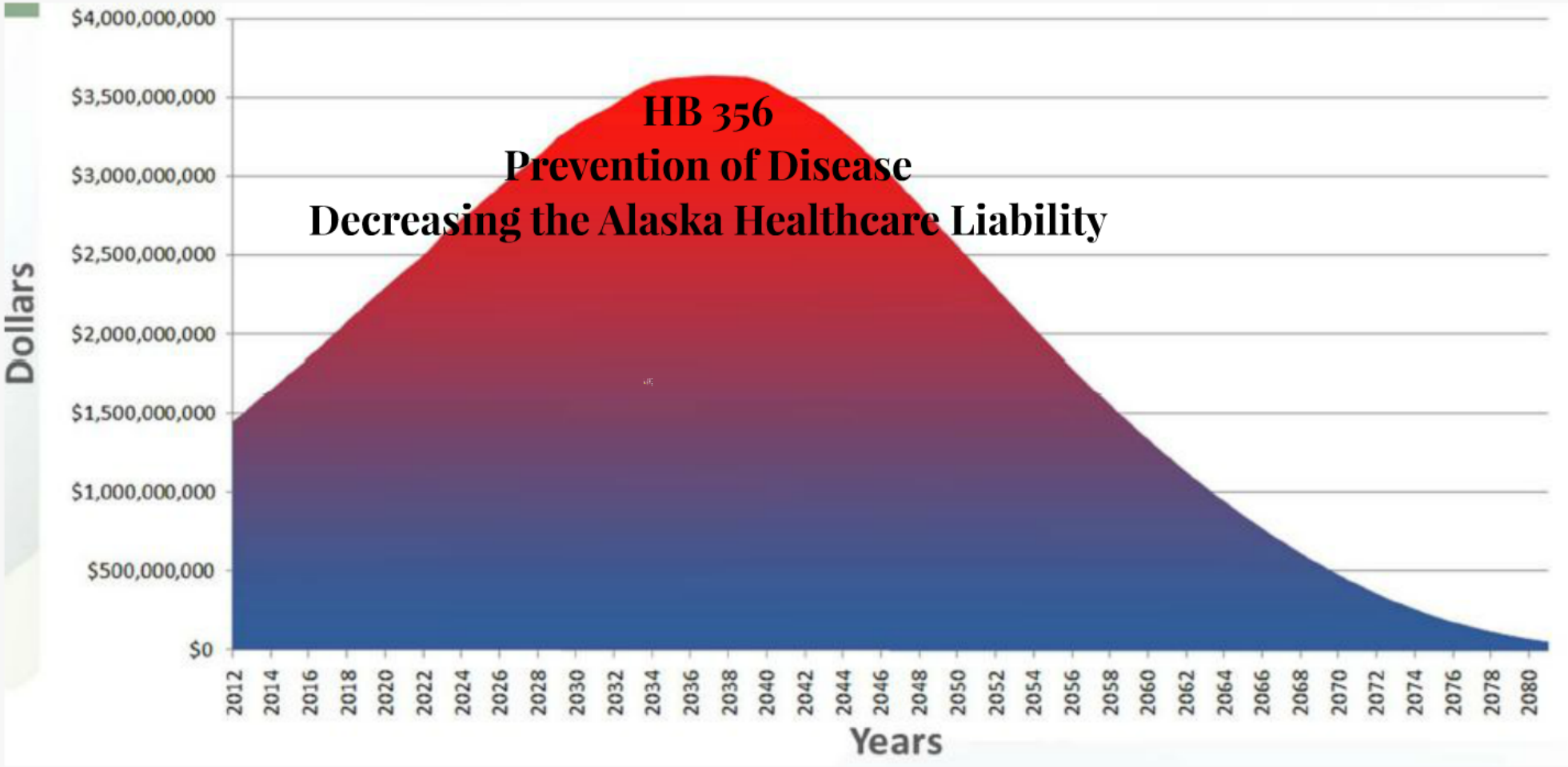
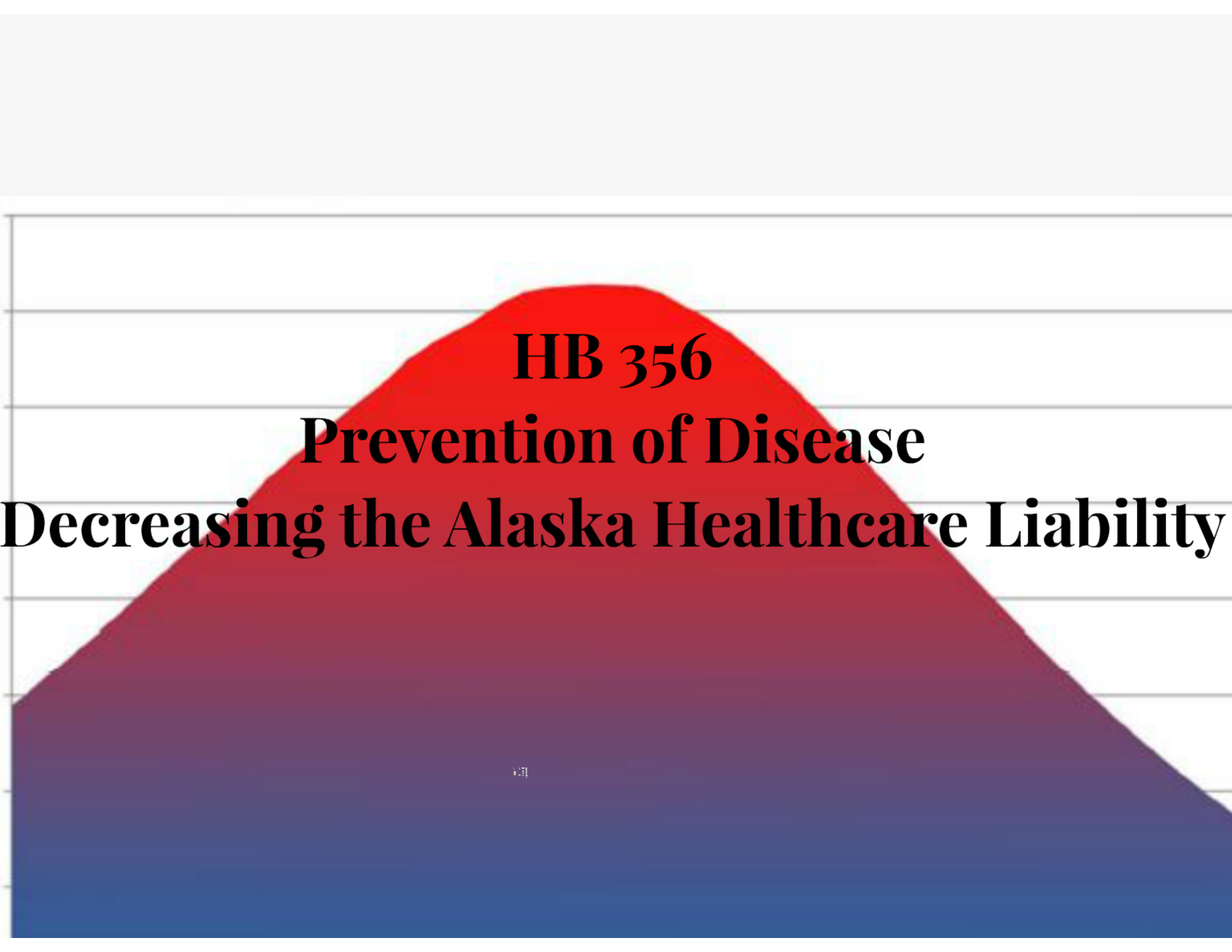

HB 356
Prevention of Disease
Decreasing the Alaska Healthcare Liability
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HB 356
Prevention of Disease
Decreasing the Alaska Healthcare Liability

$3.8 BILLION

$3.8 Billion is the amount of our PERS/TRS unfunded liability attributable to healthcare according to the Department of Administration.

The old estimate for a 2% annual, out-year, healthcare cost increase was used for setting the contribution rates to fully cover anticipated liabilities.

So this $3.8 billion represents the healthcare cost inflation above 2%.

Why are we here?

The State of Alaska is a significant health care consumer.

Active plan	**17,144 members** (includes dependents)	**$111 million** total spend in FY13
Retiree plan	**64,237 members** (includes dependents) 40% live outside Alaska	**$492 million** total spend in FY13
Medicaid	**145,279 Alaskans covered (2013)** 58% children, 36% adults, 6% seniors	**$1.6 billion** total spend in 2013

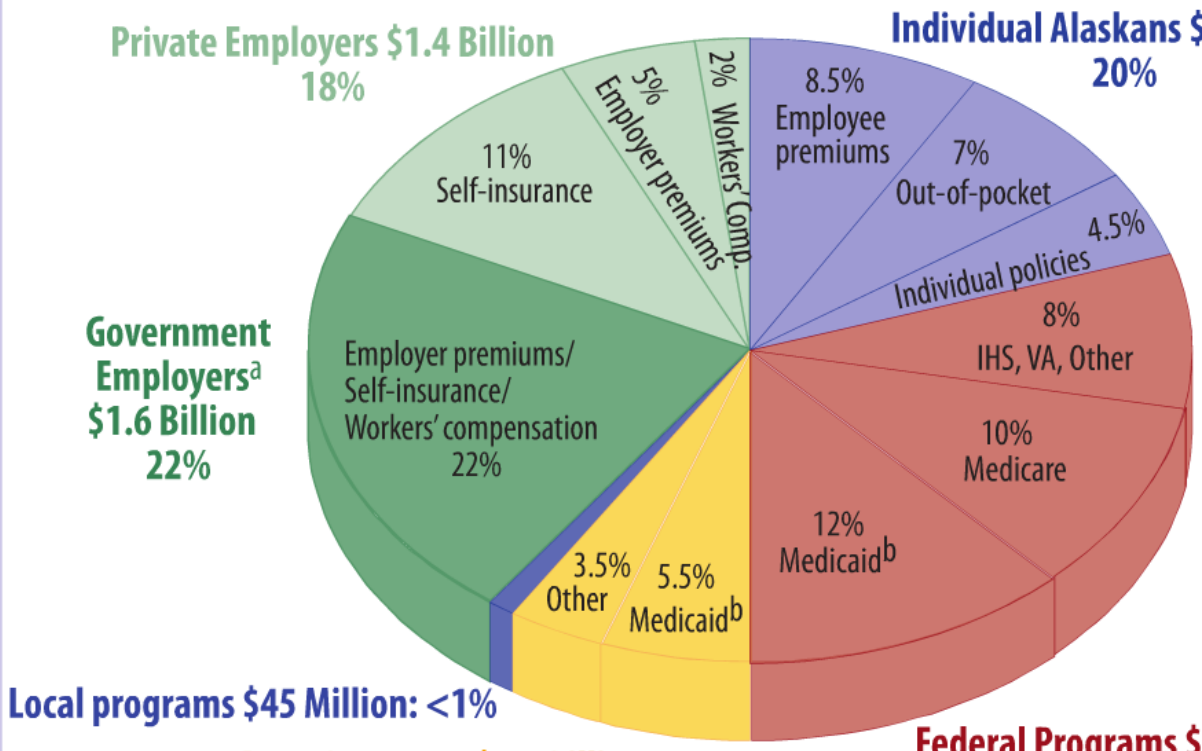
The state also spends money on health care for inmates, state employees who are members of union health trusts and for state workers' compensation claims.

Alaska's Health-Care Bill: $7.5 Billion and Climbing

By Mark A. Foster and Scott Goldsmith

UA Research Summary No. 18 • August 2011
Institute of Social and Economic Research • University of Alaska Anchorage

Figure 1. Who Pays for Health Care in Alaska?
(2010 Spending: $7.5 Billion)



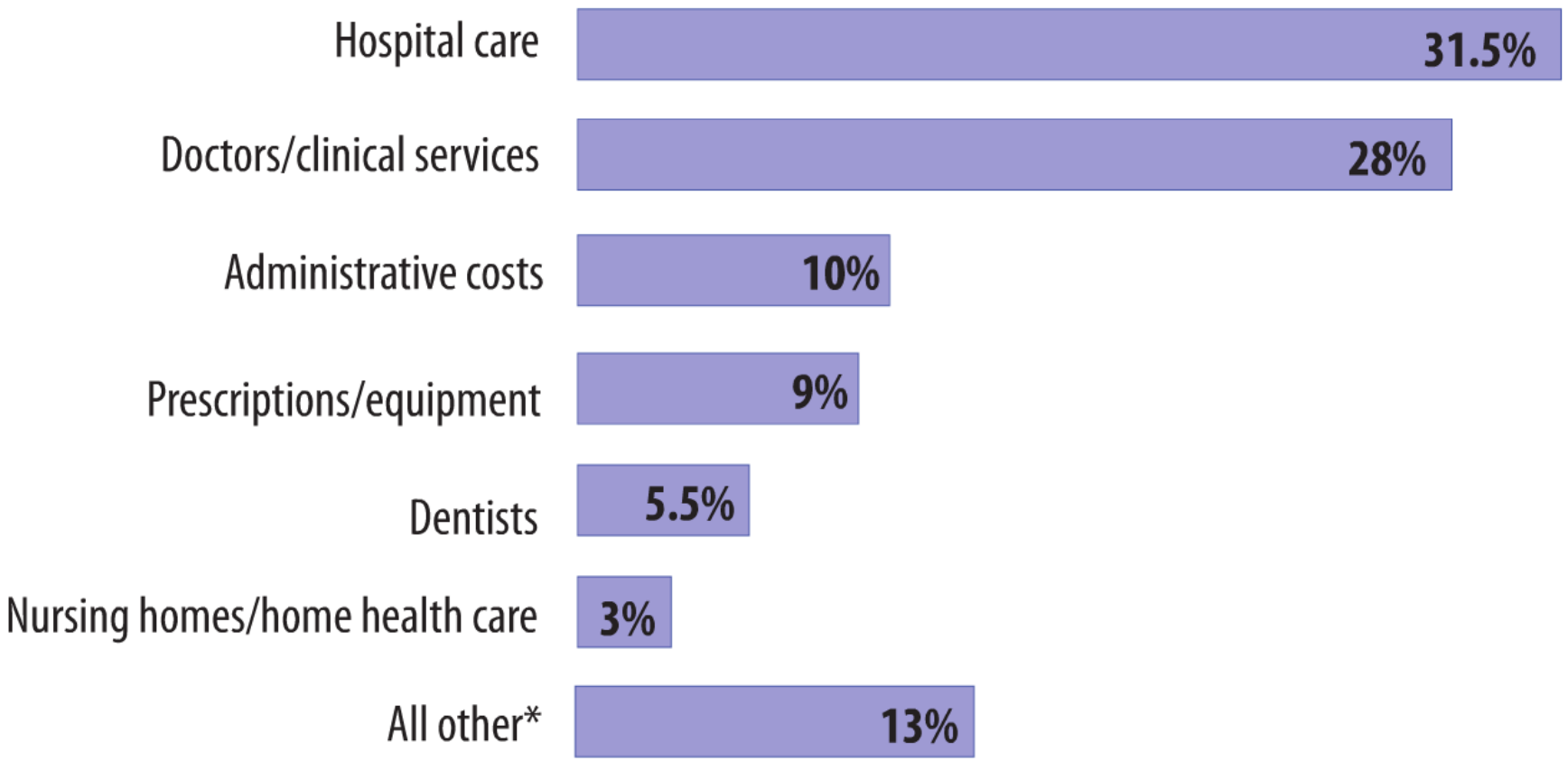
[a] Insufficient data to break out categories
[b] The federal and state governments share the cost of Medicaid.

Source: Authors' estimates

Health-care spending for Alaskans reached about $7.5 billion in 2010. For comparison, that's close to half the wellhead value of all the oil produced in Alaska that year. It's also roughly equal to half the wages Alaskans collected in 2010.

Figure 7. What Do Alaska's Health-Care Dollars Buy?

(2010 Spending: $7.5 Billion)



*Other personal and professional care and public health activities.

Source: Mark A. Foster and Associates estimates, based on Centers for Medicare and Medicaid Services, National Health Expenditure accounts

This is the way we currently contain costs:

1. Insurance focus on constraints to healthcare providers
   A) limitations on coverage of diseases or conditions
   B) limitations on compensation for procedures

2. Department of Labor work rules to prevent accidents
   A) limitations on time on job or length of working day
   B) safe working condition requirements

3). Department of Health and Social Services Programs to prevent disease
   A) voluntary childhood vaccination
   B) voluntary lifestyle change information
   C) prescription drug safety
   D) early detection of disease

4). DEC and DNR (Agriculture) - Food safety requirements
   A) shellfish PSP testing etc.
   B) pasteurized milk requirement etc.
   C) restaurant and food processor inspections

5). Department of Public Safety - enforcement of laws
   A) illegal drugs
   B) smoking in close public places
   C) driving under the influence of alcohol etc.

The Question:

How CAN WE AVOID diseases and PREVENT illness instead of just reacting to and paying for SICKCARE?

The following slides demonstrate that we can reduce healthcare costs by initiating policies to avoid diseases with scientifically documented strategies.

HealthSmart CARE MANAGEMENT SOLUTIONS

4th Quarter Report 2013

Aggregate Risk Profile

ACTIVE PLAN

Member Information			
Member Count	17338	Avg Forecasted Cost	$6,670
Avg Age	35	Avg Total Cost	$6,774
Percent Female	51%	Avg Forecasted Risk Index	1.09
Avg Months Enrolled	11	%/w Acute Impact Score >= 95	1.06%
		%/w Chronic Impact Score >= 95	5.38%
		%/w Motivation Rank >= 95	4.83%

Aggregate Risk Summary

Risk Drivers	# Members	Avg Risk Contribution		Contribution to Forecast	Risk Contribution	
Demographics	17338	SENIORS SKIN, FRACTURES, FALLS	$345	$5,987,784	5.18%	X
Acute Respiratory Disorders	2880	TUBERCULOSIS	$1,129	$3,251,578	2.81%	X
Arrhythmia Disorders	220		$3,382	$744,142	0.64%	
CHF Conditions	673	CHRONIC HEART FAILURE	$3,181	$2,140,732	1.85%	X
Cerebral Vascular Disorder	247		$4,199	$1,037,177	0.90%	
Chronic Respiratory Disorders	1728	UPPER RESPIRATORY TRACT	$2,318	$4,005,542	3.46%	X
Coronary Artery Related Conditions	1655	CORONARY HEART DISEASE	$2,958	$4,895,538	4.23%	X
Dermatological Disorder	3075		$1,272	$3,911,805	3.38%	
Diabetic Disorders	882	TYPE 1 AND TYPE 2	$5,932	$5,231,998	4.52%	X
Female Reproductive Conditions	341	PRETERM BIRTHS	$2,510	$856,045	0.74%	X
Gastrointestinal Disorders	2351	COLORECTAL CANCER	$2,011	$4,728,854	4.09%	X
Heart Related Conditions	180		$5,628	$1,013,046	0.88%	
Hypertension	1527	BLOOD PRESSURE	$1,983	$3,028,315	2.62%	X
Hypotensive Drugs	1784		$2,207	$3,937,924	3.41%	
Major Infection Related Conditions	2950	MRSA	$2,023	$5,968,497	5.16%	X
Metabolic Conditions	3077	FIBROMYALGIA	$2,680	$8,247,421	7.13%	X
Minor Infection Related Conditions	3704		$1,340	$4,965,037	4.29%	
Miscellaneous Conditions	4750		$2,303	$10,940,696	9.46%	
Musculo-skeletal Disorders	5173	INFANT MUSCLE, SENIOR FALLS	$2,206	$11,409,047	9.87%	X
Myocardial Infarction Related Conditions	271		$5,315	$1,440,328	1.25%	
Neonatal Issues	255	AUTISM, HEART PROGRAMMING	$935	$238,299	0.21%	X
Neoplastic Related Conditions	638		$4,332	$2,763,900	2.39%	
Neurological Disorder	3770	ALZHEIMER'S	$1,435	$5,409,047	4.68%	X
Non-specific condition	5561		$140	$780,877	0.68%	
Pneumonia	243	UPPER RESPIRATORY TRACT	$3,822	$928,744	0.80%	X
Psychological Disorder	2688	S.A.D. AND DEPRESSION	$2,771	$7,447,883	6.44%	X
Renal Disorders	309		$15,145	$4,679,794	4.05%	
Trauma Related Condition	1822	TRAUMATIC BRAIN INJURY	$1,455	$2,651,019	2.29%	X
Urinary Disorders	1381		$2,170	$2,996,360	2.59%	

% total diseases directly related to Vitamin D status = 66.08 %

Notes in red by office of Rep. Seaton

RETIREE PLAN

HealthSmart CARE MANAGEMENT SOLUTIONS

4th Quarter Report 2013

Aggregate Risk Profile

Member Information			
Member Count	65376	Avg Forecasted Cost	$15,666
Avg Age	63	Avg Total Cost	$17,726
Percent Female	54%	Avg Forecasted Risk Index	2.56
Avg Months Enrolled	12	%/w Acute Impact Score >= 95	5.47%
		%/w Chronic Impact Score >= 95	16.63%
		%/w Motivation Rank >= 95	9.70%

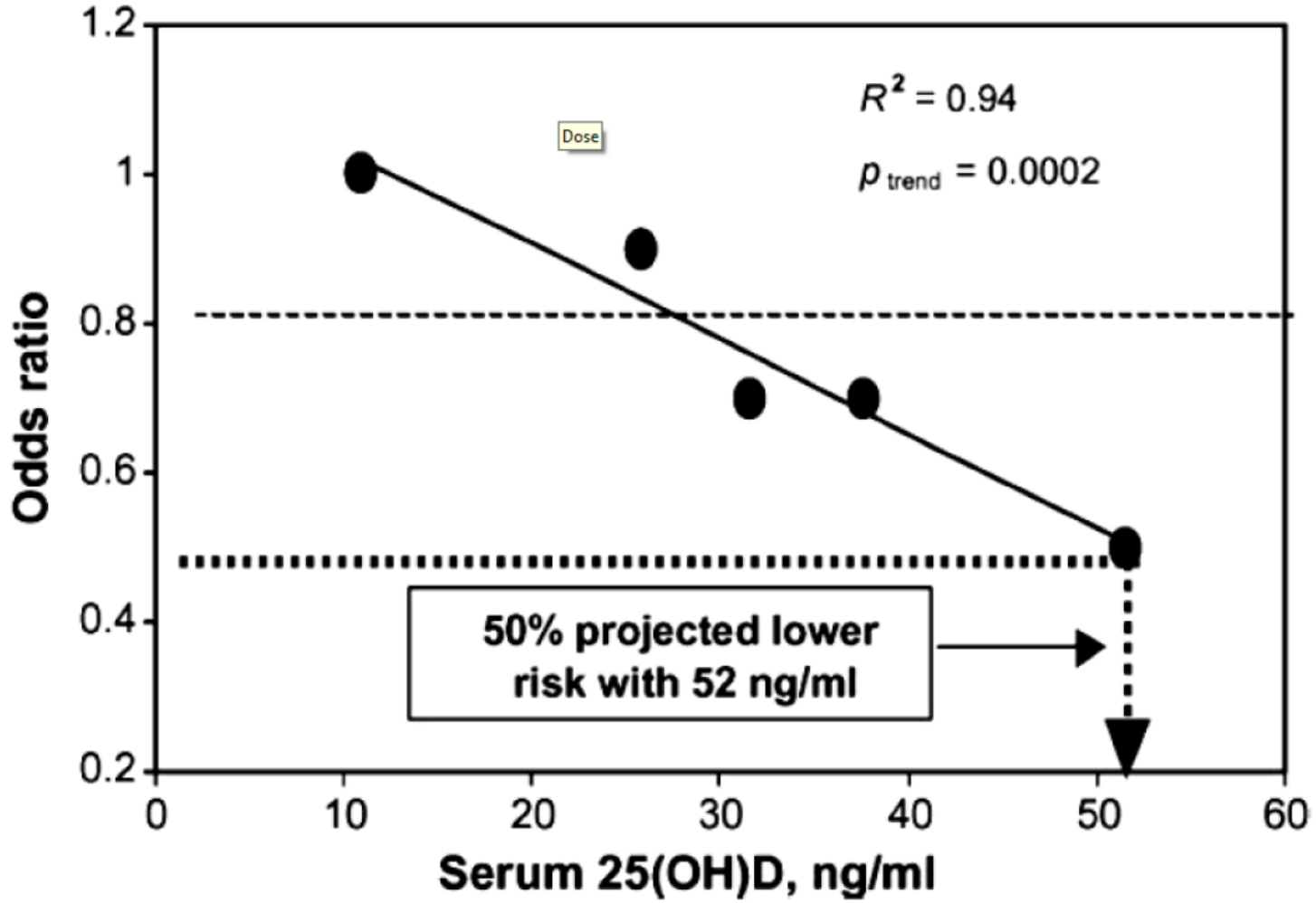
Aggregate Risk Summary

Risk Drivers	# Members	Avg Risk Contribution		Contribution to Forecast	Risk Contribution	
Demographics	65376	SENIORS SKIN, FRACTURES, FALLS	$454	$29,702,943	2.90%	X
Acute Respiratory Disorders	9520	TUBERCULOSIS	$1,669	$15,893,121	1.55%	X
Arrhythmia Disorders	5170		$2,860	$14,786,038	1.44%	
CHF Conditions	10658	CHRONIC HEART FAILURE	$2,758	$29,389,999	2.87%	X
Cerebral Vascular Disorder	5021		$3,726	$18,710,595	1.83%	
Chronic Respiratory Disorders	11241	UPPER RESPIRATORY TRACT	$3,093	$34,763,411	3.39%	X
Coronary Artery Related Conditions	24057	CORONARY HEART DISEASE	$2,900	$69,776,210	6.81%	X
Dermatological Disorder	15979		$1,958	$31,281,265	3.05%	
Diabetic Disorders	10689	TYPE 1 AND TYPE 2	$5,966	$63,771,119	6.23%	X
Female Reproductive Conditions	103	PRETERM BIRTHS	$1,489	$153,413	0.01%	X
Gastrointestinal Disorders	18753	COLORECTAL CANCER	$2,146	$40,246,314	3.93%	X
Heart Related Conditions	4346		$4,374	$19,007,254	1.86%	
Hypertension	21394	BLOOD PRESSURE	$1,623	$34,713,887	3.39%	X
Hypotensive Drugs	21282		$1,869	$39,772,355	3.88%	
Major Infection Related Conditions	13879	MRSA	$3,007	$41,731,745	4.07%	X
Metabolic Conditions	28763	FIBROMYALGIA	$2,545	$73,213,862	7.15%	X
Minor Infection Related Conditions	14339		$1,726	$24,754,410	2.42%	
Miscellaneous Conditions	32888		$2,762	$90,833,634	8.87%	
Musculo-skeletal Disorders	32886	INFANT MUSCLE, SENIOR FALLS	$2,498	$82,154,255	8.02%	X
Myocardial Infarction Related Conditions	5796		$3,424	$19,844,208	1.94%	
Neonatal Issues	63	AUTISM, HEART PROGRAMMING	$1,504	$94,751	0.01%	X
Neoplastic Related Conditions	7447		$3,928	$29,253,071	2.86%	
Neurological Disorder	27775	ALZHEIMER'S	$1,561	$43,366,164	4.23%	X
Non-specific condition	12687		$113	$1,429,752	0.14%	
Pneumonia	1619	UPPER RESPIRATORY TRACT	$5,098	$8,254,358	0.81%	X
Psychological Disorder	16031	S.A.D. AND DEPRESSION	$2,659	$42,623,390	4.16%	X
Renal Disorders	4750		$16,668	$79,174,484	7.73%	
Trauma Related Condition	8749	TRAUMATIC BRAIN INJURY	$1,904	$16,660,268	1.63%	X
Urinary Disorders	11515		$2,504	$28,836,425	2.82%	

% total diseases directly related to Vitamin D status = 61.16%

Notes in red by office of Rep. Seaton

Meta-analysis of breast cancer risk



Dose–response gradient of risk of breast cancer according to serum 25-hydroxyvitamin D concentration, pooled analysis.

Active State Of Alaska employees, Retirees and dependents – **83,000**

Female percentage of AK employees and retirees: 53% = 43,990

Incidence of Breast Cancer per year in AK - **125 per 100,000 (.00125)**

Average cost of annual medical expenditures directly attributable to Breast Cancer – **$11,000**

=

Per year AK State Cost for Breast Cancer: **$ 604,863**

50% reduction with vitamin D

Per Year Savings with vitamin D: $302,431

Meta-analysis

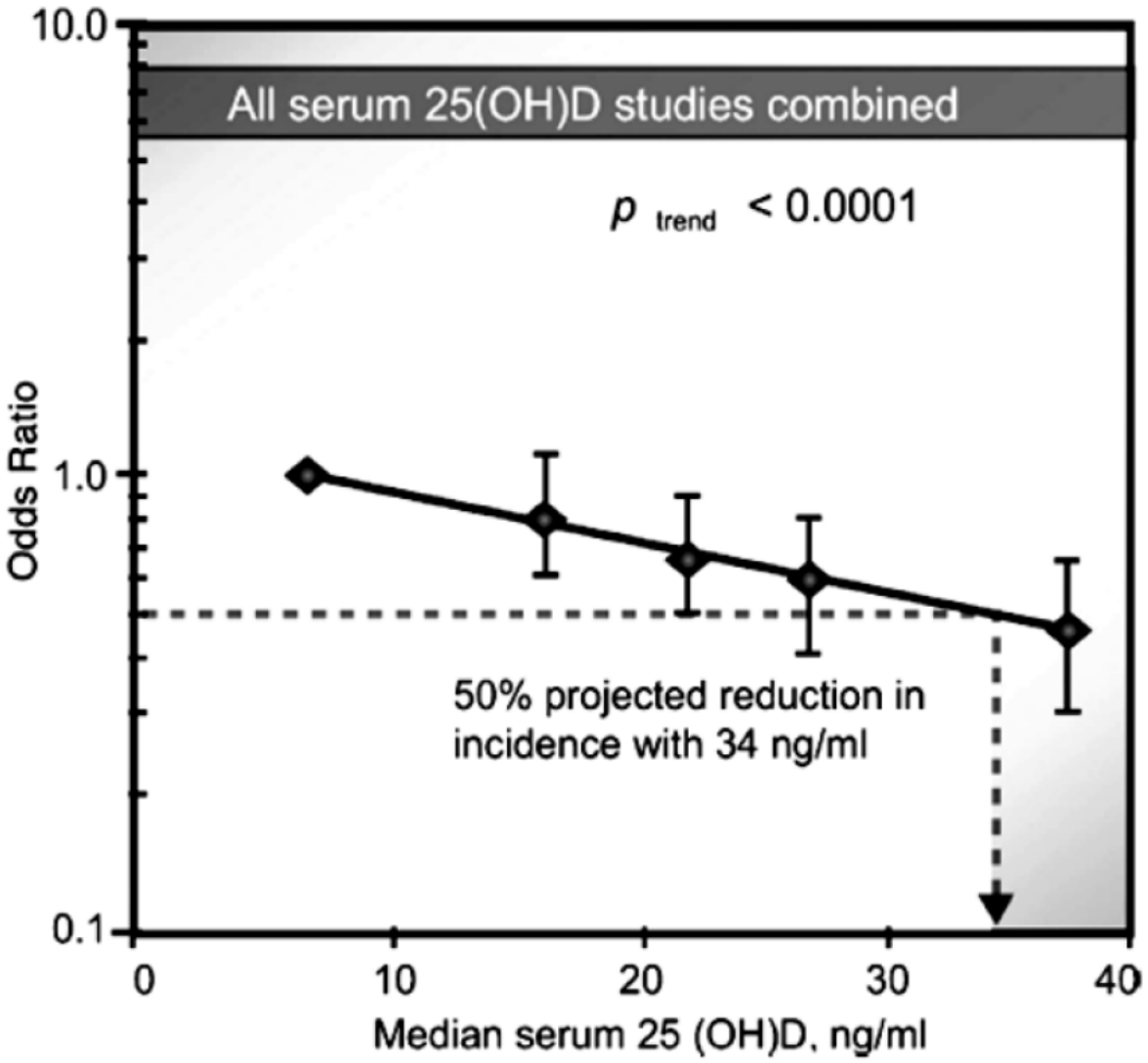


Figure 1. Dose–response gradient for colorectal cancer according to serum 25(OH)D concentration, all five studies combined.[1,4–7] The five points are the odds ratios for each quintile of 25(OH)D based on combined data from the five studies.

Active State Of Alaska employees, Retirees and dependents – **83,000**

Incidence of Colorectal Cancer per year in AK - **43 per 100,000 (.0043)**

Average cost of annual medical expenditures directly attributable to Colon Cancer – **$11,000**

=

AK State Cost for Colorectal Cancer per year **$ 3,925,900**

50% per year savings with vitamin D

$1,962,950

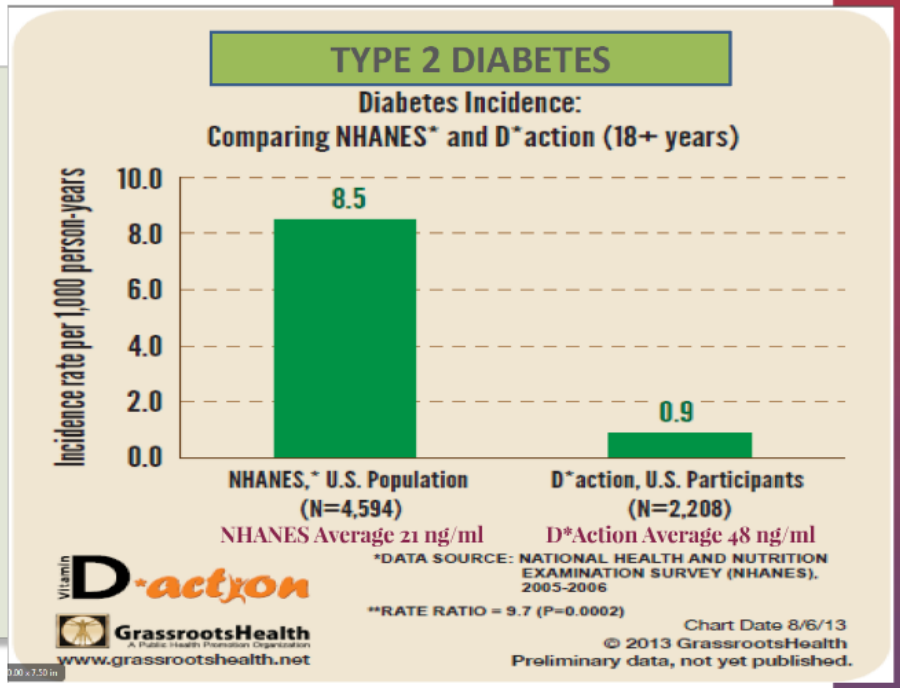
(meta-analysis Gorham et. al.)

Diabetes Incidence:
Comparing NHANES and D*action (18+ years)

In a comparison of data from the National Health and Nutrition Examination Survey (NHANES), 2005-2006, and GrassrootsHealth D*action participants in the United States, we found the following:

Incidence of Diabetes:
- NHANES: 8.5/1,000 person-years
- D*action: 0.9/1,000 person-years

A full 90% reduction in incidence - before adjusting for co-factors.



(Both groups had a similar average BMI, within 3 points.)

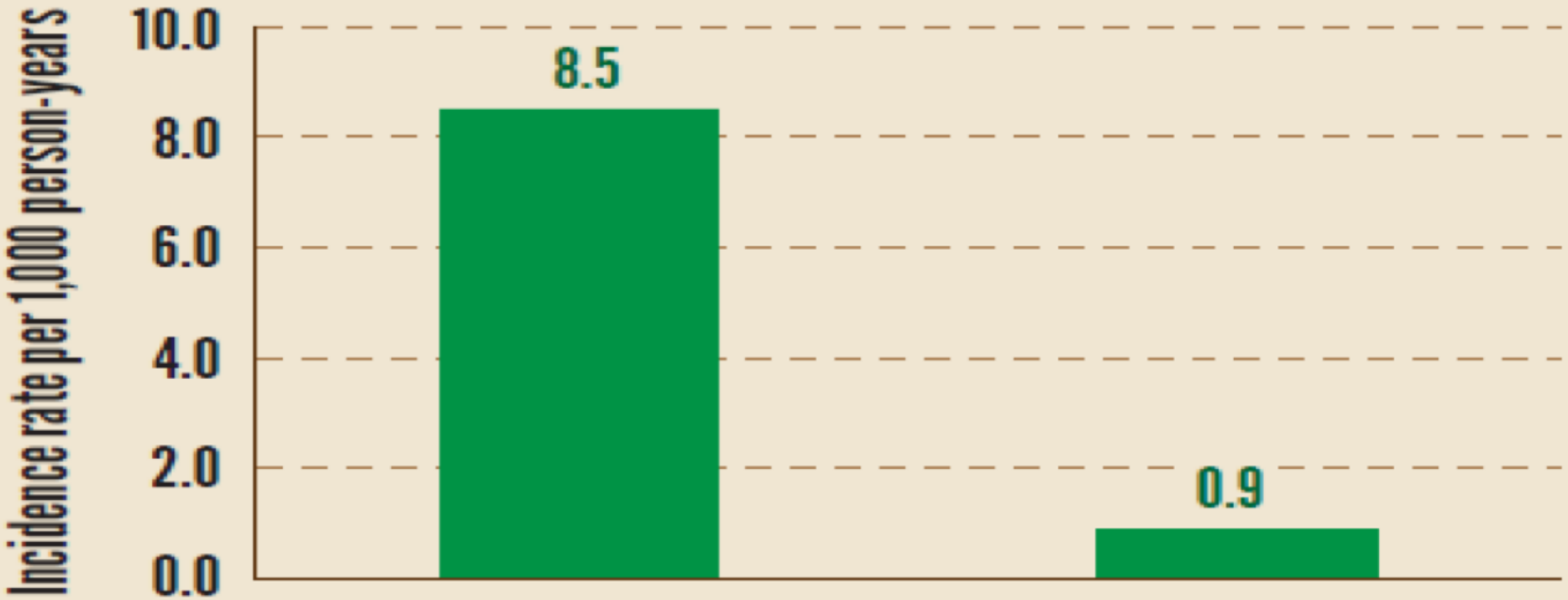
Rate Ratio = 9.7 (P=0.0002)

Chart Date: 8/6/13

© 2013 GrassrootsHealth. Preliminary data, not yet published.

TYPE 2 DIABETES

Diabetes Incidence:
Comparing NHANES* and D*action (18+ years)



NHANES Average 21 ng/ml

D*Action Average 48 ng/ml

*DATA SOURCE: NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY (NHANES), 2005-2006

**RATE RATIO = 9.7 (P=0.0002)

Vitamin D*action

GrassrootsHealth
A Public Health Promotion Organization
www.grassrootshealth.net

Chart Date 8/6/13

© 2013 GrassrootsHealth
Preliminary data, not yet published.

0.00 x 7.50 in

Active State Of Alaska employees, Retirees and dependents – **83,000**

Employees, Retirees and dependents minus those with Diabetes already – **71,143**

New incidences of diabetes per year – **8.5 per 1,000 per year (.0085)**

Average cost of annual medical expenditures directly attributable to diabetes – **$7,900**

=

Current Diabetes Cost per year= **$4,777,252**

Per year Savings at 90% reduction = $4,299,527

(GrassrootsHealth D*Action study)

Per year Savings at 38% reduction = $1,815,356

(Meta-analysis of prospective studies - Song et.al.)

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Select a summary | search | go | news: Fetal and

Alaska

Find maternal and infant health data on a state level, or by county or city. Narrow your results or compare with another region.

Location: Alaska edit

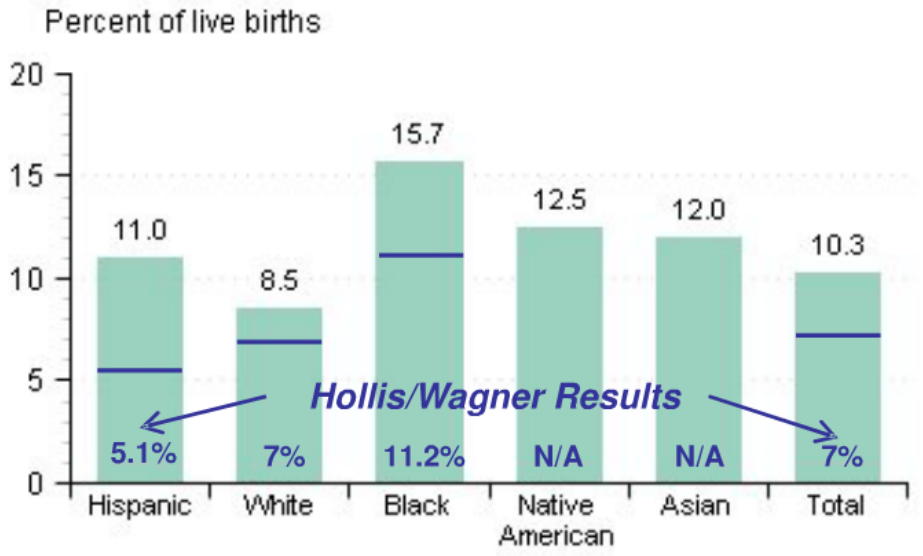
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Preterm by race/ethnicity: Alaska, 2009-2011 Average



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- Approximate number of births per year in Alaska = 11,000

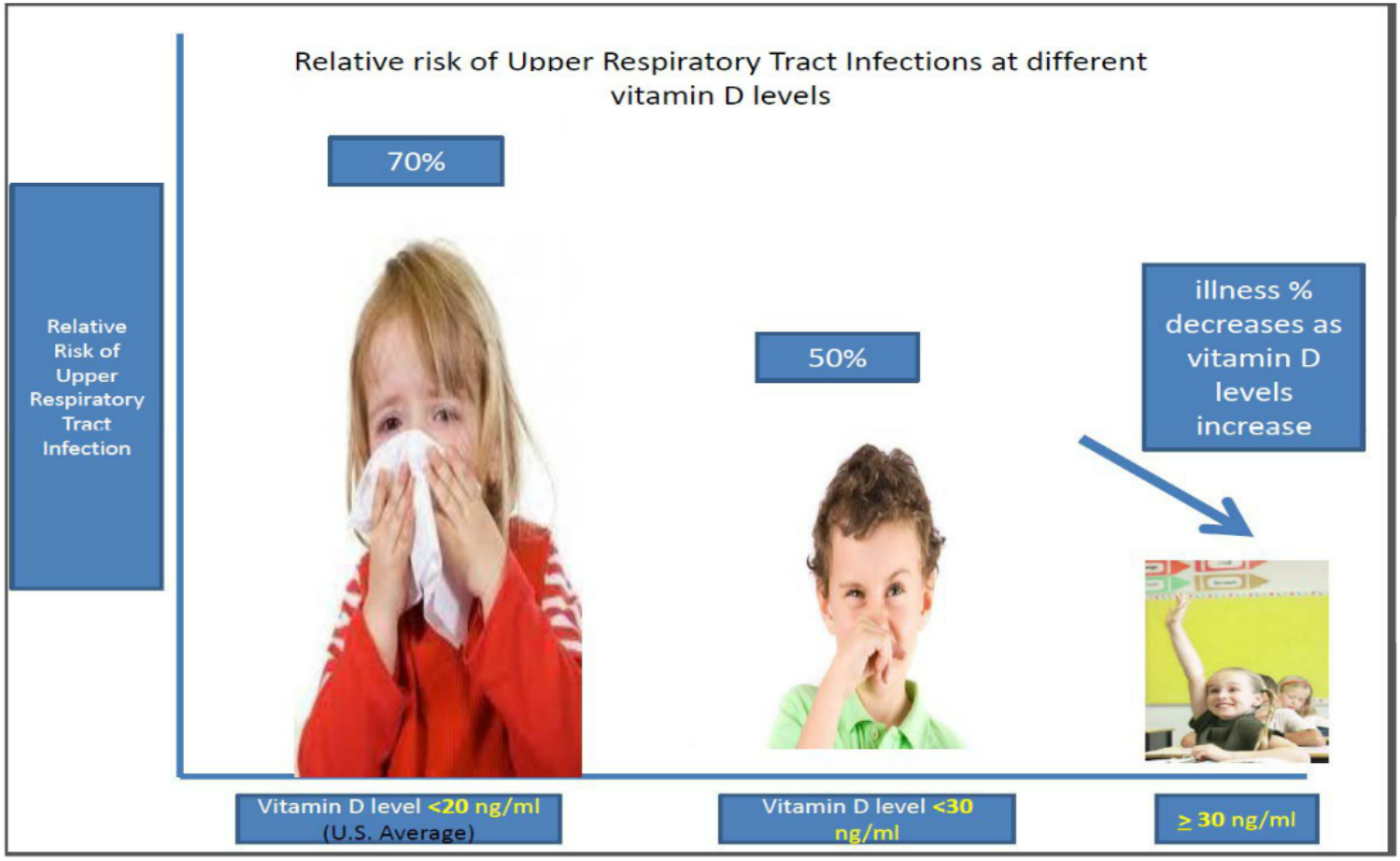
- Assumption: 500 births per year to State of Alaska Employees, Retirees and Dependents

- For each 500 pregnancies in the Alaska insured and dependent category with vitamin D sufficiency 25 preterm births avoided

- Savings to the state by avoiding 25 preterm births = **$1,375,000**

Upper Respiratory Tract Infections

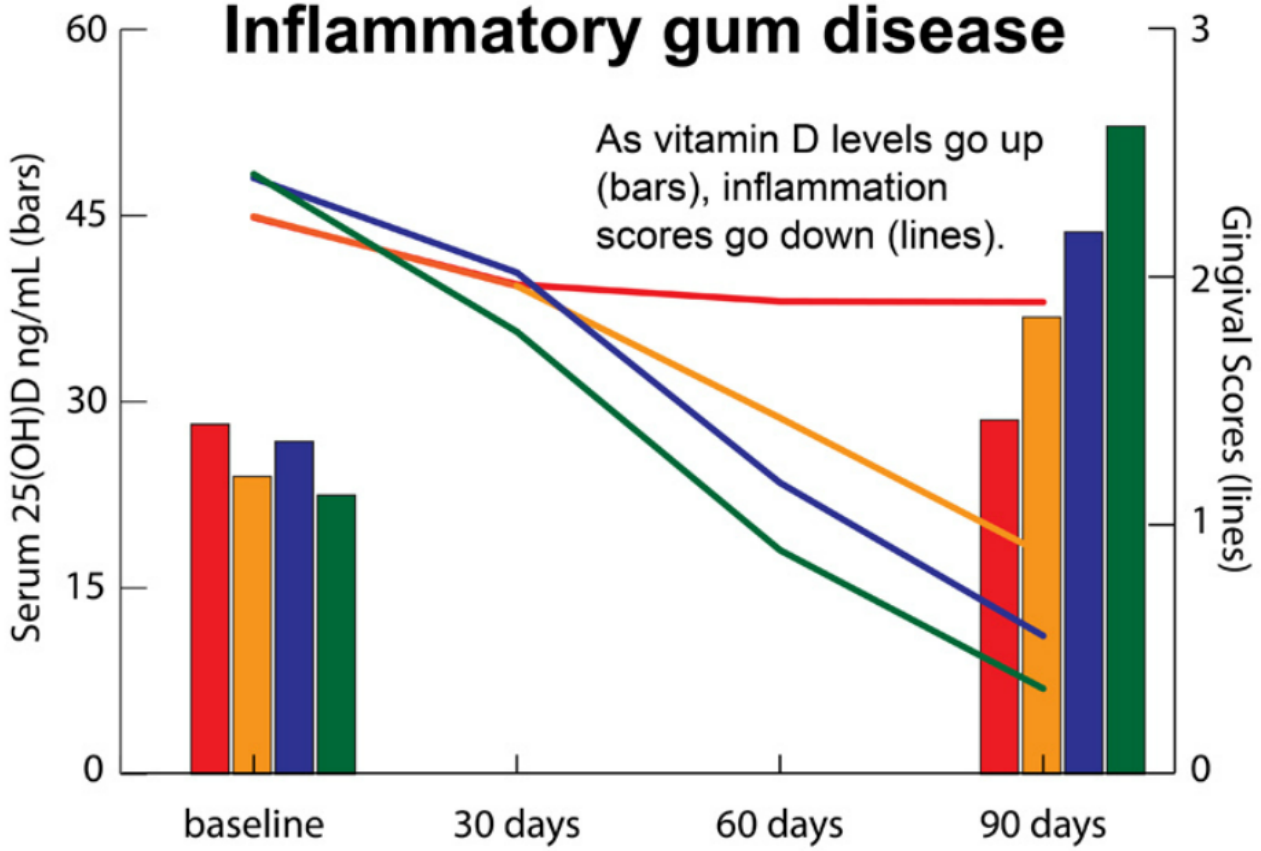
Recently, a study was conducted with seven hundred forty-three children ages 3-15 in a Canadian Hutterite Community. **The findings of the study show that children with higher vitamin D blood levels had a 50% lower relative risk of contracting an Upper Respiratory Tract infection.** Those children at the United States national average of 21 ng/ml vitamin D levels were at a 70% greater risk of contracting respiratory infections. Illnesses such as RTI's are commonly a factor in children's absences from school. Making sure your child has sufficient vitamin D will not only increase their health, but will lead to less school absences due to illness.



Low Serum 25 Hydroxyvitamin D level and Risk of Upper Respiratory tract infection in Children and Adolescents Science et. al. Journal of Clinical Infectious Diseases, August 2013 volume 57.

Prepared by the office of Representative Paul Seaton

Inflammatory gum disease



0 IU (placebo) After 3 months

500 IU/day More than 50% reduction

1000 IU/day More than 65% reduction

2000 IU/day More than 80% reduction

Hiremath VP, Rao CB, Naik V, Prasad KVV. Anti-inflammatory Effect of Vitamin D on Gingivitis: A Dose-Response Randomised Control Trial. Oral Health Prev. Dent. 2013; 11(1):61-69. (notes by Seaton)

HOUSE BILL NO. 356

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-EIGHTH LEGISLATURE - SECOND SESSION

BY REPRESENTATIVE SEATON

Introduced: 2/26/14
Referred: Health and Social Services, State Affairs

A BILL

FOR AN ACT ENTITLED

"An Act establishing the Advisory Committee on Wellness; and relating to the administration of state group health insurance policies."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

*** Section 1.** The uncodified law of the State of Alaska is amended by adding a new section to read:

LEGISLATIVE FINDINGS AND INTENT. (a) The legislature finds that

(1) individual Alaskans and the state share the burden of increasing health care and insurance costs resulting from avoidable disease in humans;

(2) the state has not adequately focused state policy on avoiding disease and maintaining good health in the state's population;

(3) the state relies on federal one-size-fits-all human health policy recommendations, creating federal overreach into the state's administration of health policy;

(4) the state's human health policies have not incorporated peer-reviewed scientific studies that illustrate health-related differences between the population of the state

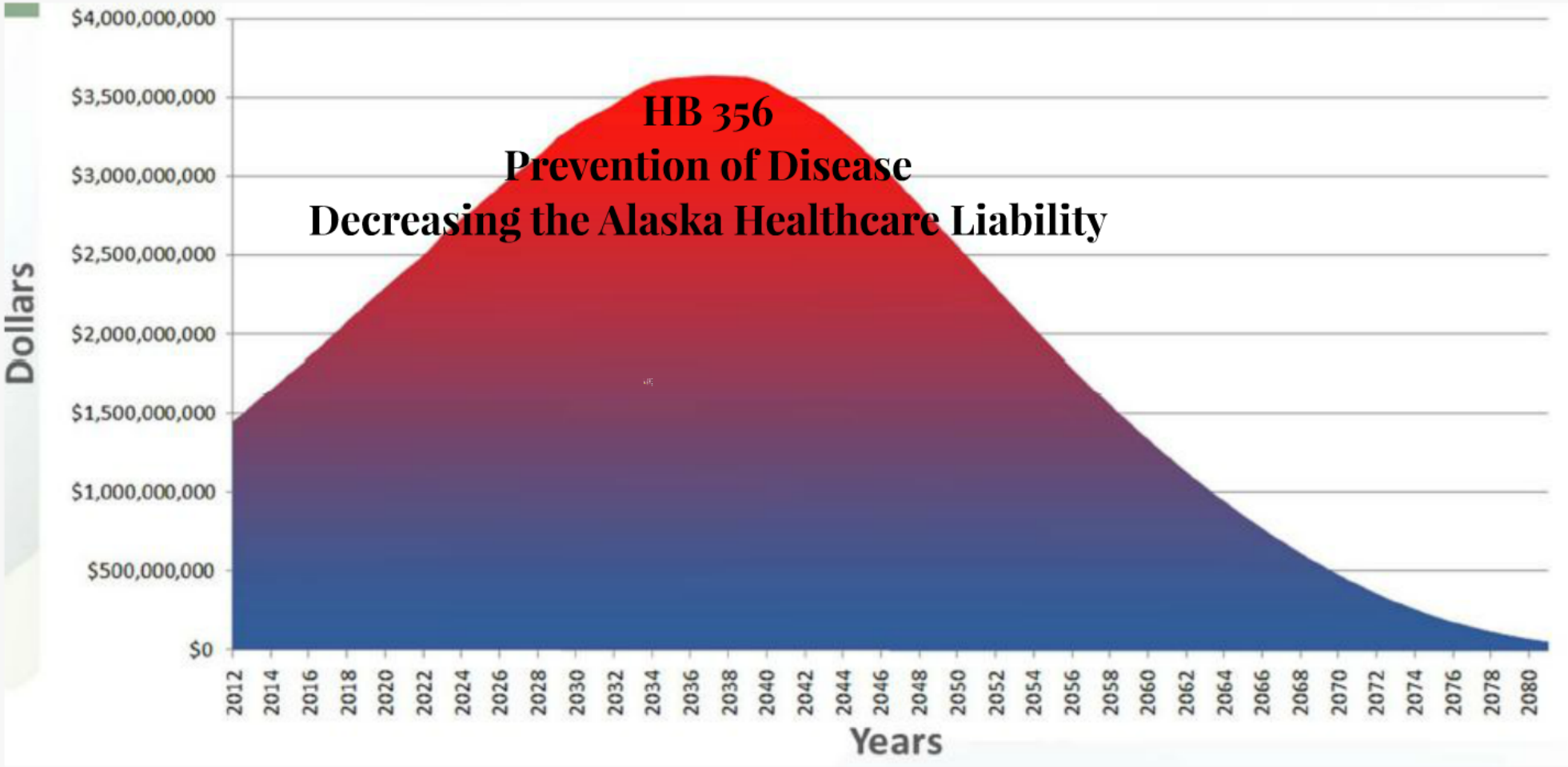
providing health care benefits to persons who are covered by a policy of group health insurance obtained under AS 39.30.090(a) or 39.30.091(a) to a rate that does not exceed two percent annually.

*** Sec. 2.** AS 39.30.090(a) is amended by adding a new paragraph to read:

(13) To the greatest extent legally and reasonably practicable, the Department of Administration shall work to hold the escalation of health care costs to less than two percent annually by administering policies of group health insurance obtained under this subsection in a manner that is likely to reduce the incidence of disease in the state's population and that facilitates implementation of the recommendations of the Advisory Committee on Wellness established under AS 39.30.093.

*** Sec. 3.** AS 39.30.091 is amended by adding a new subsection to read:

(b) To the greatest extent legally and reasonably practicable, the Department of Administration shall work to hold the escalation of health care costs to less than two percent annually by administering policies of group health insurance obtained under


HB 356
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