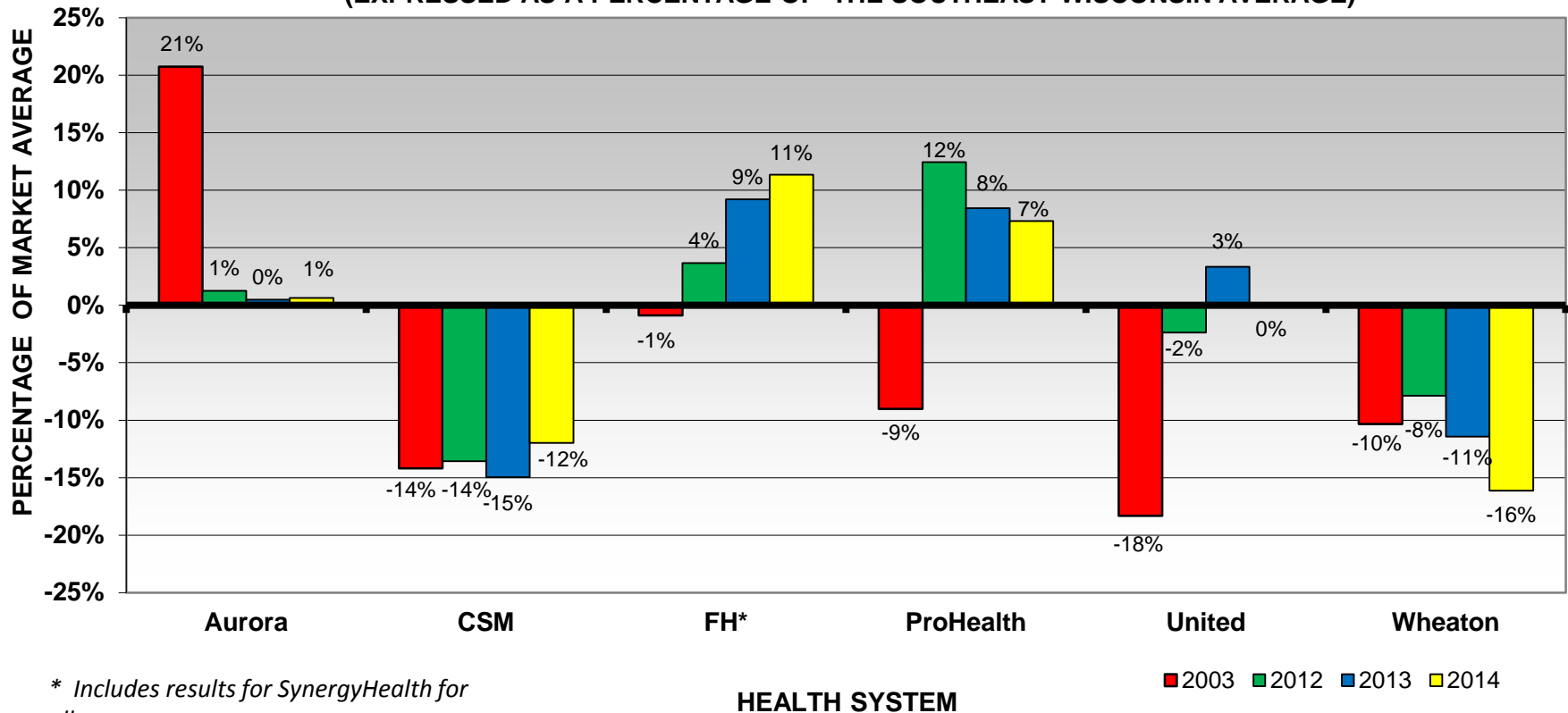
2014 SE Wisconsin Health System Hospital Commercial Payment Level Summary

Relative 2014 Hospital Average Commercial Payment Levels
Southeast Wisconsin Health Systems
(Percent above / (below) SE Wisconsin Health System Average)

Health System	Inpatient	Outpatient	Composite
Aurora	1%	(5%)	(3%)
CSM	(12%)	5%	(1%)
Froedtert	11%	(3%)	2%
ProHealth	7%	24%	18%
United	0%	5%	3%
Wheaton	(16%)	0%	(6%)

Average Inpatient Payment Levels Relative to SE Wisconsin Hospital Average

SOUTHEAST WISCONSIN HEALTH SYSTEM
 COMMERCIAL INPATIENT PAYMENT PER CASE MIX ADJUSTED DISCHARGE
 (EXPRESSED AS A PERCENTAGE OF THE SOUTHEAST WISCONSIN AVERAGE)



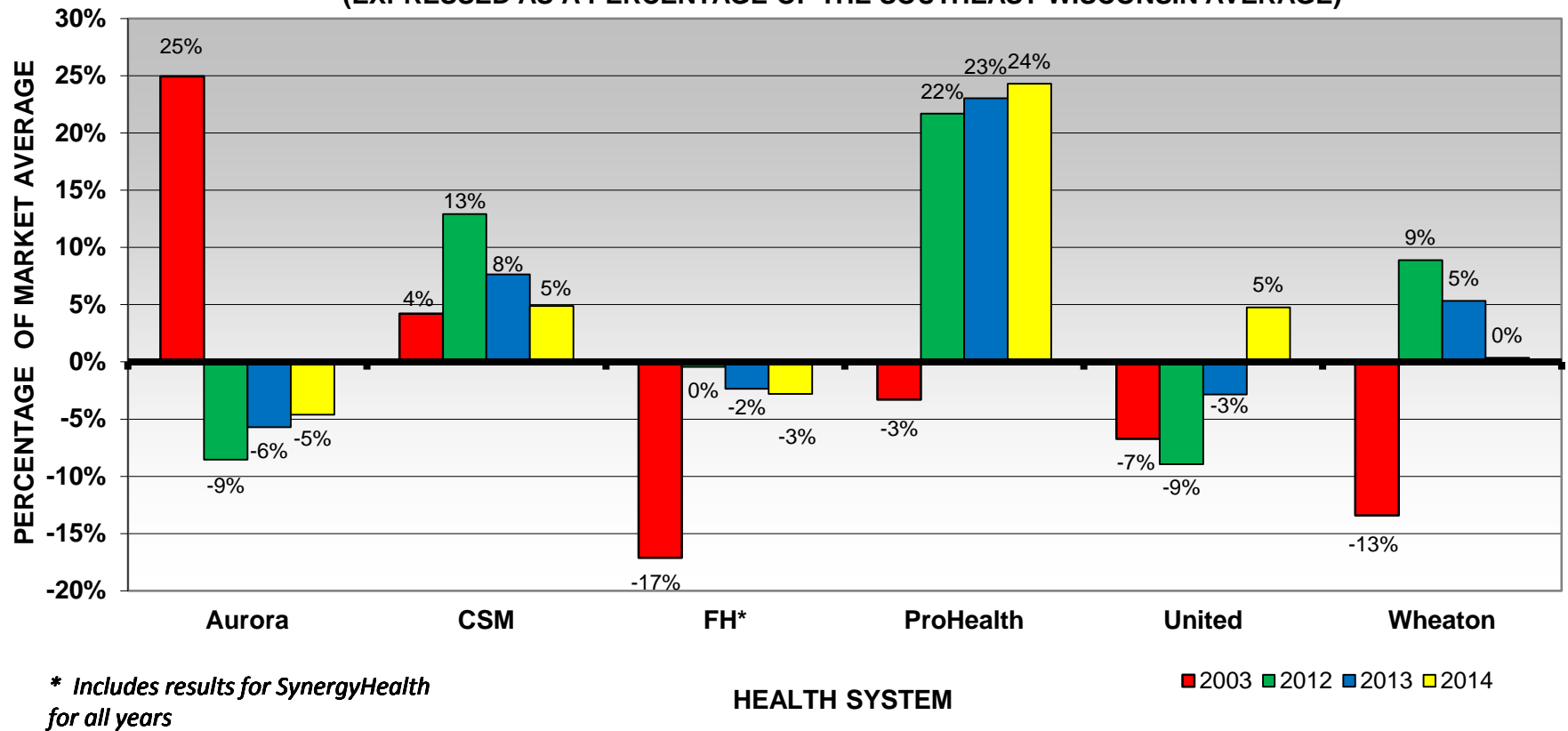
* Includes results for SynergyHealth for all years

HEALTH SYSTEM

2003 2012 2013 2014

Average Outpatient Payment Levels Relative to SE Wisconsin Hospital Average

SOUTHEAST WISCONSIN HEALTH SYSTEM
 AVERAGE COMMERCIAL OUTPATIENT PAYMENT LEVELS
 (EXPRESSED AS A PERCENTAGE OF THE SOUTHEAST WISCONSIN AVERAGE)



Hospital Operating Cost Comparisons

SE Wisconsin Health System Hospital Operating Cost Comparisons

- Our initial 2003 study estimated that 2003 Milwaukee area per-unit hospital operating costs were 14% to 26% higher than the hospital operating costs in some other Midwest cities with lower commercial hospital payment levels
- The comparisons in this report measure the relative change of SE Wisconsin per-unit hospital operating costs against national indices and between SE Wisconsin health systems

Hospital Operating Cost Comparisons – *Data Sources and Methods*

- Total hospital operating costs as reported in the Wisconsin State Hospital Fiscal Survey used as basis of comparisons
- Total hospital operating costs were converted to average per-unit operating costs using “Adjusted Equivalent Discharges” (AED) to adjust for differences in:
 - Relative blend of inpatient and outpatient business
 - Inpatient case mix and severity
 - Outpatient service mix
- Change in Southeast Wisconsin market average hospital operating costs compared to national inflation indices
 - CMS Hospital Market Basket
 - Hospital Producer Price Index (Hospital PPI)

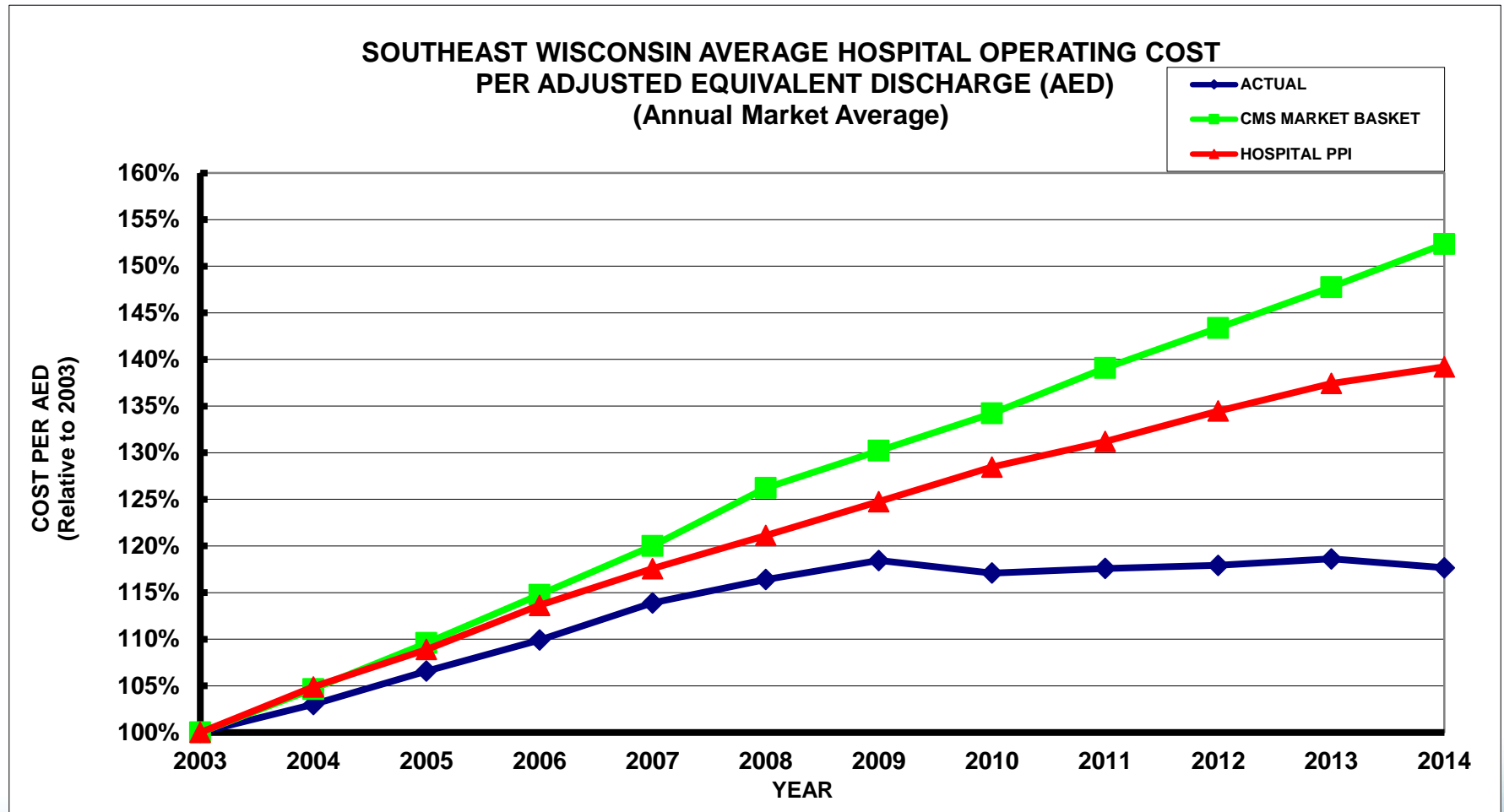
Potential Causes of Changes in Average Per-Unit Hospital Operating Costs

- Changes in the quantity or price of labor, supply, facility or other costs used by each health system to treat its patients
- Changes in inpatient or outpatient volumes may also significantly affect the per-unit allocation of fixed costs
 - Includes changes in case mix or mix of provided services
- Shifts in the relative distribution of business among hospitals with different average operating cost levels (between or within health systems) may also be a cause of changes in average operating cost levels

Hospital Operating Cost Change Comparisons (2003 - 2014) - Results

- Average Southeast Wisconsin hospital operating costs increased 18% from 2003 to 2014 (roughly 1.5% annually)
 - The Hospital PPI increased 39% and CMS Hospital Market Basket increased 52% during the same period
- Much of the difference between Southeast Wisconsin hospital operating cost increases and the PPI or CMS market basket increases has occurred in recent years
 - Southeast Wisconsin hospital per unit operating costs are only 1% higher than in 2008
 - Aggregate average per-unit operating costs decreased 0.8% in 2014

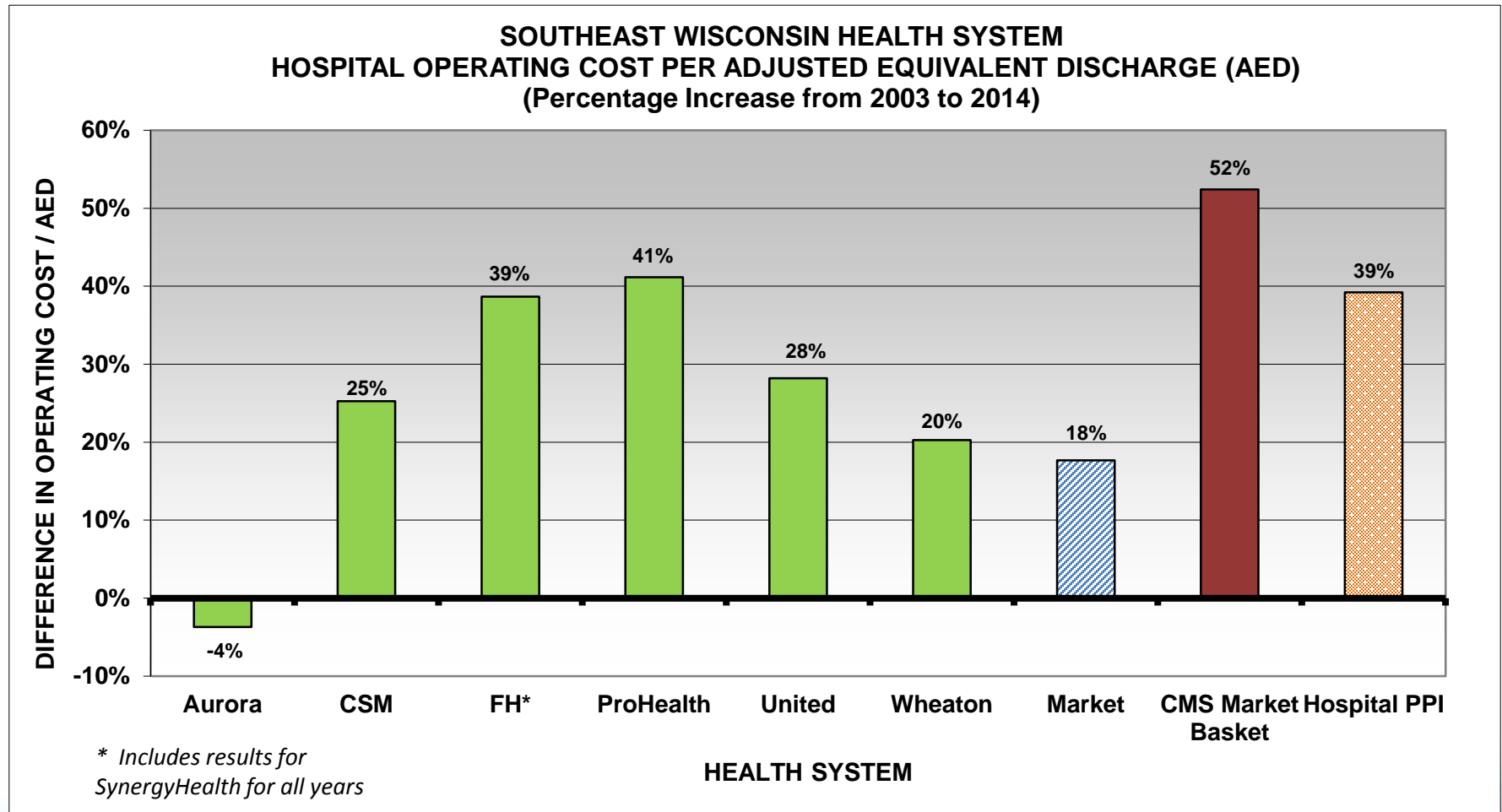
Comparison of Average Southeast Wisconsin Hospital Operating Costs to Inflation Indices



Health System Hospital Operating Cost Changes from 2003 through 2014

- Aurora's 2014 per-unit operating costs were 4% **lower** than its per-unit operating costs in 2003
 - During that period, Aurora moved from the highest cost position to the lowest cost position among SE Wisconsin health systems
- CSM (25%), United (28%), and Wheaton (20%) per-unit operating cost increases from 2003 through 2014 were between 50% and 75% of PPI increase for the period (39%)
- Froedtert (39%) and ProHealth (41%) per-unit operating cost increases from 2003 to 2014 approximated the PPI increase.
 - Both experienced increases less than the corresponding CMS Market Basket increase (52%)

Southeast Wisconsin Health System Hospital Operating Cost Changes (2003 – 2014)



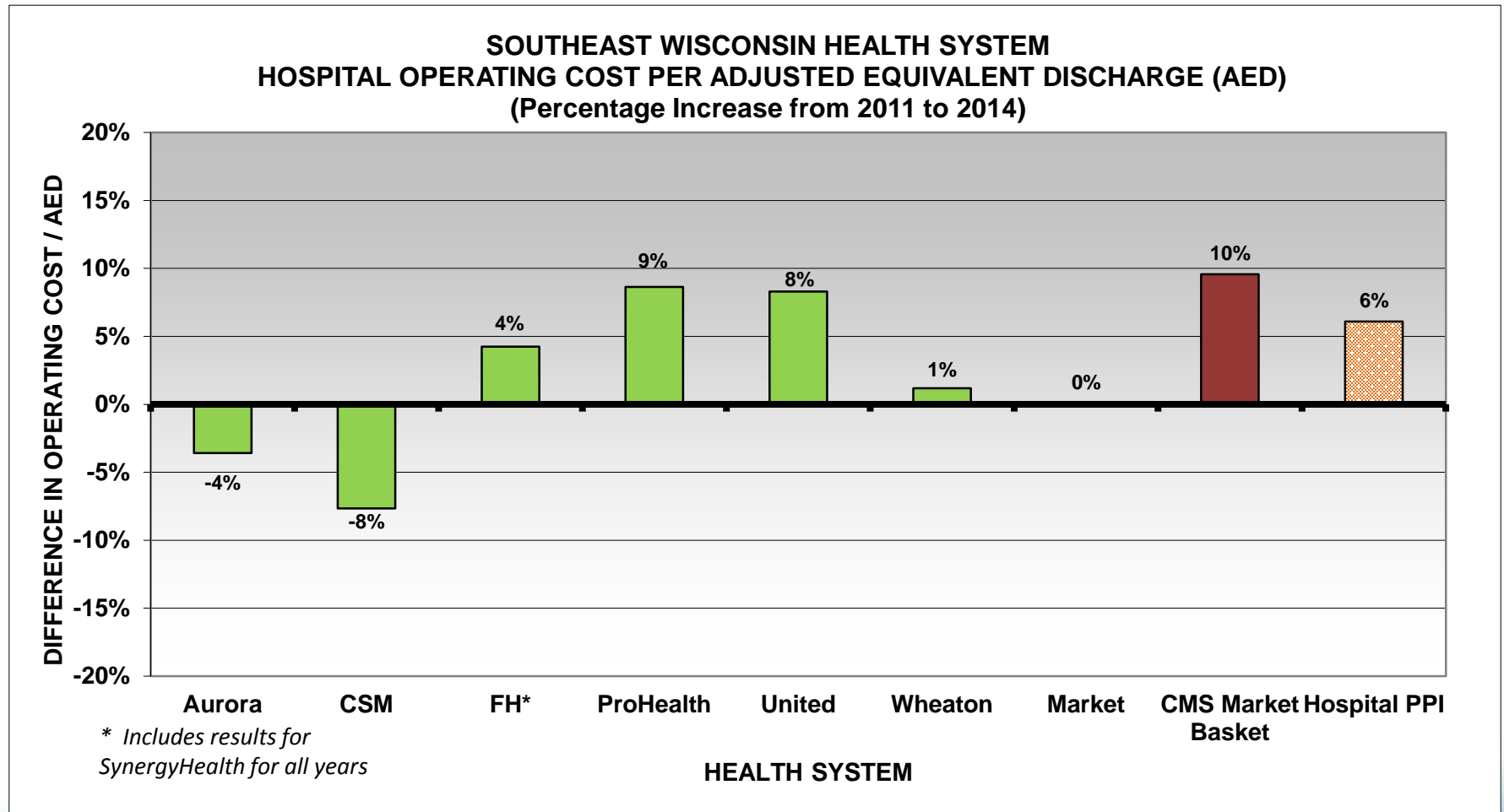
Health System Hospital Operating Cost Changes from 2011 through 2014

- CSM **reduced** its average per-unit operating costs by 8% from 2011 through 2014
 - Operating cost increases from 2013 to 2014 were consistent with benchmark increases
- Aurora also **lowered** its per-unit operating costs by 4% from 2011 through 2014
 - Most of this reduction in per-unit operating costs occurred from 2013 to 2014

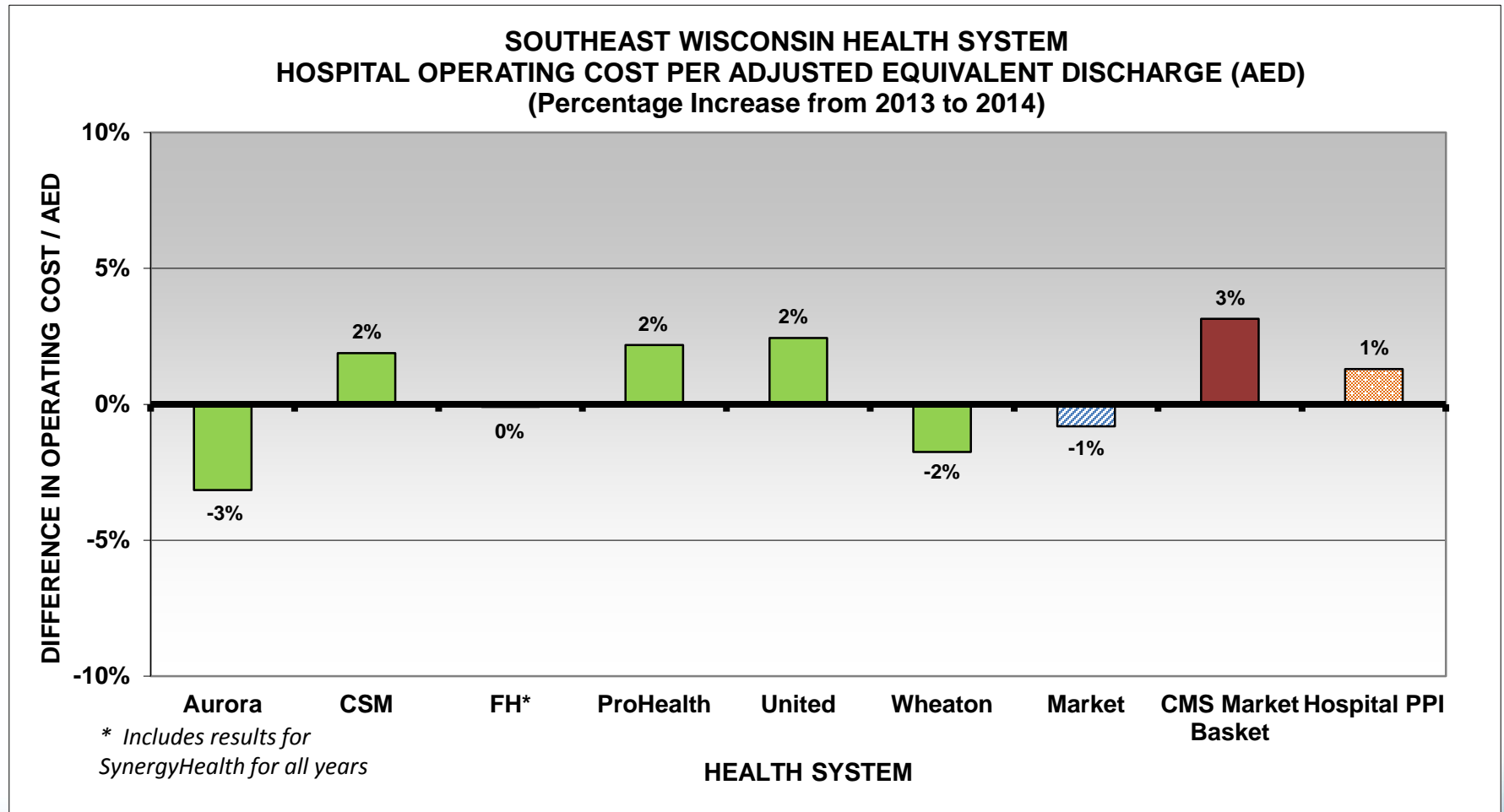
Health System Hospital Operating Cost Changes from 2011 through 2014

- Wheaton (1%) and Froedtert (4%) per-unit operating cost increases for this period were lower than the corresponding PPI (6%) and CMS Market Basket (10%) increases
 - Froedtert's 2014 operating per-unit costs were held to 2013 levels
 - Wheaton's 2014 operating cost increases were consistent with benchmarks
- ProHealth (9%) and United (8%) experienced 2011 - 2014 increases greater than the corresponding PPI increases
 - Increases for both were less than the CMS market basket
 - 2014 per-unit operating cost increases for both health systems were consistent with benchmarks

Southeast Wisconsin Health System Hospital Operating Cost Changes (2011 - 2014)



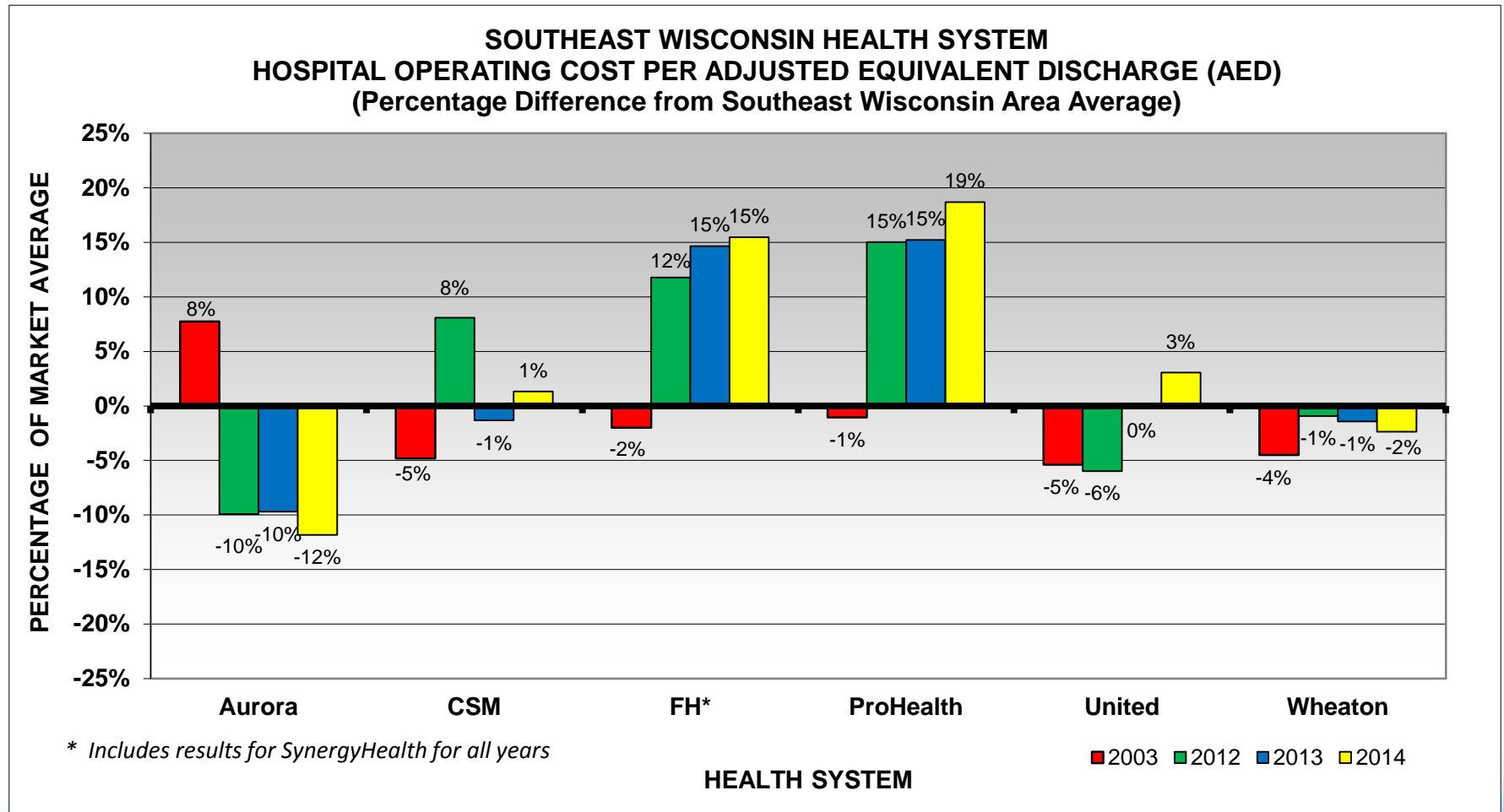
Southeast Wisconsin Health System Hospital Operating Cost Changes (2013 - 2014)



2014 Average Health System Hospital Operating Cost Level Comparisons

- Aurora's 2014 average per-unit operating costs are 12% below SE Wisconsin health system averages
 - Aurora had the highest average operating costs in 2003
- Froedtert and ProHealth average 2014 per-unit operating cost levels are significantly higher than the SE Wisconsin average
 - ProHealth average costs are 19% higher than average
 - Froedtert average cost levels are about 15% above average
 - Each had costs slightly below SE Wisconsin average in 2003
- CSM, United and Wheaton's 2014 average operating cost levels were within 3% of market averages
 - 2003 average operating cost levels for each of these organizations were within 5% of market averages

Southeast Wisconsin Health System Hospital Operating Comparisons



Distribution of Hospital Cost Shift Burden

Hospital Cost Shift Burden Distribution

- Our initial 2003 study identified the proportionately greater hospital cost shift burden borne by the Milwaukee area's larger health systems as a factor that contributed to higher commercial hospital payment levels in the Milwaukee area
- This report measures the change in the aggregate SE Wisconsin health system hospital cost shift burden over time as well as changes in the distribution of the hospital cost shift burdens between health systems

Hospital Cost Shift Burden – *Methods*

- Governmental cost shift burdens were estimated as the difference between Medicare, Medicaid and GAMP payments and a pro-rata share of total hospital operating costs and profit
- Charity Care costs and Bad Debts from all types of patients are also included as non-governmental sources in our analysis
- Health system cost management effectiveness may affect cost shift burden levels
 - All reported operating costs are assumed to be “necessary”
- Aggregate cost shift burden is affected over time by changes in:
 - Government payer payment levels and patient volumes
 - Hospital operating cost and profit levels
 - Health plan benefit designs
 - Local economic conditions

Cost Shift Burden – *Results*

- Roughly 36% of 2014 commercial hospital payments were used to offset government payment shortfalls, charity care costs and bad debts from all sources compared to 32% in 2003
- The growth in cost shift burden (as a percentage of commercial payments) since 2003 is primarily the result of:
 - Increases in bad debt and charity care costs occurring prior to 2012 with modest reductions occurring thereafter
 - Significant increases in governmental cost shift burdens occurring in 2014
 - Medicare burdens increased by 17%, in part as a result of reimbursement reductions linked to passage of the Affordable Care Act
 - Medicaid burdens increased by more than 20%
 - Combined Medicare and Medicaid SE Wisconsin hospital cost shift burdens exceeded \$1 billion in 2014

Southeast Wisconsin Aggregate Hospital Cost Shift Burden

TOTAL SOUTHEAST WISCONSIN AREA HOSPITAL COST SHIFT BURDEN (IN MILLIONS OF DOLLARS)				
	2003	2012	2013	2014
MEDICARE	429	598	638	747
MEDICAID	165	201	216	260
GAMP	20	0	0	0
TOTAL GOVERNMENT COST SHIFT BURDEN	614	800	854	1,007
CHARITY CARE COST	36	94	98	108
BAD DEBT	133	306	286	248
TOTAL NON-GOVERNMENT COST SHIFT BURDEN	169	400	383	356
AGGREGATE COST SHIFT BURDEN	782	1,199	1,238	1,363
% of Commercial Payments (Total Government)	25.2%	22.9%	23.5%	26.6%
% of Commercial Payments (Total Non-Government)	6.9%	11.5%	10.6%	9.4%
% of Commercial Payments (Aggregate)	32.1%	34.4%	34.1%	36.0%

Attachment 1 includes similar information for each Southeast Wisconsin Health System

Factors Affecting Relative Health System Hospital Cost Shift Burdens

- Relative mix of Commercial, Medicare, Medicaid and Charity Care “business” relative to the Southeast Wisconsin average percentage
 - Higher levels of commercial business provide larger “base” for spreading cost shift burden amounts from other sources
- Differences in hospital Medicare and Medicaid payment levels including medical education or other enhanced payments
- Hospital operating cost levels relative to the Southeast Wisconsin average
- Differences in Charity Care policies and effectiveness of collection practices impacting Bad Debts

Relative Southeast Wisconsin Hospital Cost Shift Burden Comparison - *Methods*

- Comparisons of the estimated relative impact of cost shift burdens on each health system's commercial payments
- Calculations based on each health system's total cost shift burden as a percentage of its commercial payment levels
 - Represents each health system's share of commercial hospital payments used to offset cost shift burdens
- Comparisons based on difference between individual health system cost shift burden percentage and market average (36%)
 - Reported percentages are estimated impacts of higher (or lower) cost shift burdens on each health system's commercial payment levels

2014 Southeast Wisconsin Hospital Relative Cost Shift Burden - *Results*

- Aurora and United had substantially higher average cost shift burden impacts than other SE Wisconsin health systems in 2014
 - Each had higher-than-average aggregate cost shift burdens despite relative operating cost levels near or below market averages
 - Aurora's relative cost shift burdens have decreased since 2003, in part because of its lower relative operating costs
 - United's higher relative operating cost increases in recent years have also likely contributed to its relative cost shift burden increase since 2003
- On a combined basis, Aurora and United account for slightly less than one-half of the total SE Wisconsin hospital cost shift burden

2014 Southeast Wisconsin Hospital Relative Cost Shift Burden – *Results* (continued)

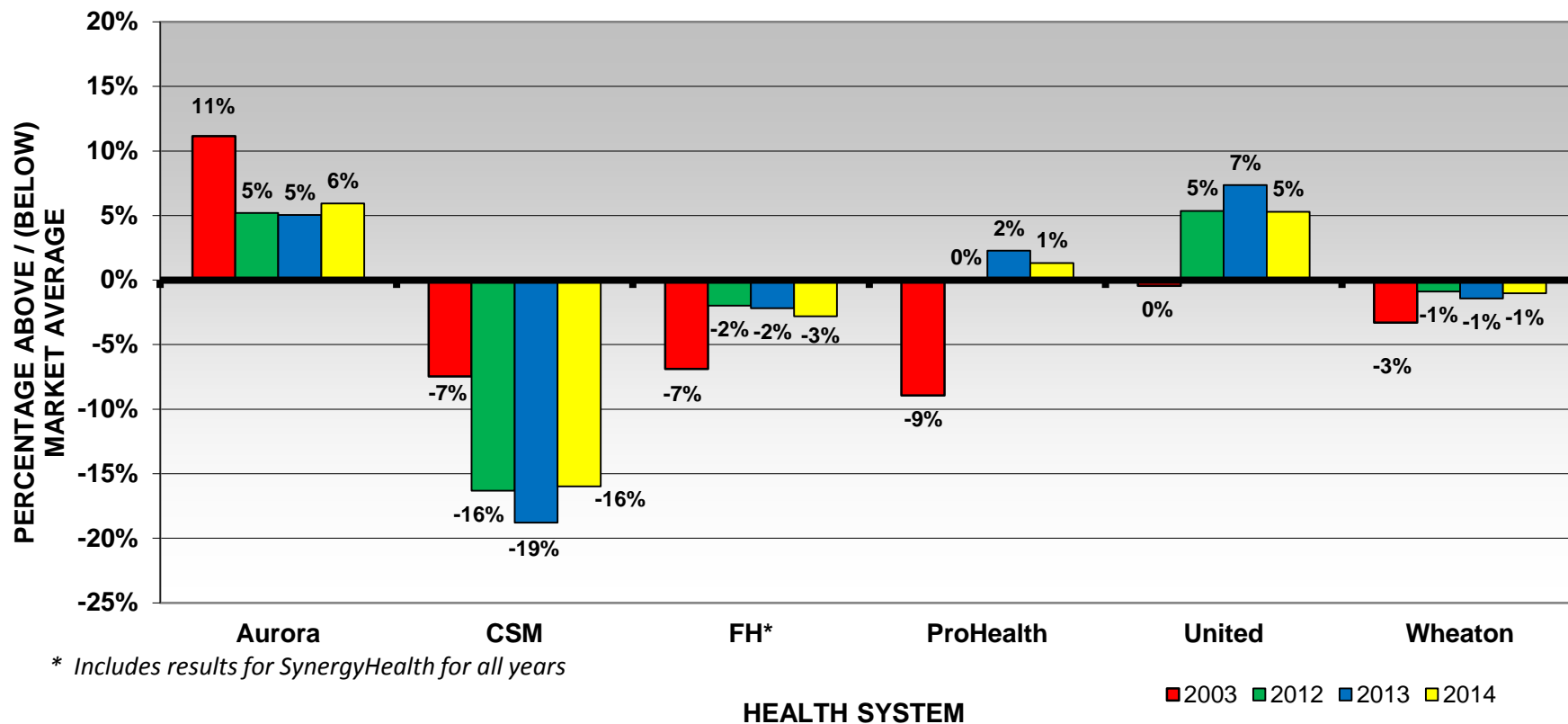
- ProHealth's 2014 cost shift burdens were also slightly above the market average, representing a marked change since 2003
 - ProHealth had the lowest relative hospital cost shift burden impact in 2003
 - ProHealth's higher average operating cost position in 2014 and higher relative operating cost increases since 2003 likely contribute to the change in cost shift burden
- CSM's 2014 cost shift burdens continue to be significantly below market average
 - CSM's relative position reflects significantly lower levels of cost shift burdens from governmental sources than experienced by the other SE Wisconsin health systems

2014 Southeast Wisconsin Hospital Relative Cost Shift Burden – *Results* (continued)

- Froedtert and Wheaton have 2014 relative cost shift burdens which are slightly below market averages
- Froedtert experienced lower relative cost shift burdens from both governmental and non-governmental sources
 - Larger proportion of commercial business provides larger “base” to absorb impacts
 - Relatively higher operating cost increases have contributed to growth of Froedtert’s share of total market cost shift burden from about 13% in 2003 to about 23% in 2014
- Wheaton’s relative cost shift burden impact on its commercial payment rates has remained consistent since 2003
 - Impact is slightly below market averages

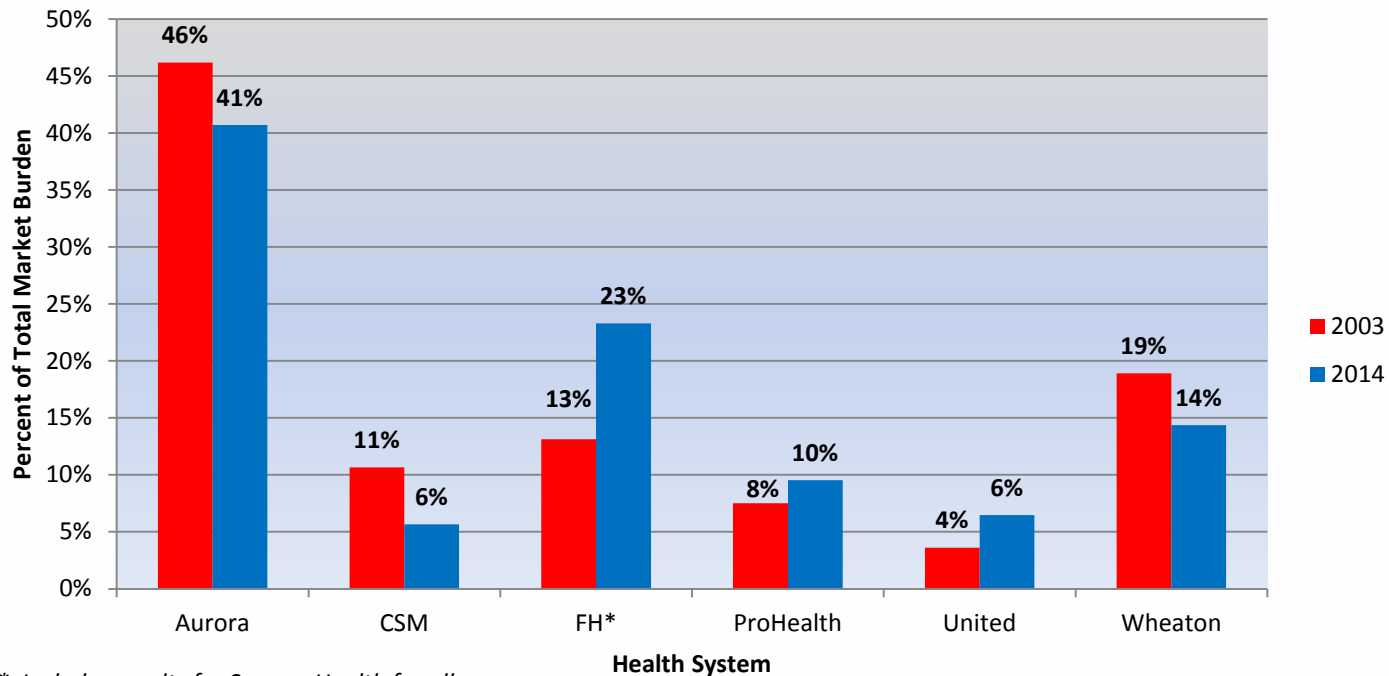
Distribution of Relative Hospital Cost Shift Burden Among Health Systems

Southeast Wisconsin Health System Cost Shift Burden
(Above/Below Market Average as a Percentage of Commercial Allowed)



Southeast Wisconsin Commercial Cost Shift Burden Distribution

Southeast Wisconsin Health System Cost Shift Burden (Percent of Total Market Burden)



* Includes results for SynergyHealth for all years

Commercial Market Concentration

Commercial Market Concentration

- Our initial 2003 study identified the high geographic concentration of hospitals within individual Milwaukee area health systems as a factor contributing to Milwaukee's higher commercial hospital payment levels
 - Purchasers had relatively limited health system options in many areas
- This portion of our report attempts to measure changes in the availability of health system alternatives within SE Wisconsin by comparing changes in the market shares of “predominant” health systems in each area
 - “Predominant Health System” defined as health system with largest inpatient market share
 - Measured separately for each 5 digit zip code

Commercial Market Concentration - *Background*

- Each health system's average commercial market shares appear to be the result of relatively higher market shares in a small number of zip codes
 - The total commercial market shares of each health system across the region are considerably less than their market shares in zip codes where they are the Predominant Health System
- Preference for Closest Hospitals
 - Health system commercial market shares appeared to be highly related to hospital proximity throughout the study period (2003 through 2014)
 - Predominant Health System commercial market shares tended to be higher when competitors were located farther away
- There was a 35% decline in total commercial discharges from 2003 through 2014 due to utilization and commercial enrollment changes
 - City of Milwaukee affected significantly, impact varies elsewhere

Commercial Market Concentration – *Data*

- Measures used WHA hospital inpatient discharge data
- Included only commercial discharges of residents from the seven county area to “Included Hospitals,” Mercy Health Services (Lake Geneva or Janesville hospitals), and Columbia Center (Mequon)
 - Excluded Medicare, Medicaid, GAMP, Charity, Self Pay, and other non-commercial discharges
 - Excluded seven county area residents discharged from hospitals in other markets (Madison, Green Bay, Fond du Lac, Chicago, etc.)
- Effective with their merger in 2009, market shares for Synergy Health and Froedtert Health were calculated on a combined basis (presented as Froedtert Health)
 - Calculated separately prior to 2009

Commercial Market Concentration – *Methods*

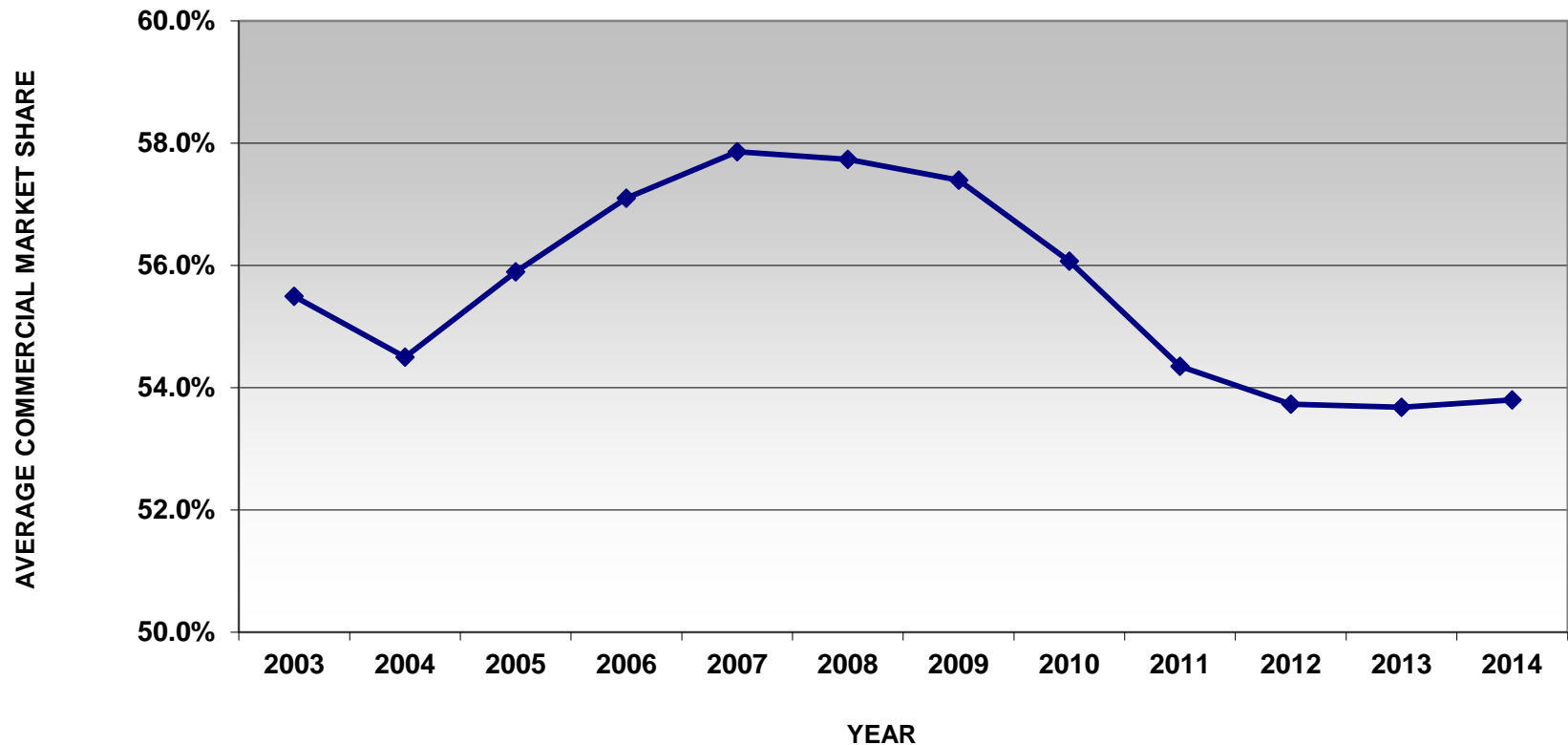
- Based on analysis of health system inpatient commercial discharge market shares of commercially insured members residing in each Southeast Wisconsin zip code (113 zip codes)
- Health system with the highest commercial market share in each zip code was defined as the “Predominant Health System” for that zip code
- Market average comparisons were developed using the weighted averages of Predominant Health System commercial market shares for each zip code
- Changes in the Predominant Health System for each zip code over the study period (2003 through 2014) were also reviewed

Aggregate Market Concentration Changes

- SE Wisconsin weighted average Predominant Health System market shares are essentially unchanged from 2012 to 2014
 - This period has the lowest average Predominant Health System market shares observed during the study
 - Relatively few changes to health system configuration or payer networks during this period
- During 2008 to 2012 average Predominant Health System market shares declined
 - Declines appear to be at least partially related to health system market expansions
- From 2004 through 2007 commercial market shares for predominant health systems generally increased
 - This change was driven primarily by loss of commercial membership in markets which were generally more competitive

Southeast Wisconsin Average “Predominant” Health System Market Shares

WEIGHTED AVERAGE "PREDOMINANT" HEALTH SYSTEM
COMMERCIAL MARKET SHARE

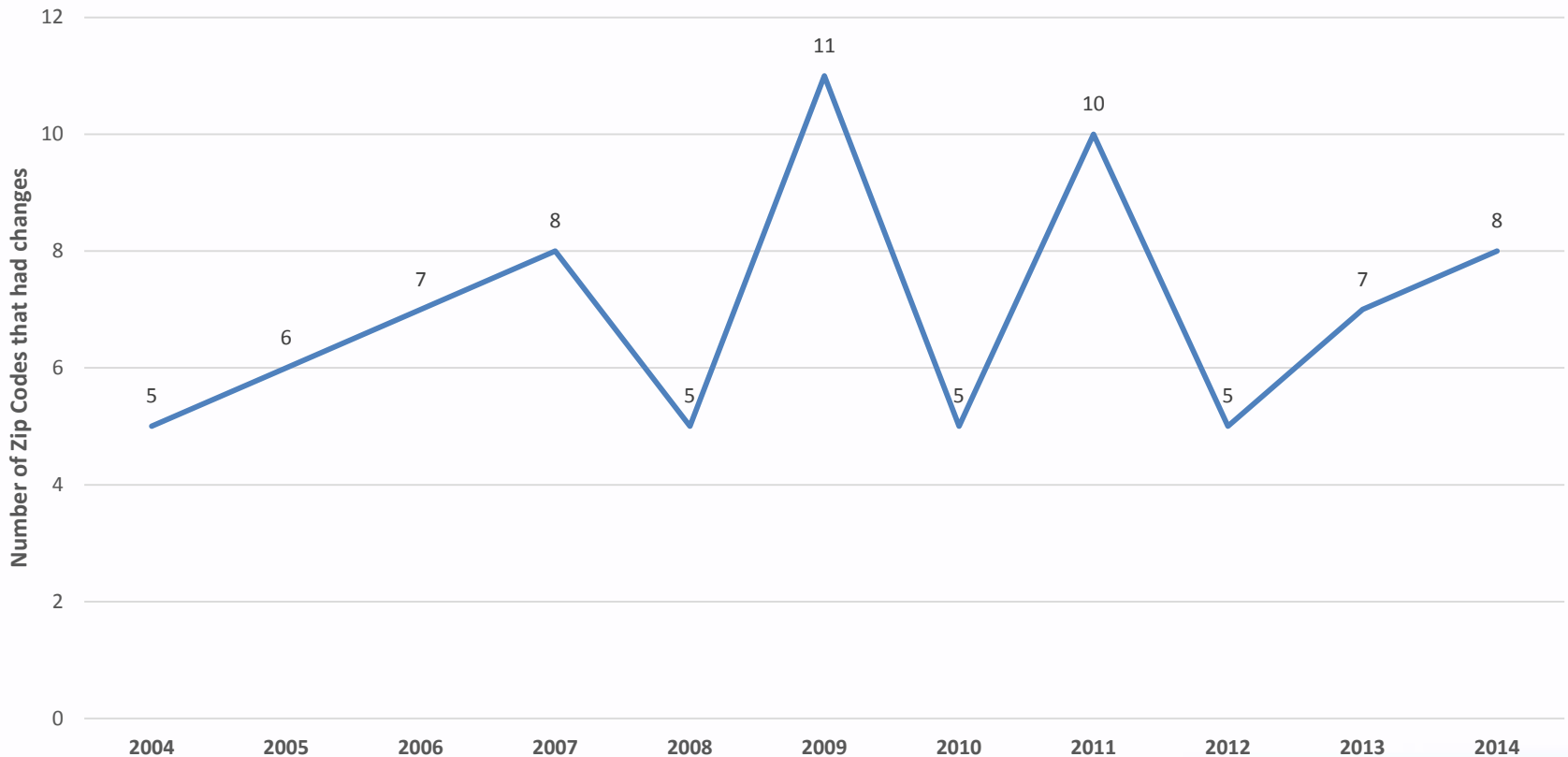


Local Area Market Concentration Changes

- While the aggregate market measures have been relatively stable over the years, there have been significant changes in Predominant Health System identity in many zip codes
- Roughly 40% of the included zip codes experienced a change of Predominant Health System between 2003 and 2014
 - 77 total changes of Predominant Health System
 - The highest number of changes occurred in 2009 and 2011 coinciding with the time period of greatest decline in average Predominant Health System market shares

Southeast Wisconsin Predominant Health System Changes by Year

Zip Codes with Change in Predominant System by Year



*Please note that some zip codes have changed predominant health systems multiple times across this time period.

Local Area Market Concentration Changes

- Predominant Health System market shares within many zip codes also experienced significant changes over the study period
 - Almost 60% of SE Wisconsin zip codes had significant (>10%) changes in Predominant Health System market share since 2003
- About 41% of zip codes experienced Predominant Health System market share reductions of at least 10% between 2003 and 2014
 - Ozaukee County affected most significantly
 - Each zip code experienced Predominant Health System market share reductions >10%
 - 75% of county zip codes changed Predominant Health System
 - More than 2/3 of zip codes in Racine and Walworth counties also experienced >10% reductions in Predominant Health System market shares

Local Area Market Concentration Changes

(continued)

- Only Milwaukee and Washington counties had zip codes with significant (>10%) increases in predominant health system market share increases since 2003
- Milwaukee County had slightly more zip codes with significant increases (12) than with significant decreases (8)
 - Zip codes with significant increases are generally located on the south side of the county where Aurora has the predominant position
 - Zip codes with significant decreases are generally located on the north side of the county where Aurora market shares have grown considerably
- Washington County impacted by 2009 merger of Synergy and Froedtert
 - Merger resulted in Froedtert becoming Predominant Health System for all county zip codes
 - More than 50% of county zip codes experienced >10% Predominant Health System market share increases
 - No zip codes with lower Predominant Health System market shares than in 2003

Predominant Health System Market Share Changes (2003 – 2014)

Predominant Health System Market Share Changes Percentage of Affected Zip Codes by County 2003 to 2014

County	Count of Zip Codes	Significant (>10%) Decrease	10% or Less Change	Significant (>10%) Increase
Kenosha	11	18.2%	81.8%	0.0%
Milwaukee	35	22.9%	42.9%	34.3%
Ozaukee	8	100.0%	0.0%	0.0%
Racine	12	66.7%	33.3%	0.0%
Walworth	12	75.0%	25.0%	0.0%
Washington	11	0.0%	45.5%	54.5%
Waukesha	24	45.8%	50.0%	4.2%
Total	113	40.7%	42.5%	16.8%

Attachment 2 includes Predominant Health System market share information for each Southeastern Wisconsin zip code

Caveats and Use of This Report

Caveats

- Hospital commercial payment and operating cost comparisons are based on hospital financial reports filed with WHA. To the extent health systems use different methods to account for the commercial payments or operating costs of its hospitals, or include non-hospital costs or payments in their reports to WHA, our comparisons may not be valid
- Cost shift burden results pertain to aggregate commercial and governmental hospital payment levels only and do not reflect cost shift burden from non-hospital services (Physicians, Home Health, Retail Pharmacy)

Caveats *(continued)*

- Our comparisons of health system geographic market concentration are based on commercial inpatient discharge data only. Health system market shares for outpatient services and / or non-commercial payers may be different
- Our comparisons were based on information from 2014 and may not apply to subsequent time periods
- Our analyses were performed on information intended to represent entire SE Wisconsin market and may not apply to information limited to individual commercial health plans, local area markets or other subsets of SE Wisconsin
- Results were developed using data that we did not audit, but we did review the data for general reasonableness

Use of This Report

- This report is intended for use in collaborative quality and cost improvement initiatives. Use of this information for public relations, general media, contract negotiations or other similar business purposes is expressly prohibited
- Reproduction of any portion of this report in any manner is also expressly prohibited without written permission from the Greater Milwaukee Business Foundation on Health and Milliman
- Please review the full report (including the Appendix and its Attachments) and use the information in its entirety. Market comparisons using only one measure or even a limited number of comparisons can be misleading

Thank You

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Appendix



**Greater Milwaukee Business Foundation on Health
Key Factors Influencing 2003 – 2014
Southeast Wisconsin Commercial
Payer Hospital Payment Levels**

Appendix

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ATTACHMENT 1	Southeast Wisconsin Health System Cost Shift Burden Comparisons
ATTACHMENT 2	Predominant Health System Commercial Market Share by Zip Code

This appendix describes the data, methods, assumptions, and tools Milliman used to compare Southeast Wisconsin market average and health system specific hospital commercial payment levels, total hospital operating cost levels, cost shift burden from non-commercial payers (including charity care and bad debts), and overall levels of geographic commercial market concentration among Southeast Wisconsin health systems from 2003 through 2014. Measuring hospital commercial payment and operating cost levels, impacts of commercial and governmental payments to hospitals, and market share concentrations is complicated and often controversial. Therefore, the descriptions in this appendix are crucial to the effective use of this hospital comparison. Milliman's comparison of Milwaukee hospital commercial payment and operating cost levels, cost shift burden, and market concentrations should only be considered in its entirety and only after consideration of the information included in this appendix.

I. OVERVIEW

The Greater Milwaukee Business Foundation on Health (the Foundation) commissioned Milliman to provide updated comparisons of five market factors previously identified by Milliman as contributing to higher commercial hospital payment levels in the Milwaukee area (Milwaukee, Ozaukee, Washington, and Waukesha counties) compared to other Midwest cities in 2003. This report provides comparisons of 2003 baseline measures for Southeast Wisconsin (Milwaukee, Kenosha, Racine, Ozaukee, Washington, Walworth, and Waukesha counties) commercial hospital payment levels and three of the five factors (hospital operating cost levels, cost shift burden, and geographic commercial market concentration) to similar market and individual health system measures for 2012, 2013 and 2014. Milliman's previous report issued in 2014 included annual comparisons of the same measures from 2003 through 2012. Information necessary to measure the other two factors identified as impacting the 2003 hospital costs was not available for comparison after 2005 and is not included in either study.

The Foundation's goals for these comparisons are to:

- Provide overall market average and individual health system hospital commercial payment level, operating cost, and cost shift comparisons,
- Provide measures of the geographic concentration of health systems operating in Southeast Wisconsin, and
- Measure changes in each factor from 2003 through 2014 with particular emphasis on changes occurring in 2012, 2013 and 2014.

Individual health system inpatient hospital commercial payment comparisons are based on a hospital's total inpatient commercial net revenues (allowed amounts), as reported in hospital financial statements, measured on a per-unit basis. We adjusted each hospital's per-unit commercial payments for differences in commercial inpatient case mix. Outpatient hospital commercial payment comparisons are based on commercial outpatient payment rates as a percentage of each hospital's Medicare outpatient payment rates (both expressed as a percentage of each hospital's billed charges). Average composite (blended inpatient and outpatient) commercial payment levels were reported relative to the market average.

Comparisons of changes in average market commercial payment levels to the Hospital CPI were developed based on changes in the Southeast Wisconsin average per-unit commercial payments adjusted for differences in commercial inpatient case mix and severity, relative percentages of commercial inpatient and outpatient business, and mix of commercial outpatient services among each year.

Hospital operating cost comparisons are based on a hospital's underlying total expenses incurred in providing services to all patients as reported in hospital financial statements, measured on a per-unit basis. We adjusted each hospital's per-unit expenses for differences in inpatient case mix and severity, relative percentages of inpatient and outpatient business, and mix of outpatient services among all hospitals.

Comparisons of "cost shift burden" are based on the impact to commercial payers resulting from government payment shortfalls to Milwaukee area hospitals. "Cost shift burden" is defined as the increase in hospital commercial insurance payment levels necessary to offset the impact of government payments, charity care and bad debts that do not fully cover a pro rata share of operating costs, and operating profit.

Market share concentration measurements are based on health system commercial inpatient discharge market shares of residents in each of the 113 zip codes with reported commercial discharge volumes in Milwaukee, Kenosha, Racine, Ozaukee, Washington, Walworth, and Waukesha counties. Results of the analyses of individual zip code market shares are weighted by the number of commercial discharges in each zip code when providing overall market comparisons.

II. DEFINITION OF SOUTHEAST WISCONSIN HEALTH SYSTEMS

Our analyses of hospital operating costs and cost shift burden include all adult, general acute care hospitals with 25 or more facility beds located in Milwaukee, Kenosha, Racine, Ozaukee, Washington, Walworth, and Waukesha counties.

Our analysis of Southeast Wisconsin health system geographic market share concentration includes all adult, general, acute care hospitals with health system commercial market shares of at least 10% in any individual zip codes located in Milwaukee, Kenosha, Racine, Ozaukee, Washington, Walworth, and Waukesha counties.

Children's Hospital and Health System and Columbia Center (Columbia Health System) are not included in the analyses or in Southeast Wisconsin averages because of their unique demographic and service characteristics. Mercy Health System is not included in the operating cost and cost shift analyses because of the unique configuration of its Mercy Walworth Hospital and Medical Center (15 beds), its only hospital located within the study area. Discharges from Mercy Health System's Lake Geneva and Janesville, in addition to Columbia Center hospitals, are included in our analysis of geographic concentration of health systems. Information for sub-acute care and non-medical / surgical specialty hospitals (e.g., behavioral health, rehabilitation, and long-term acute care) is also excluded from the analyses.

SynergyHealth and Froedtert Health (FH) merged on July 1, 2008, the first day of SynergyHealth's 2009 fiscal year. Accordingly, we combined the 2003 through 2008 commercial payment levels, operating cost, and cost shift comparison results for both organizations (i.e., Synergy information included with FH) in this report. SynergyHealth and FH market share results were not combined prior to 2009 in our market concentration measurements.

The following table details the individual hospitals from each Southeast Wisconsin health system included in our analyses.

Southeast Wisconsin Comparisons Included Hospitals and Health Systems	
Health System	Included Hospitals
Aurora Health Care (Aurora)	Aurora Medical Center – Grafton Aurora Medical Center – Kenosha Aurora Medical Center – Summit Aurora Medical Center - Washington County Aurora Memorial Hospital of Burlington Aurora Sinai Medical Center Aurora St. Luke’s Medical Center (Oklahoma Campus) Aurora St. Luke’s Medical Center (South Shore Campus) Aurora West Allis Medical Center Aurora Lakeland Medical Center
Columbia St. Mary’s (CSM)	Columbia St. Mary’s Hospital – Milwaukee Columbia St. Mary’s Hospital – Ozaukee Orthopedic Hospital of Wisconsin
Froedtert Health (FH)	Community Memorial Hospital (Menomonee Falls) Froedtert and Medical College of Wisconsin St. Joseph’s Hospital (West Bend) – formerly SynergyHealth
United Hospital System (United)	Kenosha Medical Center Campus St. Catherine’s Medical Center Campus
ProHealth Care (ProHealth)	Oconomowoc Memorial Hospital Waukesha Memorial Hospital
Wheaton Franciscan Healthcare (Wheaton)	Midwest Orthopedic Specialty Hospital St. Michael Hospital (closed in 2006) Wheaton Franciscan Healthcare – All Saints Wheaton Franciscan Healthcare – Elmbrook Memorial Wheaton Franciscan Healthcare – Franklin Wheaton Franciscan Healthcare – St. Francis Wheaton Franciscan Healthcare – St. Joseph Wheaton Franciscan Healthcare – Wisconsin Heart Hospital

III. DATA SOURCES AND TIME PERIOD

We used hospital inpatient claims data and information included in the Wisconsin Hospital Fiscal Survey, as reported by each hospital obtained from the Wisconsin Hospital Association (WHA) Information Center, as the basis for each analysis.

CMS-DRG weights obtained from the Centers for Medicare and Medicaid Services (CMS) were used to calculate inpatient case-mix adjustments.

The hospital commercial payment, operating cost, and cost shift burden comparisons are based on inpatient claims and financial report data from each health system's fiscal year as reported in the WHA Discharge Database. Southeast Wisconsin health systems have different fiscal years ending from June 30 through December 31 of each year. We do not believe the differences in health system fiscal years are likely to have a material impact on our comparisons. Individual hospital system information included in the comparisons was developed from summaries of the respective individual Wisconsin Hospital Fiscal Survey reports. These summaries may differ from other publicly available financial information from each hospital system, due to exclusion of non-hospital subsidiaries or accounting treatment of intercompany revenues and expenses. Hospital service and payer mix, reimbursement levels (i.e., discounts), operating costs, and profit levels may change over time. The results of this comparison may be different if the analysis was performed on more recent data.

Hospital Medicare payment percentages were developed using information from the Wisconsin Hospital Fiscal Survey and outpatient claims from the Medicare 5% sample. We excluded inpatient psychiatric, rehabilitation, and transfer patients from each hospital's data. Newborn infants and their mothers were counted as single discharges for the purpose of this analysis. Estimated commercial payments and costs of the excluded patients were removed from each hospital's total commercial payments or expenses, based on each hospital's overall ratio of commercial payments or operating costs to charges.

The measures of geographic market share concentration among health systems are based on commercial inpatient discharge data for residents of Milwaukee, Kenosha, Racine, Ozaukee, Washington, Walworth, and Waukesha counties admitted to Included Hospitals or Mercy Health Services' Lake Geneva or Janesville hospitals from January 1 through December 31 of each measurement year.

IV. HOSPITAL SERVICES FORM THE BASIS OF COMPARISON

The hospital commercial payment, operating cost, cost shift, and market share comparisons are based solely on hospital services, payments, costs, and profits. The comparisons do not include commercial payments, operating costs, cost shift burden, or market shares related to other types of health care services such as physicians, home health agencies, pharmacies, and other providers that are not included in each health system's hospital financial statements as reported to WHA. To the extent that any of the health systems have included non-hospital payments or costs in their reports to WHA, our results may not be valid.

The reader of this report should consider all elements of health care costs before drawing conclusions from this report.

V. QUALITY COMPARISONS

Our analysis did not include any comparisons of quality or outcomes information because such data was outside the scope of the comparisons. Quality information is a critical component of provider evaluation and should be considered when evaluating hospital performance.

VI. METHODOLOGY AND ASSUMPTIONS

HOSPITAL COMMERCIAL PAYMENT COMPARISONS

Inpatient hospital commercial payment levels were calculated for each health system by dividing total hospital inpatient commercial payments (billed commercial charges less corresponding contractual allowances) by each health system's commercial case mix adjusted discharges. Case mix adjusted discharges are a standardized unit of measure used to adjust each hospital's commercial inpatient payment levels for differences in service mix among the hospitals. Each hospital's case mix is developed using MSDRGs and reflects relative differences among admission types. Normalizing for these differences allows for a consistent comparison of inpatient discharges from one hospital to another.

Outpatient hospital commercial payment levels were estimated as a percentage of each hospital's average Medicare outpatient payment levels. Hospitals in Southeast Wisconsin are generally paid on a uniform outpatient fee schedule by Medicare. Our estimates of commercial payment levels as a percentage of Medicare payment levels were developed by comparing the relative average commercial outpatient payment levels (expressed as a percentage of billed charges) to the average Medicare outpatient payment levels (also expressed as a percentage of billed charges).

The composite (blended inpatient and outpatient) commercial payment levels were developed by blending each health system's relative inpatient and outpatient payment levels (relative to market averages) using the average mix of inpatient and outpatient billed charges for all hospitals included in our analysis.

We compared changes in Southeast Wisconsin average hospital commercial payment levels to estimated changes in national average commercial hospital payments using the United States Bureau of Labor Statistics Hospital Services component of the All Urban Consumer Price Index for each year. These comparisons relied on per-unit hospital commercial payment levels, calculated for each health system by dividing total hospital commercial payments (billed commercial charges less corresponding contractual allowances) by each health system's commercial adjusted equivalent discharges. Adjusted equivalent discharges are a standardized unit for measuring each hospital's combined inpatient and outpatient activity adjusting for differences in inpatient case-mix and severity, outpatient service mix, and relative mix of inpatient and outpatient business mix among hospitals.

HOSPITAL OPERATING COST COMPARISONS

Per-unit hospital operating cost levels were calculated for each health system by dividing total hospital operating costs (net of other operating revenues) by each health system's total adjusted equivalent discharges. Adjusted equivalent discharges are a standardized unit for measuring each hospital's combined inpatient and outpatient activity adjusting for differences in inpatient case-mix and severity, outpatient service mix, and relative mix of inpatient and outpatient business mix among hospitals.

We compared changes in Southeast Wisconsin average hospital operating cost levels to estimated changes in national average hospital costs using the Centers for Medicare and Medicaid Services' Hospital Market Basket Index and the United States Bureau of Labor Statistics Hospital Producer Price Index for each year.

COST SHIFT BURDEN ESTIMATES

Southeast Wisconsin hospital cost shift burden is calculated for Medicare, Wisconsin Medicaid, Milwaukee County General Assistance (GAMP), and Charity Care patient activity at each hospital. We also included each hospital's bad debts as source of cost shift burden in each year. Effective January 1, 2009 GAMP enrollees in Milwaukee County were transitioned into the Wisconsin Medicaid program. Accordingly, GAMP cost shift burden is not reported separately for fiscal years 2012, 2013 and 2014.

Cost shift burden related to patients covered by other governmental payers, such as CHAMPUS or non-Wisconsin Medicaid, are not reported separately in the comparisons due to the relatively immaterial impact of these patients on Southeast Wisconsin hospital overall cost shift burden levels.

Medicare, Medicaid, GAMP, charity care, and bad debt cost shift burden estimates were developed using hospital specific Wisconsin Hospital Fiscal Survey data for each payer summarized by health system to provide the information presented in the market and hospital system comparisons. The payer specific cost shift burden for each health system was estimated by comparing total reimbursement from each payer to a pro rata share of the net operating cost (net of bad debt adjustments) and hospital operating profit for all health system hospitals. Hospital net operating costs and profits were allocated among payment sources based on the ratio of each hospital's operating costs or operating profits to gross patient revenues (billed charges). Total hospital operating expenses were reduced by non-payer sources of revenue (other operating revenue) to calculate the net operating costs used to develop the cost shift burden estimates for each health system. As bad debts represent actual uncollected amounts due to each hospital, we included the full amount of each hospital's reported bad debt expense in our estimates.

The detailed Southeast Wisconsin health system cost shift burden comparisons are included in Attachment 1 to this appendix.

GEOGRAPHIC MARKET CONCENTRATION COMPARISONS

The analysis of health system geographic market concentration was based on health system market share calculations using commercial discharge data from residents of each zip code in Milwaukee, Kenosha, Racine, Ozaukee, Washington, Walworth, and Waukesha counties (113 total zip codes) for each of the Included Hospitals and Mercy Health Services hospitals in Lake Geneva or Janesville, Wisconsin. The analysis was limited to commercial data in order to better illustrate market characteristics and changes impacting commercial insurance and self-funded health plans.

We measured changes in the overall geographic market concentration of health systems in Southeast Wisconsin by comparing measures of "Predominant Health System" market shares across all zip codes included in the study. The Predominant Health System was defined as the health system with the highest commercial inpatient discharge market share within each zip code. Overall measures of Southeast Wisconsin geographic market concentration were developed by summarizing total commercial inpatient hospital discharge volumes from each zip code based on the Predominant Health System market share within the zip code. Market average comparisons were developed using the weighted averages of Predominant Health System commercial market shares for each zip code.

Predominant Health System market share measures for each zip code are included in Attachment 2 to this appendix.

VII. USES OF INFORMATION

The Foundation and Milliman encourage the business, provider, and government communities to use this information to collaborate on quality and cost improvement initiatives. We did not create this information for, and we ask that it not be used in, hospital-specific public relations efforts or for general media purposes. We also ask that this information be reviewed and used in its entirety. Market comparisons using only one measure or even a limited number of measures can be misleading. An informed comparison of health care market characteristics should also incorporate other information, particularly additional quality measures, not included in this report. This information is designed for use by the business community and health care providers, not individual consumers of health care services.

VIII. CAVEATS AND LIMITATIONS ON USE

Milliman reviewed but did not audit information obtained from public data sources to develop the estimates and measures included in this report. To the extent this information is not accurate; the results of Milliman's analyses may not be accurate. Hospital commercial payment, operating cost and cost shift burden comparisons are based on hospital financial reports filed with WHA. To the extent any of the health systems used different methods to account for the payments or operating costs of its hospitals, or include non-hospital costs or payments in their reports to WHA, our comparisons may not be valid.

Cost shift burden results pertain to aggregate commercial and governmental hospital payment levels only and do not reflect cost shift burden from non-hospital services (Physicians, Home Health, and Retail Pharmacy), unless such information is included in any hospital's reports to WHA.

Our comparisons of health system geographic market concentration are based on commercial inpatient discharge data only. Health system market shares for outpatient services and / or non-commercial payers may be different. Predominant Health System commercial market share measures are subject to random variation from year to year, which is most likely to have the greatest effect in zip codes with low numbers of commercial discharges.

This report is designed to measure changes in certain market factors affecting hospital commercial payment levels. This information may not be appropriate, and should not be used, for other purposes.

This report is intended for use by the Greater Milwaukee Business Foundation on Health. We do not intend this information to benefit any third party.

The terms of Milliman's Consulting Services Agreement with the Greater Milwaukee Business Foundation on Health signed on September 4, 2003 apply to this report and its use.

IX. FOR FURTHER INFORMATION

Please contact Keith Kieffer, CPA, RPh, in the Milwaukee office of Milliman (Phone: 262-784-2250; Email: keith.kieffer@milliman.com) with questions and comments about the comparisons in this report.

Attachment 1

Southeast Wisconsin Health System Cost Shift Burden Comparisons

**Greater Milwaukee Business Foundation on Health
Key Factors Influencing 2003 - 2014
Southeast Wisconsin Commercial
Payer Hospital Payment Levels**

**Attachment 1
Southeast Wisconsin Health System Cost Shift Burden Comparison**

**Greater Milwaukee Business Foundation on Health
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**Attachment 1
Aurora Health Care 2003 - 2014 Aggregate Cost Shift Burden**

Aurora Health Care Cost Shift Burden (in \$Millions)				
	2003	2012	2013	2014
MEDICARE	204	253	272	337
MEDICAID	89	110	117	116
GAMP	11	0	0	0
TOTAL GOVERNMENT COST SHIFT BURDEN	305	362	389	452
CHARITY CARE	11	29	32	38
BAD DEBT	46	110	96	64
TOTAL NON-GOVERNMENT COST SHIFT BURDEN	57	139	128	102
AGGREGATE COST SHIFT BURDEN	361	501	517	554
% of Commercial Payments (Total Government)	36.5%	28.6%	29.5%	34.3%
% of Commercial Payments (Total Non-Government)	6.8%	11.0%	9.7%	7.7%
% of Commercial Payments (Aggregate)	43.3%	39.6%	39.2%	42.0%

**Greater Milwaukee Business Foundation on Health
Key Factors Influencing 2003 - 2014
Southeast Wisconsin Commercial
Payer Hospital Payment Levels**

**Attachment 1
Columbia St. Mary's 2003 - 2014 Aggregate Cost Shift Burden**

Columbia St. Mary's Cost Shift Burden (in \$Millions)				
	2003	2012	2013	2014
MEDICARE	48	17	15	13
MEDICAID	16	4	(5)	20
GAMP	1	0	0	0
TOTAL GOVERNMENT COST SHIFT BURDEN	64	20	10	33
CHARITY CARE	4	11	11	12
BAD DEBT	15	30	29	32
TOTAL NON-GOVERNMENT COST SHIFT BURDEN	19	41	40	44
AGGREGATE COST SHIFT BURDEN	83	61	50	77
% of Commercial Payments (Total Government)	19.1%	6.0%	3.0%	8.6%
% of Commercial Payments (Total Non-Government)	5.6%	12.1%	12.3%	11.4%
% of Commercial Payments (Aggregate)	24.7%	18.1%	15.3%	20.0%

**Greater Milwaukee Business Foundation on Health
Key Factors Influencing 2003 - 2014
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**Attachment 1
Froedert Health 2003 - 2014 Aggregate Cost Shift Burden**

Froedert Health* Cost Shift Burden (in \$Millions)				
	2003	2012	2013	2014
MEDICARE	54	137	138	176
MEDICAID	18	35	51	55
GAMP	4	0	0	0
TOTAL GOVERNMENT COST SHIFT BURDEN	76	173	189	231
CHARITY CARE	8	17	18	19
BAD DEBT	19	67	71	67
TOTAL NON-GOVERNMENT COST SHIFT BURDEN	27	84	89	86
AGGREGATE COST SHIFT BURDEN	103	257	278	317
% of Commercial Payments (Total Government)	18.6%	21.8%	21.8%	24.2%
% of Commercial Payments (Total Non-Government)	6.6%	10.6%	10.2%	9.0%
% of Commercial Payments (Aggregate)	25.3%	32.3%	32.0%	33.2%

** Includes results for SynergyHealth for all years.*

**Greater Milwaukee Business Foundation on Health
Key Factors Influencing 2003 - 2014
Southeast Wisconsin Commercial
Payer Hospital Payment Levels**

**Attachment 1
ProHealth Care 2003 - 2014 Aggregate Cost Shift Burden**

ProHealth Care Cost Shift Burden (in \$Millions)				
	2003	2012	2013	2014
MEDICARE	44	86	94	95
MEDICAID	5	5	7	12
GAMP	0	0	0	0
TOTAL GOVERNMENT COST SHIFT BURDEN	49	90	101	108
CHARITY CARE	1	5	7	8
BAD DEBT	9	22	15	14
TOTAL NON-GOVERNMENT COST SHIFT BURDEN	10	27	22	22
AGGREGATE COST SHIFT BURDEN	59	117	123	130
% of Commercial Payments (Total Government)	19.2%	26.5%	29.8%	30.9%
% of Commercial Payments (Total Non-Government)	4.0%	7.9%	6.5%	6.3%
% of Commercial Payments (Aggregate)	23.2%	34.4%	36.3%	37.2%

**Greater Milwaukee Business Foundation on Health
Key Factors Influencing 2003 - 2014
Southeast Wisconsin Commercial
Payer Hospital Payment Levels**

**Attachment 1
United Hospital System 2003 - 2014 Aggregate Cost Shift Burden**

United Hospital System Cost Shift Burden (in \$Millions)				
	2003	2012	2013	2014
MEDICARE	17	35	38	46
MEDICAID	5	16	16	17
GAMP	0	0	0	0
TOTAL GOVERNMENT COST SHIFT BURDEN	22	51	54	63
CHARITY CARE	2	4	4	5
BAD DEBT	5	20	23	20
TOTAL NON-GOVERNMENT COST SHIFT BURDEN	6	24	27	25
AGGREGATE COST SHIFT BURDEN	28	75	81	88
% of Commercial Payments (Total Government)	24.5%	26.9%	27.8%	29.6%
% of Commercial Payments (Total Non-Government)	7.2%	12.7%	13.9%	11.7%
% of Commercial Payments (Aggregate)	31.7%	39.6%	41.7%	41.3%

**Greater Milwaukee Business Foundation on Health
Key Factors Influencing 2003 - 2014
Southeast Wisconsin Commercial
Payer Hospital Payment Levels**

**Attachment 1
Wheaton Franciscan Healthcare 2003 - 2014 Aggregate Cost Shift Burden**

Wheaton Franciscan Healthcare Cost Shift Burden (in \$Millions)				
	2003	2012	2013	2014
MEDICARE	63	71	81	80
MEDICAID	32	32	31	40
GAMP	4	0	0	0
TOTAL GOVERNMENT COST SHIFT BURDEN	99	103	111	120
CHARITY CARE	10	28	26	25
BAD DEBT	40	57	52	51
TOTAL NON-GOVERNMENT COST SHIFT BURDEN	49	85	78	76
AGGREGATE COST SHIFT BURDEN	148	188	189	196
% of Commercial Payments (Total Government)	19.2%	18.4%	19.2%	21.3%
% of Commercial Payments (Total Non-Government)	9.6%	15.1%	13.4%	13.6%
% of Commercial Payments (Aggregate)	28.8%	33.5%	32.6%	34.9%

Attachment 2

Predominant Health System Commercial Market Share by Zip Code

**Greater Milwaukee Business Foundation on Health
Key Factors Influencing 2003 - 2014
Southeast Wisconsin Commercial
Payer Hospital Payment Levels**

**Attachment 2
Market Concentration**

Predominant Health System Key	
A - Aurora	P - ProHealth
C - CSM	S - Synergy
F - Froedert	U - United
M - Mercy	W - Wheaton

Predominant Health System Market Share by Zip Code

Zip Code			Predominant Health System Market Share				Predominant Health System				Commercial Discharges			
<i>City</i>	<i>County</i>	<i>Zip</i>	<i>2003</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>2003</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>2003</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>
Allenton	Washington	53002	45.5%	70.5%	79.7%	62.3%	S	F	F	F	145	78	79	69
Belgium	Ozaukee	53004	83.0%	60.6%	61.0%	57.6%	C	A	A	A	153	94	118	132
Brookfield	Waukesha	53005	49.3%	34.2%	34.2%	32.8%	W	W	F	W	900	766	726	787
Butler	Waukesha	53007	46.0%	59.1%	46.5%	60.9%	F	F	F	F	113	66	71	69
Cedarburg	Ozaukee	53012	75.6%	43.4%	40.4%	41.8%	C	C	A	A	817	579	617	636
Colgate	Washington	53017	60.2%	67.5%	67.0%	68.8%	F	F	F	F	266	191	224	192
Delafield	Waukesha	53018	69.2%	43.4%	46.9%	49.7%	P	P	P	P	289	226	226	187
Fredonia	Ozaukee	53021	69.2%	50.5%	54.2%	50.0%	C	A	A	A	247	204	190	184
Germantown	Washington	53022	63.1%	70.5%	69.1%	64.7%	F	F	F	F	1,097	723	695	658
Grafton	Ozaukee	53024	80.5%	51.3%	55.5%	55.3%	C	A	A	A	844	680	705	703
Hartford	Washington	53027	42.0%	45.8%	50.6%	48.1%	A	F	F	F	1,209	866	939	810
Hartland	Waukesha	53029	60.4%	49.5%	45.1%	42.0%	P	P	P	P	962	735	656	636
Hubertus	Washington	53033	68.7%	64.5%	70.6%	76.7%	F	F	F	F	284	169	170	189
Jackson	Washington	53037	35.8%	62.0%	59.6%	65.5%	F	F	F	F	481	461	450	478
Kewaskum	Washington	53040	61.2%	82.1%	74.5%	75.0%	S	F	F	F	330	262	282	276
Brookfield	Waukesha	53045	53.1%	33.4%	35.0%	35.4%	W	W	W	W	966	739	698	656
Lannon	Waukesha	53046	69.2%	62.0%	77.8%	52.5%	F	F	F	F	13	50	27	40
Menomonee Falls	Waukesha	53051	68.4%	70.7%	69.1%	67.4%	F	F	F	F	2,142	1,426	1,414	1,347
Nashotah	Waukesha	53058	64.7%	47.9%	38.8%	43.9%	P	P	P	P	190	119	85	82
Oconomowoc	Waukesha	53066	78.7%	49.4%	50.9%	50.2%	P	P	P	P	1,579	1,175	1,012	1,043
Pewaukee	Waukesha	53072	52.6%	50.2%	48.8%	42.1%	P	P	P	P	1,231	907	908	907
Port Washington	Ozaukee	53074	86.1%	56.4%	60.0%	62.0%	C	A	A	A	617	539	492	519
Richfield	Washington	53076	65.3%	71.2%	86.3%	67.4%	F	F	F	F	173	139	117	135
Saukville	Ozaukee	53080	78.8%	49.1%	57.0%	47.8%	C	A	A	A	312	232	249	230
Slinger	Washington	53086	37.7%	60.4%	51.7%	57.3%	A	F	F	F	374	333	267	314
Sussex	Waukesha	53089	45.6%	41.7%	45.0%	49.2%	F	F	F	F	928	761	667	687
West Bend	Washington	53090	50.9%	68.8%	72.4%	70.1%	S	F	F	F	271	762	709	722
Thiensville	Ozaukee	53092	70.2%	48.5%	47.2%	43.6%	C	C	C	C	953	653	638	645
West Bend	Washington	53095	49.9%	74.4%	74.5%	71.9%	S	F	F	F	1,424	1,002	1,037	960
Mequon	Ozaukee	53097	68.6%	51.2%	43.3%	46.9%	C	C	C	C	188	170	187	196
Big Bend	Waukesha	53103	59.5%	61.4%	47.7%	60.5%	P	P	P	P	190	145	128	147
Bristol	Kenosha	53104	47.4%	38.2%	43.5%	48.6%	A	U	U	A	209	165	184	175
Burlington	Racine	53105	74.8%	68.3%	66.7%	68.3%	A	A	A	A	1,334	946	953	1,090
Caledonia	Racine	53108	65.8%	55.6%	43.5%	45.2%	W	W	W	W	187	117	138	124
Cudahy	Milwaukee	53110	46.7%	67.8%	67.3%	65.0%	A	A	A	A	1,018	702	640	677

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Darien	Walworth	53114	61.2%	56.9%	49.2%	54.5%	A	A	A	A	98	58	61	66
Delavan	Walworth	53115	72.4%	52.7%	51.8%	51.5%	A	A	A	A	671	383	400	365
Dousman	Waukesha	53118	77.7%	49.8%	46.7%	42.5%	P	P	P	P	341	231	229	219
Eagle	Waukesha	53119	69.9%	64.4%	69.2%	62.7%	P	P	P	P	312	219	221	158
East Troy	Walworth	53120	48.8%	49.4%	49.3%	52.8%	P	P	P	P	545	352	341	305
Elkhorn	Walworth	53121	74.5%	56.6%	59.8%	58.9%	A	A	A	A	933	592	528	579
Elm Grove	Waukesha	53122	43.4%	31.7%	33.7%	39.4%	W	W	W	F	249	202	208	193
Fontana	Walworth	53125	77.6%	40.6%	69.2%	52.3%	A	A	A	A	76	32	13	44
Franksville	Racine	53126	60.4%	45.3%	48.4%	45.0%	W	W	W	W	278	254	273	240
Genoa City	Walworth	53128	83.5%	74.1%	72.7%	68.6%	A	A	A	A	212	158	183	175
Greendale	Milwaukee	53129	46.5%	58.5%	61.1%	60.1%	A	A	A	A	709	455	527	449
Hales Corners	Milwaukee	53130	48.1%	58.5%	63.2%	54.5%	A	A	A	A	372	301	272	297
Franklin	Milwaukee	53132	54.3%	54.0%	56.2%	53.9%	A	A	A	A	1,573	1,258	1,295	1,233
Kansasville	Racine	53139	45.8%	49.1%	44.2%	50.0%	A	A	A	A	168	108	113	112
Kenosha	Kenosha	53140	49.1%	48.0%	52.0%	47.7%	U	U	U	U	1,243	754	742	736
Kenosha	Kenosha	53141	50.0%	0.0%	0.0%	0.0%	W	A	A	A	14	0	0	0
Kenosha	Kenosha	53142	48.6%	53.3%	52.0%	51.1%	U	U	U	U	1,440	1,195	1,135	1,080
Kenosha	Kenosha	53143	51.3%	51.0%	50.1%	53.4%	U	U	U	U	1,206	677	679	698
Kenosha	Kenosha	53144	43.8%	48.1%	49.4%	44.6%	U	U	U	U	1,094	874	773	803
New Berlin	Waukesha	53146	31.8%	29.9%	34.8%	38.6%	P	A	A	P	390	284	256	228
Lake Geneva	Walworth	53147	78.6%	67.3%	68.3%	62.9%	A	A	A	A	635	392	436	453
Mukwonago	Waukesha	53149	67.2%	64.0%	67.2%	58.5%	P	P	P	P	966	698	679	684
Muskego	Waukesha	53150	36.0%	42.1%	42.0%	44.7%	A	A	A	A	1,168	991	1,007	929
New Berlin	Waukesha	53151	36.1%	40.9%	37.5%	40.0%	A	A	A	A	1,624	1,265	1,233	1,230
North Prairie	Waukesha	53153	75.2%	68.1%	61.3%	60.9%	P	P	P	P	121	94	75	87
Oak Creek	Milwaukee	53154	48.6%	56.5%	57.3%	54.6%	A	A	A	A	1,803	1,493	1,425	1,387
Pell Lake	Walworth	53157	84.4%	0.0%	0.0%	0.0%	A	A	A	A	45	0	0	0
Pleasant Prairie	Kenosha	53158	47.9%	51.5%	53.0%	49.3%	U	U	U	U	585	555	577	481
Salem	Kenosha	53168	54.6%	42.4%	44.4%	44.6%	A	A	A	A	416	290	286	289
Silver Lake	Kenosha	53170	68.6%	50.6%	45.2%	42.6%	A	A	A	U	86	87	62	94
South Milwaukee	Milwaukee	53172	49.3%	64.9%	67.4%	68.8%	A	A	A	A	1,139	812	806	836
Sturtevant	Racine	53177	80.2%	60.3%	62.7%	57.1%	W	W	W	W	354	315	327	294
Trevor	Kenosha	53179	66.1%	51.9%	47.9%	57.1%	A	A	U	A	177	129	163	140
Twin Lakes	Kenosha	53181	73.6%	74.7%	63.3%	65.2%	A	A	A	A	254	170	196	178
Union Grove	Racine	53182	61.5%	53.7%	49.1%	51.5%	W	W	W	W	452	365	342	334

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Wales	Waukesha	53183	77.9%	53.8%	52.9%	67.9%	P	P	P	P	172	65	87	56
Walworth	Walworth	53184	70.6%	55.2%	57.0%	51.4%	A	A	A	A	180	105	93	111
Waterford	Racine	53185	46.8%	44.5%	51.3%	50.9%	A	A	A	A	961	636	628	642
Waukesha	Waukesha	53186	67.9%	60.3%	57.6%	58.5%	P	P	P	P	1,951	1,254	1,120	1,133
Waukesha	Waukesha	53188	75.6%	71.7%	68.5%	65.9%	P	P	P	P	1,928	1,400	1,316	1,393
Waukesha	Waukesha	53189	67.1%	69.4%	65.1%	61.2%	P	P	P	P	1,254	993	990	985
Whitewater	Walworth	53190	52.4%	63.1%	52.6%	58.6%	M	M	M	M	164	141	135	145
Williams Bay	Walworth	53191	84.1%	50.0%	58.3%	45.6%	A	M	A	A	107	72	72	79
Milwaukee	Milwaukee	53201	40.0%	0.0%	0.0%	0.0%	C	A	A	A	35	0	0	0
Milwaukee	Milwaukee	53202	60.4%	50.4%	51.4%	49.1%	C	C	C	C	732	536	533	521
Milwaukee	Milwaukee	53204	39.9%	46.8%	55.1%	56.8%	W	A	A	A	1,273	500	396	451
Milwaukee	Milwaukee	53205	39.3%	42.8%	52.3%	48.2%	W	A	A	A	354	159	128	139
Milwaukee	Milwaukee	53206	50.1%	36.8%	36.3%	47.2%	W	A	A	A	1,213	340	328	362
Milwaukee	Milwaukee	53207	41.6%	50.8%	52.0%	51.2%	A	A	A	A	2,018	1,413	1,407	1,388
Milwaukee	Milwaukee	53208	43.0%	40.4%	39.9%	40.8%	W	A	A	A	1,434	675	676	692
Milwaukee	Milwaukee	53209	45.5%	32.6%	31.1%	37.9%	W	A	A	A	2,464	1,087	1,089	1,082
Milwaukee	Milwaukee	53210	56.6%	33.0%	30.3%	33.6%	W	W	A	A	1,432	521	535	535
Milwaukee	Milwaukee	53211	70.8%	57.0%	57.9%	55.9%	C	C	C	C	1,276	803	803	851
Milwaukee	Milwaukee	53212	43.8%	48.7%	50.8%	46.3%	C	C	C	C	1,243	528	547	503
Milwaukee	Milwaukee	53213	38.9%	34.2%	38.1%	40.0%	W	F	F	F	1,445	1,102	970	997
Milwaukee	Milwaukee	53214	38.4%	53.4%	51.8%	54.5%	A	A	A	A	1,894	1,344	1,210	1,191
Milwaukee	Milwaukee	53215	40.0%	56.0%	58.8%	61.3%	W	A	A	A	2,582	1,218	1,082	1,107
Milwaukee	Milwaukee	53216	51.8%	33.2%	31.8%	36.7%	W	A	A	A	1,829	717	727	735
Milwaukee	Milwaukee	53217	66.6%	46.9%	46.5%	45.4%	C	C	C	C	1,559	1,152	1,077	1,047
Milwaukee	Milwaukee	53218	50.8%	34.5%	31.3%	37.2%	W	A	A	A	2,191	901	859	827
Milwaukee	Milwaukee	53219	46.1%	65.1%	63.6%	64.7%	A	A	A	A	1,867	1,424	1,375	1,405
Milwaukee	Milwaukee	53220	50.2%	64.4%	61.2%	65.6%	A	A	A	A	1,422	993	970	980
Milwaukee	Milwaukee	53221	49.7%	59.8%	59.3%	61.3%	A	A	A	A	1,994	1,269	1,253	1,180
Milwaukee	Milwaukee	53222	51.5%	32.1%	32.3%	34.2%	W	F	A	F	1,469	1,005	1,110	956
Milwaukee	Milwaukee	53223	36.0%	34.4%	39.0%	36.8%	W	A	A	A	1,493	837	820	777
Milwaukee	Milwaukee	53224	36.0%	42.3%	41.0%	45.7%	W	F	F	F	1,050	515	590	586
Milwaukee	Milwaukee	53225	43.3%	38.8%	35.7%	39.9%	W	F	F	F	1,481	696	694	706
Milwaukee	Milwaukee	53226	43.2%	41.3%	39.6%	40.7%	W	F	F	F	940	732	780	697
Milwaukee	Milwaukee	53227	46.4%	60.9%	58.2%	61.4%	A	A	A	A	1,175	983	935	829
Milwaukee	Milwaukee	53228	50.4%	53.7%	56.1%	57.0%	A	A	A	A	738	547	549	491

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Milwaukee	Milwaukee	53233	35.1%	56.6%	46.5%	65.7%	W	A	A	A	279	99	99	108
Milwaukee	Milwaukee	53235	45.6%	59.3%	62.4%	65.5%	A	A	A	A	432	386	338	304
Racine	Racine	53402	78.3%	67.3%	68.1%	64.4%	W	W	W	W	1,826	1,292	1,213	1,257
Racine	Racine	53403	82.5%	68.7%	69.7%	69.2%	W	W	W	W	1,312	904	746	821
Racine	Racine	53404	85.5%	71.7%	73.3%	75.5%	W	W	W	W	718	459	409	417
Racine	Racine	53405	81.2%	69.4%	71.1%	70.6%	W	W	W	W	1,496	1,015	1,016	1,020
Racine	Racine	53406	79.8%	67.9%	63.6%	64.0%	W	W	W	W	1,241	1,033	1,012	964
Sharon	Walworth	53585	61.9%	54.0%	61.1%	50.8%	A	A	M	A	63	50	36	59
Total											96,872	65,126	63,314	62,627