The Milliman Health Waste Calculator Leveraging APCD Data to Drive Higher Value Care in Virginia







Leveraging APCD Data to Drive Higher Value Care in Virginia

Analyzing Data to Identify Unnecessary or Harmful Medical Tests and Procedures

- Value Based Insurance Design & Choosing Wisely® are key components of Virginia's State Innovation Model (SIM) design
- Key partners in this work include: Virginia Center for Health Innovation, Virginia Health Information, Milliman, and the University of Michigan's Center for Value-Based Insurance Design
- Main strategy is to utilize data from Virginia's All Payer Claims Database and the Milliman MedInsight Health Waste Calculator to identify priorities as to which medical tests and procedures are not generating value for patients and should be reduced.



Overview of Analysis

Important Definitions

Choosing Wisely[®] – designed by the American Board of Internal Medicine and the National Physicians Alliance to help physicians, patients and other health care stakeholders think and talk about overuse of health care resources. Each medical specialty was asked to identify 5 medical tests and/or procedures that they know to be unnecessary and/or harmful. More than 70 specialty society partners are now participating in Choosing Wisely[®].

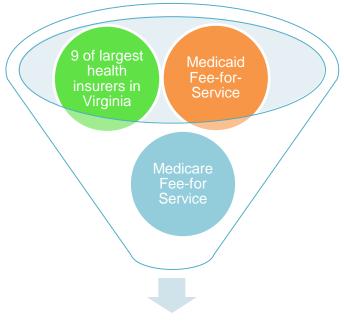
MedInsight Health Waste Calculator – an analytical software tool that provides actionable insight on the degree of necessity of healthcare services and determines optimal efficiency benchmarks.

All Payer Claims Database –includes paid claims from commercial health insurance companies and the Department of Medical Assistance Services. This voluntary program facilitates data-driven, evidence-based improvements in the access, quality, and cost of healthcare. For the purposes of this work, VHI and VCHI were also able to secure Medicare fee for service data to add to the Medicaid and commercial data.



Data Source- Virginia's All Payer Claims Database

Administered by Virginia Health Information



Medical and Pharmacy Claims for 5.5 million Virginians



Overview of Analysis

Defining "Low Value"

- Services that research has proven to add no value in particular clinical circumstances and in fact can lead to subsequent unnecessary patient harm and higher total cost of care
- MedInsight Health Waste Calculator methodology begins with evidence based guidance as prioritized and defined by leading community organizations (by in large Choosing Wisely®)
- Due to the limitations of clinical data within claim records the MedInsight Health Waste Calculator approach is very conservative in terms of its definitions of waste



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"Low Value" Defined: Preoperative Baseline Cardiac Testing

- Measure Description Echocardiography or stress testing performed in adults 18 years and older, 30 days prior to a low or intermediate risk non-cardiac surgery
- Services being measured Echocardiography or stress testing services including facility and professional services

Apfelbaum JL, Connis RT, Nickinovich DG et al. Practice advisory for preanesthesia evaluation: an updated report by the American Society of Anesthesiologists Task Force on Preanesthesia Evaluation. Anesthesiology. 2012 Mar; 116(3):522–38.



Services measured are categorized as:

HIGH VALUE "Necessary"	LIKELY LOW VALUE	LOW VALUE "Wasteful"	ULTIMATE RISK Summary of "Low Value" Preoperative Cardiac Testing Impact
Any inpatient admission 30 days prior to the cardiac testing	None	Absence of any inpatient admission 30 days prior to the cardiac testing	Insufficient evidence on effect of preoperative testing on total perioperative complications or procedure cancellation
Any ED, observation or urgent care visit on or 1 day after the cardiac testing		Absence of Any ED, observation or urgent care visit on or 1 day after the cardiac testing	Preoperative testing may result in abnormal results that may lead to new diagnosis or additional investigations
Diagnosis of high risk markers for CHD 2 years prior to the cardiac testing		Absence of high risk markers for CHD	Unnecessary vitamin D treatment may lead to Vitamin D toxicity
Presence of signs & symptoms of CHD 2 months prior to the cardiac testing		Absence of signs & symptoms of CHD	Additional investigation may cause unnecessary psychological and economic burdens, postponement of surgery, and even morbidity and mortality



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What We've Done So Far-

Fall 2015- First release of state and regional reports March 2016Health system
taskforce created
through the
Virginia Hospital
and Healthcare
Association









January 2016- 2nd release of state and regional reports

April 2016-Report created specifically for Commonwealth of Virginia Employee claims



Summary of Results

	January 2016		
Reporting Period	2013, 2014		
Number of Measures	45		
CMS Data Included?	Yes		
Dollars Spent on Unnecessary Services	\$650 million per year		
Unnecessary Services Identified	1.65 million per year		



Overall Results – Summary

20% of members exposed to 1+ low service

36%

of services measured were low value

2.4%

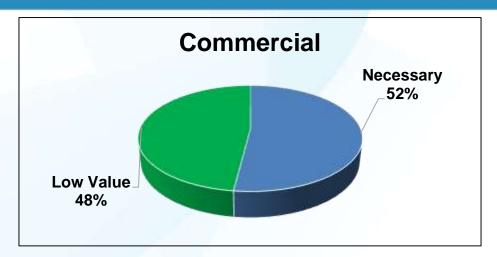
or \$11.94 PMPM in claims were unnecessary

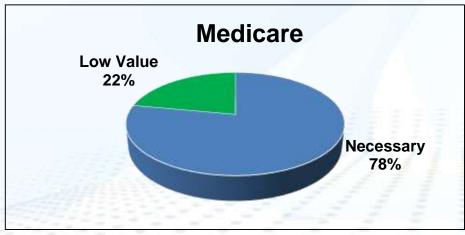
Potential Cost Savings of \$650 Million Per Year

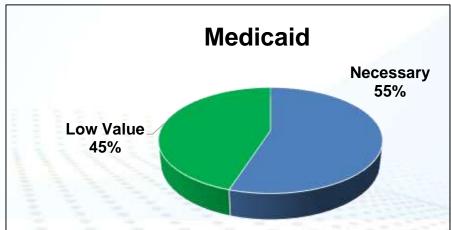


2014 Statewide Results by Insurance Type



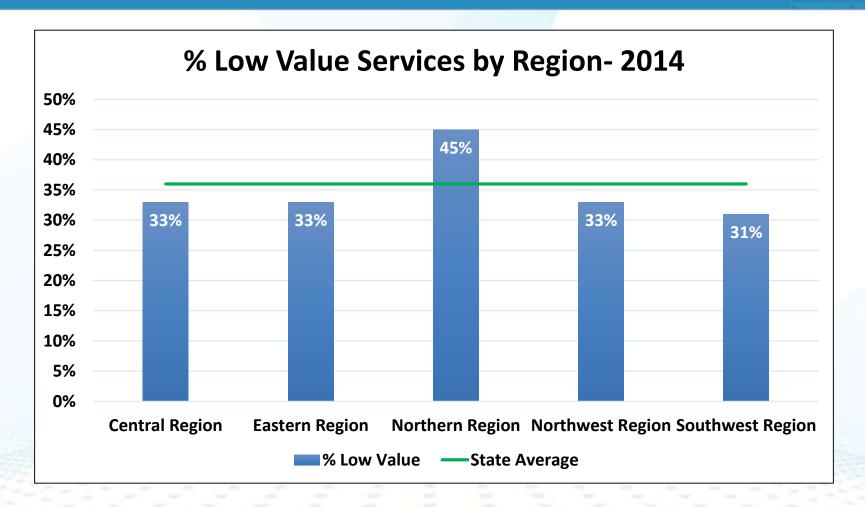














Top 5 Measures by Cost- 2014

Measure	Total Services Measured	Low Value Index (%)	Low Value Services (#)	Unnecessary Spending (\$)
Baseline labs for patients undergoing low-risk surgery	571,600	79%	453,447	\$184,781,018
Stress cardiac or advanced non-invasive imaging in the initial evaluation of patients w/o symptoms	219,878	13%	27,817	\$185,997,938
EKGs or other cardiac screening for low-risk patients w/o symptoms	2,268,194	6%	147,423	\$60,499,385
Routine Pap tests in women 21–65 years of age	199,865	81%	161,539	\$37,558,706
PSA-based screening for prostate cancer in all men regardless of age	313,011	42%	132,793	\$31,501,675



Results for State of Virginia Employee Claims

43%

of services measured were determined to be low value

46%

of low value services were related to screening tests

\$9.95 PMPM in claims were unnecessary

Potential Cost Savings of \$25 Million Per Year



Caveats

- The Health Waste Calculator does no additional data validation, it relies on the APCD processes in total to review data quality issues before the Health Waste Calculator (HWC) is run.
- "Waste" is defined in each HWC Clinical Specification per measure. The VHI APCD has access to all the clinical specifications and will be reasonable in the distribution of the clinical assumptions to the interested parties.
- The majority of HWC measures require a one year historical look-back period. The subsequent reporting summaries are for incurred year 2014 with historical data going back to 1/1/2011. Please see the HWC Clinical specifications for each measure to review the Milliman historical look-back assumptions.



Early lessons learned

- Word Choice Matters- "Waste" will strike a nerve with certain audiences
- May want to focus on reducing harmful measures first and not focus solely on potential cost savings
- May want to prioritize reducing those measures with a high waste index, even if the likely cost savings is lower. Easier to message and change behavior.
- Need to be prepared to address provider medical liability concerns
- Consumer education needs to be conducted concurrent with provider education



Potential Levers

Sample Opportunity

Measure	Total Services	Low Value Services	Low Value Services /1K	Low Value \$	Unit Cost	% of Overall Low Value \$	% of Total Overall \$	Quality Index	Low Value Index
Screening Tests									
Vitamin D Screening "Don't perform population based screening for 25-OH- Vitamin D deficiency"	173,381	173,381	32.31	\$23,821,569	\$137	3.6%	1.3%	0%	100%

Lever	Potential Strategy	Opportunity to Impact Cost		
Analytics and Reporting	Develop focused reporting by provider group	Med		
Education and Promotion	Create member awareness campaigns	Low – Med		
Claim Adjudication	Implement claim edits to deny inappropriate care	High		
Provider Network	Incorporate into provider network development strategy	Med - High		
Medical Management	Add utilization management requirements	High		
Benefit Design	Incorporate value based design	High		



What's Next-

- State and regional reporting for 2015
- Potential benefit design changes for state employees
- Health system specific reporting
- Hospital taskforce to select measures of focus
- Employer specific reporting

