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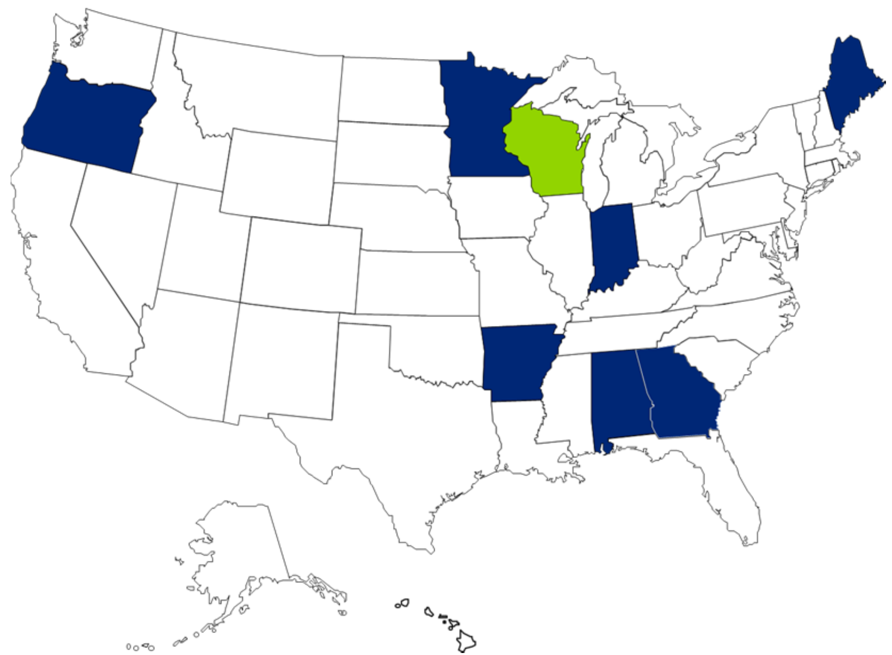
State of Wisconsin Employee Trust Funds

Medical Cost Containment Strategies For Key States



April 22, 2013

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I: Medical Cost Containment Strategies for Key States

Overview

The approaches used by the states to manage and contain costs for the medical plans provided to state employees vary from state to state, each focusing on one or more techniques. The Wisconsin Employee Trust Funds' (ETF) has requested a summary of the approaches used in several key states, including:

- A description of the approach being used;
- The availability and robustness of available data to review the approach; and
- Evidence of impact on overall population health status.

This report summarizes information addressing the above questions to the extent information is available, for the identified key states and covered populations:

- Alabama
- Arkansas
- Georgia
- Indiana
- Maine
- Minnesota
- Oregon
- WI Manitowoc
- FEHBP

Summary of Findings

Based on the information available, the cost containment approaches used in the following appear to be related to efforts that are containing costs.

- Wisconsin: 4.1% below national average trend.
  Managed competition approach among insurers for the Uniform HMO plan option has been driving an effective cost containment approach on a sustained basis.

- Alabama: 1.3% below national average trend.
  Actively promoted biometric-based wellness campaign.
- Arkansas: 6.4% below national average trend.
  Managed competition approach used to contain increases in negotiated provider reimbursement rates.
- Georgia: 2.4% below regional average trend.
  Cost shifting and wellness programs used to reduce utilization.

- Indiana: 2.6% below national average trend.
  Combination of CDH design, low CDH contribution requirements, and well-promoted wellness program campaign.
- Maine: 1.7% below national average trend.
  “Tiered network” of efficient providers and managed competition approach among providers to steer utilization toward most efficient providers at time of service.
- Minnesota: 3.4% below regional average trend.
  “Tiered network” of efficient provider clinics and managed competition approach among providers to steer enrollment toward most efficient provider groups at time of enrollment.
- Oregon: Insufficient data were available to perform a complete analysis to reveal evidence of positive impact on health status or costs, though some evidence exists to support some health improvement.
- Manitowoc: Manitowoc County, Wisconsin – No conclusive evidence of positive impact on health status or costs.
- FEHBP: 3.1% below national average trend.
  Managed competition approach among insurers for the five national fully-insured plan options appears to be driving an effective cost containment approach, though there is no evidence of any underlying population health improvement.

The identification of health status improvement is difficult to assess, given that (1) insufficient clinical detailed data is available for most states, and (2) a control group versus study group approach is not possible. Percentage change in health care costs year over year relative to national or regional health care trend experience is thus used as a proxy for health status change in this analysis.

As the sizes of the covered groups for the above states are all sufficiently large, volatile claims experience (either upward or downward) is not actuarially viewed as a complicating factor.

In addition, this report provides illustrative plan designs that reflect actuarial values 5% less than the current ETF HMO design:

- Modified Uniform HMO design
- Complete replacement of the HMO by a high deductible health plan coupled with an HSA:
    - One scenario illustrates the minimum allowable deductible for an HSA-compatible HDHP, and
    - One scenario illustrates a typical HSA-compatible HDHP design
- Dual-option environment with the above modified uniform HMO and the typical HDHP-HSA design.

An Appendix to this report provides illustrative HDHP and HDHP+HSA plan designs with accompanying estimated premium equivalent rates under several changes in utilization assumptions.

A second Appendix to this report provides a comparison of the differences between Health Reimbursement Arrangements (HRAs) and Health Savings Accounts (HSAs).

Methodology for Analysis

The actuarial quantification of the efficacy of any health care program initiative designed to improve overall population health status requires a comparison of a specific target group's results against a control group in order to compare outcomes, such as:

- Changes in utilization patterns (hospital admissions, average lengths of stay, office visits, generic prescription drug substitution, adherence to chronic condition treatment protocols, wellness screening results, and biometric test results, to name a few);
- Improvements in productivity (for example, changes in absenteeism rates, changes in "presenteeism"[1] rates);
- Changes in employee at risk measurements; and/or
- Changes in allowed charge health care trend.

The ability to quantify any of the above is highly dependent on the extent to which detailed claims, biometric, and employee attitude data are available at the employee level, and the number of years for which such data are available.

Successful program impact measurements are able to quantify the change in one or more of the above outcomes.

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[1] "Presenteeism" refers to the average level of productivity while on the job. In other words, a measurement of the average extent to which employees are "present AND working".

The analysis performed in this study is based on publicly available information over a minimum of three years that is consistent in scope. Unfortunately, such publicly available information does not include information at the member level, and in fact does not include credible AND consistent information on utilization patterns, productivity measures, or employee risk measurements.

Therefore, such an actuarial analysis must infer changes in health status by comparing aggregate population health care trend experience for allowed charges over time against normative trend information (the control group). This analysis has used this approach to estimate the impact of various cost containment and health status improvement approaches used by key states.

In order to do so, the following specific methodological steps have been followed:

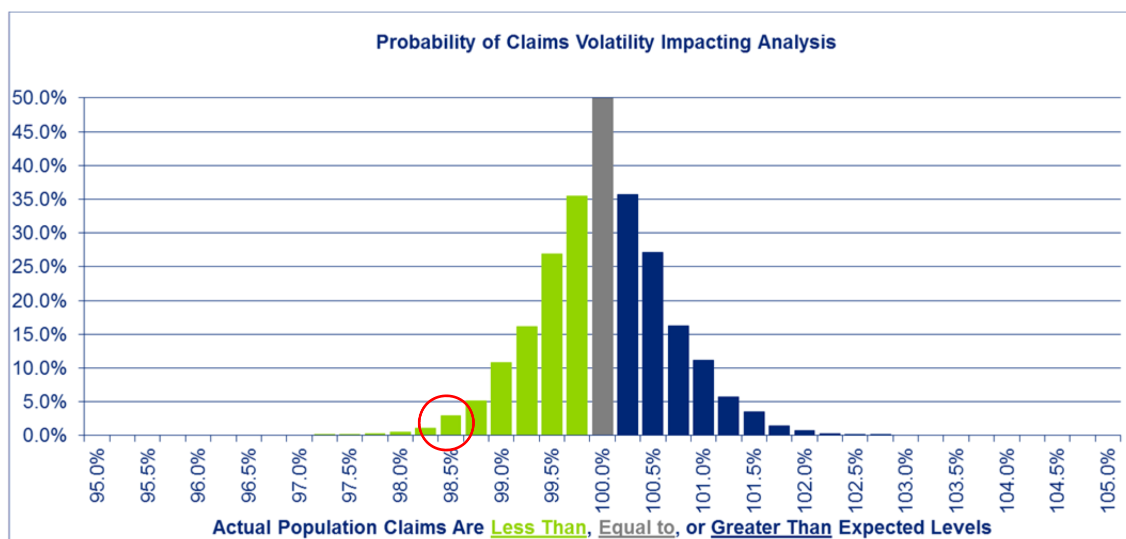
1. Collect data providing (for a 3- to 5-year historic timeframe):
    - Plan design provision descriptions for each plan offered to employees,
    - Plan option enrollment, split by coverage tier if possible,
    - Monthly premium rates for each plan option,
    - Monthly employee contribution rates for each plan option (which may vary based on such factors as smoker status, active versus retiree status, income level, etc.);
    - Finance department management reports on the employee health plan results, including but not limited to GASB 45 actuarial valuations, trust fund transaction reports, benefit sub-committee meeting minutes and reports, etc.
2. Determine the actuarial value of each plan offered to employees each year to allow for adjustment to correct for any plan design changes that have occurred over the study period.
3. Using the enrollment information collected, determine the aggregate level of allowed charges incurred each year.
4. Adjust the aggregate level of allowed charges for such things as:
    - Changes in carriers or claims administrators over the study period (to account for changes in negotiated discounts, network access, etc.);
    - Health program funding (typically through an employee trust fund, if used) anomalies reflecting lump sum “infusions” to “buy down increases year over year;
    - Changes in demographics, such as a change in the program’s inclusion or exclusion of retirees; and

- Other ad hoc adjustments based on the circumstances of the individual group being analyzed.

5. Determine an annual or monthly per employee or per member allowed charge cost.
6. Compare the year-over-year per person allowed charge costs to estimate long-term trend for the study period.
7. Compare the program's long-term trend to national, normative trend surveys to see if the state experienced better than or worse than long-term trend versus that of the control group, the national surveys.

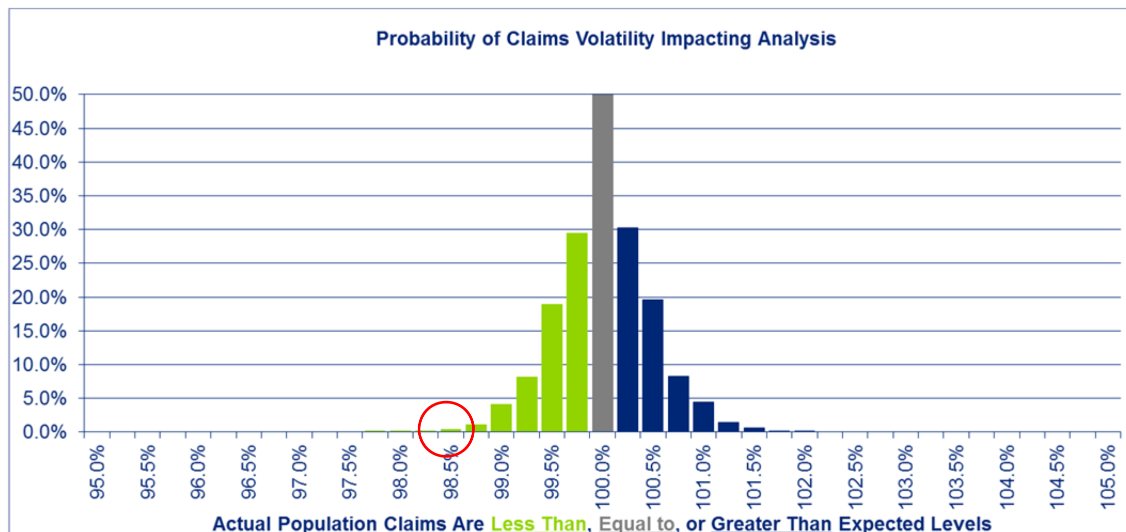
The relative sizes of the covered populations in the states reviewed was sufficiently large that the data collected was deemed fully credible (i.e., fully reliable for purposes of this analysis). Furthermore, claims volatility (+ or -) in any given year was assumed to not be a contributing factor to these analyses since the relatively large sizes of the groups reviewed were assumed over the years in the study to smooth out such claims volatility.

To that end, the following chart illustrates the likely claims volatility of a covered group of 50,000 lives.



Over a 5-year study period, the likelihood that claims volatility alone would produce results at least 1.5% less than normative trend is approximately 3% (red circle).

For a covered group of 100,000 lives, the likelihood is of claims volatility impacting results is significantly less than for 50,000 covered lives (approximately ½%).



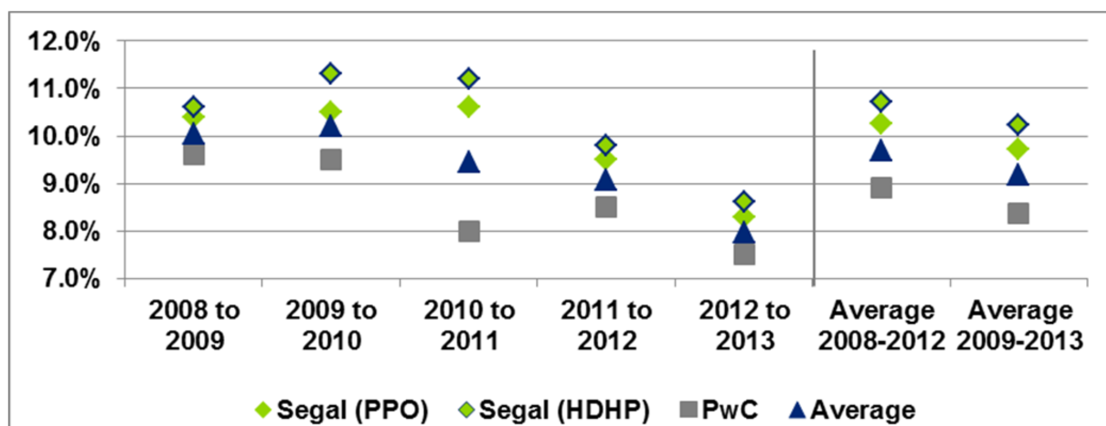
Based on the above claims volatility distributions, for the sizes of the groups analyzed in this analysis, we believe any observed allowed charge claims trend at least 1% to 1½% less than national average trend is indicative of an approach that is successfully containing costs.

National and Regional Health Care Trend Surveys

In defining the long-term average healthcare trend control metric, two annually published surveys have been used as a basis for average national trend:

- The Segal Company's "Health Plan Cost Trend Survey", consisting of 95 health plans (separate trend surveys provided for HDHP and PPO plans).
- PwC's "Medical Cost Trend Behind the Numbers", consisting of more than 1,400 employers across 30 industries, plus health insurers covering 47 million lives.

Results for these two surveys are provided below. The average of these annual surveys has been used as the "control group" trend for this analysis. The difference between the Segal and PwC results noted in the 2010 to 2011 trend relates to the mix of high deductible health plans versus PPO plans used, a difference that the average addresses.



Survey	2008 – 2009	2009 – 2010	2010 – 2011	2011 – 2012	2012 – 2013	Avg 2008-2012	Avg 2009-2013
Segal ♦	10.6%	10.9%	10.9%	9.7%	8.5%	10.5%	10.0%
PwC ■	9.6%	9.5%	8.0%	8.5%	7.5%	8.9%	8.4%
Average	10.1%	10.2%	9.5%	9.1%	8.0%	9.7%	9.2%

Two average trend rates are shown above: 2008-2012 (9.7%), and 2009-2013 (9.2%). The average used as a control group comparison point for each state depends on the years for which data was available for each state.

Average trend rates can differ regionally from national average trend. Milliman publishes a retrospective analysis of cost variations across thirteen different cities/regions. Over the period 2007 to 2012, average trend by region differed to national trend averages in key markets included in this study by:

- Minneapolis: -0.8% (i.e., 0.8% less than national trend)
- Atlanta: -0.4%

For the Minnesota and Georgia analyses, the above differentials will be taken into consideration.

Based on the above claims volatility distributions, for the sizes of the groups analyzed in this analysis, we believe any observed allowed charge claims trend at least 1% to 1½% less than national (or regionally-adjusted) average trend is indicative of an approach that is successfully containing costs.

A Note about Measurement Data Periods

It should be noted that in this analysis, premium rates for a given year are assumed based on the claims experience for the prior year since those premium rates would be published prior to the start of the applicable plan year. Thus, premium rates collected for a state for the years 2009 – 2013 are assumed to be associated with claims experience for the years 2008 – 2012 (e.g., the 2010 premium rates reflect 2009 claims experience).

Thus, in this analysis, if the underlying allowed charge trend for a state over the 2009 to 2013 period (reflective of claims experience over the 2008 to 2012 period) is less than 9.2%, the presumptive result is that the state has employed a successful cost containment approach, possibly inclusive of contractual negotiations on the costs of services. The level of detail in the data may not allow a segregation of the individual drivers of savings, though the methodology should be sufficient to identify that savings have emerged for the programs reviewed. And while regional variations in cost factors may result in some reasonable variations in nominal trend rates, the 1½% trend threshold noted above is expected to accommodate such regional variations.

Given the illustrative impact of claims volatility shown above at the two population size levels, additional commentary will be provided on a state-by state basis related to results versus national trend, with claims volatility likelihood noted as well.

> For example, a state with 100,000 covered lives that exhibits a long-term trend over the 2009-2013 period of 7.7% (versus the national average trend of 9.2%), or 1.5% less than national trend, is viewed as 99½% likely to be un-influenced by claims volatility, and is indicative of a successful cost containment approach.

Adverse Selection

An important consideration in understanding financial outcomes in any multi-option health plan environment is the impact of adverse selection.

> *Adverse Selection refers to the ability of an individual to accurately predict his/her health care needs for a future period AND have the ability to select one of several plan design options that allows him/her to financially capitalize on that knowledge.*

In order for adverse selection to potentially be an issue, both components of the above definition must be true. If a person can accurately predict his/her health care needs, but only has one plan option, there's no adverse selection. On the other hand if the person cannot accurately predict his/her health care needs, there's no ability to pick a plan that meets those needs and there's no adverse selection.

A classic example of adverse selection is found in dental benefit coverage:

- An employer offers two dental options, one with orthodontic coverage, and one without.
- An employee has a child in need of orthodontia. He/she would, therefore, be strongly incented to select the dental plan that provides the orthodontic coverage. Once the orthodontic treatment has concluded, the employee would opt back into the cheaper plan where no ortho coverage is provided.

The key actuarial issue around adverse selection is anticipating the extent to which it will sway costs, and adjust premium rates accordingly. In general, the smaller the enrollment in a particular option compared to the overall enrollment across all options, the more likely that there is potential for adverse selection in that option (though it is not a given).

More specifically, the degree to which member selection will affect plan costs varies depending on many factors, including the number and range of value of the plans offered, how much employee contribution rates vary, how well the plans are understood, and the actual participation rates by plan.

When an HDHP plan (or any other plan, for that matter) is offered as the lower cost option in a choice environment, it would be expected that this plan will benefit from positive selection, with the younger and/or healthier members selecting the option. Conversely, the traditional plan option would be expected to experience adverse selection, meaning that older and less healthy individuals would tend to choose the richer benefit plan.

A split in the risk pool likely would increase the cost of health insurance for the less healthy population. Higher costs in the traditional plans could exacerbate the adverse selection, resulting in a spiraling effect of higher and higher costs in the traditional plan. As the plans become increasingly segmented, eventually the costs in the traditional plan could become prohibitively expensive and result in affordability and value issues even for the highest-risk employees.

Where multiple plan choices are available to employees, it is critical to implement an effective risk adjustment methodology in order to avoid the common pitfall of shifting more costs to less health individuals. Such a risk adjustment methodology requires careful research, planning, testing and implementation before any additional option can be introduced.

If an HDHP was offered, the question is how this plan could be positioned as to generate enough enrollment to drive savings, yet not negatively impact the remaining plans. Deloitte Consulting's experience has been that when HDHPs are offered next to traditional offerings, that without implementing specific program changes to encourage enrollment into the HDHP, only a small percentage of participants select this option. The participants are young and healthy (seeking a lower contribution) or healthier and highly compensated (seeking the ability to defer income on pre-tax

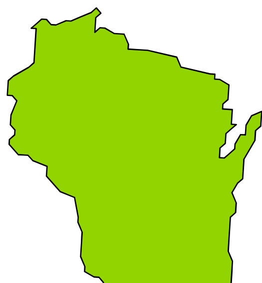
basis). Program changes include modifying the traditional plans, offering lower employee contributions on the HDHP and/or funding an HSA/HRA account to make the option more attractive. The implementation of options has to be done carefully to ensure that adverse selection does not occur.

Various methods have been applied to account for adverse selection, such as risk-adjustment methodologies, age/gender factors, etc. Under a risk adjustment program, decisions would need to be made in developing premium rates and employee contributions regarding potential subsidies from the HDHP to the traditional plan to offset the adverse selection.

To mitigate the risk of adverse selection, employers can utilize certain strategies, including the following:

- Offering plans on a full replacement basis (i.e., only offer HDHP type plan)
- Fully self-insuring all options and then risk adjusting the premiums of each plan to account for the risk the plan is attracting
- Designing the option to be more similar to the current offerings initially, then modifying the design as members become more used to the concept. For example, if they have a traditional offering with a $200 deductible, they may initially offer a $1,000 deductible plan and provide a higher HSA subsidy to more closely align with the other offering. (This does lower the savings potential of the design.)
- Offering the HDHP as a “default plan” when employees do not select an option. This could be an effective mechanism if the auto enrollment feature required under Health Care Reform is implemented.
- Lock enrollment in the plans for two years to ensure members don’t change as frequently. While this is permitable for dental and vision plans in a cafeteria plan environment to mitigate the risk of individuals joining every other year and incurring expenses then dropping out of the plan. However, it is not permitted for medical plans (IRS §1.125-1(p)(4)).

  Nonetheless, an HDHP+HRA plan has an inherent deterrent to opting in and out – the potential for forfeiture of any unused HRA balances (an HDHP+HSA plan does not include such a deterrent).
- Offering the HDHP at the same or greater cost of other options. (Keep in mind, if this is done, to increase enrollment in the plan, targeted communications would need to be done to boost enrollment. Historically, as noted above, employers have offered the HDHP as a lower cost option.)



Wisconsin

Covered Lives:	227,000 active & retired members (Uniform HMO) 12,000 active and retired members (Standard PPO)
Number of Medical Plan Options:	2
Insured Status:	Self-Insured / Fully-Insured Mix

Key Outcome

Experience-based average annual trend on allowed charges from 2008 – 2013 was 5.2%, a level 4.1% less than normative national average trend surveys of 9.3%. **As such, there is strong evidence that the approach(es) being used is having an impact on lowering trend and containing costs.**

Description of Approach

The Wisconsin Department of Employee Trust Funds (ETF) uses a managed competition approach to control costs for its fully-insured HMO plan. The fully insured HMO plan is offered by 24 insurance carriers across the state, and has a uniform medical and drug design across all the carriers. Annual claims experience for each HMO is reviewed each year, adjusted for participant risk scores (derived from prescription drug claims data), and compared against the claims experience for all other HMOs.

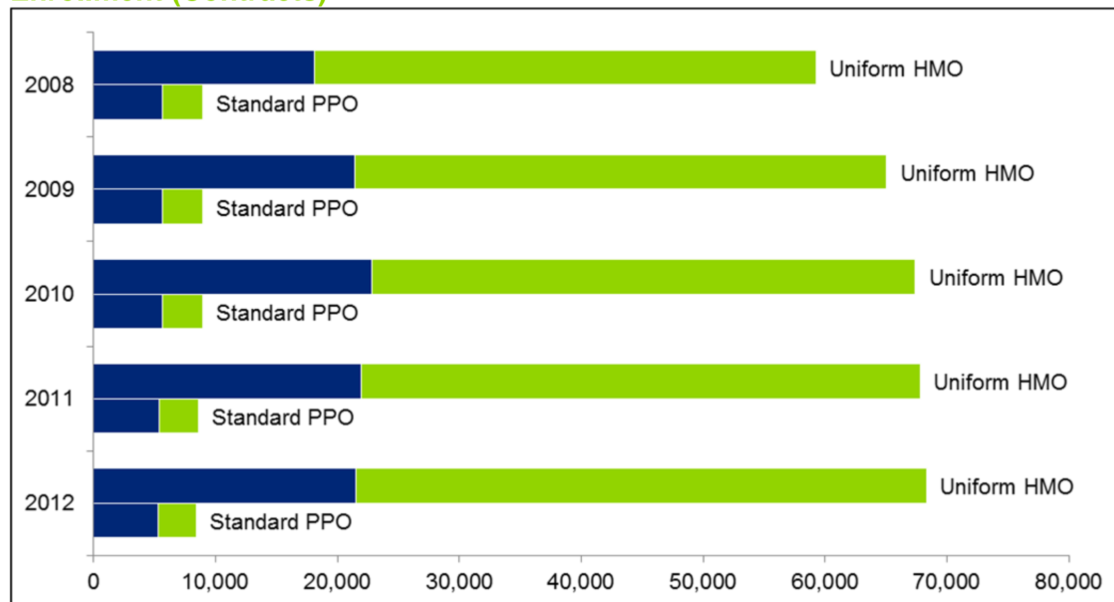
Benchmark experience is developed that reflects the results for those HMOs that performed the best over the last year in managing costs and population health. All other HMOs are requested to quote rates that reflect improvement in managing costs and population health status to meet the results for the benchmark group. In essence, ETF through its managed competition model requires the HMOs to manage costs and health status to target levels each year. Those HMOs that are either unable or unwilling to do so for the subsequent year will have significantly higher employee contributions required of them (thereby incenting members to enroll in less costly plans that have agreed to better manage costs).

As the majority of the covered population is in the Uniform HMO plan (95% of all covered members), the analysis in this report focuses on the experience for that plan.

The timeline for significant plan design changes 2008-2013:

- 2012: Act 10: Introduction of deductibles and coinsurance.
- 2012: Significant increase in employee contributions implemented.

Enrollment (Contracts)



Key: Single Coverage Family Coverage

The critical mass of enrollment remains in the Uniform HMO plan. The remainder of this analysis will focus on that plan option.

Monthly Plan Premium Rates

Plan Option	2008	2009	2010	2011	2012	2013
Uniform HMO						
EE Only	$463.16	$500.73	$538.89	$572.10	$563.66	$595.54
EE + Family	$1,167.36	$1,264.86	$1,363.83	$1,449.04	$1,430.27	$1,507.51

While a fully-insured plan, the managed competition approach used by ETF causes the premium rates to reflect a true experience-rated environment, where the premium rates are strongly correlated to actual claims experience, albeit prior period claims experience.

For example, the 2013 premium rates reflect the underlying claims experience for the period April 2011 through March 2012, trended to calendar year 2013. Thus, the change in premium rates over the above 2008 through 2013 period actually reflect the change in claims experience over the April 2006 through March 2012 period (with health care trend assumptions applied).

A Note About "Actuarial Values"

Act 10 produced a 5% decrease in the benefit value of the Uniform HMO as of 2012. The actuarial values on this page, however, indicate only a 2% decrease from 2011 to 2012.

It should be noted that the original 5% decrease in the actuarial value was determined on an average per member basis per the 2011 ETF population.

The analysis provided in this report differs from that in that:

a) It is based on a normative active employee population rather than the ETF-specific population used to derive the 5% reduction, and

b) It is based on a different mix of employees, spouses, and dependents, as well as active employees and retirees.

It was assumed that, for purposes of this analysis, a normative population was a more illustrative basis for comparing plans for the various states/groups in this report than the ETF-specific population.

Monthly Employee Contribution Rates

Plan Option	2008	2009	2010	2011	2012	2013
Uniform HMO						
EE Only	$27.00	$31.00	$34.00	$36.00	$81.00	$85.00
EE + Family	$68.00	$78.00	$85.00	$89.00	$201.00	$211.00

The Kaiser Family Foundation "Employer Health Benefits 2012 Annual Survey" notes the following contribution benchmarks for state and local government survey respondents for HMO plans (contributions expressed as a percent of premium):

Plan	Employee Only Coverage	Employee + Family Coverage
ETF	14%	14%
Kaiser Survey	10%	12%

ETF's Employee Only coverage contribution rate for 2012, at 14% of the premium cost, is somewhat higher than the survey average; the Employee + Family coverage contribution rate is largely consistent with the survey.

Actuarial Values

Plan	2008	2009	2010	2011	2012	2013
Uniform HMO	0.9873	0.9863	0.9856	0.9856	0.9669	0.9669

The above actuarial values have been based on the plan design descriptions available from ETF's employee benefit portal, valued in Deloitte's medical plan design rating model based on consistent assumptions for in-network versus out-of-network utilization and discount rates. A normative claims distribution database has been used for the underlying claims repayment analysis.

Other than between 2011 and 2012 (due to Act 10) there has been only a nominal decrease in the actuarial value over the 2008 through 2013 period, being generated by increases in the emergency room copay (if not admitted) and the maximum out-of-pocket limit for Tier 1 and Tier 2 prescription drugs. The change between 2011 and 2012 introduced deductibles a 90%/10% coinsurance model for most services.

Employee Cost Sharing

Total employee cost sharing includes both utilization cost sharing (deductibles, coinsurance, and copays) and employee contributions.

In order to illustrate how total employee cost sharing has changed for the ETF Uniform HMO plan over the 2008 to 2013 period, the following charts have been developed (one for single coverage and one for family coverage). The "net actuarial value" is defined as the actuarial value less employee contributions.

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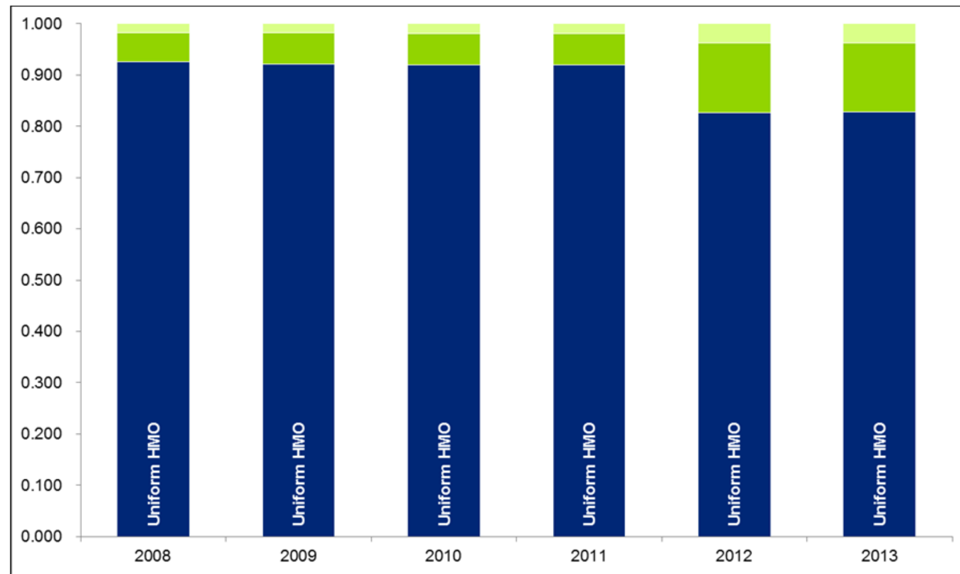
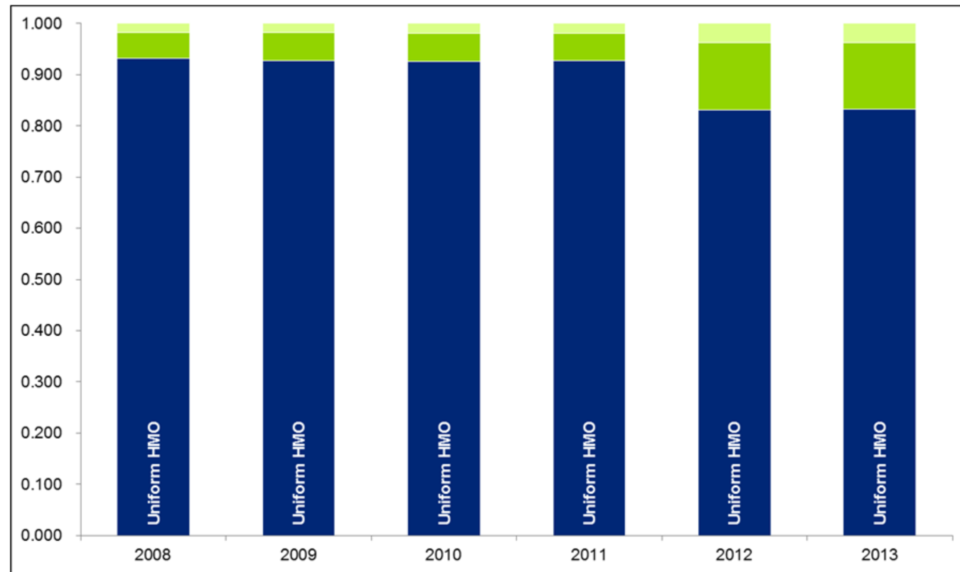
Net Actuarial Value: Single Coverage



Net Actuarial Value: Family Coverage



Key:
- Employee Cost Sharing (Deductibles, Coinsurance, Copays)
- Employee Contributions
- Net Actuarial Value (= Net Employer Cost)

(Employee Contributions + Net Actuarial Value = Actuarial Value)

The above actuarial values are the combination of the Dark Blue and Dark Green bars; actual employer cost is net of employee contributions (the Dark Green bars). Between 2008 and 2011 very little change occurred in the Uniform HMO. A significant increase in employee contributions effective 2012 produced the lone shift in net actuarial value over the entire 2008 – 2013 period.

Evidence of Outcomes

The estimated underlying plan allowed charge trend (i.e., the increase in claims before cost-sharing provisions such as deductibles, coinsurance, and copays are applied) can be determined by incorporating the actuarial values noted above. All other things being equal (i.e., assuming no change in underlying health status), it would be expected that the underlying allowed charge trend would be consistent with national average trend levels.

The following table compares the allowed charge trend for the ETF Uniform HMO plan against national average trend rates for the 2008 to 2013 period.

Plan	2008 to 2009	2009 to 2010	2010 to 2011	2011 to 2012	2012 to 2013	Average
ETF Experience	6.5%	7.1%	7.5%	1.3%	3.7%	**5.2%**
Average National Trend Survey	10.1%	10.2%	9.5%	9.1%	8.0%	**9.3%**

Comparing ETF's allowed charge trend against national average trends over the 2008 to 2013 period, the ETF Uniform HMO experience was, on average, 4.1% lower than national averages, providing very strong evidence that the managed competition model used by ETF has been a successful approach in the containing of costs.

Year-over-year risk scores for members who were covered in both years also showed evidence of well-managed health status, by maintaining the risk score (a measure of health status) despite the aging of the measured population.

For comparison purposes, the ETF estimated allowed charge trend experience has been included in each of the subsequent analyses for the key states/public employee groups included in this report.

Alabama

Covered Lives:	36,000 active & retired members Includes state, municipal, and county workers Excludes public schools
Number of Medical Plan Options:	1
Insured Status:	Self-Insured

Key Outcome

Experience-based average annual trend on allowed charges from 2008 – 2012 was 8.0%, a level 1.4% less than normative national average trend surveys. **As such, there is some evidence that the approach(es) being used is having an impact on lowering trend.**

Description of Approach

Alabama uses a biometric-based wellness initiative incorporating premium differentials to incent healthier lifestyles (with the expectation that such healthier lifestyles will reduce future health care cost trend). The wellness program and case study results are frequently reported to members to provide ongoing encouragement for active participation.

There is a non-smoker contribution discount for employees. Subsidized smoking cessation programs are provided.

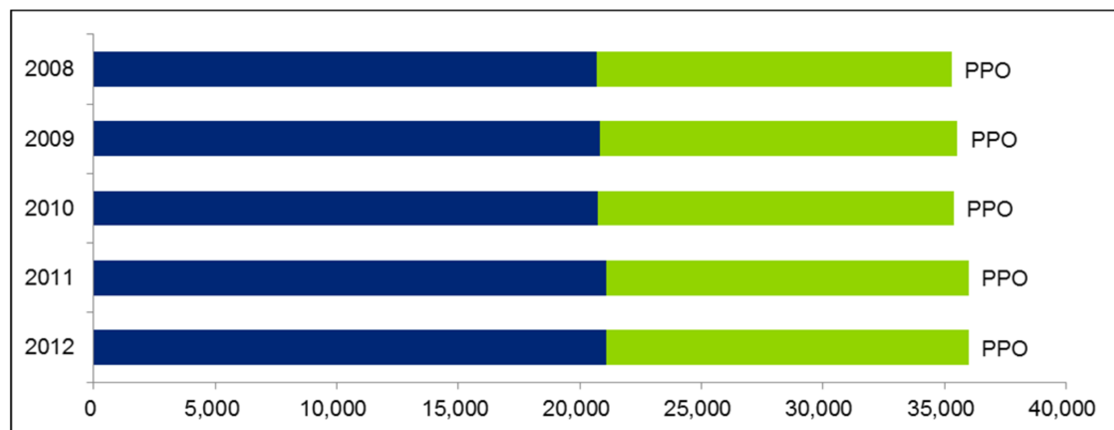
There is a wellness contribution discount for employees if one or more of the following biometric measures are met:

- Blood pressure systolic reading under 160 and diastolic reading under100
- Cholesterol under 250
- Glucose under 200
- Body mass index under 35

The timeline for significant plan design changes 2005-2013:

- 2005: Tobacco non-user discounts implemented.
- 2008: Reserve allocation provided to address plan deficit.
- 2010: Wellness rewards introduced for participation in biometric screening and/or health risk questionnaire completion.
- 2013: Reserve allocation expected to address cumulative plan deficits.

Enrollment



Key: Single Coverage Family Coverage

The State Employees' Health Insurance Plan (SEHIP) program consists of one plan option, in which enrollment has remained fairly level between 2008 and 2012.

Monthly Plan Premium Rates (Adjusted)

Plan Option	2008	2009	2010	2011	2012	2013
BCBS AL PPO						
EE Only	$493.20	$568.46	$583.76	$586.82	$587.84	$716.21
EE + Family	$1,247.51	$1,437.85	$1,476.56	$1,484.30	$1,486.88	$1,811.58

Available information for Alabama provides the employee monthly contribution rate, and the state subsidy on a blended single versus family basis, but not split Employee Only coverage versus Employee + Family coverage. Based on enrollment counts of employees versus dependents, the premium rates on the two-tier basis shown above have been estimated.

Furthermore, Alabama's SEIB's employee newsletters noted that the premium rates for the plans were being subsidized by allocations from an "over funded" reserve, which thus produced lower than actuarially necessary premium rates. These newsletters and Alabama financial reports indicated that the following additional subsidies were/will be provided:

- 2008: $28.8 Million allocation from reserves to cover pricing deficit
- 2013: $119.6 Million allocation from reserves to cover expected pricing deficits

The reserve allocation expected for 2013 covers deficits accumulated in 2011 and 2012. In an attempt to maintain grandfathered plan status under health reform, rather

than increase employee contributions or cost shift by reducing benefit levels, the state incurred year-over-year deficits in order to suppress the premium rates and contribution levels.

The above reserve allocations have been included in the above premium rates to express a more actuarially consistent expression on plan claims and costs.

Monthly Employee Contribution Rates

Plan Option	2008	2009	2010	2011	2012	2013
BCBS AL PPO						
EE Only	$5.80	$0.00	$22.72	$23.82	$24.91	$26.01
EE + Family	$180.00	$187.72	$212.72	$213.82	$214.91	$216.01

Baseline employee contribution rates can be partially offset for:

- Being a non-smoker (non-smoker reward), and
- Participating in the biometric screening and wellness program activities.

The above employee contribution rates reflect an average between the smoker contributions and the non-smoker contributions. Per the Kaiser Family Foundation's StateHealthFacts.org site, approximately 22% of the adults in Alabama are smokers; this was the basis for the assumption on the mix between smokers and non-smokers for this analysis. Furthermore, with a sustained year-over-year wellness participation rate in excess of 95%, wellness reward credits have also been reflected in the above contribution rates.

Actuarial Values

Plan	2008	2009	2010	2011	2012	2013
PPO	.880	.880	.876	.872	.872	.872

The above actuarial values have been based on the plan design descriptions available from the State of Alabama's employee benefit portal, valued in Deloitte's medical plan design rating model based on consistent assumptions for in-network versus out-of-network utilization and discount rates. A normative claims distribution database has been used for the underlying claims repayment analysis.

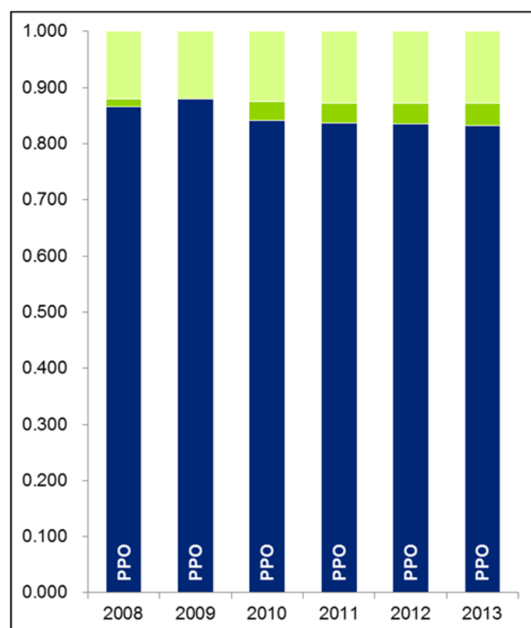
There has been only a slight decrease in actuarial value between 2008 and 2013 (less than 1%).

Employee Cost Sharing

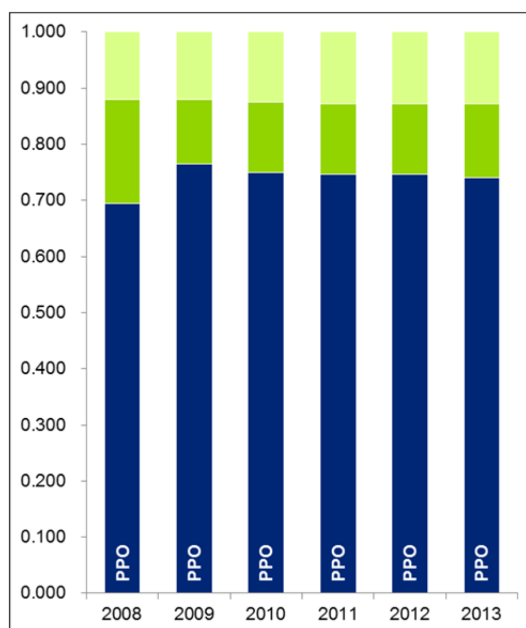
Total employee cost sharing includes both utilization cost sharing (deductibles, coinsurance, and copays) and employee contributions.

In order to illustrate how total employee cost sharing has changed for the Alabama plan over the 2008 to 2013 period, the following charts have been developed (one for single coverage and one for family coverage. The "net actuarial value" is defined as the actuarial value less employee contributions.

Net Actuarial Value: Single Coverage



Family Coverage



Key: Employee Cost Sharing (Deductibles, Coinsurance, Copays)

Employee Contributions

Net Actuarial Value (= Net Employer Cost)

Actuarial Value

The above actuarial values are the combination of the Dark Blue and Dark Green bars; actual employer cost is net of employee contributions (the Dark Green bars). While the actuarial value has changed very little over the 2008 to 2013 time frame, the net actuarial value has changed (for Employee Only coverage), with increases in contributions shifting more costs to employees.

Evidence of Outcomes

The estimated underlying plan allowed charge trend (i.e., the increase in claims before cost-sharing provisions such as deductibles, coinsurance, and copays are applied) can be determined by incorporating the actuarial values noted above. All other things being equal (i.e., assuming no change in underlying health status), it would be

expected that the underlying allowed charge trend would be consistent with national average trend levels.

Alabama has been aggressive in promoting and continually communicating its wellness program, including local office healthy lifestyle contests, case study success stories, and simple reminders of the program. This approach has succeeded in achieving a participation rate in excess of 95%.

The following table compares the allowed charge trend for the Alabama plans against national average trend rates for the 2009 to 2013 period.

Plan	2008 to 2009	2009 to 2010	2010 to 2011	2011 to 2012	2012 to 2013	Average
Alabama Experience	15.3%	3.2%	1.0%	0.2%	21.8%	**8.0%**
Average National Trend Survey	10.1%	10.2%	9.5%	9.1%	8.0%	**9.3%**
ETF Experience	6.5%	7.1%	7.5%	1.3%	3.7%	**5.2%**

For a group of this size, the likelihood that claims volatility would explain even a 1.3% difference in trend is only 1.6%. Thus, an allowed charge trend of 8.0% on average over the 2009-2013 period would be an indication of a sustained trend rate less than the national average.

Comparing Alabama's allowed charge trend against national average trends over the 2008 to 2012 period, the Alabama experience was 1.3% lower than national averages, implying that there likely has been a successful approach in the containing of costs, related to the wellness program.

Arkansas

Covered Lives:	74,000 active & retired employees 118,000 covered members Includes public schools
Number of Medical Plan Options:	3
Insured Status:	Self-Insured

Key Outcome

Experience-based average annual trend on allowed charges from 2008 – 2012 was 3.3%, a level 6.4% less than normative national average trend surveys. **As such, there is strong evidence that the approach(es) being used is having an impact on lowering trend.**

Description of Approach

Arkansas uses a combination of an optional consumer directed plan design approach to manage costs plus a wellness program with strong incentives. A high-deductible, HSA-compatible plan option (Bronze Plan) is offered to encourage self-management of utilization through cost-sharing (though the HSA component is entirely employee-funded).

Arkansas provides tobacco cessation coverage that includes smoking cessation counseling sessions, smoking cessation prescriptions, and coverage for at least two quit attempts each year.

Employees who complete a health risk assessment (covering smoking, alcohol consumption, seat belt usage, body mass index, and exercise) receive a $10 per month discount in premiums, and those also found to be at low risk receive an additional $10.

Furthermore, employees who assist in management of their health risks are eligible for three extra days of vacation each year.

Finally, the state's claims administrators actively attempt to contain increases in negotiated network provider reimbursement rates.

Timeline for significant plan design changes 2005-2013:

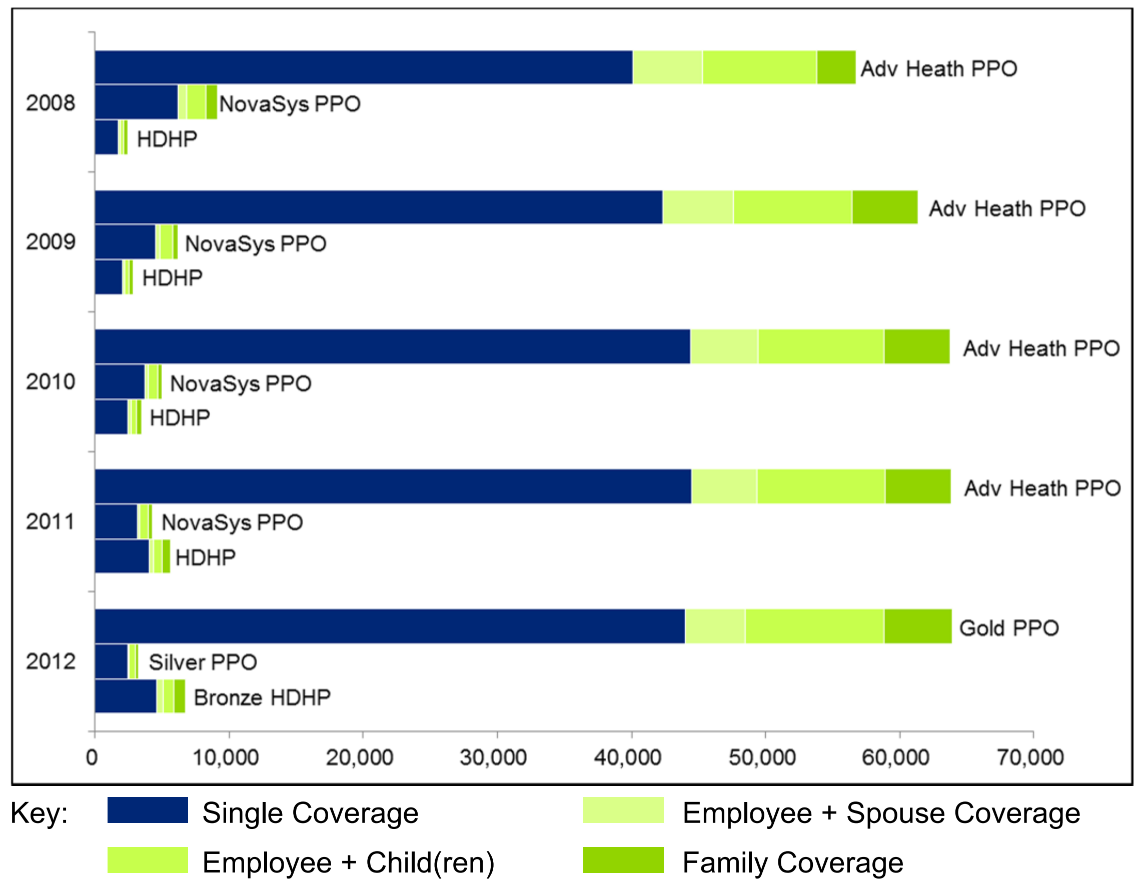
- 2005: State implements AHELP pilot program whereby employees who actively manage their health can receive up to three additional days of paid time off each year ("Health Days"). Pilot encompasses 10,000 employees.

- 2008: Health Advantage PPO, NovaSys PPO, and HDHP options are offered (designs for the Health Advantage and NovaSys options are identical). All three options are new designs for 2008, and are under a new carrier.
- 2009: Maximum out-of-pocket limits are increased slightly for all three options, and coinsurance levels decrease from 90% to 80% for the Health Advantage and NovaSys options.

  AHELP program rolled out to all state employees.
- 2010-2011: Plan option designs remain unchanged.
- 2011: Employee contributions for HDHP option decrease significantly (decrease of 65% for single coverage, decrease of 20% for employee + dependents coverage), increasing enrollment by 60%, though enrollment in the most popular option, the Health Advantage plan, remained unchanged with about 88%.
- 2012: The NovaSys option is dropped in lieu of a new option with a lower actuarial value, the Silver Plan. The Health Advantage and HDHP options are re-branded as the Gold and Bronze Plans, respectively, with no changes in plan design provisions.

  Employee contributions for single coverage under the Bronze plan are eliminated, causing an increase in enrollment by 19%, though HDHP option enrollment is still under 10% of the covered population.

Enrollment



The critical mass of enrollment has consistently remained in the non-HDHP option over the years.

Monthly Plan Premium Rates

Plan Option	2008	2009	2010	2011	2012	2013
Health Advantage PPO						
Employee Only	$392.00	$420.16	$394.17	$401.56		
+ Spouse	$930.40	$994.94	$943.56	$960.80		
+ Child(ren)	$587.32	$619.06	$591.85	$602.76		
+ Family	$1,029.68	$1,097.48	$1,048.41	$1,067.40		
NovaSys PPO						
Employee Only	$385.72	$450.64	$394.76	$427.96		
+ Spouse	$915.30	$1,068.12	$945.01	$1,026.64		
+ Child(ren)	$569.16	$664.78	$592.75	$643.26		
+ Family	$1,013.02	$1,178.26	$1,050.00	$1,140.28		
HDHP						
Employee Only	$322.96	$350.30	$318.99	$312.94		
+ Spouse	$764.66	$827.32	$763.16	$747.08		
+ Child(ren)	$475.00	$514.28	$479.08	$469.44		
+ Family	$846.68	$912.38	$849.20	$831.32		
Gold						
Employee Only					$439.38	$441.26
+ Spouse					$1,046.18	$1,015.20
+ Child(ren)					$657.68	$708.22
+ Family					$1,161.84	$1,282.16
Silver						
Employee Only					$405.72	$237.74
+ Spouse					$960.96	$534.10
+ Child(ren)					$605.48	$375.60
+ Family					$1,066.82	$671.96
Bronze						
Employee Only					$146.46	$148.70
+ Spouse					$300.92	$317.36
+ Child(ren)					$202.14	$227.16
+ Family					$330.88	$395.80

The 2012 and 2013 premium rates for the Silver and Bronze options do not appear sufficient to cover expected costs based on a comparison against the Gold Plan rates and taking into consideration the actuarial values for the plans (discussed below). The seemingly low rates may be part of a strategy to incent more members to enroll in these plans, with a subsidy being provided via higher than expected Gold Plan rates.

Monthly Employee Contribution Rates

Plan Option	2008	2009	2010	2011	2012	2013
Health Advantage PPO						
Employee Only	$98.00	$105.04	$95.78	$95.78		
+ Spouse	$367.20	$392.44	$367.74	$367.74		
+ Child(ren)	$195.66	$204.50	$193.64	$193.64		
+ Family	$416.84	$443.70	$419.62	$419.62		
NovaSys PPO						
Employee Only	$91.72	$135.52	$96.36	$122.18		
+ Spouse	$352.10	$465.62	$369.18	$433.58		
+ Child(ren)	$177.50	$250.22	$194.54	$234.14		
+ Family	$400.18	$524.48	$421.22	$492.50		
HDHP						
Employee Only	$28.96	$35.18	$20.60	$7.16		
+ Spouse	$201.46	$224.82	$187.34	$154.02		
+ Child(ren)	$83.34	$99.72	$80.86	$60.32		
+ Family	$233.84	$258.60	$220.42	$183.54		
Gold						
Employee Only					$95.78	$95.78
+ Spouse					$367.74	$367.74
+ Child(ren)					$193.64	$193.64
+ Family					$419.62	$419.62
Silver						
Employee Only					$62.12	$62.12
+ Spouse					$282.52	$282.52
+ Child(ren)					$141.44	$141.44
+ Family					$324.60	$324.60
Bronze						
Employee Only					$0.00	$0.00
+ Spouse					$77.22	$77.22
+ Child(ren)					$27.84	$27.84
+ Family					$92.20	$92.20

The relatively low required contributions for the Bronze Plan option compared to the other options provides strong incentives for migration, yet little migration from the Gold Plan has been observed.

Actuarial Values

Plan	2008	2009	2010	2011	2012	2013
Health Adv	0.876	0.859	0.859	0.859		
NovaSys	0.876	0.859	0.859	0.859		
HDHP	0.791	0.773	0.773	0.773		
Gold					0.859	0.859
Silver					0.769	0.769
Bronze					0.773	0.773

The above actuarial values have been based on the plan design descriptions available from the State of Arkansas' employee benefit portal, valued in Deloitte's medical plan design rating model based on consistent assumptions for in-network versus out-of-network utilization and discount rates. A normative claims distribution database has been used for the underlying claims repayment analysis.

The HDHP option (2008 – 2011) and the Bronze Plan (2012 – 2013) are both HSA-qualified plans, but do not have any employer funding of the HSA (employee responsibility to open and fund an HSA account).

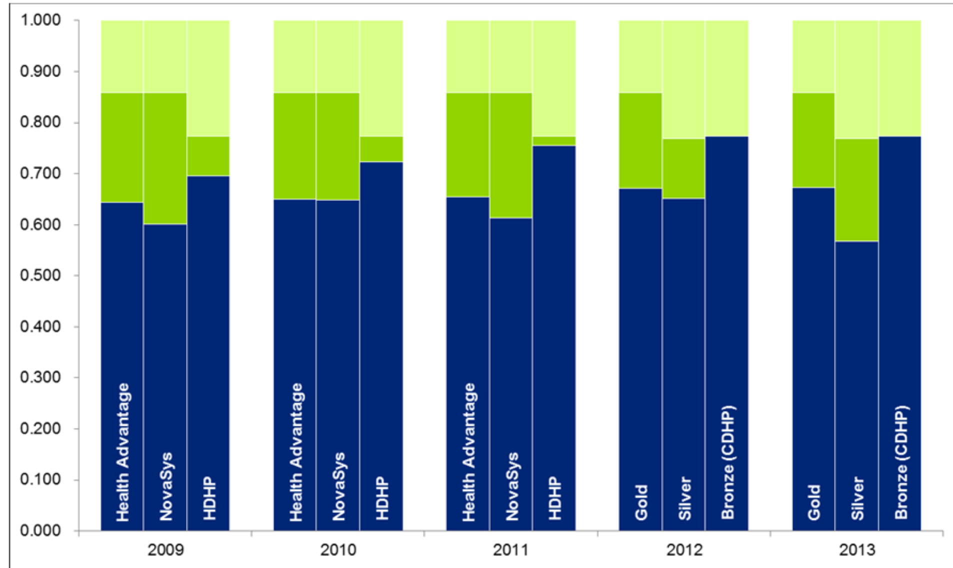
Employee Cost Sharing

Total employee cost sharing includes both utilization cost sharing (deductibles, coinsurance, and copays) and employee contributions.

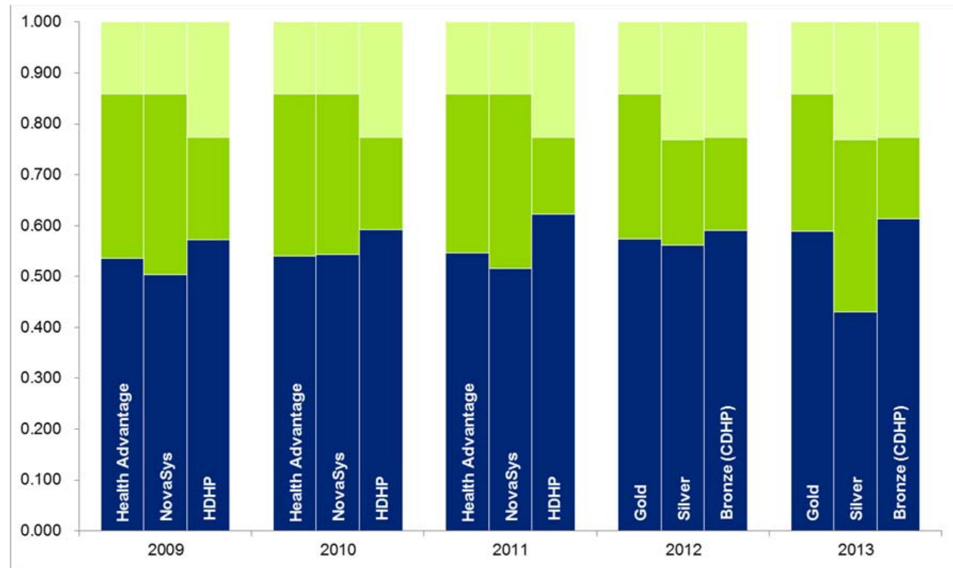
In order to illustrate how total employee cost sharing has changed for the Arkansas plans over the 2009 to 2013 period, the following charts have been developed (one for single coverage and one for family coverage (blended across all three dependent coverage tiers). The "net actuarial value" is defined as the actuarial value less employee contributions.

The Arkansas HDHP plan option (HSA compatible) does not provide first dollar preventive coverage for any prescription drugs.

Net Actuarial Value: Single Coverage



Net Actuarial Value: Family Coverage



Key:
- Employee Cost Sharing (Deductibles, Coinsurance, Copays)
- Employee Contributions
- Net Actuarial Value (= Net Employer Cost)

Employee Contributions + Net Actuarial Value = Actuarial Value

The above actuarial values are the combination of the Dark Blue and Dark Green bars; actual employer cost is net of employee contributions (the Dark Green bars). While the current Gold plan has the greatest actuarial value, once employee contributions are considered, the Bronze plan (2012 and 2013, and the HDHP prior to that) actually represents the plan that provides the greatest employer subsidy. And while enrollment has been growing in the HDHP/Bronze plan design over the years, nonetheless, employee enrollment has remained uniformly the highest in the Gold plan.

AHELP Program

In 2005, the state piloted a wellness program providing strong incentives for employees to self-manage their own health (the Arkansas Healthy Employee Lifestyle Program, or "AHELP"). This pilot was introduced to 10,000 employees, of which 2,531 participated. Successful completion of program requirements could allow an employee to earn up to three additional paid time off days per year ("Health Days").

In 2009 the AHELP program was rolled out to all state employees. This program has been assumed to contribute to Arkansas' cost containment mechanisms, though it also represents a cost to the state (additional PTO days).

The cost of these additional days is an obvious offset to any health plan claims savings. Based on the assumption that the results reported during the pilot program are scalable to the entire state (i.e., 25% participation, with a lesser percent of employees earning additional PTO days), and based on average 2010-2012 Arkansas state employee annual pay of $118,000[2], the assumed costs of the Health Days in 2012 are estimated to be an additional $6.8 million. This amount has been incorporated in the estimate of the state's trend experience.

Evidence of Outcomes

Underlying plan allowed charge trend (i.e., the increase in claims before cost-sharing provisions such as deductibles, coinsurance, and copays are applied) can be determined by incorporating the actuarial values noted above. All other things being equal (i.e., assuming no change in underlying health status), it would be expected that the underlying allowed charge trend would be consistent with national average trend levels.

There is some publicly available information on the underlying health status of the population (comparative risk/morbidity analyses from a predictive model provided by InformedRx) that has been incorporated in the rate development each year. This predictive model indicated the following changes in risk/morbidity score over the 2009 to 2012 period (no data available for 2008):

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[2] Per www.goverrnment-pay.findthedata.org/d/e/AR. State employee pay has been flat over the 2010 to 2012 period.

Covered Group	2009 to 2010	2010 to 2011	2011 to 2012	Aggregate Change
State Employees	n/a	-0.2%	-0.2%	
Public School Employees	n/a	+0.1%	+0.5%	
Blended	0.0%	-0.1%	+0.2%	**+0.3%**

Thus, based on annual risk/morbidity score changes, it does not appear as if the underlying health status of the population has changed significantly.

Enrollment in the HSA-compatible high deductible health plan option is only 9% in 2012 (increasing from 3.6% in 2008, though only slight increases were realized until 2011). The increase in the HDHP option beginning in 2011 is coincident with the dramatically lower employee contributions required at that point, decreasing subsequently in 2012 and 2013 to $0.

The richest option (Gold Plan) requires the highest contributions ($96 per month single coverage, $420 per month family coverage), yet still draws 94% of the enrollment. The HDHP option thus is not viewed as a driver of Arkansas' cost management outcomes.

The Arkansas Benefits Sub-Committee minutes indicate that cost containment features designed to keep trend rates low are:

- Medical network providers (Health Advantage and NovaSys) have been successful in keeping contractual rates flat.
- Savings on medical costs resulting from the use of specialty drugs.
- Large claims management (case management).

Therefore, it appears as of any experience-based trend that is less than national averages would be a result of the managed competition approach used to contain increases in negotiated provider reimbursement rates.

The following table compares the allowed charge trend for the Indiana plans against national average trend rates for the 2008 to 2012 period (insufficient information is available as of yet for 2013).

Plan	2008 to 2009	2009 to 2010	2010 to 2011	2011 to 2012	Average
Arkansas Experience	11.5%	-6.3%	-1.0%	10.3%	**3.3%**
Average National Trend Survey	10.1%	10.2%	9.5%	9.1%	**9.7%**
ETF Experience	6.5%	7.1%	7.5%	1.3%	**5.2%**

For a group of this size, the likelihood that claims volatility would explain even a 1½% difference in trend is only 0.1%. Thus, an allowed charge trend of 3.3% on average over the 2008-2012 period would be a strong indication of a successful cost containment approach.

Comparing Arkansas' allowed charge trend against national average trends over the 2008 to 2012 period, the Arkansas experience was 6.4% lower than national averages, implying that there has been a successful approach in vendor management and the containing of contractual provider reimbursement rates.

Georgia

Covered Lives:	580,000 active members Includes public schools
Number of Medical Plan Options:	6
Insured Status:	Self-Insured / Fully-Insured Mix

Key Outcome

Experience-based average annual trend on allowed charges from 2008 – 2012 was 6.3%, a level 2.4% less than normative regional average trend surveys. **As such, there is some evidence that the approach(es) being used is having an impact on lowering trend.**

Description of Approach

Georgia uses an optional consumer directed plan design approach to manage costs (mandatory options for those elected since 2009). The high-deductible and HRA plan options currently cover over 50% of the covered members, though less than 5% of members are in the HDHP option.

Georgia provides an optional wellness program that provides for slightly lower contribution requirements and a slightly larger HRA benefit when members promise to take additional steps toward better health – completion of those steps are required to remain in the wellness program options the following year. Over 60% of all enrollment is in one of the wellness options (nearly 70% of new hires participate).

Spousal surcharges are assessed to members whose spouses are eligible for coverage elsewhere but elect not to take that coverage.

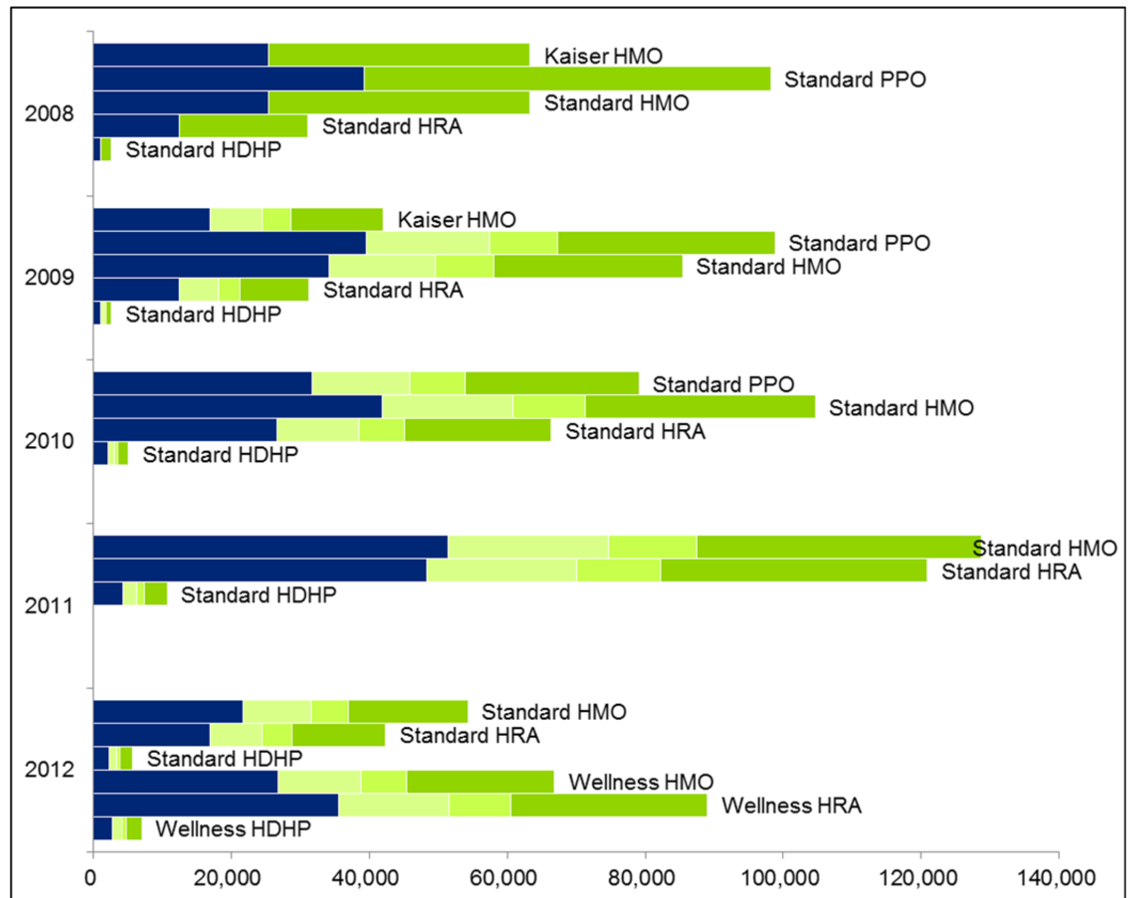
Tobacco surcharges are also assessed if either member of the household uses tobacco products - over 50,000 employees are assessed the surcharge. The plan options do not provide any smoking cessation programs that meet CDC guidelines.

The timeline for significant plan design changes 2005-2012:

- 2005: Tobacco surcharges implemented. Over 50,000 employees receive the surcharge.
- 2008: Spousal surcharge implemented and applied to members whose spouse is eligible for coverage elsewhere but elects not to do so.
- 2009: Newly hired public employees only given the option of enrolling the HRA or HDHP options.
- 2010: Kaiser HMO option dropped.

- 2011: Standard PPO option dropped.
- 2012: Wellness options are implemented that parallel the Standard options (HMO, HRA, and HDHP). These options provide slightly lower contribution requirements, lower maximum out-of-pocket amounts, and a slightly larger HRA benefit than the Standard option counterparts when members promise to take additional steps toward better health – completion of those steps are required to remain in the wellness program options the following year.

Enrollment



Key: Single Coverage; Employee + Spouse Coverage; Employee + Child(ren); Family Coverage

The critical mass of enrollment remains split between the HMO options (Standard and Wellness) and the HRA options (Standard and Wellness). The HDHP options continue to see small enrollment.

Monthly Plan Premium Rates (Includes HRA Reimbursements)

Plan Option	2008	2009	2010	2011	2012	2013
Standard HMO						
EE Only	$454.41	$340.34	$370.19	$399.49	$428.78	$404.88
EE + Spouse	$985.49	$612.60	$666.34	$740.50	$814.66	$688.30
EE + Child(ren)	$985.49	$782.78	$851.42	$918.80	$986.18	$850.25
EE + Family	$985.49	$952.94	$1,036.51	$1,161.41	$1,286.30	$1,133.66
Standard HRA						
EE Only	$313.49	$359.24	$397.51	$383.10	$368.69	$459.79
EE + Spouse	$679.86	$646.60	$715.53	$708.02	$700.52	$781.64
EE + Child(ren)	$679.86	$826.20	$914.29	$881.14	$847.98	$965.56
EE + Family	$679.86	$1,005.84	$1,113.04	$1,109.56	$1,106.08	$1,287.41
Standard HDHP						
EE Only	$355.53	$301.08	$345.59	$347.53	$349.46	$433.99
EE + Spouse	$771.06	$541.92	$622.06	$643.02	$663.98	$737.78
EE + Child(ren)	$771.06	$692.42	$794.86	$799.31	$803.76	$911.38
EE + Family	$771.06	$842.96	$967.65	$1,008.02	$1,048.38	$1,215.17
Wellness HMO						
EE Only					$410.30	$422.58
EE + Spouse					$779.58	$718.39
EE + Child(ren)					$943.70	$887.42
EE + Family					$1,230.92	$1,183.22
Wellness HRA						
EE Only					$359.70	$489.19
EE + Spouse					$683.42	$831.62
EE + Child(ren)					$827.30	$1,027.30
EE + Family					$1,079.10	$1,369.73
Wellness HDHP						
EE Only					$341.78	$465.64
EE + Spouse					$649.36	$791.59
EE + Child(ren)					$786.06	$977.84
EE + Family					$1,025.30	$1,303.79
Standard PPO						
EE Only	$418.27	$396.28	$459.89			
EE + Spouse	$962.18	$713.30	$827.79			
EE + Child(ren)	$962.18	$911.44	$1,057.74			
EE + Family	$962.18	$1,109.56	$1,287.68			
Kaiser HMO						
EE Only	$407.18	$407.70				
EE + Spouse	$814.18	$733.88				
EE + Child(ren)	$814.18	$937.72				
EE + Family	$814.18	$1,141.58				

Unlike plans with an HSA component where the premium reflects only the high deductible component of the coverage, the CDH plans here are comprised of the HDHP component plus the HRA. In these cases, the HRA is a notional account, and the premium rates include only the expected utilization of the HRA, not the entire annual HRA accrual. Thus, absent from the estimates of cost each year here are any unused rollover HRA balances.

Unused HRA amounts are typically forfeited when an employee migrates to a non-HRA option or terminates employment. The exception to this is retirement, where, at the employer's discretion, the unused HRA balance can be used for retiree medical expenses as well provided there's continued enrollment in an HRA option; this appears to be the treatment in Georgia.

In order to provide a more consistent analysis and understanding between HDHP+HSA plans and HDHP+HRA plans, estimates of the average annual unused HRA balances each year per HRA participant have been developed, and are included in the table below.

Plan Option	2008	2009	2010	2011	2012	2013
Standard HRA	$91	$118	$120	$108	$55	$22
Wellness HRA					$92	$110

The average estimated unused HRA balances are not significant for any one year, but for some employees the balances will accumulate over several years to become more meaningful amounts. It is not possible to estimate a total unused HRA balance for Georgia as the HRA plan options were offered earlier than the data collection period drawn upon for this analysis.

Monthly Employee Contribution Rates

Plan Option	2008	2009	2010	2011	2012	2013
Standard HMO						
EE Only	$82.84	$91.10	$100.20	$110.22	$129.18	$145.88
EE + Spouse	$202.84	$206.90	$227.60	$264.27	$309.72	$322.38
EE + Child(ren)	$202.84	$215.00	$236.50	$260.15	$304.90	$343.84
EE + Family	$202.84	$223.10	$245.40	$284.94	$333.96	$427.46
Standard HRA						
EE Only	$56.92	$56.84	$62.50	$68.75	$80.58	$101.42
EE + Spouse	$173.74	$168.50	$185.30	$215.16	$252.18	$267.76
EE + Child(ren)	$173.74	$173.64	$191.00	$210.10	$246.24	$283.16
EE + Family	$173.74	$178.68	$196.60	$228.28	$267.54	$361.04
Standard HDHP						
EE Only	$49.50	$49.48	$54.40	$59.84	$70.14	$90.04
EE + Spouse	$160.60	$155.78	$171.40	$199.02	$233.26	$249.82
EE + Child(ren)	$160.60	$160.44	$176.50	$194.15	$227.54	$263.84
EE + Family	$160.60	$165.10	$181.60	$210.86	$247.14	$340.64
Wellness HMO						
EE Only					$122.56	$135.88
EE + Spouse					$293.88	$297.38
EE + Child(ren)					$289.30	$318.84
EE + Family					$316.86	$410.36
Wellness HRA						
EE Only					$76.46	$91.42
EE + Spouse					$239.26	$242.76
EE + Child(ren)					$233.64	$258.16
EE + Family					$253.86	$347.36
Wellness HDHP						
EE Only					$66.54	$80.04
EE + Spouse					$221.32	$224.82
EE + Child(ren)					$215.90	$238.84
EE + Family					$234.48	$327.98
Standard PPO						
EE Only	$78.26	$86.10	$94.70			
EE + Spouse	$238.88	$243.70	$268.10			
EE + Child(ren)	$238.88	$253.20	$278.50			
EE + Family	$238.88	$262.80	$289.10			
Kaiser HMO						
EE Only	$85.34	$93.90				
EE + Spouse	$208.92	$213.10				
EE + Child(ren)	$208.92	$221.50				
EE + Family	$208.92	$229.90				

The relative differences in the contribution rates are not significant enough to drive enrollment from one option to another. The HMO and HDHP options have the largest enrollments, implying either a lack of comfort with or eligibility for the HRA options.

Actuarial Values

Plan	2008	2009	2010	2011	2012	2013
Kaiser HMO	0.868	0.825				
Standard PPO	0.795	0.799	0.757			
Standard HMO	0.868	0.825	0.788	0.734	0.728	0.696
Standard HRA*	0.894	0.901	0.871	0.849	0.829	0.772
Standard HDHP	0.831	0.827	0.821	0.792	0.759	0.721
Wellness HMO					0.734	0.711
Wellness HRA*					0.849	0.819
Wellness HDHP					0.792	0.756

* The actuarial values for the two HRA plans include the portion of the HRA expected to be used during the year.

The above actuarial values have been based on the plan design descriptions available from the State of Georgia's employee benefit portal, valued in Deloitte's medical plan design rating model based on consistent assumptions for in-network versus out-of-network utilization and discount rates. A normative claims distribution database has been used for the underlying claims repayment analysis.

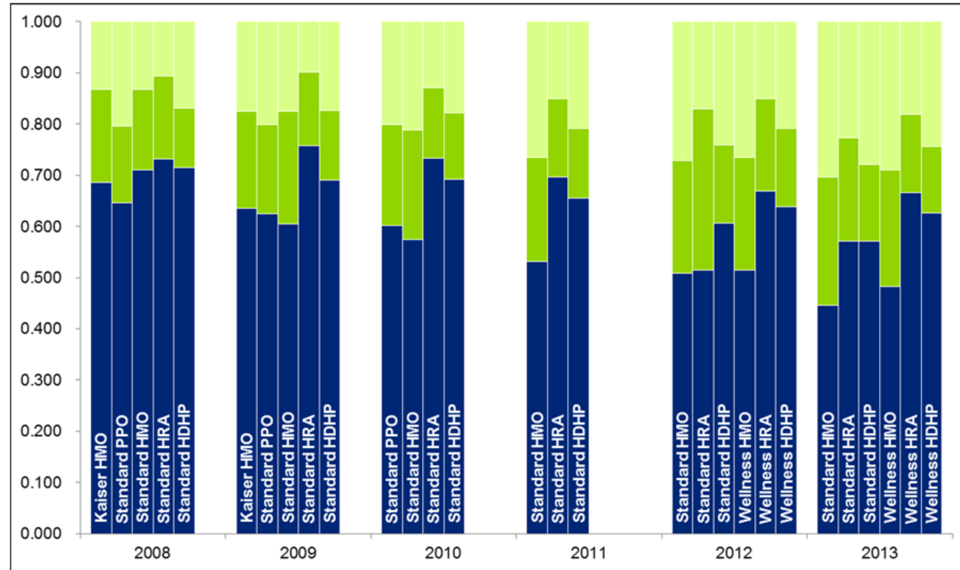
Almost without exception, the actuarial values for the plan options have been decreasing consistently over the 2008 to 2013 period (equating to cost shifting to employees). The actuarial value for the Standard HMO option decreased by 19.8% over this period, while the actuarial values for the Standard HRA and Standard HDHP options decreased by more than 13%.

Employee Cost Sharing

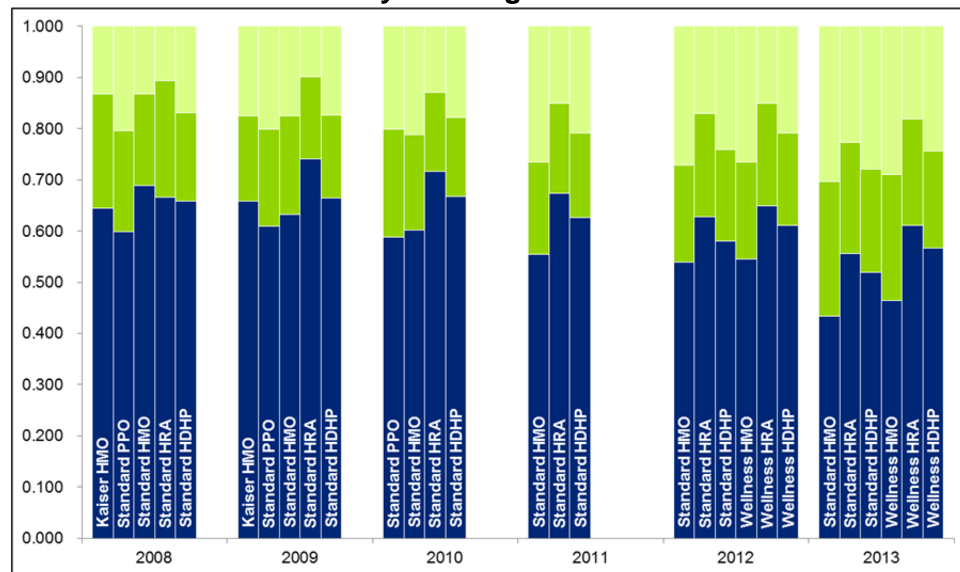
Total employee cost sharing includes both utilization cost sharing (deductibles, coinsurance, and copays) and employee contributions. In order to illustrate how total employee cost sharing has changed for the Georgia plans over the 2008 to 2013 period, the following charts have been developed (one for single coverage and one for family coverage (blended across all three dependent coverage tiers). The "net actuarial value" is defined as the actuarial value less employee contributions.

The Georgia HDHP plan option (HSA compatible) does not appear to provide first dollar preventive coverage for any prescription drugs.

Net Actuarial Value: Single Coverage



Net Actuarial Value: Family Coverage



Key:
- Employee Cost Sharing (Deductibles, Coinsurance, Copays)
- Employee Contributions
- Net Actuarial Value (= Net Employer Cost)

Employee Contributions + Net Actuarial Value = Actuarial Value

The above actuarial values are the combination of the Dark Blue and Dark Green bars; actual employer cost is net of employee contributions (the Dark Green bars). Since 2009 the HRA option has had the greatest actuarial value and the greatest net actuarial value (i.e., the greatest employer subsidy), yet enrollment has remained small in the HRA option.

Evidence of Outcomes

The estimated underlying plan allowed charge trend (i.e., the increase in claims before cost-sharing provisions such as deductibles, coinsurance, and copays are applied) can be determined by incorporating the actuarial values noted above. All other things being equal (i.e., assuming no change in underlying health status), it would be expected that the underlying allowed charge trend would be consistent with national average trend levels.

While enrollment is high in the wellness program options (over 60% in 2012), monitoring of wellness participation appears to be limited to the completion of a health risk assessment (54,000 in 2012) and a biometric screening (less than 1,900 in 2012) for body mass index, blood pressure, glucose, and cholesterol; the employee need provide documentation of only the assessment to qualify for the program rather than providing evidence of taking action to address issues.

The following table compares the allowed charge trend for the Georgia plans against national average trend rates for the 2009 to 2013 period, adjusted by –0.4% to account for regional differences in average trend.

Plan	2009 to 2010	2010 to 2011	2011 to 2012	2012 to 2013	Average
Georgia Experience	11.6%	0.0%	2.0%	12.3%	**6.3%**
Average Regional Trend Survey	9.8%	9.0%	8.6%	7.5%	**8.7%**
Average National Trend Survey	10.2%	9.5%	9.1%	8.0%	**9.2%**
ETF Experience	7.1%	7.5%	1.3%	3.7%	**5.2%**

For a group of this size, the likelihood that claims volatility would explain even a 1½% difference in trend is only 0.2%. Thus, an allowed charge trend of 6.3% on average

over the 2009-2013 period would be an indication of a successful cost containment approach.

Comparing Georgia's allowed charge trend against regional average trends over the 2009 to 2013 period, the Georgia experience was 2.4% lower than regional averages, implying that there has been a successful approach in the containing of costs, likely related to a combination of the wellness program and reductions in utilization resulting from ongoing cost-shifting to members.

Indiana

Covered Lives:	29,000 active & retired members Excludes public schools
Number of Medical Plan Options:	3 (2011 - 2013), 4 (2009 & 2010)
Insured Status:	Self-Insured (HMO in 2009 & 2010 fully-insured)

Key Outcome

Experience-based average annual trend on allowed charges and employer-funding of the HSA from 2008 – 2012 was 6.6% (excluding the employer-funded HSA, the effective annual cost trend to 6.2%), a level 2.6% below normative national average trend surveys. **As such, there is evidence that the approach(es) being used is having an impact on lowering trend.**

Description of Approach

Indiana offers two high deductible heath plan options with HSAs, and one traditional PPO plan option with the intent that such HDHP/HSA designs will encourage better utilization of services.

Timeline for significant plan design changes 2006-2013:

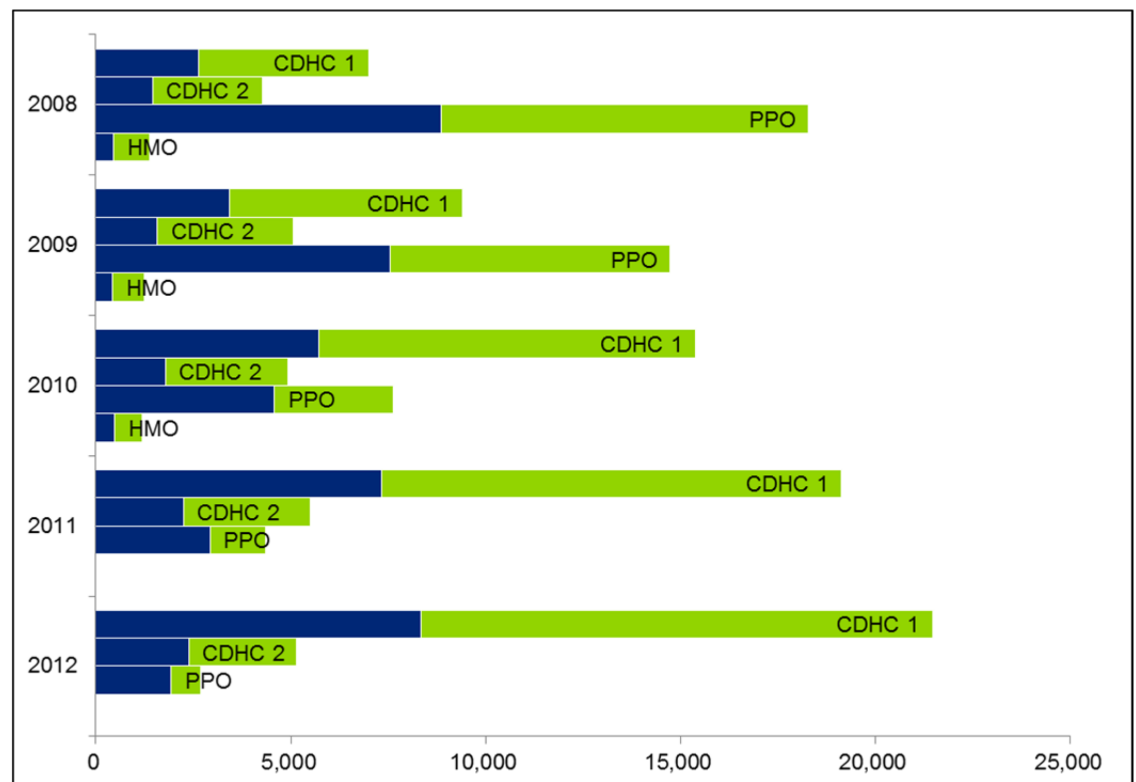
- 2006: Introduction of the two HDHP/HSA options (join one existing PPO and one existing HMO option). Array of plan options reflect CDHC as an option.
- 2008: Wellness promotion communication campaign to educate participants on health status improvement and positive financial impact potential.
- 2009: Plan options “marketed” to public schools throughout state.
- 2010: Tobacco surcharges are introduced (higher contributions).
- 2010: Mercer analysis (excluding the HMO plan(s)) concludes CDHC plans reduced costs by 10%, based on experience through 2009.
- 2010: Only 5 public schools join state employee program (598 employees).
- 2011: HMO option eliminated.
- 2012: Enrollment in CDHC options reaches 90% of all eligibles. Effectively CDHC becomes complete replacement design, but not literally.

- 2006-2013: PPO and CDHC option designs remain unchanged throughout this period (other than slight decreases in state's funding of HSAs).

Indiana has driven significant enrollment over the 2006-2012 timeframe into the CDHC options through communication efforts (2008-2009), advantageous employee contribution incentives (all years), and employer funding of the HSAs as incentives (all years).

The following charts and tables highlight for key plan metrics over the 2008-2012 period (2013 enrollment data not yet available as the 2013 open enrollment period only ended November 19th).

Enrollment



Key: Single Coverage Family Coverage

Clearly enrollment in the CDHC options increased dramatically between 2008 and 2012 (and, in fact, migration has been continuous from the CDHC options' inception in 2006: CDHC enrollment in 2006 was only 4%, increasing to 20% in 2007). A

consistent driver of that migration appears to have been the relatively low required employee contributions (as illustrated below).

With respect to the actual migration itself, there is no information related to the segment(s) of the demographics that are moving between plans (e.g., young and/or healthy employees migrating to the CDHC plans, unhealthy employees staying in the PPO plan, etc.). Thus, it is not known if the more healthy employees are migrating to the CDHC 1 option from the PPO option over the 2008 to 2013 time period.

Monthly Plan Premium Rates (Excludes HSA Funding)

Plan Option	2009	2010	2011	2012	2013
CDHC 1					
Employee Only	$264.16	$294.91	$326.52	$387.23	$440.14
+ Family	$812.50	$882.09	$988.35	$1,123.29	$1,203.24
CDHC 2					
Employee Only	$342.68	$386.40	$418.95	$478.49	$561.95
+ Family	$988.91	$1,081.38	$1,183.35	$693.60	$1,516.15
PPO					
Employee Only	$514.74	$575.68	$647.75	$742.13	$868.49
+ Family	$1,442.22	$1,590.46	$1,801.11	$2,037.84	$2,332.16
HMO					
Employee Only	$450.39	$514.87			
+ Family	$1,239.88	$1,390.87			

The above premium rates reflect an average between the smoker premiums and the non-smoker premiums). Per the Kaiser Family Foundation's StateHealthFacts.org site, approximately 21% of the adults in Indiana are smokers; this was the basis for the assumption on the mix between smokers and non-smokers for this analysis.

Monthly Employee Contribution Rates (Non-Smoker)

Plan Option	2009	2010	2011	2012	2013
CDHC 1					
Employee Only	$0.00	$0.00	$7.84	$12.29	$16.77
+ Family	$0.00	$0.00	$22.01	$34.28	$53.69
CDHC 2					
Employee Only	$41.86	$45.50	$58.67	$66.11	$101.14
+ Family	$103.09	$107.64	$133.55	$186.12	$291.46
PPO					
Employee Only	$135.92	$165.88	$224.81	$273.59	$351.52
+ Family	$400.53	$479.18	$626.25	$761.37	$995.15
HMO					
Employee Only	$71.57	$105.06			
+ Family	$198.19	$279.59			

Monthly Employee Contribution Rates (Smoker)

Plan Option	2009	2010	2011	2012	2013
CDHC 1					
Employee Only	$0.00	$21.67	$29.51	$66.45	$92.60
+ Family	$0.00	$21.67	$43.68	$88.44	$129.52
CDHC 2					
Employee Only	$41.86	$67.17	$80.34	$120.27	$176.97
+ Family	$103.09	$129.31	$155.22	$240.28	$367.29
PPO					
Employee Only	$135.92	$187.55	$246.48	$327.75	$427.35
+ Family	$400.53	$500.85	$647.92	$815.53	$1,070.98
HMO					
Employee Only	$71.57	$126.73			
+ Family	$198.19	$301.25			

The relatively low required contributions for the CDHC 1 and CDHC 2 options compared to the other options provided strong incentives for migration, as evidenced by the increase in CDHC option enrollment from 36% in 2008 to 91% in 2012.

Actuarial Values

Plan	2009	2010	2011	2012	2013
CDHC 1*					
w/o HSA	0.699	0.699	0.699	0.699	0.699
w/ HSA	0.923	0.904	0.866	0.829	0.819
CDHC 2*					
w/o HSA	0.762	0.762	0.762	0.762	0.762
w/ HSA	0.896	0.870	0.852	0.872	0.824
PPO	0.828	0.828	0.828	0.828	0.828
HMO	0.834	0.834	n/a	n/a	n/a

* Actuarial values for the CDHC options are provided both exclusive of the employer funding of the HSA (the HDHP component of the plan options) and inclusive of the HSA (the combination of the HDHP plus the HSA). The HSA actuarial value components include the entire HSA amount (i.e., portion of the HSA used plus the unused HSA rollover, both of which represent real costs to Indiana).

The above actuarial values for the two CDHC options vary based on the exclusion versus inclusion of the state funding of the HSA. Annual HSA funding amounts for the two CDHC options by the state has been:

Plan Option	2009	2010	2011	2012	2013
CDHC 1					
Employee Only	$1,375.92	$1,375.92	$1,251.12	$1,123.20	$1,123.20
+ Family	$2,750.28	$2,750.28	$2,502.24	$2,249.52	$2,249.52
CDHC 2					
Employee Only	$936.00	$826.80	$751.92	$673.92	$673.92
+ Family	$1,870.44	$1,650.48	$1,500.72	$1,347.84	$1,347.84

The 2012 Kaiser Family Foundation "Employer Health Benefits" survey reports that of those employers offering an HSA option, the average employer funding to the HSA is $609 for single coverage and $1,070 for family coverage.

The above actuarial values have been based on the plan design descriptions available from the State of Indiana's employee benefit portal, valued in Deloitte's medical plan design rating model based on consistent assumptions for in-network versus out-of-network utilization and discount rates. A normative claims distribution database has been used for the underlying claims repayment analysis.

Indiana's employer contributions to the HSAs have been steadily decreasing each year, otherwise the plan designs have not changed year-over-year. However, the HSA contributions are still greater than the average reports in the Kaiser survey.

Note that while the HDHP component of the CDHC 2 plan is richer than the CDHC 1 plan, once the HSA employer contributions are taken into consideration, the CDHC 1 plan actuarial had a greater actuarial value in 2009 and 2010. This fact, coupled with the lower employee contributions for the CDHC 1 plan, was likely the driver behind the high CDHC 1 plan enrollment in the 2006 to 2008 plan years, and has likely continued based on subsequent employee "loyalty" to the option selected then.

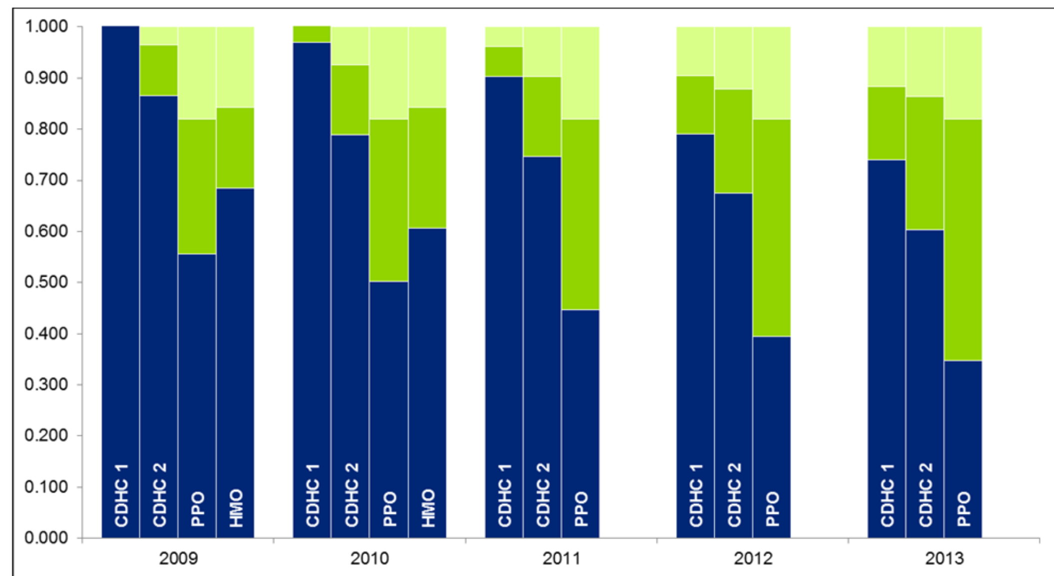
Employee Cost Sharing

Total employee cost sharing includes both utilization cost sharing (deductibles, coinsurance, and copays, the basis for actuarial values) and employee contributions.

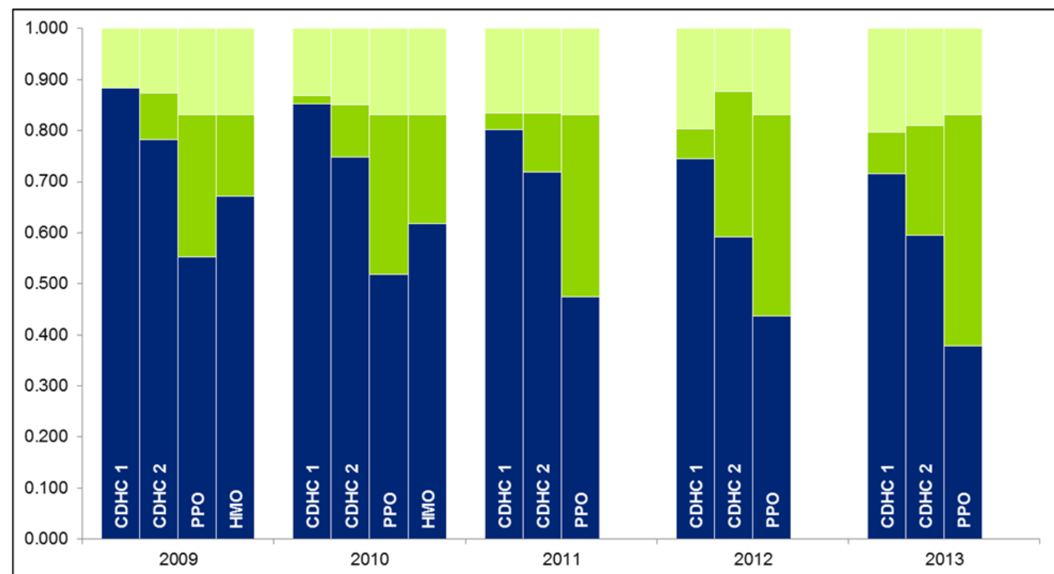
In order to illustrate how total employee cost sharing has changed for the Indiana plans over the 2009 to 2013 period, the following charts have been developed (one for single coverage and one for family coverage). The "net actuarial value" is defined as the actuarial value less employee contributions. Note that these actuarial values include the state HSA funding amounts for the CDHC options.

The Indiana HDHP+HSA plan options do not provide first dollar preventive coverage for any prescription drugs.

Net Actuarial Value: Single Coverage



Net Actuarial Value: Family Coverage



Key:
- Employee Cost Sharing (Deductibles, Coinsurance, Copays)
- Employee Contributions
- Net Actuarial Value (= Net Employer Cost)

Actuarial Value

The above actuarial values are the combination of the Dark Blue and Dark Green bars. However, actual employer cost is net of employee contributions (the Dark Green bars). So while the CDHC 1, CDHC 2, and PPO options all have reasonably consistent actuarial values in 2013, the net cost to Indiana, and the total employee cost, is very different for each.

When the combination of employee cost sharing (deductibles, coinsurance, and copays) and contributions are considered, the cost to Indiana for the PPO plan (2013) is only about 30% - 40% of total allowed charges, an indication of a driver behind the continued migration out of the PPO plan. Consistently, the CDHC 1 plan provides the highest net employer subsidy/lowest total employee out-of-pocket cost, and explains the strong migration over the years to that option. The relatively small required employee contributions provide the incentive for selecting that plan option.

Evidence of Outcomes

The underlying plan allowed charge trend (i.e., the increase in claims before cost-sharing provisions such as deductibles, coinsurance, and copays are applied) can be determined by incorporating the actuarial values noted above. All other things being equal (i.e., assuming no change in underlying health status), it would be expected that the underlying allowed charge trend would be consistent with national average trend levels.

Any underlying improvement in health status, therefore, would be a key driver that would appear as a long-term trend less than the national average.

The following table compares the allowed charge trend for the Indiana plans against national average trend rates for the 2009 to 2013 period.

Plan	2009 to 2010	2010 to 2011	2011 to 2012	2012 to 2013	Average
Indiana Experience	2.8%	5.3%	2.9%	16.1%	**6.6%**
Average National Trend Survey	10.2%	9.5%	9.1%	8.0%	**9.2%**
ETF Experience	7.1%	7.5%	1.3%	3.7%	**5.2%**

Comparing Indiana's allowed charge plus employer-funded HSA trend against national average trends over the 2009 to 2013 period, the Indiana experience was 2.6% lower than national averages, indicating that there has been an improvement in underlying population health status over the years 2008 to 2012.

Maine

Covered Lives:	33,000 active & retired employees Includes state, municipal, and county workers Excludes public schools
Number of Medical Plan Options:	1
Insured Status:	Self-Insured

Key Outcome

Experience-based average annual trend on allowed charges from the 2007/2008 plan year – 2012/2013 plan year was 8.1%, a level 1.7% less than 9.8% reported in the normative national average trend surveys for the same period. **As such, there is some evidence that the approach(es) being used is having an impact on lowering trend.**

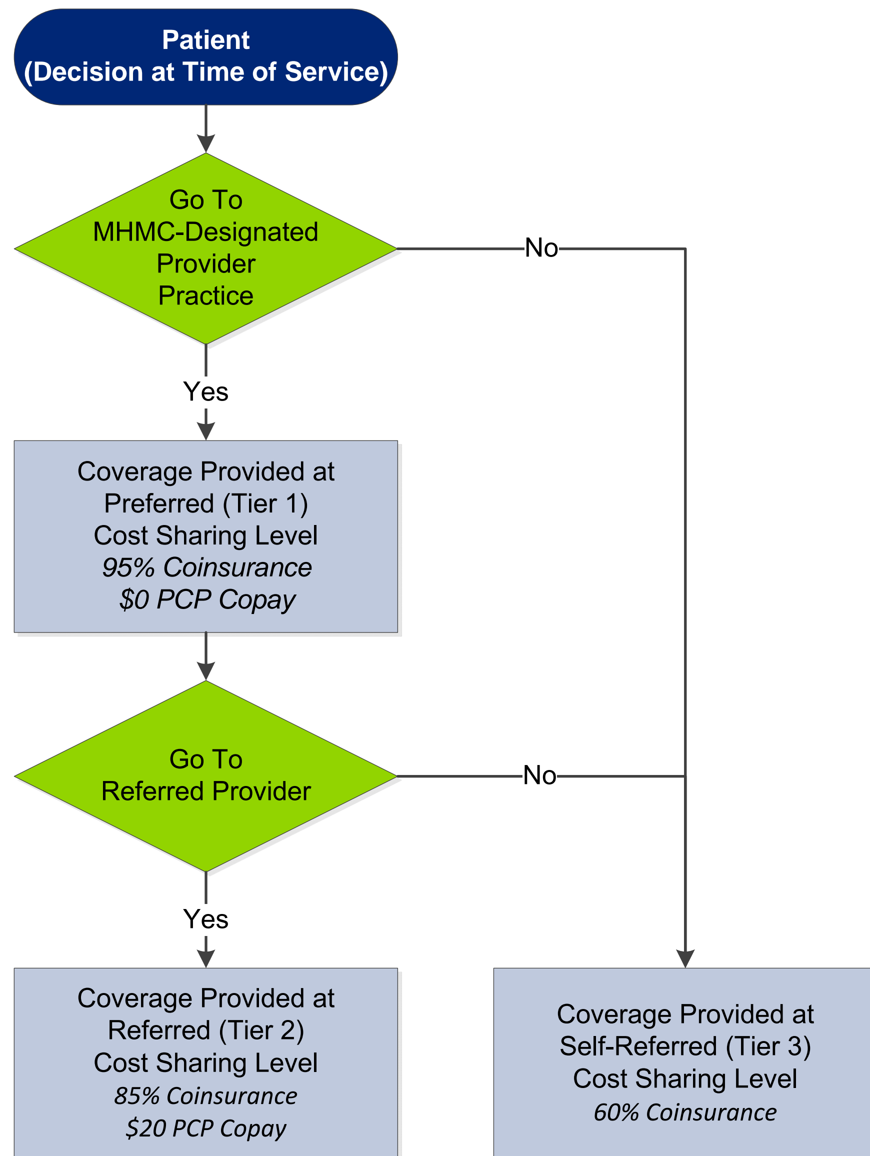
Description of Approach

Maine offers one heath plan option, a "value-based" point-of-service (POS) plan option.

This plan option has "tiered provider" design as a means to reward efficient care and utilization by directing members toward more efficient hospitals and primary care physicians through reduced out-of-pocket member expenses (richer coinsurance coverage levels, primary care provider copays). Provider experience was analyzed and the providers were placed into one of three tiers (Preferred, Referred, and Self Referred), with more efficient providers falling in a tier having lower member cost sharing.

The tiering of the primary care physicians is based each year on the Maine Health Management Coalition. Any provider practice that is awarded two or three blue ribbons on the Coalition's website (www.mhmc.inf/) is designated a preferred practice.

Selection of the provider practice for services is made by the member at the point of service. The following chart illustrates how utilization of this three-tier, value-based provider practice approach operates.



The health plan administrators are responsible for negotiating contracts with the provider groups, managing the network and performing the core functions of the plan such as claims adjudication. Provider practices may move from tier to tier each year as the MHMC issues its assessments.

The objective of this type of model is to achieve steerage of members toward more effective provider groups while also incenting the provider groups to deliver more

efficient care through the concern of dropping into a less favorable tier and losing patients. Success of the plan is intended to be measurable by two key metrics:

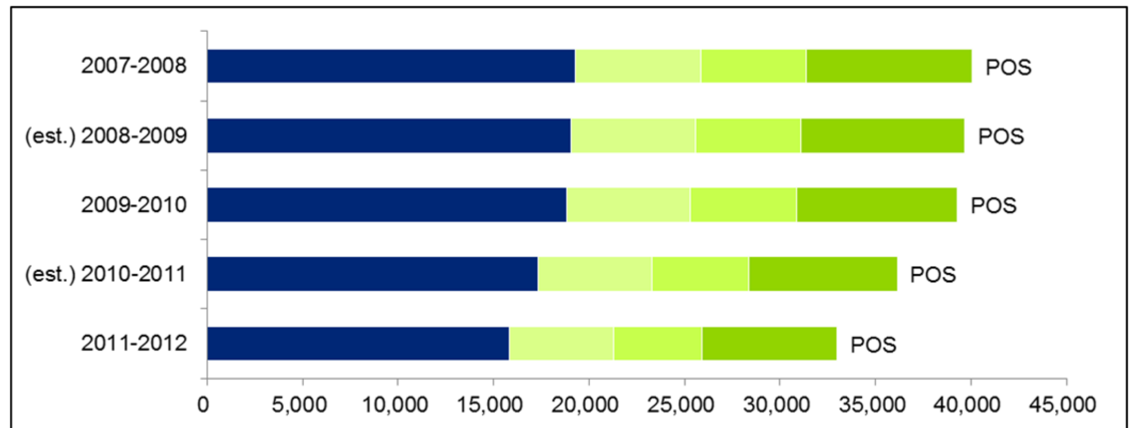
- Visible provider movement toward better tiers, and
- Trend rates lower than general market trends.

The timeline for significant plan design changes 2003-2013:

- 2003: State employee benefit plan became self-insured.
- 2006/2007: Tiered benefit design for hospitals introduced.
- 2007/2008: Tiered benefit design for primary care service introduced.
- 2009/2010: Prescription drug plan moves from two-tier design to three-tier design.
- 2009/2010: Employee contributions for Employee Only coverage vary based on income level (<$30,000, $30,000 - $80,000, >$80,000).
- 2010/2011: Wellness program with health credits introduced.

The following charts and tables highlight key plan metrics over the last several years.

Enrollment



Key: Single Coverage; Employee + Spouse Coverage; Employee + Child(ren); Family Coverage

Monthly Plan Premium Rates

Plan Option	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
POS	*Estimated*					
EE Only	$556.08	$648.10	$686.66	$727.54	$727.54	$727.54
EE + Spouse	$1,162.61	$1,355.00	$1,435.96	$1,521.78	$1,521.78	$1,521.78
EE + Child(ren)	$914.50	$1,065.84	$1,129.46	$1,196.90	$1,196.90	$1,196.90
EE + Family	$1,383.20	$1,612.10	$1,708.50	$1,810.70	$1,810.70	$1,810.70

Premiums for the 2007-2008 plan year were not available. Premiums for the 2006-2007 plan year were, however, available, and were used as the basis for the 2007-2008 rates (i.e., average between the 2006-2007 plan year and the 2008-2009 plan year).

Monthly Employee Contribution Rates

Plan Option	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
POS						
EE Only	$0.00	$0.00	$0.00	$0.00	$61.60	$78.82
EE + Spouse	n/a	n/a	n/a	n/a	$322.09	$412.14
EE + Child(ren)	n/a	n/a	n/a	n/a	$212.06	$271.35
EE + Family	n/a	n/a	n/a	n/a	$419.92	$537.33

Employee contributions for the 2007-2008 through 2010-2011 plan years were not available. It was found, though, that for those years there were no employee contributions for the Employee Only coverage tier.

Starting in the 2009/2010 plan year (July 1, 2009, through June 30, 2010), employee contributions for Employee Only coverage are structured across employer subsidy levels based on income:

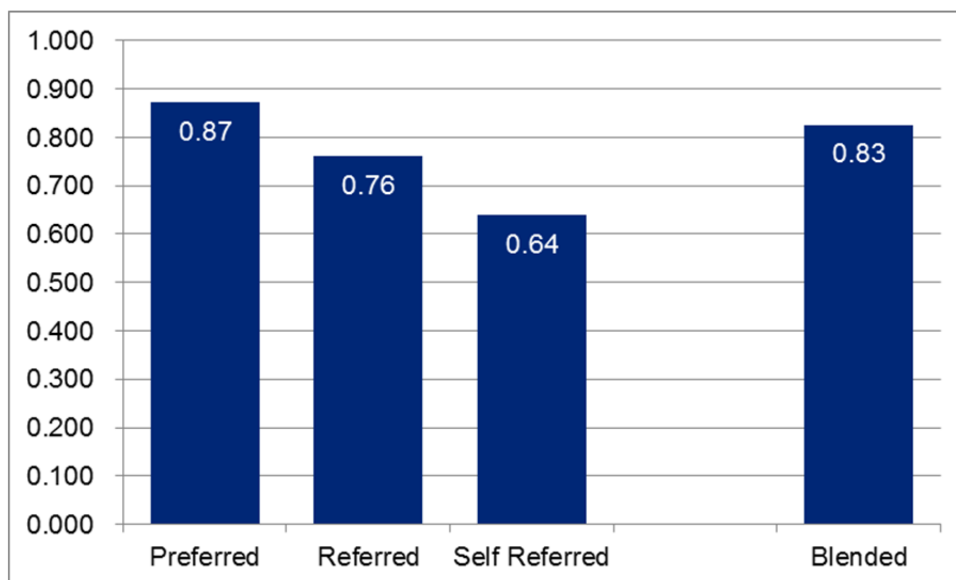
- Base salary $30,000 or less – State pays 100% of Employee Only premium.
- Base salary greater than $30,000 but less than $80,000 – State pays 95% of the Employee Only premium.
- Base salary of $80,000 or more – State pays 90% of the Employee Only premium.

As no information was available based on salary splits, the results in this analysis are based on the 95% employee contribution level (i.e., base salary greater than $30,000 but less than $80,000).

Actuarial Values

As noted above, the plan option offered to Maine state employees contains three tiered networks, each with its own actuarial value. The distribution of utilization of

services across the three network tiers determines the overall blended actuarial value each year. The actuarial values for each network tier are:



The blended actuarial value reflects an assumed claims utilization distribution across the three coverage tiers per experience seen in other similar three-tier networks.

The incentives to members to direct utilization at the time of service are:

- High coinsurance coverage rates
- Lower copays

Gradual increases in cost sharing has slowly decreased the actuarial value over time, though the total decrease has only been 2% from the 2008-2009 plan year to the 2012-2013 plan year.

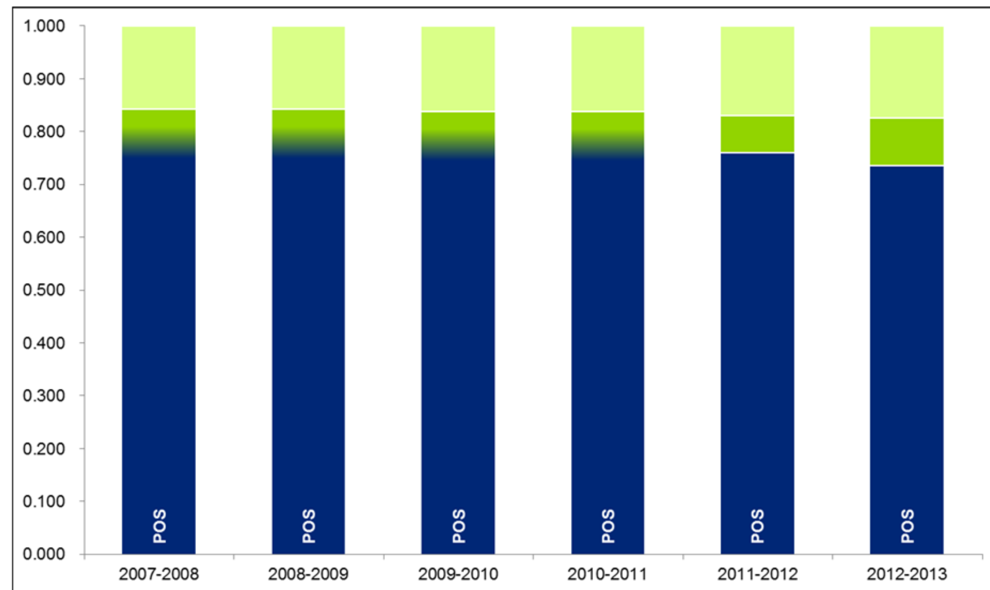
Plan	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
POS	0.843	0.839	0.839	0.831	0.826

Employee Cost Sharing

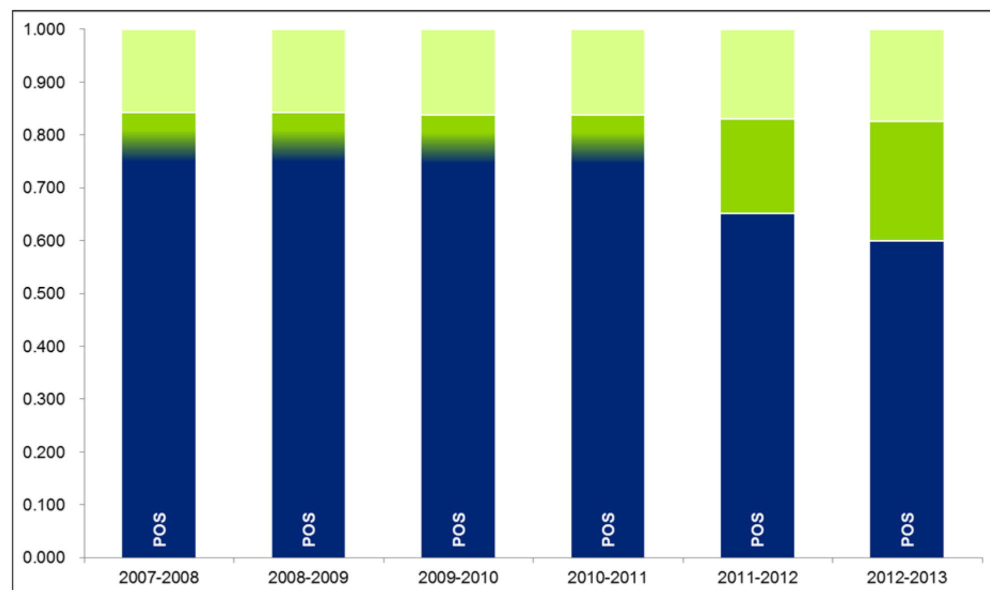
Total employee cost sharing includes both utilization cost sharing (deductibles, coinsurance, and copays) and employee contributions.

Employee contribution information for the 2007-2008 through 2010-2011 plan years were not available, hence the “blurred” differentiation between employer cost versus employee contributions for those periods in the charts below. The “net actuarial value” is defined as the actuarial value less employee contributions.

Net Actuarial Value: Single Coverage



Net Actuarial Value: Family Coverage (Blended Across Dependent Tiers)



Key:
- Employee Cost Sharing (Deductibles, Coinsurance, Copays)
- Employee Contributions
- Net Actuarial Value (= Net Employer Cost)

(Employee Contributions + Net Actuarial Value = Actuarial Value)

There have been only slight shifts in the actuarial value over the 2007/2008 to 2012/2013 periods, though for the last two years where employee contribution information has been known, there has been a significant increase in costs to employees (mainly by virtue of the salary-based employer subsidy approach implemented).

The above actuarial values are the combination of the Dark Blue and Dark Green bars; actual employer cost is net of employee contributions (the Dark Green bars).

When the combination of employee cost sharing (deductibles, coinsurance, and copays) and contributions are considered, the cost to Maine for the POS plan is at 60%, reflective of a typical employer-provided design.

Evidence of Outcomes

Maine has experienced an increase in average annual trend over the last several years.

It is actuarially unlikely (though statistically possible) that the observed trend rate was partially driven by volatile claims experience (up or down) given the number of covered lives.

The underlying plan allowed charge trend (i.e., the increase in claims before cost-sharing provisions such as deductibles, coinsurance, and copays are applied) was determined based on the detailed claims experience available to Deloitte. All other things being equal, it would be expected that the underlying allowed charge trend would be consistent with regional average trend levels.

To the extent that actual trend on allowed changes was less than the national average, it would be a strong indication that the cost containment approach being used (provider efficiency assessment tied to coinsurance and copay requirements) is a driver in that reduced trend.

The following table compares the allowed charge trend for the Maine plan against national average trend rates for the 2007/2008 to 2011/2012 period.

Plan	2007/2008 to 2008/2009	2008/2009 to 2009/2010	2009/2010 to 2010/2011	2010/2011 to 2011/2012	Average
Maine Experience	16.5%	6.5%	6.6%	3.3%	**8.1%**
Average National Trend Survey	10.2%	10.1%	9.8%	9.3%	**9.8%**
ETF Experience	7.1%	7.5%	1.3%	3.7%	**5.2%**

Comparing Maine's allowed charge trend against national average trends over the 2007/2008 to 20011/2012 period, the Maine experience was 1.7% lower than national averages, implying that there may have been a successful cost containment approach in place. Given a difference of only 1.7% and the size of the covered population, there is actuarially a 0.5% probability that the 1.7% difference average difference over 5 years is due strictly to claims volatility.

Minnesota

Covered Lives:	122,000 active & retired members Excludes public schools (PEIP group)
Number of Medical Plan Options:	2
Insured Status:	Self-Insured

Key Outcome

Actual average annual trend on allowed charges from 2008 – 2013 was 5.2%, a level 3.4% less than 8.6% reported in the normative regional average trend surveys. **As such, there is strong evidence that the approach(es) being used is having an impact on lowering trend.**

Description of Approach

Minnesota offers two heath plan options, the Advantage PPO plan option and, added in 2010, an HDHP/HSA option (ACDHP plan) with employer funding of the HSA.

Both plan options have a "tiered network" design as a means to reward efficient care by directing membership toward more efficient providers through reduced out-of-pocket member expenses. Provider groups consist of primary care physician clinics and ancillary services. Each clinic has its own referral, prescribing, and hospital admission characteristics. Each provider group was analyzed and placed into one of several tiers based on analysis of historical risk adjusted costs, with more efficient providers falling in a tier having lower member cost sharing. Theoretical risk adjusted provider costs averaged (lower risk adjusted cost metrics equate to more efficient provider groups):

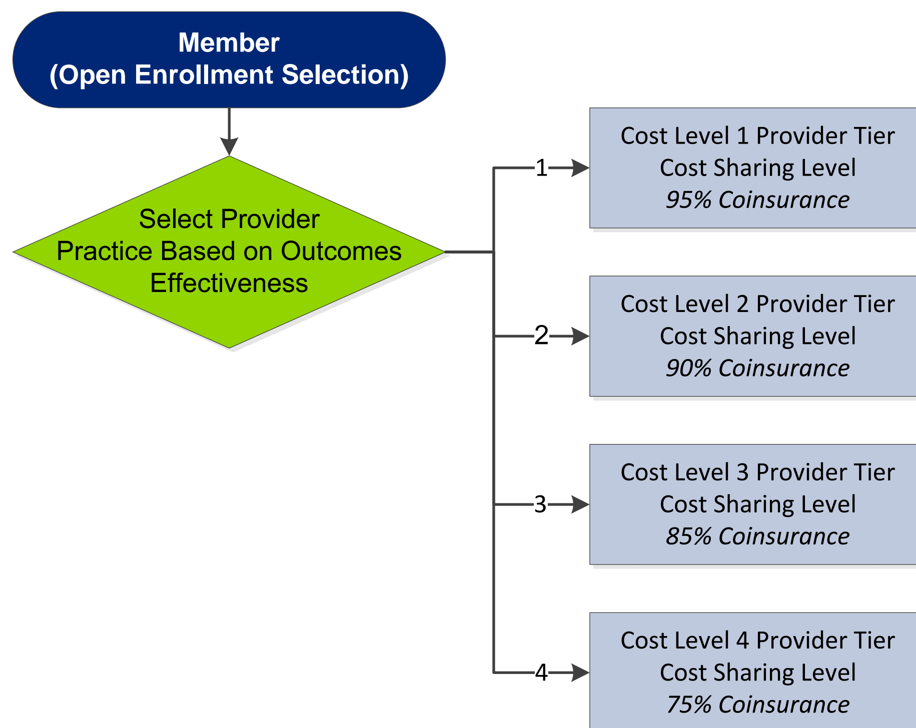
- Cost Level 1: 87%
- Cost Level 2: 96%
- Cost Level 3: 104%
- Cost Level 4: 111%

The health plan administrators are responsible for negotiating contracts with the provider groups, managing the network and performing the core functions of the plan such as claims adjudication.

Provider groups may move from Cost Level to Cost Level from one year to the next, with the general expectation that movement to a more efficiently managed Cost Level tier will retain, if not grow, member participation, while movement to a less efficient Cost Level tier may see a loss of members.

Selection of the provider practice for services is made by the member at the time of open enrollment, after which time he/she is "committed" to receiving services from that

provider clinic group. The following chart illustrates how utilization of this four-tier, managed competition approach operates.



Cost sharing differences (deductibles, copays or coinsurance) between the tiers were structured originally so that the additional cost-sharing in less efficient tiers would be offset by the additional cost of obtaining care from the less efficient providers in those tiers when compared to tier 1.

The objective of this type of model is to achieve steerage of members toward lower tiered (i.e., more cost efficient) provider groups while also incenting the provider groups to deliver more efficient care through the concern of dropping into a less favorable tier and losing enrollment. Success of the plan is intended to be measurable by two key metrics:

- Visible member movement toward lower tiers, and
- Trend rates lower than general market trends.

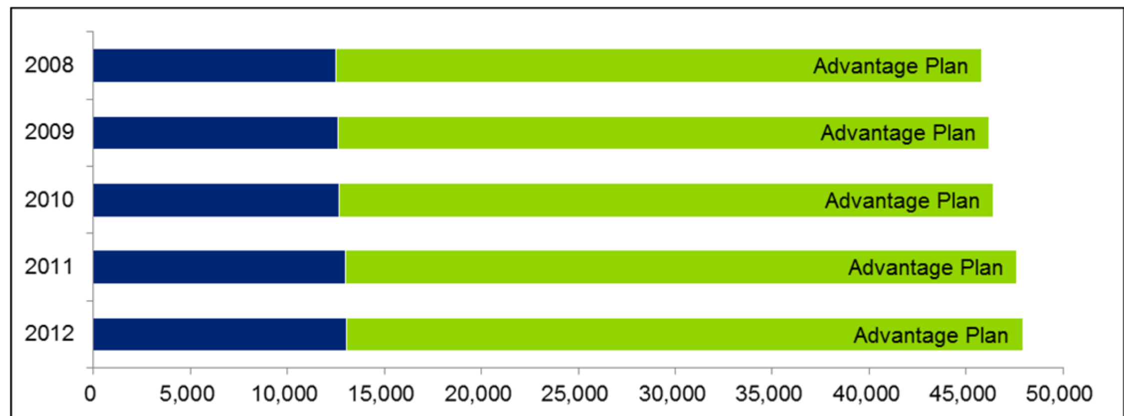
The timeline for significant plan design changes 2002-2013:

- 2002: The Advantage 1.0 Plan is introduced with three provider tiers. Three plan administrators were used.

- 2003: The Advantage 2.0 Plan is introduced whereby a fourth provider tier was added.
- 2006: Health risk assessments added, the completion of which maintains lower copays for office visits.
- 2008: Navitus, a stand-alone Pharmacy Benefits Manager, took over the administration of the Advantage Plan pharmacy benefits. The pharmacy plan also adopted a three-tier plan design (generic, brand preferred & brand non-preferred).
- 2010: The ACDHP Plan option is added (a HDHP option that is compatible with HSAs; employer funding of the HSAs is included).

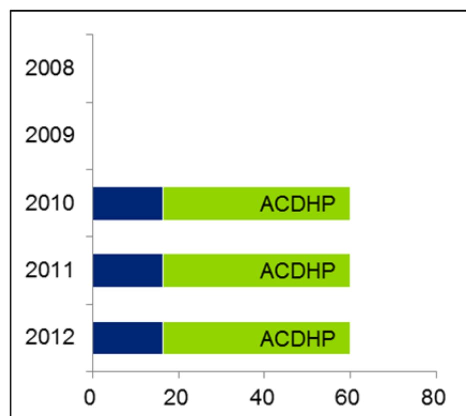
The following charts and tables highlight key plan metrics over the last several years.

Enrollment



Key: Single Coverage

Employee + Family Coverage



The above chart shows the enrollment between 2008 and 2012 in the Advantage PPO plan. Enrollment in the HDHP/HSA option is too small to register in the above chart, so it is shown here.

Key: Single Coverage

Employee + Family Coverage

Given the static and minimal enrollment in the ACDHP option, it is not a driver behind any cost containment results in Minnesota.

Monthly Plan Premium Rates

Plan Option	2009	2010	2011	2012	2013
Advantage Plan					
Employee Only	$477.28	$477.28	$477.28	$477.28	$503.20
Employee + Family	$1,315.34	$1,315.34	$1,315.34	$1,315.34	$1,479.76
ACDHP Plan					
Employee Only		$380.62	$380.62	$380.62	$436.54
Employee + Family		$1,182.02	$1,182.02	$1,182.02	$1,346.44

Premiums have been flat between 2009 and 2012. 2013, however, did see a 11.6% increase in premium rates to account for increases in claims, some of which was partly driven by a reverse migration out of the Tier 1 network (the most efficient network). It should be noted that the premium rates for the period 2009 through 2011 were understated in an effort to draw down the state's reserves (generated from better than expected experience prior to 2009).

Monthly Employee Contribution Rates

Plan Option	2009	2010	2011	2012	2013
Advantage Plan					
Employee Only	$17.24	$17.24	$17.24	$17.24	$18.18
Employee + Family	$183.72	$183.72	$183.72	$183.72	$194.64
ACDHP Plan					
Employee Only		$13.75	$13.75	$13.75	$15.77
Employee + Family		$176.09	$176.09	$176.09	$189.83

Employee contributions are structured across employer subsidy strata:

- Full employer contribution (applies to full-time employees, and has a 100% employer contribution for single coverage)
- 75% employer contribution
- 50% employer contribution
- No employer contribution

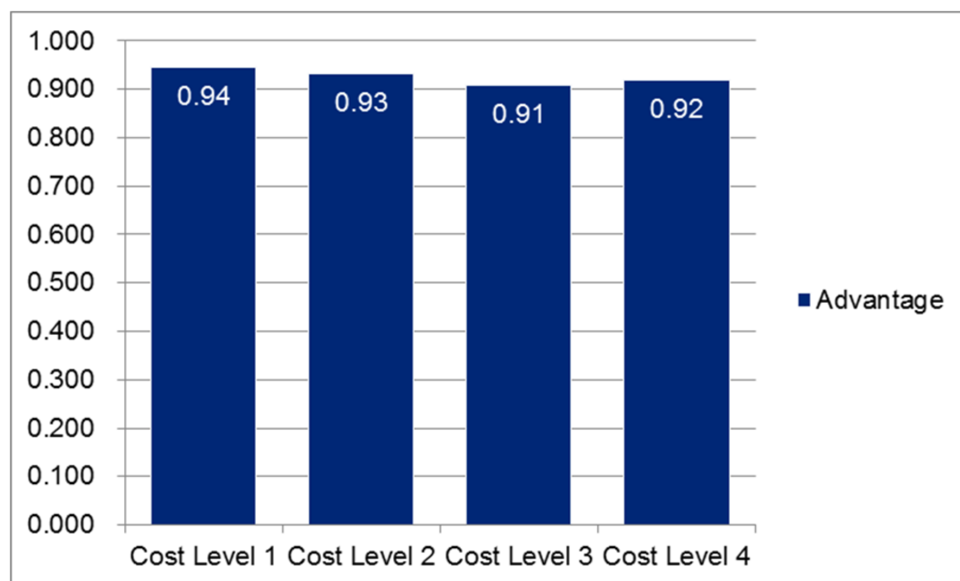
(applies to part-time employees)

These employer subsidy levels apply to the employee portion of the premium; separate employee contributions are required for coverage on dependents. The results in this analysis are based on the weighted average of enrollment across the above four subsidy strata, inclusive of both full-time employees and part-time employees). Approximately 90% of the population is full-time and receives the 100% employer subsidy for single coverage.

Actuarial Values

As noted above, each of the two plans offered to Minnesota state employees contain four tiered networks, each with its own actuarial value. The actuarial value of each of these network tiers has not changed over the 2008 to 2012 period. However, the distribution of services across the four network tiers has differed over the 2008 to 2012 period, and it is that changing distribution that causes the aggregate actuarial value per plan option to change year-to-year.

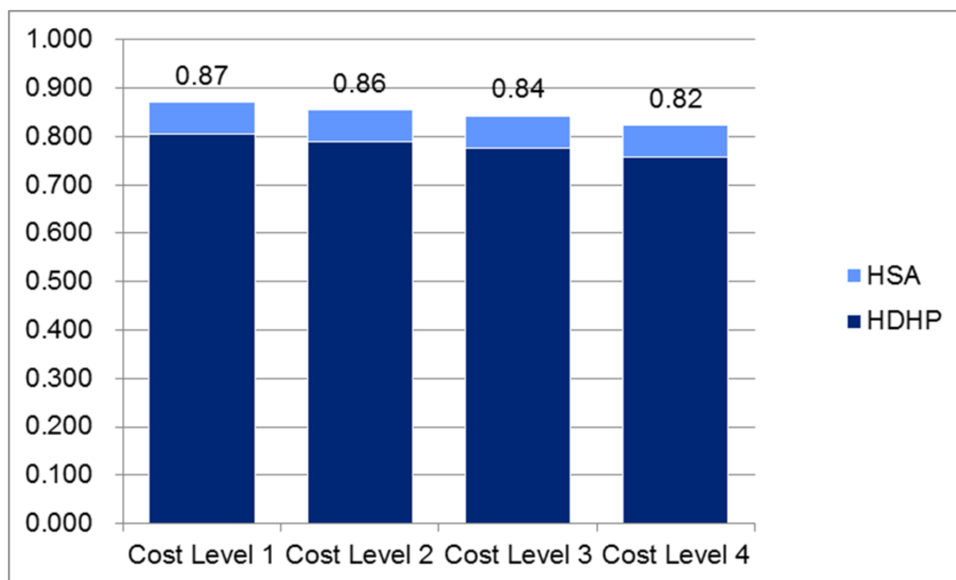
The actuarial values for each network tier are, for the Advantage Plan:



The reduction in actuarial value was developed to offset the more costly, less efficient providers in that cost level tier such that the actual claims would be cost neutral.

The actuarial value for the Cost Level 4 group actually reflects a higher level than Cost Level 3 due to the mix of higher cost members in that Cost Level (and thus the greater costs offsetting the lower coverage levels). Thus, these actuarial values are inclusive of health status within that Cost Level, demonstrating the effectiveness of the cost neutrality objective.

The actuarial values for the ACDHP Plan (split between the HDHP component and the employer-funding of the HSA component) are:



The monthly employer funding of the HSA is provided below.

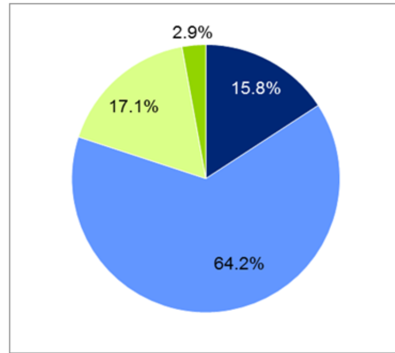
Plan Option	2009	2010	2011	2012	2013
ACDHP Plan					
Employee Only		$40.15	$40.15	$40.15	$40.15
Employee + Family		$80.31	$80.31	$80.31	$80.31

Employer funding of the HSA for full-time employees is $500 per year for single coverage, $1,000 for family coverage, with part-time employees receiving less. The above monthly amounts reflect the mix of full-time and part-time employees. Additional HSA funding is provided to those members who participate in health assessments and coaching calls (e.g., full-time HSA funding increases from the $500/$1,000 annual levels to $800/$1,600).

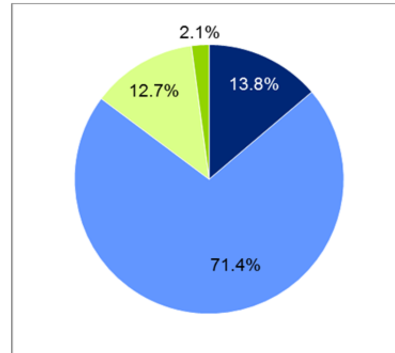
The employer funding of the HSAs has not changed since the ACDHP Plan option was introduced.

Noted in the initial description of the approach to cost containment used by Minnesota is the expectation that success of the plan can be measured in one area by visible movement toward lower cost level tiers. The charts that follow show the distribution of cost level utilization for 2008 through 2012.

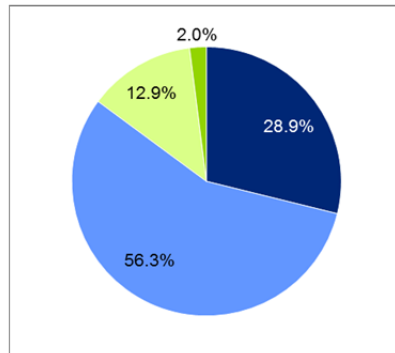
2008



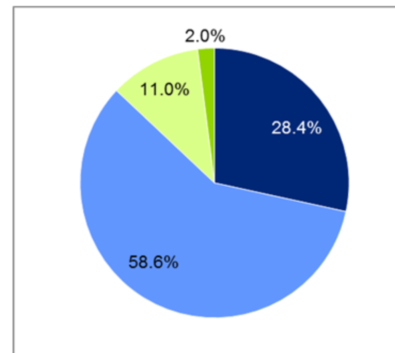
2009



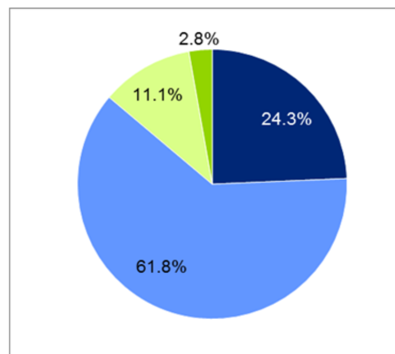
2010

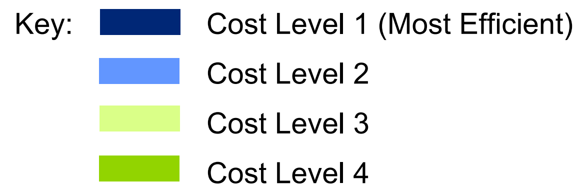


2011



2012





Note that Cost Level 2 is the guaranteed access level. From 2008 to 2009, there was some movement of provider groups (and, hence, enrollment) from Cost Level 3 to Cost Level 2, though countering this was movement from Cost Level 1 to Cost Level 2. From 2009 to 2010, there was a significant movement from Cost Level 2 providers to

Cost Level 1 providers, with some reversal of that movement between 2011 and 2012 (2010 and 2011 were largely consistent). One driver behind the increase in Cost Level 1 utilization as of 2010 was the movement of the HPMG provider group to Level 1 that year.

The incentives to members to make such movements from less efficient providers to more efficient providers are:

- High coinsurance coverage rates
- Lower copays

Both of these have proven to be strong incentives for member-initiated changes in utilization practices.

This movement across Cost Levels drove the change in plan option actuarial values from 2008 to 2012.

Plan	2008	2009	2010	2011	2012
Advantage	0.930	0.931	0.933	0.933	0.933
ACDHP*					
w/o HSA			0.791	0.791	0.790
w/ HSA			0.858	0.858	0.857

* Actuarial values for the CDHC option is provided both exclusive of the employer funding of the HSA (the HDHP component of the plan options) and inclusive of the HSA (the combination of the HDHP plus the HSA). The HSA actuarial value components include the entire HSA amount (i.e., portion of the HSA used plus the unused HSA rollover, both of which represent real costs to Minnesota).

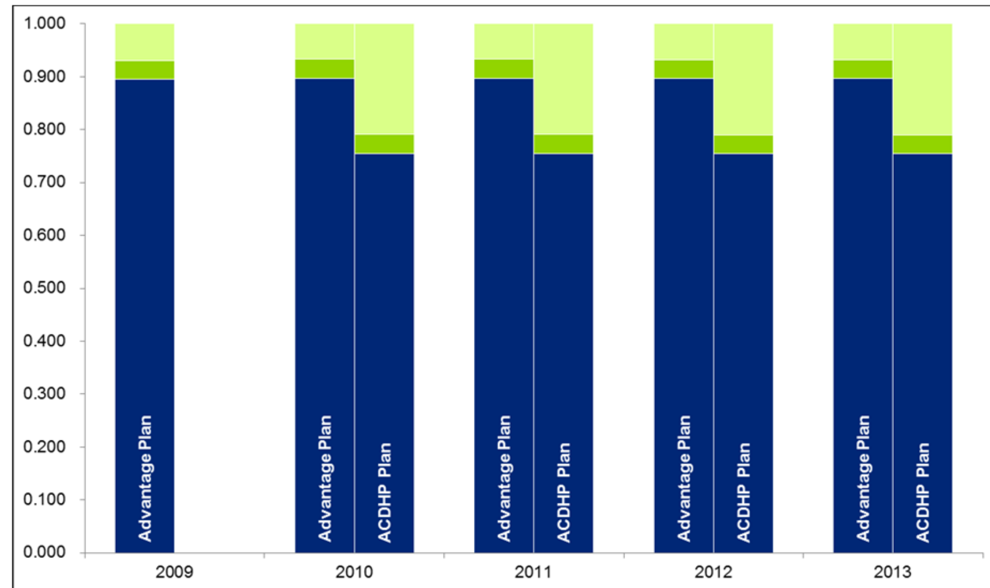
Employee Cost Sharing

Total employee cost sharing includes both utilization cost sharing (deductibles, coinsurance, and copays) and employee contributions.

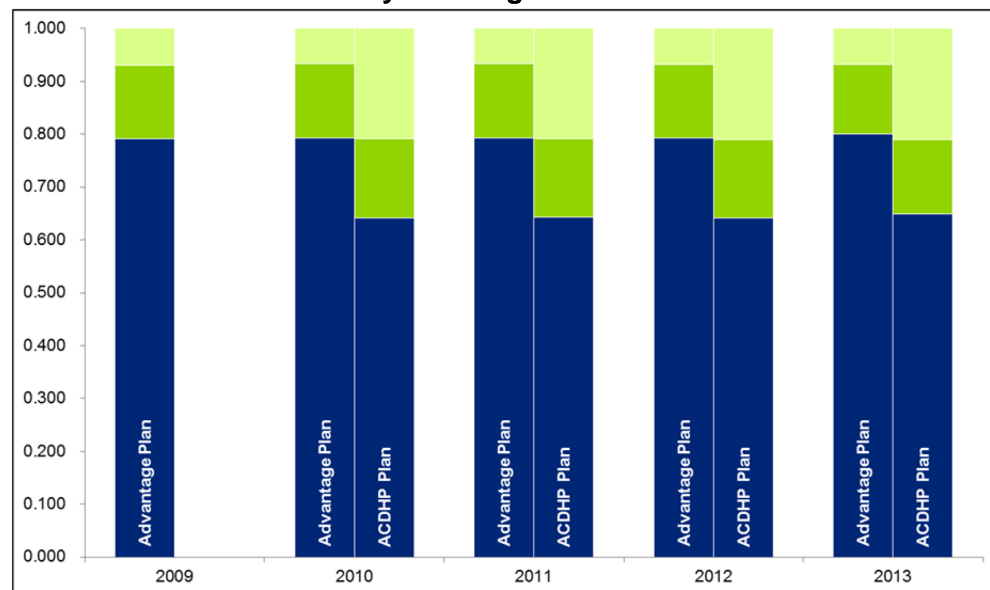
Despite the migration from to the Cost Level 1 tier for services, the overall actuarial values for the plan options have moved only minimally, as seen above. Similarly, the charts below show how little total employee cost sharing has changed for the Minnesota plans over the 2009 to 2013 period (one chart for single coverage and one for family coverage). The "net actuarial value" is defined as the actuarial value less employee contributions. Note that these actuarial values include the state HSA funding amounts for the HDHP option.

The Minnesota HDHP+HSA plan option does not provide first dollar preventive coverage for any prescription drugs.

Net Actuarial Value: Single Coverage



Net Actuarial Value: Family Coverage



Key:
- Employee Cost Sharing (Deductibles, Coinsurance, Copays)
- Employee Contributions
- Net Actuarial Value (= Net Employer Cost)

Employee Contributions + Net Actuarial Value = Actuarial Value

There have been only slight shifts in the net actuarial value over the 2009 to 2013 period, driven entirely by the increase in utilization of more efficient providers.

The above actuarial values are the combination of the Dark Blue and Dark Green bars; actual employer cost is net of employee contributions (the Dark Green bars).

When the combination of employee cost sharing (deductibles, coinsurance, and copays) and contributions are considered, the cost to Minnesota for both the Advantage PPO plan and the ACDHP Plan is above 60%, reflective of generous employer-provided designs.

Evidence of Outcomes

It is actuarially unlikely that the observed trend rate was partially driven by volatile claims experience (up or down) given the number of covered lives.

The underlying plan allowed charge trend (i.e., the increase in claims before cost-sharing provisions such as deductibles, coinsurance, and copays are applied) was determined based on the detailed claims experience available to Deloitte. All other things being equal, it would be expected that the underlying allowed charge trend would be consistent with regional average trend levels.

To the extent that actual trend on allowed changes was less than the regional average, it would be a strong indication that the cost containment approach being used (provider efficiency assessment tied to assignment of Cost Level) is a key driver in that reduced trend.

The following table compares the allowed charge trend for the Minnesota plans against national average trend rates for the 2009 to 2011 period, adjusted by –0.8% to account for regional differences in average trend. Results reflect actual 2008-2011 claims experience provided to Deloitte rather than derived estimates; 2012 and 2013 trend figures reflect estimates based on estimates of changes in allowed charges.

Plan	2008 to 2009	2009 to 2010	2010 to 2011	2011 to 2012*	2012 to 2013*	Average
Minnesota Experience	6.5%	5.6%	2.4%	-0.1%	11.8%	**5.2%**
Average Regional Trend Survey	9.3%	9.4%	8.7%	8.3%	7.2%	**8.6%**
Average National Trend Survey	10.1%	10.2%	9.5%	9.1%	8.0%	**9.3%**
ETF Experience	6.5%	7.1%	7.5%	1.3%	3.7%	**5.2%**

* Trend estimates for 2011 to 2013 reflect estimated changes in allowed charges; trend for 2008 to 2011 reflect actual known changes in allowed charges.

Comparing Minnesota's allowed charge trend against national average trends over the 2008 to 2013 period, the Minnesota experience was 3.4% lower than regional averages, implying that there has been a strong, successful cost containment approach in place 2008 to 2012.

Oregon

Covered Lives:	46,000 active members
Number of Medical Plan Options:	4 (1 Plan State-wide; 3 Regional)
Insured Status:	Self-Insured

Key Outcome

Insufficient historic data are available for the Oregon plan options to assess the financial and health status outcomes for its public employee health plans, though there is some indication that the population in the predominant plan for the state did realize some improvement in health status.

Description of Approach

Oregon has implemented the Health Engagement Model (HEM) program to engage members in improving their health. Those who do not participate in the HEM program or who do not complete a health risk assessment have a penalty of a $100 increase in deductible. There does not appear to be a requirement to complete any other activities to qualify for the HEM incentives.

Deductibles are not applied for services related to the treatment of chronic conditions (asthma, diabetes, cardiovascular disease, or congestive heart failure) to remove that financial barrier from seeking care.

Oregon provides smoking cessation programs that meet all three of the CDC guidelines for such programs.

Employees who opt out of coverage receive a cash incentive (constant incentive payment from 2008 to 2013 of $2,796 per year). In 2009, 2,326 employees elected to waive coverage.

Enrollment

Enrollment data for 2009 only has been located (and, even then, only in total by plan option, and not split by coverage tier within plan option; while the distribution by coverage tier was available in aggregate for all options for 2009, and an assumption could be made for this distribution at the plan option level, the change in distribution seen for Indiana is evidence that such a single assumption applied to all years would likely produce erroneous results). Since Oregon added and eliminated several plans during the 2008-2013 timeframe, yearly enrollment is a critical data element to estimate changes in total allowed charges per employee over this time. Absent this annual enrollment data, it is not possible to assess:

- Changes in allowed charges
- Experience-based allowed charge trend
- Comparison of Oregon trend against national average trend

Monthly Plan Premium Rates

Plan Option	2008	2009	2010	2011	2012	2013
Kaiser HMO						
EE Only	$734.29	$756.46				
EE + Spouse	$983.95	$1,013.67				
EE + Child(ren)	$844.44	$869.94				
EE + Family	$1,005.98	$1,036.36				
Kaiser POS						
EE Only	$776.78	$800.25	$835.16	$892.93	$983.01	$1,016.10
EE + Spouse	$1,040.90	$1,072.34	$1,119.11	$1,196.52	$1,317.23	$1,361.57
EE + Child(ren)	$893.31	$920.29	$960.45	$1,026.89	$1,130.49	$1,168.54
EE + Family	$1,064.21	$1,096.34	$1,144.17	$1,223.32	$1,346.73	$1,392.06
Providence Choice PPO						
EE Only	$741.84	$750.79	$771.69	$860.24	$870.22	$938.76
EE + Spouse	$994.05	$1,006.02	$1,034.03	$1,152.69	$1,166.06	$1,257.90
EE + Child(ren)	$853.12	$863.41	$887.45	$989.29	$1,000.76	$1,079.58
EE + Family	$1,016.32	$1,028.56	$1,057.20	$1,178.50	$1,192.18	$1,286.08
Regence BCBSO PPO						
EE Only	$792.84	$834.18	$892.19	$991.84	$990.52	$1,064.82
EE + Spouse	$1,062.31	$1,117.67	$1,195.39	$1,328.92	$1,327.15	$1,426.70
EE + Child(ren)	$911.72	$959.24	$1,025.95	$1,140.54	$1,139.02	$1,224.45
EE + Family	$1,086.09	$1,142.69	$1,222.17	$1,358.67	$1,356.87	$1,458.64
Samaritan Select PPO						
EE Only	$733.66					
EE + Spouse	$983.10					
EE + Child(ren)	$843.71					
EE + Family	$1,005.13					
Kaiser Deductible						
EE Only					$903.83	$934.25
EE + Spouse					$1,211.11	$1,251.87
EE + Child(ren)					$1,039.40	$1,074.38
EE + Family					$1,238.24	$1,279.92

Over the 2008 through 2013 period two plans were eliminated (Kaiser HMO and the Samaritan Select PPO) and one plan was added (the Kaiser Deductible Plan). The Regence BCBS OR PPO Plan (“PEBB Statewide” Plan) is the plan option that is available state-wide, and has the majority of enrollment in 2009 (81% of enrollment).

Monthly Employee Contribution Rates

Employee contribution rates were not available other than for the Employee Only coverage in 2012 for the Providence Choice PPO and Regence BCBS OR PPO.

Actual Values

Plan	2008	2009	2010	2011	2012	2013
PEBB	0.923	0.923	0.923	0.922	0.812	0.812

Only the state-wide PEBB plan is shown here.

Evidence of Outcomes

The underlying plan allowed charge trend (i.e., the increase in claims before cost-sharing provisions such as deductibles, coinsurance, and copays are applied) can be determined by incorporating the actuarial values noted above. All other things being equal (i.e., assuming no change in underlying health status), it would be expected that the underlying allowed charge trend would be consistent with national average trend levels.

Any underlying improvement in health status, therefore, would be a key driver that would appear as a long-term trend less than the national average.

The following table compares the allowed charge trend for the Oregon PEBB State-Wide Plan only against national average trend rates for the 2008 to 2013 period.

Plan	2008 to 2009	2009 to 2010	2010 to 2011	2011 to 2012	2012 to 2013	Average
Oregon Experience	5.2%	7.0%	11.2%	7.8%	7.5%	**7.7%**
Average National Trend Survey	10.1%	10.2%	9.5%	9.1%	8.0%	**9.3%**
ETF Experience	6.5%	7.1%	7.5%	1.3%	3.7%	**5.2%**

Comparing Oregon's PEBB State-Wide Plan allowed charge trend against national average trends over the 2008 to 2013 period, the Oregon PEBB State-Wide Plan experience was 1.6% lower than national averages, indicating that there may have been an improvement in underlying population health status over the years 2008 to 2012.

Given that enrollment data for the other plans was not available, it is not possible to assess with more certainty the degree to which any health improvement may have occurred over the entire population, or, for that matter, whether the premiums for the other plan options subsidized (or were subsidized by) the PEBB State-Wide Plan option (no such subsidization is assumed, but can neither be ruled out).

Wisconsin – Manitowoc County

Covered Lives:	1,100 active & retired members
Number of Medical Plan Options:	1
Insured Status:	Self-Insured

Key Outcome

Experience-based average annual trend on allowed charges from 2008 – 2013 was 8.6%), a level 0.6% below normative national average trend surveys. Given the relatively small size of the covered population, the likelihood of even some minor claims volatility could produce such a difference without any accompanying change in underlying health status. **As such, it is not conclusive that there is evidence that the approach(es) being used is having an impact on lowering trend.**

Description of Approach

Manitowoc County offers a high deductible heath plan option that is HSA compatible with the intent that such HDHP/HSA design will encourage better utilization of services and allow for easier adjustments to annual County HSA funding.

Timeline for significant plan design changes 2007-2013:

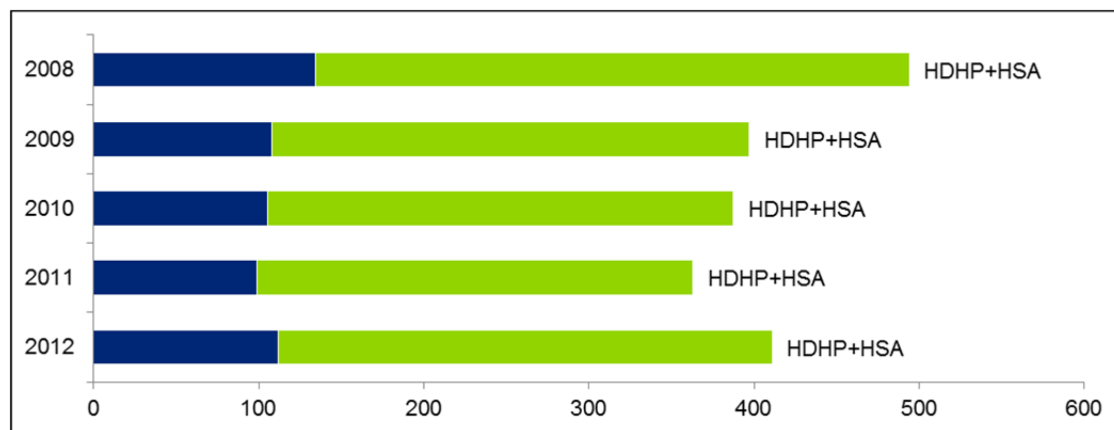
- 2007: Introduction of the HDHP/HSA option as the sole health care option for employees. Anticipated future reductions in utilization prompted County to fully fund the HSAs.
- 2009: Specific Procedure Incentive Network (SPIN) launched (July 1, 2009), which offers employees opportunity to earn cash incentives by utilizing more cost effective providers for selected procedures (incentives outside of health plan). Program is voluntary.
- 2011: County funds only 50% of HSA.
- 2012: Prescription drug copays apply AFTER deductible met.

  County no longer provides any HSA funding.

  SPIN cost reductions to date (July 2009 – May 2012) of $204,000 (approximately $70,000 on an average annual basis).
- 2013: Additional in-network copays applied after deductible met for inpatient and outpatient surgery services rendered at non-preferred tier providers (i.e., three-tier network design implemented).

The following charts and tables highlight for key plan metrics over the 2008-2013 period (2013 enrollment data not yet available).

Enrollment



Key: Single Coverage Family Coverage

Enrollment in the CDHC option has varied year-to-year due to the relatively small underlying population (under 475 employees and 30 retirees) between 2008 and 2012.

Monthly Plan Premium Rates (Excludes HSA Funding)

Plan Option	2008	2009	2010	2011	2012	2013
HDHP						
EE Only	$409.41	$521.80	$595.13	$627.84	$585.14	$585.14
EE + Family	$1,024.76	$1,306.07	$1,525.51	$1,609.44	$1,499.96	$1,499.96

Monthly Employee Contribution Rates

Plan Option	2008	2009	2010	2011	2012	2013
HDHP						
EE Only	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
EE + Family	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

The County has maintained a 100% subsidy of the HDHP component of the CDH option for both Employee Only and Employee + Family coverage since at least 2008, viewing this as "an important element of the employee fringe benefit package."

The County also provides a $2,000 annual payment to full-time employees who waive coverage under the HDHP plan. This amount is scheduled to reduce to $1,000 for 2013, and will be eliminated for 2014. In 2012, 44 employees waived coverage. Note that these costs are not included in the analysis of costs and health status for the

County. It is not known the extent to which employees opted in versus out year-to-year as health status/needs changed to take advantage of this feature.

Actuarial Values

Plan	2008	2009	2010	2011	2012	2013
CDH*						
w/o HSA	0.897	0.897	0.897	0.897	0.867	0.865
w/ HSA	1.032	1.032	1.032	0.966		

* Actuarial values for the CDH option is provided both exclusive of the employer funding of the HSA (the HDHP component of the plan options) and inclusive of the HSA (the combination of the HDHP plus the HSA). The HSA actuarial value components include the entire HSA amount (i.e., portion of the HSA used plus the unused HSA rollover, both of which represent real costs to Manitowoc).

For the years 2008 through 2010, the "actuarial value" of the plan (defined as the combination of the HDHP + the funded HSA) has actually exceeded 1.000 since the plan design provided a fully funded HSA which, for those employees with claims less than the HDHP's deductible, actually receive more than the full value of claims in the unused HSA portion. In 2011 the County's funding of the HSA was set at 50% of the deductible, and was eliminated outright effective 2012 due to budgetary issues. The County's annual HSA funding is provided in the table below.

Annual HSA Funding

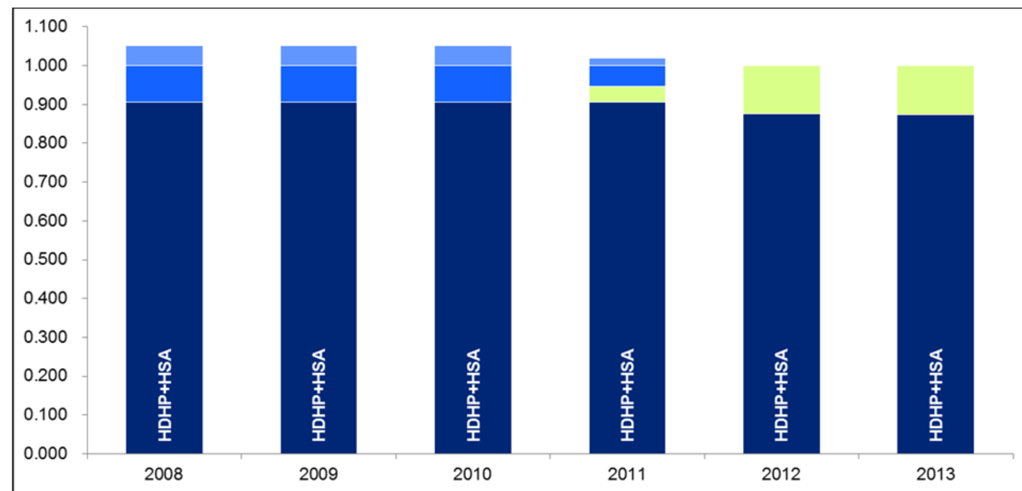
Plan Option	2008	2009	2010	2011	2012	2013
CDH						
EE Only	$1,500	$1,500	$1,500	$750	$0	$0
EE + Family	$3,000	$3,000	$3,000	$1,500	$0	$0

Employee Cost Sharing

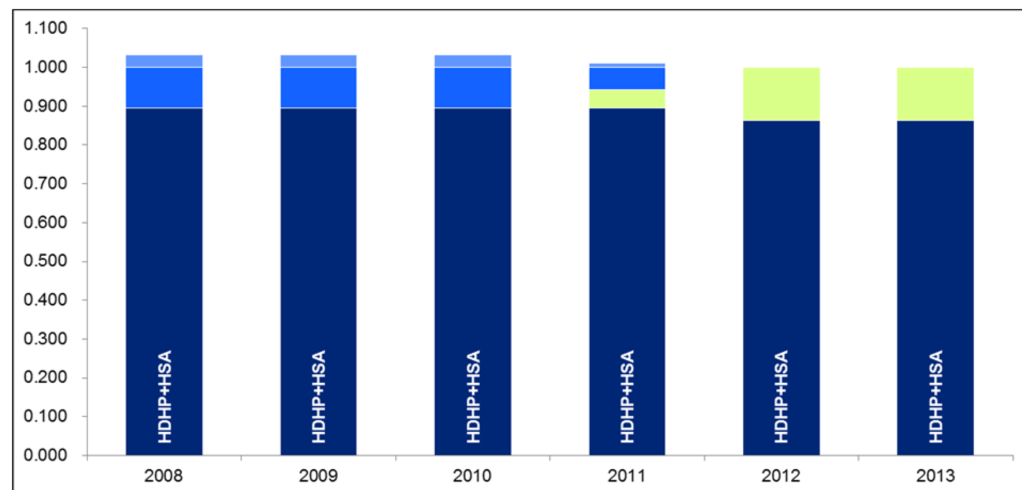
Total employee cost sharing includes both utilization cost sharing (deductibles, coinsurance, and copays, the basis for actuarial values) and employee contributions, though in the case of the County's health plan, there have been no employee contributions since before 2008.

In order to illustrate how total employee cost sharing has changed for the Manitowoc plan over the 2008 to 2013 period, the following charts have been developed (one for single coverage and one for family coverage). The "net actuarial value" is defined as the actuarial value less employee contributions. Note that these actuarial values include the state HSA funding amounts for the CDH option which, in this case, push the net actuarial value for the years 2008 through 2010 above 1.000, as noted above.

Net Actuarial Value: Single Coverage



Net Actuarial Value: Family Coverage



Key:
- Employee Cost Sharing (Deductibles, Coinsurance, Copays)*
- Employee Contributions (*None in This Case*)
- Net Actuarial Value (= Net Employer Cost)
- County-HSA Funding (Used Portion)
- County-HSA Funding (Unused Portion Rolled Over)

Actuarial Value (Employee Contributions; Net Actuarial Value)

HSA (County-HSA Funding, Used and Unused Portions)

* To the extent not already reimbursed by the HSA.

The traditional definition of the actuarial value is the Dark Blue bar. However, actual employer cost includes the employer-funded HSA (both portion used and the unused rollover amounts, the two Lighter Blue bars), net of employee contributions (of which there are none for this plan). So while the CDH option has maintained a reasonably consistent actuarial value 2008 through 2013 (no change for 2008 – 2011, then slight decreases thereafter), the net cost to Manitowoc has decreased over the same period.

Evidence of Outcomes

The underlying plan allowed charge trend (i.e., the increase in claims before cost-sharing provisions such as deductibles, coinsurance, and copays are applied) can be determined by incorporating the actuarial values noted above. All other things being equal (i.e., assuming no change in underlying health status), it would be expected that the underlying allowed charge trend would be consistent with national average trend. Any underlying improvement in health status, therefore, would be a key driver that would appear as a long-term trend less than the national average.

The following table compares the allowed charge trend for the Manitowoc plan against national average trend rates for the 2008 to 2013 period.

Plan	2008 to 2009	2009 to 2010	2010 to 2011	2011 to 2012	2012 to 2013	Average
Manitowoc Experience	27.5%	16.4%	5.5%	-3.5%	0.2%	**8.6%**
Average National Trend Survey	10.1%	10.2%	9.5%	9.1%	8.0%	**9.3%**
ETF Experience	6.5%	7.1%	7.5%	1.3%	3.7%	**5.2%**

The annual budget report for Manitowoc noted unexpectedly bad claims experience for 2009 and 2010.

Comparing Manitowoc's allowed charges trend against national average trends over the 2008 to 2013 period, the Manitowoc annual experience was 0.7% lower. However, given the relatively small size of the Manitowoc covered population (approximately 1,100 covered lives) such a difference from the national average trend may be a result of claims volatility. It is actuarially likely that the observed trend rate was partially driven by volatile claims experience (up or down) given the number of covered lives (39% probability that claims are 2% less than expected levels, and 34% that claims are 2% more than expected levels). Thus, it is not possible to determine with a level of comfort that the approaches adopted by Manitowoc County have had an impact on cost containment or underlying health status between 2008 and 2013.

Federal Employee Health Benefit Plan

Covered Lives:	5,004,000 active employees (total) 2,894,000 active employees (5 national plans)
Number of Medical Plan Options:	Varies by State 5 National Plans Included In This Analysis
Insured Status:	Fully-Insured

Key Outcome

Experience-based average annual trend on allowed charges from 2008 – 2012 was 6.2%, a level 3.1% less than normative national average trend surveys. **As such, there is strong evidence that the approach(es) being used is having an impact on lowering trend.**

Description of Approach

FEHBP uses a managed competition model and significant volume to manage provider reimbursements and costs. While a HDHP+HSA plan option is offered, its enrollment is insignificant (less than 0.3% of enrollees) compared to other plans, and not a driver of cost containment.

While various regional plan options are offered in each state, this analysis, for the sake of brevity, focuses on the top 3 national plan options plus the two additional Government Employees Health Association (GEHA) plans (which includes the above-mentioned HDHP plan option):

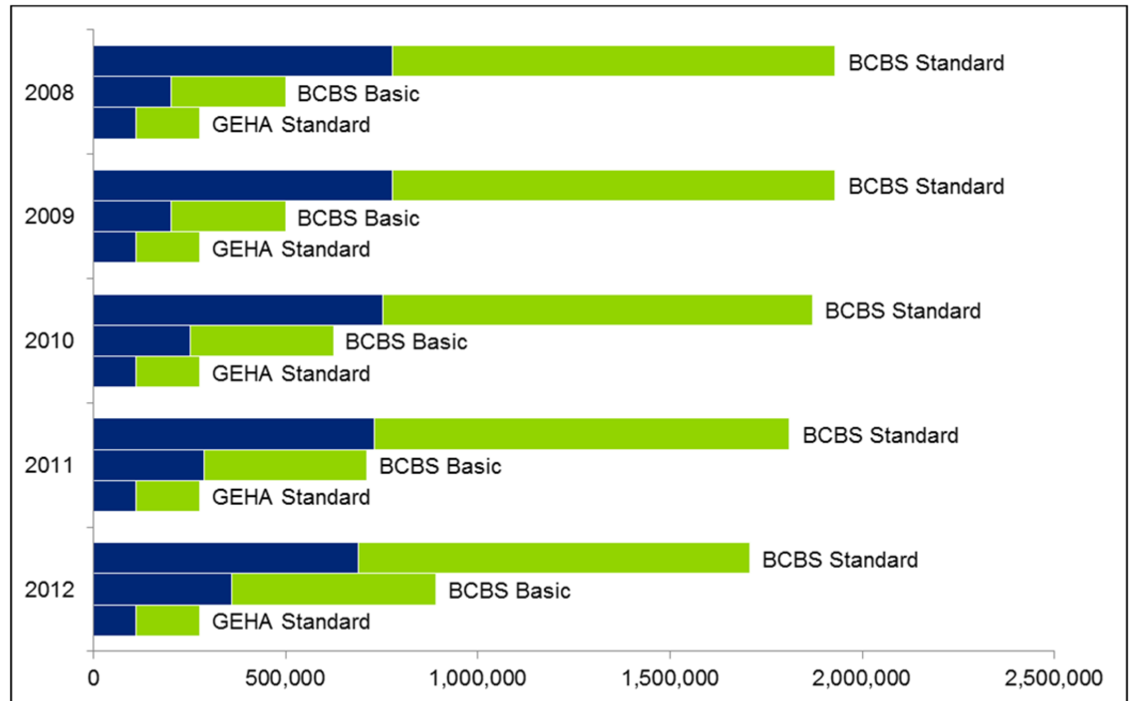
- The BCBS Standard Plan Option
- The BCBS Basic Plan Option
- The GEHA High Option *(note – despite the name, this is not a HDHP design)*
- The GEHA Standard Option
- The GEHA HDHP+HSA Option

These five national plans comprise approximately 58% of all FEHBP plan enrollment, with the remaining 42% spread across dozens of regional and smaller national plans.

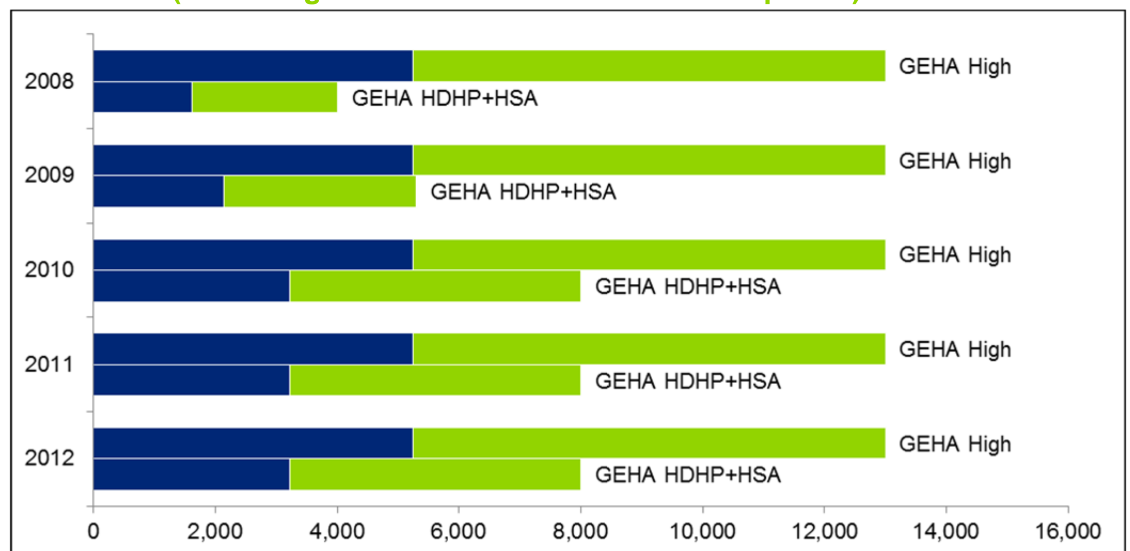
The timeline for significant plan design changes 2005-2013:

- 2005-2013: Only minimal changes to the plans have been made over this time period, limited to minor changes in plan deductibles, office visit copays, and inpatient and outpatient copays.

Enrollment (BCBS Standard, BCBS Basic, and GEHA Standard Plan Options)



Enrollment (GEHA High and GEHA HDHP+HSA Plan Options)



Key: Single Coverage Family Coverage

The enrollment in the GEHA High and HDHP+HSA options is small enough that it could not be included on the upper chart (prior page) and still be visible. Hence these plans have been included on a separate chart (with the lower enrollment count scale).

The BCBS Standard and BCBS Basic plan options have consistently maintained the majority of the enrollment (59% and 31%, respectively, for the 5 plans included here).

Monthly Plan Premium Rates

Plan Option	2008	2009	2010	2011	2012	2013
BCBS Standard						
EE Only	$448.91	$489.32	$538.24	$578.61	$587.88	$599.63
EE + Family	$1,027.95	$1,120.47	$1,215.72	$1,306.89	$1,327.80	$1,354.36
BCBS Basic						
EE Only	$339.17	$369.76	$403.04	$453.48	$487.54	$511.98
EE + Family	$794.43	$865.93	$943.93	$1,061.97	$1,141.70	$1,198.82
GEHA High						
EE Only	$512.44	$535.49	$535.49	$567.62	$587.49	$611.00
EE + Family	$1,115.27	$1,165.45	$1,217.88	$1,290.97	$1,336.14	$1,389.59
GEHA Standard						
EE Only	$288.41	$297.05	$320.88	$346.62	$370.89	$389.44
EE + Family	$655.40	$675.09	$729.17	$788.28	$843.46	$885.65
GEHA HDHP						
EE Only	$380.81	$380.81	$380.81	$380.81	$399.86	$419.84
EE + Family	$869.79	$869.79	$869.79	$869.79	$913.27	$958.95

The premium rates reflect the fact that the FEHBP maintains a “favored nation” status with the HMOs and carriers, which allows it to secure the best rate deal in each market. This advantage, however, is assumed to apply equally to all years above, and thus does not impact the ultimate trend analysis performed on the allowed charges.

Monthly Employee Contribution Rates

Plan Option	2008	2009	2010	2011	2012	2013
BCBS Standard						
EE Only	$134.66	$152.06	$175.08	$187.18	$185.42	$186.14
EE + Family	$314.47	$356.59	$400.97	$431.60	$430.04	$433.63
BCBS Basic						
EE Only	$84.79	$92.44	$100.76	$113.37	$121.88	$127.99
EE + Family	$198.61	$216.48	$235.98	$265.49	$285.42	$299.70
GEHA High						
EE Only	$198.19	$198.23	$172.33	$176.19	$185.03	$197.51
EE + Family	$401.79	$401.57	$403.13	$415.68	$438.38	$468.86
GEHA Standard						
EE Only	$72.10	$74.26	$80.22	$86.65	$92.72	$97.36
EE + Family	$163.85	$168.77	$182.29	$197.07	$210.86	$221.41
GEHA HDHP						
EE Only	$95.20	$95.20	$95.20	$95.20	$99.96	$104.96
EE + Family	$217.45	$217.45	$217.45	$217.45	$228.32	$239.74

For the BCBS Basic, GEHA Standard, and GEHA HDHP+HSA plan options, employee contributions are a fixed 25% of premium across both coverage tiers. For the BCBS Standard and the GEHA High plan options, the employee contributions are roughly one third of the premium rate, though the exact split has varied by year and between coverage tiers.

Despite the higher percentage contribution requirement for the BCBS Standard plan AND its relatively high premium rates compared to the other plan options, it has remained the plan with the greatest enrollment, with only a gradual migration to the other options over the 2008-2012 period (a decrease from over 70% across these five national plans to under 58% in 2012).

Actuarial Values

Plan	2008	2009	2010	2011	2012	2013
BCBS Standard	0.863	0.855	0.851	0.847	0.847	0.847
BCBS Basic	0.888	0.877	0.881	0.881	0.881	0.874
GEHA High	0.884	0.884	0.884	0.884	0.884	0.884
GEHA Standard	0.860	0.860	0.860	0.860	0.860	0.860
GEHA HDHP	0.818	0.818	0.818	0.818	0.818	0.818

The plan designs for the three GEHA plan options have not changed over the 2008 – 2013 period; the plan designs for the BCBS options have changed slightly (note that the BCBS Basic actuarial value decrease from 2008 to 2009, following by an increase from 2009 to 2010 is correct: the 2010 design eliminated all copays from preventive services causing the increase). Overall, however, there has not been a significant change in actuarial values over the reviewed six-year period.

The GEHA HDHP plan includes a FEHBP-funded HSA. Annual HSA funding levels are provided in the table below. These HSA amounts are not reflected in the actuarial values above,

Plan Option	2008	2009	2010	2011	2012	2013
GEHA HDHP+HSA						
EE Only	$720	$720	$720	$750	$750	$750
EE + Family	$1,440	$1,440	$1,440	$1,500	$1,500	$1,500

These actuarial values have been based on the plan design descriptions available from the FEHBP website, valued in Deloitte's medical plan design rating model based on consistent assumptions for in-network versus out-of-network utilization and discount rates. A normative claims distribution database has been used for the underlying claims repayment analysis.

Deloitte.

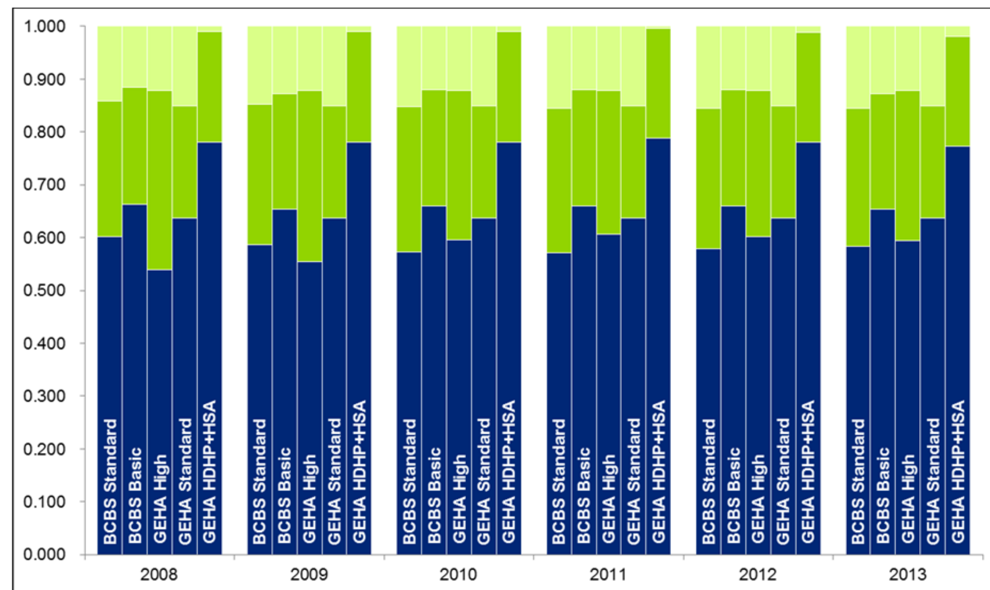
Employee Cost Sharing

Total employee cost sharing includes both utilization cost sharing (deductibles, coinsurance, and copays) and employee contributions.

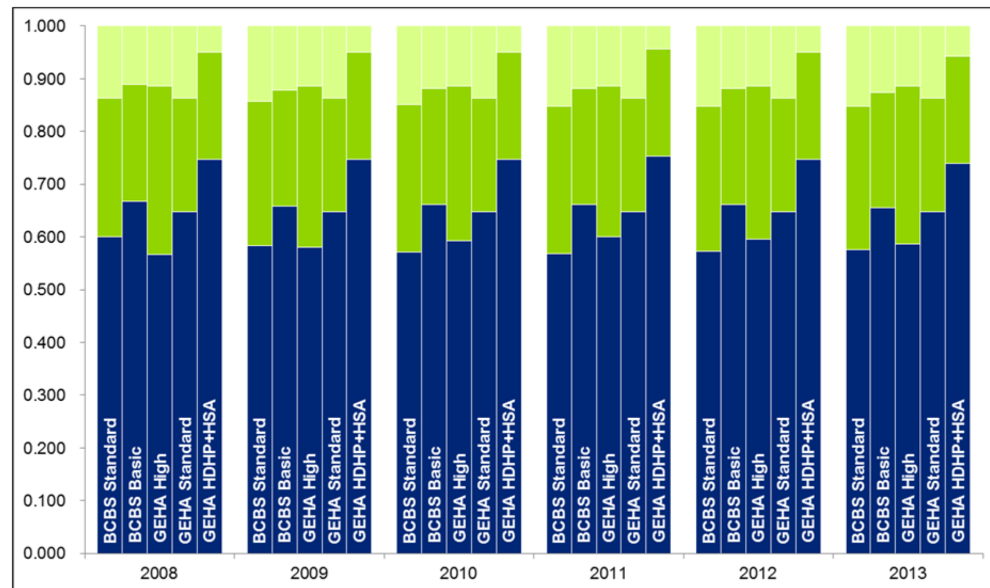
In order to illustrate how total employee cost sharing has changed for the FEHBP plans over the 2008 to 2013 period, the following charts have been developed (one for single coverage and one for family coverage. The “net actuarial value” is defined as the actuarial value less employee contributions. For these charts, the FEHBP-funded HSA amounts are included in the overall assessment of plan value.

The FEHBP HDHP+HSA plan option does not provide first dollar preventive coverage for any prescription drugs other than contraceptives and prenatal vitamins.

Net Actuarial Value: Single Coverage



Net Actuarial Value: Family Coverage



Key:
- Employee Cost Sharing (Deductibles, Coinsurance, Copays)
- Employee Contributions
- Net Actuarial Value (= Net Employer Cost)

Actuarial Value

The above actuarial values are the combination of the Dark Blue and Dark Green bars; actual employer cost is net of employee contributions (the Dark Green bars). The differentiation in the actuarial values for the five options is relatively insignificant. Again, despite the fact that the net actuarial value for the BCBS Standard plan places it as the most costly to employees (when cost sharing and contributions are both considered), it remains the most popular plan.

Evidence of Outcomes

The estimated underlying plan allowed charge trend (i.e., the increase in claims before cost-sharing provisions such as deductibles, coinsurance, and copays are applied) can be determined by incorporating the actuarial values noted above. All other things being equal (i.e., assuming no change in underlying health status), it would be expected that the underlying allowed charge trend would be consistent with national average trend levels.

The following table compares the allowed charge trend for the five national FEHBP plans against national average trend rates for the 2008 to 2013 period.

Plan	2008 to 2009	2009 to 2010	2010 to 2011	2011 to 2012	2012 to 2013	Average
FEHBP Experience	9.5%	8.0%	8.1%	2.2%	3.3%	**6.2%**
Average National Trend Survey	10.1%	10.2%	9.5%	9.1%	8.0%	**9.3%**
ETF Experience	6.5%	7.1%	7.5%	1.3%	3.7%	**5.2%**

For a group of this size, the likelihood that any claims volatility exists is too small to measure. Thus, an allowed charge trend of 6.2% on average over the 2008-2013 period would be an indication of a successful cost containment approach.

Comparing FEHBP's allowed charge trend against regional average trends over the 2008 to 2013 period, the FEHBP experience was 3.1% lower than national averages, implying that there has been a successful approach in the containing of costs, likely related to the managed competition approach used in setting the fully-insured premium rates each year.

II: Illustrative Plan Designs

Illustrative Plan Designs Under 5% and Cost Neutral Savings Scenarios

In order to put perspective around the impact on plan design provisions under a scenario where estimated claims are reduced from the current estimated levels for 2013, an illustrative set of plan design provision scenarios were modelled to achieve a 5% savings level and remain cost neutral. The following plan design scenarios have been developed:

- Scenario 1: One Option – Adjusted Current Uniform HMO Design
- Scenario 2a: One Option – High Deductible + HSA Complete Replacement Design (Minimum Allowable Deductible)
- Scenario 2b: One Option – High Deductible + HSA Complete Replacement Design (Typical Design)
- Scenario 2c: One Option – High Deductible + HSA Complete Replacement Design (Maximum Allowable Out-of-Pocket Limit)
- Scenario 3: Two Options:
  - Adjusted Current Uniform HMO Design
  - High Deductible + HSA Design (Typical Design)

These illustrative plan designs were developed based on matching plan design provisions per the plan scenario such that the actuarial value was 5% less than the current uniform HMO plan design or equivalent to the current uniform HMO plan design. These design changes did not incorporate consideration of employee contributions, rather are based on reductions in claims only.

Note as well that these plan design scenarios do not reflect changes in underlying population health and/or utilization which could contribute to further savings.

Scenario 1: One Option - Adjusted Current Uniform HMO Design

Key Plan Design Provision	Current Uniform HMO	Illustrative Uniform HMO - 5%
Deductible (Single/Family)	$0 / $0	$0 / $0
Maximum Out-of-Pocket (S/F)	$500 / $1,000	$1,500 / $3,000
Preventive Care	100%	100%
Office Visits	90%	90%
Emergency Room	$75 copay	$75 copay
All Other Medical Services	90%	90%
Prescription Drugs:		
Level 1 Formulary Generic	$5 copay	$10 copay
Level 2 Formulary Brand	$15 copay	$20 copay
Level 3 Non-Formulary	$35 copay	$40 copay
Estimated Actuarial Value	0.967	0.919
Change In Actuarial Value		- 5%

In the above illustrative plan design, in order to reduce the uniform HMO's actuarial value by 5%, changes were made to the maximum out-of-pocket limits, the coinsurance rates, and the prescription drug copays.

Estimated average premium costs for the above illustrative Scenario 1 design would be:

2013 Monthly Estimated Average Premium Rate	Current Uniform HMO	Illustrative Uniform HMO - 5%
Employee Only	$674	$640
Employee + Family	$1,697	$1,612

Note:

These calendar year 2013 premiums reflect weighted averages across the current HMO carriers, and assume the continuity of carriers, discounts, network access, and administrative fees. Changes in any of the above could impact estimated premium rates. Additionally, the financial impact of any components of health reform in 2014 is not reflected in the above. These rates should only be used for purposes of this illustration for 2013, and are not applicable to any other period or set of circumstances.

Scenario 2a: Complete Replacement - High Deductible + HSA Design (Minimum Allowable Deductible)

Key Plan Design Provision	Current Uniform HMO	Illustrative HDHP+HSA - 5%	Illustrative HDHP+HSA Cost Neutral
Deductible (Single/Family)	$0 / $0	$1,250 / $2,500	$1,250 / $2,500
HSA (Employer Funded)		$625 / $1,250	$1,030 / $2,270
Maximum Out-of-Pocket (S/F)	$500 / $1,000	$2,500 / $5,000	$2,500 / $5,000
Preventive Care	100%	100%	100%
Office Visits	90%	90%	90%
Emergency Room	$75 copay	90%	90%
All Other Medical Services	90%	90%	90%
Prescription Drugs: Level 1 Formulary Generic Level 2 Formulary Brand Level 3 Non-Formulary	 $5 copay $15 copay $35 copay	 90% 90% 90%	 90% 90% 90%
Estimated Actuarial Value	0.967	HDHP: 0.838 HSA: 0.081 Total: 0.919	HDHP: 0.838 HSA: 0.129 Total: 0.967
Change In Actuarial Value		- 5%	0%

The above high deductible plus HSA plan design reflects the minimum allowable deductible under IRS rules for 2013.

This HSA design represents a lower-deductible, lower maximum out-of-pocket design, and would reflect the least dramatic plan design change from the current HMO plan design for the current ETF participants.

Participants could contribute on their own the balance between the maximum out-of-pocket limit and the employer-funded portion of the HSA (subject to the maximum 2013 amounts of $3,250 for single coverage and $6,450 for family coverage).

If a HDHP+HRA were contemplated instead of the above HDHP+HSA, some key considerations would apply (see the Appendix for additional structural differences):

- HSA funds are actual amounts "out the door", and represent an immediate cost to ETF, and are not recoverable by ETF in the event of employee termination or retirement. This immediacy can be controlled by parsing out the annual HSA funding over the course of the year (e.g., 1/12 the annual amount provided each month, ¼ the annual amount provided each quarter, etc.); HSA amounts are only available if actually deposited.
- HRA amounts, on the other hand, are notional. Any unused amounts upon employee termination revert back to ETF. Further, ETF is able to limit access

to HRA reimbursements to employees to pre-retirement. Higher turnover rates also allow more forfeitures to the benefit of the employer; HSAs do not provide such forfeitures.

Estimated average premium costs and HSA funding for the above illustrative Scenario 2a design would be:

2013 Monthly Estimated Average Premium Rate	Current Uniform HMO	Illustrative HDHP+HSA - 5%	Illustrative HDHP+HSA Cost Neutral
HDHP			
Employee Only	$674	$588	$588
Employee + Family	$1,697	$1,508	$1,508
HSA Funding (Monthly)			
Employee Only	- - -	$52	$86
Employee + Family	- - -	$104	$189
Total			
Employee Only	$674	$640	$674
Employee + Family	$1,697	$1,612	$1,697

Note:

These calendar year 2013 premiums reflect weighted averages across the current HMO carriers, and assume the continuity of carriers, discounts, network access, and administrative fees. Changes in any of the above could impact estimated premium rates. Additionally, the financial impact of any components of health reform in 2014 is not reflected in the above. These rates should only be used for purposes of this illustration for 2013, and are not applicable to any other period or set of circumstances.

Scenario 2b: Complete Replacement - High Deductible + HSA Design (Typical Design)

Key Plan Design Provision	Current Uniform HMO	Illustrative HDHP+HSA - 5%	Illustrative HDHP+HSA Cost Neutral
Deductible (Single/Family)	$0 / $0	$2,000 / $4,000	$2,000 / $4,000
HSA (Employer Funded)		$1,100 / $2,200	$1,500 / $3,000
Maximum Out-of-Pocket (S/F)	$500 / $1,000	$4,000 / $8,000	$4,000 / $8,000
Preventive Care	100%	100%	100%
Office Visits	90%	90%	90%
Emergency Room	$75 copay	90%	90%
All Other Medical Services	90%	90%	90%
Prescription Drugs:			
Level 1 Formulary Generic	$5 copay	90%	90%
Level 2 Formulary Brand	$15 copay	90%	90%
Level 3 Non-Formulary	$35 copay	90%	90%
Estimated Actuarial Value	0.967	HDHP: 0.787 HSA: 0.132 Total: 0.919	HDHP: 0.787 HSA: 0.180 Total: 0.967
Change In Actuarial Value		- 5%	0%

The above high deductible plus HSA plan design reflects a typical HDHP+HSA design.

Participants could contribute on their own the balance between the maximum out-of-pocket limit and the employer-funded portion of the HSA (subject to the maximum IRS-specified 2013 amounts of $3,250 for single coverage and $6,450 for family coverage).

The above illustrative design is fairly typical of a newly implemented HSA-compliant design. The 2012 Kaiser Family Foundation “Employer Health Benefits Survey” indicates the following average HDHP+HSA key plan provisions:

- Deductible: $2,190 Single, $4,068 family
- Maximum Out-of-Pocket: $3,725 Single, $7,434 family
- Employer HSA Contribution: $609 Single, $1,070 family

The Typical Design above is largely consistent with the Kaiser survey averages for deductibles and maximum out-of-pocket amounts, but is richer with respect to employer HSA funding.

Estimated average premium costs and HSA funding for the above illustrative Scenario 2b design would be:

2013 Monthly Estimated Average Premium Rate	Current Uniform HMO	Illustrative HDHP+HSA - 5%	Illustrative HDHP+HSA Cost Neutral
HDHP			
Employee Only	$674	$548	$548
Employee + Family	$1,697	$1,429	$1,429
HSA Funding (Monthly)			
Employee Only	- - -	$92	$125
Employee + Family	- - -	$183	$250
Total			
Employee Only	$674	$640	$674
Employee + Family	$1,697	$1,612	$1,697

Note:
These calendar year 2013 premiums reflect weighted averages across the current HMO carriers, and assume the continuity of carriers, discounts, network access, and administrative fees. Changes in any of the above could impact estimated premium rates. Additionally, the financial impact of any components of health reform in 2014 is not reflected in the above. These rates should only be used for purposes of this illustration for 2013, and are not applicable to any other period or set of circumstances.

Scenario 2c: Complete Replacement - High Deductible + HSA Design (Maximum Allowable Out-of-Pocket Limit)

Key Plan Design Provision	Current Uniform HMO	Illustrative HDHP+HSA - 5%	Illustrative HDHP+HSA Cost Neutral
Deductible (Single/Family)	$0 / $0	$3,600 / $7,200	$3,600 / $7,200
HSA (Employer Funded)		$1,800 / $3,600	$2,200 / $4,400
Maximum Out-of-Pocket (S/F)	$500 / $1,000	$6,250/$12,500	$6,250/$12,500
Preventive Care	100%	100%	100%
Office Visits	90%	90%	90%
Emergency Room	$75 copay	90%	90%
All Other Medical Services	90%	90%	90%
Prescription Drugs: Level 1 Formulary Generic Level 2 Formulary Brand Level 3 Non-Formulary	 $5 copay $15 copay $35 copay	 90% 90% 90%	 90% 90% 90%
Estimated Actuarial Value	0.967	HDHP: 0.703 HSA: 0.216 Total: 0.919	HDHP: 0.703 HSA: 0.264 Total: 0.967
Change In Actuarial Value		- 5%	0%

The above high deductible plus HSA plan design reflects the maximum allowable out-of-pocket limit under IRS rules for 2013.

This HSA design represents a higher-deductible, higher maximum out-of-pocket design, and may reflect the most dramatic plan design change from the current HMO plan for the current ETF participants.

Participants could contribute on their own the balance between the maximum out-of-pocket limit and the employer-funded portion of the HSA (subject to the maximum IRS-specified 2013 amounts of $3,250 for single coverage and $6,450 for family coverage).

Estimated average premium costs and HSA funding for the above illustrative Scenario 2c design would be:

2013 Monthly Estimated Average Premium Rate	Current Uniform HMO	Illustrative HDHP+HSA - 5%	Illustrative HDHP+HSA Cost Neutral
HDHP			
Employee Only	$674	$490	$490
Employee + Family	$1,697	$1,312	$1,312
HSA Funding (Monthly)			
Employee Only	- - -	$150	$183
Employee + Family	- - -	$300	$366
Total			
Employee Only	$674	$640	$674
Employee + Family	$1,697	$1,612	$1,697

Note:
These calendar year 2013 premiums reflect weighted averages across the current HMO carriers, and assume the continuity of carriers, discounts, network access, and administrative fees. Changes in any of the above could impact estimated premium rates. Additionally, the financial impact of any components of health reform in 2014 is not reflected in the above. These rates should only be used for purposes of this illustration for 2013, and are not applicable to any other period or set of circumstances.

Scenario 3: Multi-Option Design - Adjusted Current Uniform HMO Design, and High Deductible + HSA Design (Typical Design Deductible)

Key Plan Design Provision	Current Uniform HMO	Illustrative Uniform HMO - 5%	Illustrative HDHP+HSA - 5%
Deductible (Single/Family)	$0 / $0	$0 / $0	$2,000 / $4,000
HSA (Employer Funded)			$1,100 / $2,200
Maximum Out-of-Pocket (S/F)	$500 / $1,000	$1,500 / $3,000	$4,000 / $8,000
Preventive Care	100%	100%	100%
Office Visits	90%	80%	90%
Emergency Room	$75 copay	80%	90%
All Other Medical Services	90%	80%	90%
Prescription Drugs:			
Level 1 Formulary Generic	$5 copay	$10 copay	90%
Level 2 Formulary Brand	$15 copay	$20 copay	90%
Level 3 Non-Formulary	$35 copay	$40 copay	90%
Estimated Actuarial Value	0.967	0.919	HDHP: 0.787 HSA: 0.132 Total: 0.919
Change In Actuarial Value		- 5%	- 5%

The corresponding premiums for the illustrative options would differ due to adverse selection based on:

- The assumed differences in health status between the HMO versus the HDHP+HSA enrollees, and
- The percentage of the population migrating to the HDHP+HSA option.

For example, if no adverse selection were assumed, the above two illustrative plan designs would have the same premium rates since each is designed to have premium rates 5% less than the current uniform HMO.

However, it is likely that employees with different health statuses would elect different plan options. It would not be unexpected to have younger/healthier lives select the HSA plan, nor would it be unusual for higher income individuals to select the HSA plan. If these two groups in general had better than average health statuses, then:

- The HDHP+HSA plan option would have a premium rate that may be, for example, 10% less than the current Uniform HMO. However, …
- The remaining enrollees would be in the illustrative Uniform HMO, and since they are in lesser health, that premium may now be only 2% less than the

current Uniform HMO (or no less, or more – there are numerous variables that would impact these relationships).

Key Plan Design Provision	Current Uniform HMO	Illustrative Uniform HMO Cost Neutral	Illustrative HDHP+HSA Cost Neutral
Deductible (Single/Family)	$0 / $0	$0 / $0	$2,000 / $4,000
HSA (Employer Funded)			$1,500 / $3,000
Maximum Out-of-Pocket (S/F)	$500 / $1,000	$500 / $1,000	$4,000 / $8,000
Preventive Care	100%	100%	100%
Office Visits	90%	90%	90%
Emergency Room	$75 copay	$75 copay	90%
All Other Medical Services	90%	90%	90%
Prescription Drugs:			
Level 1 Formulary Generic	$5 copay	$5 copay	90%
Level 2 Formulary Brand	$15 copay	$15 copay	90%
Level 3 Non-Formulary	$35 copay	$35 copay	90%
Estimated Actuarial Value	0.967	0.967	HDHP: 0.787 HSA: 0.180 Total: 0.967
Change In Actuarial Value		0%	0%

As is the case for the 5% cost savings design, the above cost neutral design corresponding premiums for the illustrative options would differ due to adverse selection based on:

- The assumed differences in health status between the HMO versus the HDHP+HSA enrollees, and
- The percentage of the population migrating to the HDHP+HSA option.

For example, if no adverse selection were assumed, the above two illustrative plan designs would have the same premium rates since each is designed to have premium rates the same as the current uniform HMO for 2013 (especially since the current Uniform HMO would be retained under this cost neutral illustration).

Estimated average premium costs and HSA funding for the above illustrative Scenario 3 design would be:

2013 Monthly Estimated Average Premium Rate	Current Uniform HMO	Illustrative Uniform HMO - 5%	Illustrative HDHP+HSA - 5%
HDHP			
Employee Only	$674	$640	$548
Employee + Family	$1,697	$1,612	$1,429
HSA Funding (Monthly)			
Employee Only	- - -		$92
Employee + Family	- - -		$183
Total			
Employee Only	$674	$640	$640
Employee + Family	$1,697	$1,612	$1,612

2013 Monthly Estimated Average Premium Rate	Current Uniform HMO	Illustrative Uniform HMO Cost Neutral	Illustrative HDHP+HSA Cost Neutral
HDHP			
Employee Only	$674	$674	$548
Employee + Family	$1,697	$1,697	$1,429
HSA Funding (Monthly)			
Employee Only	- - -	- - -	$125
Employee + Family	- - -	- - -	$250
Total			
Employee Only	$674	$674	$674
Employee + Family	$1,697	$1,697	$1,697

Note:
These calendar year 2013 premiums reflect weighted averages across the current HMO carriers, and assume the continuity of carriers, discounts, network access, and administrative fees. Changes in any of the above could impact estimated premium rates. Additionally, the financial impact of any components of health reform in 2014 is not reflected in the above. These rates should only be used for purposes of this illustration for 2013, and are not applicable to any other period or set of circumstances.

Summary of Premium Rates & HSA Funding For Above Scenarios

2013 Monthly Estimated Average Premium Rate	HMO or HDHP Plan	HSA Funding	Total
Current Uniform			
Employee Only	$674		**$674**
Employee + Family	$1,697		**$1,697**
5% Savings HMO (p. 82)			
Employee Only	$640		**$640**
Employee + Family	$1,612		**$1,612**
5% Savings Low HDHP+HSA (p. 83-84)			
Employee Only	$588	$52	**$640**
Employee + Family	$1,508	$104	**$1,612**
Cost Neutral Low HDHP+HSA (p. 83-84)			
Employee Only	$588	$86	**$674**
Employee + Family	$1,508	$189	**$1,697**
5% Savings Typical HDHP+HSA (p. 85-86)			
Employee Only	$548	$92	**$640**
Employee + Family	$1,429	$183	**$1,612**
Cost Neutral Typical HDHP+HSA (p. 85-86)			
Employee Only	$548	$125	**$674**
Employee + Family	$1,429	$250	**$1,697**
5% Savings High HDHP+HSA (p. 87-88)			
Employee Only	$490	$150	**$640**
Employee + Family	$1,312	$300	**$1,612**
Cost Neutral High HDHP+HSA (p. 87-88)			
Employee Only	$490	$183	**$674**
Employee + Family	$1,312	$366	**$1,697**

Note:

These calendar year 2013 premiums reflect weighted averages across the current HMO carriers, and assume the continuity of carriers, discounts, network access, and administrative fees. Changes in any of the above could impact estimated premium rates. Additionally, the financial impact of any components of health reform in 2014 is not reflected in the above. These rates should only be used for purposes of this illustration for 2013, and are not applicable to any other period or set of circumstances.

Illustrative "Hold Harmless" Consumer-Directed Health Plan Design & Premiums

A HDHP+HSA/HRA plan can be designed such that, in aggregate, employees are no better nor no worse off financially. In essence, collectively they are financially "held harmless".

However, such a cost objective under a HDHP+HSA/HRA design can be more difficult to develop than a more traditional plan design owing to the carry-over nature of the unused account balances (actual dollars in the case of HSA plans, notional accounts in the case of HRA plans). Put another way,

> *Is a hold harmless financial objective to be established such that the unused account balances are treated as part of the equation or not?*

For purposes of this illustrative treatment, an HDHP+HSA plan will be investigated. Conceptually, there is little difference between the HSA and the HRA designs for this specific question. From an employee's perspective, it is entirely likely that the notion of hold harmless would include any unused account balance. From an employer perspective, the concept of hold harmless may or may not include the unused account balance.

A second question, however, can be raised with respect to the definition of "hold harmless" that is far more troublesome:

> *Is a hold harmless financial objective to be established separate for each and every participant, and not just the group in aggregate?*

Such a design could potentially be constructed that would hold each and every employee harmless, but would represent a significant cost increase to the state, even assuming aggressive levels of utilization reduction that could occur under a HDHP plan design.

In the illustrative HDHP+HSA designs below, a comparison of designs under the two above aggregate-population definitions of hold harmless is provided. An additional illustrative HDHP+HSA design is provided that attempts to achieve a hold harmless objective for each and every employee.

Scenario 1: Hold Harmless Design Includes Value of Unused HSA Balances

Key Plan Design Provision	Current Uniform HMO	Illustrative HDHP+HSA
Deductible (Single/Family)	$0 / $0	$2,000 / $4,000
HSA (Employer Funded)		$1,425 / $2,850
Maximum Out-of-Pocket (S/F)	$500 / $1,000	$4,000 / $8,000
Preventive Care	100%	100%
Office Visits	90%	90%
Emergency Room	$75 copay	90%
All Other Medical Services	90%	90%
Prescription Drugs:		
Level 1 Formulary Generic	$5 copay	90%
Level 2 Formulary Brand	$15 copay	90%
Level 3 Non-Formulary	$35 copay	90%
Change In Actuarial Value (HDHP Component Only)		-13.7%
+ Portion of HSA Used In Year		+10.2%
= Change In Actuarial Value (HDHP + Used HSA)		= -3.5%
+ Value of Unused HSA		+3.5%
Overall Change In Total Plan Value of HDHP+HSA Plan		**= 0.0%**

Under this illustrative design, the average amount covered by the HDHP+HSA is actually less than the current plan (i.e., has a lower actuarial value), with the difference equating to the aggregate amount of the unused HSA balances. In general, this design would exhibit the following characteristics:

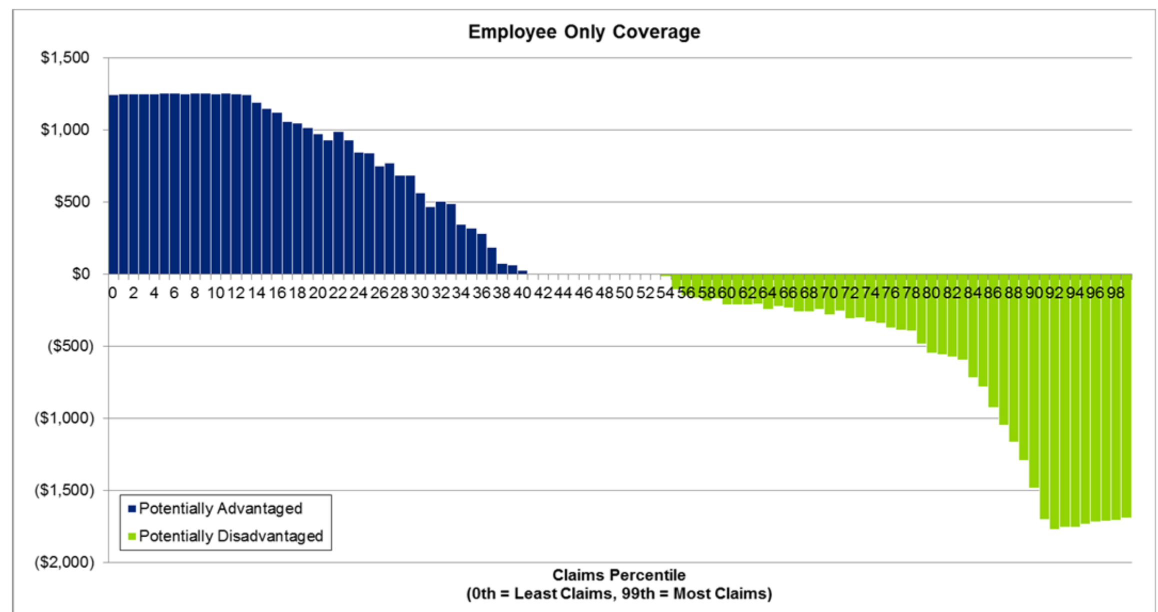
- Healthy and/or low/non utilizers of health care services would potentially be financially advantaged as they would now have the ability to accumulate year to year the unused portion of the HSA which includes for those employees who have no health service utilization the ability to roll ever the entire balance.
- Unhealthy and/or high users of health care services would potentially be financially disadvantaged as they would use most of their HSA annual accrual. Because the aggregate design is cost neutral to employees AND includes rollover HSA balances the financial advantages enjoyed by the healthy employees would be “paid for” by the unhealthy employees.
- Employees with chronic conditions (perennially high health service utilizers) would potentially be financially disadvantages year after year owing to the structure of the HDHP+HSA design.

- In general, 12% of a population (actuarially normative claims distribution for 2013) will have allowed charges in excess of $10,000 in a year.
- In general, 5% of a population will have allowed charges in excess of $10,000 two years in a row. Thus, …
- Over 40% of members who experience allowed charges in excess of $10,000 in one year will also have allowed charges in excess of $10,000 the next year as well.
- And 3.5% of a normative population will have allowed charges in excess of $10,000 three years in a row (i.e., almost 30% of members who experience allowed charges in excess of $10,000 in one year will also do so for the next two years).
- Finally, 2.7% of a normative population will have allowed charges in excess of $10,000 four years in a row (i.e., over 22% of members who experience allowed charges in excess of $10,000 in one year will also do so for the next three years).

Thus, the illustrative HDHP+HSA design shown here would consistently financially adversely impact members with higher-cost chronic conditions.

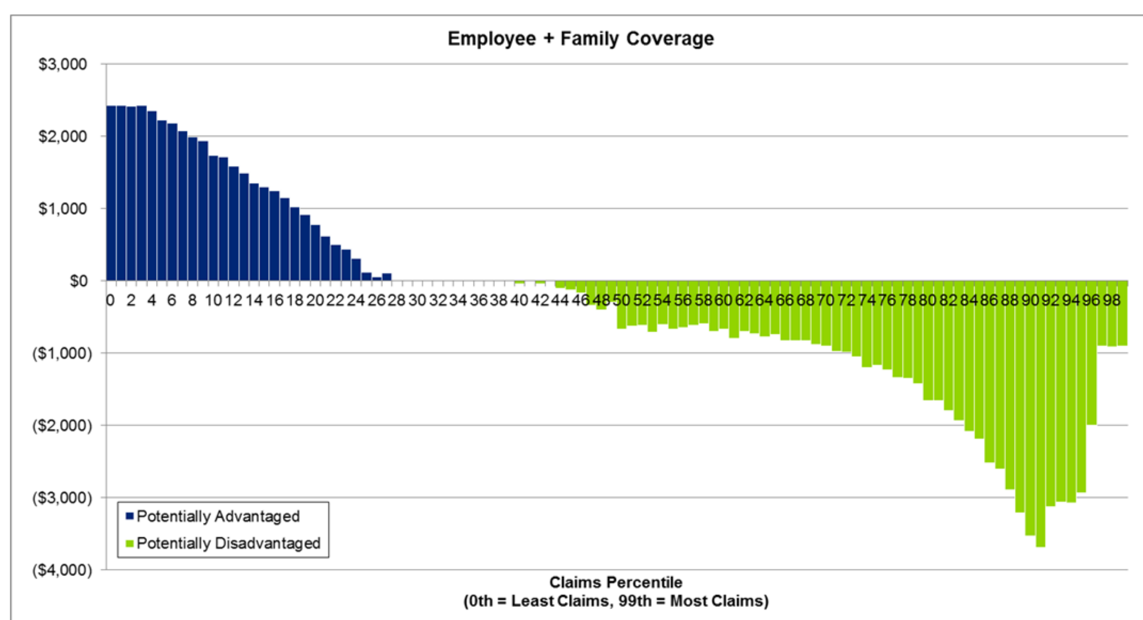
- The plan design would exhibit an approximate reduction in actuarial value of 3.5% since unused HSA balances are not included in the determination of actuarial value. In other words, 3.5% of the current Uniform HMO's actuarial value would be converted to rollover balances in the HSA.

The hold harmless concept for this illustration and definition in aggregate can be illustrated graphically at various claims levels per the following charts:



40% of the employees with Employee Only coverage would potentially be financially advantaged by this illustrative HDHP+HSA plan design, with another 13% being neither financially advantaged nor disadvantaged. The remaining 47% (the top 47% of claims generating employees) would potentially be financially disadvantaged.

Certainly one premise of the HDHP+HSA design model is to encourage employees to become better utilizers of healthcare, and in doing so would shift them leftward on the above chart.



For Family Coverage, conceptually the financial outcomes are consistent, but with a smaller proportion of families potentially financially advantaged and a large proportion of families potentially financially disadvantaged.

A comparison of the illustrative monthly premium rates and contribution rates (and average unused HSA balances) for the current uniform HMO design versus the above illustrative 5% savings HDHP+HSA design (per page 94) are summarized below.

Plan Component	2013 Uniform HMO		HDHP+HSA Plan	
	Employee Only	Employee + Family	Employee Only	Employee + Family
Premium (Average)	$674	$1,697	$642	$1,646
- EE Contribution	($85)	($211)	($85)	($211)
= ER Subsidy	$589	$1,486	$557	$1,435
+ Unused HSA (ER $s)	- - -	- - -	$32	$51
= ER Net Cost	$589	$1,486	$589	$1,486

Thus, in this illustrative design, the above able shows that the total net cost to the employer is the same as under the current plan, but that the employee out-of-pocket exposure is only equal when the unused HSA balances are included, and that the actual claims payments by the plan are less than would be the case under the current uniform HMO design.

The above rates assume neither changes in utilization nor changes in costs per service. In reality, some level of utilization reduction and changes in average costs per service are expected under a HDHP plan. An analysis sponsored by the RAND Corporation and the Robert Wood Johnson Foundation investigated claims changes under HDHP plans, HDHP+HSA plans, and HDHP+HRA plans in the first year of being offered to employees. This study used a “difference in difference” approach to estimate the impact on health care spend under an HDHP plan. The study compared claims experience for two groups:

- A control group that was covered under a PPO plan two years running, and
- A treatment group that was covered under a PPO in year 1 and a HDHP in year 2.

A comparison was made between year-over-year change in utilization between the two groups, and found the following (summary of results)[3]:

- Outpatient claims trend was 3.2% less for the HDHP than for the control group PPO plan.
- Inpatient claims trend was 9.7% less for the HDHP than for the PPO plan.
- ER visit claims trend was 3.7% more for the HDHP than for the PPO plan.
- Drug claims trend was 1.7% more for the HDHP than for the PPO plan.
- Preventive services claims trend was 1.4% less for the HDHP than for the PPO Plan (was viewed as problematic since preventive services covered at 100%).
- Total claims trend was 3.2% less for the HDHP than for the PPO plan.

The study noted that these results were applicable only to the first year of the HDHP availability; no analysis was done for a second year under the HDHP, and the study noted that costs may or may not remain below the PPO plan. The study further noted that results varied based on the level of ongoing education effort directed to members to continue to emphasize the importance of being good consumers.

[3] The study was based on changes between 2004 and 2005, when average national trend was 13.1%, far higher than the current environment. Expected trend savings have been scaled proportionally to the current national average trend of 8.0%.

Finally, the study also noted that the above claims reductions were less dramatic when an employer-funded account (HSA or HRA) accompanied the HDHP design.

Recognizing the above expected claims savings generated under an HDHP, in terms of separating the HDHP+HSA plan into its separate HDHP and HSA components, the following chart providers these splits based on the above illustrative plan design (page 94) (monthly premiums). Two sets of utilization changes assumptions have been reflected in the chart below:

- Average utilization change assumption: Consistent with RAND study.
- Aggressive utilization change assumption: Double the result of RAND study.

HDHP Plan	Deductible $2,000/$4,000 HSA $1,425/$2,850 Maximum Out-of-Pocket $4,000/$8,000 90% Coinsurance	Plan	
		Employee Only	Employee + Family
Current 2013 Uniform HMO		$674	$1,697
HDHP w/o HSA – No Assumed Change In Utilization		$593	$1,456
HDHP w/o HSA – Average Assumed Change In Utilization		$571	$1,401
HDHP w/o HSA – Aggressive Assumed Change In Utilization		$549	$1,346
HDHP w/ HSA that Covers 50% of Deductible – Average Assumed Change In Utilization*		$586	$1,438
HDHP w/ HSA that Covers 25% of Deductible – Average Assumed Change In Utilization*		$578	$1,420
HDHP w/ HSA that Covers 50% of Deductible – Aggressive Assumed Change In Utilization*		$576	$1,415
HDHP w/ HSA that Covers 25% of Deductible – Aggressive Assumed Change In Utilization*		$564	$1,383

* The premiums shown relate only to the HDHP portion of the CDH design, and do not include the HSA funding.

The above illustrative premium rates assume a complete replacement design for the HDHP. Thus, all health risks, healthy and poor, are migrated to the HDHP. The study found that health status was not associated with different levels of utilization change.

For the above, varied employer-provided HSA amounts can be selected to generate an overall HDHP+HSA plan design. Differing HSA amounts will produce different actuarially expected HSA reimbursements versus unused HSA rollover amounts. Note that actual HSA reimbursements and unused amounts are closely tied to member desire to draw down the HSA for out-of-pocket reimbursement purposes, and that some members may choose to simply pay out-of-pocket and let HSA accumulate.

The table below provides a range of employer-funded HSA amounts (annual) and actuarially estimates the average amount of unused, rollover HSA at the end of the year. The figures below assume the member will get reimbursed to the extent there are funds in the HSA for all out-of-pocket expenses, and that the member makes no additional personal HSA deposits.

HSA Funding Scenario	HSA Annual Amount		Unused HSA Amount	
	Employee Only	Employee + Family	Employee Only	Employee + Family
Low HSA Amount	$500	$1,000	$95	$115
Mid-Low HSA Amount	$750	$1,500	$161	$213
Mid HSA Amount	$1,000	$2,000	$236	$334
Mid-High HSA Amount	$1,250	$2,500	$319	$477
High HSA Amount	$1,500	$3,000	$409	$642

These employer-funded HSA amounts are based on the $2,000 single/$4,000 family illustrative deductible noted in the illustrative design above.

Scenario 2: Hold Harmless Design Excludes Value of Unused HSA Balances

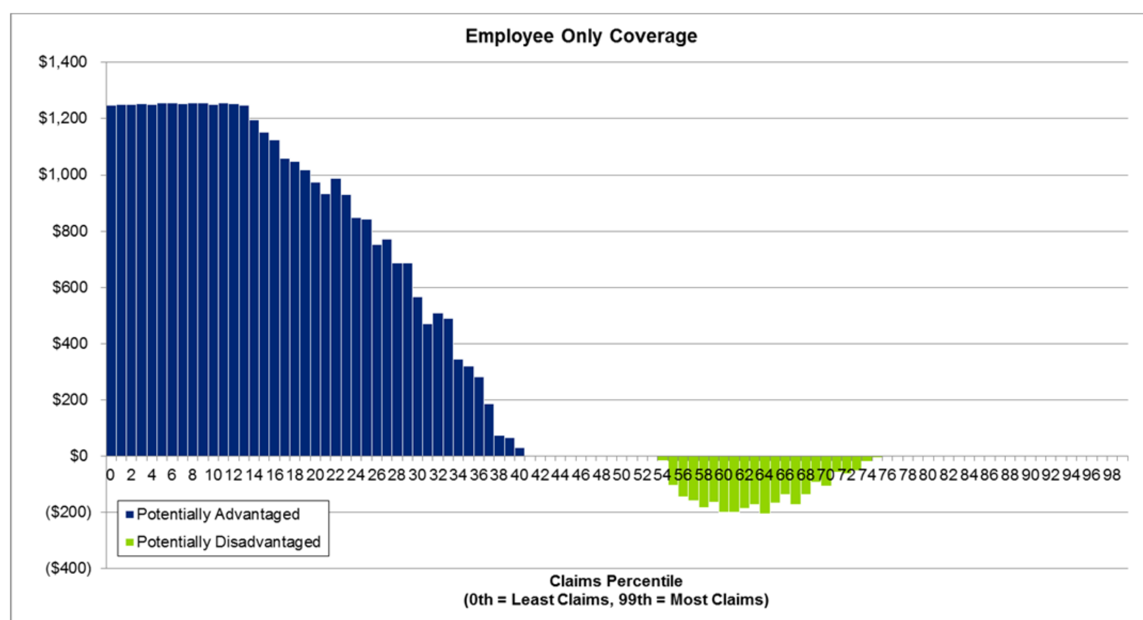
Key Plan Design Provision	Current Uniform HMO	Illustrative HDHP+HSA*
Deductible (Single/Family)	$0 / $0	$2,000 / $4,000
HSA (Employer Funded)		$1,425 / $2,850
Maximum Out-of-Pocket (S/F)	$500 / $1,000	$2,000 / $4,000
Preventive Care	100%	100%
Office Visits	90%	100%
Emergency Room	$75 copay	100%
All Other Medical Services	90%	100%
Prescription Drugs:		
Level 1 Formulary Generic	$5 copay	100%
Level 2 Formulary Brand	$15 copay	100%
Level 3 Non-Formulary	$35 copay	100%
Change In Actuarial Value (HDHP Component Only)		-10.2%
+ Portion of HSA Used In Year		+10.2%
= Change In Actuarial Value (HDHP + Used HSA)		**= 0.0%**
+ Value of Unused HSA		+3.4%
Overall Change In Total Plan Value of HDHP+HSA Plan		= +3.4%

* In this illustrative design, once the deductible is met, the plan pays 100% of allowed charges; hence there is no additional maximum out-of-pocket amount.

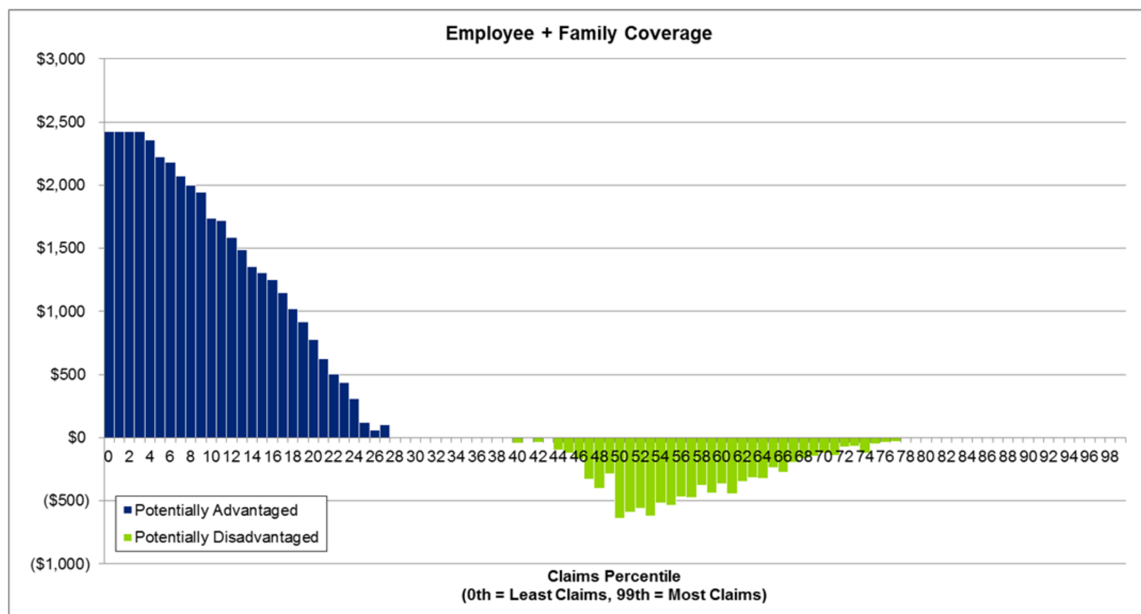
Under this illustrative design, the average amount covered by the HDHP+HSA is actuarially the same as the current plan (i.e., has the same actuarial value), but with an additional "value" equating to the aggregate amount of the unused HSA balances. In general, this design would exhibit the following characteristics:

- Healthy and/or low/non utilizers of health care services would potentially be financially advantaged as they would now have the ability to accumulate year to year the unused portion of the HSA which includes for those employees who have no health service utilization the ability to roll ever the entire balance.
- Unhealthy and/or high users of health care services would potentially be neither financially advantaged nor disadvantaged.
- The plan design would exhibit a consistent actuarial value, but unused HSA balances would represent an additional cost to the employer and an additional benefit to the employee not included in the determination of actuarial value.

The hold harmless concept for this illustration and definition in aggregate can be illustrated graphically at various claims levels per the following charts:



40% of the employees with Employee Only coverage would potentially be financially advantaged by this illustrative HDHP+HSA plan design, with another 37% being neither financially advantaged nor disadvantaged. The remaining 23% (mid-range claims generating employees, most of whom would not be expected to incur similarly claims levels in the next year) would potentially be financially disadvantaged.



For Family Coverage, conceptually the financial outcomes are consistent, but with a smaller proportion of families potentially financially advantaged and a large proportion of families potentially financially disadvantaged.

A comparison of the illustrative monthly premium rates and contribution rates (and average unused HSA balances) for the current uniform HMO design versus the above illustrative HDHP+HSA design are summarized in the table below.

Plan Component	2013 Uniform HMO		HDHP+HSA Plan	
	Employee Only	Employee + Family	Employee Only	Employee + Family
Premium (Average)	$674	$1,697	$674	$1,697
- EE Contribution	($85)	($211)	($85)	($211)
= ER Subsidy	$589	$1,486	$589	$1,486
+ Unused HSA (ER $s)	- - -	- - -	$21	$60
= ER Net Cost	$589	$1,486	$610	$1,546

Thus, in this illustrative design, the above able shows that the total actuarial value of the plans is the same, but there is an additional cost to the employer in the form of unused HSA amounts.

Scenario 3: Hold Harmless Design for Each and Every Employee

Key Plan Design Provision	Current Uniform HMO	Illustrative HDHP+HSA
Deductible (Single/Family)	$0 / $0	$2,000 / $4,000
HSA (Employer Funded)		$1,991 / $3,791
Maximum Out-of-Pocket (S/F)	$500 / $1,000	$2,000 / $4,000
Preventive Care	100%	100%
Office Visits	90%	100%
Emergency Room	$75 copay	90%
All Other Medical Services	90%	100%
Prescription Drugs:		
Level 1 Formulary Generic	$5 copay	100%
Level 2 Formulary Brand	$15 copay	100%
Level 3 Non-Formulary	$35 copay	100%
Change In Actuarial Value (HDHP Component Only)		-9.8%
+ Portion of HSA Used In Year		+12.8%
= Change In Actuarial Value (HDHP + Used HSA)		= +3.0%
+ Value of Unused HSA		+5.6%
Overall Change In Total Plan Value of HDHP+HSA Plan		**= +8.6%**

Under this illustrative design, in order to achieve a hold harmless outcome for each and every employee across the in-network and out-of-network provisions, the maximum out-of-pocket limit would be eliminated and the HSA funding would need to increase to $1,991 for Single Coverage, and $3,791 for Family Coverage. In essence, the since the deductible applies at different points in the designs (first $500 for Single Coverage in the Uniform HMO, and after the HSA is depleted in the HDHP+HSA design), additional HSA funds would be needed to address both groups and to compensate for the separate prescription drug maximum out-of-pocket that is currently in place under the Uniform HMO design plus the emergency room copay.

Even if there is a reduction in utilization resulting from the very existence of an HDHP+HSA plan option, whereby all employees change their utilization patterns as a result (something not observed in the market), the HSA funding would remain the same as above to assure that each and every employee continued to be held harmless.

"Hold Harmless" and Retirees

A Note About "Actuarial Values"

The development of a standard actuarial value is based on an underlying normative population. However, in the case of the analysis provided here, an active employee "normative" population has been used for the active illustration, while a retiree "normative" population has been used for the retiree illustration. These two normative populations are different. Thus, different relative value results are produced.

Under this approach, a similar plan design change for an active population and a retired population will produce a smaller change for a retired population. Any change is "muted" for retirees since the average retiree claim is much greater than an active employee, and is thus far more likely to reach the maximum out-of-pocket limit.

More appropriate terminology here might be "relative value" instead of "actuarial value".

While the "hold harmless" design approach is being applied to the active members, it is important to recognize that the non-Medicare retirees would also be eligible for the HDHP plan design, but would not receive any employer-provided HSA funding. This, coupled with the fact that average claims patterns are higher for retirees, means that, for these early retirees, the plan would provide less benefits than for the actives (i.e., the absent HSA), and would not reflect a "hold harmless" design for retirees.

Note that the prior illustrative examples reflected premiums that were a blend on actives and retirees. Since retirees, on average, have higher costs than actives due to the age differential and the retiree versus active status difference, segregated rates will produce lower active premiums, and higher retiree premiums. Given that the active population is much larger than the retiree population, active-only rates decrease only slightly, while retiree rates would exhibit a more noticeable increase.

To illustrate the concern related to "hold harmless" and retirees, the above Scenario 1 Hold Harmless design is re-investigated (adapted from page 94).

Key Plan Design Provision	Current Uniform HMO	Illustrative HDHP+HSA (Actives)	Illustrative HDHP+HSA (Retirees)
Deductible (Single/Family)	$0 / $0	$2,000/$4,000	$2,000/$4,000
HSA (Employer Funded)		$1,425/$2,850	- - -
Maximum Out-of-Pocket (S/F)	$500 / $1,000	$4,000/$8,000	$4,000/$8,000
Preventive Care	100%	100%	100%
Office Visits	90%	90%	90%
Emergency Room	$75 copay	90%	90%
All Other Medical Services	90%	90%	90%
Prescription Drugs:			
Level 1 Formulary Generic	$5 copay	90%	90%
Level 2 Formulary Brand	$15 copay	90%	90%
Level 3 Non-Formulary	$35 copay	90%	90%
Change In Actuarial Value[4] (HDHP Component Only)		-12.5%	**-8.0%**
+ Portion of HSA Used In Year		+9.7%	
= Change In Actuarial Value (HDHP + Used HSA)		= -2.8%	
+ Value of Unused HSA		+5.2%	
Overall Change In Total Plan Value of HDHP+HSA Plan		**= 2.4%**	**= -8.0%**

[4] The change in Actuarial Value is relative to the same underlying covered group (e.g., Actives versus Actives), and not Actives only versus Actives+Retirees.

The actuarially expected differences in claims for non-Medicare retirees (approximately 1.9x the average level actuarially expected for active members) means:

- The HDHP component of the plan design actually represents a richer plan for retirees as more claims are covered (compare the above 13.7% decrease in actuarial value for actives versus only a 7.6% decrease in actuarial value for retirees).
- The lack of the HSA component to the HDHP+HSA design for retirees (presuming that active employees would be receiving an employer-funded HSA) means that no additional actuarial value would accrue to retirees, positioning the HDHP+HSA plan design as lesser in value than for actives.

Thus, the HDHP w/o the HSA component represents a worse than hold harmless design for retirees.

Note that the demographic data provided by the HMOs only differentiates Medicare-eligible retirees, and not non-Medicare-eligible retirees. Thus, an assumed split between actives and non-Medicare-eligible retirees has been used (95% actives, 5% early retirees).

The corresponding illustrative premium rates for the above active versus retiree groups are provided in the table below.[5]

2013 Monthly Estimated Average Premium Rate	HMO or HDHP Plan	HSA Funding	Total
Current Uniform			
Employee Only	$674		**$674**
Employee + Family	$1,697		**$1,697**
Blended Act+Ret HDHP+HSA (p. 95-96)			
Employee Only	$593	$81	**$674**
Employee + Family	$1,456	$241	**$1,697**
Active Only HDHP+HSA			
Employee Only	$564	$81	**$645**
Employee + Family	$1,395	$241	**$1,636**
Retiree Only HDHP			
Employee Only	$1,142		**$1,142**
Employee + Family	$2,848		**$2,848**

[5] It is important to note that the above rates reflect an illustrative split ONLY based on normative actuarial claims data and differentials, and do not reflect ETF's actual active versus non-Medicare retiree claims experience.

While such an inconsistency can be addressed, it may overly complicate the underlying approach:

- Based on the aggregate enrollment between the actives and early retirees, develop the plan design such that, in aggregate across both groups, the expected plan payments are the same as the current uniform HMO. This would mean actives would receive a greater benefit than is the case today (i.e., better than "hold harmless" in aggregate), while the early retirees would receive a lesser benefit than today, but more than would be the case if the design was hold harmless for just actives.
- Develop two separate plan options, a hold harmless design for actives and a separate hold harmless design for retirees (which could conceivably be a richer HDHP design, or the same HDHP design plus an HRA component, something that can be provided to retirees).

"Hold Harmless" and Insurers/TPAs

Another potential consideration in the objective of "hold harmless" relates to the insurance carriers/third party administrators themselves. If, in the course of implementing a HDHP+HSA design, some change in insurer or claims administrator is necessary, then there may be cost ramifications associated with that change resulting from:

- A change in the negotiated provider discount arrangements (it is not uncommon for different discount arrangements to apply for HMO plans versus non-HMO plans, even within the same insurer);
- A change in the networks themselves and/or a change in the providers who are in-network ("provider disruption"); and/or
- A change in administrative fees given the additional claims adjudication levels necessary to coordinate the medical claims and the drug claims under a single plan design, plus a separate HSA vendor/financial institution.

Cost-Sharing and Productivity

A recent study published by the National Bureau of Economic Research[6] attempts to measure changes in employee productivity resulting from changes in health plan cost-sharing. Specifically, the impact on productivity versus the change in prescription drug copays for those employees with diagnoses of chronic pain. The study was based on 2010 claims data.

The results of the study noted a statistically valid correlation between increases in prescription drug copays (and, by extension, drug out-of-pocket costs), lower levels of medication utilization and adherence, and associated employee absences. In general, the study notes that:

> For every $5 change in prescription drug copays, absences among employees with diagnoses of chronic pain similarly changed by between 1.3% and 3.1%.

The study notes:

- Results are applicable to those employees with diagnoses of chronic pain, and was not studied against (nor applicable to) any other diagnoses,
- Increased absences from work are offset by some additional work from home and/or coverage by co-workers, and
- Results are not applicable to HDHP or CDH plan designs given the lack of drug copay cost-sharing features in those plans.

No mention was made in the study of the elasticity of the results against the impact of healthcare trend. Presumably, as healthcare trend is applied, a greater than $5 copay change would be required to produce the same change in absences.

Nonetheless, the results of this study can be extrapolated to the HDHP and HDHP+HSA plan designs illustrated in the previous section by converting the actuarially expected changes in drug cost-sharing between the current Uniform HMO plan and the illustrative HDHP and HDHP+HSA plan design to an effective average drug copay change.

The estimated absence changes per the illustrative HDHP and HDHP+HSA plan designs above is less than 1% in all cases. It should be noted that this estimate is generalized for the ETF population based on the results of the above study, whose conclusions may or may not be scalable to the ETF population and environment.

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[6] "Cost-Sharing and Productivity", Gibson, Fendrick, and Chernew, National Bureau of Economic Research, http://www.nber.org/papers/w18402, September 2012.

Appendix: HRAs vs. HSAs

Appendix: Health Reimbursement Arrangements vs. Health Savings Accounts General Differences

Key differences between HRAs and HSAs are highlighted in blue.

Issue	Health Reimbursement Arrangements	Health Savings Accounts
Eligibility	• HRAs may be offered to current and former employees and individuals electing COBRA. • No restriction for individuals covered by Medicare	• Employees, retirees, and the self-employed who are covered under a high-deductible health plan, but not covered under any other health plan (vision and dental plans could be possible exceptions) • Medicare-eligible individuals cannot make contributions, but can draw down HSA balances.
Ownership	Employer Ownership	Employee Ownership
Employee Contributions	No. Employee contributions prohibited.	Yes, optional. Pre-tax (under a cafeteria plan) or post-tax contributions permitted.
Employer Contributions	Yes, required	Yes, optional
Tax Treatment of Employee Contributions	Not applicable.	• Pre-tax contributions are excludable from employee's taxable gross income. • Post-tax contributions can be taken as an "above the line" deduction.
Tax Treatment of Employer Contributions	Employer contributions are excludable from employee's taxable gross income.	Employer contributions whether direct or via pre-tax salary reductions (considered employer contributions for tax purposes) are excludable from employee's taxable gross income.

Issue	Health Reimbursement Arrangements	Health Savings Accounts
Maximum Deduction and Exclusion Rule on Contributions	No statutory limit, but benefits for highly compensated employees may be limited by the application of nondiscrimination rules under code 105(h)	The deduction and exclusion for contributions to an HSA cannot exceed the annual statutory maximum.
Employee Tax Impact	Claim reimbursements are tax free	Contributions are tax free, claims reimbursements are tax free
Employer Tax Savings	Business expense deduction for payments	Business expense deduction for employer contributions, plus employer FICA savings (7.65%) on employee contribution
Tax Treatment of Earnings	N/A	Earnings on HSA assets are not subject to tax while they are held in the HSA and are never taxed if they are distributed to reimburse for qualified medical expenses.
Portability	Yes, but at the Employer’s discretion	Yes, completely (Legislated)
Funding Basis	• Notional or Actual at employer’s discretion	• Actual Funding
Funding Requirements	• Commonly designed as "virtual or notional accounts" with reimbursements made from employer's general assets as claims occur. • The account may be, but is not required to be, pre-funded by the employer	Must be funded in a trust or custodial account.

Issue	Health Reimbursement Arrangements	Health Savings Accounts
High Deductible Health Plan (HDHPs)	• Flexible; can be defined by employer as any design it likes, and there is no lower limit to deductible. • Not required to be offered in conjunction with an HDHP.	Compatible with a HDHP and legislated for 2013: • HDHP must have an annual deductible of at least $1,250 for single coverage, $2,500 for family coverage. • Out-of-pocket expense requirement cannot exceed $6,250 for single coverage, $12,500 for family coverage.
Number of Accounts	Presumably, an employer could design an HRA with sub-accounts for particular family members, but there appears to be no tax advantage in doing so.	An HSA may be established for each spouse covered under an HDHP but they are subject to the combined deduction limit. Spouses may not jointly own a single HSA.
First Dollar Coverage Carve-outs	Employer's discretion	Allowed only for wellness benefits, prescription drugs for the treatment of specified chronic conditions (such as asthma, diabetes, diuretics, hypertension, high cholesterol, prenatal vitamins, and mental/ emotional disorders, per Independence Blue Cross) dental, vision
Coverage Tiers	Employer's discretion	Employee Only and Employee + Family are only two allowed coverage tiers

Issue	Health Reimbursement Arrangements	Health Savings Accounts
Reimbursable Expenses	May reimburse for medical expenses defined in Section 213(d), including amounts paid for health plan premiums and long-term care coverage premiums, but cannot reimburse expenses for long-term care services.	• Must reimburse for any health expenses defined in Section 213(d) of the Internal Revenue Code. • Generally cannot be used to pay for health plan premiums (exceptions include COBRA, long-term care premiums, and premiums for non-Medigap premiums for people over age 65).
Claim Substantiation Requirements	Medical care expenses must be substantiated.	• Yes, upon audit • Employers and HSA trustees are not required to determine whether HSA distributions are used exclusively for qualified medical expenses. HSA holders should maintain supporting records. • Substantiation likely will be required under HDHP.
Claims Processing	Usually automatic, sometimes debit card	Debit Card or Automatic
Employer Reporting Requirements	Not required.	Employer contributions must be reported on the employee's Form W-2.
Surviving Spouse	May depend on the terms of the particular HRA and application of COBRA.	The surviving spouse who is the beneficiary of the HSA becomes the new account beneficiary.

Issue	Health Reimbursement Arrangements	Health Savings Accounts
Estate or Other Beneficiary	May depend on the terms of the particular HRA and application of COBRA.	On the date of death, the HSA loses its status as an HSA; in general, the estate or other non-spouse beneficiary will be subject to an income tax in an amount equal to the fair market value of the assets.
COBRA	COBRA is applicable, but it is unclear how the account dollars are shared among potential beneficiaries.	COBRA is inapplicable to HSAs, but it would apply to an HDHP that is an employer plan.
HIPAA Applies?	Yes	Yes, if claims adjudicated
HIPAA Certification	Yes	No
Investment Options	Generally none, as accounts are unfunded.	Depends upon provider of HSA, but active investment of assets is a common feature
Financial Partner Required?	No	Yes
Financial Incentives	Offered to employees (e.g., if employees complete a health assessment test)	Not offered in conjunction with HSA balances
Account retained by employee upon termination	Generally no; however, at employer's discretion as to whether terminated employees may be covered	Yes
Cash-Out Options?	None generally, although this is at the employer's discretion (though would be a taxable event to the employee)	No penalty if over the age of 65, but 20% penalty if pre-65
Ability to roll-over funds?	Yes, employer's discretion	Yes
Funds revert to employer upon termination?	Yes, employer's discretion	No
Ability to convert account to taxable income	No	Yes

Issue	Health Reimbursement Arrangements	Health Savings Accounts
Insurance premiums paid from account	Yes	Yes
Long Term Care premiums	Yes	Yes
Banking	Employer Assets	IRA type account

Appendix: Health Reimbursement Arrangements vs. Health Savings Accounts Impact on ETF's Plan Design

How the addition of an HRA or HSA-compatible design would impact ETF's plans.

In order to put into perspective how a health reimbursement arrangement (HRA) or health savings account (HSA) would necessitate changes in the current uniform HMO plan design, the following outline is provided.

Plan Design Provision	Current Uniform HMO Design	HDHP+HRA	HDHP+HSA
Deductible	$0 Single $0 Family	• Deductible needed in order to have an HRA. • No restrictions on how small or large deductible can be. • Coverage tiers at discretion of employer, e.g.: Employee Only, Employee + 1, Employee + Family etc. • Can be structured such that when 1 person in a family meets the individual deductible, he/she then gets coverage.	• Deductible needed in order to have an HSA. • Must be no less than $1,250 single, and $2,500 family for 2013 (limits increase each year) • Two-tier only: Employee Only, Employee + Family • For family coverage, HDHP benefits cannot begin until entire deductible met, even if one person has met individual deductible.
Maximum Out-of-Pocket Limit	Medical: $500 Single $1,000 Family Rx (Level 1&2): $410 Single $820 Family Rx (Specialty): $1,000 Single $2,000 Family	• No restrictions on how small or large maximum out-of-pocket can be. • Can vary by coverage tier: Employee Only, Employee + 1, Employee + Family etc.	• Must be no more than $6,250 single, and $12,500 family for 2013 (limits increase each year) • Two-tier only: Employee Only, Employee + Family

Plan Design Provision	Current Uniform HMO Design	HDHP+HRA	HDHP+HSA
Chronic Conditions		Can be carved out	Cannot be carved out. Must be subject to deductible.
Preventive Care	100% No Copay	100% No Copay (per ACA requirements)	100% No Copay (per ACA requirements)
Primary Care Physician	90%	Employer discretion on whether or not deductible applies, copays, coinsurance.	Must be subject to deductible, then employer discretion on coinsurance level
Specialist	90%		
Emergency Room	$75 Copay and/or 90%		
Inpatient Hospital	90%		
Outpatient Hospital	90%		
Prescription Drugs: Level 1 Formulary Generic	$5 Copay		
Prescription Drugs: Level 2 Formulary Brand	$15 Copay		
Prescription Drugs: Level 3 Non-Formulary	$35 Copay		
Prescription Drugs: Specialty Drugs Preferred Provider	$15 Copay (Formulary) $50 Copay Non-Formulary		
Prescription Drugs: Specialty Drugs Non-Preferred Provider	$50 Copay (Formulary) $50 Copay Non-Formulary		
Durable Medical Equipment	80%		

<table>
<tr><th>Plan Design Provision</th><th>Current Uniform HMO Design</th><th>HDHP+HRA</th><th>HDHP+HSA</th></tr>
<tr><td>Acupuncture</td><td>Not Covered</td><td rowspan="9">Employer discretion as to whether or not service is covered under either or both of the HDHP and the HRA.</td><td rowspan="9">Employer discretion as to whether or not service is covered under the HDHP component of coverage. If covered under HDHP, must be subject to deductible.
IRS regulations require coverage under the HSA.</td></tr>
<tr><td>Bariatric Surgery</td><td>Not Covered</td></tr>
<tr><td>Infertility Treatment</td><td>Not Covered</td></tr>
<tr><td>Long-Term Care</td><td>Not Covered</td></tr>
<tr><td>Non-Emergency Care When Traveling Outside U.S.</td><td>Not Covered</td></tr>
<tr><td>Private Duty Nursing</td><td>Not Covered</td></tr>
<tr><td>Chiropractic Care</td><td>Covered</td></tr>
<tr><td>Routine Foot Care</td><td>Not Covered</td></tr>
<tr><td>Weight Loss Programs</td><td>Not Covered</td></tr>
<tr><td>Cosmetic Surgery</td><td>Not Covered</td><td>Not Covered</td><td>Not Covered</td></tr>
<tr><td>Routine Eye Care (Glasses)</td><td>Not Covered</td><td rowspan="3">Employer discretion as to whether or not service is covered under either or both of the HDHP and the HRA</td><td rowspan="3">Employer discretion as to whether or not service is covered under the HDHP component of coverage. If covered under HDHP, does not need to be subject to deductible.
IRS regulations require coverage under the HSA.</td></tr>
<tr><td>Routine Eye Care (Exam)</td><td>Covered</td></tr>
<tr><td>Hearing Aids</td><td>Covered</td></tr>
<tr><td>Network of Providers</td><td>Yes</td><td>Yes</td><td>Yes</td></tr>
</table>

Plan Design Provision	Current Uniform HMO Design	HDHP+HRA	HDHP+HSA
Referral Needed To See Specialist	No	No	No
Account	n/a	• Employer funded only (notional amounts). • Employer has discretion as to amount each year. • Unused balances can roll over after end of year. • Portable on termination or retirement at discretion of employer. • Employer can terminate accounts at any time with employee forfeiture of amounts.	• Employer and/or employee funding allowed. • Funds typically held by third party financial institution. • Employer has discretion as to amount each year, though maximum annual contribution cannot exceed $3,250 single, and $6,450 family. • Portable on termination or retirement.
Employee Contributions	Employer defined	No restrictions. Coverage tiers at discretion of employer.	No restrictions. Coverage tiers at discretion of employer (thus, contribution tiers not limited to just Employee Only and Employee + Family)
Health FSA	Available	Available, but some minor plan document language required to coordinate with HRA.	Allowed, but only for specialty services (dental, vision).

Note that this information is a summary only, and is not intended to be a comprehensive treatment of HRAs versus HSAs.

Appendix: What Other State Public Employee Benefit Programs Are Doing

In looking at the prevalence of HDHP, HDHP+HSA, and HDHP+HRA plan options offered by other states to public employees, it is clear that stand-alone HDHP designs are the predominant choice for those plans with CDH options (all but one of those states designed the HDHP option to be compatible with an employee-funded HSA). States reviewed in detail in this report are shown in **bold**.

States Offering HDHP Options	States Offering HDHP+HSA Options	States Offering HDHP+HRA Options	States That Do Not Offer a CDH Option
Arkansas	Arizona	Delaware	Alaska
Colorado	Florida	Georgia	**Alabama**
Hawai'i	**Indiana**	Kentucky	California
Georgia	Louisiana	Pennsylvania	Connecticut
Kansas	**Minnesota**		Iowa
Mississippi	Nevada[8]	**FEHBP**[9]	Idaho
Missouri	New Jersey		Illinois
New Jersey	Utah		Massachusetts
North Dakota			Maryland
Oklahoma[7]	**FEHBP**		**Maine**
South Carolina			Michigan
Washington			Montana
Vermont			North Carolina
Virginia			New Hampshire
West Virginia			New Mexico
Wyoming			New York
			Ohio
			Oregon
			Rhode Island
			South Dakota
			Tennessee
			Texas
			Wisconsin

None of the states offer a CDH plan as the only option. All states offer at least one traditional plan option (e.g., HMO, PPO, POS plan).

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[7] HDHP plan is not HSA-compatible.

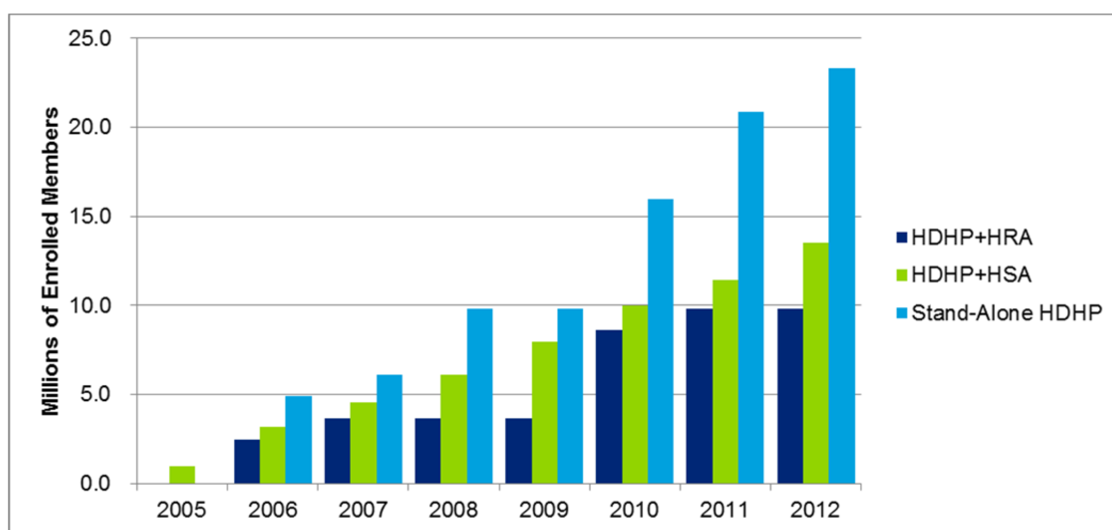
[8] State HSA contribution limited to first year of option participation only.

[9] The FEHBP HDHP+HRA plan option is not included in the analysis in this report.

Deloitte.

Appendix: Private Employer Availability and Enrollment

In looking at the prevalence of HDHP, HDHP+HSA, and HDHP+HRA plan options offered by private employers to their employees, a similar distribution emerges to public plans with respect to actual enrollment. The chart below[10] provides a summary of member enrollment (in millions) between 2005 and 2012 in these three plan types.



Note that no enrollment information for HDHP+HRAs or Stand-Alone HDHPs in 2005 was available. Note that the HDHP+HSA counts include both plan options with employer HSA-funding and HSA-qualified HDHPs (i.e., those without employer HSA funding).

In 2012, 26% of employers offered an HSA compatible HDHP option; only 5% offered an HDHP+HRA option.

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[10] Chart per Kaiser Family Foundation's "Employer Health Benefits 2012 Annual Survey".

Appendix: HDHP & CDH Experience Studies

There have been two multi-year, robust analyses investigating the long-term cost and health status efficacy of consumer-directed heath (CDH) plan designs, inclusive of high-deductible health plan (HDHP) designs on a stand-alone basis and in conjunction with either a health reimbursement arrangement (HRA) or a health savings account (HSA). While additional studies have been provided by insurance carriers (e.g., Aetna, Cigna, United Healthcare, etc.), these carrier-published studies have not published in peer-reviewed journals, and have not provided sufficient statistical information to allow a validation of the results.

This appendix summarizes the outcomes of the two multi-year studies that have provided statistically robust results.

Health Affairs – May 2012

"Growth of Consumer-Directed Health Plans To One-Half Of All Employer-Sponsored Insurance Could Save $57 Billion Annually"

Study Size: 59 large US employers offering health benefits between 2003 and 2007, representing a range of geographic regions, employee income levels, HDHP design characteristics, and proportion of employees enrolled in CDH plans.

Authors: Amelia M. Haviland, M. Susan Marquis, Roland D. McDevitt, and Neeraj Sood.

Study Approach: Difference-in-difference (i.e., how results differed year over year between two groups).

Summary of outcomes:

Reduction in Claims:	**Varied**
Improvement in Long Term Health Status:	**Not Demonstrated**
Avoidance of Necessary Treatments:	**Some**
Attracts Young & Healthy Members:	**Yes**

Other Comments:

- Strong evidence that CDH plans can reduce health care spending.
- Reductions in preventive care (provided at 100% coverage level) are problematic.
- Not known if reductions in other types of care are consistent with appropriate and recommended care.
- Four other published studies (American Journal of Managed Care, RAND Corporation (2 studies), and the Robert Wood Johnson Foundation) were each reports based on the same analysis presented in this Health Affairs study.

Details of Study:

This study looked at the potential cost savings that might be achieved, the implications associated with reductions in recommended care, and the impact of adverse selection when more than one health option is provided to employees. Key elements provided in the study report:

- 30 of the 59 firms offered a CDH option at some point in the study period. The other 29 firms served as controls.
- Study examined the first-year outcomes of the CDH plan features.
- Outcome measures included total spending, health care utilization, preventive care, episodes of care, and differential effects by vulnerable populations.
- The distributions between the CDH plan group and the control group were similar across:
  - Coverage tiers,
  - Gender,
  - Age,
  - Median household income,
  - Are 4-year college degree,
  - Area non-Hispanic white race/ethnicity,
  - Geographic region, and
  - Actuarial plan value prior to CDH plan enrollment.
- Total savings emerging for HDHP+HSA designs could be as much as 5% of all health care spending, based on the proportion of the covered population in this type of plan design.
- Total savings emerging for HDHP+HRA designs could be as much as 3% of all health care spending, based on the proportion of the covered population in this type of plan design.
- $^{2}/_{3}$ of savings results from fewer episodes of care, and $^{1}/_{3}$ of savings from lower spending per episode. Thus demographic enrollment mix in plan is a significant factor in derived potential savings.

- Reductions in Costs and Use for Families In CDH Plans (2004-2005):

Reduction*	Family-Level Difference
Category of Service (Cost)	
Inpatient care costs	-22.1%
Outpatient care costs	-18.2%
Prescription drug costs	-16.0%
Rate Within Episode (Use)	
Probability that prescription drug is brand name	-4.9%
Probability of office visit with specialist	-6.6%
Probability of hospitalization	-19.4%
Preventive Care for Cancer and Diabetes (Use)	
Cervical cancer for females (age 21+)	-4.7%
Colorectal cancer for adults (age 51+)	-2.8%
Mammogram for females (age 40+)	-2.8%
HbA1c (blood sugar glucose - diabetes)	-3.7%
Lipid profile	-4.2%
Microalbumin	-2.7%
Vulnerable and Nonvulnerable Populations (Cost)	
Low income	-17.3%
High-cost chronic condition	-14.7%
Nonvulnerable (neither of the two)	-20.9%

* Includes the savings resulting from the change in plan design provisions (increase in deductible, etc.). Adjustment would be necessary to isolate the impact net of changes in plan design provisions.

- CDH plan enrollees spent less on health care than enrollees in traditional plans, even in the year prior to enrollment. The above estimated differences have been adjusted to compensate for the prior year utilization.
- Reductions in spending in first year of the CDH plan showed similar results for the vulnerable and nonvulnerable populations.
- Reductions in preventive care and other recommended care might adversely affect both health and costs over the long term. Preventive care services declined in all six categories reviewed, despite fact that preventive services were covered at 100% by the plans with no cost-sharing.
- Reductions in spending occur through:
    - Lower spending per episode
    - More use of generic versus brand-name drugs
    - Less use of specialists
    - Lower inpatient hospitalization

These plans do induce changes in treatment choices and not just access.

- Further research is required to determine whether these are appropriate changes, and reductions in preventive care demonstrate some lack of consumerism.
- Employers can exercise some influence over employee choice when several options are provided:
    - Which plans to offer
    - Set employee contributions to “direct” enrollment
    - Promote specific plans
    - Provide decision support tools for selecting a plan
- Existing research does not adequately address the long-term effects of CDH plans on health care spending and recommended care.

American Academy of Actuaries – May 2009

"Emerging Data on Consumer-Driven Health Plans"

Study Size: 3 large US insurance carriers offering traditional and CDH plans between 2005 and 2007.

Authors: American Academy of Actuaries Consumer-Driven Health Plans Work Group (of which Dan Plante of Deloitte Consulting was an author/participant).

Study Approach: Summary of previously published insurance carrier studies on CDH plan outcomes.

Summary of outcome:

Reduction in Claims:	**All Showed Savings In First Year Between 12% and 20%**
Improvement in Long Term Health Status:	**Not Demonstrated**
Avoidance of Necessary Treatments:	**Not Observed**
Attracts Young & Healthy Members:	**Not Measured**

Other Comments:

- Study recognized that lower cost under CDH plans may simply be due to the healthier status of enrollees, something that could not be validated from the source data.
- Some evidence of that CDH plans offer some degree of savings compared to traditional plans.
- Some concern expressed over lack of longer-term longitudinal data to further check ongoing year-over-year experience.
- Actuarial workgroup authors recommended further study before more conclusive results can be determined.

Details of Study:

This study looked at the potential cost savings that might be achieved in the first year of CDH participation. This study also looked at any positive bias on the part of the reporting carriers that may have influenced results. This study looked at the extent to which CDH plans were being used as a device for employers to simply shift more costs to employees. Finally, the study looked at delays and avoidances of necessary care. Key elements provided in the study report:

- None of the studies reviewed indicated that adjustments for differences in age, gender, family status, geography, or industry were all taken into account. Such adjustments are viewed as necessary to eliminate claims differences not related to CDH plan participation.

- Most of the studies were based on employer experience reported by the carriers where CDH and traditional plans were offered side-by-side, and that some level of adverse selection may have occurred (without adjustments being made to compensate for that adverse selection).
- Many of the carrier's source material did not include information that would allow for adjustments based on the underlying health status and risk profiles of enrollees, and thus it could not be determined if savings were due to the CDH design or merely a healthier population.
- Observed increases in preventive care (contrary finding to the Health Affairs experience study above).
- Observed and/or implied increase in generic drug usage.
- Study based on carrier reports that included wide variances in terms of which results were presented and the amount of supporting detail available.