



INVESTING IN WELLNESS PROGRAMS

*Workplace health interventions programs & its
technology improvements*

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Do insurers need to promote healthy lifestyle to clients?



**LIFESTYLE,
HEALTH RISKS,
DISEASES &
COST**



Physical Inactivity, Unhealthy Eating Habits, High Levels Of Stress, Smoking



Diabetes, High Blood Pressure, High Blood Cholesterol, Obesity



Cancer, Cardiovascular Diseases, Stroke



High Medical Costs & Claims

CARDIOVASCULAR DEATHS AMONG THOSE > 30 YEARS OLD

45% attributed to raised blood pressure

16% attributed to raised cholesterol

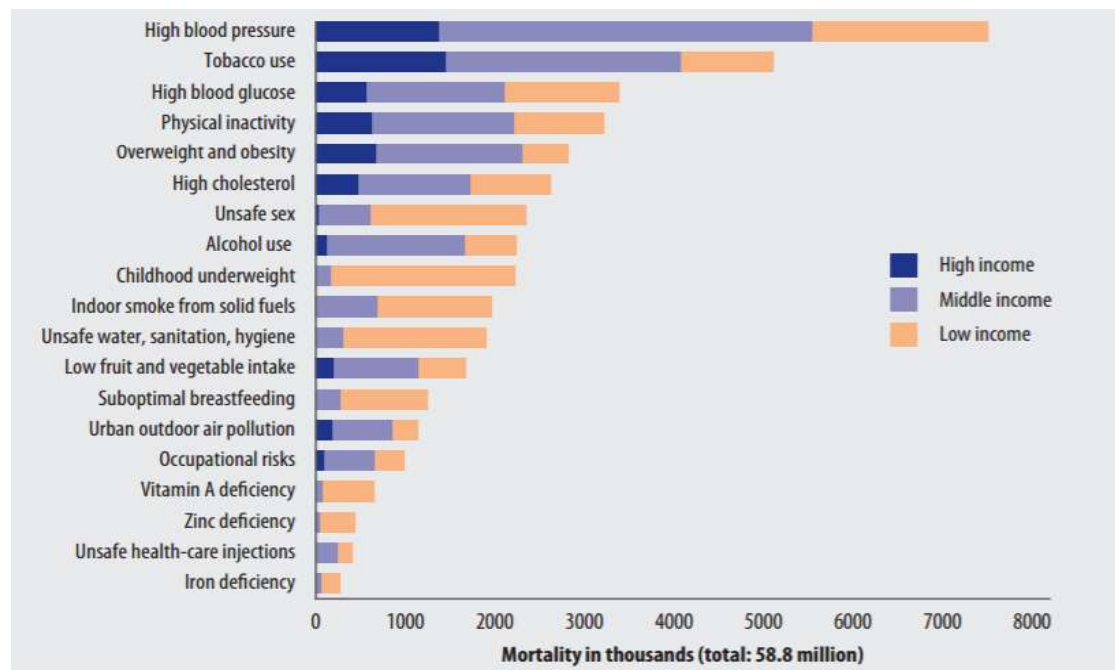
13% attributed to raised blood glucose

The estimated combined effect of these 3 risks is about 48% of cardiovascular diseases



LIFESTYLE, HEALTH RISKS AND DISEASES

Deaths attributed to 19 leading risk factors, by country income level, 2004



LIFESTYLE, HEALTH RISKS AND DISEASES

Deaths and disability-adjusted life years attributed to 6 diet-related risks and physical activity and to all six risks combined, by region, 2004

Risk	World	Low and middle income	High income
<i>Percentage of deaths</i>			
High blood pressure	12.8	12.1	16.8
High blood glucose	5.8	5.6	7.0
Physical inactivity	5.5	5.1	7.7
Overweight and obesity	4.8	4.2	8.4
High cholesterol	4.5	4.3	5.8
Low fruit and vegetable intake	2.9	2.9	2.5
All six risks	19.1	18.1	25.2
<i>Percentage of DALYs</i>			
High blood pressure	3.8	3.5	6.1
High blood glucose	2.7	2.5	4.9
Physical inactivity	2.1	1.9	4.1
Overweight and obesity	2.4	2.0	6.5
High cholesterol	2.0	1.8	3.4
Low fruit and vegetable intake	1.1	1.0	1.3
All six risks	7.0	6.5	12.6

Risk factor	Deaths (millions)	Percentage of total
<i>High-income countries^a</i>		
1 Tobacco use	1.5	17.9
2 High blood pressure	1.4	16.8
3 Overweight and obesity	0.7	8.4
4 Physical inactivity	0.6	7.7
5 High blood glucose	0.6	7.0
6 High cholesterol	0.5	5.8
7 Low fruit and vegetable intake	0.2	2.5
8 Urban outdoor air pollution	0.2	2.5
9 Alcohol use	0.1	1.6
10 Occupational risks	0.1	1.1

Countries grouped by gross national income per capita – low income (US\$825 or less), high income (US\$10,066 or more)



MEDICAL COST & HEALTH RISK

Anderson et al¹:

approx. 25% of total health care costs can be attributed to 10 modifiable risk factors among six large employers.

Employees at risk for depression - incur 70% higher medical care costs compared to employees without depression

Niranjana et al²:

Medical care expenditures were 13% – 22% higher for men and women at risk for the high biometric laboratory values and the emotional health factor among 11 large employers

Milani et al³:

57% of participants were converted to low-risk status by the end of the six-month program, as compared to no improvement from control group. Medical claim costs declined by \$1,421 per participant, compared with those from the previous year.

Source:

¹ America Journal of Health Promotion

² Journal of Occupational and Environment Medicine

³ Harvard Business Review





HEALTH RISKS THAT DRIVE UP MEDICAL COST



Primary medical conditions **reported** to generate adverse claims:

- Cardiovascular
- Gastrointestinal
- Cancer

Primary medical conditions **expected** to generate adverse claims:

- Poor Stress Management
- High Cholesterol
- Physical Inactivity

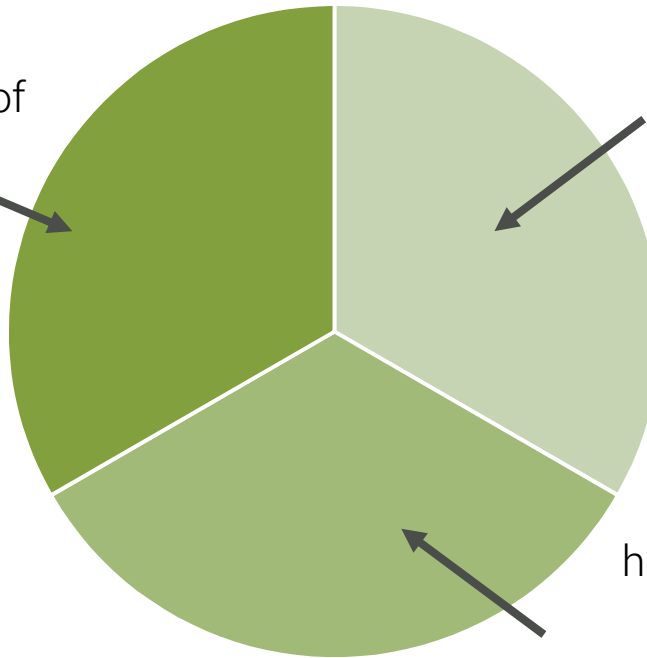
Source: Aon Hewitt 2015 survey report on Global Medical Trend Rate

HOW HAS SINGAPORE FARED?

Indicator	Baseline 1998 wa (gp)	2004 wa (gp)	2010 wa (gp)
Cholesterol	25% (25%)	18.6%(18.7%)	18.1%(17.4%)
Diabetes	7% (9%)	6.6%(8.2%)	9.9%(11.3%)
Hypertension	19% (22%)	18.7%(20.1%)	23.5%(23.5%)
Smoke daily	15% (15%)	15.1%(12.6%)	15.7%(14.3%)
Physical activity	14% (17%)	21.2%(24.9%)	15.7%(19.0%)
Obesity	5% (6%)	6.6%(6.9%)	11.0%(10.8%)

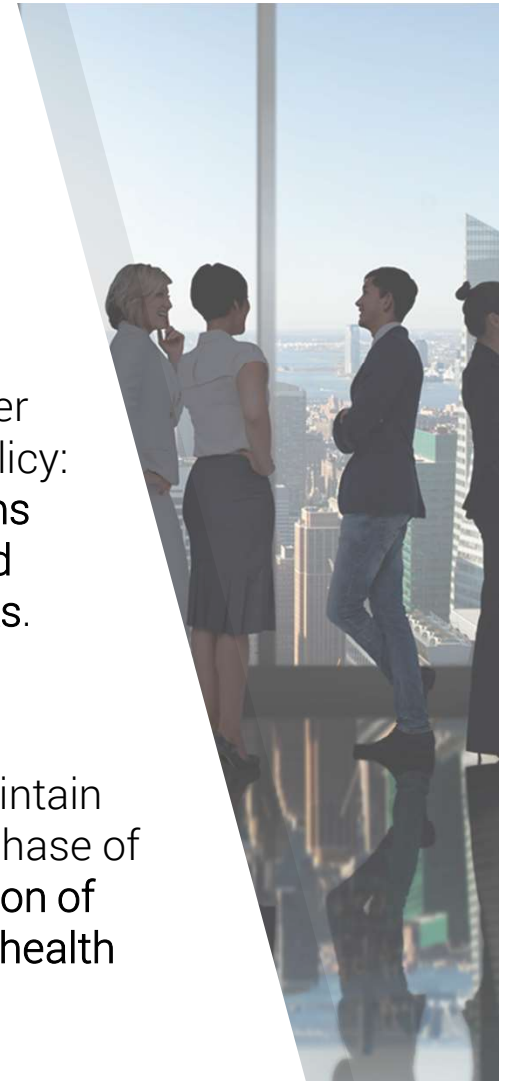
IMPLICATIONS TO INSURERS

Clients with a health condition before purchase of policy.



Clients who develop a condition after purchase of policy: Reduce claims with lowered /reduced risks.

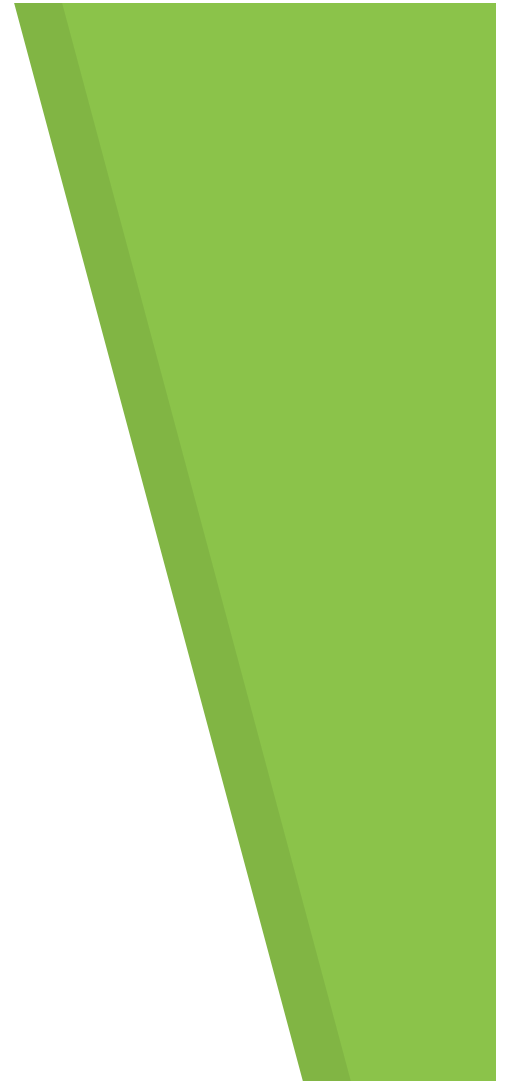
Clients who maintain healthy after purchase of policy: Prevention of development of health risks.



IMPLICATIONS TO INSURERS

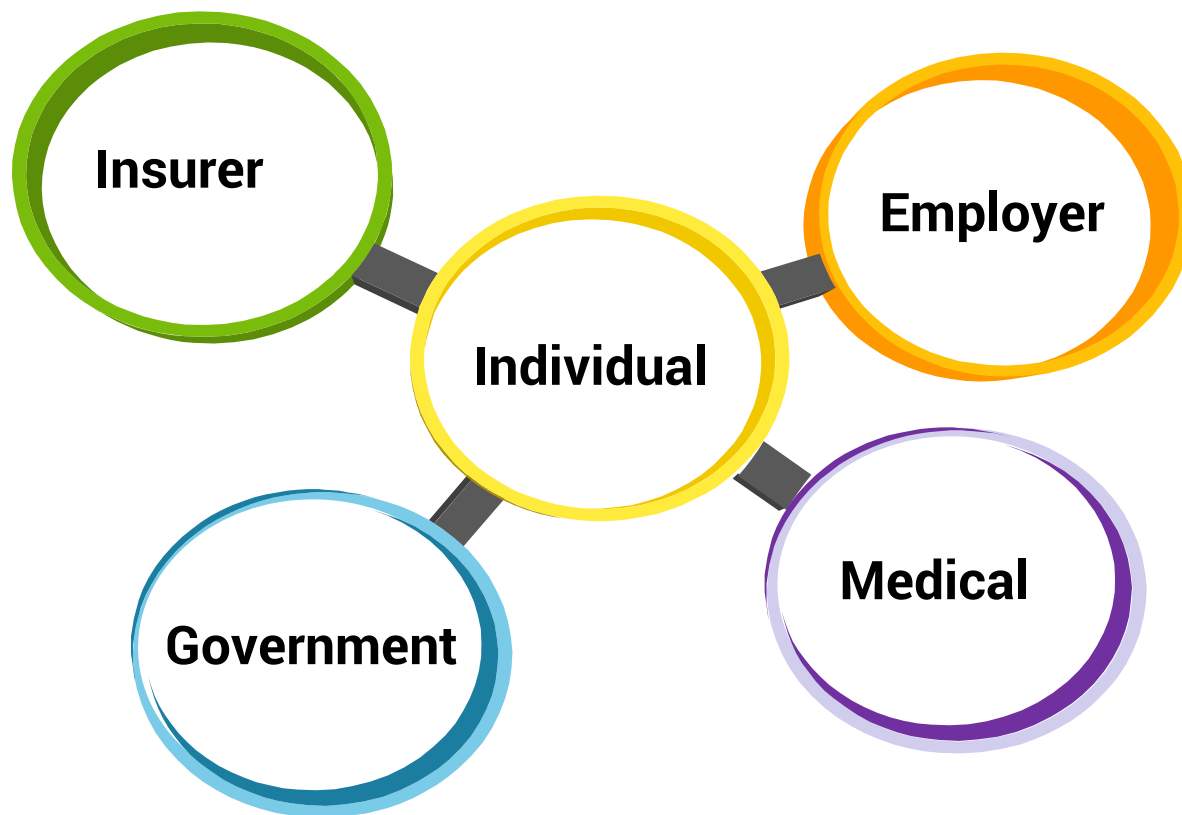
Claims are not sky high now but population is ageing, medical expenses will increase.

Do we load more premium or prevent claims from increasing?
Do we wait for claims to be high before we start prevention?





A SHARED RESPONSIBILITY



Source: Reinsurance Group of America, Knowledge Center

United States:
Aviva - 2012

United Kingdoms:
PruProtect
Vitality - 2007

Singapore:
Great Eastern Life
– 2012 & AIA
Vitality - 2013

Malaysia:
Great Eastern
Life - 2014

South Africa:
Discover Vitality –
2002 & Momentum
Multiply - 2005

Australia:
Clearview Wealth – 2004
& AIA Vitality - 2014



WORLDWIDE PIONEERING EFFORTS ON **WELLNESS** **PROGRAMS** BY INSURERS



LOCAL EFFORTS ON **WELLNESS PROGRAMS** BY INSURERS



Know Your Health



- 1 Start with the Vitality Health Review to assess your current health status and discover your Vitality Age. AIA Vitality members can earn 1,000 Vitality Points for completing this.

Improve Your Health



- 2 After completing your Vitality Health Review, you can set your personal health goals, visit our partners to help you get healthier while you enjoy savings and earn Vitality Points along the way.

Enjoy The Rewards



- 3 You immediately enjoy rewards like discounted movie tickets when you sign up for AIA Vitality! The more Vitality Points you earn, the higher your Vitality Status and the greater your rewards. Enjoy even greater insurance premium discounts and up to 50% off Royal Caribbean cruises, as well as AirAsia and Emirates flights.



GOVERNMENT INITIATIVES

LOSE TO WIN[®]

— GET HEALTHY —
LOSE TO WIN[®]

Health Promotion Board

Lose more,
Win more.

Track your calories with the Healthy 365 app

Overcoming **LET'S BEAT DIABETES**

A vertical poster with a blue left half and an orange right half. On the blue side, a woman in a light blue shirt and white leggings is shown in a dynamic pose, with a white outline of her body and arms raised. On the orange side, a man in a teal shirt and grey shorts is shown in a similar pose, with a white outline of his body and arms raised. Above the man, there are icons of a burger, a drink, a pizza slice, and a hand holding a fork. At the bottom left, there is a small graphic of a stack of books or a step counter. At the bottom right, there is a small graphic of a ball and a step counter.

National **Steps** Challenge

— GET ACTIVE —
NATIONAL STEPS CHALLENGE[™] SEASON 2

The National Steps Challenge[™] is back with Season 2,

Step up to a whole new world of fun and prizes!

days
into the challenge

Get more from life with every step!

Win amazing prizes!

Explore places with the ones you love!

Feel healthier and more energetic

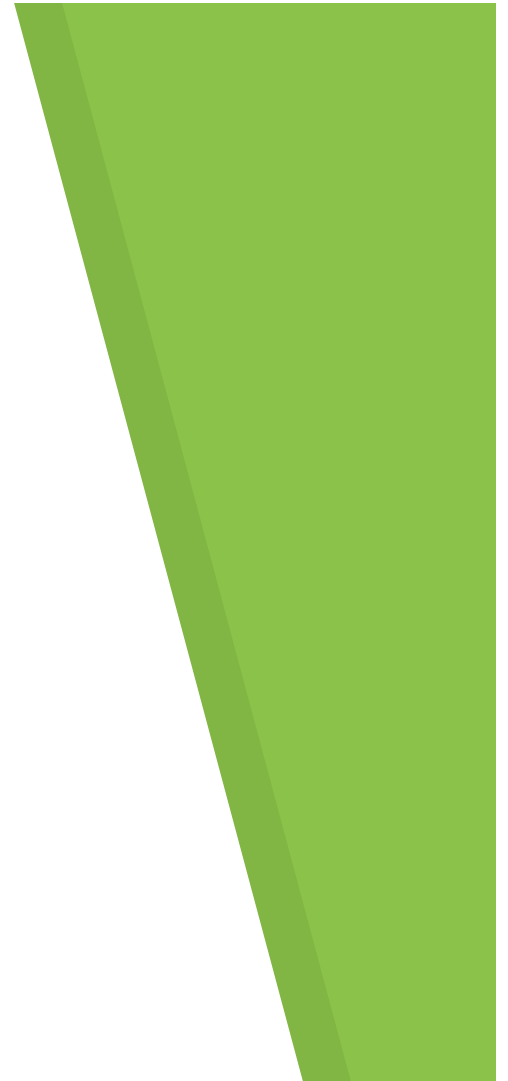
Aim for **10,000** steps per day

Overcoming **LET'S BEAT DIABETES**

A vertical poster with a yellow background. On the left, there is a stylized city map with a path leading from the bottom to the top. The path is marked with a dashed line and a chain-link fence. Along the path, there are speech bubbles with text. At the bottom of the path, there is a small graphic of a step counter. At the top of the path, there is a small graphic of a goal or prize. The text "Aim for 10,000 steps per day" is written at the bottom of the path.

BEHAVIOUR CHANGE IN INDIVIDUALS

- ▶ Awareness, Knowledge, Preparation, Action and Maintenance
- ▶ Willingness to change
- ▶ Professional support
- ▶ Social support
- ▶ Environment
- ▶ Incentive





WHY **HEALTH PROMOTION** AT WORKPLACES?

- ▶ Captured audience
- ▶ Targeted follow up and services
- ▶ Direct monitoring of lifestyle changes, medical risks and medical claims
- ▶ Supportive environment – peer pressure
- ▶ Accessible for participants





Is there ROI for promoting health at workplaces?



CASE STUDIES OF WORKPLACE HEALTH PROMOTION

- ▶ 1% reduction in the prevalence of all risks was estimated to save Pepsi Bottling Company about \$3.1 million
- ▶ Risk reduction of 1% and 10% for tobacco, alcohol use, and emotional health risks had the potential to generate annual savings of \$91,500 and \$915,000, respectively for Novartis
- ▶ Engaged HumanaVitality members' health claims costs decreased six percent in 1st Year and 10 percent by 3rd Year. Unengaged members experienced a 17 percent increase by Year 3.





HEALTH RISK REDUCTION

% of Employees with Health Risk	Property Developer	Law Firm
High BMI	Reduction of 4.5%	Reduction of 4.7%
High Blood Pressure	Reduction of 6.1%	Reduction of 6%
High Total Blood Cholesterol	Reduction of 4.5%	Increase of 0.1%





LIFESTYLE IMPROVEMENT

% of employees with lifestyle	Insurer
Exercise 3 times or more a week	Reduction of 4.3%
Consumes 3 times of more deep fried food a week	Reduction of 5.6%
Extremely stress	Reduction of 10.6%
Smokes	Reduction of 4.2%

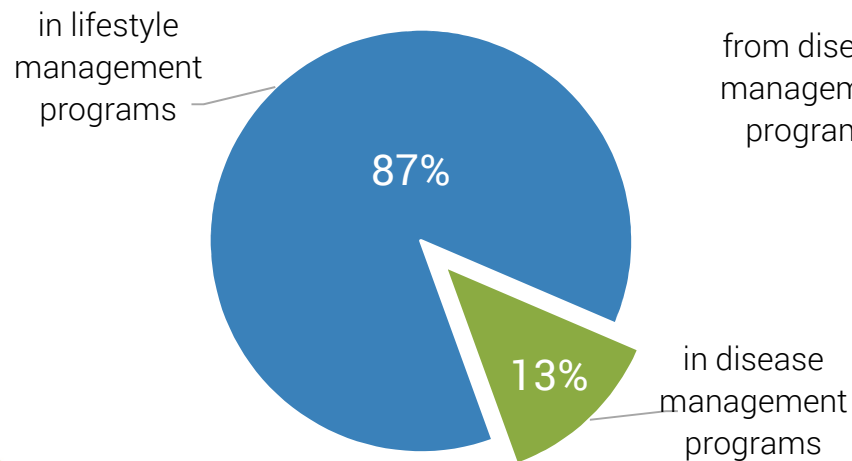
% of employees with lifestyle	Manufacturing
Do not exercise at all	Reduction of 13.5%
Consumes 3 times of more deep fried food a week	Reduction of 5.6%
Unable to cope with stress at all	Reduction of 2%
Smokes	Reduction of 6.9%



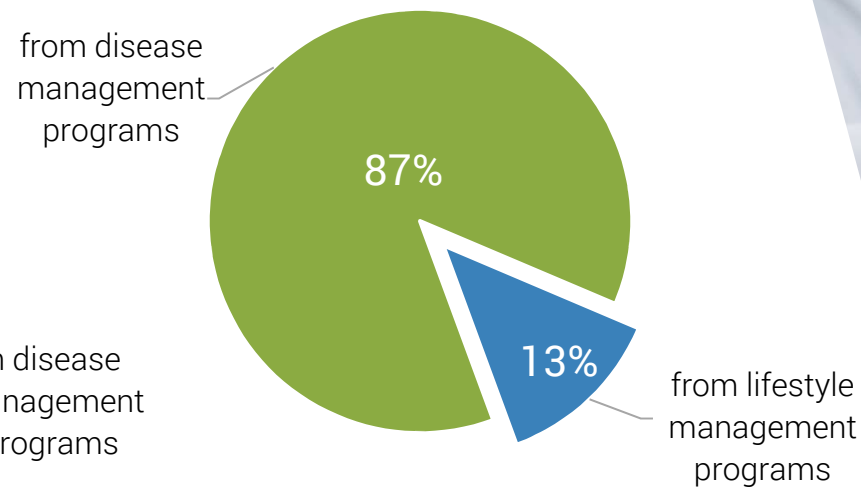
WHY DISEASE MANAGEMENT?

It's *what type of wellness program* can reduce claims and thereby lower insurance premiums. The answer is programs that prevent at-risk employees from becoming ill and help chronically ill employees stabilize their conditions.

EMPLOYEES WHO PARTICIPATE

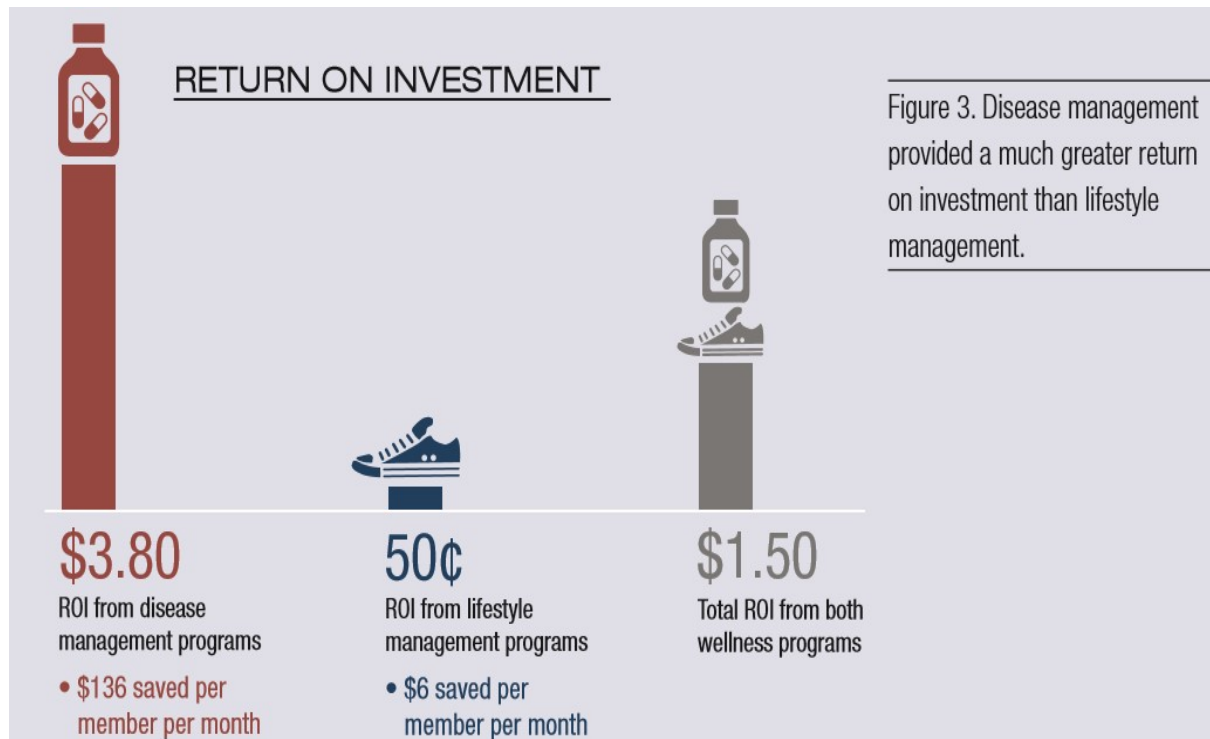
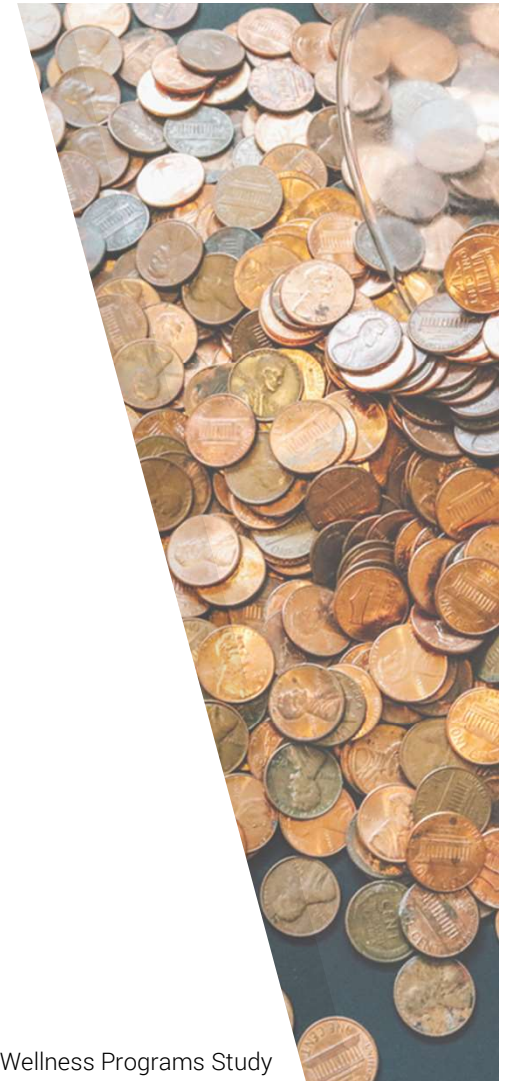


EMPLOYERS' HEALTHCARE SAVINGS



Source: RAND Wellness Programs Study

WHY DISEASE MANAGEMENT?





IMPROVEMENTS IN HEALTH RISKS FROM DISEASE MANAGEMENT PROGRAMS

AVERAGE WEIGHT LOSS / PAX

Accounting Firm	1.29kg
Technology Firm	1.70kg
Electronics Firm	1.95kg

AVERAGE BODY FAT LOSS / PAX

Pharmaceutical Firm	2.40%
Marketing Firm	2.00%
Logistics Firm	1.61%





**LIFESTYLE,
HEALTH RISKS,
DISEASES &
COST**

Increased Physical Activity, Healthier Eating Habits, Reduced Levels Of Stress, Quit Smoking



Lowered Health Risks For Diabetes, High Blood Pressure, High Blood Cholesterol, Obesity



Reduced Risks Of Lifestyle Diseases: Cancer, Cardiovascular Diseases, Stroke



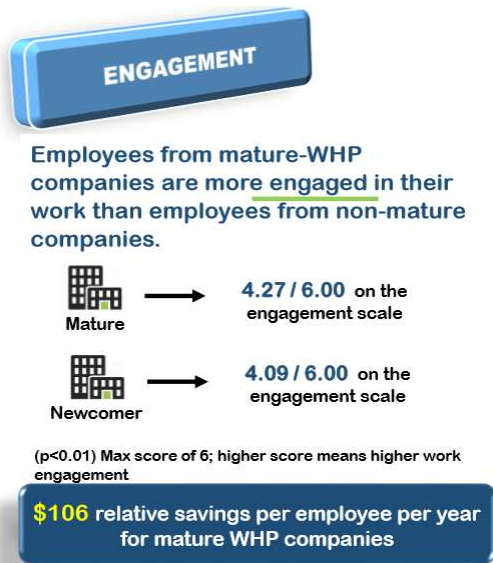
Lower Medical Costs & Claims



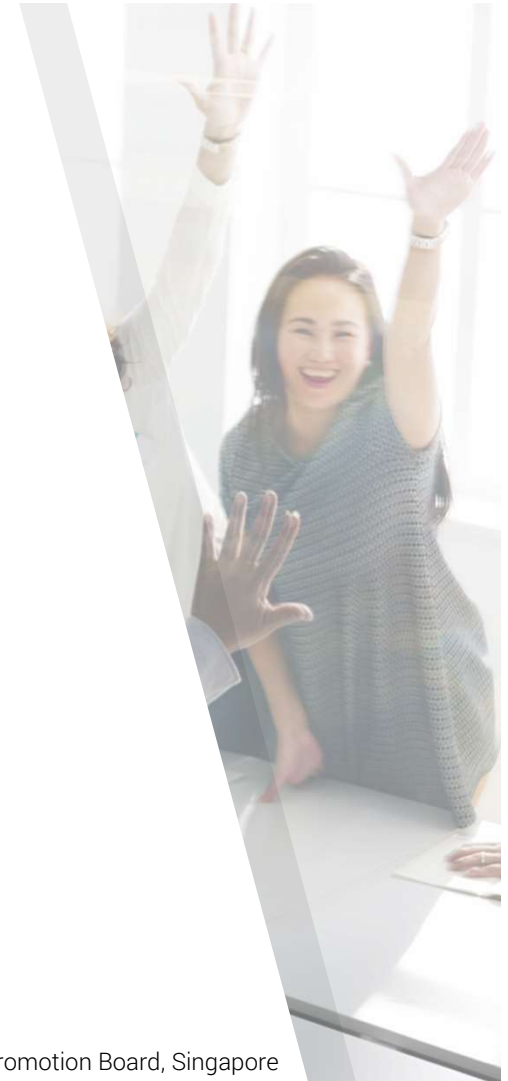
Return On Investments



ROI FROM HPB FOR WORKPLACE HEALTH PROMOTION



Conducted in conjunction with SHA 2014. Employees n=1,122 from 21 new/bronze companies and 21 gold/platinum companies.
Work engagement measured using 9-item Utrecht Work Engagement Scale (UWES)
On-the-job productivity loss measured using 8-item Work Limitations Questionnaire (WLQ)





IMPLICATIONS TO INSURERS

- ▶ No real data and research on cost savings from health promotion in Singapore
- ▶ Insurers can play a role in this generating data
- ▶ Calculation of ROI will encourage more companies to promote health to their employees and hence lower medical claims in the long run
- ▶ Call for Singapore Actuarial Society and Insurers to support our research



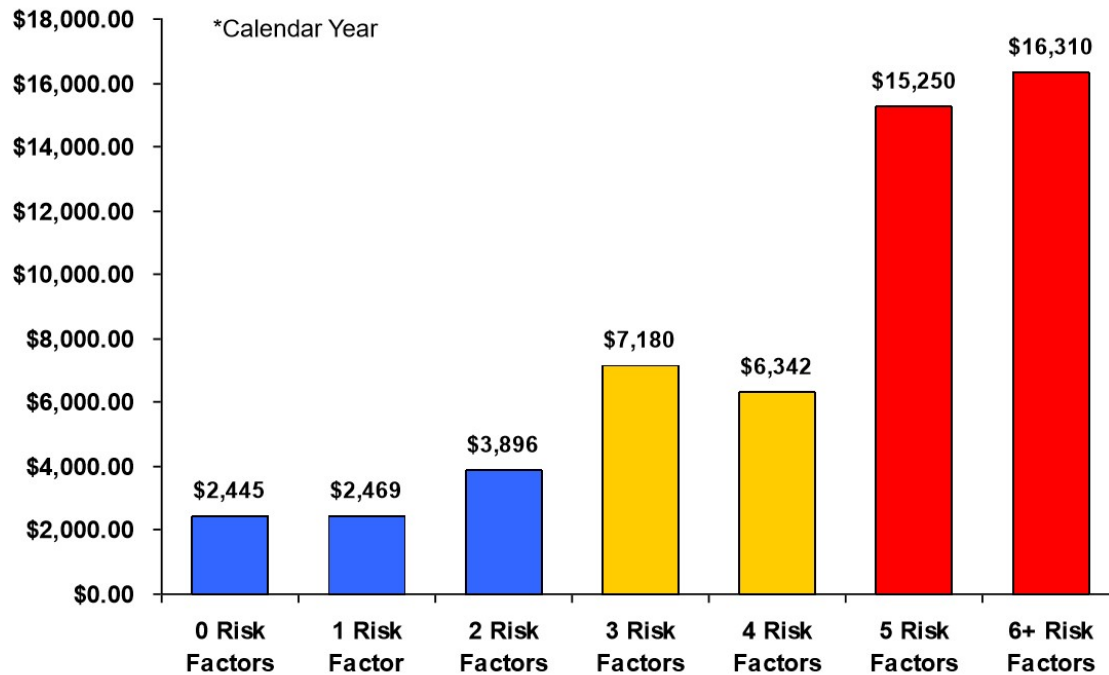


Use of HRI and technology to assist in risk management

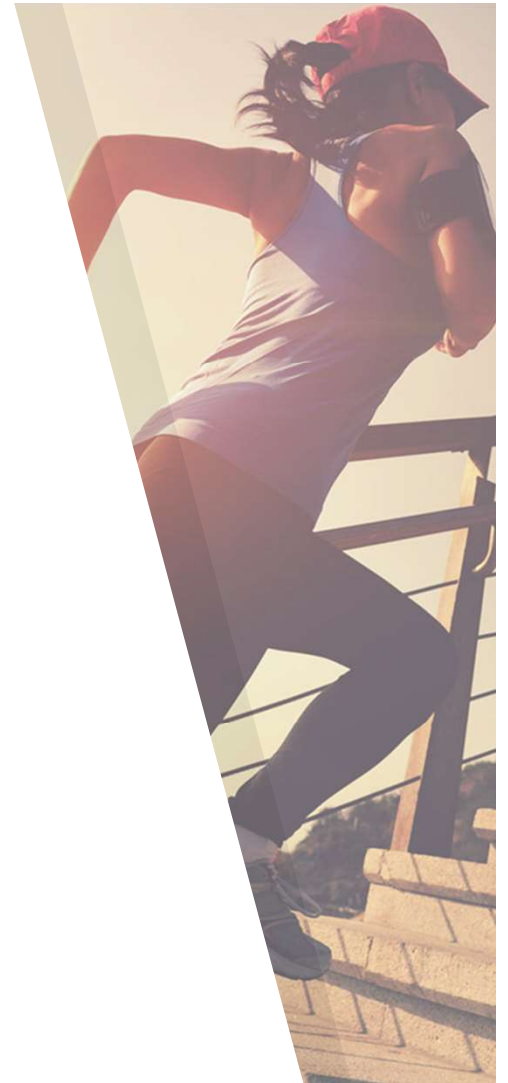


HEALTH RISK INDEX

Raleigh-Durham International Airport found that medical cost per employee escalate with increase in the number of risk factors.



HEALTH RISK INDEX





HEALTH RISK INDEX



**RISK
FACTORS**



**HEALTH
RISK INDEX**



**HIGHER MEDICAL
CLAIMS**

Implication to insurers

- Measurable factors instead of self declaration for underwriting
- Supplement information to risk calculation
- Consistent tracking of factors over time instead of one-time declaration or screening
- Motivation to individual to change lifestyle with a tangible index
- Offer of targeted intervention base on risk factors
- Possible offers of discount or privileges to individuals with better index

Call for Singapore Actuarial Society and Insurers to support our research.





USE OF TECHNOLOGY TO AID LOWERING HEALTH RISKS

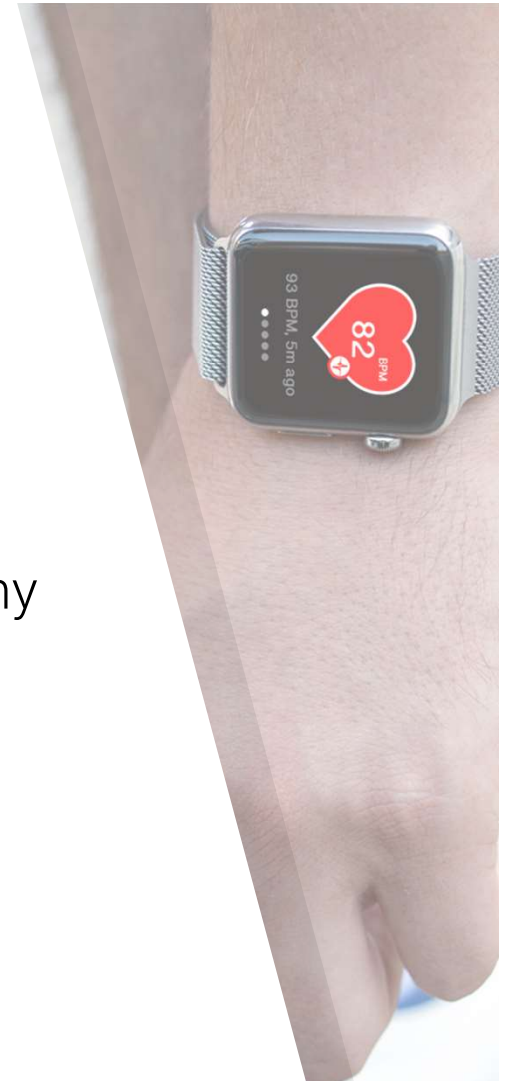
- A more reliable tool for data collation than self-report
- Risk calculation base on lifestyle
- Health risk assessment
- Activity tracker
- Attendance tracker
- Expenditure tracker



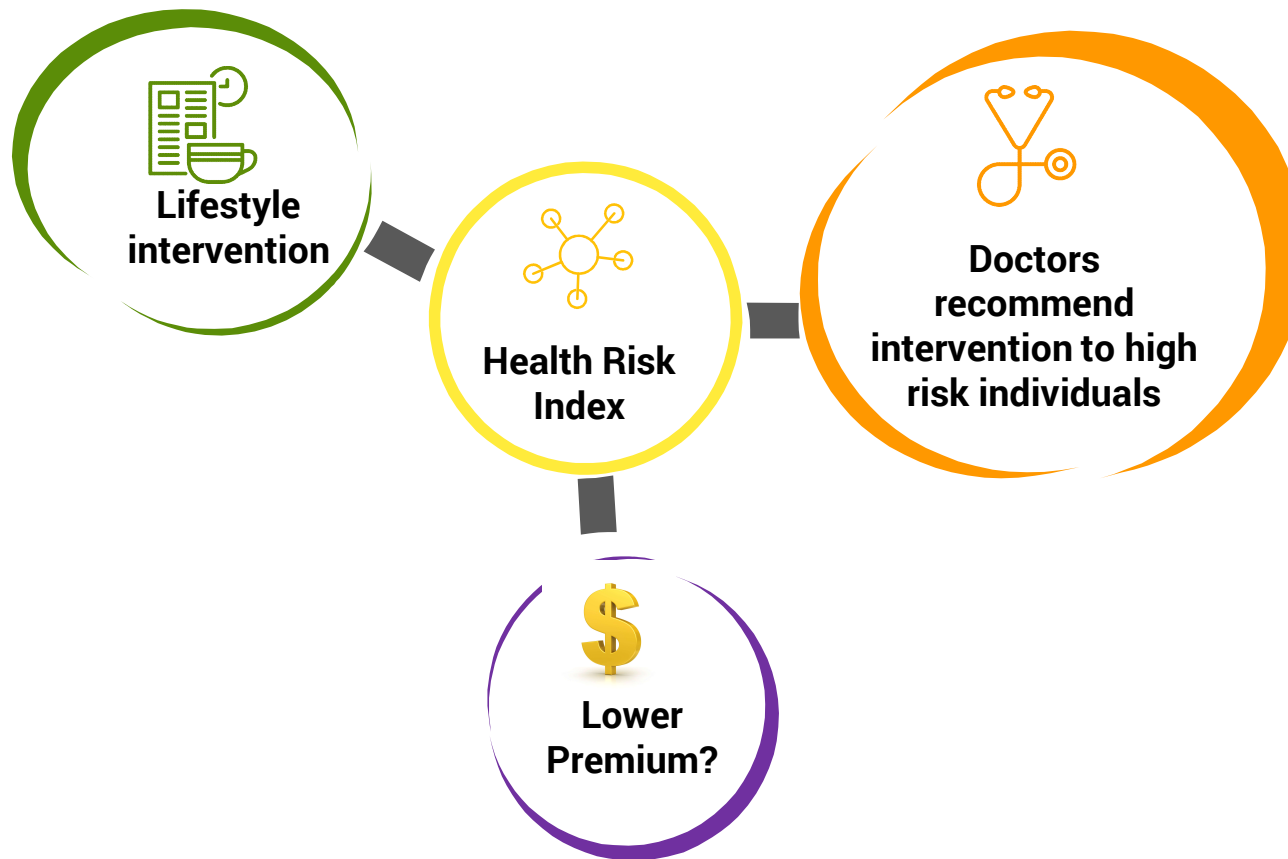


USE OF TECHNOLOGY TO AID LOWERING HEALTH RISKS

- Online education
- Online counselling
- Targeted intervention with artificial intelligence
- Reminder on healthy lifestyle
- Information on accessible venue/provider for healthy living
- Social support
- Incentivisation
- Redemption of flexible benefits for healthy living services and products



IMPLICATIONS FOR FUTURE



THANK YOU

Any questions?

Contact us @ phern@fhi-online.com and follow us on our social media.



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