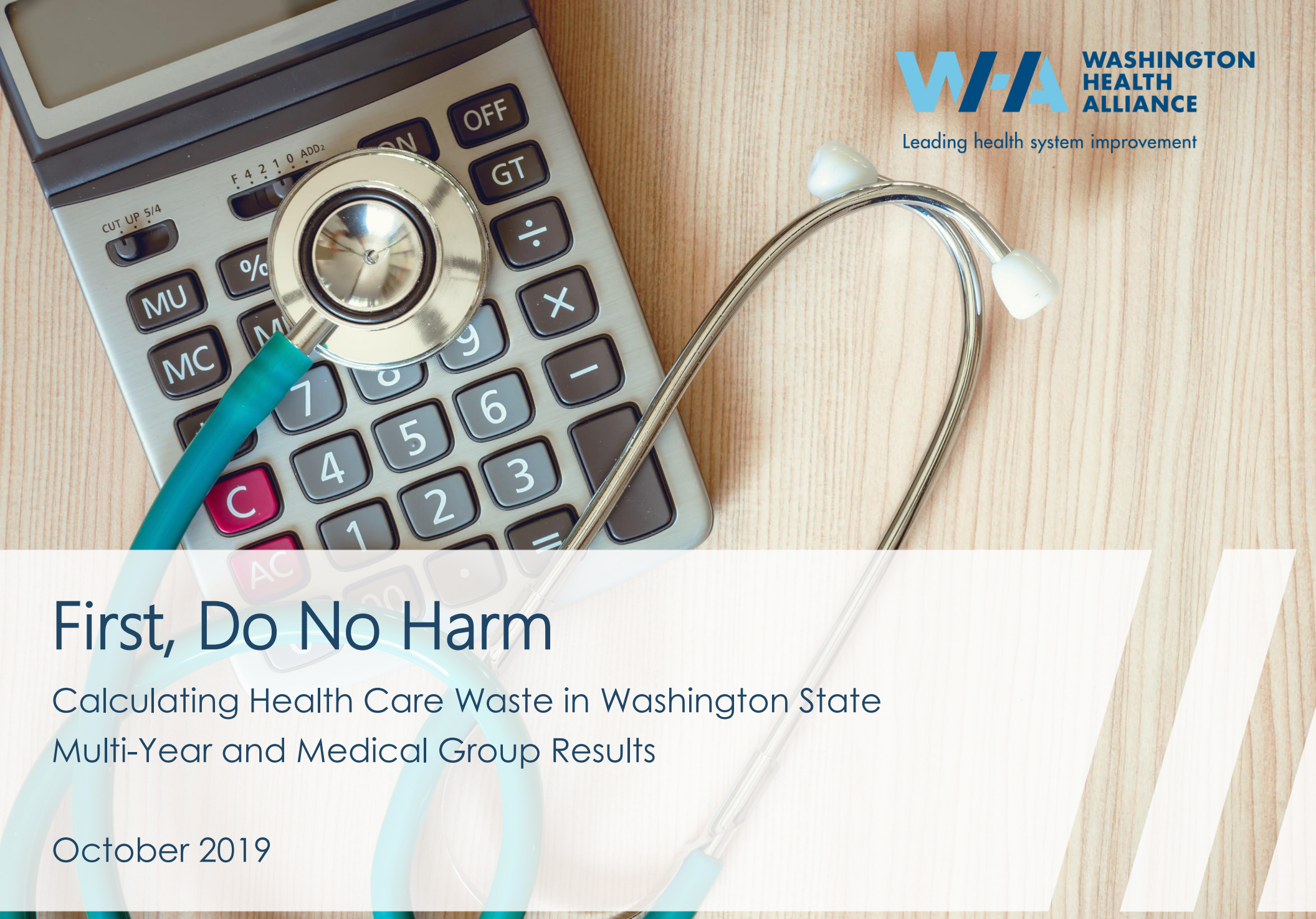

WASHINGTON HEALTH ALLIANCE

Leading health system improvement

First, Do No Harm

Calculating Health Care Waste in Washington State

Multi-Year and Medical Group Results

October 2019

For more information about this report, contact the Washington Health Alliance: communitycheckup@wahealthalliance.org.

For more information about the Milliman MedInsight Health Waste Calculator™ contact Marcos Dachary: Marcos.Dachary@milliman.org.

Disclaimer: The results included in this report were generated using the Milliman MedInsight Health Waste Calculator (Calculator) and the All Payer Claims Database of the Washington Health Alliance. The Washington Health Alliance and Milliman make no warranties with regard to the accuracy of the Calculator Intellectual Property or the results generated through the use of the Calculator and Alliance data. Neither Milliman nor the Alliance will be held liable for damages of any kind resulting from the use of results included in this report.

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EXECUTIVE SUMMARY

This report by the Washington Health Alliance (Alliance) is based on an analysis for both the commercially-insured and Medicaid-insured populations from the Alliance's All Payer Claims Database using the Milliman MedInsight Health Waste Calculator™ (Calculator). The Alliance used 47 of the Calculator's 48 measures of common treatments, tests, and procedures identified by the national Choosing Wisely® program and other sources, and known by the medical community to be overused.[1]

This is the Alliance's third report using the Calculator. This report includes multi-year data (CY 2014-2017). And, for the first time in Washington state and nationally, the Alliance is publishing results at a medical group level using the Calculator.

The Calculator identifies potentially wasteful services and takes into account specific clinical circumstances when services may or may not be appropriate. These categories are used to describe the results:

- **Necessary:** (not wasteful): the service was clinically appropriate
- **Likely Wasteful:** the appropriateness of the service should be questioned
- **Wasteful:** the service was very likely unnecessary and should not have occurred

In this report, the Likely Wasteful and Wasteful categories are combined and identified as **low-value care**. Of the approximately **9.5 million** services examined for both the Medicaid and commercially-insured populations:

- **51%** were found to be low-value (4,860,902);
- an average of **846,973** individuals received at least one low-value service in each of the four years studied;
- an **estimated $703 million** was spent on low-value care over the four-year period; and
- **10 areas of low-value care** accounted for more than 90% of all low-value care found in this analysis.

Results are provided for 32 medical groups that serve the commercially-insured and 32 medical groups that serve the Medicaid-insured. There is wide variation among the performance across these medical groups, with at least a two-fold difference between the best and worst performers for low-value services per 1,000 population.

From 2014 to 2017, there was a significant decrease in low-value care. Including patients attributed to any medical group,[2] there was a **10%** decrease for the commercially-insured and a **24%** decrease for the Medicaid-insured. This is good news but we don't have a full explanation for this trend. We are hopeful that it signals greater awareness of low-value health care and a willingness to take action to change individual and practice behavior to reduce overuse.

[1] The Calculator measure regarding "prescribing two or more anti-psychotics" was deleted from this analysis.
[2] Excludes patients we were unable to attribute to a medical group.

INTRODUCTION

The Alliance has titled this report series, *First, Do No Harm*. "First, do no harm" is one of the principal rules of ethics taught in medical school. It means that it may be better not to do something or even to do nothing, than to do something that carries a greater risk of harm than benefit.

Everyone in the health care system is aware of the significant opportunity to reduce waste, despite delivering hundreds of thousands of low-value treatments, tests, and procedures *every day* that do not help and may harm patients in very significant ways: physically, emotionally, and financially. And, despite concerted efforts by clinician leaders and others across the country to emphasize and teach the importance of consistently delivering evidence-based, high-value care, wide variation in practice persists.

It is true that variation may exist because well-established evidence is missing on comparative effectiveness in many areas of health care. But this is not true for the areas of health care assessed by the Health Waste Calculator. Every measure in the Calculator ties directly back to treatment recommendations made by well-established and trusted professional medical societies, government entities (e.g., U.S. Preventive Services Task Force), and top-tier medical journals. So in this report, when there is variation, there is also opportunity for improvement – and lots of it.

This is the first report of its kind in our nation, illuminating overuse of care at the medical group level using the Calculator. Reporting on low-value care is relatively new and it may feel uncomfortable for many. Some medical groups may see their performance in relation to others as unwelcome news. And some may want to debate the nuances of the data rather than acknowledge the need to address the wide variation of low-value care delivered and the implications for patients, their families, and our communities. Patients and health care purchasers (i.e., employers and union trusts) are looking to the health care system to acknowledge the problem and help lead solutions to address overuse and waste. Overuse in health care is not just a problem of waste and financial burden – it is also a far-reaching patient safety concern.

Clinicians face many challenges and pressures in the delivery of care: keeping up with rapidly changing science, demanding patient schedules and limited time, patient preferences, peer influence, fear of litigation, and strong financial incentives to do more, just to name a few. We acknowledge all of this as a reality. We also acknowledge, as shown in the results in this report, that over the past four years, low-value services have been delivered 4.9 million times impacting more than 840,000 people in Washington state per year – and this is just looking at the Calculator's 47 discrete areas of care. This is a problem worthy of our collective attention.

The Alliance's goal in sharing these results is that they spur important conversations within and among medical groups as they ask the question, "how can we improve and better protect and serve our patients?" As we often say, "you can't manage what you don't measure." With the Calculator, we are *measuring* areas of care that are commonly acknowledged by the medical profession itself as being overused and potentially harmful to patients. We hope to inspire provider action to *manage* and reduce overuse and harm with a sense of urgency.

The results in this report are not the whole story – or even close to it. In fact, it's just the tip of the iceberg. But the areas of overuse identified in this report are "low hanging fruit" as they say, and they are an excellent place to start.

But medical groups can't solve this problem alone. Our goal is also to ensure that health care purchasers and health plans participate in developing and executing strategies to address low-value care with the same sense of urgency. Value-based contracting, benefit design and a redirection of financial incentives are known methods to shift the dynamics and influence some of the challenges faced by providers.

Patient engagement is the other critical component. Patients are both victims and drivers of overuse. We have to work collectively to address this by utilizing powerful consumer-facing messaging about overuse, its associated harms, and what patients can do to avoid them.

As a multi-stakeholder collaborative, the Alliance is striving to shift the discussion from what "they" are doing or not doing to what "we" are doing together, to solve these very challenging problems – problems that can only be solved with collaboration. We believe transparency is foundational for taking action – shining a light on low-value care, unwarranted variation, and the opportunities it presents. But *taking action* is paramount. We stand ready to facilitate and drive discussions with medical groups, employers, and health plans on how to use these results in a way that reduces physical, emotional, and financial harm to patients and improves the quality of health care they receive.

While some may argue that these results represent too small a piece of the health care pie to command our attention, all of us are personally impacted by an industry that is comprised of an estimated 25% waste with up to $100 billion spent annually on overuse alone.[3] In our corner of the country, we have a known opportunity to tackle about $200 million per year by focusing on a very short list of things. Can we really afford not to? Lots of variation means lots of opportunity to improve quality and patient safety and reduce spending. Let's get going!

[3] Shrank, W. H., Parekh, N., & Rogstad, T., Waste in the US Health Care System Estimated Costs and Potential for Savings, *JAMA: Journal of the American Medical Association*, https://jamanetwork.com/journals/jama/fullarticle/2752664?resultClick=1, Published October 7, 2019. Accessed October 8, 2019.

There is work that we can each do now. With the potential for patient harm looming large and health care spending a national concern, we cannot afford to continue on the path of overuse and waste. There are steps that we can and must take as a community to dramatically reduce utilization of health care services that the medical profession itself has called into question.

1. **Overuse must be at the core of honest discussions of health care value in Washington state.** Clinical appropriateness must be a criterion for high quality. The continual overuse of low-value health care services carries with it the potential for harm to patients – physical, emotional and financial. All forms of harm are important.
2. **Clinical leaders within medical groups across the state of Washington must advance efforts to incorporate reduction of overuse into local practice culture.** Physicians play a critical role in initiating conversations about appropriate – and inappropriate – care with patients and also with other clinicians. Making practice patterns transparent is a crucial first step. And then we must use the information to drive the conversation and collaborative learning about how to curb overuse of low-value care. Using tools, such as electronic medical records and electronic order entry, are important ways to systematize appropriateness at the point of care.
3. **Patients are both victims and drivers of overuse AND they need help to make the right choices.** We need to work together to help patients understand treatment choices and the risk of harm associated with overuse. Counter-acting direct-to-consumer advertising and misinformation found on the internet is a significant challenge. Engaging in shared decision-making, utilizing objective, evidence-based information, is an important step on this path. Purchasers and health plans can help with strongly-worded consumer-facing messaging about overuse and its associated harms.
4. **We need to keep our collective "foot on the gas" to transition from paying for volume to paying for value.** We must remove (or at a minimum, substantially reduce) payment incentives for providers to always "do more" and instead incentivize provider organizations to prioritize high-value care, quality, reduction of harm and management of total cost. Public and private purchasers have an essential role to play in demanding this transition.
5. **Value-based provider contracts must include measures of overuse.** We cannot clearly identify opportunities for improving value unless we are specifically looking at overuse *along with other important measures of quality*. Measuring total cost of care is essential, but it is insufficient to drive targeted reductions in overuse.

OVERVIEW

For the first time, the Alliance is reporting on low-value care over a four-year period, from January 1, 2014 through December 31, 2017 for the Medicaid and commercially-insured populations using the Alliance's All Payer Claims Database and the Calculator. The Calculator includes 48 measures of common treatments, tests, and procedures identified by the national Choosing Wisely® program and known by the medical community to be overused. This analysis uses 47 of those 48 measures and deletes the measure on prescribing two or more anti-psychotic medications concurrently. The Calculator is clinically nuanced and takes into account specific circumstances when services may or may not be appropriate. It not only identifies potentially wasteful services but also defines the degree of appropriateness for care. Care is categorized as:

- **Necessary (not wasteful):** the service was clinically appropriate
- **Likely Wasteful:** the appropriateness of the service should be questioned
- **Wasteful:** the service was very likely unnecessary and should not have occurred

Health care services identified as Likely Wasteful and Wasteful are combined and reported as **low-value care**.

Of the approximately **9.5 million** services examined (47 measures) for the commercially and Medicaid-insured over the four-year period:

- slightly more than **one-half (51%)** were considered low-value and the vast majority (96%) of low-value services are categorized as wasteful versus likely wasteful; and,
- that low-value care impacted on average **846,973 individuals** per year[4] at an estimated cost of **$703 million**.[5]

In addition to reporting on statewide waste trends, the Alliance for the first time is reporting on waste by individual medical groups, categorized by patient population including commercial and Medicaid-insured.

[4] This is equivalent to approximately 11% of the total state population.

[5] Estimated costs are only associated with the particular service in question and does not include any ensuing tests, procedures, or treatments that occur subsequently, thus, the financial impact of overuse in Washington state is likely underreported. For more information, see Appendix C.

Health Waste Calculator Results for Commercial and Medicaid-Insured

January 1, 2014 - December 31, 2017

	Commercial	Medicaid	Combined
Total number of services	6,222,420	3,303,945	9,526,365
Total number of low-value services (wasteful and likely wasteful)	3,068,974	1,791,928	4,860,902
Waste index	49.3%	54.2%	51.0%
Average number of distinct members with at least one low-value service per year	546,624	300,350	846,973
Estimated total spending on low-value care	$585,554,334	$117,650,860	$703,205,194

Categorization of Services for Commercial and Medicaid-Insured

January 1, 2014 - December 31, 2017

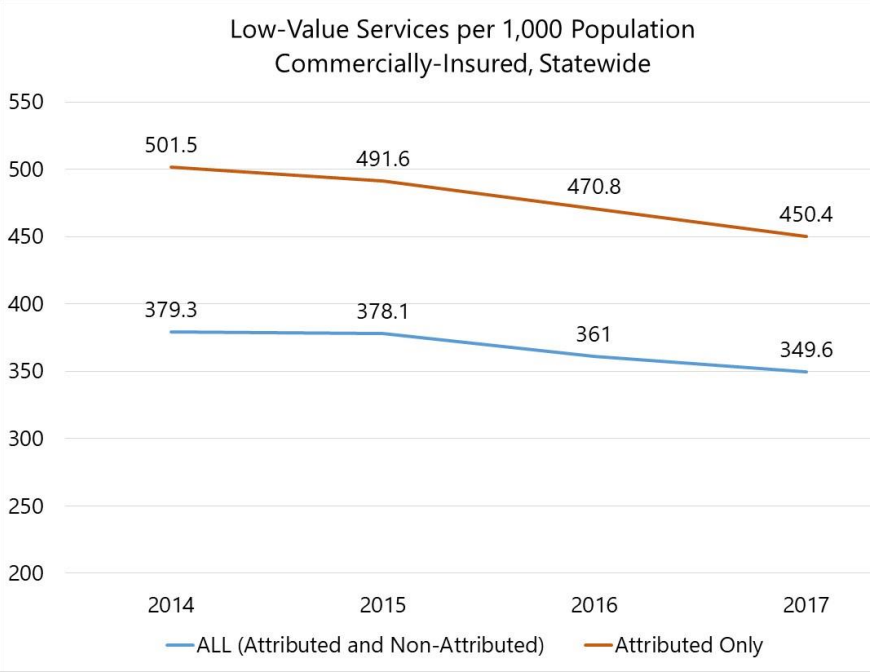
	Wasteful	Likely wasteful	Necessary	Total
Commercial	2,976,097 (47.8%)	92,877 (1.5%)	3,153,446 (50.7%)	6,222,420
Medicaid	1,677,493 (50.8%)	114,435 (3.5%)	1,512,017 (45.8%)	3,303,945
Combined	4,653,590 (48.8%)	207,312 (2.2%)	4,665,463 (49.0%)	9,526,365

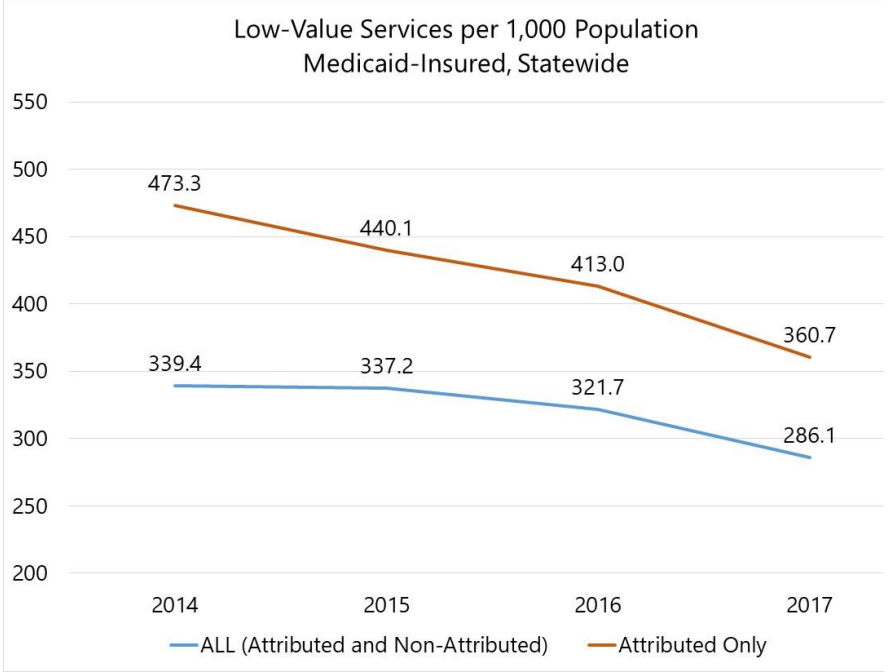
STATEWIDE RESULTS

For the commercially-insured population, from 2014 to 2017, there has been an **8%** decline in the rate of low-value services (likely wasteful and wasteful) per 1,000 population overall. When we examine the rates for only those patients that we were able to attribute to *any* medical group[6], the decline is **10%**. For the Medicaid-insured population for the same time period, there has been a **16%** decline in the rate of low-value services (likely wasteful and wasteful) per 1,000 population overall. When we examine the pattern for only those patients that we were able to attribute to *any* medical group, the decline is **24%**.

These changes over time are statistically significant at the 99% confidence level.

Statewide Low-Value Care Comparison for Commercial and Medicaid-Insured





[6] Patients are attributed to providers/medical groups based on the Alliance's Attribution Method (see Appendix B). "Attributed Only" includes all patients attributed to any medical group. Approximately 28% of commercially-insured members and 30% of Medicaid-insured members could not be attributed to a PCP because there was insufficient visit information during a calendar year. The rate of low-value services per 1,000 among non-attributed members is significantly lower (about 25%-30% of the rate for attributed members). Members who do not utilize a regular provider tend to have different care delivery experiences including less use of the health care system and/or higher use of ERs.

COMMERCIALLY-INSURED RESULTS FOR 32 MEDICAL GROUPS

Using the Alliance's All Payer Claims Database[7] and the Calculator, the amount of waste for the commercially-insured by medical group was determined for 47 treatments, tests, and procedures commonly regarded as overused.

Health services were attributed to a provider[8] based on the Alliance Attribution Methodology.[9] Providers were then aligned with medical groups based on the Alliance's Clinic Rosters that are maintained by provider organizations.

Results show that for calendar years 2014 - 2017, there was an average of **2.1 million** commercially-insured members per year. Of these:

- **51%** of members were attributed to a provider in the Alliance's Clinic Rosters, including medical groups with four or more providers;
- **74%** of members that were attributed to a provider in the Alliance's Clinic Rosters are attributed to 32 medical groups[10]; and
- **77%** of all low-value services examined in this analysis and attributed to a provider in the Alliance's Clinic Rosters were delivered by these 32 medical groups.

Specific results are included in this report for these 32 medical groups. It is important to note that these 32 medical groups were selected for inclusion in this report because they had larger numbers of attributed commercially-insured members, ensuring more robust and reliable results; they were not selected based on the amount of low-value care provided. All medical groups have at least 14,000 attributed members (CY 2014 – 2017) in this analysis.

Results are reported as per 1,000 attributed members and the estimated cost of low-value care per attributed member per month (PMPM) to take into account different practice sizes and number of attributed members.

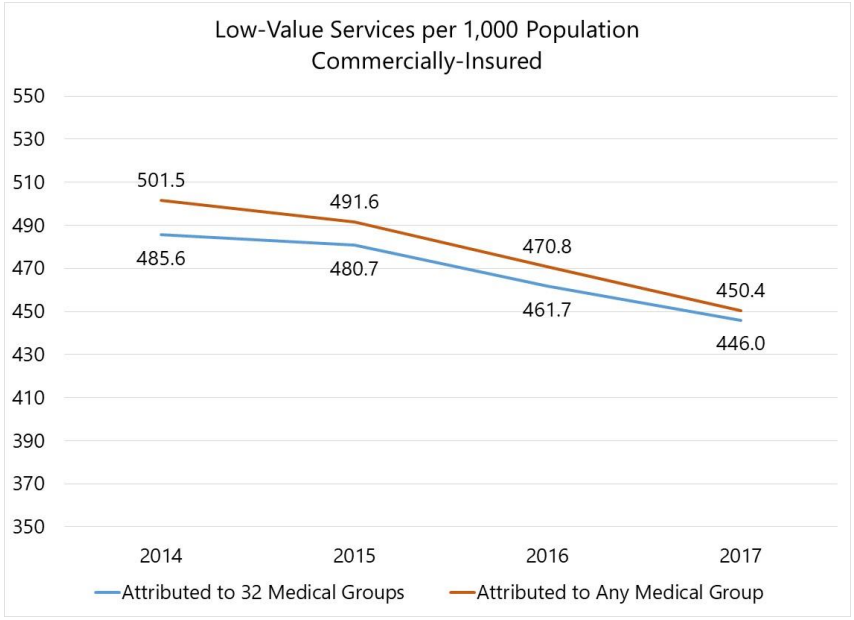
[7] The Alliance's database includes data for over 4 million insured lives including commercial and Medicaid. This is a subset of insured lives in the state of Washington and does not reflect the experience of all individuals residing and seeking care in Washington.
[8] Approximately 28% of members could not be attributed to a PCP because there was insufficient visit information during a calendar year and 21% of members were attributed to a provider that was not included in the Alliance's clinic rosters because of practice size or incomplete roster information.
[9] See Appendix B.
[10] The medical group analysis for the commercially-insured population excluded federally qualified health centers and practices that predominantly serve a pediatric practice serving individuals 17 years of age and younger.

Commercially-Insured Medical Groups (Alphabetical Order)		
CHI Franciscan	Northwest Physicians Network[d]	The Vancouver Clinic
Columbia Medical Associates[a]	Overlake Medical Clinics	Three Rivers Family Medicine
Confluence Health	Pacific Medical Centers	Trios Medical Group
Edmonds Family Medicine[b]	PeaceHealth Medical Group	Tumwater Family Practice
EvergreenHealth Medical Group	Providence Medical Group - Spokane	UW Medical Center
Family Care Network	Providence Physicians Group NW	UW Neighborhood Clinics
Kadlec Clinic[c]	Skagit Regional Health	UW Valley Medical Group
Kaiser Permanente Washington	Sound Family Medicine	Virginia Mason
Memorial Physicians	Swedish Medical Group[c]	Walla Walla Clinic
MultiCare Health System	The Everett Clinic[d]	Western Washington Medical Group
MultiCare Rockwood Clinic	The Polyclinic[d]	

[a] Part of Kaiser Permanente Washington.
[b] Part of Virginia Mason.
[c] Part of Providence Health Services.
[d] Part of Optum Care.

Of the **3,038,816** services examined for the commercially-insured for these 32 medical groups:

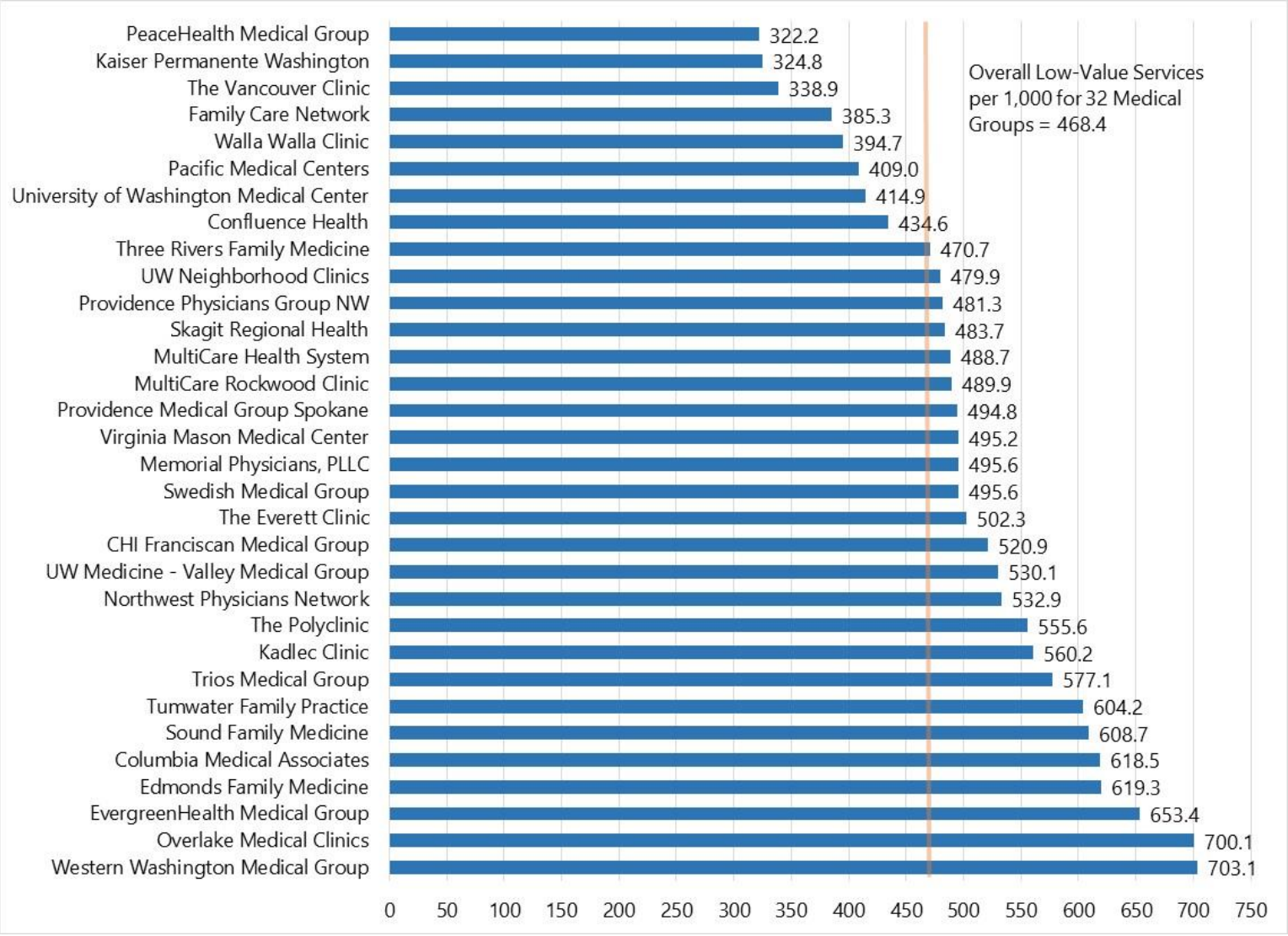
- **1,462,333** were low-value services (likely wasteful or wasteful), delivered at an estimated cost of **$285 million**.
- The overall Waste Index is **48%** – meaning that close to one-half of the services examined were found to be low-value.
- The overall estimated PMPM[11] for low-value care is **$7.61**; this is approximately **1.4%** of the total estimated PMPM overall, and approximately **14%** when compared to an estimated PMPM for primary care alone.[12]
- The overall number of low-value services per 1,000 attributed population for the 32 medical groups is 468.4 for the four-year time period.[13]
- As seen in the graph to the right, the rate of low-value services per 1,000 is slightly lower for the 32 medical groups when compared to the rate for care attributed to any medical group.
- There has been an **8%** decline in the rate of low-value services (likely wasteful and wasteful) per 1,000 for the 32 medical groups compared to a **10%** decline for those patients we were able to attribute to *any* medical group.
- There is notable variation among medical group results (pages 14-15). A **2.2-fold** difference exists between the best and worst performing medical groups for low-value services per 1,000 attributed population (page 14).



[11] Per attributed member per month.
[12] Estimated primary care PMPM is approximately 10% of the total PMPM amount of $525.
[13] For the four-year period in this analysis, there were a total of 37.5 million member months for the 32 medical groups.

Medical Group Results[14] for the Commercially-Insured Population: Low-Value Services per 1,000

Combined Results for January 1, 2014 - December 31, 2017[15]

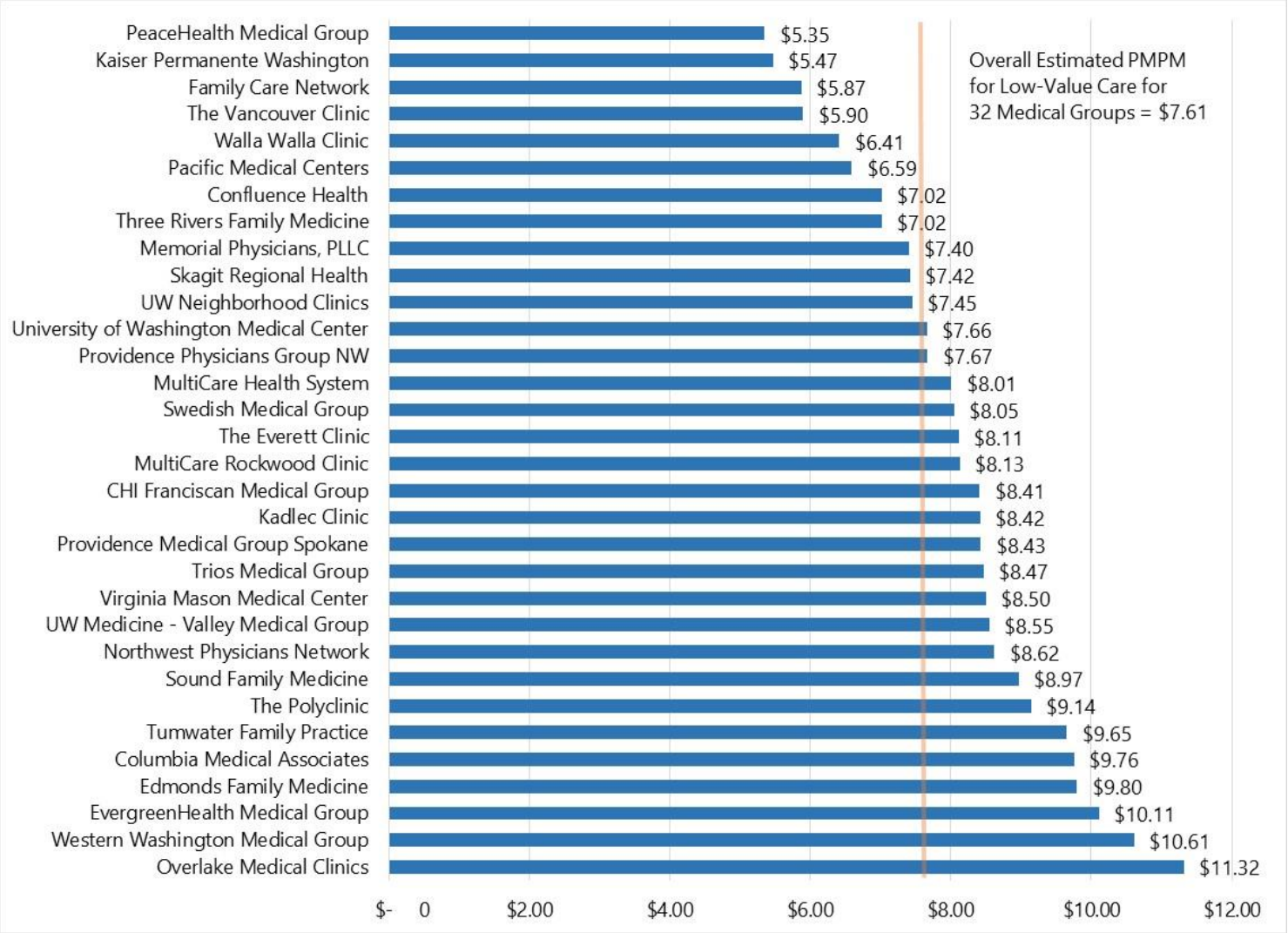


[14] Order shown untested for statistical significance.

[15] Total number of wasteful services (likely wasteful and wasteful) divided by the total number of attributed member months, multiplied by 12,000.

Medical Group Results[16] for the Commercially-Insured Population: Estimated PMPM[17] for Low-Value Care

Combined Results for January 1, 2014 - December 31, 2017[18]



[16] Order shown untested for statistical significance.

[17] Per attributed member per month.

[18] Total estimated spending on low-value services (likely wasteful and wasteful) divided by the total number of attributed member months.

TOP 10 AREAS OF LOW-VALUE CARE FOR THE COMMERCIALLY-INSURED

The following **10** areas accounted for approximately **2.9** million low-value services and **94%** of all low-value care evaluated in this analysis between January 1, 2014 through December 31, 2017. These low-value services impacted **2.4** million people at an estimated cost of **$500 million.** These results are based on data for all medical groups.

Top 10 Areas of Low-Value Care for the Commercially-Insured Provided by All Medical Groups (CY 2014 – 2017)

Low-Value Services	# of Services Examined	# of Low-Value Services	Waste Index	# of People Impacted	Estimated Spend on Low-Value (millions)
1. Annual cardiac screening (EKG or other testing including lab) in low risk individuals without symptoms	1,761,473	610,150	35%	566,428	$76.3
2. Opiates prescribed for acute low back pain in the first four weeks	521,299	482,814	93%	240,567	$70.5
3. Antibiotics prescribed for acute URI and ear infections	480,842	480,662	100%	426,053	$52.9
4. Pre-op baseline lab studies in patients without significant systemic disease undergoing low-risk surgery	416,944	351,793	84%	306,508	$69.7
5. PSA screening for prostate cancer in all men regardless of age	320,095	275,289	86%	259,880	$106.2
6. Eye imaging tests for patients without symptoms or signs of significant eye disease	581,027	176,778	30%	144,162	$30.0
7. Too frequent cervical cancer screening for women who have had adequate prior screening and are not otherwise at high risk for cervical cancer	715,669	173,607	24%	171,797	$28.0
8. Routine general health checks performed for asymptomatic adults ages 18-64	142,445	142,445	100%	141,909	$27.1
9. Screening for Vitamin D deficiency	390,388	123,155	32%	119,695	$33.5
10. Nonsteroidal anti-inflammatory drugs (NSAIDs) prescribed for individuals with a diagnosis of hypertension, heart failure or chronic kidney disease	74,544	57,260	77%	50,698	$5.4

MEDICAID-INSURED RESULTS FOR 32 MEDICAL GROUPS

Using the Alliance's All Payer Claims Database[19] and the Calculator, the amount of waste by medical group for the Medicaid-insured was determined for 47 treatments, tests, and procedures commonly regarded as overused.

Health services were attributed to a provider[20] based on the Alliance Attribution Methodology.[21] Providers were then aligned with medical groups based on the Alliance's Clinic Rosters that are maintained by provider organizations.

Results show that for calendar years 2014 - 2017, there was an average of **1.4 million** Medicaid-insured members per year. Of these:

- **48%** of members were attributed to a provider in the Alliance's Clinic Rosters, including medical groups with four or more providers;
- **65%** of members that were attributed to a provider in the Alliance's Clinic Rosters are attributed to 32 medical groups[22]; and
- **68%** of all low-value services examined in this analysis and attributed to a provider in the Clinic Rosters were delivered by these 32 medical groups.

Specific results are included in this report for these 32 medical groups. It is important to note that these 32 medical groups were selected for inclusion in this report because they had larger numbers of attributed Medicaid-insured members, ensuring more robust and reliable results; they were not selected based on the amount of low-value care provided. All medical groups have at least 21,000 attributed members (CY 2014 – 2017) in this analysis.

Results are reported as per 1,000 attributed members and per attributed member per month (PMPM) to take into account different practice sizes and number of attributed members.

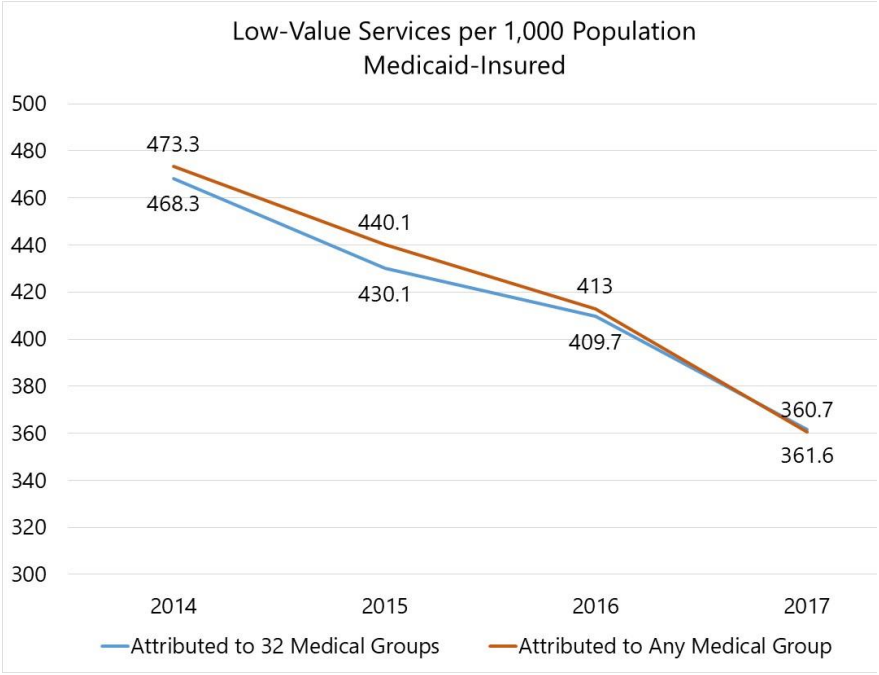
[19] The Alliance's database includes data for over 4 million insured lives including commercial and Medicaid. This is a subset of insured lives in the state of Washington and does not reflect the experience of all individuals residing and seeking care in Washington.
[20] Approximately 30% of members could not be attributed to a PCP because there was insufficient visit information during a calendar year and 21% of members were attributed to a PCP not included in the Alliance's clinic rosters because of practice size or roster information.
[21] See Appendix B.
[22] The medical group analysis for the Medicaid-insured population excludes practices that predominantly serve a pediatric practice including individuals 17 years of age and younger.

Medicaid-Insured Medical Groups (Alphabetical Order)		
CHI Franciscan	Kaiser Permanente Washington	Sea Mar Community Health Centers
Columbia Basin Health Association	Memorial Physicians	Skagit Regional Health
Columbia Medical Associates[a]	MultiCare Health System	Swedish Medical Group[b]
Community Health Center of Snohomish County	MultiCare Rockwood Clinic	The Everett Clinic[c]
Community Health of Central Washington	Neighborcare Health	The Polyclinic[c]
Confluence Health	Northwest Physicians Network[c]	UW Medical Center
Family Care Network	PeaceHealth Medical Group	UW Neighborhood Clinics
Harborview Medical Center	Peninsula Community Health Services	UW Valley Medical Group
HealthPoint	Providence Medical Group - Spokane	Yakima Neighborhood Health Services
International Community Health Centers	Providence Physicians Group NW	Yakima Valley Farm Workers Clinic
Kadlec Clinic[b]	Public Health Seattle King County	

[a] Part of Kaiser Permanente Washington.
[b] Part of Providence Health Services.
[c] Part of Optum Care.

Of the **1,418,126** services examined for the Medicaid-insured for these 32 medical groups:

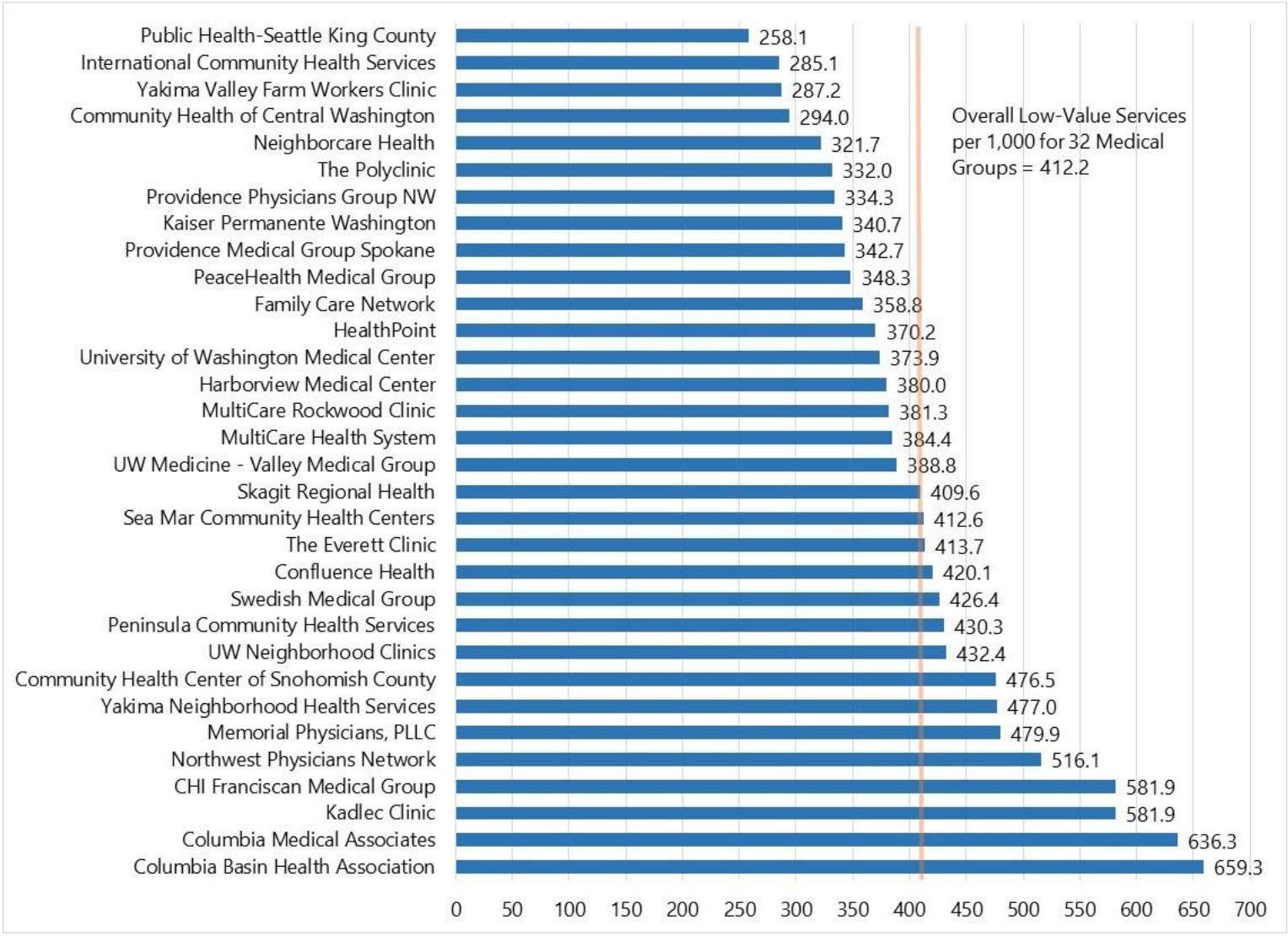
- **729,546** were low-value services (likely wasteful or wasteful) delivered at an estimated cost of **$52 million**.
- The overall Waste Index is **51%** – meaning that slightly more than half of the services examined were found to be low-value.
- The overall estimated PMPM[23] spend is **$2.43** or approximately **1%** of the total PMPM overall, and approximately **10%** when compared to an estimated PMPM for primary care alone.[24]
- The overall number of low-value services per 1,000 attributed population for the 32 medical groups is 412.2 for the four-year time period.[25]
- As seen in the graph to the right, the rate of low-value services per 1,000 is slightly lower for the 32 medical groups (2014-2016) and essentially the same when compared to the rate for care attributed to any medical group.
- There has been a **23%** decline in the rate of low-value services (likely wasteful and wasteful) per 1,000 for the 32 medical groups compared to a **24%** decline for those patients we were able to attribute to *any* medical group.
- There is notable variation among medical group results (pages 20-21). A **2.6-fold** difference exists between the best and worst performing medical groups for low-value services per 1,000 attributed population (page 21).



[23] Per attributed member per month.
[24] Estimated primary care PMPM is approximately 10% of the total PMPM amount of $252.
[25] For the four-year period in this analysis, there were a total of 21 million member months for the 32 medical groups.

Medical Group Results[26] for the Medicaid-Insured Population: Low-Value Services per 1,000

Combined Results for January 1, 2014 - December 31, 2017[27]

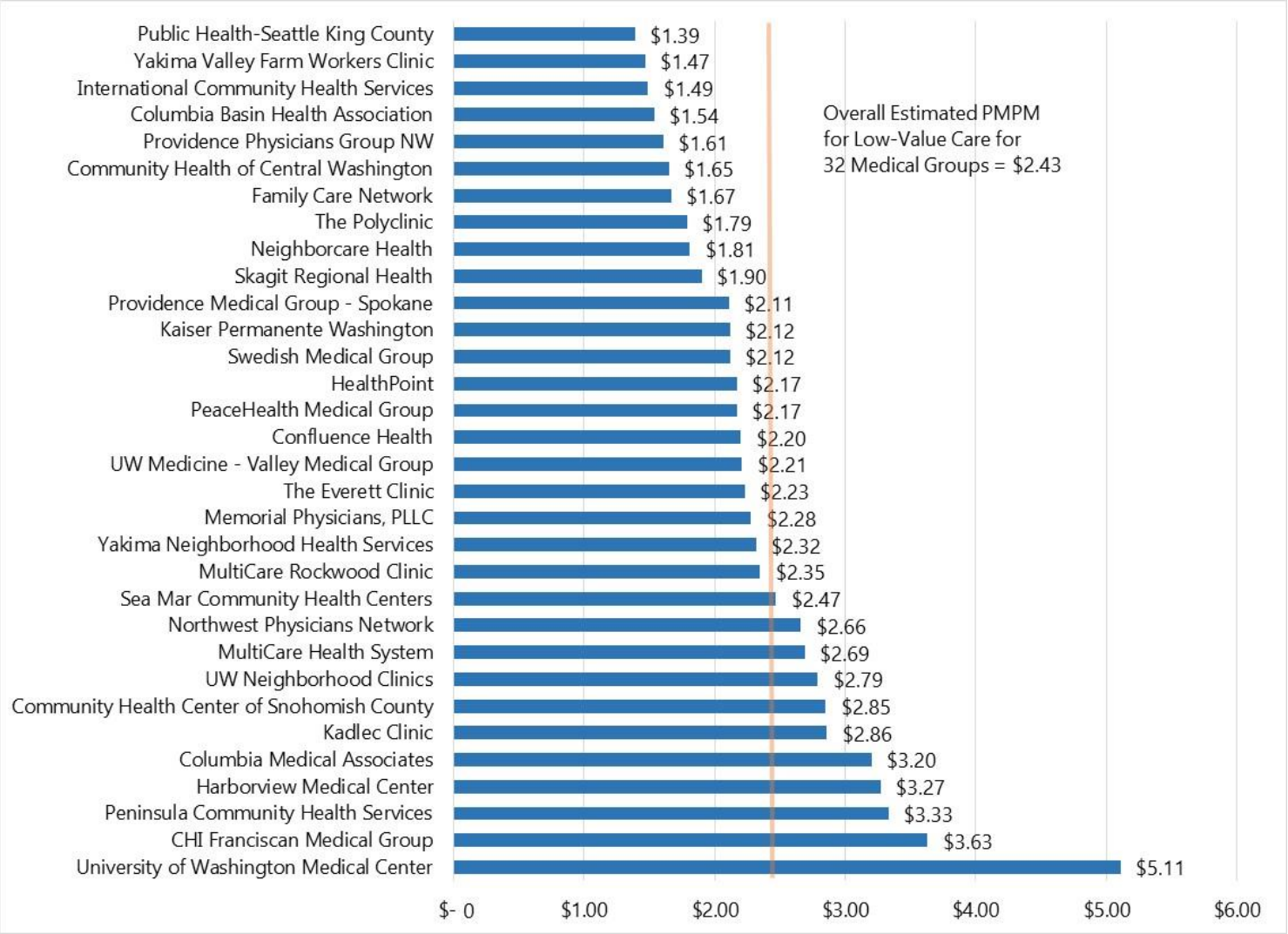


[26] Order shown untested for statistical significance.

[27] Total number of wasteful services (likely wasteful and wasteful) divided by the total number of attributed member months, multiplied by 12,000.

Medical Group Results[28] for the Medicaid-Insured Population: Estimated PMPM[29] for Low-Value Care

Combined Results for January 1, 2014 - December 31, 2017[30]



[28] Order shown untested for statistical significance.

[29] Per attributed member per month.

[30] Total estimated spending on low-value services (likely wasteful and wasteful) divided by the total number of attributed member months.

TOP 10 AREAS OF LOW-VALUE CARE FOR THE MEDICAID-INSURED

The following **10** areas accounted for **1.6 million** low-value services and **92%** of all low-value care provided between January 1, 2014 and December 31, 2017 to the Medicaid-insured population. These low-value services impacted **1.2 million** people at an estimated cost of **$53 million**.[31] These results are based on data for all medical groups.

Top 10 Areas of Low-Value Care for the Medicaid-Insured Provided by All Medical Groups (CY 2014 – 2017)

Low-Value Services	# of Services Examined	# of Low-Value Services	Waste Index	# of People Impacted	Estimated Spend on Low-Value (millions)
1. Opiates prescribed for acute low back pain in the first four weeks	506,384	482,524	95%	228,849	$18.9
2. Antibiotics prescribed for acute URI and ear infections	337,955	337,813	100%	298,166	$4.2
3. Annual cardiac screening (EKG or other testing including lab) in low risk individuals without symptoms	832,049	208,425	25%	190,711	$4.9
4. Pre-op baseline lab studies in patients without significant systemic disease undergoing low-risk surgery	181,748	155,432	85%	131,033	$2.8
5. Cough and cold medicines prescribed for children <4 years	150,946	150,946	100%	91,415	$0.6
6. Nonsteroidal anti-inflammatory drugs (NSAIDs) prescribed for individuals with a diagnosis of Hypertension, Heart Failure or Chronic Kidney Disease	123,930	77,990	63%	62,009	$0.6
7. Eye imaging tests for patients without symptoms or signs of significant eye disease	157,672	77,094	49%	66,095	$5.2
8. Screening for Vitamin D deficiency	203,824	64,811	32%	63,328	$9.0
9. Too frequent cervical cancer screening for women who have had adequate prior screening and are not otherwise at high risk for cervical cancer	307,513	51,758	17%	51,029	$2.8
10. PSA screening for prostate cancer in all men regardless of age	45,899	41,811	91%	39,629	$3.7

[31] Because state and federal rebates for prescription drugs are available to the state Medicaid program, the estimated cost of waste included in this report may be higher than the actual cost to the state for those measures that focus on prescribed medications.

ABOUT THIS REPORT

This is the third analysis of low-value health care services in Washington state produced by the Washington Health Alliance (Alliance) utilizing the Milliman MedInsight Health Waste Calculator™ (Calculator) and the Alliance's All Payer Claims Database (APCD). Our first two reports were published in February and December 2018.

Throughout this report we use the terms *overuse, low-value and waste* interchangeably. All refer to the same thing: medical treatments, tests and procedures that have been shown to provide little benefit in particular clinical scenarios and, in many cases, have the potential to cause physical, emotional or financial harm to patients.

The Alliance is sharing medical group level results from the Calculator because we were asked to do so by the Alliance's Quality Improvement Committee (QIC), a group of 25 physician leaders from medical groups, integrated delivery systems and health plans in Washington state.[32] Having seen two previous reports from the Calculator with only statewide and county results, clinician leaders wanted to see medical group information to understand variation in care and better inform opportunities for improvement. In September 2019, the QIC reviewed blinded results and was asked whether they supported the public release of un-blinded results. There was unanimous support, noting that the Alliance was "obliged" to share un-blinded results to support a better understanding of variation in care, waste and ways to reduce it.

Medical group level results were generated using the Alliance's formally-approved Attribution Methodology[33] and the Alliance's Clinic Rosters. Clinic Rosters include medical groups and clinics with four or more providers. Medical groups are asked regularly to update their Clinic Roster with updated information about practice locations and the providers who practice at them. The Alliance links attributed results for each provider to their assigned practice locations in the Clinic Roster. This trusted attribution process was developed with and approved by clinician leaders from across Washington state and has been used for public reporting for more than a decade.

The Alliance's APCD includes over 4 million people, both commercial and Medicaid-insured. All results are based on data available in the Alliance database. The APCD includes a subset of people in the state of Washington and, therefore, does not reflect the experience of *all* individuals residing and seeking care in Washington state. The results in this report are based on patient care that was attributed to a particular provider/medical group based on information known to us through claims data and the Clinic Rosters.

The Calculator, Version 7, was used for this analysis. The Calculator analyzes insurance claims data to identify and quantify overused health care services as defined by national initiatives such as the Choosing Wisely® campaign and the U.S. Preventive Services Task Force.

[32] See Appendix D.
[33] See Appendix B.

The Calculator does not measure all of health care. The Calculator includes 48 measures of common treatments, tests, and procedures known by the medical community to be overused).[34] For this analysis, we used 47 of the 48 measures and excluded one measure, "two or more antipsychotics prescribed concurrently," as it is under review for possible revision.

Because of all of these factors, the results in this report should be viewed as directional rather than absolute. They provide a strong estimate rather than a comprehensive analysis of all health care received by all Washingtonians during the measurement period. Extrapolations of these results to other populations or areas of care not included in this analysis are not advised.

Additional notes:

- There are inherent limitations to using claims data to identify "signs and symptoms"; for this reason, the Calculator is conservative in its assessment by design in that it is more likely to assign a service to "necessary" if there is uncertainty.
- The prevalence of waste noted in utilization figures including the number of services and individuals impacted, is based on actual utilization as measured through insurance claims submitted for payment by provider organizations.
- The estimated spending is based on reference pricing included in Milliman's Consolidated Health Cost Guidelines Sources Database for Washington state.
- Noted costs are only associated with the particular service in question and includes both professional and facility. They do not include unnecessary tests, procedures, treatments or inpatient or post-acute care that *subsequently* resulted from the initial unnecessary intervention – so-called "cascading harm."
- Practices that predominantly serve a pediatric practice were excluded entirely because many of the measures included in the Calculator do not apply to individuals 17 years and younger.

For more information about this report or the Alliance, please contact: communitycheckup@wahealthalliance.org.

[34] See Appendix A.

APPENDICES

APPENDIX A

ABOUT THE

MedInsight Health Waste Calculator™

The Milliman MedInsight Health Waste Calculator (Calculator) is a standalone software tool designed to analyze insurance claims data to identify and quantify overused low-value health care services as defined by national initiatives such as the Choosing Wisely® campaign and the U.S. Preventive Services Task Force.

For more information: http://www.medinsight.milliman.com/MedInsight/Products/Medinsight-Tools/?prid=71832.

Contact: Marcos Dachary Marcos.Dachary@milliman.com.

The Calculator, Version 7, was used for this analysis. The Calculator includes 48 measures of common treatments, tests, and procedures known by the medical community to be overused. For this analysis, we used 47 of the 48 measures. We excluded one measure, "two or more antipsychotics prescribed concurrently" as this measure is currently under review for possible revision (listed as #46).

The following is a list of the measures included in the Calculator at the time that this report was completed.[35] All measures tie directly to one or more Choosing Wisely® recommendations.[36]

The list is organized by different types of care and the measures are not listed in any priority order.

[35] Upon request, additional information is available for each measure, including a summary of what is considered "necessary, likely wasteful and wasteful."
[36] Choosing Wisely source language available upon request.

Common Treatments (Prescribing)

1. Prescribing antibiotics for adenoviral conjunctivitis (pink eye)
2. Prescribing oral antibiotics for uncomplicated acute tympanostomy tube otorrhea
3. Prescribing cough and cold medicines for respiratory illnesses in children under four years of age
4. Prescribing oral antibiotics for upper respiratory infection or ear infection (acute sinusitis, URI, viral respiratory illness or acute otitis externa
5. Prescribing opioids for acute low back pain within first four weeks

Prevention/Screening Tests

6. PSA-based screening for prostate cancer in all men regardless of age
7. Unnecessary (too frequent) screening for colorectal cancer in adults older than age 50 years
8. Dual energy x-ray absorptiometry (DEXA) screening for osteoporosis in women younger than 65 or men younger than 70 with no risk factors
9. Annual electrocardiograms (EKGs) or any other cardiac screening for low-risk patients without symptoms
10. Population based screening for 25-OH-Vitamin D deficiency in the absence of risk factors
11. Use of coronary angiography in patients without cardiac symptoms or high-risk markers present
12. Unnecessary (too frequent) cervical cancer screening (Pap smear and HPV test) in women who have had adequate prior screening and are not otherwise at high risk for cervical cancer
13. Routine general health checks for asymptomatic adults ages 18-64 (no other diagnosis noted other than general health check)

Diagnostic Testing

14. Imaging for low back pain within the first six weeks and no red flags present
15. Imaging for uncomplicated headache
16. Brain imaging studies (CT or MRI) in the evaluation of simple syncope and a normal neurological examination
17. Use of unproven diagnostic tests, such as immunoglobulin G (IgG) testing or an indiscriminate battery of immunoglobulin E (IgE) tests in the evaluation of allergy
18. Routine diagnostic testing in patients with chronic urticaria (hives)
19. Electroencephalography (EEG) for headaches
20. Imaging of the carotid arteries for simple syncope without other neurologic symptoms present
21. Computed tomography (CT) scans of the head/brain for sudden hearing loss
22. Radiographic imaging for patients who meet diagnostic criteria for uncomplicated acute rhinosinusitis
23. Coronary artery calcium scoring for patients with known coronary artery disease (including stents and bypass grafts)
24. Routine head CT scans for emergency room visits for severe dizziness
25. Advanced sperm function testing, such as sperm penetration or hemizona assays, in the initial evaluation of the infertile couple
26. Postcoital test (PCT) for the evaluation of infertility
27. Repeat CT scans of the abdomen and pelvis in otherwise healthy emergency department patients (age <50) with known histories of kidney stones or ureterolithiasis, presenting with symptoms consistent with uncomplicated renal colic
28. Routine imaging tests for patients without symptoms or signs of significant eye disease (e.g., visual field testing, optical coherence tomography testing, neuroimaging or fundus photography)
29. Routine use of voiding cystourethrogram (VCUG) first febrile urinary tract infection (UTI) in children aged 2–24 months
30. Computed tomography (CT) head imaging in children 1 month to 17 years of age unless indicated
31. Stress cardiac imaging or advanced non-invasive imaging in the initial evaluation of patients without cardiac symptoms or high-risk markers present
32. Use of bleeding time test to evaluate the risk of bleeding (e.g., during planned procedures)

Pre-operative Evaluation

33. Baseline laboratory studies in patients without significant systemic disease (ASA I or II) undergoing low-risk surgery
34. Baseline diagnostic cardiac testing or cardiac stress testing in asymptomatic stable patients with known cardiac disease undergoing low or moderate risk non-cardiac surgery
35. EKG, chest X rays or Pulmonary function test in patients without significant systemic disease (ASA I or II) undergoing low-risk surgery
36. Pulmonary function testing prior to cardiac surgery, in the absence of respiratory symptoms

Disease Approach

37. Prescribing nonsteroidal anti-inflammatory drugs (NSAIDS) for individuals with hypertension, heart failure or CKD of all causes, including diabetes
38. Scheduled elective, non-medically indicated inductions of labor or Cesarean deliveries before 39 weeks, 0 days gestational age
39. Arthroscopic knee surgery for knee osteoarthritis
40. Prescribing antidepressants as monotherapy in patients with bipolar I disorder
41. Use of computed tomography (CT) scans in the routine evaluation of abdominal pain for children aged 1-17 years
42. Renal artery revascularization without prior medical management
43. Vertebroplasty in adults ages 18 years and older
44. Placement of peripherally inserted central catheters (PICC) in stage III-IV patients with nephrology consult
45. Multiple palliative radiation treatments for bone metastases in the absence of specific indications (e.g., spinal cord compression, cauda equine syndrome)
46. Prescribing two or more anti-psychotics concurrently[37]
47. Vision therapy for people with dyslexia

Routine Monitoring

48. MRI of the peripheral joints to routinely monitor inflammatory arthritis

[37] This measure was excluded from this analysis.

Appendix B: Washington Health Alliance Attribution Methodology

The Primary Care Provider (PCP) Attribution Methodology utilized by the Washington Health Alliance was originally developed to enable medical group and clinic quality reporting via the Community Checkup and continues to be used for this purpose today. The method was developed and refined over several years with significant stakeholder involvement, including physician leaders from across the state.

This method assigns a patient to a single provider who provided the most Evaluation and Management (E & M) visits over the most recent 24-month period. Patients must have a minimum of one service during a 24-month period to be attributed to a provider.

The following is a ranking hierarchy used in selecting the single attributed provider.

1. Most number of E & M visits.
2. Highest sum of RVUs (the "relative value units" associated with the services based on the E & M visits in #1; the RVU assigns a weight for the intensity of the service).
3. Most recent service date.

The following types of provider specialties are generally considered primary care specialties: Adult Medicine, Family Medicine, General Practice, General Internal Medicine, Homeopathy, Naturopathy, Nurse Practitioner, Obstetrics & Gynecology, Osteopathy, Pediatrics, Physician Assistant, Preventive Medicine, and Women's Health.

Patients (and their associated care) are attributed to a PCP. PCPs are linked to clinics and medical groups via the Alliance's Clinic Rosters. The Alliance developed and maintains a Clinic Roster that is used to map individual clinicians to a clinic, and clinics are mapped to medical groups. Each year, clinics and medical groups across Washington have the opportunity to utilize a secure portal to update their Clinic Roster. This ensures that the Clinic Roster is kept up-to-date as much as possible.

Appendix C: Estimating Cost

The Milliman MedInsight Health Waste Calculator (Calculator) includes two methodologies for counting the costs associated with low-value care: Case Rate and Line Itemization.

The Case Rate method counts costs from *all* claim IDs where at least one line in the claim has a Waste Cost Count (WCC) Flag value of "yes."

By contrast, the Line Itemization method counts costs *only* from the claim lines where the WCC Flag value is "yes."

The Calculator offers two ways to count costs for a number of reasons related to the nuance of claims documentation and reimbursement. In some cases, the Line Itemization method will under-estimate the associated costs with low-value care, whereas in other instances, the Case Rate method will over-estimate the associated costs with low-value care.

In Version 7 of the Calculator, either the Case Rate or Line Itemization method is delineated for each of the 48 measures. So which method is used varies by individual measure. This delineation remains consistent as the Calculator produces results for any population (e.g., commercial, Medicaid, medical group).

Estimated spending is based on reference pricing included in Milliman's Consolidated Health Cost Guidelines Sources Database for Washington state. Reference pricing is based on multi-payer allowed amounts. The allowed amount is the maximum amount health plans will pay for a covered health care service; it is also commonly referred to as the negotiated rate.

Appendix D: Washington Health Alliance Quality Improvement Committee

The following are organizations with representation on the Washington Health Alliance's Quality Improvement Committee (QIC). Any member of the Washington Health Alliance may make a request to participate on the QIC. QIC members are approved by the Washington Health Alliance Board of Directors.

Aetna	Regence BlueShield
CMS, Regions 8, 9 and 10	Robert Bree Collaborative
CHI Franciscan	Swedish Health Services/Providence Health & Services
Cigna	The Everett Clinic[a]
Comagine Health	The Polyclinic[a]
Foundation for Healthcare Quality	UnitedHealthcare Community Plan
Kaiser Permanente Washington	Virginia Mason Medical Center
Molina Healthcare of Washington	UW Neighborhood Clinics
MultiCare Health System	UW – Valley Medical Group
MultiCare Rockwood Clinic	Washington State Health Care Authority
Northwest Physicians Network[a]	Washington State Hospital Association
Premera Blue Cross	

[a] Part of OptumCare.

WASHINGTON HEALTH ALLIANCE

ABOUT THE WASHINGTON HEALTH ALLIANCE

The Washington Health Alliance is a place where stakeholders work collaboratively to transform Washington state's health care system for the better. The Alliance brings together organizations that share a commitment to drive change in our health care system by offering a forum for critical conversation and aligned efforts by purchasers, providers, health plans, consumers and other health care partners. The Alliance believes strongly in transparency and offers trusted and credible reporting of progress on measures of health care quality, value, and price. The Alliance is a nonpartisan 501(c)(3) nonprofit organization with more than 185 member organizations. A cornerstone of the Alliance's work is the Community Checkup, a series of reports comparing the performance of medical groups, hospitals and health plans, offering the community a view on important measures of health care quality and value.

Learn more about the Washington Health Alliance at: https://www.wahealthalliance.org.

For the Community Checkup reports visit: https://www.wacommunitycheckup.org.