

Analysis on Delivery of High-Cost Services

Prepared for Oklahoma State Department of Health

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Background

Specific topics requested in this analysis include:

- Evaluate and categorize high-cost services
- Compare cost of OSIM identified conditions across payers
- Provide summary on demographics of populations
- Discuss the methodology for identifying the populations
- Define inpatient/outpatient optimization
- Provide cost of care based on operational benchmarks



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Reference to full report

This presentation is intended to supplement the full report which documents complete analysis and is titled:

Oklahoma State Innovation Model: Delivery of High-Cost Services
Discussion Draft
August 26, 2015



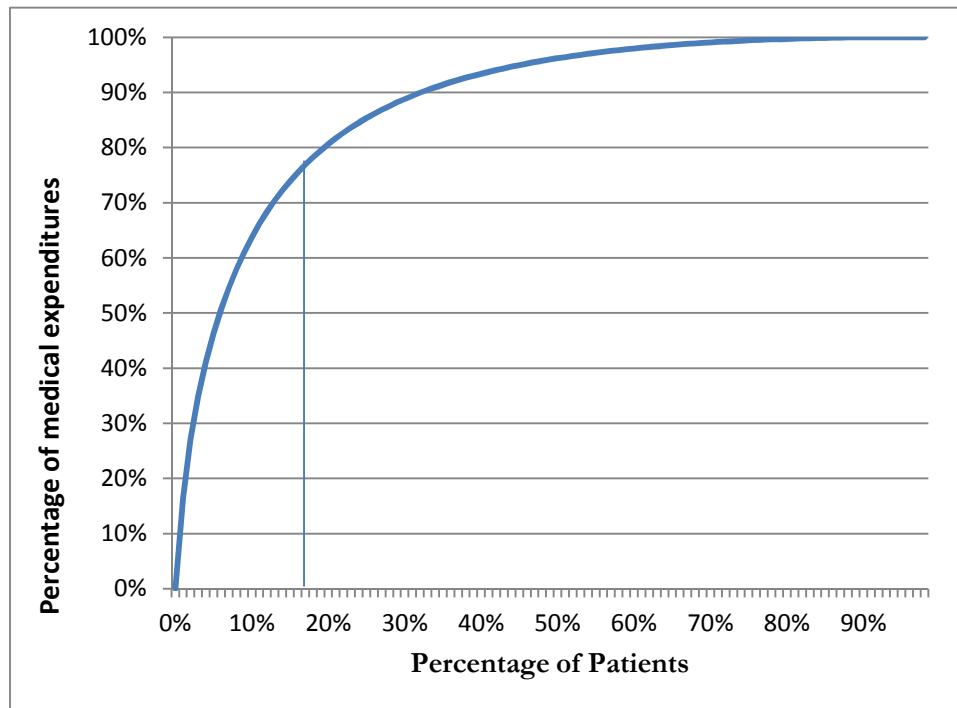
High-cost services in the State of Oklahoma



- Key to identifying where high-cost services are being delivered is identifying who and where the high-cost patients are located
- Analyze across multiple payers: Medicare, Medicaid, commercial
- Fosters path to meeting OSIM-defined goals:
 - Reduce healthcare expenditures
 - Provide better quality of care
 - Improve health outcomes



80/20 rule on healthcare expenditures

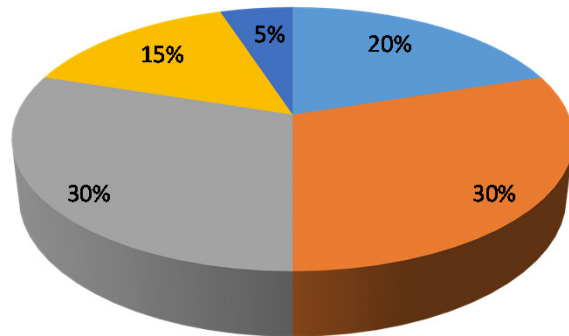


- 80% of healthcare expenditures are for services/procedures performed on 20% of population
- Highlights need to focus on a smaller portion of the population
- Can gain the most by focusing on smaller group of individuals with bigger return on invested resources



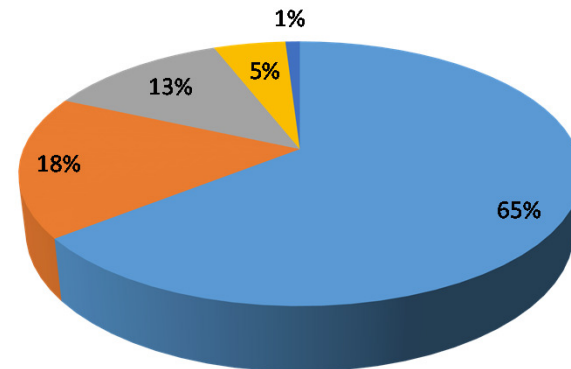
Spend by category of service

Average patient



■ Hospital Inpatient ■ Hospital Outpatient ■ Professional
■ Pharmacy ■ Ancillary

Highest cost patients



■ Hospital Inpatient ■ Hospital Outpatient ■ Professional
■ Pharmacy ■ Ancillary



OSIM identified conditions

- Phase 1 of OSIM plans requests population-based health measures for selected health topics:
 - Obesity
 - Diabetes
 - Hypertension
 - Tobacco usage
- ICD-9 codes to identify through claims information, where available
- Proxy morbidities utilized for conditions under reported

State of Oklahoma High-Cost Condition Prevalence			
	Commercial	Medicare	Medicaid
Obesity	32.5%	26.7%	36%
Diabetes	5.3%	27.8%	4.5%
Hypertension	15.4%	68.9%	7.5%
Tobacco Usage	23.3%		

Prevalence rates for obesity and tobacco were not based on claims information due to under reporting



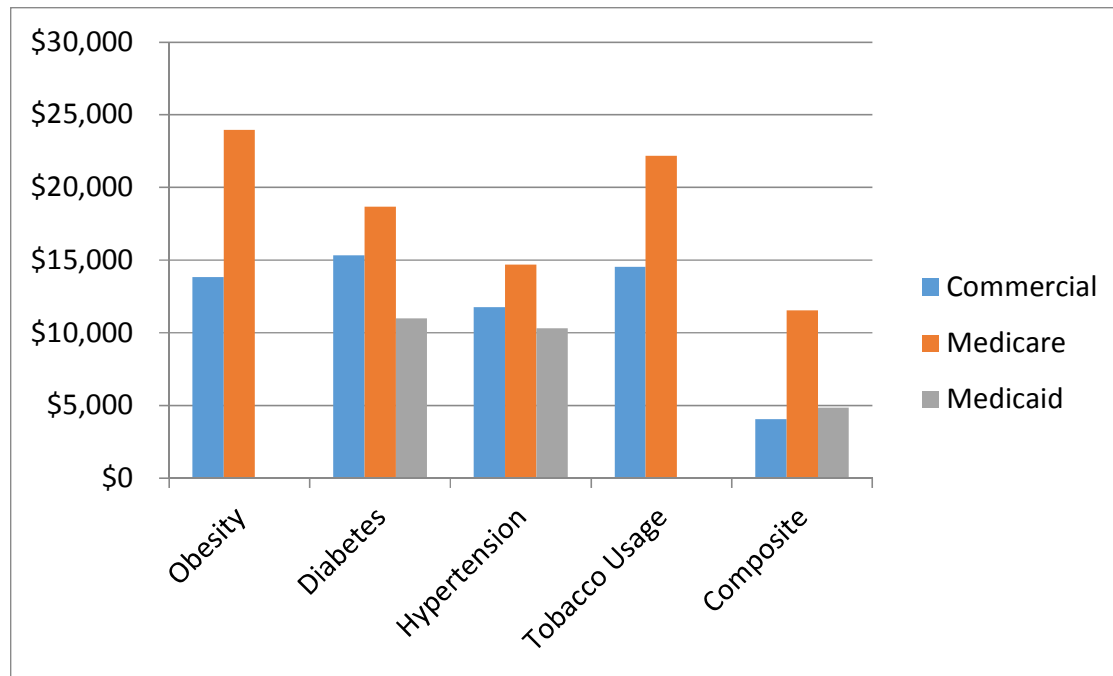
Insurance market overview

Commercial	Medicare	Medicaid
<ul style="list-style-type: none">• Employer-sponsored• Market-based benefits• Oklahoma enrollment 800k in 2013	<ul style="list-style-type: none">• Age and health status eligibility• Member premiums and exposure to cost-sharing• Federal government• Oklahoma enrollment 625k in 2013	<ul style="list-style-type: none">• Income-based eligibility• Little enrollee cost exposure• State and federally operated• Oklahoma enrollment 800k in 2014

- Analyze high-cost conditions across all three markets
- Important to treat each population differently based on coverage



Total cost of care



- Highlights disparity in cost of the composite population against analyzed conditions
- Does not include all healthcare dollars spent on patients – no Medicare Part D
- Medicaid report information not available for obesity and tobacco use



Relative cost of conditions

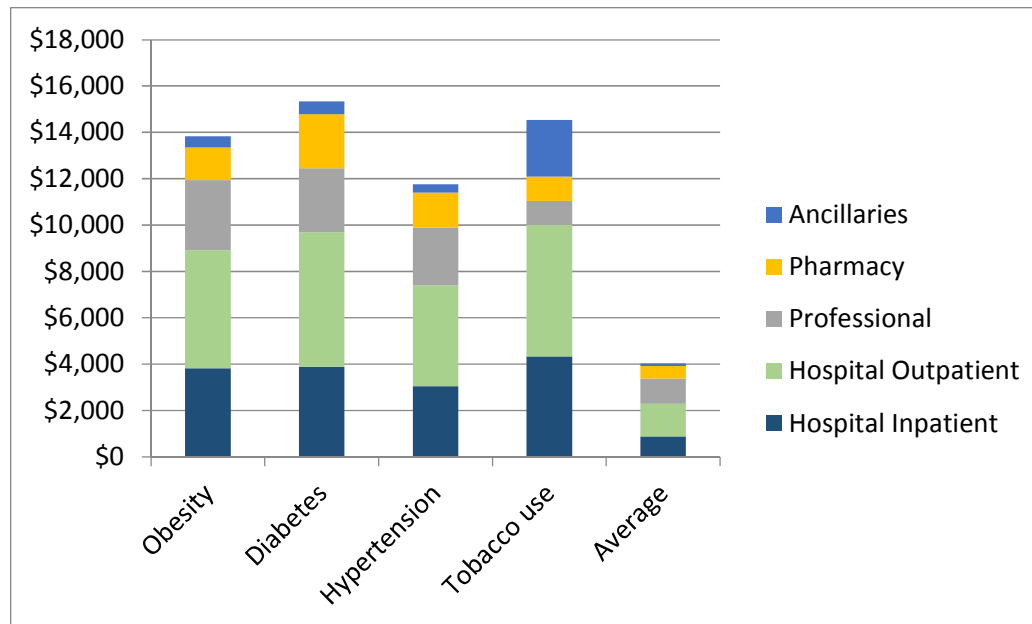
State of Oklahoma High-Cost Condition Relative Cost			
	Commercial	Medicare	Medicaid
Obesity	3.42	2.08	N/A
Diabetes	3.80	1.62	2.27
Hypertension	2.91	1.28	2.13
Tobacco Usage	3.60	1.92	N/A
Entire Population	1.00	1.00	1.00
Average Annual Cost	\$4,041	\$11,530	\$4,846

- Relative value calculated as condition-specific PMPY over average annual cost
- Medicare summarized costs did not include pharmacy spend
- Medicaid information derived from OHCA provided studies/reports

- Relative value of conditions indicates patients are 2 to 3 times more expensive than average patient
- Medicaid experience excludes nursing facility expenditures and enrollment



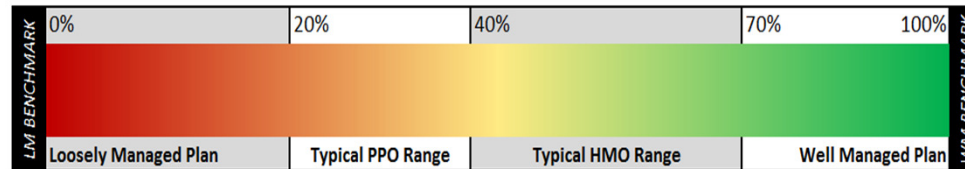
Types of services



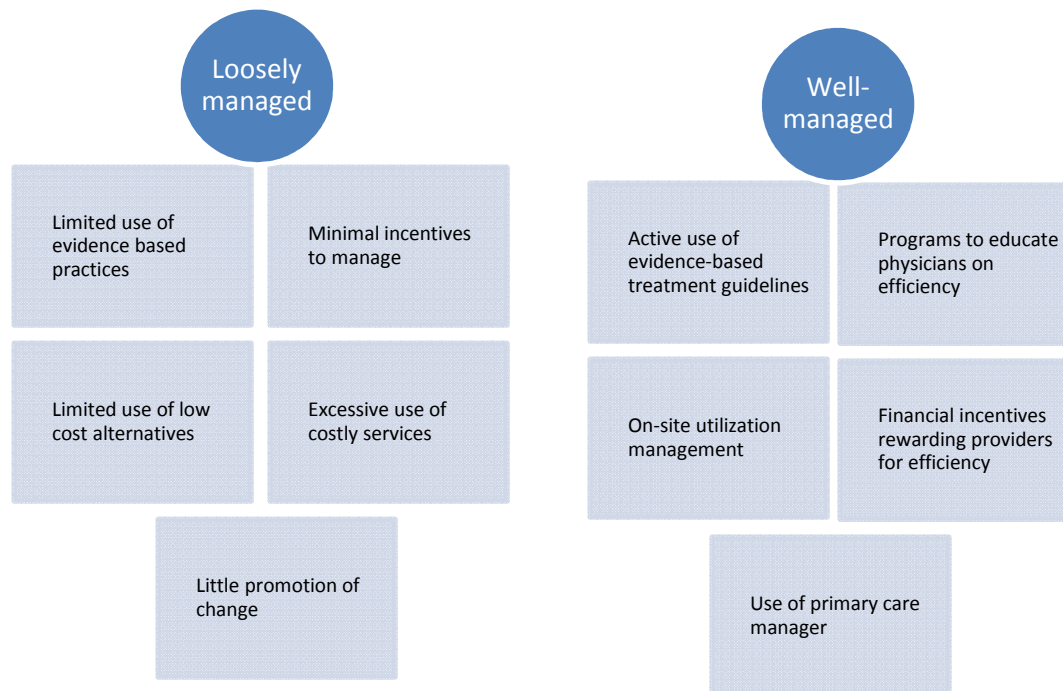
- Distribution of services does not vary significantly as observed in highest cost members, but facility spending on high-cost conditions is greater than average
- Actuarial cost models included in report detail cost by category
- Based on commercial experience



Degree of healthcare management



Degree of healthcare management indicates portion of care that is being well-managed



Calculating potential savings

Commercial Population

Condition	Hospital Inpatient PMPY	Reduction Factor	Inpatient PMPY Savings	Condition Prevalence	Commercial Population	Estimated Savings
Obesity	\$3,819	5.0%	\$191	32.5%	800,000	\$50 million
Diabetes	3,895	5.0%	195	5.3%	800,000	\$8 million
Hypertension	3,050	5.0%	152	15.4%	800,000	\$19 million
Tobacco Usage	4,332	5.0%	217	23.3%	800,000	\$40 million

Medicaid Population

Condition	Hospital Inpatient PMPY	Reduction Factor	Inpatient PMPY Savings	Condition Prevalence	Medicaid Population	Estimated Savings
Obesity	N/A	5.0%	N/A	36.0%	789,000	N/A
Diabetes	2,216	5.0%	\$111	4.5%	789,000	\$4 million
Hypertension	1,947	5.0%	\$97	7.5%	789,000	\$6 million
Tobacco Usage	N/A	5.0%	N/A	23.3%	789,000	N/A

- Estimate potential savings utilizing information detailed in report
- Focus on hospital inpatient costs
- Assumes reasonable DoHM improvement goals



Methodology and Assumptions

Commercial Market

2013 Milliman Consolidated Health Cost Guidelines Sources Database (CHSD) Data – This internal Milliman database is used to develop the Milliman Health Cost Guidelines (HCGs), which is nationally accepted as an industry standard. The 2013 CHSD data contains detailed claims and eligibility records for over 17 million commercially insured lives nationwide.

Medicare Market

2013 CMS Medicare 5% Sample Data – CMS has publicly released information including Medicare beneficiaries, Medicare claims, Medicare providers, and clinical data. For the use in this analysis, the Medicare 5% sample was utilized which is created based on selecting records with 05, 20, 45, 70 or 95 in positions 8 and 9 of the HIC number (HICN), which represents beneficiary's Medicare identification number. Similarly to the commercial data used, the 5% sample data was limited to Oklahoma insured lives, but considered data from other states for reasonability checking.

Medicaid Market

The Oklahoma Health Care Authority oversees the Medicaid program in the State of Oklahoma. For purposes of our analysis, OHCA provided conditional studies that encompassed many of the high-cost conditions analyzed under this portion of the OSIM project. In addition to the use of these reports, we also utilized the SFY 2014 SoonerCare annual report. Publically available information produced by OHCA can be found on OHCA's website www.okhca.org under the Research tab.

Condition identification

Members in the commercial and Medicare claims information were identified as having a condition using all the (ICD-9) codes listed on the claims within the sample databases. To improve credibility and help lower the risk of false positives, radiology and pathology claims were excluded for the purposes of member's condition identification. Once a member was identified as having a condition, the entire experience period for that member was retroactively given weight towards that chronic condition. This methodology was utilized because of the limited time span over which the base period of analytics covered (only used calendar year 2013 experience).

The identification of conditions in the Medicaid system was based on the methodology utilized by the OHCA group performing the analysis. Based on a review of the methodology stated in each of the disease specific reports, the focus was consistent with our logic by attempting to use ICD-9 diagnosis code information against a claims and enrollment database.



Limitations and Qualifications

This report is intended to analyze the delivery of high-cost services in the state of Oklahoma insurance market. It is our understanding that the State will use this report to help key decision makers plan and implement a health innovation plan for the State in compliance with the Federal SIM grant awarded to Oklahoma in December of 2014. The report may not be suitable for other purposes.

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Differences between our projections and actual amounts depend on the extent to which future experience conforms to the assumptions made for this analysis. It is certain that actual experience will not conform exactly to the assumptions used in this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

The services provided for this project were performed under the signed Contract between Milliman, Inc. (Milliman) and the Oklahoma State Department of Health (OSDH) signed March 27, 2015.

Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. The authors of this presentation are members of the American Academy of Actuaries and meet the qualification standards for performing the analyses contained herein.

