

# ESTIMATE OF THE POTENTIAL VALUE OF CONSOLIDATING ALASKA STATE, LOCAL AND SCHOOL DISTRICT PUBLIC EMPLOYEE HEALTH PLANS

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# Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

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## Abstract

**Importance:** The consolidation of Alaska public employer health plan administration and procurement has the potential to promote higher-quality care and reduce extraordinarily high prices (and high costs) for health insurance / medical services (on the order of \$655 million or 9 percent, 2018-2025) by significantly improving collective public employer purchasing power.

**Objective:** To assess the potential savings from the consolidation of Alaska Public Employer health plan administration and procurement.

**Design and Setting:** Review Alaska health plan and medical services market cost, quality and capacity trends compared to benchmarks to assess the potential for significantly improved collective purchasing power to encourage health insurance and medical service providers to measure and promote higher-quality care and reduce extraordinarily high prices and costs while ensuring adequate local medical services capacity.

**Main Outcomes and Measures:** Total cost per enrollee, utilization per enrollee, and mean prices paid by commercial payers, public sector employers and State of Alaska employee and retiree health plans compared to benchmarks are examined. Illustrative population health cost per outcome measures are used to assess aggregate health/medical system effectiveness and cost per enrollee measures are used to assess aggregate health/medical system efficiency vs benchmarks.

**Results:** Alaska employers (both public and private sector) continue to experience extraordinarily high health plan costs and excessive health plan cost growth compared to benchmarks. High health plan costs are associated with diminished wage growth. In aggregate Alaska employees have foregone an estimated \$2.74 billion in wage increases that have been crowded out by excessive health plan / medical service costs over the past decade. Consolidating Alaska public employer health plan administration and procurement has the potential to:

- Enable development of high-quality efficiency and effectiveness measures and annual reports on Alaska public employer health plan / medical care quality, pricing, utilization, intensity and costs compared to benchmarks to help continuously illuminate and manage the health plan / medical care cost, quality and access challenges.
- Achieve administrative savings of 2.4 percent.
- Significantly increase collective employer purchasing power which should enable public employers to improve health outcomes and reduce excessive costs and cost growth on the order of 6.6 percent while maintaining an adequate supply of medical service providers.
- Achieve a combined total savings of \$655 million (9 percent), 2018-2025, from administrative savings and enhanced purchasing power.

**Conclusions and Relevance:** The consolidation of Alaska Public Employer health plan administration and procurement has the potential to improve health outcomes and reduce excessive costs/cost growth, saving public employers of an estimated \$655 million or 9 percent from 2018-2025.

## SUMMARY

### The Challenge of High Health Care Costs

The State of Alaska, University of Alaska, Alaska local governments and school districts currently manage, administer, design and procure health coverage as individual government units. The aggregate cost of health coverage for these public employers is estimated to be \$956.5 million or roughly \$21,738 per employee per year in 2017 [PRM Consulting Group (PRM), 2017].<sup>1</sup> This compares to an estimated national average of State employee health plan spending of \$13,907 per employee per year -- which translates to Alaska public employee health costs at 1.56 X U.S. on a nominal dollar basis.<sup>2</sup> After adjusting for actuarial value and average household beneficiary size, the PEW report comparison estimated the Alaska premium at 1.45 X the U.S. average (PEW, 2014 report on 2013 data).<sup>3</sup>

In addition to Alaska public employee health plans paying an extraordinary premium compared to U.S. benchmarks, Alaska public employee health plan annual inflation [8-12%, 2014 – 2016] continues to exceed U.S. growth rates [5-6%, 2014-2016].<sup>4</sup>

The extraordinarily high and rapidly escalating cost of Alaska public employee health plans places a huge strain on public personnel budgets and presents a strategic challenge for Alaska public employers seeking to attract and retain employees by offering competitive wages and benefits – as benefit cost rapidly escalate they tend to crowd out wage growth, especially among entry level positions and early career employees.<sup>5</sup>

Applying median estimates of the effect of excessive health plan cost growth to the Alaska employer sponsored health insurance market suggests that Alaskan employees have foregone on the order of

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<sup>1</sup> Please see PRM Table 27 for the estimated total cost of public employer coverage in 2017 and Appendix 2 for the range of health plan costs across Alaska public employers in the PRM survey that in aggregate average \$21,738 per employee (2017\$).

<sup>2</sup> MAFA extension of Pew Charitable Trust State Employee Health Plan Spending, Table C2, p. 37, 2013 data forward to 2017 using CMS annual price increase per enrollee for private health insurance, 2014-2017.

<sup>3</sup> See Table C2, column 9 of Pew Charitable Trust State Employee Health Plan Spending (2014) as well as State Employee Health Plan Spending, Frequently asked questions (Oct 2014). Please note that actuarial value is the ratio of expenses paid by the health plan to the total expenses eligible under the plan. An actuarial value of 80% indicates that 80% of health care expenses eligible under a health plan will be covered by the plan and 20% of the expenses will be covered by the employee, typically through deductibles, co-pays and coinsurance – based on a large covered population normalized set of assumptions about utilization, cost sharing and total cost of health services.

<sup>4</sup> MAFA sample of AK Public Employee Health Plan annual Inflation per enrolled employee compared to U.S. private health insurance annual growth in per enrollee expenditures [CMS estimates]. Please see Background, Alaska Market Overview, Private Health Insurance for additional information about historic trends in Alaska compared to other states.

<sup>5</sup> See Appendix 1 for selected abstracts from the literature. See also “Earnings Inequality: The Implications of Rapidly Rising Cost of Employer-Provided Health Insurance”, Warshawsky, Mercatus Working Paper, June 2016; “How Rising Health Costs Slow Wage Growth”, Nyce and Schieber, Progressive Policy Institute (March 2012); “Health Care Reform and Cost Control”, Orszag and Emanuel, New England Journal of Medicine (June 16, 2010); “The Labor Market Effects of Rising Health Insurance Premiums”, Baicker and Chandra, NBER Working Paper #11160 (NBER 2005) [published in Journal of Labor Economics, July 2006]

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\$2.74 billion in wage increases over the past decade – roughly equivalent to 1/4<sup>th</sup> of permanent fund dividend distributions over the same time period.<sup>6</sup>

In addition to crowding out wage growth, excessive health care cost escalation is linked with adverse impacts on the economic performance of other U.S. economic sectors through crowding out of job creation, lost output and lower value creation.<sup>7</sup>

### Primary Health Care Cost Drivers

What is driving excessive health plan cost growth in Alaska?

Excessive health plan cost growth in Alaska can be attributed to U.S. cost growth drivers which have been exacerbated by relatively high incomes, generous insurance coverage and limited effective competition among Alaska health insurance and medical service providers.

In the U.S., the key factors that have been driving health care cost growth for the past five decades in excess of economic growth include higher incomes (covariant with education), technology, insurance coverage, demographics and relative medical price inflation.<sup>8</sup>

Table 1: Percentage of Average Annual Growth in Real Per Capita Health Spending Attributable to Various Casual Factors, 1960-2007

	Medicare care productivity = economic average		Medicare care productivity = Zero	
	(1) <sup>a</sup>	(2) <sup>b</sup>	(3) <sup>a</sup>	(4) <sup>b</sup>
Income elasticity	0.6	0.9	0.6	0.9
Income effects	28.7	43.1	28.7	43.1
Relative medical price inflation	5.0	5.0	18.8	11.5
Demographic effects	7.2	7.2	7.2	7.2
Change in insurance coverage	10.8	10.8	10.8	10.8
Technology	48.3	33.9	34.6	27.4
Technology-income interaction	27.4	27.4	27.4	27.4
Technology residual	26.4	9.9	12.8	0.0
<b>TOTAL</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: "Income, Insurance, And Technology: Why Does Health Spending Outpace Economic Growth?", Smith, Newhouse and Freeland, *Health Affairs* 28, No. 5 (2009): 1276-1284, Exhibit 1, please see omitted notes for additional details on estimate of technology residual, technology-income interaction and other factors

<sup>a</sup> Expenditure elasticity = 1.6; income elasticity = 0.6; price elasticity = -0.2

<sup>b</sup> Expenditure elasticity = 1.6; income elasticity = 0.9; price elasticity = -0.2

<sup>6</sup> Estimate based on CMS private health insurance cost per enrollee from 2007-2014, with MAFA projections through 2017 for Alaska adjusted to reflect "excess cost premium" and "excessive cost growth premium" in Alaska compared to U.S. applied across Alaska employment wage base. Permanent fund dividend distributions for 2007-2016 from: <https://pfd.alaska.gov/Division-Info/Summary-of-Applications-and-Payments> 2017 PFD distribution is estimated.

<sup>7</sup> See "Employer-Sponsored Insurance, Health Care Cost Growth, and the Economic Performance of U.S. Industries", Sood, Ghosh and Escarce, Health Research and Educational Trust (2009)

<sup>8</sup> See "Income, Insurance, And Technology: Why Does Health Spending Outpace Economic Growth?", Smith, Newhouse and Freeland, *Health Affairs* 28, No. 5 (2009): 1276-1284

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Smith, et al.(2009) conclude:

*Income growth will continue to drive a rising health share of GDP in decades to come, as spending on new medical technologies continues to increase more rapidly than incomes. Ultimately, this effect must diminish as the opportunity cost of additional health spending rises – exacting a growing trade-off in the forgone consumption of all other goods and services.*<sup>9</sup>

## Key Drivers of Health Cost Variation between Regions

A key driver in differences in health plan prices between regions in the U.S. is the relative level of competition within each region.

Highly competitive markets with several providers tend to have lower prices and equal or higher quality than less competitive markets with only a few providers.<sup>10</sup>

The pricing variations attributed to variation in local medical provider market power have been growing and have become quite large.<sup>11</sup> Local medical provider market power is becoming a prominent factor in local pricing for inpatient, outpatient and physician services. In 2010 Ginsburg reported extremely large variation in both inpatient and outpatient services – with some providers charging almost 5X Medicare for inpatient services and more than 7X what Medicare pays for outpatient services.<sup>12</sup> In addition, Ginsburg noted that pricing variation within metropolitan statistical areas was also quite dramatic – citing the variation among Los Angeles hospital rates that ranged from 84% to 418% of Medicare.<sup>13</sup> Ginsburg also found wide variation among physician payments - with specialists in large group practices and specialists with limited effective competition, e.g., anesthesiologists, commanding the largest premiums.<sup>14</sup> Ginsburg attributed the wide variation in pricing power among providers to weak competition due to a combination of:<sup>15</sup>

- Extensive provider consolidation over time – hospitals as well as group medical practices;

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<sup>9</sup> Ibid, p. 1283

<sup>10</sup> See “State Approaches to Addressing the Effects of Provider Consolidation and Market Power”, Robert A. Berenson, M.D., presentation to the Colorado Commission on Affordable Health Care, February 8, 2016; “Addressing Pricing Power in Health Care Markets: Principles and Policy Options to Strengthen and Shape Markets, Final Report of the National Academy of Social Insurance Panel on Pricing Power In Health Care Markets”, April 2015; “Robert Wood Johnson Foundation Synthesis Report: The impact of hospital consolidation”, Gaynor and Town, (2012); “Hospital Mergers and Competitive Effects: Two Retrospective Analyses”, Haas-Wilson and Garmon, International Journal of the Economics of Business, 18(1), 17-32.

<sup>11</sup> See “The Growing Difference Between Public and Private Payment Rates for Inpatient Hospital Care”, Selden, et al., Health Affairs, 34:12, 2147-2150 (December 2015)

<sup>12</sup> See “Wide Variation in Hospital and Physician Payment Rates Evidence of Provider Market Power”, Paul B. Ginsburg, Center for Studying Health System Change, Research Brief No. 16, November 2010;

<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

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- Privately insured employees typically pay only a small portion of their costs out of pocket [notwithstanding the growth of high deductible plans which, among higher income employees, have frequently been associated with tax advantaged health savings accounts which mitigate out of pocket cost growth];
- Privately insured employees continue to encourage their employers to maintain a broad choice of providers, notwithstanding price of health outcome quality measures, contributing to “must-have” status of some providers; and
- Lack of meaningful information on provider quality also makes consumers reluctant to choose providers based on prices.

The conclusions of a 2010 report that examined pricing variations across Massachusetts health care providers echo the concerns about medical service provider market power in local markets:<sup>16</sup>

*Price variations are not correlated to the quality of care, the sickness or complexity of the population served, the extent to which a provider is responsible for caring for a large portion of Medicare or Medicaid, or whether a provider is an academic or research facility. Moreover, price variations are not adequately explained by differences in hospital costs of delivering similar services at similar services...*

*Price variations are correlated with market leverage as measured by the relative market position of the hospital or provider group...*

As medical care providers become more concentrated, they gain more leverage in reimbursement-rate negotiations with insurers.<sup>17</sup> To re-establish bargaining power balance between providers and insurers, insurers argue that they too much also grow larger and more concentrated. However, while larger more concentrated insurance providers may extract larger discounts, these price reductions do not necessarily get passed along to employers.<sup>18</sup>

In the 2012 American Economic Review article by Dafny et al., the analysis found that while high and increasingly concentrated health insurance are linked to excessive health plan cost growth – on the order of 7 percentage points of the cost growth – the relative contribution of health insurance market

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<sup>16</sup> See “Examination of Health Care Cost Trends and Cost Drivers: Report for the Annual Hearing”, (Boston, MA: Office of the Attorney General, March 16, 2010)

<sup>17</sup> See “The Future of Health Care Costs: Hospital-Insurer Balance of Power”, Austin Frakt, National Institute of Health Care Management Foundation, November 2010

<sup>18</sup> See “Paying a Premium on Your Premium? Consolidation in the US Health Insurance Industry”, Dafny, Duggan and Subrahmaniam, American Economic Review, 102:2 (2012): 1161-1185; “Health Insurance concentration: The big bully or one of the gang?”, Ronald A. Wirtz, Federal Reserve Bank of Minneapolis, February 1, 2016, GAO “In Most States and New Exchanges, Enrollees Continued to be Concentrated Among Few Insurers in 2014 [Reissued on February 14, 2017]”; “States Can Contain Health Care Costs. Here’s How”, Richard M. Scheffler and Sherry Glied, New York Times, May 2, 2016. In a comparison between California and New York markets, limited competition among health insurers in market areas within New York allowed insurers to keep the benefits of greater bargaining power for themselves.

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concentration to excessive price growth is modest compared to the overall cost growth during the study period (60 percentage points).<sup>19</sup>

While the contribution of health insurance concentration to excessive price growth is *relatively modest* compared to medical care providers, a few states have taken steps to mitigate this factor by requiring more transparency on terms and pricing of health plans with positive results. In a comparison between California and New York health insurance markets, the factors which favored more of a share of the price reductions being shared with employers include standard benefit packages which allow easier shopping among plans by employers and their employees.<sup>20</sup> The authors of that study concluded:

*The lesson here is that, especially in a health care system that is becoming more concentrated, competition and regulation can work together. A third party – government or quasi-governmental – can use its purchasing power to ensure that negotiating better health care prices benefits consumers, not just insurers.*<sup>21</sup>

In other studies of markets with both a limited number of health insurance and a limited number of health providers, the health insurance providers may opt for *détente* rather than aggressive negotiations over price in order to avoid a catastrophic loss of market share if a significant portion of the market flips to another provider.

In a 2012 Health Affairs article, Berenson, et al report:<sup>22</sup>

*Terms such as truce and détente were used to describe the current state of relations between health plans and powerful hospitals across the Community Tracking Study markets. As a respondent from a must-have hospital said, Blue Cross Blue Shield is “such a big player and we have such a big player – we have to come to terms.”*

Berenson, et al also found market participants who represented that the price competition between dominant health insurance providers may be quite modest – consistent with highly concentrated supply market theory (aka “tight oligopoly”) – the competitors tend to compete on differentiated services and avoid significant price competition – tending to price just under the price umbrella provided by the dominant provider.

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<sup>19</sup> Quoting from Dafney et al “Paying a Premium...” (2012), “While 7 percent [increase attributable to insurance concentration] is large in absolute terms...it pales in comparison to the 60 percent increase in average inflation-adjusted premiums observed for the average firm in our sample during the same 1998-2006 time period” from “Paying a Premium on Your Premium? Consolidation in the US Health Insurance Industry”, Dafny et al. The order of magnitude of the inflation adjusted increase in cost associated with health insurance concentration was roughly 1/8th (7/60).

<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

<sup>22</sup> See “The Growing Power of Some Providers to Win Steep Payment Increases from Insurers Suggests Policy Remedies May Be Needed”, Berenson, Ginsburg, Christianson and Yee, Health Affairs 31:5 (2012): 973-981, p. 977

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According to one Indianapolis provider, Anthem is in a position to “dictate prices,” but it doesn’t because it just needs “to do better than the competition.”<sup>23</sup>

It is also instructive to note that when noncompetitive markets lead to lower value (higher prices for average or lower quality), pricing variation among commercial payers is frequently present.<sup>24</sup>

Empirical evidence from health care market studies over the past decade in the U.S. demonstrate that larger employer groups have been successful at negotiating more favorable health coverage terms with otherwise highly concentrated health insurance/medical provider networks.<sup>25</sup>

Finally, a recent study from McKinsey Consulting found that the minimum threshold for efficient and effective scale for health insurance is low, approximately 100,000 covered lives. And that once the minimum level of scale is achieved, performance variability on administrative costs continues to be quite high. In other words, as payers grew larger, they frequently added complexity that added more costs than it saved. Payers with more than one million covered lives tend to have more lines of business and to operate in more states, each with different regulatory requirements, and they tend to have higher administrative costs. Smaller payers (in the 100,000 to 1,000,000 covered lives range) have much greater standardization of products and processes and are more likely to outsource IT platforms and core functions. Because their business is less complex, they often appear to be better able to make the most of efficiencies derived from economies of scale.<sup>26</sup>

### Primary Health Care Cost Drivers – Alaska

Medicare cost component studies indicate that Alaska physician practice **costs** are roughly in line with Seattle.<sup>27</sup> If the underlying *cost* of practice is roughly comparable to Seattle, why are Anchorage and Alaska *prices* so much higher than Seattle?

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<sup>23</sup> Ibid, p. 978

<sup>24</sup> See “Market Failure and the failure of discourse: facing up to the power of sellers”, Vladeck and Rice, Health Affairs, 28:5 (2009), 1305-1315.

<sup>25</sup> See for example “Health Insurer Market Power and Employer Size: An empirical evaluation of insurer concentration and wages through compensating differentials”, Brunt & Bowlblis, Vol 49, Issue 30, Journal of Applied Economics, (published on-line December 2016).

<sup>26</sup> See “Bigger May Not Be Better: Does Scale Matter for Payors?”, Shubham Singhal, Health Affairs Blog, November 15, 2013; available at <http://healthaffairs.org/blog/2013/11/15/bigger-may-not-be-better-does-scale-matter-for-payors/>

<sup>27</sup> See Appendix 9, comparison of Alaska and selected Western Metropolitan Statistical Areas and Western States Medicare geographic price index factors and adjust the legislatively mandated 1.50X work component of the geographic to reflect its most recent cost study of 1.017X. The net result is that the Medicare geographic cost differential studies indicated that the \*cost\* of providing physician services in Alaska is roughly comparable to Seattle. The Bureau of Labor Statistics regional price parities by metropolitan area also show the cost of all items in Anchorage is roughly comparable to the cost of all items in Seattle (see rpp0617msa table 6 associated with the June 2017 release of 2015 real personal income data). Please note that the cost of housing (which bears on the need to offer adequate salaries to enable employees to afford local housing) in Seattle is on the order of 26% higher than Anchorage [Table 8, How Alaska Cities Compare to Other U.S. Cities, 1<sup>st</sup> Quarter 2017 Index for Professional Households, The Council for Community and Economic Research, Alaska Economic Trends, July 2017].



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The primary driver of high prices in Alaska is highly concentrated medical services markets, aka monopolies and tight oligopolies with limited effective competition which have allowed providers to “charge what the market will bear” in Alaska.

On the buy side, health insurance market is highly concentrated. But high concentration in health insurance may not be sufficient to counter balance highly concentrated medical service providers, e.g., one or two hospitals and one or two large group practices in various subspecialties. And even if the health insurance market is sufficiently concentrated to offset high concentration on the medical service provider side of the market, the incentives for the health insurance sector to extract and share large discounts from the provider side are mixed at best. More typical market behavior is to compete on support services and small discounts.

Further upstream on the buy side of health insurance, almost all public and private employers in Alaska have a very small book of business relative to the total book represented by the health insurance provider administrator, or hospital or large group practice, e.g., cardiology, orthopedics.

Alaskan employers face one of the most concentrated health insurance and medical service provider markets in the U.S.<sup>28</sup>

The Anchorage market is especially highly concentrated among a few key subspecialties with larger group practices, e.g., orthopedics and cardiology. These large group practices have substantially concentrated market share and have charged very high and rapidly escalating prices – driving many commercial payers to consider and implement traveler services to encourage beneficiaries to travel to centers of excellence in more competitive markets. These highly concentrated specialties in Alaska have been able to extract high prices from Commercial Payers that were 4.8 to 5.5X Alaska Medicare and ~3.7X Seattle Commercial Payer prices in 2014. Prices for highly concentrated market share subspecialties in Alaska have continued to escalate on the order of 1.5 to 2.5 X faster than inflation from 2009 to 2014 [see figure 8, page 32 below].<sup>29</sup>

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<sup>28</sup> See “Market Share of the Largest Three Insurers – Large Group Market”, Kaiser Family Foundation (2013) for comparisons of health insurance market concentration and “Hospitals, Market Share and Consolidation”, David Cutler and Fiona Scott Morton, JAMA 310:18, 1994-1970 for review of hospital market share concentration across U.S. Metropolitan Statistical Areas (MSAs)

<sup>29</sup> These data represent the aggregate average claims amounts paid to providers, net of discounts, by specialties. This analysis extends the cost driver analysis presented to the Alaska Health Care Commission, circa 2011, on 2009 claims paid data for Alaska Commercial Payer claims paid. On its face, the high and excessive price escalation rates paid by commercial payers by subspecialty are correlated with market share concentration of the subspecialty practices in Alaska. MAFA notes that high and rapidly escalating prices may not be limited to “specialists” per se in the classic “specialists compared to primary care” market distinction. The annual escalation in Commercial Payer prices paid for primary care providers appears to have accelerated after the Alaska Health Care Commission reports on Alaska physician prices paid by many subspecialties, including both primary care and other subspecialties, were released in 2011.

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### *Prescription for Alaska Public Employers to Mitigate Alaska Health Insurance and Medical Provider Market Power*

Based on the September 2016 survey of Alaska state, local and school district public employers (PRM, 2017), the combined market share of public employees enrolled in health plans as a percentage of the total number of employees who are covered under employee sponsored health insurance in Alaska may be on the order of roughly 22%.

However, the buy-side of Alaska public employers procuring health insurance for their employees is highly fragmented across more than 100 separate public employee groups, ranging from ASEA/AFSCME Local 52 which represents 3.78% of the Alaska employer sponsored health insurance market to 56 public employers who each have less than 0.1% of the market (see Appendix 2).

Applying the Herfindahl-Hirschfield Index (HHI), a commonly accepted measure of market concentration<sup>30</sup>, to the September 2016 PRM survey of public employer buy-side of the market yields an index of 35. In contrast, consolidating the State, University, Local Government and School Districts under one health authority would significantly improve market share, increasing the combined HHI for Alaska public employers by 462 index points to a total 497 points.

The consolidation would also increase the total pool of covered lives under one procurement process to roughly 114,000 covered lives. This scale is slightly above the minimum scale for health plan payer efficiency identified by McKinsey research.<sup>31</sup>

This scale of consolidation also presents a significant increase in relative bargaining power for *all public employer groups*. For example, the largest public employer group (ASEA/AFSCME Local 52) on the buy-side of health insurance/medical services may represent roughly 7450 employees and somewhat less than 20,000 covered lives. Assuming standard specialist population coverage ratios, this represents on the order of 2 cardiologists. Increasing the pool of covered lives to 114,000 increases the “book of business” to roughly 8 cardiologists.

This greatly enhances the opportunity to negotiate more favorable price terms with large subspecialist group practices.

Other key benefits of consolidating public employer health plan procurement above the 100,000 covered lives threshold include catalyzing the potential to:

- Build local capacity to enable more effective use of itinerant outside consultants when needed;
- Accelerate adoption of best practices in health plan performance measurement and management; and
- Accelerate adoption of best practices in health plan design and administration – providing the tools to enable employees and their families to improve their health and wellbeing by engaging

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<sup>30</sup> See <https://www.justice.gov/atr/herfindahl-hirschman-index>

<sup>31</sup> See footnote 26.

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in effective wellness practices that will mitigate utilization and intensity of services required to support public employee retirees.

### Basis for Estimated Benefits of Alaska Public Employee Health Care Authority

Based on:

- A review of Alaska Health Care Authority consultant reports [PRM, Pacific Health Policy Group (PHPG)] and associated underlying data;
- Other consultant reports and economic literature on public and private employer initiatives to improve value (effectiveness and efficiency) of health coverage for employers; and
- MAFA reconnaissance level review of Alaska health care expenditures, private insurance and public employee health plan effectiveness and efficiency trends compared to benchmarks (international, national, state and MSA).

MAFA has developed an estimate of the potential economic savings associated with:

- Consolidating Alaska public health plan administration, performance measurement, plan design and health insurance / medical care procurement,
  - as compared to:
- The current (business as usual, BAU) system of predominantly small to mid-sized public employers continuing to receive periodic bids from medical provider groups / health insurance firms and third-party administrators which has yielded mediocre value (high prices and little discernable improvement in health outcomes, especially after taking into consideration the contribution of public health initiatives) for decades.

MAFA estimates that consolidating the administration and management of Alaska public health plans has the potential to:

- Reduce aggregate Alaska public employee spending by 9% from a baseline projection by 2025.
- Reduce aggregate Alaska public employee spending by on the order of \$23 million in the first full year to \$127 million in 2025 with a cumulative savings on the order of \$655 million across the period 2018-2025.
- These savings estimates may be conservative<sup>32</sup> in so far as:
  - They assume that public employee health care expenditures under the authority will grow by 39% compared to 52% under a business as usual cost projection through 2025.

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<sup>32</sup> Please note that MAFA considers these estimates to be P50, e.g., they have a 50% probability of being achieved. Higher savings could be achieved if the effective consolidated purchase power of the public sector employers were not only allowed, but encouraged, to be used to drive providers toward high value care and to significantly reduce lower value care. However, it is not unusual to find that local providers and their suppliers exert considerable pressure on local and state level policy makers in order to protect employment, market share and margins. Please see Challenges for Alaska Public Employee Health Authority discussion below concerning potential political risks that may limit the economic savings potential. MAFA recommends that the health care authority adopt more aggressive stretch goals than the P50 estimates provided herein in order to enhance the incentives for both the buy side and sell side to work toward more cost effective care under a health care authority umbrella.

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- After an initial reset to reasonable benchmark prices that are on the order of 1.5 – 3 X Medicare benchmark prices<sup>33</sup> for medical services, the estimates assume:
  - a reduction in compound annual cost per employee escalation rates of 1 percentage point below projected annual cost escalation of 5.4% per year<sup>34</sup>,
  - that the price reductions are offset by an increase in primary care utilization to address gaps in recommended primary care / health maintenance and prevention which has the potential to improve long term health outcomes for the PERS and TRS retirement populations as well as generate financial savings, especially among those retirees under 65 who are not yet eligible for Medicare who remain in Alaska<sup>35</sup>

Table 2: Summary of Potential Savings Opportunities - Alaska Public Employee Health Care Authority

Alaska Health Care Authority - Summary of Potential Savings			2017	2018	2019	2020	2021	2022	2023	2024	2025	Cumulative Savings
Baseline Projection			956.5	1,008.2	1,062.6	1,120.0	1,180.4	1,244.2	1,311.4	1,382.2	1,456.8	
<i>Baseline projection growth above 2017</i>											<b>1.52</b>	
Cumulative Savings v Baseline												
PRM	Health Plan Management	pct		0.9%	1.2%	1.2%	1.3%	1.3%	1.3%	1.3%	1.3%	
PRM	Health Plan Pooled Purchasing	pct		0.1%	0.4%	0.9%	1.1%	1.1%	1.1%	1.1%	1.1%	
MAFA	Reference Pricing	pct		0.9%	1.8%	1.9%	2.7%	2.7%	2.7%	2.7%	2.7%	
MAFA	Accelerate health plan tiering	pct		0.2%	0.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
MAFA	Value based insurance design	pct		0.2%	0.4%	0.6%	1.0%	1.4%	1.8%	2.2%	2.6%	
	Cumulative Savings v Baseline	pct		<u>2.3%</u>	<u>4.3%</u>	<u>5.6%</u>	<u>7.1%</u>	<u>7.5%</u>	<u>7.9%</u>	<u>8.3%</u>	<u>8.7%</u>	
	Cumulative Savings v Baseline	millions \$		<u>23.1</u>	<u>45.7</u>	<u>62.8</u>	<u>84.0</u>	<u>93.5</u>	<u>103.8</u>	<u>115.0</u>	<u>127.0</u>	\$655.0
	Scenario 1 Projection	millions \$		<u>985.0</u>	<u>1,016.9</u>	<u>1,057.2</u>	<u>1,096.4</u>	<u>1,150.6</u>	<u>1,207.5</u>	<u>1,267.2</u>	<u>1,329.8</u>	
	<i>Scenario 1 growth above 2017</i>										<b>1.39</b>	
	Reference Pricing Savings Estimate	pct		0.9%	1.8%	1.9%	2.7%	2.7%	2.7%	2.7%	2.7%	
MAFA	Price reset targeting reference pricing benchmarks	pct		1.1%	2.1%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	
MAFA	+ Benchmark price trend reduction	pct					1.0%	1.0%	1.0%	1.0%	1.0%	
MAFA	Offset by an increase in primary care utilization	pct		0.2%	0.4%	0.6%	0.8%	0.8%	0.8%	0.8%	0.8%	

Notes:

1. Health Plan Management (PRM Consulting)
2. Health Plan Pooled Purchasing (PRM Consulting)

<sup>33</sup> Please see Figure 8 Commercial Payments compared to Medicare Benchmarks below for a selected comparison among various specialties including primary care, gastroenterology, cardiology and orthopedics which illuminates considerable variation in current market prices among selected specialists. MAFA recommends establishing benchmark pricing based on an analysis of provider supply and market demand by physician practice specialties.

<sup>34</sup> Please note that a 1 percentage point reduction in annual cost escalation represents the low end of potential cost savings as compared to estimates from other states' initiatives to consolidate health plan administration, management and procurement, e.g., Washington State Health Care Authority has a performance goal of holding cost growth to 2 percentage points below the national health expenditure trend [Washington State Health Care Authority Value-Based Road Map, 2017-2021 (June 2016); confirmed by e-mail].

<sup>35</sup> The net financial savings associated with the impact of increased health prevention and maintenance on the retiree population has not been included in the savings estimate due to limited data upon which to base the estimate.

## Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

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3. Use “reference pricing”<sup>36</sup> to reduce prices and price growth (MAFA estimates)
  - a. Negotiate for a price reset to reasonable reference prices across physician, ambulatory and hospital prices
    - i. Assume price reductions on the order of 5-15% with larger price reductions for higher price premium services which also have experienced high capacity growth, e.g., orthopedics and smaller price reductions for low price premium services with low capacity growth in order to mitigate erosion in local medical services provider capacity, e.g., Gastroent. Reference pricing strategies may begin with premiums above Alaska Medicare fee for service and evolve toward emerging alternative payment systems that focus on patient centered health outcomes (2018-2025).<sup>37</sup>
  - b. Benchmark price trend reduction – reduce cost growth by 100 basis points compared to CMS national trend per enrollee per year, through a combination of reference pricing, episode of care based payments, and global payments with performance incentives for high value care associated with emerging care modes ala medical homes and accountable care organizations
  - c. Assume an increase in primary care utilization associated with targeting health care utilization gaps<sup>38</sup> that are associated with long term health risks amenable to reduction through primary care intervention<sup>39</sup>
4. Accelerate health plan tiering from one tier to multiple tiers (MAFA estimates based on PRM Consulting review of 2017 tiering among Alaska public employers)
5. Increase value based health plan design (VBID)<sup>40</sup> (MAFA estimates)

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<sup>36</sup> Reference pricing refers to a health care purchaser, e.g., employer or retiree plan, placing a limit on what it will contribute towards payment for a particular procedure, assuring that the selected payment limit allows appropriate access for patients. The payment limit typically is typically benchmarked against a median value in a local or comparator market. The resulting price may be stated as a multiple of Medicare. See for example, “Appropriate Use of Reference Pricing Can Increase Value”, Ann Boynton and James C. Robinson, Health Affairs, July 7, 2015, at: <http://healthaffairs.org/blog/2015/07/07/appropriate-use-of-reference-pricing-can-increase-value/>

<sup>37</sup> See the continued emphasis from the National Business Group on Health on the need to drive health system improvements through the health insurance sector and into the medical services sector through payment and delivery system reform [NBGH August 8, 2017 Press Release “With costs continuing to rise, employers shifting control efforts to how health care is delivered and paid for”]

<sup>38</sup> See for example Versign “care gap” reports for Alaska Care beneficiaries.

<sup>39</sup> The “care gaps” identified in Versign and similar reports produced for public employee health plans in Alaska should be prioritized by relative value to ensure that high value care gaps get addressed first. Examples of relative value of care that might be used include Oregon’s prioritization of care, Choosing Wisely, and the Annals of Internal Medicine reports on high value care.

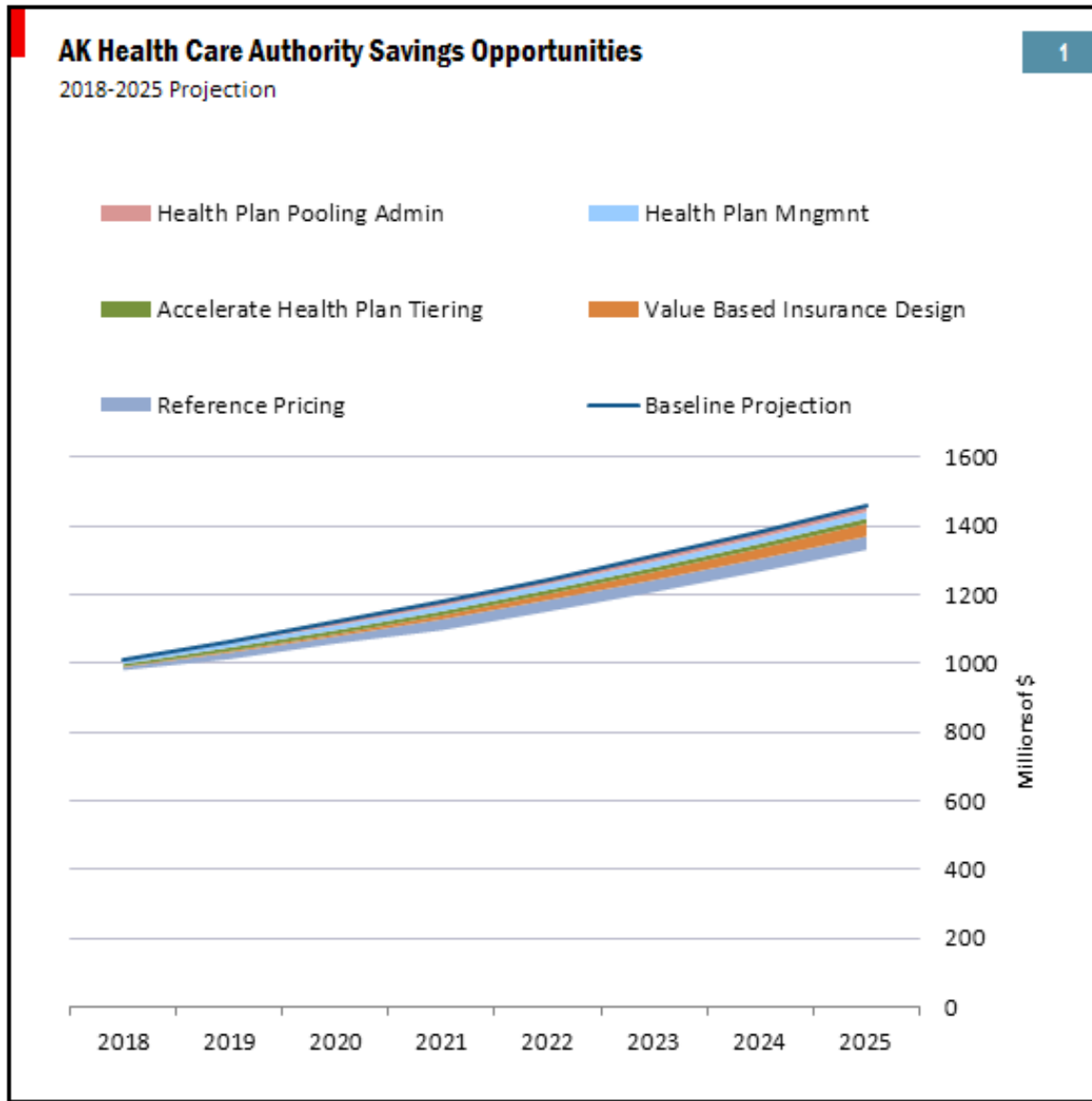
<sup>40</sup> For an introduction to value based health insurance design, please see:

<http://www.ncsl.org/research/health/value-based-insurance-design.aspx> and <http://vbidcenter.org/initiatives/addressing-low-value-care/>, especially “Value Based Insurance Design’s Role In State Employee Health Plans.

“Value based insurance design” aims to increase health care quality and decrease costs by using financial incentives to promote cost efficient health care services and consumer choices. Health benefit plans can be designed to reduce barriers to maintaining and improving health. By covering preventive care, wellness visits and

# Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

Figure 1: Alaska Public Employee Health Care Authority Savings Opportunities



high value/low cost medications to help control chronic conditions, health plans may save money by reducing future expensive medical procedures. Benefit plans may also encourage consumers to shop for value for lower value services, including those that may be unnecessary or repetitive or when the same outcome can be achieved at lower cost, which can help restrain cost growth.

For recent contributions concerning VBID and identifying and working to reduce low value care, see: <https://www.rand.org/news/press/2016/08/29.html> , <http://tdi.dartmouth.edu/research/evaluating/health-system-focus/low-value-care> , <http://www.nejm.org/doi/full/10.1056/NEJMp1401245> , <http://www.nejm.org/doi/full/10.1056/NEJMp1404503> , and especially <http://www.nejm.org/doi/full/10.1056/NEJMp1314965> for a discussion of the politics and economics of the Choosing Wisely campaign of the American Board of Internal Medicine (ABIM) Foundation as well as <https://link.springer.com/article/10.1007/s11606-014-3070-z> for a review of the prevalence and correlates of low-value health care services in the U.S. For an overview of the Choosing Wisely campaign, please see: <http://abimfoundation.org/what-we-do/choosing-wisely>

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**Health Plan Pooling Administration & Management (PRM)**

Assume savings at a level comparable to the estimates developed by PRM in Table 31 “Projected Savings (\$) under Model 2:

Year	1	2	3	4	5
<b>Plan Management</b>	0.9%	1.2%	1.2%	1.3%	1.3%
<b>Pooled Purchasing</b>	0.1%	0.4%	0.9%	1.1%	1.1%
<b>Plan Management + Pooled Purchasing</b>	1.0%	1.6%	2.1%	2.5%	2.5%

**Adopt Best Practices Across Health Plan Administration, Design and Procurement of Services (MAFA)**

The projected cost savings estimate is based on the following assumptions regarding how the Alaska Public Health Care Authority is structured and operated:

1. Adopt best practices of large employers / employer-groups who are achieving higher value for their health care benefit investments
  - 1.1. Track the best practices of large employer groups who have organized around concerns of excessive health care cost growth. See for example, National Business Group on Health, who have shifted their efforts from a narrow focus on cost toward improving how health care is delivered and paid for, including health care management, health plan design, and *ramping up efforts to positively affect the supply side of the health care system by pursuing health care payment and delivery system reform initiatives*.<sup>41</sup>
  - 1.2. Track current and emerging best practices in **Performance Measurement** of health plans and health care; consolidate health plan performance measurement analytics within a health care authority and build local analytic capacity to help focus and drive competition on key outcome measures.
    - 1.2.1. Adopt and drive Performance Measurement best practices through health insurance and medical service providers, e.g., based on the research of Professor Michael Porter, the Harvard Business School Institute for Strategy & Competitiveness has developed a Value Based Health Care Delivery framework for restructuring health care systems around the globe with the overarching goal of value for patients, i.e., value = patient health outcomes per dollar spent.
    - 1.2.2. Build and sustain local effectiveness (medical efficacy) and efficiency (economics) subject matter expertise to enable the authority to focus spending on health care and medical services that demonstrate high value (positive patient centered outcomes per dollar spent).

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<sup>41</sup> See “Large U.S. Employers Project Health Care Benefit Costs to Surpass \$14,000 per Employee in 2018, National Business Group on Health Survey Finds: With costs continuing to rise, employers shifting control efforts to how health care is delivered and paid for”, National Business Group on Health, August 8, 2017.

## Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

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- 1.2.2.1. The team will include a Chief Medical Officer to help assess medical value and effectiveness in collaboration with a health care economist to help measure the efficiency (cost per outcome) of the care.<sup>42</sup>
  - 1.2.2.2. The team will seek active collaboration and consultations with:
    - 1.2.2.2.1. University of Washington Medical School which has received a \$30 million CMS grant to serve as a practice transformation network for the WWAMI (Washington, Wyoming, Alaska, Montana and Idaho) region.<sup>43</sup>
    - 1.2.2.2.2. University of Washington School of Public Health<sup>44</sup>
    - 1.2.2.2.3. Washington State Health Authority<sup>45</sup>
    - 1.2.2.2.4. Oregon Health Authority<sup>46</sup>
    - 1.2.2.2.5. Oregon Health Care Quality Corporation<sup>47</sup>
  - 1.2.2.3. The team will be tasked with and supported in its effort to build a comprehensive claims database across public sector employers in Alaska and provide incentives to providers to help build local capacity and collaborative data collection on key patient outcomes.
2. Consolidate health and medical services procurement across state, local and school district employers (achieving an employer sponsored health care pool of approximately 114,000 beneficiaries) and pursue multiple providers of health coverage / medical provider networks.
- 2.1. Consolidate health plan data analytics and procurement under a public health authority, e.g., Washington, Oregon.
  - 2.2. Benchmark reference pricing & performance.
    - 2.2.1. Set benchmark performance targets based on market supply and demand history and outlook on quality/access/[cost=price\*utilization] by subspecialties<sup>48</sup>; build increased focus on value based outcome measures.

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<sup>42</sup> See for example, Measuring Total Cost of Care: Healthcare Regional Cost Measurement and Transparency Pilot, Figure 1, **Clinic Total Cost Index compared to Quality Index by Region**, Oregon Health Care Quality Corporation, available at <http://www.q-corp.org/our-work/costofcare>, which compares quality and cost dimensions by region in an initial clinic comparison report which helps identify and improve provider performance across the high value/low cost and improve low value/high cost quadrants.

<sup>43</sup> See <http://www.uwmedicine.org/about/transformation>

<sup>44</sup> See <http://sph.washington.edu/populationhealth/> for the institutional focus on *health outcomes of groups* that can be extended across groups and various regions

<sup>45</sup> See <https://www.hca.wa.gov/>

<sup>46</sup> See <http://www.oregon.gov/oha/Pages/Portal-About-OHA.aspx>

<sup>47</sup> See <http://www.q-corp.org/about-quality-corporation>

<sup>48</sup> Given quality/access/[cost = price \* utilization] differentials among subspecialties, differential benchmark pricing targets merit consideration and are assumed in these estimates. For example, primary care is likely to require an increase in *utilization* (and cost) to address health care gaps in high value care where robust evidence indicates potential savings over time that will accrue in retirement population coverage savings while orthopedics and cardiology warrant a *price reduction* in light of extremely high cost levels and cost escalation that has been more than adequate to increase supply and access above western state benchmarks. For additional discussion on benchmark quality, access and cost = price \* utilization] performance dimensions, see the Background section below.



## Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

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- 2.2.2. Set incentives / penalties for network and out of network providers based on quality vs cost metrics; build increased focus on value based outcome measures.
- 2.3. Increase value based health plan design & support.
  - 2.3.1. Sustain high actuarial value (95%) health plan on \*high value care\* and reduce actuarial value (to 50-80%) of health plan coverage of \*lower value care\*. <sup>49</sup>
  - 2.3.2. Consult with Institute of Medicine, American Board of Internal Medicine Foundation for guidance to help identify high value care (with higher actuarial value) vs lower value care (subject to lower actuarial value). <sup>50</sup>
- 3. Adopt prudent cost allocation and cost sharing across employer plans.
  - 3.1. Move toward multiple coverage tiers that reflect costs to avoid undue cross-subsidization between single, employee + one and family coverage between groups and among employers.
    - 3.1.1. MAFA estimates the potential savings across the consolidated coverage pool is estimated to be on the order of 1% [See PRM Tables 14, 15, 16, 17 and figures 1, 2, 3 & 4].

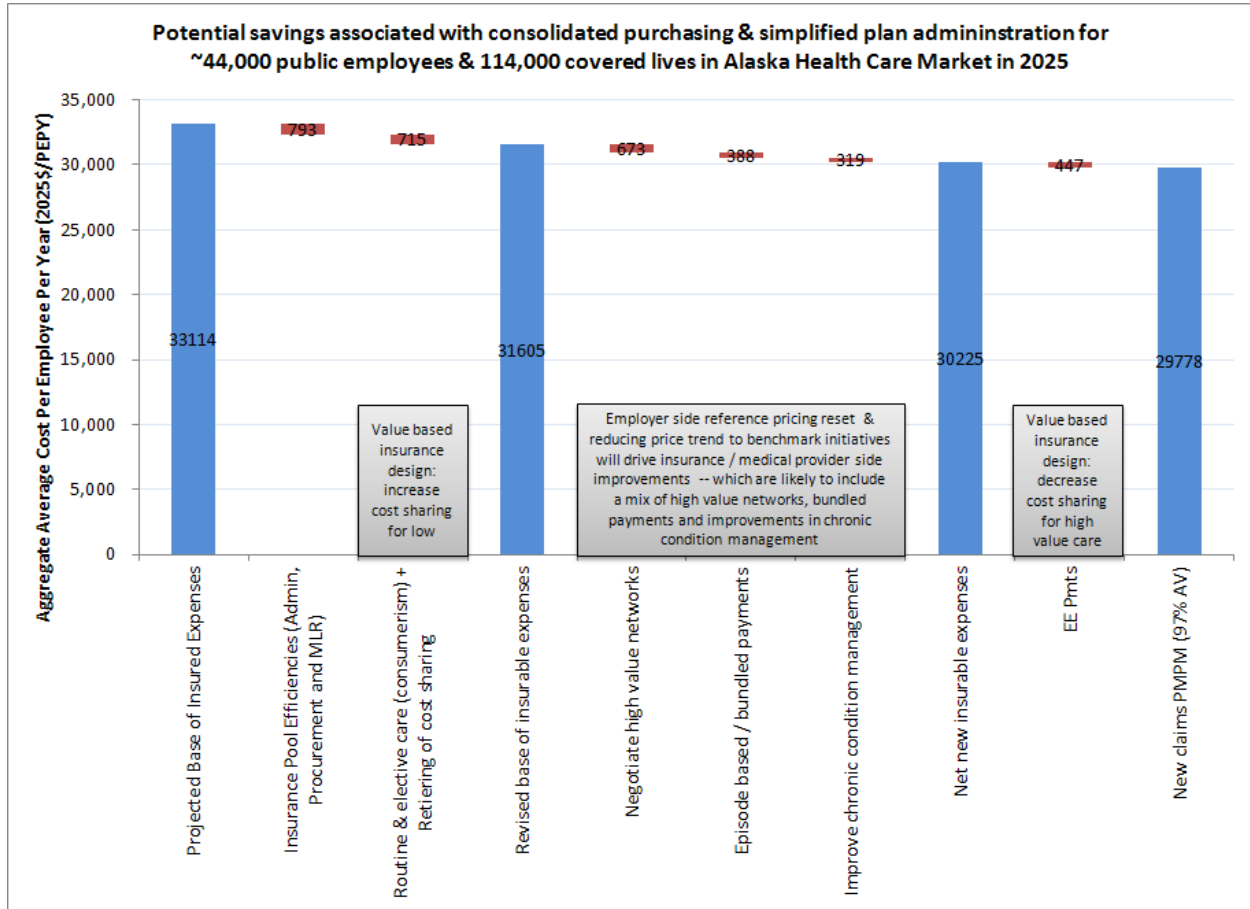
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<sup>49</sup> See also Exhibit 4, Medical risk categories have implications for payment and reimbursement, “The next imperatives for US Health Care”, McKinsey & Company, November 2016, at <http://healthcare.mckinsey.com/next-imperatives-us-healthcare>

<sup>50</sup> See <http://www.nationalacademies.org/hmd/Reports/2012/Best-Care-at-Lower-Cost-The-Path-to-Continuously-Learning-Health-Care-in-America.aspx> , <http://www.nejm.org/doi/full/10.1056/NEJMp0911423> & <http://www.choosingwisely.org/> [American Board of Internal Medicine Foundation], and for an acknowledgement of the challenges associated with these benchmark initiatives, see “Measuring Low-Value Care in Medicare”, Schwartz et al, Journal of the American Medical Association, July 2014 at <http://jamanetwork.com/journals/jamainternalmedicine/fullarticle/1868536>

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Figure 2: Summary of Potential Savings Associated with Alaska Public Employee Health Care Authority



The estimate assumes the health care authority will benchmark quality/access/[cost = price\*utilization] performance metrics with a focus on cost per health outcome. The drive to improve value will include contributions to value from administration, value based insurance design, buy side market power and supply side efficiency and effectiveness initiatives, distributed across:

- 1) **Insurance pooling administration and medical loss reserve efficiencies**
  - a) PRM Feasibility Study Phase I and II
- 2) **Routine & elective care**
  - a) MAFA estimate of the potential value of shifting toward higher tiers of cost sharing for routine and elective care to drive **consumerism** among beneficiaries (aka “value based insurance design”). Estimates based on national studies and report benchmark savings estimates, discounted to reflect local Alaska Market opportunities and challenges<sup>51</sup>.
- 3) **Evolution of high value provider networks**

<sup>51</sup> <https://hbr.org/2013/10/the-strategy-that-will-fix-health-care> , <https://hbr.org/2016/12/health-care-needs-real-competition>, <http://healthcare.mckinsey.com/next-imperatives-us-healthcare>

## Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

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- a) MAFA estimate of the potential value associated with the **evolution of high value provider networks** driven by initial use of reference/benchmark pricing followed by *cost/patient outcome performance evaluation*. National benchmark savings estimates discounted to reflect local Alaska Market opportunities and challenges<sup>52</sup>.
- 4) Episode based payments**
- a) MAFA analysis of estimated cost savings associated with initiatives described in “Controlling U.S. Health Care Spending – Separating Promising from Unpromising Approaches”, Hussey, et al, New England Journal of Medicine, November 26, 2009, pp. 2109-2111, presented to Alaska Health Care Commission July 2011<sup>53</sup>.
- 5) Chronic condition management**
- a) MAFA estimate of the potential value associated with the **evolution of improvements in care coordination and chronic condition management (and eventual mitigation)** driven by initial use of reference/benchmark pricing followed by *cost/patient outcome performance evaluation*. National benchmark savings estimates discounted to reflect local Alaska Market opportunities and challenges<sup>54</sup>.
- 6) Modest employee cost sharing on high value care (97% actuarial value)**

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<sup>52</sup> <https://hbr.org/2013/10/the-strategy-that-will-fix-health-care>, <https://hbr.org/2016/12/health-care-needs-real-competition>, <http://healthcare.mckinsey.com/next-imperatives-us-healthcare>, <https://my.clevelandclinic.org/departments/clinical-transformation/depts/quality-patient-safety/treatment-outcomes>, <https://my.clevelandclinic.org/departments/heart/about/outcomes-stats>

<sup>53</sup> <https://hbr.org/2013/10/the-strategy-that-will-fix-health-care>, <https://hbr.org/2016/12/health-care-needs-real-competition>, <http://healthcare.mckinsey.com/next-imperatives-us-healthcare>

<sup>54</sup> <https://hbr.org/2013/10/the-strategy-that-will-fix-health-care>, <https://hbr.org/2016/12/health-care-needs-real-competition>, <http://healthcare.mckinsey.com/next-imperatives-us-healthcare>

## Opportunities for Alaska Public Employee Health Care Authority

Alaska health insurance and the underlying cost of medical care are extremely expensive and have frequently exceeded the price required to maintain an adequate supply of quality providers.<sup>55</sup>

This should provide opportunities for public employers to grow from smaller pools ranging from 20 to 6,000 employees toward a pool of 44,000 employees (114,000 covered lives) in order to negotiate cost savings without unduly limiting access to quality health care providers.

The improvement in health outcomes associated with the large and increasing medical expenditures across Alaska are very modest at best – suggesting a large portion of medical care spending is not collecting contribution to improvements in overall population health outcomes.<sup>56</sup> Alaska’s high medical expenditures and very modest improvements in health outcomes are illustrative of what health care economists Alain Enthoven and Victor Fuchs have described as “the flat of the curve” – more spending does not yield additional health benefits. Others have estimated that

This should provide opportunities to improve outcomes while reducing costs for a large-scale employee pool under a health authority.

Many health providers in Alaska have high staffing ratios, high spare capacity, high staff turnover and low annual practice levels, i.e., the number of similar procedures performed by the care team per day, per month, per year is low relative to high-quality providers – practice characteristics which are associated with highly variable and frequently low quality care.<sup>57</sup>

By emphasizing value without eroding effective provider capacity, the health care authority initiatives to restrain monopolistic pricing have the potential to improve health care quality by providing incentives to less efficient, low-value medical providers to reduce high staffing ratios with high turnover in favor of a smaller, more efficient and more practiced staff, which is likely to improve efficacy and efficiency.

Health plan administration and management using health insurance industry standard reporting on costs have failed to enable Alaska public employer management teams [human resources directors/chief financial officers/chief budget officers] to make significant inroads in improving quality, efficiency, and effectiveness of health coverage for employees and their beneficiaries relative to benchmarks.<sup>58</sup>

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<sup>55</sup> See “Cost/Access [Provider Capacity]” discussion below

<sup>56</sup> See “Perspective: More Variation in the Use of Care, More “Flat of the Curve” Medicine, Victor R. Fuchs, Health Affairs, October 2004, and “Cost/Quality [Health Outcomes]” discussion below

<sup>57</sup> See for example, “Interpreting the Volume-Outcome Relationship in the Context of Health Care Quality: Workshop Summary (2000), National Academies Press, abstract available at <https://www.nap.edu/read/10005/chapter/3>. Additional workshop material available at: <https://www.nap.edu/read/10005/chapter/5>. A review of related research literature is available at: <https://www.nap.edu/read/10005/chapter/11>.

<sup>58</sup> See “Background” discussion below on cost trends to date

## Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

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The highly concentrated (frequently monopoly or monopolistic) health insurance/medical care provider networks in Alaska have failed to provide public and private employers with effective measurement and management tools to ensure high-quality, effective, efficient and affordable care.<sup>59</sup>

This gap in the adoption of best practices to measure and manage the performance of health plans and health care should provide a large-scale employer group organized under an Alaska public employee health care authority with opportunities to accelerate the adoption of current and emerging best practices in the measurement and management of key outcomes [on effectiveness and efficiency scales] as well as key health maintenance processes associated with health coverage for employees.<sup>60</sup>

Tapping the brakes on the extremely high cost and rapid escalation in health plan costs by using benchmark quality, access and cost [price multiplied by utilization] is highly likely to yield improvements in the efficacy and efficiency of health plans and health care services which translate into cost savings on the order of 9% from baseline projections.

The background section below highlights some of the very high prices as well as quality and access considerations that go into the formulation of reducing prices to reasonable benchmarks as a key strategy for the Alaska public employee health care authority.

Neither the Alaska economy nor Alaska state and local services and employees can sustain the rapid escalation in the already high cost of health care without significant adverse impacts on compensation and job creation, especially among entry level and early professional career positions which are critical to attracting the new generation of productive employees and their families.<sup>61</sup>

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<sup>59</sup> MAFA consultations with Alaska and Washington employers, consultants, third party administrators, health insurance and health care providers compared to current and emerging best practices in performance measurement.

<sup>60</sup> See Appendix 3: Harvard Business School Value Based Health Care Delivery Framework.

<sup>61</sup> Another potential stop-gap measure for the State to consider to avoid excessive health care cost allocation to entry level and early professional career positions is to shift from:

1) a flat rate cost allocation to employees (\$ per employee for employee contribution toward health plan coverage) which represents a large cross subsidy from younger, typically healthier employees and their beneficiaries toward older, often less healthy employees and their beneficiaries to:

2) a cost allocation to employees which more closely tracks costs by allocating health plan costs as a percentage of employee base wages [a practice present in private sector utilities in Alaska as well as other state and local governments cited in the Pew Study on State Public Employee Health Benefits]

## Challenges for Alaska Public Employee Health Care Authority

As widely acknowledged and succinctly described by Baiker, et al (2012):

*Moving resources toward more productive uses requires encouraging providers to deliver and patients to consume high-value care, a daunting task in the current political landscape.*

More recently, Chad Terhune provided an excellent summation of one of the key challenges facing health care across the U.S. that is frequently magnified in health care sector in Alaska:

[“Our Costly Addiction to Health Care Jobs”, Chad Terhune, NYT, April 23, 2017](#)

- “The goal of increasing jobs in health care is incompatible with the goal of keeping health care affordable...there is a lot of evidence we can get more bang for our buck in health care. We should be aiming for a health care system that operates more efficiently and effectively. That might mean better outcomes for patients and fewer jobs.” [Katherine Baiker, Professor Health Economics, Harvard School of Public Health]
- “The [health care] industry accounts for a lot of good middle class jobs and, in many communities, it’s the single largest employer. One of the hardest decisions for [a new political administration] is how far do they push on health care costs at the expense of jobs in health care.” [Sam Glick, partner, Oliver Wyman, Health Care Consulting Firm]
- “A serious underlying reason for high health care costs: a system bloated by redundancy, inefficiency and a growing number of jobs far removed from patient care...Labor accounts for more than half of health care expenditures...medical professions like health aides and nurse practitioners are in high demand. But the sheer complexity of the system has also spawned jobs for legions of data-entry clerks, revenue cycle analysts and medical billing coders who must decipher arcane rules to mine money from human ills.” [Chad Terhune, KHN & Healthline]
- “For every doctor, there are 16 other health care workers. And half of those 16 are in administrative or other nonclinical roles...Hospital market power is a big problem, but what’s driving our health insurance premiums is that we are paying the wages of a whole bunch of people who aren’t involved in the delivery of care. Hospitals keep raising their rates to pay for all of this labor.” [Bob Kocher, Venrock]
- “America spent \$631 per capita on health insurance administration compared to \$54 in Japan.” [Chad Terhune]

## Local Alaskan Challenges – A Magnification of U.S. Health Care Challenges

Due to the extraordinarily high medical prices and prospects for the continuation of extremely high price growth, the prospects for economic growth in Alaska are significantly hampered compared to the U.S.

## Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

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And the U.S. starts with a very large and rapidly growing handicap in international competitiveness due to high health care costs. As sharply observed by Warren Buffett at the Berkshire Hathaway annual meeting in May 2017:<sup>62</sup>

*When American business talks about [corporate taxes] strangling our competitiveness, or that sort of thing, they're talking about something that as a percentage of G.D.P has gone down from 4% to 2% while medical costs...have gone up from 5% to 17% of G.D.P. [from 1960 to today]*

*Medical costs are the tapeworm of American economic competitiveness.*

As Alaska employers in the public and private sector continue to face the prospect of continued erosion in competitiveness in the face of extraordinarily high health plan cost inflation, one potential solution available to policy makers is to consolidate the procurement and administration of public employee health plans.

A key question facing Alaskan policy makers is whether the perceived benefits from local health care related jobs, including the extraordinarily high monopolistic pricing of specialist physicians, and local control of health plans are sufficient to ignore an opportunity to consolidate public health plans and employer bargaining power on health benefits and accelerate the transition toward a more effective and efficient system of public employer health plans. The potential spill-over effects could improve the value provided across health insurance and medical provider markets which has the potential to improve the value provided to all employer sponsored health insurance.

Many of the substantive concerns regarding local input into decisions affecting health benefits can be directly addressed by designing membership on an advisory committee to the Authority that fairly represents employers and the current and future demographic range of their employees, e.g., membership should be fairly proportioned among age, sex and basic health categories.<sup>63</sup>

In addition, to the extent that a public employer has a concern that their unique circumstances enable them to provide higher value at small scale compared to an Authority with over 100,000 covered lives, the enabling legislation authorizing the creation of an Alaska Health Care Authority could provide an opt-out provision which would allow an employer to opt out of participation if it can make an evidence based showing that it is able to provide higher value, lower cost health insurance to its employees.

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<sup>62</sup> See "Medical Costs are the Tapeworm of Economic Competitiveness", Wall Street Journal, May 6, 2017 and "Buffett: 'Medical Costs are the Tapeworm of American economic competitiveness'", Julia La Roche, Yahoo Finance, May 6, 2017

<sup>63</sup> In the MAFA experience, it is not unusual for employee advisory committee membership to be skewed toward self-selecting participants with high health risks and high health care needs who in turn crowd out the potential committee membership of the 50% of beneficiaries who only require modest annual health maintenance resources (check-in, wellness program support) and the next 45% of the beneficiary population who have relatively predictable medical needs that typically involve maintenance medications and high proportion of births without complications to healthy parents. See Appendix 4: Distribution of Health Care Spending Per Patient, U.S. 2008.

## BACKGROUND

### Value Drivers in Health Care Coverage

What is Value in Health Care?<sup>64</sup>

*In any field, improving performance and accountability depends on having a shared goal that unites the interests and activities of all stakeholders. In health care, however, stakeholders have myriad, often conflicting goals, including access to services, profitability, high-quality, cost containment, safety, convenience, patient-centeredness, and satisfaction. Lack of clarity about goals has led to divergent approaches, gaming of the system, and slow progress in performance improvement.*

*Achieving high value for patients must become the overarching goal of health care delivery, with value defined as the health outcomes achieved per dollar spent [Footnote: Porter ME, Tiesberg EO. Redefining health care: creating value-based competition on results. Boston: Harvard Business School Press, 2006]. This goal is what matters for patients and unites the interests of all actors in the system. If value improves, patients, payers, providers and suppliers can all benefit while the economic sustainability of the health system increases.*

*Value – neither an abstract ideal nor a code word for cost reduction – should define the framework for performance improvement in health care. Rigorous, disciplined measurement and improvement of value is the best way to drive system progress.*

One of the critical advantages of consolidating public employee health plan administration at a scale of over 100,000 covered lives, is the ability to achieve sufficient scale to be able to afford to build a team who can develop and sustain rigorous, disciplined measurement and improvement in the value of health care purchased on behalf of public employees. By driving the use of true value based outcome measures<sup>65</sup> across the value chain of insurance and health / medical care outcomes for a public employee beneficiary population that is on the order of 1/7<sup>th</sup> of the Alaska population, it is highly likely that private employers will experience positive spill-over effects as providers measure and manage their services to provide high value to all of their customers.<sup>66</sup>

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<sup>64</sup> Extended quote from the seminal article from Michael Porter, “What is value in health care?”, New England Journal of Medicine, December 23, 2010, 363: 2477-2481.

<sup>65</sup> In “What is value in health care?”, ME Porter astutely observes that widely adopted quality measurement systems in health care are dominated by process measures. Please note that the American College of Physicians (ACP) has recommended the implementation of value-based insurance design (VBID) as a potential solution to make patient cost sharing more effective to avoid causing patients to drop or forego high value care. See “Addressing the Increasing Burden of Health Insurance Cost-Sharing” available at: [http://vbidcenter.org/wp-content/uploads/2016/07/ACP\\_Addressing-the-Increasing-Burden-of-Health-Insurance-Cost-Sharing.pdf](http://vbidcenter.org/wp-content/uploads/2016/07/ACP_Addressing-the-Increasing-Burden-of-Health-Insurance-Cost-Sharing.pdf)

<sup>66</sup> See for example “ACO Spillover Effects: An Opportunity Not to Be Missed”, Phipps-Taylor and Shortell, New England Journal of Medicine Catalyst, September 21, 2016 which describes findings that providers tend to “level

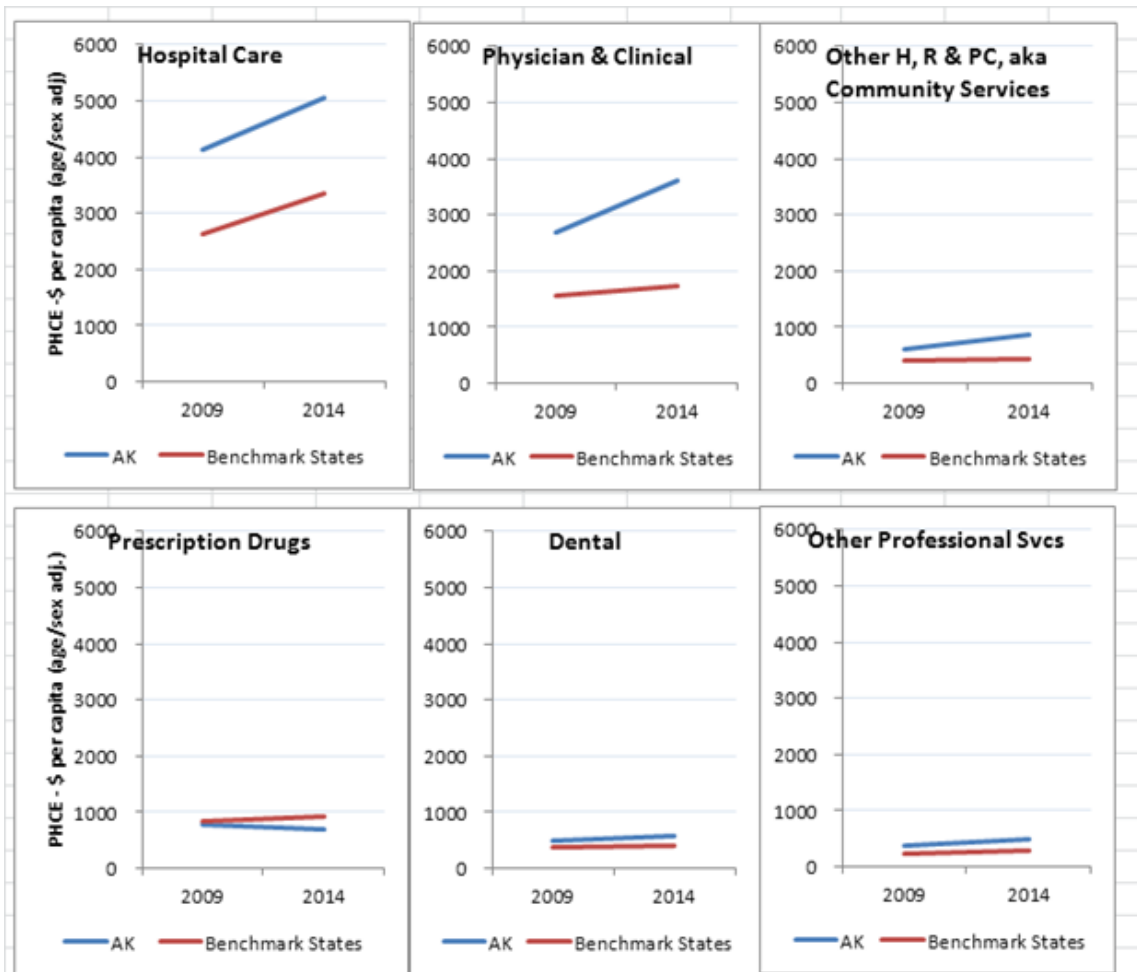


## Alaska Health Care Market Performance Review

This section provides a high level review of the performance of the Alaska health care market on key value drivers of cost, quality and access – illustrating a shift from an exclusive focus on high cost toward a focus on value (cost per outcome), while monitoring access and potential cost shifting in order to mitigate against unintended consequences.

The Alaska health care sector continues to exhibit extraordinarily high costs and extraordinarily high cost growth rates when compared to U.S. benchmarks – with 2014 per capita personal health care expenditures at \$11,854 (1.48X benchmark states average) and a compound annual growth rate (CAGR) of 4.5% (0.9 percentage points per year above benchmark states average growth).<sup>67</sup>

Figure 3: Personal Health Care Expenditures per capita, Alaska & selected benchmark states (see table 2 for benchmark states), CMS nominal \$ data adjusted for age/sex differentials among states, by service



up” care across all payer types and strive to become “payer agnostics” by delivering the same standards of care to all patients, regardless of payer or contract type.

<sup>67</sup> Analysis of CMS Personal Health Care Expenditures by State of Residence (June 2017 release of 2014 data)

## Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

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For a brief description of each of the categories reported in the CMS health care expenditures by state, please see <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/quickref.pdf>

### *Cost and Quality (Health Outcomes)*

#### Notes on use of life expectancy as an outcome measure

Please note that the following presentation of incremental cost to incremental benefit is used to illustrate high level aggregate investments and health outcomes comparisons among state and national health care systems where significant divergence of outcomes per dollar invested in medical care have grown wider for on the order of three decades.

Please note that similar presentations are common in the business and business economics press coverage comparing the cost and performance of the health sectors across countries. See for example “America’s Big Spending on Health Care Doesn’t Pay Off”, Economist, November 16, 2015 available at:

<https://www.economist.com/news/21678669-americas-big-spending-health-care-doesnt-pay>

The use of a single measure, such as life expectancy or quality adjusted life years (QALYs) or disability adjusted life years (DALYs), is a very rough high-level indicator of convergence and divergence on health care spending and aggregate outcomes. Many confounding factors beyond basic health care, medical care and health insurance coverage have an impact on health outcomes and may significantly skew state and national comparisons [see figure 6 below for an illustrative summary meta-analysis of health care drivers]. For additional background on why QALYs or DALYs need to be replaced by more customer focused disease specific outcome measures, please see the Supplementary Appendix 2, “Measuring Health Outcomes: The Outcome Hierarchy”, from “What is value in health care?”, ME Porter, New England Journal of Medicine, December 23, 2010; 363:23477-2481.

MAFA assumes that the Alaska Health Care Authority will seek to identify and cull, a list of outcome measures that are particularly important to attract and retain Alaskan employees that support the health care needs of their families. While the effort to focus on value for health outcomes might start with readily available quality measures such as Consumer Assessment of Healthcare Providers and Systems (CAHPS) and Health Effectiveness Data and Information Set (HEDIS)<sup>68</sup>, MAFA recommends that the value focused team at the Alaska Health Care Authority should focus on driving toward more customer focused outcome measures by monitoring emerging health outcome measures from International Consortium for Health Outcomes Measurement (ICHOM)(and other similar organizations focused on customer outcomes) and adopt Alaska appropriate patient centered outcome measures in a collaborative process with health care providers serving Alaskans. It is worth exploring the idea of including providers based in other states who have a moderate book of business with Alaska employees

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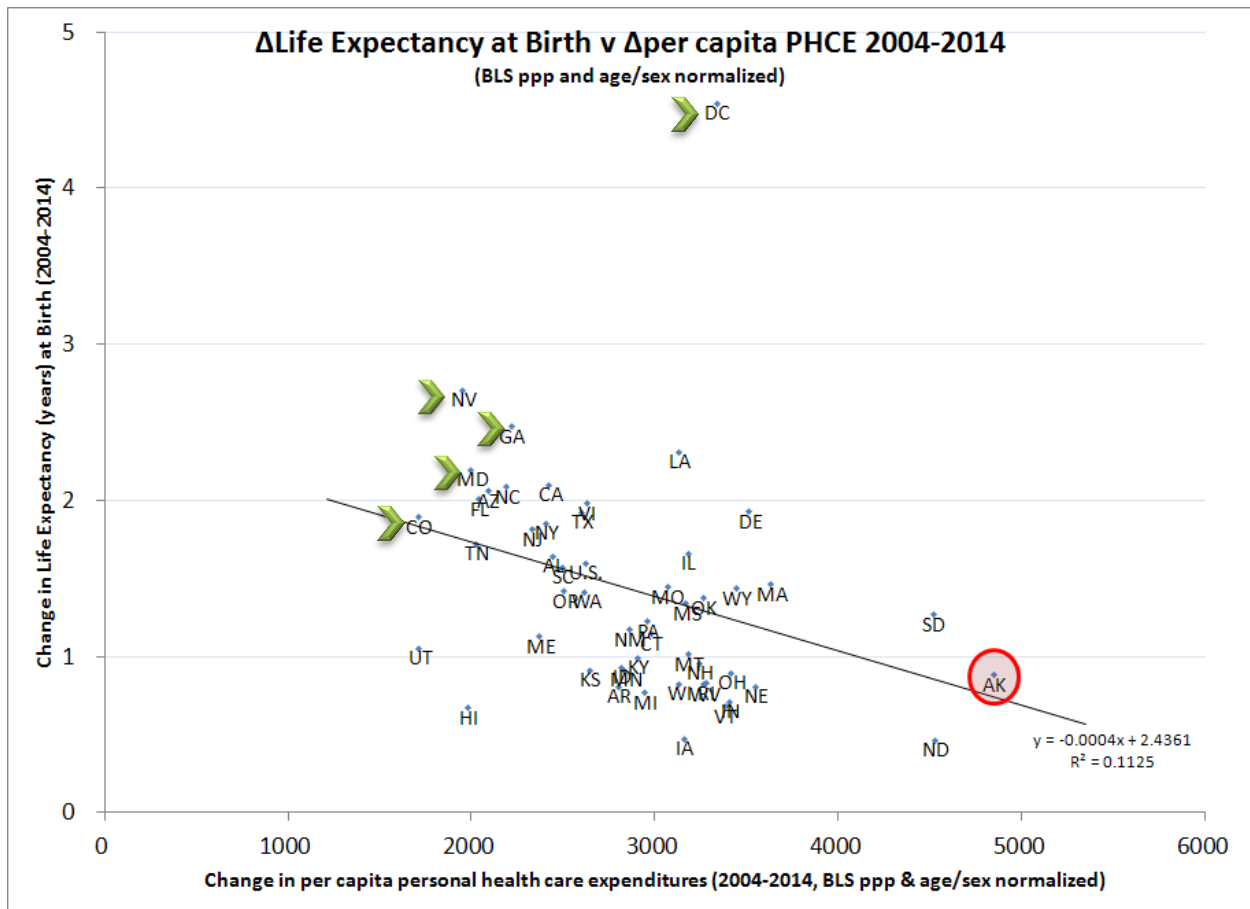
<sup>68</sup> Please note that of the 78 Healthcare Effectiveness Data and Information Set (HEDIS) measures for 2010, the most widely used quality measurement system, ME Porter found that all but 5 were clearly process measures and none were true outcomes [p. 2478, “What is value in health care?”, ME Porter, New England Journal of Medicine, December 23, 2010; 363: 2477-2481].

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and retirees who may be in markets where their early adoption of customer focused outcome measures may help them in their local lower 48 markets and simultaneously set a standard for local Alaska health care providers that local Alaska providers could be encouraged to emulate if they hope to retain a portion of the Alaska public employee book of business.

Unfortunately, the high and rapidly increasing level of personal health care expenditures in Alaska are not associated with significant improvements in population health outcomes. Over the most recent decade for which data is available, 2004-2014, Alaska's incremental gains in life expectancy at birth compared to the increase in spending on personal health expenditures are quite modest compared to other states – Alaska has increased personal health care expenditures on the order of \$4,848 per capita for 0.9 years increase in life expectancy at birth – placing it among the most expensive states with only modest gains (see Figure 4 below).

Figure 4: Change in Life Expectancy at Birth compared to Change in personal health care expenditures per capita (BLS purchase power parity and state age/sex normalized)



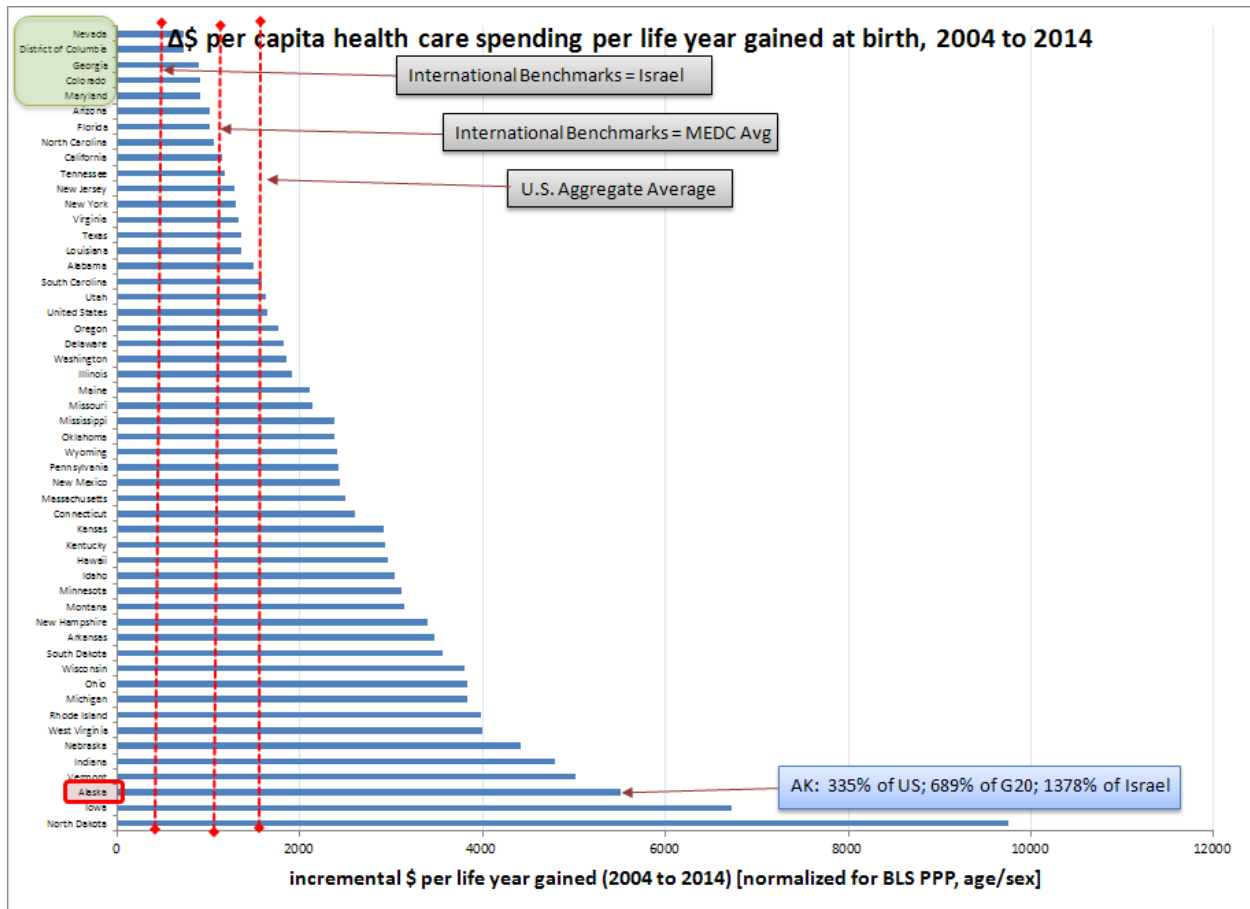
In contrast, Colorado, Maryland, Georgia, Nevada and the District of Columbia have incremental personal health care expenditures per life year gained that are less than the average in the More

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Economically Developed Countries (MEDC) (<\$900 per capita incremental spending per life year gained).<sup>69</sup>

At the other end of the spectrum – in the high cost/modest benefit area, Alaska, North Dakota and Iowa increased per capita personal health care expenditures over \$5,500 per life year gained from 2004-2014.

Figure 5: Change in per capita health care spending per life year gained at birth, 2004-2014 (OECD country and CMS/BLS state data)



Alaska's increased personal health care expenditures per life year gained are on the order of:

- 3.35 X the U.S. Average
- 6.89 X the Moderately Economically Developed Countries Average and
- 13.78 X Israel

These reconnaissance level correlations likely overestimate the very modest return on Alaska personal health care expenditures associated with life expectancy gains in so far as they do not separate out the change in life expectancy associated with substantial public health investments made in Alaska over the

<sup>69</sup> See Appendix 2: Review of More Economically Developed Countries Health Care Spending & Outcomes

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past 20 years. After taking into account expected gains in life expectancy associated with improvements in public health services and systems, e.g., services provided by federally qualified health centers,<sup>70</sup> water/sewer system improvements across rural Alaska<sup>71</sup>, the modest gains in Alaskan life expectancy at birth associated with the very large increase in medical expenditures are likely to be extremely modest at best.<sup>72</sup>

It may also be useful to consider the relative value of access to medical care and health insurance coverage compared to other health drivers when considering the potential value of the extremely high cost of medical care in Alaska. McGinness, et al (2002) estimated that medical care's contribution to avoiding early death in the U.S. may be on the order of 10% compared to behavior (40%), genetics (30%), social circumstances (15%), and environmental factors (5%).

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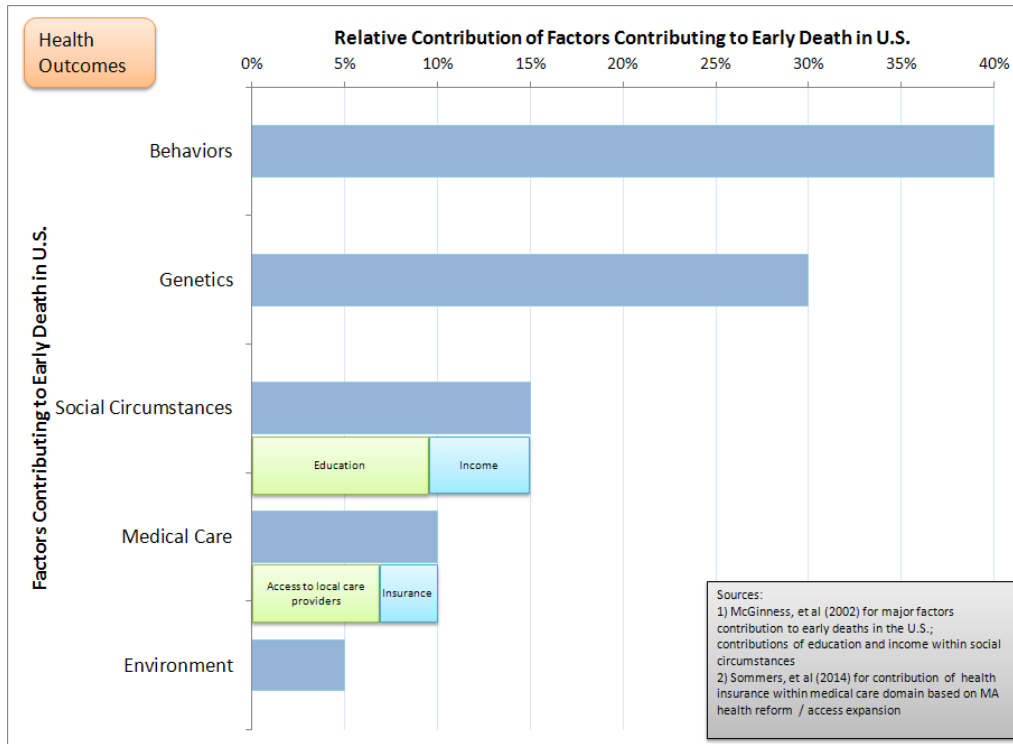
<sup>70</sup> <http://dhss.alaska.gov/dph/HealthPlanning/Documents/primarycare/FQHC%20List.pdf>

<sup>71</sup> Denali Commission, Alaska Native Tribal Health Consortium Public Health, State of Alaska Department of Environmental Conservation, U.S. Department of Agriculture, Rural Utility Service have made substantial investments in rural public health infrastructure and support services over the past 20 years. While most of these investments are not included in the "personal health care expenditure" cost compilation, the benefits of the public health investments can be linked to reductions in premature deaths and increases in life expectancy.

<sup>72</sup> There is a well-documented concern that aggregate personal health care expenditures may be negatively associated with population health outcomes. As you may note from the simple one variable linear regression correlations presented, increased per capita spending on personal health care expenditures is associated with declines in life expectancy at both the aggregate and incremental level. The Dartmouth Atlas of Health continues to raise concerns that a significant portion (30-40%) of health care expenditures may not be yielding positive benefits and may be generating negative outcomes. See <http://www.dartmouthatlas.org/>

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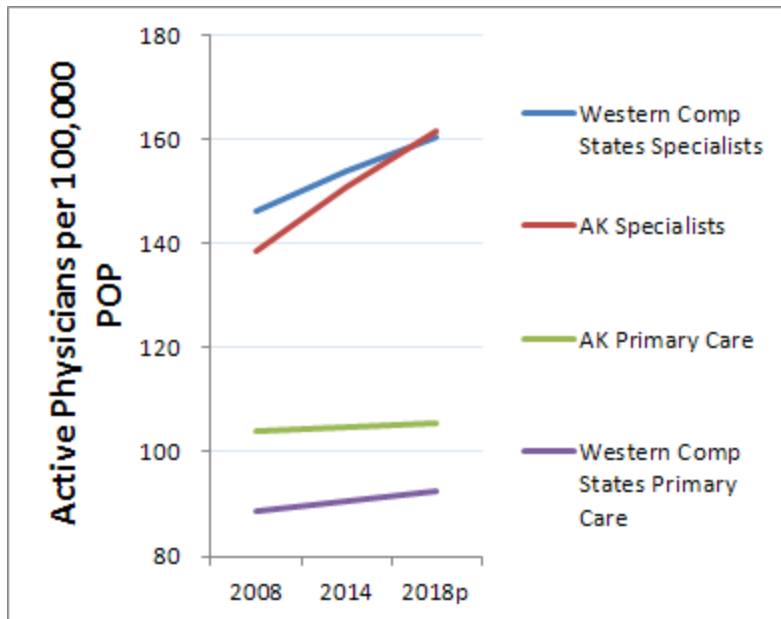
Figure 6: Estimated Relative Contribution of Factors contributing to early death in the U.S.



### Cost and Access [Medical Provider Capacity]

Alaska's high and rapidly escalating cost of medical care is correlated with rapid growth in the number of specialist physicians per 100,000 of population.

Figure 7 / Table 3: Active Physicians per 100,000, Alaska and selected benchmark states

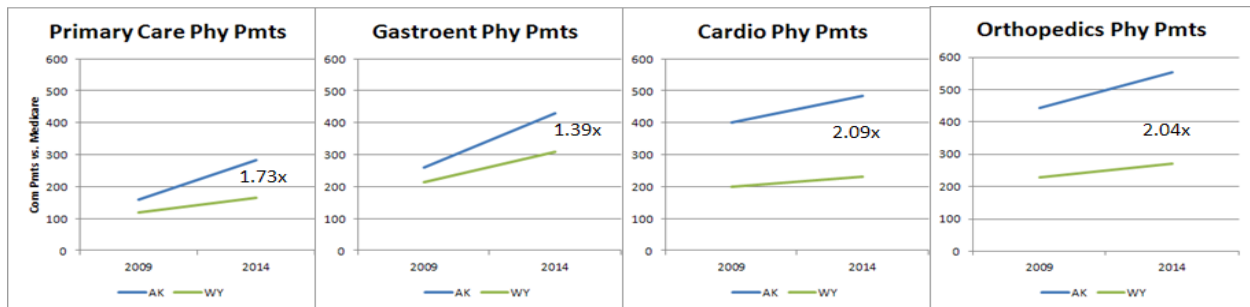


## Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

Active Physicians per 100,000 POP (AAMC, State Physician Workforce Data Book)								
	Primary Care				Specialists			
	2008	2014	2018p	0814CAGR	2008	2014	2018p	0814CAGR
AK	104.0	104.8	105.5	0.13%	138.6	150.8	161.8	1.42%
CO	90.4	94.3	97.7	0.71%	164.9	178.9	191.5	1.37%
HI	113.3	112.9	112.6	-0.06%	185.3	183.6	182.2	-0.15%
ID	65.8	72.1	77.8	1.54%	116.0	117.5	118.8	0.21%
MN	102.3	105.3	107.9	0.48%	161.7	177.6	192.0	1.58%
MT	85.2	88.0	90.4	0.54%	143.5	141.5	139.9	-0.23%
NV	94.8	90.1	86.4	-0.84%	137.2	147.8	157.3	1.25%
ND	85.2	88.0	90.4	0.54%	143.5	141.5	139.9	-0.23%
OR	99.9	107.4	114.1	1.21%	168.1	183.9	198.2	1.51%
SD	87.3	90.4	93.1	0.58%	129.4	141.0	151.5	1.44%
UT	63.4	65.0	66.4	0.42%	128.8	142.5	155.0	1.70%
WA	96.6	99.2	101.4	0.44%	161.8	169.5	176.2	0.78%
WY	78.5	76.0	74.0	-0.54%	114.7	120.7	125.9	0.85%

The increase in specialists in Alaska may not be surprising given the prevalence of extraordinarily high prices charged by many specialists compared to other relatively remote rural states [we use WY as a comparator because of its high cost structure among the Western States].

Figure 8: Alaska Commercial Payment Price compared to Medicare Benchmarks for Selected Specialties (2009-2014)



Extremely high-priced specialist physician care is not the only cost challenge facing Alaska. The cost of Alaska inpatient and physician/outpatient/clinical services remain far above western State benchmarks.<sup>73</sup>

<sup>73</sup> Please note that the most recent available data from CMS predates the Medicaid expansion in Alaska (Fall 2015). Also note that prior to the Medicaid expansion Alaska had a relatively high level of per capita expenditures in a wide variety of government health programs, including Medicaid, Indian Health Service/Alaska Native Tribal Health Consortium, Veterans Affairs, Department of Defense, TriCare, Critical Access Public Health Clinics and Hospitals, as well as relatively recent cycles of investment in rural water/sewer systems compared to other states. The presence of multiple programs with attendant overhead and opportunities for beneficiaries to shop around depending on their health coverage and is likely to be a material factor in driving high costs – both high overhead from program proliferation as well as double or triple coverage beneficiaries shopping for close, high convenience providers who frequently charge higher priced services to harvest the margin opportunities when “insurance covers it.”

Estimate of the Potential Value of Consolidating Alaska State, Local, and School District  
Public Employee Health Plans

Table 4: Per capita personal health care expenditures by type

<b>Per capita personal health care expenditures by type (CMS, 2014)</b>									
<i>(normalized for state age/sex demographic profiles)</i>									
Far West, Rocky Mountains, Northern Plains, exclude CA	Hospital Care (\$)	Physician & Clinical Services (\$)	Other Professional Services (\$)	Dental Services (\$)	Home Health Care (\$)	Prescription Drugs and Other Non-durable Medical Products (\$)	Durable Medical Products (\$)	Nursing Home Care (\$)	Other Health, Residential, and Personal Care (\$)
<b>AK</b>	<b>5052</b>	<b>3608</b>	<b>498</b>	<b>581</b>	<b>209</b>	<b>686</b>	<b>149</b>	<b>219</b>	<b>854</b>
CO	2799	1637	332	428	196	696	176	393	296
HA	2784	1936	235	347	164	1190	171	353	175
ID	3143	1371	312	402	184	824	154	379	396
MN	3385	1766	271	405	526	959	135	870	587
MT	3615	1610	294	376	147	840	160	530	410
NV	2394	1886	275	352	235	973	151	246	252
ND	4667	1785	271	448	75	1224	172	845	776
OR	2890	1847	324	449	164	867	127	780	459
SD	4516	1672	262	426	95	971	129	479	587
UT	2771	1555	250	443	222	924	190	425	271
WA	3106	2075	326	501	189	799	147	348	464
WY	4111	1820	387	425	79	772	133	396	427
Benchmark Avg.	3349	1747	295	417	190	920	154	504	425
AK / Benchmark Ratio	1.51	2.07	1.69	1.39	1.10	0.75	0.97	0.43	2.01
AK - Benchmark Difference (\$)	1703	1862	203	164	19	(234)	(5)	(285)	429
	hospitals	physicians	chiropractors						medicaid home & community based waivers
	inpatient pharmacy	outpatient care centers	podiatrists						residential care facilities
	hospital based nursing, home	lab services	optometrists						ambulance services
	ancillary charges, resident physicians	Clinics Veterans Affairs, Coast Guard, DOD, US IHS.	physical/occupational therapists						school & worksite health, community centers
	total "net" revenue		workers comp as prominent payer						senior citizen centers



## Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

### Most Recent Comprehensive Public Cost Data by State & Payer (CMS, 2009-2014)

After normalizing for differences in demographics<sup>74</sup>, the most recent CMS data release indicates that per capita cost of personal health care expenditures<sup>75</sup> in Alaska remains substantially above all other States as well as 47% above the U.S. average and Alaska continues to be among the states with the highest annual growth in per capita health care costs.

See table 4 below for demographically normalized per capita personal health expenditures by state, sorted from high to low, with compound annual growth rates delineated and heat mapped in the far-right column for the top 20 states, plus the District of Columbia and the 50<sup>th</sup> state in the sort.

Table 5: per capita personal health care expenditures, sorted by \$/capita (Top 20 states + 50<sup>th</sup> state)

Age/Sex Normalized (US Population Wtd Average)								
per capita Personal Health Expenditures (CMS, June 2017)								
		CY					SORT	
#	State	2009	2010	2011	2012	2013	2014	CAGR
1	District of Columbia	10418	10999	11411	11581	11834	12337	3.4%
2	Alaska	9502	9574	10042	10784	11111	11854	4.5%
3	Massachusetts	9071	9251	9444	9832	10031	10316	2.6%
4	North Dakota	8100	8398	8837	9207	9768	10265	4.9%
5	Delaware	8246	8515	8870	9213	9533	10016	4.0%
6	New York	8381	8616	8834	9025	9300	9729	3.0%
7	Connecticut	8430	8367	8452	8913	9121	9456	2.3%
8	Vermont	7517	7741	8092	8545	8964	9363	4.5%
9	Rhode Island	8081	8236	8403	8707	8902	9289	2.8%
10	South Dakota	7373	7633	8117	8518	8736	9138	4.4%
11	Minnesota	7442	7691	7875	8204	8490	8904	3.7%
12	Pennsylvania	7273	7669	7965	8275	8511	8883	4.1%
13	New Hampshire	7616	7766	7996	8374	8530	8880	3.1%
14	West Virginia	7191	7254	7537	8107	8297	8762	4.0%
15	Nebraska	7311	7542	7732	8117	8274	8566	3.2%
16	Wisconsin	7304	7491	7745	7950	8053	8564	3.2%
17	Maryland	7367	7589	7774	8067	8201	8558	3.0%
18	Wyoming	7056	7385	7520	7919	8048	8550	3.9%
19	Ohio	7192	7276	7379	7902	8112	8534	3.5%
20	Indiana	6791	6988	7289	7968	8043	8432	4.4%
21	Maine	7550	7591	7847	7917	8033	8387	2.1%
52	Arizona	6070	6124	6182	6293	6374	6570	1.6%

During the “slow growth” period following the 2008 recession in the U.S. [2009-2014 where U.S. per capita personal health care expenditures grew by an average of 3.1% per year while U.S. per capita

<sup>74</sup> In this reconnaissance level review of cost trends, MAFA has normalized the CMS nominal \$ personal health care expenditures by state to account for differences in the average age male/female by state based on U.S. Census data for each of the years across the most recent five years of state expenditure data available from CMS, 2009-2014, released June 2017. Please note that Alaska “nominal \$” [not adjusted for differences in demographics] personal health care expenditures per capita are 38 percent above the U.S. average [CMS, personal health care expenditures by state and payer, June 2017 release of state data up through CY2014].

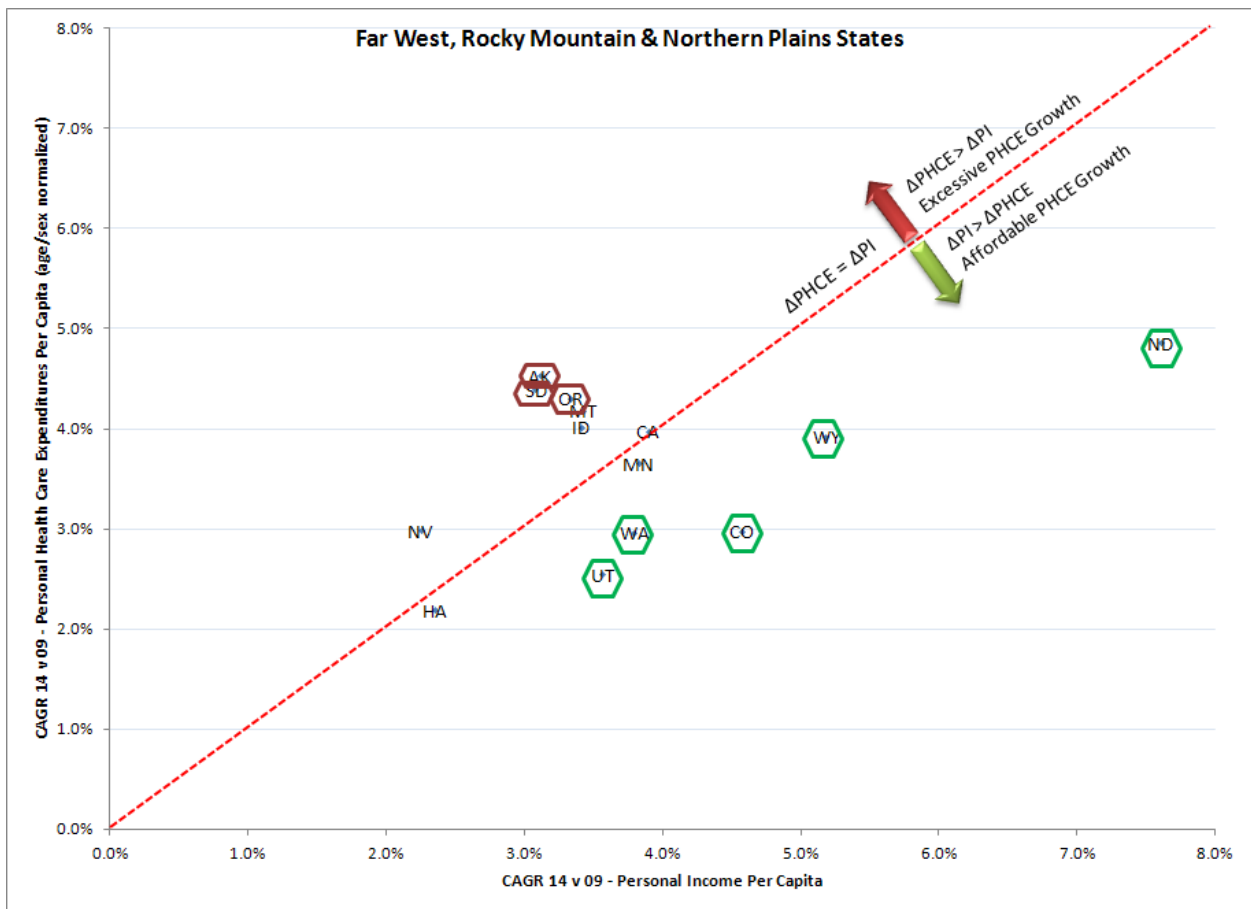
<sup>75</sup> Please note that Personal Health Care Expenditures do \*not\* include: 1) the cost of government health care program administration and overhead, e.g., Medicaid, Medicare, CHIP, Department of Defense, Department of Veterans Affairs administrative and overhead costs, 2) the net cost of private health insurance, 3) public health activities, e.g., Food and Drug Administration, Centers for Disease Control, state and local health departments; 4) investment: equipment (new capital equipment, including software), structures and research. Please see National Health Expenditure Accounts: Methodology Paper, 2015, Definitions, Sources and Methods, available at: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/DSM-15.pdf>

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personal income grew by 3.4% per year], Alaska’s growth in personal health care expenditures was 4.5% per year.

Unfortunately for Alaska, per capita personal income over the same time period only grew by 3.1% -- 1.4 percentage points slower than per capita personal health care expenditures -- exacerbating a long-term trend where Alaska personal health care expenditures continue to outpace income growth. Alaska continues to lead the Far West, Rocky Mountain & Northern Plains States in excessive health care cost growth [see figure 9 below].<sup>76</sup>

Figure 9: Change in personal health care expenditures per capita vs change in personal income per capita



Sources: CMS Personal Health Care Expenditures per capita by state (2017 release of data through 2014), BLS Personal Income Per Capita by state (2009, 2014)

In contrast, in two prominent states with natural resource based economies, Wyoming and North Dakota –per capita personal income growth in both states grew markedly faster than per capita

<sup>76</sup> The Far West, Rocky Mountain & Northern Plains States were selected as benchmarks due to relatively higher proportion of rural areas with a higher reliance on natural resource development and tourism within their economies.

## Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

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personal health care expenditures, providing 1.3 (WY) and 2.8 (ND) percentage points of personal income growth above the rate of increase in personal health care expenditures. In short, WY and ND were able to sustain wage growth in excess of the growth in health costs, while Alaska, South Dakota and Oregon health care expenditure growth exceeded income growth, indicating a potential for long term erosion in the ability of employers to offer competitive wages in the face of rapid cost escalation in medical care spending.

### Alaska Health Care Expenditures by Payer

A portion of the high cost of health care in Alaska can be attributed to a wide variety of government programs targeting multiple, sometimes overlapping, beneficiary populations, e.g., Medicaid, Indian Health Service/Tribal Health Organizations, Veterans Affairs, Department of Defense, TriCare, Critical Access Hospitals<sup>77</sup> and Federally Qualified Health Centers.<sup>78</sup>

In addition, the proliferation of relatively generous (high actuarial value) health plans across multiple government sponsored employment and retirement coverages (Federal Employees, Department of Defense, Veterans Affairs, TriCare, State, University and Local Government and School Districts) frequently provides Alaskan households with multiple coverages which mitigates exposure to deductibles and co-pays relative to other states and enables providers to charge higher prices due to the perception of beneficiaries that “someone else” pays.<sup>79</sup>

The evolution of Alaska’s frontier<sup>80</sup> health care sector has resulted in health spending per enrollee for Alaska that is:

- markedly similar to Medicare benchmarks (despite a ~1.3X price per procedure multiplier);
- very different from Medicaid benchmarks with higher costs and a high cost growth rate compares to national costs per enrollee that have declined; and
- similar in overall direction to private health insurance benchmarks, albeit at a higher level and higher growth rates (see Figure 10 below).

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<sup>77</sup> [http://dhss.alaska.gov/dhcs/Pages/hflc/fac\\_cah.aspx](http://dhss.alaska.gov/dhcs/Pages/hflc/fac_cah.aspx)

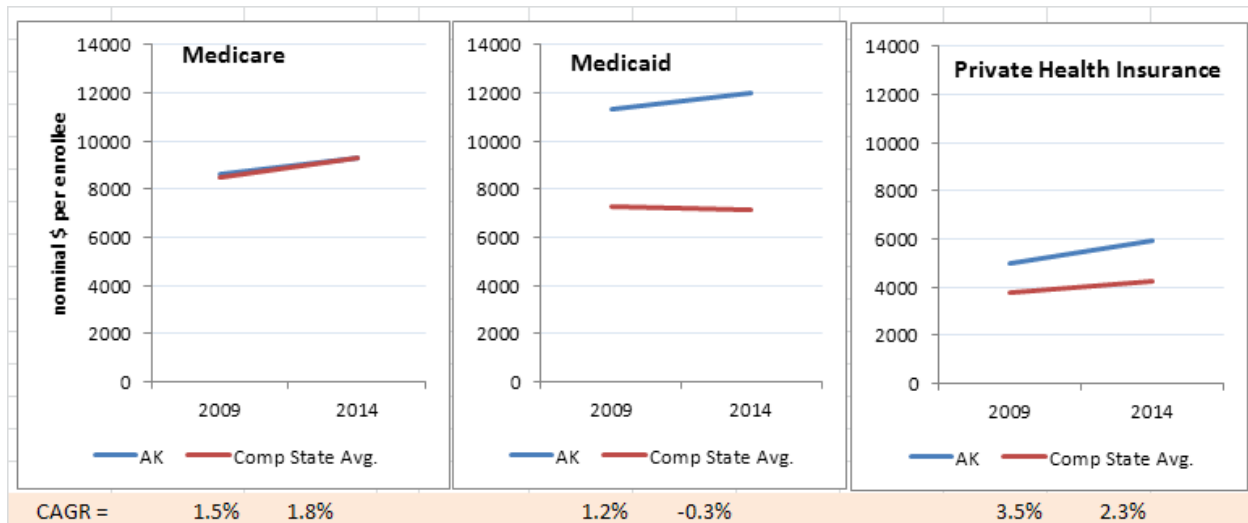
<sup>78</sup> <http://dhss.alaska.gov/dph/HealthPlanning/Documents/primarycare/FQHC%20List.pdf>

<sup>79</sup> See for example MAFA “Alaska’s \$7 Billion Health Care Industry – Who’s Paying” presentation to the Alaska Health Care Commission, May 2011, especially health coverage by type broken out by age and sex.

<sup>80</sup> MAFA refers to the “evolution of Alaska’s *frontier* health care sector” as shorthand to capture the relatively low and lagging penetration of specialist physicians in Alaska compared to primary care physicians, many of whom were supported by federal programs, from the 1960s to today where Alaska has attracted a large and increasing share of specialist physicians over time. While Alaska may lag other larger States and MSA’s with larger populations and local medical schools on population coverage ratios for emerging subspecialties, the gaps have been declining – based on MAFA review of UAA Consortium Library Medical Reference Section collection of AMA Physician Characteristics and Distribution in the U.S. [1960-2015].

## Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

Figure 10: nominal \$ per enrollee and compound annual growth rate by major payer, Alaska and Comparative States Average



Source: CMS Personal Health Care Expenditures by State and Payer [nominal \$; not adjusted for age/sex and ppp profiles for each state]

### Price Discrimination vs Cost Shifting Among Payers

One concern raised in association with relatively low prices for Medicare and lower 48 Medicaid reimbursements compared to private health insurance is whether the low prices paid by large payers, e.g., Medicare and Medicaid, drive private health insurance rates higher.

Within the health care industry, the price differences between Medicare, Medicaid and Private Health Insurance are frequently attributed to cost shifting.

However, the evidence for *cost shifting* per se in U.S. health care tends to be rather modest. Instead, there is substantial evidence that U.S. health care markets are dominated by highly concentrated medical providers and health insurance which enable medical care/health insurance to charge increasingly high margins across a highly fragmented market of employers based on their lack of effectively competitive alternatives, aka “price discrimination”.<sup>81</sup>

A March 2011 article from Austin Frakt, “How much do hospitals cost shift? A review of the evidence”, found and concluded:<sup>82</sup>

<sup>81</sup> See “Cost shifting in health care: separating evidence from rhetoric”, Morrisey, American Enterprise Institute, 1994 and “Massachusetts health care cost trends: price variation in health care services”, Commonwealth of Massachusetts, Division of Health Care and Finance Policy, June 2011, “Wide variation in hospital and physician payment rates evidence of provider market power”, Ginsberg, Center for Studying Health System Change, November 2011

<sup>82</sup> “How much do hospitals cost shift? A review of the evidence”, Austin Frakt, Milbank Quarterly, March 2011, 89(1): 90-130

## Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

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*Findings: Most of the analyses and commentary based on descriptive, industrywide hospital payment-to-cost margins by payer provide a false impression that cost shifting is a large and pervasive phenomenon. More careful theoretical and empirical examinations suggest that cost shifting can and has occurred, but usually at a relatively low rate. Margin changes also are strongly influenced by the evolution of hospital and health plan market structures and changes in underlying costs.*

*Conclusions: Policymakers should view with a degree of skepticism most hospital and insurance industry claims of inevitable, large-scale cost shifting. Although some cost shifting may result from changes in public payment policy, it is just one of many possible effects. Moreover, changes in the balance of market power between hospitals and health care plans also significantly affect private prices. Since they may increase hospitals' market power, provisions of the new health reform law that may encourage greater provider integration and consolidation should be viewed with caution.<sup>83</sup>*

In a seminal article on pervasive price differentials between payers, Uwe Reinhart distinguishes between cost shifting and price discrimination and asks whether price discrimination creates value:<sup>84</sup>

*...in the United States, prices are negotiated between individual payers and providers. This situation has resulted in an opaque system in which payers with market power [e.g., Medicare, Medicaid] force weaker payers to cover disproportionate shares of providers' fixed costs – a phenomena sometimes referred to as cost-shifting – or providers simply succeed in charging higher prices where they can [Abstract].*

*For the most part, it [today's system of price discrimination in the U.S.] appears to reflect mainly the relative bargaining power in local markets of those who pay for health care and those who provide it.[p. 2129]*

*Leaving aside the ongoing dispute over the validity of the cost-shift thesis, there remains a larger question of whether the pervasive price discrimination in US health care is actually a benefit to society [p. 2128].*

*...University of Chicago economist Reuben Kessel argued that for the most part, price discrimination by physicians and hospitals was aimed purely at profit maximization.[footnote omitted] [p. 2128]*

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<sup>83</sup> Given the drive for more provider integration and consolidation from Medicare, MAFA recommends that both public sector and private sector employers in Alaska consider buy side consolidation of procurement and administration to offset the potential market power price escalation risks associated with Medicare incentivized provider integration and consolidation.

<sup>84</sup> See "The Many Different Prices Paid to Providers and the Flawed Theory of Cost Shifting: Is It Time For A More Rational All-Payer System?", Uwe Reinhardt, *Health Affairs* 30:11, 2125-2133 (November 2011).

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*[Reinhardt quoting from Michael Porter and Elizabeth Teisberg, **Redefining Health Care**]: The administrative complexity of dealing with multiple prices [for the same service] adds costs with no value benefit. The dysfunctional competition that has been created by price discrimination far outweighs any short-term advantages individual system participants gain from it, even those participants who currently enjoy the biggest discounts. The lesson is simple: Skewed incentives motivate activities that push costs higher. All these incentives and distortions reinforce zero-sum competition and work against value creation [footnote omitted] [p. 2126-2127]*

Reinhardt concludes that one potential solution to significantly reduce excessive administrative overhead associated with pervasive price discrimination while retaining consumer choice among providers is to develop an “all-payer” system analogous to Maryland’s all-payer system for hospitals or Germany or Switzerland’s regional payment systems where uniform regional price schedules are negotiated. He posits that this would allow the health care industry to redirect their resources to helping customers coordinate their care in a cost effective manner.<sup>85</sup>

### Price Discrimination – Alaska Market Considerations

Recent evidence suggests that, over the five-year period, 2009-2014, aggregate price discrimination trends among the major payers in Alaska is modest compared to other states with potentially more competitive markets (60% of Illinois, Massachusetts and Connecticut) and remains below or roughly comparable to many other states, including western comparison states of Oregon, Minnesota, and Montana – see Appendix 9.

While the rate of growth in price discrimination among the major payers may be modest in Alaska, the level of price discrimination among payers in Alaska has created significant access problems for Medicare beneficiaries in Alaska – as reported in “How Hard Is It for Alaska’s Medicare Patients to Find Family Doctors?” (Frazier and Foster, UAA ISER, 2009).

### Price discrimination among private health insurance payers

Recognizing that the health insurance / medical provider markets across Alaska appear likely to remain highly concentrated, there is a risk that price discrimination among private payers will remain a challenge. And a reduction in prices paid by public employers consolidated under a health authority may be associated with higher prices paid by other employers.

One way to mitigate the potential for excessive price discrimination among private insurance payers (including both public and private employers) is to develop an annual (or biennial) report on private insurance price trends analogous to the Massachusetts reports on cost and price trends, see for example: <http://www.mass.gov/anf/budget-taxes-and-procurement/oversight-agencies/health-policy-commission/publications/2016-cost-trends-report.pdf>

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<sup>85</sup> Ibid, p. 2129

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**Medicare**

Overall nominal \$ per Medicare enrollee has been growing in the U.S. at a rate of 1.2% per year (2009-2014).

In Alaska, Medicare nominal \$ per enrollee has been growing at a rate of 1.5% per year (2009-2014).

While Alaska Medicare growth is above the U.S. average, it remains behind many western states.

Table 6: CMS Medicare nominal \$ Personal Health Care Expenditures per enrollee, Alaska and selected states (2009-2014)

CMS (June 2017)		Medicare \$/enrollee		
Pop (000)		2009	2014	CAGR
737	AK	8629	9288	1.5%
5350	CO	8712	9287	1.3%
1416	HI	7713	8592	2.2%
1634	ID	7815	8737	2.3%
5453	MN	8878	9917	2.2%
1023	MT	7431	8238	2.1%
2833	NV	9708	10796	2.1%
740	ND	7754	9461	4.1%
3968	OR	8250	8942	1.6%
853	SD	7980	9315	3.1%
2942	UT	8309	9084	1.8%
7054	WA	8454	8997	1.3%
584	WY	8013	9050	2.5%
Comp State Avg.		8504	9309	1.8%
	AK/Comp	1.015	0.998	-0.3% pct pts

Modest growth in AK cost per enrollee has allowed the cost per enrollee in many other Western states to catch up and begin to pass Alaska’s cost per enrollee.

Please note that while the cost per enrollee is very close to the selected comparator states, the Medicare price per procedure for Alaska is considerably higher than Western States with rural areas – on the order of a 30% premium (see table 7 below).

Thus, the comparable nominal cost per enrollee reflects lower utilization per enrollee in Alaska. While part of this is attributable to age/sex and risk differentials, a recent study of Medicare regional practice patterns that normalized for age/sex and treatment risk differentials found that local Alaska practice patterns provided less diagnostic intensity and utilization compared to national norms.<sup>86</sup>

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<sup>86</sup> See “Adjusting Risk Adjustment – Accounting for Variation in Diagnostic Intensity, Finkelstein, et al, New England Journal of Medicine, 376;7 (February 16, 2017)” and Appendix 8 attached.

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There is evidence in the literature that many practitioners adopt practice patterns that are similar and independent of payers despite market payment differentials.<sup>87</sup>

The relatively low diagnostic intensity and utilization practice pattern associated with Alaska Medicare beneficiaries appears to be consistent with the aggregate level of diagnostic intensity and utilization in Commercial Insurance [which includes both public and private sector employers] in Alaska – despite significant differences in prices.<sup>88</sup>

### *Medicare Physician Services Payments*

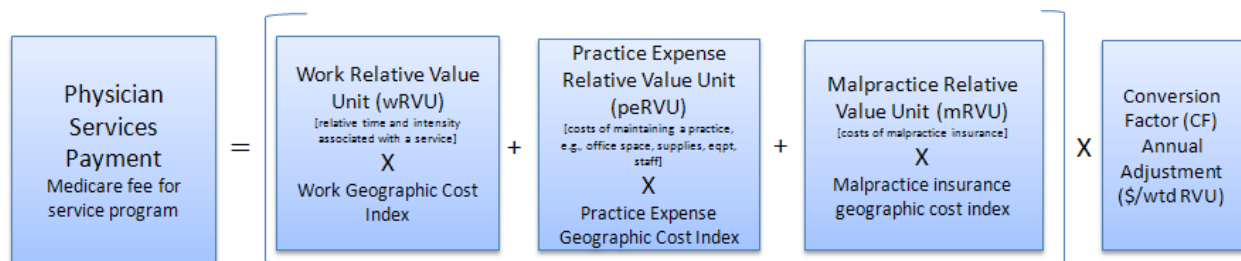
Medicare prices are designed to recover the cost of relatively efficient medical providers [Medicare Payment Policy Report to the Congress, Medicare Payment Advisory Commission (MEDPAC), March 2017].

Medicare prices are frequently used in the industry as a baseline against which to set and compare medical fee-for-service pricing.<sup>89</sup>

Please note that Medicare physician services payments are based on the relative value of work *adjusted for cost differences between geographies*.<sup>90</sup>

To account for different costs between different geographic areas, Medicare developed three main factors to capture those cost differences: 1) work, 2) practice expense, and 3) malpractice insurance coverage.

The basic formula for Medicare physician services payments is included here (Figure 11):



<sup>87</sup> See for example, “ACO Spillover Effects: An Opportunity Not to Be Missed”, Phipps-Taylor and Shortell, New England Journal of Medicine Catalyst, September 21, 2016 which describes findings that providers tend to “level up” care across all payer types and strive to become “payer agnostics” by delivering the same standards of care to all patients, regardless of payer or contract type.

<sup>88</sup> See “Drivers of Health Care Costs in Alaska and Comparison States”, Alaska Health Care Commission, Milliman, 2011

<sup>89</sup> See <http://us.milliman.com/uploadedFiles/insight/Periodicals/health-group-benefits/hgb-newsletter-09-16.pdf> “In our work, we find that using Medicare reimbursement rates as a benchmark can provide much-needed clarity. Specifically, because Medicare is commonly used, and is a widely understood baseline for tracking provider reimbursement, it can serve as an objective measure of the unit price component of employer spend” (p. 2)

<sup>90</sup> For an overview of “traditional Medicare”, please see “A Primer on Medicare: How Does Medicare Pay Providers in Traditional Markets”, Cubanski, et al, available at: <http://www.kff.org/report-section/a-primer-on-medicare-how-does-medicare-pay-providers-in-traditional-medicare/>



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The geographic practice cost factors have been increasing over time due to a combination of administrative cost studies and legislative determinations – see Table 7.

Table 7: Weighted Average of Geographic Cost Index factors for Alaska and selected western states

Pop	Wtd Avg. GPCI Factors	2008	2010	2011	2017	Trend	CAGR (0817)
737	Alaska	1.046	1.282	1.282	<b>1.294</b>		2.4%
1634	Idaho	0.924	0.913	0.956	<b>0.935</b>		0.1%
740	North Dakota	0.913	0.878	0.978	<b>0.982</b>		0.8%
	Portland, OR	0.996	0.988	0.991	<b>1.017</b>		0.2%
1579	Rest of Oregon	0.945	0.932	0.968	<b>0.975</b>		0.3%
	Seattle, WA	1.046	1.034	1.047	<b>1.070</b>		0.2%
3255	Rest of Washington	0.979	0.969	0.986	<b>0.993</b>		0.2%
548	Wyoming	0.928	0.903	1.002	<b>1.002</b>		0.9%
	Comps	0.951	0.936	0.976	0.977		0.3%
	AK/Comps	1.100	1.369	1.312	1.324		2.1%

Source: Medicare Geographic Practice Cost Index Factors (2008 – 2017); See also Appendix \_\_\_ for breakdown of Work, Practice Expense and Malpractice GPCI factors<sup>91</sup>

The ACA increased certain Geographic Practice Cost Index (GPCI) factors for frontier states which contributed to the jump from 0.936 to 0.976 for the selected comparable states/regions in 2011 whereupon Alaska’s premium over the comparables fell from 1.369 to 1.312.

Subsequent administrative proceedings to set geographic cost factors have contributed to Alaska’s geographic differential growing to 1.294 over the national average benchmark (1.00) and 1.324 over the comparables identified here.<sup>92</sup>

<sup>91</sup> The year 2008 is included in this longitudinal data to capture the time period, 2008, when the work geographic practice cost index was set by an administrative process to estimate cost differentials by geography. Federal statutes set the work GPCI for Alaska at 1.50 beginning in 2009 – resulting in a jump from 1.1 to 1.37X western regional comparables. The ACA proceeded to set a 1.00 floor for geographic practice cost index factors for “frontier” states which effectively increased the weighted average GPCI of the selected comparable states/regions from 0.936 to 0.976 in 2011, a 4.3% increase.

<sup>92</sup> The comparables used here in the weighted average calculation exclude Portland and Seattle as those metro areas have housing costs that far exceed those of Alaska communities. Portland and Seattle are included to enable comparability back to the Alaska Health Care Commission reports from Milliman on Cost Drivers in Alaska (2011).

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In summary, Alaska Medicare fee for service prices have remained on the order of 30% above U.S. and selected Western States comparables since 2010.

**Medicaid**

Alaska per enrollee cost for Medicaid remains considerably higher and has been growing faster than comparison states – see middle panel of Figure 10 above and Table 8 below.

Table 8: Medicaid cost per enrollee, Alaska and selected Western States

CMS (June 2017)		Medicaid \$/enrollee			
		<u>2009</u>	<u>2014</u>	<u>CAGR</u>	
737	AK	11333	12001	1.2%	
5350	CO	6972	7143	0.5%	
1416	HI	5459	6087	2.2%	
1634	ID	7057	7069	0.0%	
5453	MN	9791	9176	-1.3%	
1023	MT	9591	9378	-0.4%	
2833	NV	5908	5484	-1.5%	
740	ND	9684	12413	5.1%	
3968	OR	7685	7185	-1.3%	
853	SD	6905	7056	0.4%	
2942	UT	6757	6484	-0.8%	
7054	WA	5899	5851	-0.2%	
584	WY	7985	7698	-0.7%	
Comp State Avg.		7273	7152	-0.3%	
	AK/Comp	1.558	1.678	1.5%	pct pts

Alaska Medicaid cost per enrollee has been growing 1.5 pct points per year faster than selected comparison states. Alaska was passed by North Dakota in cost per enrollee in 2014.

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Table 9: Alaska Medicaid Cost, Utilization & Price Trends (1997-2015)

SFY	ALASKA MEDICAID TRENDS		Cost Per Enrollee (1997=1.00)	Utilization Per Enrollee (1997=1.00)	Nominal \$ Price Per Utilization (1997 = 1.00)	Medical Price Inflation CPI-U (1997 = 1.00)	Excessive Price Per Utilization Above Medical CPI-U (1997 = 1.00)
	Spending (Millions \$)	Spending per enrollee					
1997	\$304.45	\$3,388	1.00	1.00	1.00	1.00	1.00
1998	\$331.00	\$3,740	1.10	1.11	1.00	1.03	0.97
1999	\$385.47	\$4,028	1.19	1.16	1.03	1.07	0.96
2000	\$457.37	\$4,150	1.22	1.18	1.03	1.11	0.93
2001	\$549.82	\$4,731	1.40	1.23	1.13	1.16	0.97
2002	\$671.01	\$5,519	1.63	1.27	1.28	1.22	1.05
2003	\$799.17	\$6,311	1.86	1.30	1.43	1.27	1.13
2004	\$894.29	\$6,904	2.04	1.32	1.54	1.32	1.17
2005	\$950.21	\$7,246	2.14	1.34	1.60	1.38	1.16
2006	\$967.84	\$7,332	2.16	1.35	1.60	1.43	1.12
2007	\$942.65	\$7,347	2.17	1.33	1.63	1.50	1.09
2008	\$955.82	\$7,638	2.25	1.36	1.66	1.55	1.07
2009	\$1,044.53	\$8,164	2.41	1.36	1.77	1.60	1.11
2010	\$1,181.99	\$8,750	2.58	1.42	1.82	1.66	1.10
2011	\$1,295.44	\$8,858	2.61	1.41	1.85	1.70	1.09
2012	\$1,351.54	\$8,951	2.64	1.40	1.88	1.77	1.07
2013	\$1,377.82	\$9,077	2.68	1.38	1.94	1.81	1.07
2014	\$1,400.86	\$8,795	2.60	1.33	1.96	1.86	1.05
2015	\$1,568.71	\$9,517	2.81	1.31	2.15	1.90	1.13
CAGR	9.54%	5.91%	5.91%	1.51%	4.33%	3.64%	0.67%

Source: Medicaid Reports (1997-2015); does not include CMS Medicaid Program Administration Costs [approx. 8.2% in FY2015]

Utilization per enrollee has declined to 2004 levels since peaking in 2010. Nominal prices per utilization grew by 2% per year from 2009-2014, falling behind below the 3% per year growth rate of medical price inflation (CPI-U Medical US Average) over that period.

Medical prices per utilization jumped in 2015 by 9.7% over 2014 similar to price per utilization growth on the order of 8% for private insurance / commercial payers.

Subsequent events of note: Medicaid prices for facilities payments were cut by ~5% and physician services by ~10% as of July 1, 2017.

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**Private Health Insurance**

The cost per enrollee for private health insurance in Alaska has risen from 1.33X to 1.41X selected states average and has been trending upward at 1.2 percentage points per year faster than the selected states.

Compared to Washington, with its regional medical hub community of Seattle, Alaska has been trending upward more than twice as fast (3.5% compared to 1.4% CAGR) and was 1.38X WA in 2014.

The continuation of this medical cost trend line for private employers places considerable pressure on Alaska wages compared to Washington wages. Given the pronounced decline in GDP and income growth in Alaska compared to Washington from 2009-2016 (BLS - GDP by State, BEA - Personal Income per capita), Alaskan employers face an increasingly daunting challenge if they hope to be able to attract the next generation of employees with competitive wages and benefits with the continuation of excessive price inflation in health care / medical costs.

Table 10: Private Insurance nominal \$ per enrollee, Alaska and selected States (2009-2014)

CMS (June 2017)		Private Insurance \$/enrollee		CAGR	
		2009	2014		
737	AK	5012	5958	3.5%	
5350	CO	3721	4623	4.4%	
1416	HI	3636	4222	3.0%	
1634	ID	3141	3560	2.5%	
5453	MN	3834	4603	3.7%	
1023	MT	3114	3882	4.5%	
2833	NV	4108	3417	-3.6%	
740	ND	3583	4410	4.2%	
3968	OR	4069	4232	0.8%	
853	SD	3553	4335	4.1%	
2942	UT	3022	3657	3.9%	
7054	WA	4034	4328	1.4%	
584	WY	4190	4957	3.4%	
Comp State Avg.		3768	4231	2.3%	
	AK/Comp	1.330	1.408	1.2%	pct pts
	AK/WA	1.242	1.377	2.3%	pct pts

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**Observations across per capita spending by category & per enrollee spending by payer**

Over the past 40 years, the confluence of a large influx of federal government health program support and waves of large increases in per capita personal income have contributed to extraordinary inflation in the prices of certain medical inputs, most prominently, specialist physicians [see Figure 8]. Specialist compensation in Alaska may be on the order of 2 to 4X that of Washington state and could be on the order of 3 to 5X Washington today [MAFA Analysis of CMS Personal Health Care Expenditures by State, AK vs US Medical Price Reports, 1992, 2009, 2014 and AK compared to US Physician Characteristics and Distribution (1980-2015)].

In sharp contrast, the annual wage compensation of nurses and health support technicians have been higher than Washington state in the 1980-2005 era, but after the expansion of the University of Alaska Anchorage nursing program and moderation of wage growth in the U.S., Alaska nurse and health support technician wages have become roughly comparable to Pacific Northwest wages.

As the growth in the federal financial support and per capita incomes moderates, it may be timely to consider initiatives to help moderate medical price inflation – focusing on inputs with excessive price inflation that have yielded rapid growth in supply that is on track to exceed benchmark coverage ratios (the high price growth/high capacity growth quadrant of the price growth/capacity growth matrix).

The dentist market in Alaska provides an illustrative case study where capacity growth has continued in the face of significant price moderation and utilization growth.

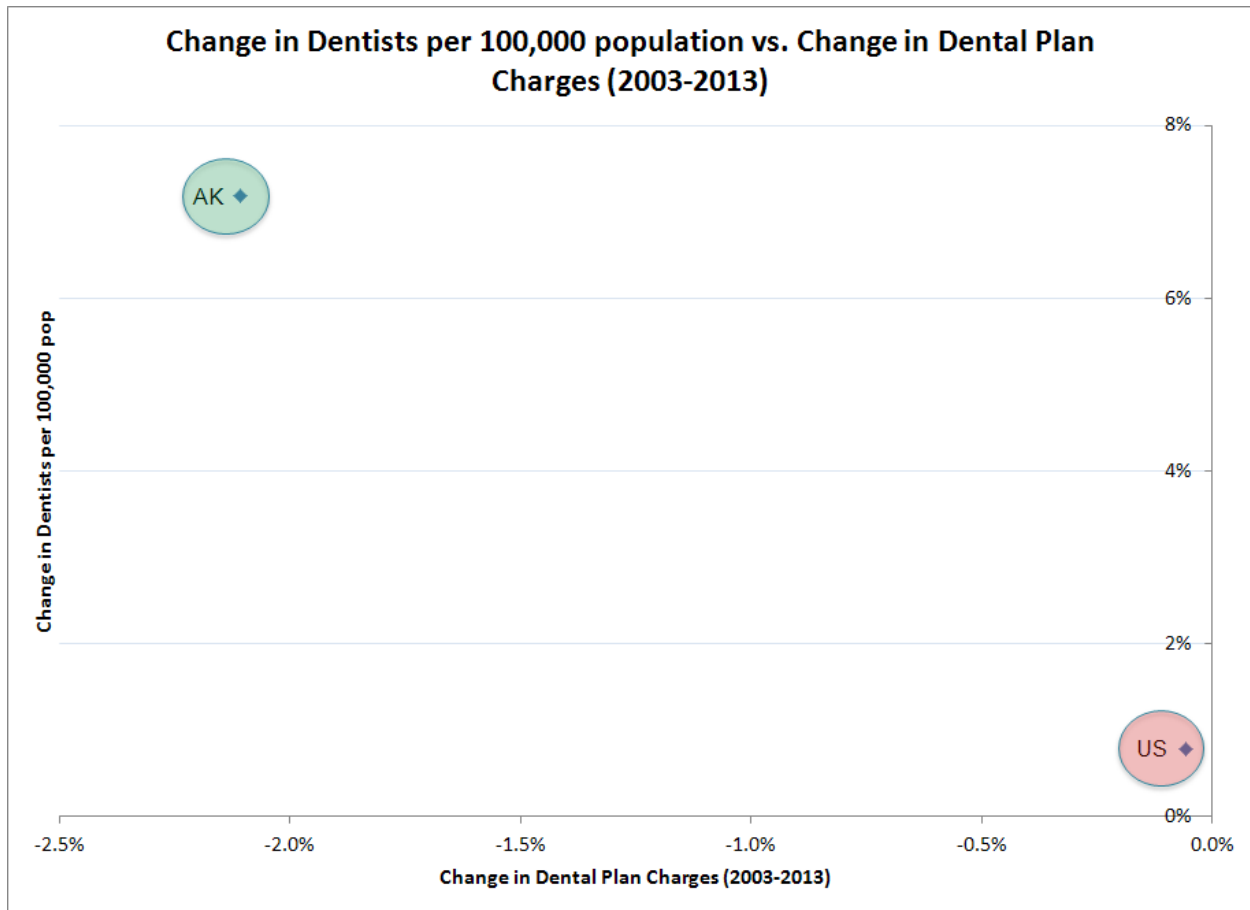
Table 11: Dentists - Illustrative Case Study in Price Moderation and Utilization Growth and Continued Expansion of Local Provider Supply

Personal Health Care Expenditures - Dental Services							
			2003	2013	Change (03-13)		
					Amt	Pct	CAGR
	\$/capita						
		AK	358	522	164	46%	3.8%
		US	262	348	86	33%	2.9%
	Cost Index						
		AK	1.37	1.99	0.626	46%	3.8%
		US	1.00	1.33	0.328	33%	2.9%
	Price Index						
		AK	1.400	1.370	(0.030)	-2.1%	-0.2%
		US	1.000	0.999	(0.001)	-0.1%	0.0%
	Utilization Index						
		AK	0.976	1.454	0.478	49%	4.1%
		US	1.000	1.329	0.329	33%	2.9%
	Dentists per 100,000 pop						
		AK	73.0	78.2	5.24	7%	0.7%
		US	60.0	60.5	0.47	1%	0.1%

Sources: CMS Per Capita Personal Health Care Expenditures by State, Health Policy Institute Dental Price Changes (2003—2013, Health, United States, Dentists per 100,000 (various years), Dental Price Surveys (2003, 2013), Utilization Index = residual from cost = price X utilization accounting.

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Figure 12: Change in Dentists per 100,000 compared to Change in Dental Plan Charges, Alaska & U.S. (2003-2013)



Sources: CMS Per Capita Personal Health Care Expenditures by State, Health Policy Institute Dental Price Changes (2003—2013, Health, United States, Dentists per 100,000 (various years), Dental Price Surveys (2003, 2013), Utilization Index = residual from cost = price X utilization accounting.

**Starting from a base of high prices relative to U.S. benchmarks, dental plan charges have declined in Alaska (-2.1%) faster than the U.S. (-0.1%). Nonetheless, the number of dentists per 100,000 has grown considerably faster in Alaska (+7%) compared to the U.S. (+1%).**

Contemporaneously, utilization in Alaska (+49%) has increased faster than utilization in the U.S. (+33%) [See table 11 above].

The dental supply / [cost = price times utilization] case study serves as a useful reminder of the potential for shifts in medical care practices to occur if prices are restrained or reduced.

If the Alaska Public Employee Health Care Authority pursues a strategy that includes reducing costs through benchmarks that include more reasonable pricing, it should monitor quality, utilization and access to ensure that all critical performance metrics are within reasonable ranges for the Alaska market.

## Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

### Alaska Health Insurance Market Overview

All Commercial defined as: Federal + State/UA/Local/School Districts + Private Sector Employers + Individual Health Insurance

### Medical Expenditure Panel Survey (Private Employers, 2015)

Table 12: Private Sector Health Plan Employer Premiums and Employee Contributions, Alaska & Washington, Single and Family coverage tiers

		AK:WA (2015)	
		Single	Family
	ER Premiums	1.29	1.27
	EE Contributions	1.83	1.03
	ER Premiums + EE Contributions	1.35	1.22

In aggregate, Alaska private employer premiums for single and family coverage were 1.29 and 1.27 times Washington premiums.

Alaska employee contributions for family coverage are within 3% of Washington. In sharp contrast, the employee contribution for single coverage in Alaska was 1.83X that of Washington – presenting a very steep cost differential for single employees with health insurance coverage with private sector employers in Alaska. This steep differential may provide an incentive for singles to seek out public sector employment for the relatively generous health benefit plans.

### Physician Prices among Payers

Physician payment rates for commercial insurance payers in Alaska were on the order of 1.77 times [1.78/1.01] that of Washington state in 2009 (see table 13 below).

Table 13: Physician Payment Rates in Alaska & Comparison States, 2009<sup>93</sup>

<b>Physician Payment Rates in Alaska and Comparison States</b>			
Milliman, Alaska Health Care Commission, 2011			
Table 2.3 Relative Physician Reimbursement (2009)			
		MAFA Index to AK Medicare (1.00)	
Line		AK	WA
1	Medicare	1.00	0.78
2	Medicaid	1.20	0.45
3	Tricare	1.35	0.75
4	VA	1.57	0.78
5	Commercial Allowed - Mean	1.78	1.01
6	Workers Comp	2.45	1.20

AK/WA Medicaid = 2.67

AK Medicare physician prices were roughly comparable to WA commercial allowed prices in this 2009 data

<sup>93</sup> Provide an update to 2014/2015 with trend analysis as data becomes available

# Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

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## Alaska Public Employer Health Insurance Market Overview

Alaska Public Employers have historically had relatively low-cost sharing of health plan costs with employees, consistent with other state government compensation plans, as compared to private sector employers.<sup>94</sup>

This pattern is also found when comparing public compared to private sector health plan actuarial values (see Table 14 below).

Table 14: Estimated Actuarial Value of Private Sector & State Public Employee Health Plans (2013)

				Actuarial Value	
				AK	WA
Private Employer (MEPS, 2013)				83%	82%
State Employee Health Plan Spending (PEW, 2013)				95%	92%

## Public vs Private Total Compensation (Wage + Benefit) Cost Comparisons - Alaska

In Alaska, public sector employees earned 8% less on average for all occupations than private business (Mouhcine Guettabi, Review of ACS data, 2009-2013, UAA ISER).<sup>95</sup>

Total compensation (wages + benefits) was not significantly different on average for all public and private workers in Alaska because government benefits were higher.<sup>96</sup>

In lower and mid-range wage occupations, government wages were generally lower, but more valuable benefits made total government compensation equal to or higher than the private sector.<sup>97</sup>

In higher wage occupations, government wages and total compensation were considerably less than both private pay and benefits.<sup>98</sup>

## PUBLIC EMPLOYEE SURVEY

On behalf of the State of Alaska, PRM conducted a survey of public employee health plans in Alaska in September 2016 and reviewed and validated data with public employers in the second quarter of 2017.

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<sup>94</sup> For a recent comparison among state employee health plans, please see the Pew Charitable Trust report on State Employee Health Plan Spending available at <http://www.pewtrusts.org/en/research-and-analysis/reports/2014/08/state-employee-health-plan-spending>

<sup>95</sup> See "Overpaid or Underpaid? Public Employee Compensation in Alaska", Guettabi and Berman, UAA ISER (July 2016), Research Summary No. 82, page 1

<sup>96</sup> Ibid, page 1

<sup>97</sup> Ibid, page 1

<sup>98</sup> Ibid, page 1

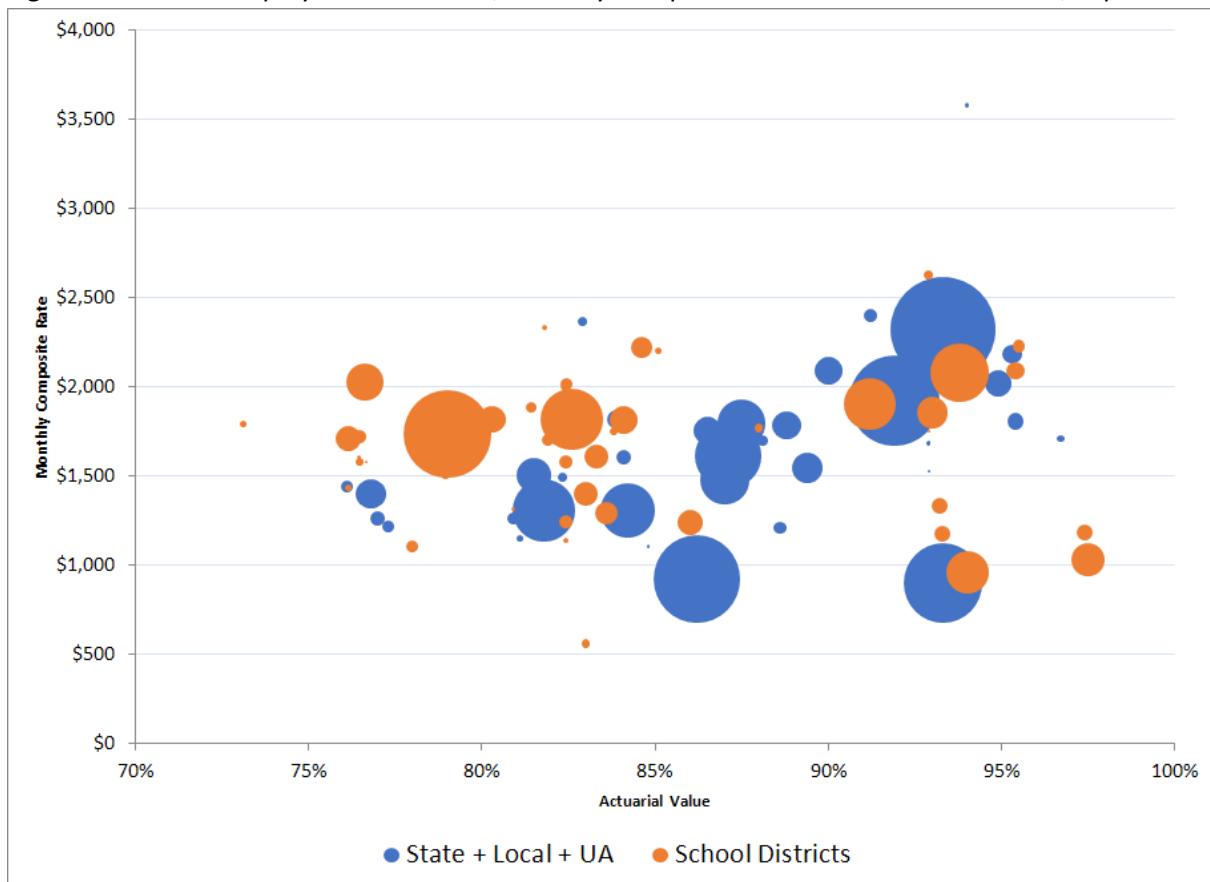


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PRM evaluated the health plans based on their actuarial value -- the estimated percentage of medical claims costs that would be covered by the insurance plan as compared to the estimated total medical claims costs. The difference consists of patient copays, deductibles and co-insurance.

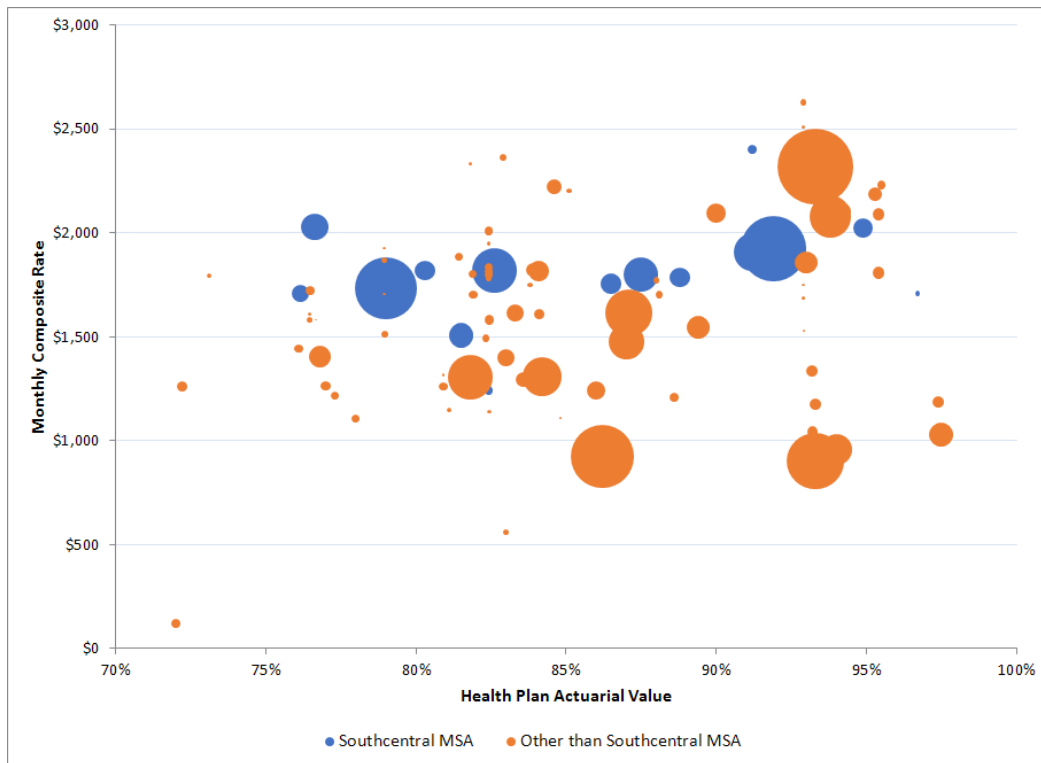
Plotting the monthly composite rate for health coverage compared to actuarial value, with bubble size representing the number of employees in a plan, a relatively wide dispersion of costs compared to actuarial value emerges [cost outliers on the high and low side are shaded yellow/orange and identified in the boxes on the right-hand side of figures 14a and 14b below].

Figure 14a: Public Employer Health Plans, Monthly Composite Rate v Actuarial Value Est., Sept 2016



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Figure 14a: Public Employer Health Plans, Monthly Composite Rate v Actuarial Value Est., Sept 2016



PRM provides additional discussion of the demographic compositions of the employees in their rationale for their recommendations for establishing two pools in their report, Health Care Authority Feasibility Study Phase II-Analysis of Coordinated Health Plan Administration.

### *State of Alaska Employee Health Plans – Price & Utilization Trends*

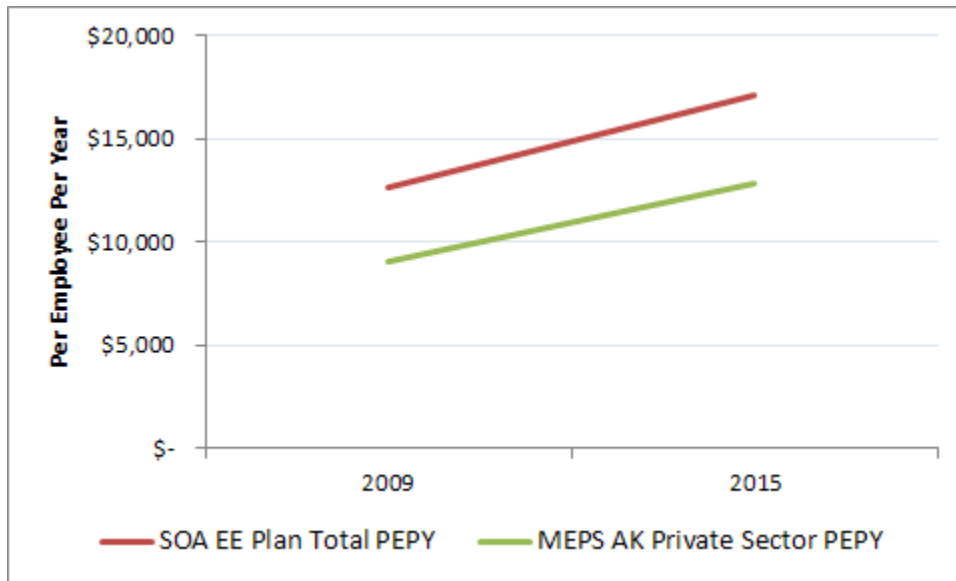
The basic cost escalation trend line for State of Alaska Employee Health Plans tracks the cost escalation trend line for private employers in the MEPS survey (see Figure 15) – costs per employee per year have been escalating on the order of 5 percent per year for the State of Alaska health plans and almost 6 percent per year for private employer health plans.

Please note that several factors may contribute to the difference in the cost per employee per year. The aggregate actuarial value of the state health plans may be on the order of 95% while the private sector MEPS health plans may be on the order of 80%. Individuals and families with health needs and risks are likely to self-select and look for employers, typically public sector, who offer higher actuarial value health plans.

Figure 15: SOA Employee v AK MEPS Aggregate Trend Lines (2009-2015, most recent MEPS available)

## Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

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Sources: *Medical Expenditure Panel Survey (2009, 2015)*, *State of Alaska Health Plan Annual Reports (2009, 2015)*

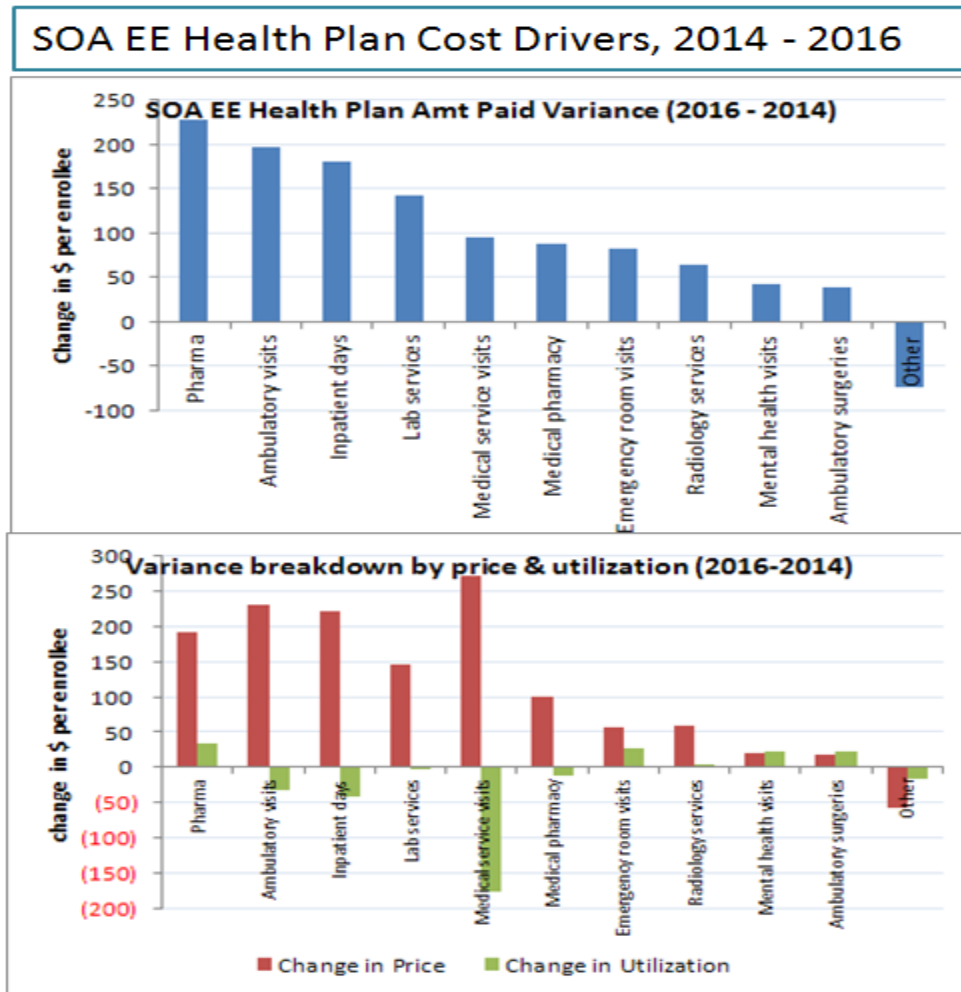
### Price & Utilization Trends (2014-2016)

From 2014 to 2016, in aggregate, prices for the state employee health plan increased on the order of 20% while utilization fell by 3% for a compound annual growth rate of 8.6% per year – significantly above the 4.6% compound annual growth trend line for the previous five years.

During this recent two-year period, the leading driver of price escalation from the prior five years, specialist prices, was joined by a broader set of cost escalation drivers in pharmaceuticals, ambulatory facility visits, inpatient days, lab services, while specialist prices (within medical service visits) continued to make a significant contribution to cost escalation – see figure 16 below.

## Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

Figure 16: State of Alaska Employee Health Plan Cost Drivers (Price / Utilization), 2014-2016



Notes:

1. Pharma costs increased substantially compared to the prior five years where increased utilization of generics with lower prices tended to mitigate price and utilization increases.
2. Ambulatory visit costs increased driven by price increases that were offset by a small decline in utilization.
3. Inpatient days costs increased driven by price increases that were offset by a small decline in utilization.
4. Lab services prices increased with utilization unchanged.
5. Medical service visits, e.g., physicians, costs increased as prices more than offset a significant reduction in utilization.
6. Medical pharmacy costs were up on modest price increases and a slight decline in utilization.
7. Emergency room visits costs increased on higher prices and higher utilization.

## Appendices

1. Why Are High & Rapidly Rising Health Benefit Costs a Challenge and an Opportunity – selected abstracts from the literature
2. State of Alaska Public Employers as a Percentage of the Employer Sponsored Health Insurance Market in Alaska (2017)
3. Alaska Health Care Authority Savings Estimate Table
4. a) Performance Measurement Best Practices, Harvard Business School, Institute for Strategy & Competitiveness, Value Based Health Care Delivery, b) International Consortium for Health Outcomes Measurement [ICHOM] illustrative examples Patient Centered Outcome Measurement
5. Distribution of Health Spending Per Patient, U.S., 2008 [MAFA compilation of MEPS data]
6. Health Outcome & Medicare Care Expenditures: Life Expectancy at Birth compared to State of Residence per capita personal health care expenditures (2014); Change in Life Expectancy at Birth compared to Change in per capita personal health care by state of residence (2004-2014) [CMS, BLS]
7. Health Outcomes & Medical Care Expenditures: Life Expectancy at Birth compared to Country per capita health care expenditures (OECD, 2014)
8. Incremental Medical Care Expenditure per Year of Life Expectancy at Birth Gained (OECD, 2004-2014)
9. Change in Cost Per Enrollee: Medicaid/Medicare compared to Private Health Insurance (CMS, 2009-2014)
10. Excerpts from beginning and end of table of Medicare Regional Risk Factors with Adjustment to reflect differences in diagnostic intensity [New England Journal of Medicine, 2017]
11. Medicare Geographic Practice Cost Index (GPCI) factors: Alaska & comparable states/regions (2008-2017)

**1. Why Are High & Rapidly Rising Health Benefit Costs a Challenge and an Opportunity – selected abstracts from the literature**

Brunt & Bowblis, 2016:<sup>99</sup>

Impact of health insurance market concentration on net compensation of employees varies across distinct firm sizes. The study found higher premiums and reduced net compensation for employees in markets with more concentrated insurers. The magnitude of these effects is distinctly smaller for larger employers.

Anand, 2016:<sup>100</sup>

Total hourly compensation reduces by \$0.52 for each dollar increase in health insurance costs. Workers are absorbing at least part of the increase in health insurance costs through lower compensation and highlight the importance of examining total compensation, and not just wages, when examining the relationship between health insurance costs and employee compensation.

Baicker, Chandra & Skinner, 2012:<sup>101</sup>

There is growing concern over the rising share of the US economy devoted to health care spending. Fueled in part by demographic transitions, unchecked increases in entitlement spending will necessitate some combination of substantial tax increases, elimination of other public spending, or unsustainable public debt. This massive increase in health spending might be warranted if each dollar devoted to the health care sector yielded real health benefits, but this does not seem to be the case. Although we have seen remarkable gains in life expectancy and functioning over the past several decades, there is substantial variation in the health benefits associated with different types of spending. Some treatments, such as aspirin, beta blockers, and flu shots, produce a large health benefit per dollar spent. Other more expensive treatments, such as stents for cardiovascular disease, are high value for some patients but poor value for others. Finally, a large and expanding set of treatments, such as proton-beam therapy or robotic surgery, contributes to rapid increases in spending despite questionable health benefits. Moving resources toward more productive uses requires encouraging providers to deliver and patients to consume high-value care, a daunting task in the current political landscape. But widespread inefficiency also offers hope: Given the current distribution of resources in the US health care system, there is tremendous potential to improve the productivity of health care spending and the fiscal health of the United States.

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<sup>99</sup> See “Health Insurer Market Power and Employer Size: An empirical evaluation of insurer concentration and wages through compensating differentials”, Brunt & Bowblis, Vol 49, Issue 30, Journal of Applied Economics, (published on-line December 2016);

<sup>100</sup> See “Health Insurance Costs and Employee Compensation: Evidence from the National Compensation Survey”, Anand, Health Economics, published 27 December 2016, doi: 10.1002/hec.3452.

<sup>101</sup> See “Saving Money or Just Saving Lives? Improving the Productivity of the US Health Care Spending”, Baicker, Chandra and Skinner, Vol. 4:33-56 (September 2012); first published online as a Review in Advance on April 5, 2012

# Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

APPENDIX 2: Public Employers as a Percentage of the Total Employer Sponsored Health Insurance Market in Alaska (2017)					
Estimate of Total Number of Employees in Employer Sponsored Health Care in Alaska (2017)					
Special ID	ID	Entity	Size	Market Share (%)	HHI = (mkt share) <sup>2</sup>
			197,300		
152A	152	ASEA/AFSCME Local 52 Consolidated	7,453	3.78%	14.27
76A	76	AlaskaCare Consolidated	6,108	3.10%	9.58
70B	70	University of Alaska Consolidated	3,403	1.72%	2.97
	77	AEA Plan 1	2,933	1.49%	2.21
145A	145	Local 71 Consolidated	1,996	1.01%	1.02
108C	108	Mat-Su Borough Schools Consolidated	1,889	0.96%	0.92
77A	77	Anchorage Schools Consolidated	1,771	0.90%	0.81
123B	123	Municipality of Anchorage Consolidated	1,625	0.82%	0.68
181	181	Fairbanks NSB Schools Consolidated	1,539	0.78%	0.61
98	98	Kenai Peninsula Borough Schools	1,043	0.53%	0.28
163	163	City and Borough of Juneau	924	0.47%	0.22
55	55	Lower Kuskokwim Schools	694	0.35%	0.12
133B	133	Juneau Borough Schools Consolidated	595	0.30%	0.09
512	512	Bering Strait Schools	434	0.22%	0.05
65	65	Northwest Arctic Borough Schools	383	0.19%	0.04
514	514	Lower Yukon Schools	376	0.19%	0.04
107	107	Fairbanks North Star Borough	367	0.19%	0.03
54	54	Matanuska-Susitna Borough	311	0.16%	0.02
137	137	Kenai Peninsula Borough	291	0.15%	0.02
135	135	Alaska Housing & Finance Corp	280	0.14%	0.02
94	94	Ketchikan Gateway Borough Schools	239	0.12%	0.01
124	124	Sitka Borough Schools	190	0.10%	0.01
64	64	Galena City Schools	180	0.09%	0.01
180	180	City of Unalaska	141	0.07%	0.01
122	122	City and Borough of Sitka	133	0.07%	0.00
62	62	Valdez City Schools	115	0.06%	0.00
90A	90	City of Wasilla Consolidated	111	0.06%	0.00
1004	1004	City of Kodiak	111	0.06%	0.00
149	149	City of Valdez	108	0.05%	0.00
91	91	Lake and Peninsula Borough Schools	99	0.05%	0.00
516	516	Yukon-Koyukuk Schools	99	0.05%	0.00
156	156	Kuspuk Schools	98	0.05%	0.00
127	127	Ketchikan Gateway Borough	88	0.04%	0.00
142	142	Petersburg Borough	81	0.04%	0.00
143	143	Southwest Region Schools	79	0.04%	0.00
159A	159	Delta/Greely Schools Consolidated	78	0.04%	0.00
79	79	City of Homer	77	0.04%	0.00
63	63	Nenana City Schools	69	0.03%	0.00
147	147	City of Palmer	67	0.03%	0.00
129	129	Petersburg Borough Schools	65	0.03%	0.00
121	121	Unalaska City Schools	60	0.03%	0.00
89	89	City of Soldotna	59	0.03%	0.00
85	85	Dillingham City Schools	57	0.03%	0.00
60	60	Denali Borough Schools	53	0.03%	0.00
128	128	Copper River Schools	53	0.03%	0.00
508	508	City and Borough of Wrangell	53	0.03%	0.00
103	103	Alaska Gateway Schools	50	0.03%	0.00
165	165	Cordova City Schools	50	0.03%	0.00
505	505	Aleutians East Borough Schools	49	0.02%	0.00
158	158	City of Dillingham	47	0.02%	0.00
503	503	Craig City Schools	46	0.02%	0.00
116A	116	Haines Borough Schools Consolidated	45	0.02%	0.00
134	134	Kodiak Island Borough	43	0.02%	0.00
162	162	Haines Borough	41	0.02%	0.00
511	511	Wrangell City Schools	38	0.02%	0.00
507	507	Bristol Bay Borough	36	0.02%	0.00
1009	1009	Nome Public Schools	32	0.02%	0.00
59	59	Hoonah City Schools	29	0.01%	0.00
111	111	Southeast Island Schools	22	0.01%	0.00
72	72	Klawock City Schools	21	0.01%	0.00
141	141	Chugach Schools	21	0.01%	0.00
119	119	Alaska Gas Line Development Corporation	20	0.01%	0.00
136	136	City of Saint Paul	19	0.01%	0.00
68	68	Kake City Schools	17	0.01%	0.00
78	78	Pribilof Schools	15	0.01%	0.00
58	58	Bristol Bay Borough Schools	11	0.01%	0.00
86	86	Yakutat City Schools	10	0.01%	0.00
115	115	Denali Borough	9	0.00%	0.00
501	501	Hydaburg City Schools	8	0.00%	0.00
1008	1008	City of Delta Junction	8	0.00%	0.00
1003	1003	City of Seldovia	7	0.00%	0.00
73	73	Tanana Schools	5	0.00%	0.00
1000	1000	City of Nenana	5	0.00%	0.00
1006	1006	Aleutian Region Schools	5	0.00%	0.00
1001	1001	City of Egegik	4	0.00%	0.00
1005	1005	City of Saxman	4	0.00%	0.00
1002	1002	City of Chignik	3	0.00%	0.00
1007	1007	City of Saint Mary's	2	0.00%	0.00
		TOTAL	37,700	19.11%	34.09
		Estimated Total (including non respondents)	44,000	22.30%	35.00

**Herfindahl-Hirschfield Index**  
 Current Fragmentation 35  
 Proposed Consolidation 497  
 Change in HHI (index points) 462  
 Change in HHI (Proposed/Current) 14.2

**See:**  
<https://www.justice.gov/atr/herfindahl-hirschman-index>  
 Herfindahl-Hirschman Index  
 Sum of the squares of market share  
 It is a measure of the size of firms in relation to the industry  
 Increases in the HHI index generally indicate a decrease in competition and an increase in market power  
 Market power is the ability of a firm to profitably raise the market price of a good or service over marginal cost.  
 Market sellers that have market power may be referred to as "price makers" or "price setters" while buyers are "price takers"  
 Transactions that increase the HHI by more than 200 points in highly concentrated markets are presumed likely to enhance market power under the Horizontal Merger Guidelines issued by the Department of Justice and the Federal Trade Commission

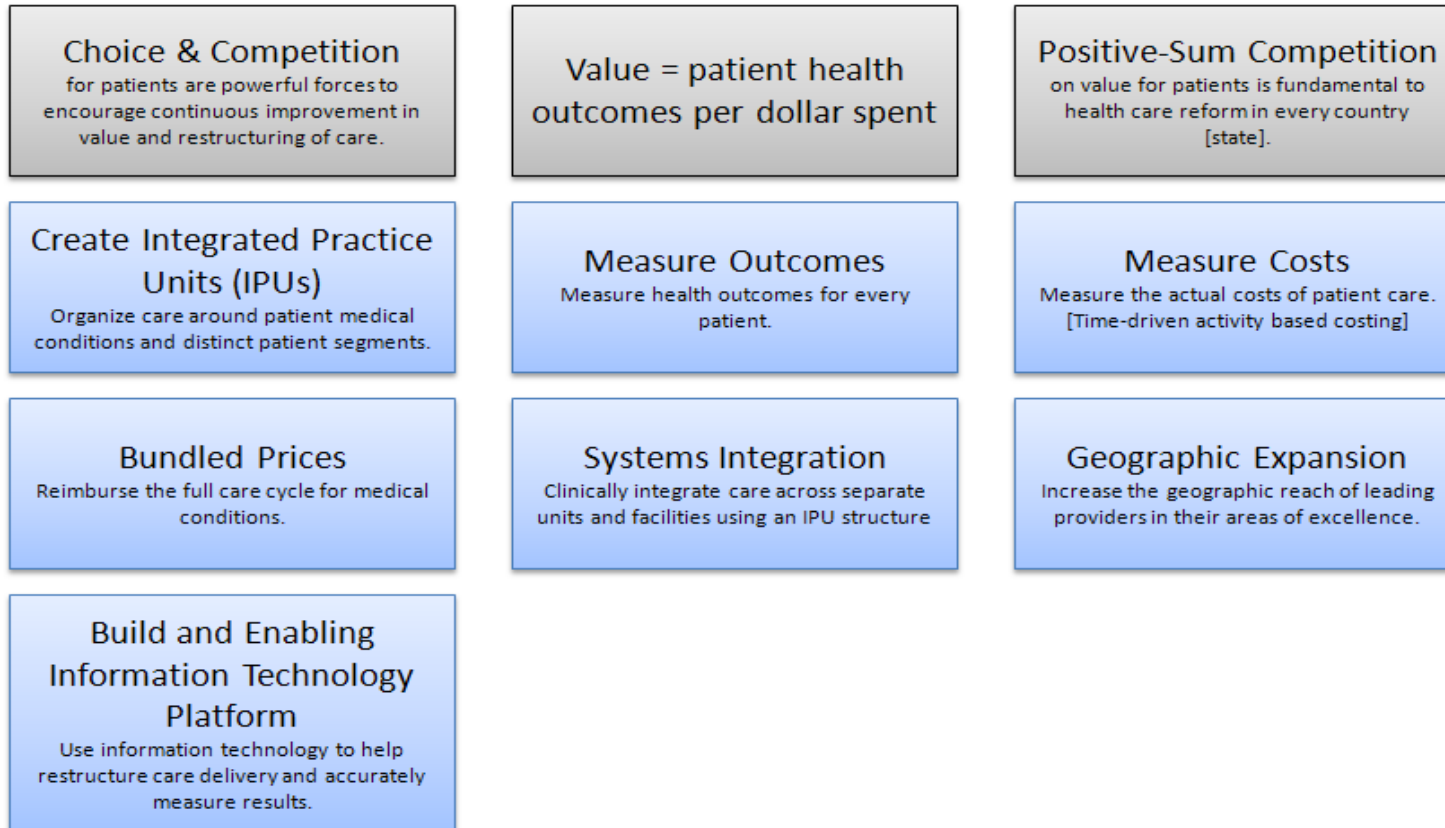
3. Alaska Public Employee Health Care Authority Savings Estimate

Alaska Health Care Authority - Summary of Potential Savings				2017	2018	2019	2020	2021	2022	2023	2024	2025	Cumulative Savings	
Baseline Projection				millions \$	956.5	1,008.2	1,062.6	1,120.0	1,180.4	1,244.2	1,311.4	1,382.2	1,456.8	
<i>Baseline projection growth above 2017</i>													1.52	
Cumulative Savings v Baseline														
PRM	Health Plan Management	pct		0.9%	1.2%	1.2%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%		
PRM	Health Plan Pooled Purchasing	pct		0.1%	0.4%	0.9%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%		
MAFA	Reference Pricing	pct		0.9%	1.8%	1.9%	2.7%	2.7%	2.7%	2.7%	2.7%	2.7%		
MAFA	Accelerate health plan tiering	pct		0.2%	0.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%		
MAFA	Value based insurance design	pct		0.2%	0.4%	0.6%	1.0%	1.4%	1.8%	2.2%	2.6%	2.6%		
	Cumulative Savings v Baseline	pct		<u>2.3%</u>	<u>4.3%</u>	<u>5.6%</u>	<u>7.1%</u>	<u>7.5%</u>	<u>7.9%</u>	<u>8.3%</u>	<u>8.7%</u>	<u>8.7%</u>		
	Cumulative Savings v Baseline	millions \$		23.1	45.7	62.8	84.0	93.5	103.8	115.0	127.0	127.0	\$655.0	
	Scenario 1 Projection	millions \$		<u>985.0</u>	<u>1,016.9</u>	<u>1,057.2</u>	<u>1,096.4</u>	<u>1,150.6</u>	<u>1,207.5</u>	<u>1,267.2</u>	<u>1,329.8</u>	<u>1,329.8</u>		
	<i>Scenario 1 growth above 2017</i>												1.39	
	Reference Pricing Savings Estimate	pct		0.9%	1.8%	1.9%	2.7%	2.7%	2.7%	2.7%	2.7%	2.7%		
MAFA	Price reset targeting reference pricing benchmarks	pct		1.1%	2.1%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%		
MAFA	+ Benchmark price trend reduction	pct					1.0%	1.0%	1.0%	1.0%	1.0%	1.0%		
MAFA	Offset by an increase in primary care utilization	pct		0.2%	0.4%	0.6%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%		

Consolidation under a health care authority has the potential to reduce cost growth from 1.52 to 1.39 in 2025



**3a. Performance Measurement Best Practices [Harvard Business School Value Based Health Care Delivery Framework, for additional detail, see <http://www.isc.hbs.edu/health-care/vbhcd/Pages/default.aspx> ]**



See also:

**International Consortium for Health Outcomes Measurement [ICHOM]**, a non-profit organization with the purpose to transform health care systems worldwide by measuring and reporting patient outcomes in a standardized way. See <http://www.ichom.org/> for additional information. Please note the patient centered focus is an effort to avoid the vast proliferation of input and process metrics that have frequently been associated with both buy side and sell side information overload.

**3b. International Consortium for Health Outcomes Measurement [ICHOM] Illustrative Examples,  
Patient Centered Outcome Measurement**

<http://www.ichom.org/medical-conditions/heart-failure/>

<http://www.ichom.org/medical-conditions/coronary-artery-disease/>

<http://www.ichom.org/medical-conditions/stroke/>

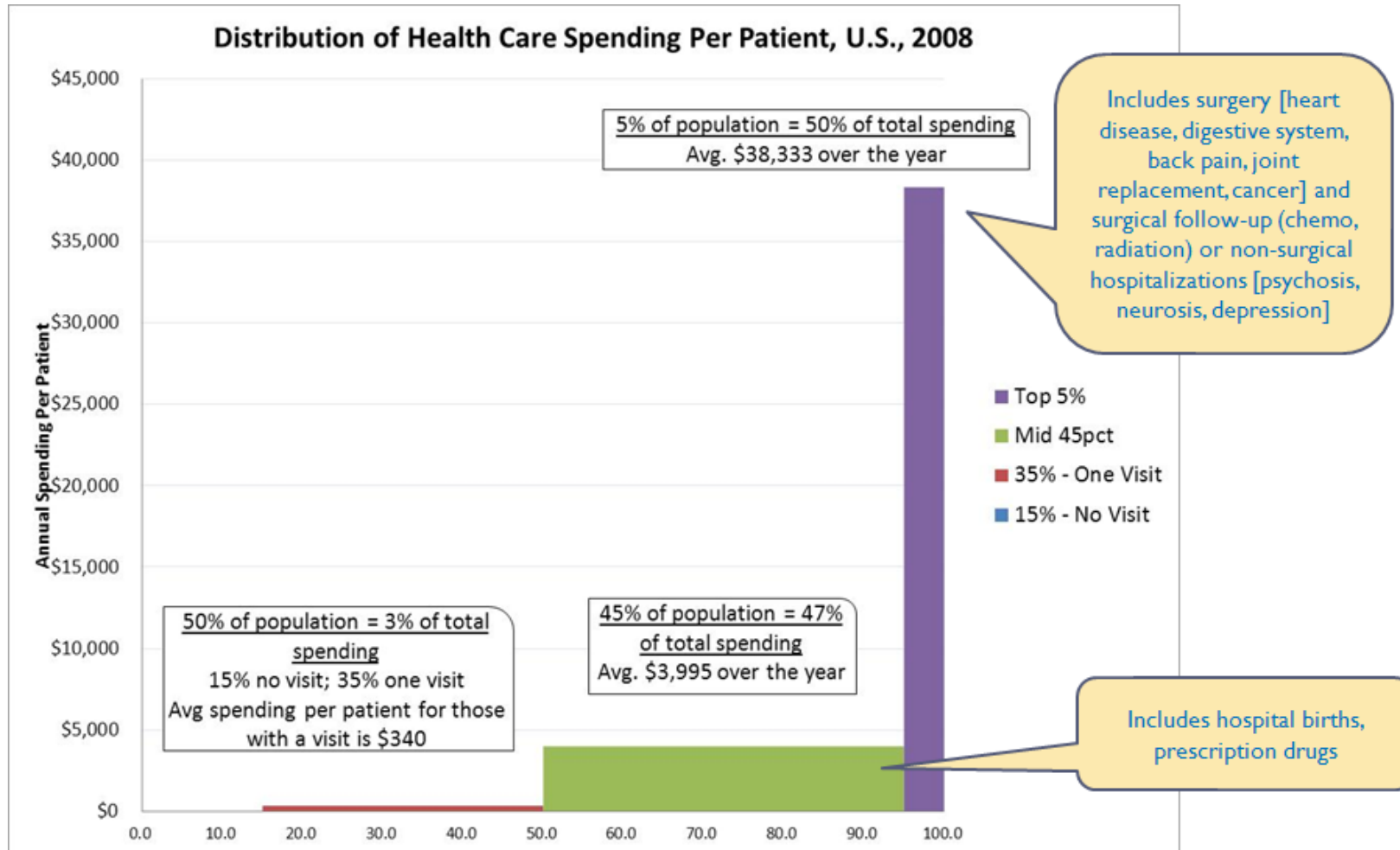
<http://www.ichom.org/medical-conditions/low-back-pain/>

<http://www.ichom.org/medical-conditions/hip-knee-osteoarthritis/>

<http://www.ichom.org/medical-conditions/pregnancy-and-childbirth/>

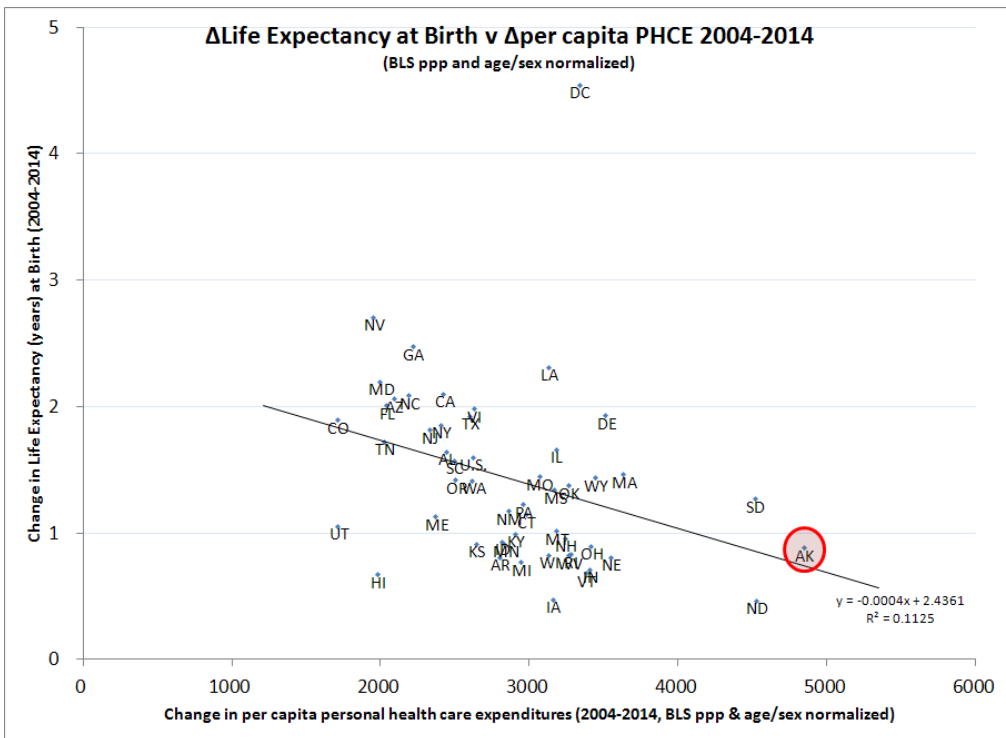
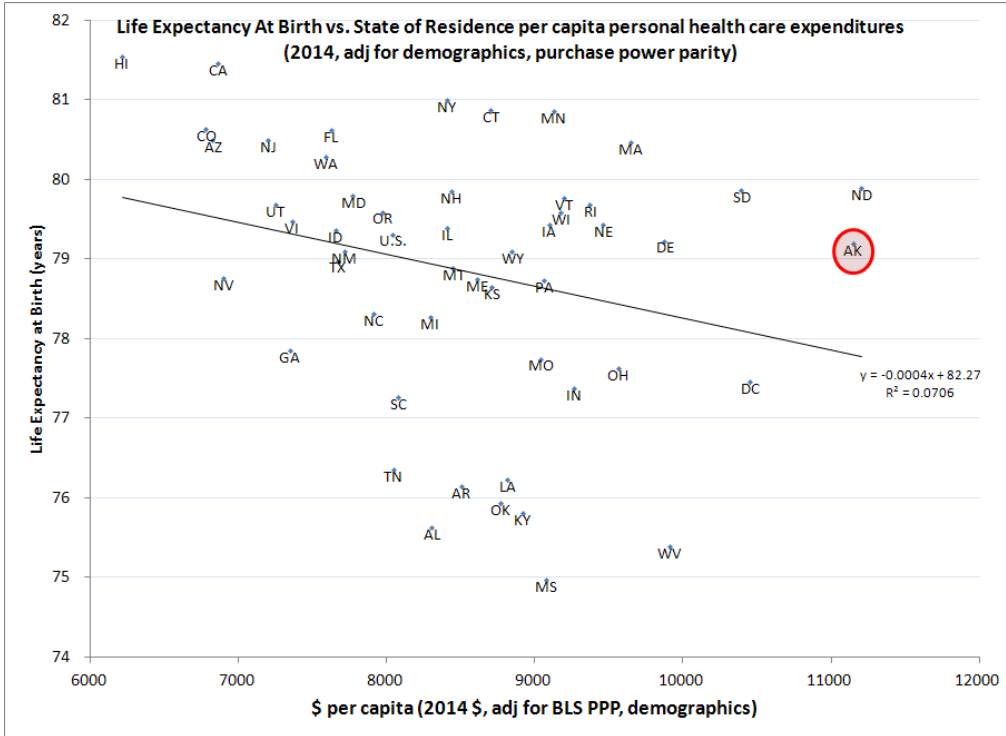
<http://www.ichom.org/medical-conditions/older-person/>

4. Distribution of Health Care Spending per Patient, U.S., 2008 [MAFA compilation of MEPS survey data]



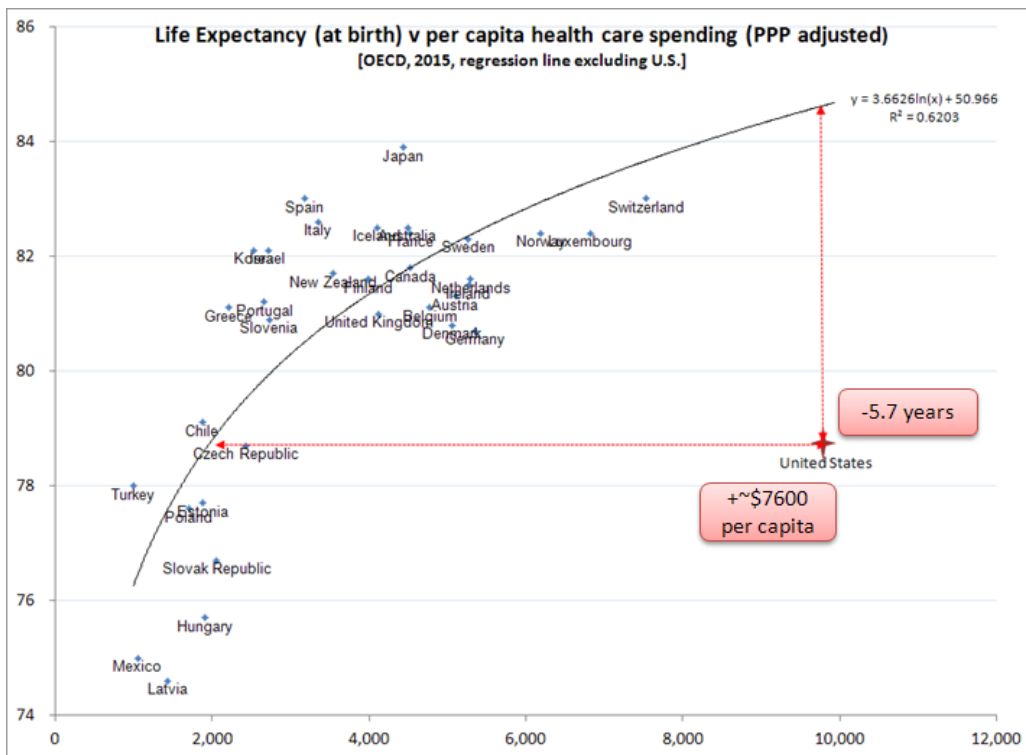
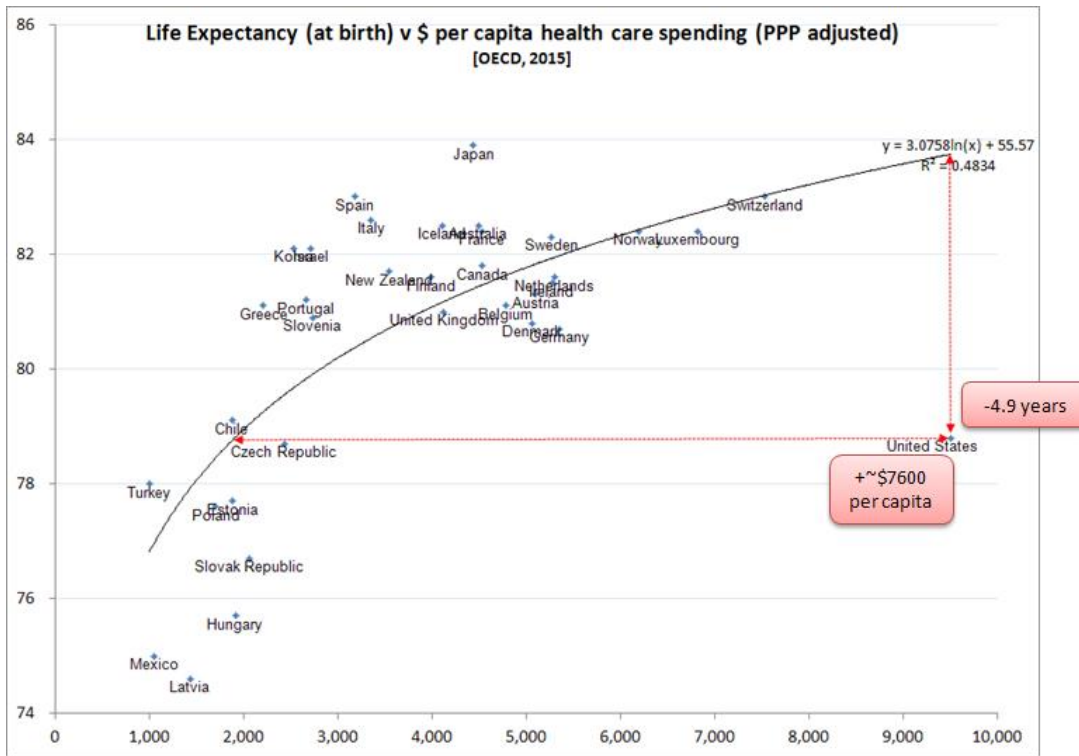
# Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

## 5. Life Expectancy at Birth compared to State of Residence per capita personal health care expenditures (CMS, BLS, MAFA adjustment of CMS data for demographic differentials, BLS purchase power parity)



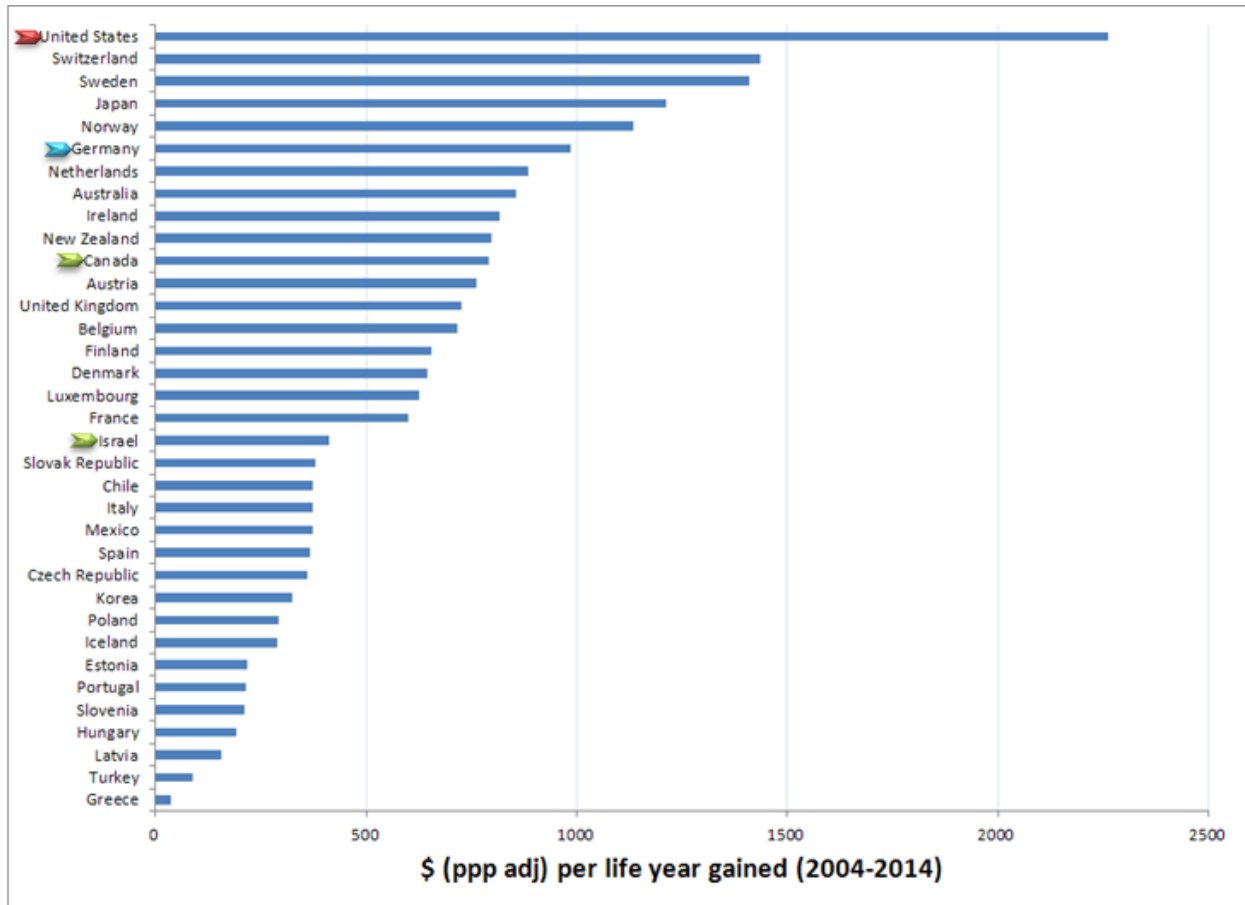
# Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

## 6. Country Health Outcomes & Medical Care Expenditures: Life Expectancy at Birth compared to per capita health care expenditures (2014)



# Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

## 7. Incremental Medical Care Expenditure per Year of Life Expectancy at Birth Gained (OECD, 2004-2014)



# Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

## 8. NEJM Medicare Risk Factors Adjusted to Account for Differences in Diagnostic Intensity

Adjustment Factor > 1.0 indicates local practice patterns have lower utilization [after risk adjustment] compared to U.S. average; adjustment factor <1.0 indicates local practice patterns have higher utilization [after risk adjustment] compared to U.S. average. The authors of the study offer that the Medicare risk scores have underestimated risk factors in areas with low utilization practice patterns and overestimated the risk factors in areas with high utilization practice patterns -- and that the risk factors should be adjusted to reflect risk; not risk plus practice pattern. Otherwise high utilization practice patterns are rewarded while low utilization practice patterns are penalized.

Western states used in comparisons with Alaska are shaded. Note the prevalence of lower utilization practice patterns in the West which is highlighted in the journal article.

HRR name	HRR state	HRR ID	Average risk score	Sort by	
				Adjustment factor	Adjusted average risk
St. Paul	MN	256	0.836	1.107	0.925
Rapid City	SD	370	0.813	1.101	0.895
Casper	WY	457	0.804	1.094	0.879
Dubuque	IA	193	0.790	1.092	0.863
St. Cloud	MN	254	0.814	1.091	0.889
Missoula	MT	276	0.833	1.086	0.904
Madison	WI	449	0.854	1.086	0.928
Grand Junction	CO	105	0.787	1.084	0.853
Duluth	MN	250	0.856	1.084	0.928
Minneapolis	MN	251	0.822	1.083	0.890
Portland	OR	344	0.889	1.081	0.962
Anchorage	AK	10	0.834	1.081	0.902
Billings	MT	274	0.836	1.080	0.903
Salem	OR	345	0.869	1.074	0.933
Lynchburg	VA	428	0.875	1.072	0.938
Bend	OR	341	0.820	1.072	0.879
Neeenah	WI	452	0.871	1.071	0.933
Rochester	MN	253	0.823	1.071	0.881
La Crosse	WI	448	0.840	1.068	0.897
Appleton	WI	446	0.857	1.066	0.914
Boise	ID	151	0.857	1.064	0.912
Green Bay	WI	447	0.865	1.063	0.920
Greenville	NC	314	0.945	1.061	1.003
Asheville	NC	309	0.881	1.060	0.934
Cedar Rapids	IA	190	0.882	1.058	0.933
Lincoln	NE	277	0.877	1.058	0.928
Great Falls	MT	275	0.912	1.058	0.965
Charlotte	NC	311	0.953	1.058	1.008
Eugene	OR	342	0.861	1.058	0.910
Fargo/Moorhead MN	ND	322	0.855	1.057	0.904
Ogden	UT	421	0.839	1.057	0.887
Spokane	WA	440	0.899	1.055	0.949
Fort Collins	CO	104	0.849	1.055	0.896
Provo	UT	422	0.859	1.055	0.906
Odessa	TX	406	0.887	1.054	0.935
Sioux Falls	SD	371	0.843	1.054	0.888
Columbia	SC	366	0.945	1.053	0.995
Hickory	NC	315	0.920	1.053	0.968
Olympia	WA	438	0.912	1.052	0.959
Mason City	IA	195	0.879	1.052	0.924
Boulder	CO	101	0.841	1.051	0.884
Reno	NV	280	0.861	1.051	0.904
Grand Forks	ND	323	0.844	1.050	0.887
Topeka	KS	200	0.883	1.050	0.927
Everett	WA	437	0.875	1.049	0.918
Burlington	VT	424	0.927	1.049	0.972
Idaho Falls	ID	152	0.828	1.046	0.866
Rockford	IL	171	0.900	1.044	0.940
Greeley	CO	106	0.909	1.043	0.949
Bismarck	ND	321	0.888	1.043	0.926

Source: Adjusting Risk Adjustment – Accounting for Variation in Diagnostic Intensity, Finkelstein, et al, New England Journal of Medicine, 376;7 (February 16, 2017). Excerpt from the beginning and end of list of regions sorted by diagnostic intensity adjustment factor (from supplemental materials). MAFA added grey shading for western regions, yellow shading for high practice

Hartford	CT	110	1.037	0.961	0.997
Akron	OH	325	1.075	0.960	1.032
Pittsburgh	PA	357	1.109	0.960	1.065
Dallas	TX	391	1.016	0.960	0.975
Baltimore	MD	223	1.075	0.959	1.030
Wilmington	DE	112	1.039	0.957	0.994
Las Vegas	NV	279	1.013	0.956	0.968
Ventura	CA	96	0.994	0.956	0.951
Altoona	PA	347	1.028	0.956	0.982
Tampa	FL	141	1.043	0.956	0.997
Youngstown	OH	335	1.099	0.954	1.049
Worcester	MA	231	1.081	0.953	1.030
Elyria	OH	331	1.050	0.951	0.998
Orlando	FL	130	1.028	0.950	0.977
San Bernardino	CA	79	1.073	0.950	1.019
Boston	MA	227	1.070	0.949	1.016
Providence	RI	364	1.102	0.948	1.045
Monroe	LA	217	1.082	0.948	1.026
Harlingen	TX	396	1.136	0.947	1.076
Clearwater	FL	116	1.068	0.946	1.010
Cleveland	OH	328	1.092	0.944	1.032
Fort Myers	FL	119	0.958	0.943	0.904
Orange County	CA	23	1.000	0.942	0.942
Beaumont	TX	386	1.110	0.941	1.044
Bronx	NY	297	1.201	0.940	1.129
Corpus Christi	TX	390	1.149	0.940	1.080
Morristown	NJ	285	1.012	0.939	0.951
Bakersfield	CA	25	1.084	0.938	1.017
New Haven	CT	111	1.073	0.938	1.006
Wilkes-Barre	PA	362	1.151	0.935	1.076
Paterson	NJ	291	1.104	0.935	1.032
Allentown	PA	346	1.089	0.933	1.017
New Brunswick	NJ	288	1.093	0.930	1.016
Scranton	PA	360	1.125	0.925	1.041
Fort Lauderdale	FL	118	1.127	0.925	1.042
Flint	MI	235	1.124	0.921	1.035
Pontiac	MI	244	1.051	0.919	0.966
Philadelphia	PA	356	1.189	0.918	1.092
Ridgewood	NJ	292	1.097	0.917	1.006
Hackensack	NJ	284	1.109	0.914	1.014
St. Petersburg	FL	139	1.103	0.914	1.008
Hudson	FL	122	1.101	0.914	1.006
White Plains	NY	308	1.084	0.913	0.989
Royal Oak	MI	245	1.087	0.912	0.991
Newark	NJ	289	1.176	0.912	1.072
McAllen	TX	402	1.209	0.908	1.098
Camden	NJ	283	1.135	0.906	1.028
Los Angeles	CA	56	1.184	0.901	1.067
Manhattan	NY	303	1.234	0.901	1.111
Detroit	MI	234	1.208	0.897	1.084
Dearborn	MI	233	1.199	0.887	1.063
East Long Island	NY	301	1.152	0.883	1.017
Miami	FL	127	1.342	0.867	1.164

Estimate of the Potential Value of Consolidating Alaska State, Local, and School District  
Public Employee Health Plans

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**9. Changes in Cost per Enrollee between Medicare/Medicaid and Private Health Insurance by State  
(Change in Price Discrimination compared to Cost Shifting).**

		Compound annual growth rate, 14 v 09, in per enrollee expenditures (age/sex normalized)		SORT	
Rank	State	Medicare + Medicaid	Private Health Insurance	Cost Shift Potential (PHI - M&M CAGR)	
1	District of Columbia	-2.2%	3.4%	5.7%	
2	Illinois	-1.7%	3.6%	5.3%	
3	Massachusetts	-2.6%	2.6%	5.2%	
4	Connecticut	-2.7%	2.3%	5.0%	
5	New Mexico	-1.5%	3.1%	4.6%	
6	Oregon	-0.1%	4.3%	4.4%	
7	New Jersey	-2.1%	1.9%	4.0%	
8	South Carolina	-1.0%	2.8%	3.8%	
9	Maryland	-0.5%	3.0%	3.6%	
10	New York	-0.5%	3.0%	3.6%	
11	West Virginia	0.5%	4.0%	3.5%	
12	Ohio	0.0%	3.5%	3.5%	
13	Minnesota	0.3%	3.7%	3.3%	
14	Kansas	-0.4%	2.8%	3.3%	
15	Alaska	1.3%	4.5%	3.2%	
16	Montana	1.2%	4.2%	3.0%	
17	Kentucky	0.6%	3.6%	3.0%	
18	Iowa	0.8%	3.7%	2.9%	
19	Wyoming	1.1%	3.9%	2.8%	
20	New Hampshire	0.3%	3.1%	2.8%	
21	Idaho	1.3%	4.0%	2.7%	
22	Nevada	0.3%	3.0%	2.6%	
23	Washington	0.4%	3.0%	2.5%	
24	Alabama	0.4%	2.9%	2.5%	
25	Delaware	1.5%	4.0%	2.5%	
26	Oklahoma	1.1%	3.6%	2.5%	
27	Arkansas	1.1%	3.5%	2.4%	
28	Vermont	2.1%	4.5%	2.4%	
29	Louisiana	0.0%	2.4%	2.4%	
30	Wisconsin	0.9%	3.2%	2.4%	
31	South Dakota	2.0%	4.4%	2.4%	
32	Florida	0.0%	2.3%	2.4%	
33	Nebraska	1.0%	3.2%	2.3%	
34	Colorado	0.9%	3.0%	2.1%	
35	Georgia	1.6%	3.7%	2.1%	
36	Rhode Island	0.8%	2.8%	2.0%	
37	Missouri	1.6%	3.6%	2.0%	
38	Maine	0.1%	2.1%	2.0%	
39	Utah	0.6%	2.5%	2.0%	
40	Pennsylvania	2.1%	4.1%	2.0%	
41	Texas	1.5%	3.3%	1.9%	
42	Michigan	1.1%	3.0%	1.9%	
43	North Carolina	0.3%	2.1%	1.8%	
44	Virginia	1.6%	3.2%	1.6%	
45	California	2.8%	4.0%	1.2%	
46	Mississippi	1.9%	3.0%	1.1%	
47	Tennessee	1.5%	2.5%	1.0%	
48	Indiana	3.7%	4.4%	0.7%	
49	North Dakota	4.5%	4.9%	0.4%	
50	Arizona	1.4%	1.6%	0.1%	
51	Hawaii	2.2%	2.2%	0.0%	



Estimate of the Potential Value of Consolidating Alaska State, Local, and School District Public Employee Health Plans

10. Medicare Geographic Practice Cost Index (GPCI) factors: Alaska & comp states/regions (2008-2017)

Typical weighting:

Work GPCI = 51%

Practice Expense = 45%

Malpractice Expense = 4%

Work GPCI	2008	2010	2011	2017	Trend		Practice Expense GPCI	2008	2010	2011	2017	Trend		Malpractice Expense GPCI	2008	2010	2011	2017	Trend	
Alaska	1.017	1.500	1.500	1.500		4.4%	Alaska	1.098	1.090	1.090	1.112		0.1%	Alaska	0.828	0.650	0.650	0.710		-1.7%
Idaho	1.000	0.970	1.000	1.000		0.0%	Idaho	0.876	0.880	0.940	0.900		0.3%	Idaho	0.500	0.550	0.570	0.510		0.2%
North Dakota	1.000	0.950	1.000	1.000		0.0%	North Dakota	0.852	0.840	1.000	1.000		1.8%	North Dakota	0.490	0.390	0.450	0.547		1.2%
Portland, OR	1.002	1.000	1.000	1.008		0.1%	Portland, OR	1.037	1.020	1.020	1.052		0.2%	Portland, OR	0.453	0.470	0.540	0.746		5.7%
Rest of Oregon	1.000	0.970	1.000	1.000		0.0%	Rest of Oregon	0.926	0.930	0.970	0.967		0.5%	Rest of Oregon	0.453	0.470	0.540	0.746		5.7%
Seattle, WA	1.014	1.010	1.020	1.026		0.1%	Seattle, WA	1.109	1.090	1.100	1.151		0.4%	Seattle, WA	0.755	0.710	0.790	0.713		-0.9%
Rest of Washington	1.000	0.990	1.000	1.000		0.0%	Rest of Washington	0.976	0.970	0.990	1.013		0.4%	Rest of Washington	0.748	0.690	0.770	0.689		-0.9%
Wyoming	1.000	0.960	1.000	1.000		0.0%	Wyoming	0.848	0.840	1.000	1.000		1.8%	Wyoming	0.904	0.890	1.050	1.050		1.7%

Wtd Avg. GPCI Factors	2008	2010	2011	2017	Trend	CAGR
Alaska	1.046	1.282	1.282	1.294		2.4%
Idaho	0.924	0.913	0.956	0.935		0.1%
North Dakota	0.913	0.878	0.978	0.982		0.8%
Portland, OR	0.996	0.988	0.991	1.017		0.2%
Rest of Oregon	0.945	0.932	0.968	0.975		0.3%
Seattle, WA	1.046	1.034	1.047	1.070		0.2%
Rest of Washington	0.979	0.969	0.986	0.993		0.2%
Wyoming	0.928	0.903	1.002	1.002		0.9%