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A CLINICAL EFFICIENCY ANALYSIS APPROACH TO INFLUENCING QUALITY OF CARE STRATEGIES AND AVOIDABLE HEALTH CARE COSTS

Emergency departments (EDs) have become the front door to health care for many Americans, and often, ED visits are for non-urgent — and even routine — health care problems. Overall, estimates of waste in the health care system related to avoidable ED visits totaled approximately $14 billion in 2010, not including replacement costs had services been delivered in a more appropriate setting. The costs of these low-acuity ED visits can be more than triple the cost of treatment in a primary or urgent care setting. However, to put spending for ED visits in perspective, the Medicaid and CHIP Payment and Access Commission (MACPAC) estimated that spending on ED visits represented only about 4% of the overall Medicaid spend in 2011.[1] In Oklahoma's SoonerCare program ED services accounted for approximately $198 million from July 2012 through December 2013, less than 2% of the total Medicaid spend. So why the significant interest in ED utilization? Most likely this is due to the fact that care in the ED costs significantly more than the same care provided in a more appropriate setting such as a primary care office or urgent care setting and because use of the ED for services other than true emergencies often represents issues in other areas of the health care delivery system. These issues can range from access and availability of primary care providers, available transportation after hours and even member conditioning and convenience. Unfortunately, the health services research to date quantifying the quality and cost of these types of "inappropriate" ED visits produce widely disparate results and have served to substantiate many myths due to the variability of the tools and methodological approaches; a standardized solution can help draw a more consistent picture of utilization over time.

A STANDARDIZED APPROACH

There is no lack of health services research on the topic of ED usage. However, nationally there is a shortage of consistent terminology and methodological approaches to study inappropriate and/or avoidable/preventable ED usage, which makes it difficult for researchers, Medicaid program directors, hospital administrators, and even managed care organizations (MCOs) to analyze, compare, and study interventions to address ED utilization patterns. The Oklahoma Health Care Authority has chosen to utilize the following term: Primary Care Treatable/Low-Acuity Non-Emergent (PCT/LANE) is defined as: SoonerCare member ER visits for low-acuity conditions as well as primary care treatable conditions that, with evidence based and consistent outpatient management may not have deteriorated to the point of necessitating a SoonerCare member ER visit.

[1] MAC*Facts*, "Revisiting Emergency Department Use in Medicaid", July 2014, https://www.macpac.gov/wp-content/uploads/2015/01/MACFacts-EDuse_2014-07.pdf last accessed 07-29-15.

Mercer's Low-Acuity, Non-Emergent (LANE) clinical efficiency analysis was built specifically to identify and quantify the impact of LANE ED usage.[2] The analysis is underpinned by extensive health services research with additional input from an expert panel including ED physicians, state Medicaid chief medical officers, and other clinical providers with Medicaid and MCO experience.

IDENTIFICATION AND STRATIFICATION OF EMERGENCY DEPARTMENT VISITS

Mercer's LANE clinical efficiency analysis began with the identification of all ED visits within the study period. For this project, Mercer reviewed SoonerCare member claims experience for service dates between July 1, 2012 and December 31, 2013. Mercer identified ED visits using the revenue code of an outpatient facility emergency room (0450) as well as Healthcare Common Procedure Coding System (HCPCS) Level I procedure codes of 99281 through 99285 (ED evaluation and management).

In order to quantify the comprehensive cost of an ED visit, Mercer aggregated all claims for the same member, facility, and date of service.

The total ED claims identified are as follows:

	Total ED Visits	Total ED Dollars
SoonerCare Choice	612,769	$149,135,722
SoonerCare Traditional	319,490	$ 49,306,934

Emergency department visits are categorized as low-acuity non-emergent if the primary diagnosis is one of 701 diagnoses on Mercer's LANE list. For the SoonerCare Traditional population, 49.3% of ED visits and 52.2% of ED expenditures were categorized as low-acuity non-emergent. For the SoonerCare Choice population, 71.5% of ED visits and 64.7% of ED expenditures were categorized as low-acuity non-emergent. The average unit cost of a low-acuity non-emergent visit was $220.39 for the SoonerCare Choice population and $163.53 for the SoonerCare Traditional population.

Mercer recognizes the significant challenges of influencing member behavior in a Medicaid population, as well as variation in clinical interpretations of the term "avoidable". As a result, each diagnosis code is assigned a unique percentage which represents the portion of visits that could be redirected to a more appropriate setting, or avoided entirely. These percentages are applied to the observed utilization by diagnosis code to quantify the "potentially preventable" ED utilization. Visits with an evaluation and management procedure code of 99281, 99282, 99283 (lower level of clinical complexity) are considered "potentially preventable". Visits with an evaluation and management procedure code of 99284 or 99285 (higher level of clinical complexity) are not included in the analysis of ED visits considered "potentially preventable". These conditions are of high severity, may pose an immediate significant threat to life or physiologic function and require urgent evaluation by the physician or other health care professional. Conditions meeting these criteria are not considered a potentially preventable ED visit.

[2] Note the term LANE is used to describe the Mercer methodology for the analysis described and presented in the chart pack.

The potentially preventable ED utilization is as follows:

	Total Potentially Preventable Visits	**Percent of Total ED Visits**	**Total Potentially Preventable Dollars**	**Percent of Total ED Dollars**
SoonerCare Choice	161,957	26.4%	$20,950,250	14.0%
SoonerCare Traditional	60,041	18.8%	$ 5,173,759	10.5%

To account for the provision of evaluation and management services in a more efficient setting, Mercer has quantified the cost of provider office visits by querying the SoonerCare data for procedure code ranges 99201-99205 (new patient visits) and 99211-99215 (established patient visits). The average cost per office visit for SoonerCare Traditional was $54.41, and the average cost per office visit in SoonerCare Choice was $93.09. The distribution of utilization by procedure code level was not a significant driver of the cost difference.

Mercer applied the provider office visit unit costs as an off-set to the potentially preventable dollars to account for the assumption that care provided in the ED would have still been provided, but in a more efficient setting. Mercer does not consider all low-acuity non-emergent ED visits to be clinically justified, and therefore did not provide an off-set for the proportion of potentially preventable visits for members with more than six low-acuity non-emergent visits during the study period.

The potentially preventable ED utilization net of provider unit cost off-sets is as follows:

	Total Potentially Preventable Dollars	**Net Potentially Preventable LANE Dollars**	**Total Equivalent Provider Office Costs**	**Net Potentially Preventable Percent of LANE Dollars**
SoonerCare Choice	$20,950,250	$6,715,238	$14,235,012	4.5%
SoonerCare Traditional	$ 5,173,759	$2,101,292	$ 3,072,467	4.3%