

Cost and Coverage Impacts of Five Proposals to Reform the Colorado Health Care System

Appendix J: Actuarial Analyses of Alternative Benefits Packages

Prepared for:

The Colorado Blue Ribbon Commission for Health Care Reform

By:

The Lewin Group

December 29, 2007



August 15, 2007

Evelyn Murphy Senior Manager The Lewin Group 3130 Fairview Park Drive, Suite 800 Falls Church, VA 22042

Subject: Claim Cost Estimates for the Colorado Blue Ribbon Commission for Health Care Reform

Dear Ms Murphy:

Per your request, NovaRest and its subcontractor developed estimates of medical expense per member per month (PMPM) by age/sex and tier cohort for five different benefit plan designs assuming the total Colorado under age 65 population beginning January 1, 2009. These projections are shown in the attached exhibit. The five benefit plans come from a variety of different health care proposals and are intended to cover different subpopulations within Colorado. We were asked to assume that all Coloradans under 65 would be covered and that if there was any ambiguity or ranges shown in the benefit descriptions we were to default to the highest level of cost-sharing. We have included the benefit schedules we were provided as an attachment. This memorandum summarizes the pricing assumptions made during our medical expense development as well as the general methodology undertaken.

Summary of Composite Medical Expense PMPM

•	Better Health Care for Colorado	\$247.05
•	Nationwide BCBS Benefit Plan	\$286.71
•	Premium Assistance Plan	\$288.06
•	Solutions for a Healthy Colorado	\$206.27
•	Aetna Health Fund	\$281.68

Assumptions

Utilization

- Initial utilization assumptions for over 70 service categories were derived from Donlon and Associates (D&A's) national data base adjusted for the estimated age/sex demographics of the potential covered population. The estimated demographics reflect U.S. Census data for the State of Colorado under 65 population.
- The initial utilization across-the-board was increased 5% from the nationwide average starting assumptions for commercial insureds to reflect that there may be higher





- utilization due to previously uninsurable people now being covered. We are estimating a higher morbidity for those who are currently uninsured or underinsured. Though this is an educated guess at best we estimate that a reasonable range for this selection factor might be in the neighborhood of +2% to +10%.
- Utilization for broad service categories was adjusted to reflect Colorado-specific utilization tendencies versus nationwide average. These area factors applicable to utilization were derived from various sources over the past several years and have been compiled into area factor tables which we use internally. The service categories and Colorado utilization adjustments made are as follows:

Hospital Inpatient: -15%
 Hospital Outpatient: +4%
 Physician & Other: -5%
 Prescription Drugs: +0%

Discounts and Unit Cost Assumptions

• The following in-network service category discounts were assumed:

Hospital Inpatient: 52%
 Hospital Outpatient: 52%
 Physician (composite): 40%
 Other/Ancillary (composite) 46%

o Prescription Drugs

- Generic: 57% - Brand: 16%

- The average discounts shown are the result of provider reimbursement data from a variety of sources. The hospital billed charges and discounts were taken from 2005 data for some Colorado large employers. The average inpatient charge per day from this source was \$6,829 and was trended at a 6% annual rate to 2009. The physician billed and allowed charges assumptions were taken from a large national insurance company's Colorado physician contracts in 2003. This data equates to 182% and 123% of 2007 RBRVS for billed and allowed charges, respectively. We trended these amounts 6% annually for billed charges and 4% annually for allowed charges to project them to 2009. The other discounts and charge levels assumed are representative as national norms.
- Out-of-network discounts were assumed to be 0%.



Plan Design Issues

It should be noted that three of the benefit designs priced are HMOs and the other two are PPOs. For the HMO plans, we assumed a typical level of managed care and its resulting impact on the utilization levels. For the PPO plans, we assumed a reduced degree of care management and slightly higher utilization levels as a result. The loadings are in line with what we would routinely use for PPO pricing. For the PPO plans, we also assumed that out-of-network provider reimbursement would be at a level similar to billed charges. We assumed 85% in-network penetration for IP Hospital and 80% for most remaining service categories. The major exception is pharmacy which we assumed would be covered under a drug card and therefore assumed 100% in-network penetration.

Contract Effective Date

• July 1, 2007

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If you have any questions or want to discuss this further, I can be reached at 847-973-2833.

Sincerely,

Donna C. Novak, FCA, ASA, MAAA, MBA

President & CEO



Better Health Care for Colorado

Medical Expense PEPM by Age/Gender/Tier Contracts Effective 7/1/2007

\$247.05 PMPM

Age-Sex Rating Factors Monthly Medical Expense per Employee

	Two	Гier	Two	l'ier
	Single	Family	Single	Family
Age/Gender	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>
<25 M	0.494	1.785	\$122.05	\$440.91
25 - 34 M	0.604	2.602	\$149.19	\$642.74
35 - 44 M	0.799	3.106	\$197.29	\$767.38
45 - 54 M	1.341	3.493	\$331.21	\$862.99
55 - 64 M	2.278	4.173	\$562.81	\$1,030.89
<25 F	0.883	1.901	\$218.09	\$469.69
25 - 34 F	1.111	2.684	\$274.48	\$663.08
35 - 44 F	1.293	2.975	\$319.34	\$734.99
45 - 54 F	1.704	3.517	\$420.98	\$868.77
55 - 64 F	2.452	4.318	\$605.72	\$1,066.71

Nationwide BCBS Benefit Plan

Medical Expense PEPM by Age/Gender/Tier Contracts Effective 7/1/2007

\$286.71 PMPM

Age-Sex Rating Factors

Monthly Medical Expense per Employee

	Two	Γier	Two	Гier
	Single	Family	Single	Family
Age/Gender	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>
<25 M	0.494	1.785	\$141.64	\$511.68
25 - 34 M	0.604	2.602	\$173.14	\$745.91
35 - 44 M	0.799	3.106	\$228.96	\$890.55
45 - 54 M	1.341	3.493	\$384.37	\$1,001.51
55 - 64 M	2.278	4.173	\$653.15	\$1,196.37
<25 F	0.883	1.901	\$253.10	\$545.08
25 - 34 F	1.111	2.684	\$318.54	\$769.52
35 - 44 F	1.293	2.975	\$370.60	\$852.97
45 - 54 F	1.704	3.517	\$488.55	\$1,008.22
55 - 64 F	2.452	4.318	\$702.95	\$1,237.93

Premium Assistance Plan

Medical Expense PEPM by Age/Gender/Tier Contracts Effective 7/1/2007

\$288.06 PMPM

Age-Sex Rating Factors

Monthly Medical Expense per Employee

	Two	Гier	Two	Tier
	Single	Family	Single	Family
Age/Gender	<u>Factor</u>	Factor	<u>Factor</u>	<u>Factor</u>
<25 M	0.494	1.785	\$142.31	\$514.09
25 - 34 M	0.604	2.602	\$173.95	\$749.42
35 - 44 M	0.799	3.106	\$230.04	\$894.74
45 - 54 M	1.341	3.493	\$386.18	\$1,006.22
55 - 64 M	2.278	4.173	\$656.22	\$1,201.99
<25 F	0.883	1.901	\$254.29	\$547.65
25 - 34 F	1.111	2.684	\$320.04	\$773.14
35 - 44 F	1.293	2.975	\$372.34	\$856.98
45 - 54 F	1.704	3.517	\$490.85	\$1,012.96
55 - 64 F	2.452	4.318	\$706.25	\$1,243.75

Solutions for a Healthy Colorado

Medical Expense PEPM by Age/Gender/Tier Contracts Effective 7/1/2007

\$208.27 PMPM

Age-Sex Rating Factors

Monthly Medical Expense per Employee

	Two	Гier	Two	Tier
	Single	Family	Single	Family
Age/Gender	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>
<25 M	0.494	1.785	\$102.89	\$371.70
25 - 34 M	0.604	2.602	\$125.77	\$541.85
35 - 44 M	0.799	3.106	\$166.32	\$646.92
45 - 54 M	1.341	3.493	\$279.22	\$727.52
55 - 64 M	2.278	4.173	\$474.46	\$869.07
<25 F	0.883	1.901	\$183.86	\$395.96
25 - 34 F	1.111	2.684	\$231.39	\$559.00
35 - 44 F	1.293	2.975	\$269.21	\$619.62
45 - 54 F	1.704	3.517	\$354.90	\$732.40
55 - 64 F	2.452	4.318	\$510.64	\$899.26



Aetna Health Fund

\$281.68 PMPM

Medical Expense PEPM by Age/Gender/Tier Contracts Effective 7/1/2007

Age-Sex Rating Factors

Monthly Medical Expense per Employee

	Two Tier		Two 7	<u> Tier</u>
	Single	Family	Single	Family
Age/Gender	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>
<25 M	0.494	1.785	\$139.16	\$502.71
25 - 34 M	0.604	2.602	\$170.10	\$732.84
35 - 44 M	0.799	3.106	\$224.95	\$874.95
45 - 54 M	1.341	3.493	\$377.64	\$983.96
55 - 64 M	2.278	4.173	\$641.70	\$1,175.40
<25 F	0.883	1.901	\$248.66	\$535.53
25 - 34 F	1.111	2.684	\$312.96	\$756.03
35 - 44 F	1.293	2.975	\$364.11	\$838.02
45 - 54 F	1.704	3.517	\$479.99	\$990.56
55 - 64 F	2.452	4.318	\$690.63	\$1,216.24



SIDE-BY-SIDE BENEFITS COMPARISON OF COLORADO BLUE RIBBON COMMISSION AUTHORS' REFORM PROPOSALS^{a/}

Figure 1 presents benefits schedule for two proposals.

Figure 1
Benefits Schedule for Solutions for a Healthy CO and Better Health Care for CO

Covered Benefits	Solutions for a Healthy Colorado (CO Assn of Health Underwriters)	Better Health Care for Colorado (SEIU) ^{b/}
Physician/Routine Office Visit	\$15 copay in-network & OON 10 visits/year \$200 max per visit	\$10 copay - primary care \$20 copay- specialist
Prevention	\$15 copay in-network & OON	\$10 copay - primary care \$20 copay- specialist
Maternity Care	Covered (including prenatal care) same as any other medical condition	Covered for parents with income between 200-250% FPL and for childless adults with income between 200-225% FPL. Coverage and copays would be the same as for other medical services
Urgent Care	\$15 copay (including any walk-in clinics) 10 visits/year maximum	\$25 copay
Outpatient Hospital	All outpatient hospital	Outpatient hospital
Surgical	80/20% copay in-network	Surgical \$50 copay
All Other Outpatient	60/40% copay OON	All other \$25 copay
_	\$2000/year maximum	\$5000/year maximum
Ambulance-Emergency	80/20% after deductible	\$50 copay
	\$500 out-of-pocket maximum per	
	trip	
Hospital-Emergency	\$100 copay in-network & OON	\$40 copay
	\$3000/year maximum	\$1000/year maximum
Inpatient Hospital	80/20% copay in-network	\$100 copay
	60/40% copay OON	\$25,000/year maximum
Lab as IV Base	\$3000/day maximum	News
Lab and X-Ray	80/20% coins in-network 60/40% coins OON	No copay
	\$2000/year maximum	
Other Diagnostic	80/20% coins in-network	No copay
(e.g. CT,MRI, PET,	60/40% coins OON	140 copay
Nuclear)	\$2000/year maximum	
Transplants	Same coverage as any other	Same as other medical services
	medical condition	subject to annual limits.
Family Planning	Includes contraception, vasectomy, counseling	No copay
	\$15 copay per office visit	
Mental Health	80/20% in-network	Under 100% FPL:
	60/40% OON	\$10 per visit; and
	\$1000/year maximum	Limit all cost sharing to no more
		than 1% of household income



Covered Benefits	Solutions for a Healthy Colorado	Better Health Care for Colorado
Substance Abuse	80/20% in-network 60/40% OON	annually \$15 per visit 100-200% FPL: Limit all cost sharing to no more than 3% of household income annually \$20 per visit 200-300% FPL Limit all cost sharing to no more than 6% of household income annually All incomes: Limits on visits would be comparable to private insurance plans in CO – 20-25 visits per year Under 100% FPL: \$10 per visit; and
	\$1000/year maximum	Limit all cost sharing to no more than 1% of household income annually \$15 per visit 100-200% FPL: Limit all cost sharing to no more than 3% of household income annually \$20 per visit 200-300% FPL Limit all cost sharing to no more than 6% of household income annually All incomes: Limits on visits would be comparable to private insurance plans in CO – 20-25 visits per year
Therapies (Speech, PT, OT)	Not covered	\$10 copay
Durable Medical Equipment	80/20% coins in-network 60/40% coins OON \$1000/year maximum	\$50 copay \$1500/year maximum
Prescription Drugs	In network: \$10 copay generic \$20 copay preferred Brand 100% \$300/month maximum Out of Network 50% coinsurance \$300/month maximum	\$5 generic Brand: \$25 minimum up to 50% of cost \$2500/year maximum
Vision	Vision exams only \$15 copay in-network & OON 10 visits/year \$200 max per visit Eyeglasses-No coverage	Eyeglasses/correction not covered. Other medical conditions covered under medical services, subject to copays and annual limits.
Dental	Not covered	Basic preventive cleanings and care not covered. Medical issues and emergency care covered under medical services, subject to copays



Covered Benefits	Solutions for a Healthy Colorado (CO Assn of Health Underwriters)	Better Health Care for Colorado (SEIU) ^{b/}
		and annual limits.
Audiology	Hearing exams only \$15 copay in-network & OON 10 visits/year \$200 max per visit	Basic screening/speech services not covered. Hearing aids covered under DME, subject to copays and annual limits.
Skilled Nursing Facility	Not covered	Plans could authorize home health services if appropriate and cost effective. Otherwise service subject to LTC reform components of proposal.
Hospice	80/20% after deductible 60 days annual maximum	Plans could authorize home health services if appropriate and cost effective. Otherwise service subject to LTC reform components of proposal.
Home Health	80/20% after deductible 30 days per calendar year maximum	Plans could authorize home health services if appropriate and cost effective. Otherwise service subject to LTC reform components of proposal.
Deductibles	\$100 individual in-network/\$200 individual OON	Option 1: No deductibles to assure first dollar coverage; however, copays, coinsurance and premium payments would apply. Option 2: If cost is too prohibitive, Colorado FEHBP could be considered as an alternative.
Maximum ^{d/}	\$50,000 annual maximum innetwork and OON	All benefits - \$35,000 annual maximum

^a/Benefits for Health Care for All Colorado is not included in chart as the program makes Medicaid benefits available to all.

Source: Lewin Group Analysis of Select Health Reform Proposals from the Colorado Blue Ribbon Commission on Health Care Reform

The following presents plan benefits schedule for A Plan for Covering Coloradans

- *Figure 2* is the schedule of benefits for non-premium assistance plans under the private insurance pool.
- Figure 3 applies to the non-premium assistance plans in the private insurance pool.
- Medicaid and SCHP expansion population would receive Medicaid or SCHIP benefits (not depicted).



^{b/} These benefits apply to parents up to 250% FPL and childless adults up to 225% FPL. Children and families up to 300% FPL expansion population would enroll in Medicaid or CHP+.

c/ Services are subject to maximum limits unless otherwise stated



Figure 2
Non-Premium Assistance Benefits, Cost Sharing and Limitations

Covered Benefits	Plan A	Plan B
Covered Benefits	Nationwide BCBS Benefit Plan (Standard)	Aetna HealthFund - All of Colorado (High Deductible Health Plan)
Medical Fund (HSA)	Not Applicable	Plan contributes to HSA on a monthly basis. In 2007, for each month member is eligible for an HSA premium pass through, plan contributes \$125 per month (Self)/\$250 (Self+Family) to HSA
Dental Fund	Not Applicable	Not Applicable
Adult Preventive Screenings and Office Visits	\$15 office visit copayment No copays for covered preventive screenings	No copays for in-network provider.
Child Preventive Care	No copays for covered services	No copays for in-network provider.
Inpatient services	\$250 yearly deductible	Member pays 100% of allowable charges until deductible of \$2,500 (Self)/\$5,000 (Self+Family) is met - then 10% of Plan allowance.
Home and office visits	\$15 office visit copayment	Member pays 100% of allowable charges until deductible of \$2,500 (Self)/\$5,000 (Self+Family) is met - then member pays 10% of Plan allowance.
Outpatient physical, occupational, and speech therapy	\$15 for each visit 75 visit maximum per year	Member pays 100% of allowable charges until the deductible of \$2,500 (Self)/\$5,000 (Self+Family) is met - then member pays 10% of Plan allowance.
Mail service pharmacy	Up to a 90 day supply \$10 copayment for generic drugs \$35 copayment for brand name drugs	Mail Order Pharmacy, for 31-day to 90-day supply per prescription or refill: \$20 copay per generic formulary drug; \$50 copay per brand name formulary drug; and \$80 copay per non-formulary (generic or brand name) drug.



Covered Benefits	Plan A	Plan B
OVERED DETICITES	Nationwide BCBS Benefit Plan (Standard)	Aetna HealthFund - All of Colorado (High Deductible Health Plan)
Retail pharmacy	Up to a 90 day supply 25% PPA at the time of purchase	Up to a 30-day supply per prescription or refill
		Once the deductible is satisfied, the following will apply:
		\$10 copay per generic formulary drug; \$25 copay per brand name formulary drug; and \$40 copay per non-formulary (generic or brand name) drug.
Hospital Inpatient	\$100 per admission copayment	Member pays 100% of allowable charges until deductible of \$2,500 (Self)/\$5,000 (Self+Family) is met - then 10% of Plan allowance.
Outpatient Facility Care, excluding laboratory and X-ray services	Subject to \$250 calendar year deductible	Not covered
Outpatient Facility, physical, occupational and speech therapy	\$15 copayment per visit	Member pays 100% of allowable charges until you meet deductible of \$2,500 (Self)/\$5,000 (Self+Family) is met - then 10% of Plan allowance.
Outpatient Facility, laboratory and X-ray services	Subject to \$250 calendar year deductible	Member pays 100% of allowable charges until deductible of \$2,500 (Self)/\$5,000 (Self+Family) is met - then 10% of Plan allowance.
Outpatient Surgery	10% PPA	Member pays 100% of allowable charges until deductible of \$2,500 (Self)/\$5,000 (Self+Family) is met - then 10% of Plan allowance.
Accidental Injury — emergency room care and ambulance services	None for covered charges for services rendered within 72 hours of the accident \$50 co-pay per-trip for ambulance services	Member pays 100% of allowable charges until deductible of \$2,500 (Self)/\$5,000 (Self+Family) is met - then 10% of Plan allowance.
Medical Emergency — facility care	\$250 calendar year deductible, then 10% PPA	Member pays 100% of allowable charges until deductible of \$2,500 (Self)/\$5,000 (Self+Family) is met - then 10% of Plan allowance.



Covered Benefits	Plan A Nationwide BCBS Benefit Plan (Standard)	Plan B Aetna HealthFund - All of Colorado (High Deductible Health Plan)
Medical Emergency — physician care	\$15 office visit copayment	Member pays 100% of allowablecharges until deductible of \$2,500 (Self)/\$5,000 (Self+Family) is met - then 10% of our Plan allowance.
Outpatient professional services	\$15 office visit copayment	Member pays 100% of allowable charges until deductible of \$2,500 (Self)/\$5,000 (Self+Family) is met - then 10% of Plan allowance.
Spinal manipulations	Up to 12 spinal manipulations per year \$15 copayment	Not covered. Member is eligible for discounts through Alternative Health Program
Routine Dental Care	Benefits paid according to yearly fee schedule	Not covered
Catastrophic Benefits	Plan pays 100% after member meets \$4000 out-of-pocket in coinsurance, copayment and deductible expenses	Self Only: In-network: \$4,000 annual out-of-pocket maximum. Out of-network: \$5,000 annual out-of-pocket maximum. Self and Family: In-network: \$8,000 annual out-of-pocket maximum . Out of-network: \$10,000 annual out-of-pocket maximum is \$10,000.

Source: The Lewin Group analysis of Federal Health Employee Benefits schedule in Colorado.



Figure 3
Premium Assistance Plan Benefits, Limits and Out-of-Pocket Payments

Covered Benefits	Benefit Limits and Out-of-Pocket Payments
Physician/Routine	0-250%: \$0, \$2, or \$5 copay
Office Visit	251-399%: \$10 copay
Prevention	0-250%: Covered in full
	251-399%: Covered in full
Maternity Care	0-250%: Covered in full
, , , , , , , , , , , , , , , , , , , ,	251-399%: 90% coinsurance
Urgent Care	0-250%: \$0, \$2, or \$5 copay
	251-399%: \$10 copay
Outpatient Hospital	All outpatient hospital
Surgical	0-250%: Covered in full
All Other Outpatient	251-399%: 90% coinsurance
Ambulance-	0-250%: covered in full
Emergency	251-399%: \$25-50 copay
Hospital-Emergency	0-250%: \$3 or \$15 copay
	251-399%: \$25-50 copay
Inpatient Hospital	0-250%: covered in full
, same and a company	251-399%: 90% coinsurance
Lab and X-Ray	0-250%: Covered in full
	251-399%: 90% coinsurance
Other Diagnostic	0-250%: Covered in full
(e.g. CT,MRI, PET,	251-399%: 90% coinsurance
Nuclear)	20.1 000701 0070 00111041100
Transplants	0-250%: Coverage limited w/prior authorization
	251-399%: 90% coinsurance for covered transplants
Family Planning	0-250%: Covered in full
	251-399%: Covered in full
	No coverage for infertility treatment
Mental Health	Neurobiologically based MI
1	Parity: inpatient same as hospitalization; outpatient same as
	medical office visit
	Other Mental Services
	Parity: inpatient same as hospitalization; outpatient same as
	medical office visit
Substance Abuse	Residential
	Same as inpatient hospital
	Outpatient
	\$0, \$2, or \$5 copay
Therapies (Speech, PT,	0-250%: \$0, \$2, or \$5 copay
OT)	251-399%: 90% coinsurance
	Limited to 30 visits per year for diagnosis
Durable Medical	0-250%
Equipment	Covered in full
	Annual maximum \$2,000
	251-399%
	90% coinsurance
	Annual maximum \$2,000
Prescription Drugs	0-250%





Covered Benefits	Benefit Limits and Out-of-Pocket Payments
	\$2 Generic
	\$5 brand
	251-399%
	\$10 copay preferred generic
	\$15 copay preferred brand
	\$25 copay non-preferred
	All income levels
	No copays for chronic disease management drugs
Vision	0-250%
	Exam, specialty care covered
	Copay \$0, \$2, or \$5;
	\$100 towards lenses, frames, or contacts
	251-399%
	90% coinsurance for exam, specialty care;
	\$50 towards lenses, frames, or contacts
Dental	0-250%
	Periodic cleaning, exams, xrays, fillings, extractions, root
	canals
	Annual maximum \$750
	251-399%
	90% coinsurance
	Annual maximum \$750
	Dental services resulting from an accident
	0-250%: Covered in full
	251-399%: 90% coinsurance
	No annual maximum
Audiology	0-250%
	Hearing aids, copay 0 - \$25
	Annual maximum \$1000
	251-399%
	Hearing aids, 90% coinsurance
Chille d Normain or Facility	Annual max \$1000 0-250%: Covered in full
Skilled Nursing Facility	
	251-399%: 90% coinsurance
Haariaa	100 days per year maximum 0-250%: Covered in full
Hospice	
Home Health	251-399%: 90% coinsurance 0-250%: Covered in full
Doductibles	251-399%: 90% coinsurance
Deductibles	None for < 250% FPL (use \$150)
Maximum	0-5% of yearly income annual maximum (use \$3,300)

 $\underline{\text{Source}}\textsc{:}$ A Plan for Covering Coloradans, Committee for Colorado Health Care Solutions, Appendix G