

The Actuarial Profession
making financial sense of the future

A convenient truth

Presentation to Institute of Actuaries Healthcare Conference
May 2007

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PruHealth


Overview

- Why are healthcare costs going up?
- Implications for consumers
- Funding options
- What can we do?
- What next?



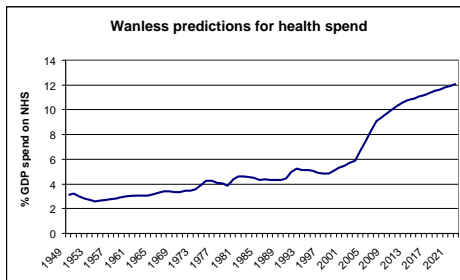
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1. Why are healthcare costs going up?



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Trend in % UK GDP Spent on Healthcare



Source: "Securing Our Future Health: Taking A Long-Term View". Report submitted to HM Treasury by Derek Wanless. (2002)

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Public Policy



"My focus is that we must deliver an acceptable service to patients in the waiting list, that is to say that everybody should have the total assurance that if they are on a waiting list they will be treated within eighteen months as a maximum, actually for the overwhelming majority it is twelve months as a maximum and for the great majority it is very much less than that."

Stephen Dorrell, Secretary of State for Health in Major's Cabinet

Source: <http://www.bbc.co.uk/1/health/Dorrell2.07.html>

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Public Policy

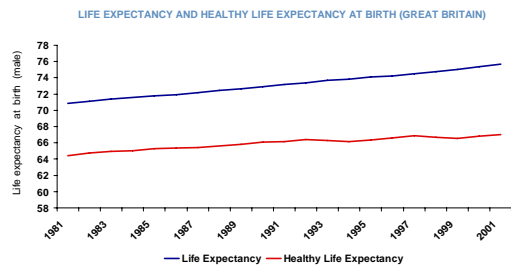


- "The NHS has eradicated long waits and is now delivering the fastest ever access to NHS treatment. This is dramatic and real progress."
- "The challenge now is to meet our commitment to deliver a maximum wait of 18 weeks from GP to treatment. This will end the hidden waiting lists that patients often encounter and is the final step in consigning waiting lists to NHS history."

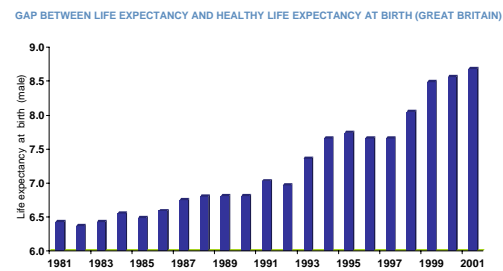
Source: http://www.dh.gov.uk/PublicationsAndStatistics/PressReleases/PressReleasesAndStatistics/Content/CONTENT_ID=4127912&ch=H4YDu7

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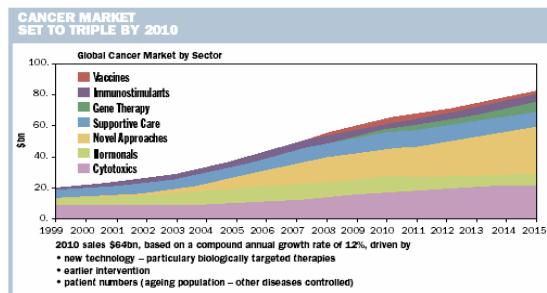
Longevity



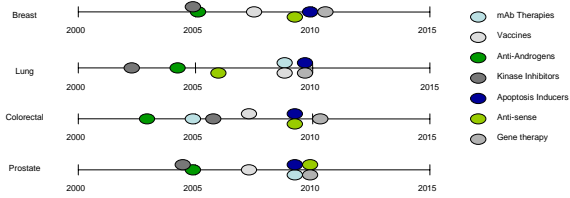
Longevity



Medical Technology



Medical Technology



Source: <http://www.reform.co.uk/files/reform/pdf/Cancer%20care%20in%20the%20next%20years.pdf>

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Consumerism

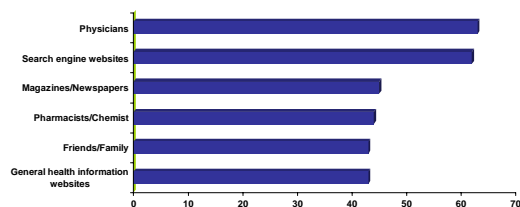


Source: Datamonitor - The Future of Online Channels 2008

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Consumerism

Q. I HAVE ACCESSED THE FOLLOWING SOURCES OF HEALTH INFORMATION IN THE PAST 6 MONTHS



Source: Datamonitor - The Future of Online Channels 2008

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Consumerism

Downloaded from img.sagepub.com on 11 December 2009

Research

Googling for a diagnosis—use of Google as a diagnostic aid: internet based study

Hazrat Beg, Jonathan Drew, Kevin Ng

Abstract

Objective: To determine how often searching on Google after a general practice visit might aid in the correct diagnosis. **Design:** Internet based study using Google. **Setting:** General practice. **Subjects:** 100 patients. **Results:** Google searches revealed the correct diagnosis in 15 (58%, 95% confidence interval 38% to 77%) cases. **Conclusion:** As internet access becomes more readily available in outpatient clinics and hospital wards, the web is rapidly becoming an important clinical tool for doctors. The use of web based searching may help doctors to diagnose difficult cases.

Results Google searches revealed the correct diagnosis in 15 (58%, 95% confidence interval 38% to 77%) cases. **Conclusion** As internet access becomes more readily available in outpatient clinics and hospital wards, the web is rapidly becoming an important clinical tool for doctors. The use of web based searching may help doctors to diagnose difficult cases.

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Why are healthcare costs going up?

- Higher expectations for public services
- Longevity
- New treatments
- Informed consumers

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2. Implications for consumers

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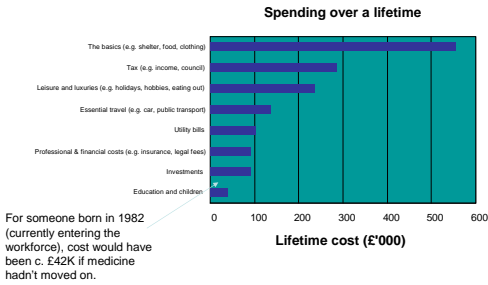
Lifetime Cost of Healthcare



*For illustrative purposes only

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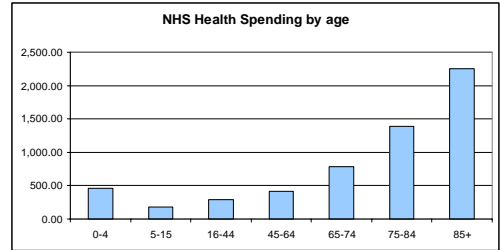
Lifetime Cost of Healthcare



Source: YouGov Research 'The Cost of Living' (Feb 2008)

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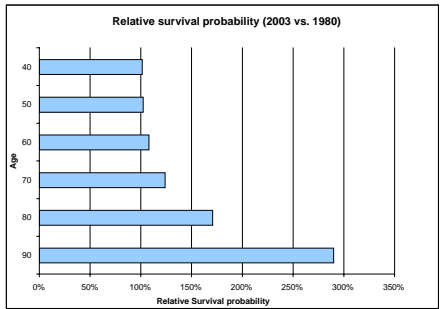
Current Health Spend by Age



Source: Institute for Fiscal Studies (2006)

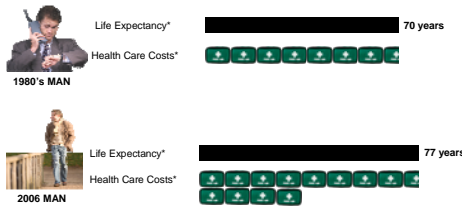
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Effects of Improvements in Mortality



Source: Derived from mortality tables from Government Actuary's Department (2007)

Lifetime Cost of Healthcare



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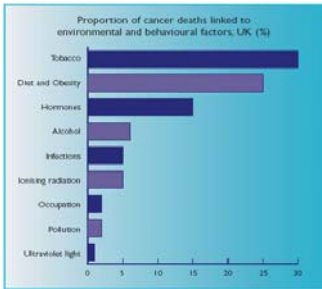
Lifestyle and Chronic Disease



	Modifiable Risk Factors					Intermediate Risk Factors			
	Smoking	Physical Activity	Diet	Stress	Alcohol	High blood pressure	Raised blood levels	High glucose levels	Cholesterol / Obesity
Chronic heart disease	✓	✓	✓	✓	✓	✓	✓	✓	✓
Stroke	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cancer	✓		✓		✓				✓
Diabetes		✓	✓			✓	✓	✓	✓
Respiratory disease	✓								✓

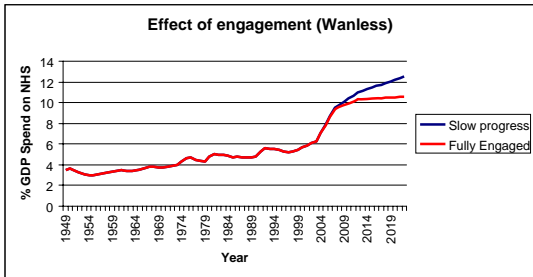
Source: World Economic Forum 2007

Lifestyle and Cancer risk



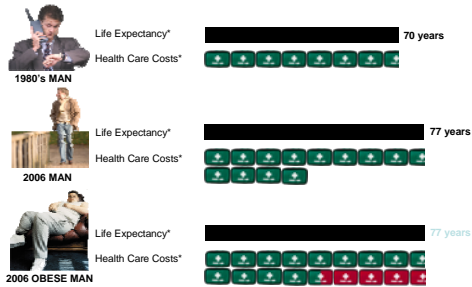
Source: http://info.cancerresearchuk.org/images/pdf/01_research_brochure.pdf

Lifestyle and cost



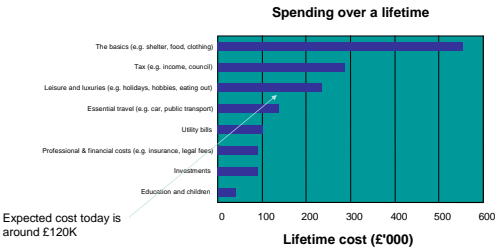
Source: 'Securing Our Future Health: Taking A Long-Term View'. Report submitted to HM Treasury by Derek Wanless, (2002)

Lifetime Cost of Healthcare



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Lifetime Cost of Healthcare



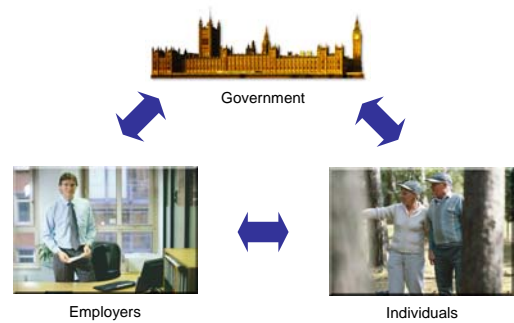
Source: YouGov Research 'The Cost of Living' (Feb 2005)

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3. Funding options

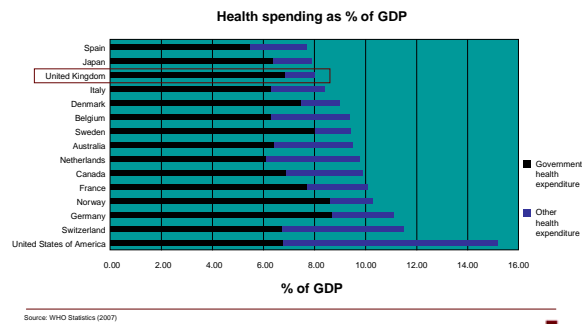
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Who Will Pay?

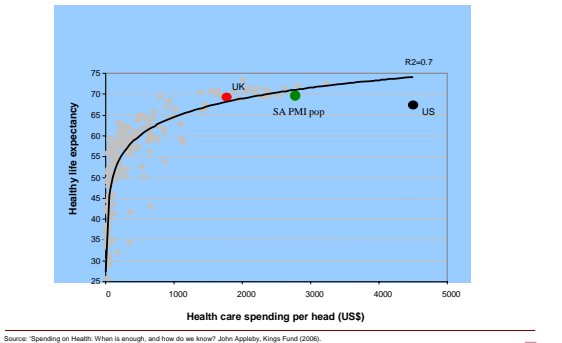


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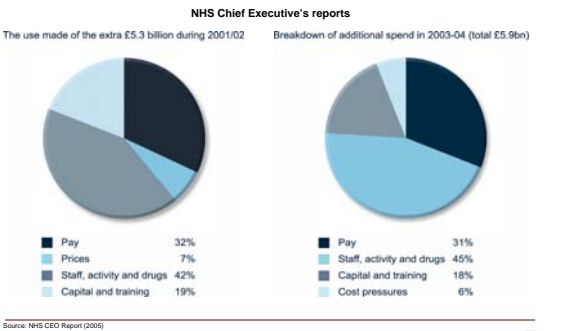
Government



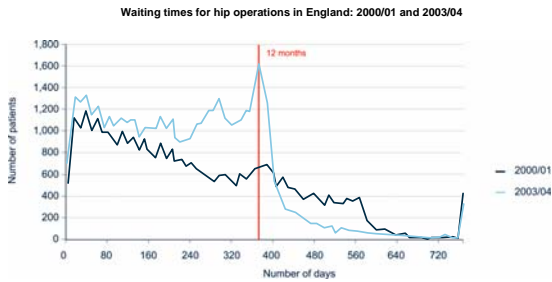
Health Spend and Outcome



Government



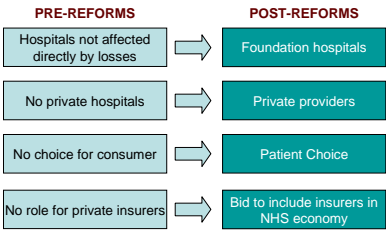
Government



Source: Healthcare Commission's analysis of Hospital Episode Statistics data

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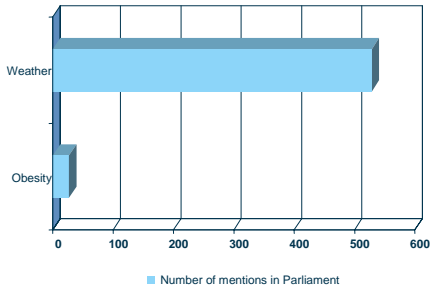
NHS Reforms



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Health and Wellness

PARLIAMENTARY REFERENCES IN 1996

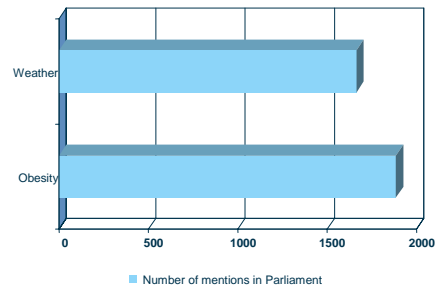


Source: Hansard (House of Commons Daily Debates)

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Health and Wellness

PARLIAMENTARY REFERENCES IN 2006



Source: Hansard (House of Commons Daily Debates)

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Individuals?



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Individuals?

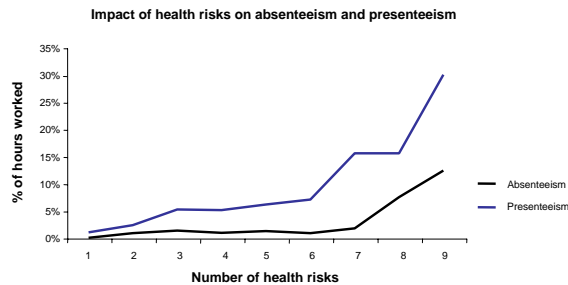
- Already an element of self-pay
- Highly inefficient
- Declining market
- Leads to inequality based on income

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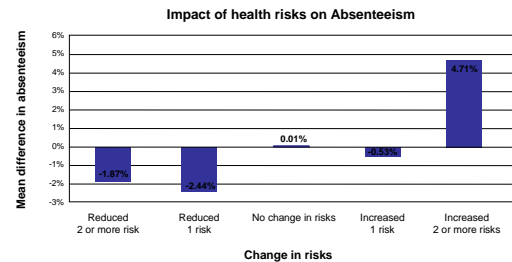
Employers?

- Do people genuinely value investment in their health?
- Are healthy employees really more productive?
- If employees get healthier, will they get more productive?
- Do healthier companies perform any better than their competitors?
- Does investing in health have a positive return?

Health and Productivity



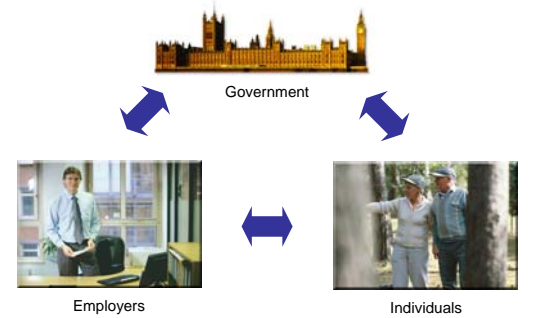
Health and Productivity



ROI on Health Promotion

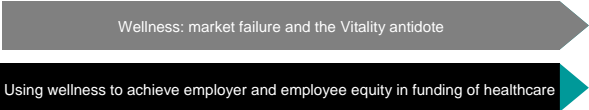
EVIDENCE OF WORKPLACE HEALTH AND WELLNESS PROGRAMMES				
JOURNAL / BOOK TITLE	YEAR	SAMPLE SIZE	IMPACT ON ABSENTEEISM	RETURN ON INVESTMENT
Preventative Medicine	1986	200+ sites	20% improvement / 1.25 days less	
American Journal of Public Health	1990	60 sites	14% reduction in disability days	\$2.05 for every \$1 invested
Proof Positive: Analysis of the cost-effectiveness of Wellness	1996	400+ participants	22.2% lower sick leave over 3 years	33.6% reduction in health care costs
American Journal of Public Health	2001	84 studies	All studies showed an improvement	\$3.93 - \$5.07 for every \$1 invested
The Art of Health Promotion	2003	42 studies	28.3% improvement	\$5.93 for every \$1 invested

Who Will Pay?

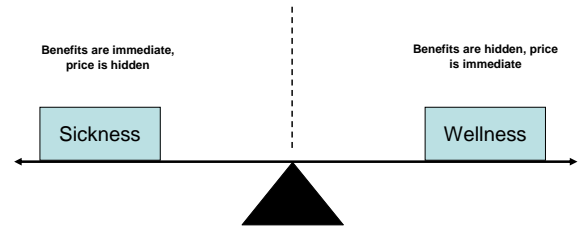


4. What can we do?

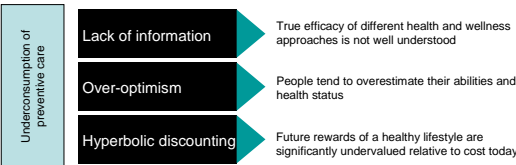
What can we do?



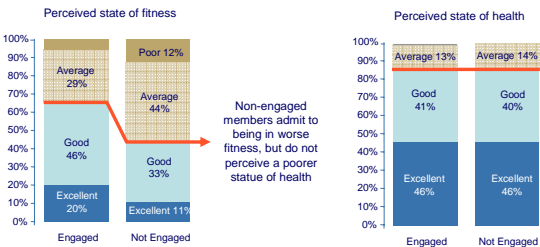
Healthcare is Riddled with Market Failure



Why Wellness is Elusive



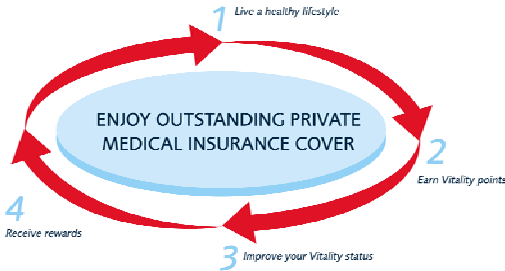
Examples from South African Experience:
Over-optimism in Action



Source: Survey of 583 Vitality members, Dec 06

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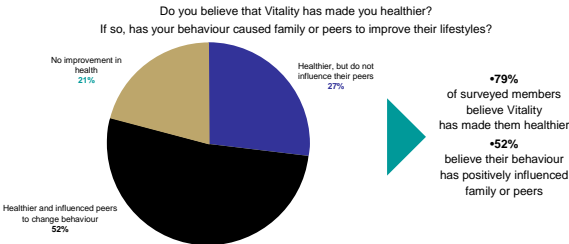
PruHealth model: Vitality



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Change in Behaviour

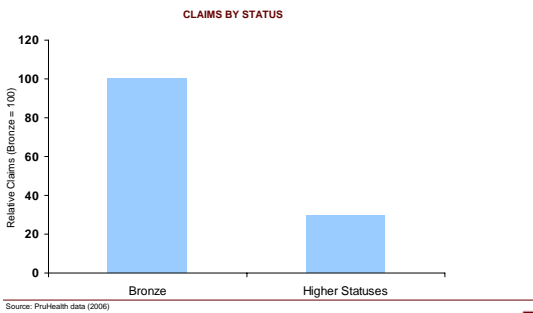
Members believe that Vitality is making them healthier



Source: GRINOP 2007

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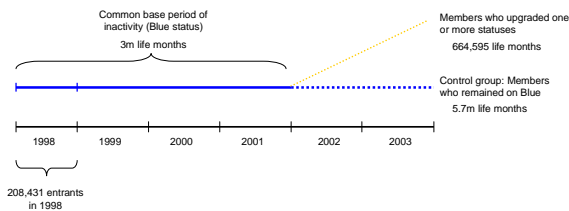
Vitality and Claims



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Is the Effect of Moving Through the Statuses that Results in Lower Claims?

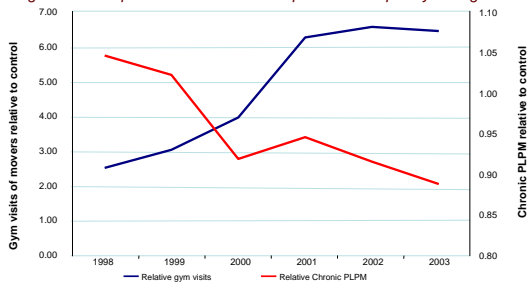
Longitudinal Comparison of Common Group who Subsequently Diverged



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Is the Effect of Moving Through the Statuses that Results in Lower Claims?

Longitudinal Comparison of Common Group who Subsequently Diverged

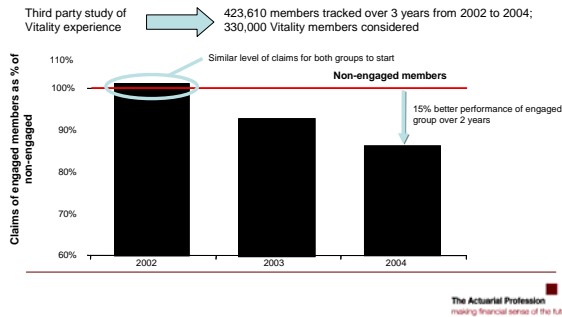


* Those on Blue 1998-2001 who subsequently changed status relative to those who remained on Blue

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Is the Effect of Moving Through the Statuses that Results in Lower Claims?

Third party study confirms the benefits after allowing for selection



Three Tests of Vitality Experience

1. Does Vitality precipitate a change in behaviour?
2. Are Vitality engagement and healthcare consumption negatively correlated?
3. The effect of selection: Does Vitality make people healthier, or do healthier people engage in Vitality?

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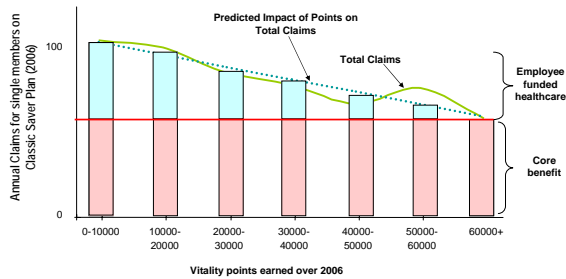
What can we do?

Wellness: market failure and the Vitality antidote

Using wellness to achieve employer and employee equity in funding of healthcare

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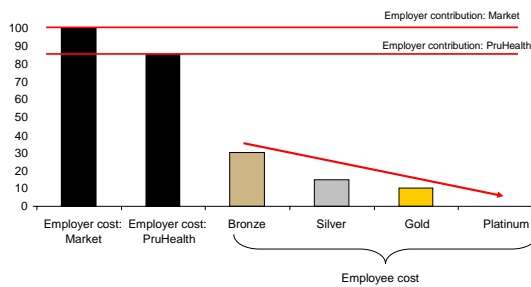
Linking Vitality Engagement to the Funding of Healthcare



Source: Discovery Health data (2006)

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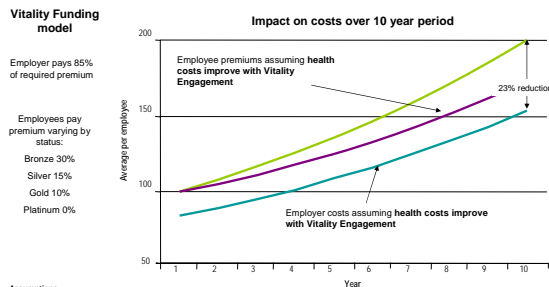
A New Paradigm



Source: PruHealth illustration

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The Concept of Vitality Funding



Assumptions:

- 10% upward status shift per annum

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5. What next?

A convenient truth

- Health is at the top of the agenda
- Government engaged in major reforms
- Consumers looking for innovative solutions
- Employers trying to control costs fairly

Major opportunities for new ideas

A convenient truth

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Head of Research and Development
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