The Economist

The euro crisis, the banks and contagion
Assassination by drone
Behold, a Burmese spring
What makes Americans happy

The magician
Steve Jobs and the world he created

PLUS A 14-PAGE SPECIAL REPORT ON PERSONAL TECHNOLOGY

“The Discovery story is another reminder of how quickly new ideas are starting to flow out of emerging markets”
Problem definition and underlying behavioural causes

Increasing prevalence of diseases of lifestyle

Under-consumption of preventative care

Distribution of healthcare costs

Genetic and age related risks: 30%

Modifiable health risks: 70%

Problem of behavioural economics

Immediate price to wellness, hidden benefit

Hyperbolic discounting places undue emphasis on the present

Over-optimism of ability to take corrective action

Facilitated access and immediate benefits are required to address behavior tendencies and to motivate long-term health behaviour change
Vitality Programme

1. Complete a Personal Health Review
2. Determine Vitality Age and set health goals
3. Obtain a Personal Pathway
   - disease management
   - smoking cessation
   - mental health
   - nutrition
   - preventive care
   - physical activity
4. Earn vitality points and achieve a status
   - Gold
   - Silver
   - Bronze
   - Blue
5. Enjoy incentives

Assets and capabilities
- Clinical and scientific basis
- Personal Pathway algorithms
- Wellness network
- Actuarial points allocation methodology
- Reward network
- Valuable incentives

Western Cape Government
Health
Broad Rewards Motivate Differing Aspirations: SA Vitality partner network

Integration with store card

Travel

BRITISH AIRWAYS
kulula.com
SouthernSun
RoyalCaribbean
Like no vacation on earth
World Leisure

Percentage discount tiered by Vitality status

Additional benefits on partner store card tiered by status

Cinema

1/3 of retail price available to all members

HealthyFood™

10% discount on HealthyFood™ for all members; 25% if Personal Health Review is completed

Cash back on all purchases in retail network tiered by Vitality status

1/3 of retail price available to all members

Frequency of use

Value per use
Reward utilisation is high across the benefit spectrum
<table>
<thead>
<tr>
<th>Nature of reward</th>
<th>Motivating factor</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangible rewards</td>
<td>Self-interest</td>
<td>1. Earn money for a charity of your choice&lt;br&gt;2. Promotion through social networks</td>
</tr>
<tr>
<td>Charity</td>
<td>Noble cause</td>
<td>1. Points convert into entries&lt;br&gt;2. Status gears number of entries</td>
</tr>
<tr>
<td>Lottery</td>
<td>Self-interest</td>
<td></td>
</tr>
<tr>
<td>Contributions</td>
<td>Loss aversion</td>
<td></td>
</tr>
</tbody>
</table>
Fitness-Related Activities and Medical Claims Related to Hospital Admissions — South Africa, 2006

Estelle V. Lambert, PhD; Rosanne da Silva, BSc; Deepak Patel, MD, MSc; Libero Patil, PhD; Tracy Kolbe-Alexander, PhD; Adam Noack; Craig Nossel, MD; Wayne Derman, MD; Thomas Gatchano, MD, MSc


Abstract

Introduction

We examined the effect of an incentive-based wellness program on medical claims and hospital admissions among members of a major health insurer. The focus of this investigation was specifically on fitness-related activity in this insured population.

Methods

Adult members of South Africa’s largest private health insurer (n = 948,974) were grouped in a random basis on the basis of documented participation in fitness-related activities, including gym visits, into inactive (89%), moderate active (7%), and active (4%) groups. The study used a longitudinal cohort study design to evaluate the impact of the intervention on hospital admissions between groups after adjustment for age, sex, medical plan, and chronic illness status.

Results

Hospitalization costs per member were lower in each activity group compared with the inactive group. This same pattern was demonstrated for admissions rates.

Conclusion

There was a significant positive association between level of participation in fitness-related activities and in other wellness program offerings. The higher the level of participation in the wellness program, the lower the overall hospitalization rate for the group.

The Science of Health Promotion

The Association Between Medical Costs and Participation in the Vitality Health Promotion Program Among 948,974 Members of a South African Health Insurance Company

Deepak N. Patel, MMed; Estelle V. Lambert, PhD; Rosanne da Silva, BSc; Moeke Greyling, MSc; Craig Nossel, MBChB; Adam Noack, BSc; Wayne Derman, PhD; Thomas Gatchano, MD

Abstract

Background: The prevention of chronic disease is a major concern in health care. It is estimated that 40% of all deaths are attributable to chronic diseases. The Vitality Health Promotion Program (VHP) is an evidence-based program designed to improve health status, reduce health care costs, and increase productivity for employees of large organizations.

Methods: A cohort study was conducted to evaluate the impact of the Vitality Health Promotion Program (VHP) on hospital admissions and costs. Participants were divided into two groups: intervention (VHP) and control (no intervention). The study used a longitudinal cohort study design to evaluate the impact of the intervention on hospital admissions between groups after adjustment for age, sex, and medical plan.

Results: The results showed a significant decrease in hospital admissions and costs in the intervention group compared with the control group.

Conclusion: The Vitality Health Promotion Program (VHP) is effective in reducing hospital admissions and costs. This program can be used as a model for other organizations to improve health outcomes and reduce health care costs.
VIP Study 1: Vitality engagement is correlated with lower healthcare costs

Risk-adjusted hospital admission costs for engaged vs not engaged

P < 0.001 for all categories (incl overall result) except cancer where P < 0.01

*Categorisation based on diagnosis-related groupers using ICD-10, CPT-4 and local procedural codes
VIP Study 2: Vitality engagement reduces the cost of managing chronic disease

Risk-adjusted hospital cost for chronic members: engaged vs not engaged

P = 0.001 for multiple metabolic conditions, all single conditions are not statistically significant
VIP Study 3: Fitter people spend less time in hospital and incur lower healthcare costs

1. Admission per patient*
   • 9.6% lower in highly active individuals vs inactive

2. Length of stay in hospital
   • On average 0.57 days shorter for highly active individuals vs inactive

3. Cost per patient
   • Medical costs once hospitalised R5,052 lower for highly active individuals vs inactive

Fit people make better patients – admissions, length of stay and costs are risk-adjusted

*Patients with at least one admission event
Longitudinal Study of Fitness Engagement

- A retrospective analysis of 304,000 adults over the period 2004 to 2008

- The analysis was designed to test
  - For significant changes in engagement with fitness-related activities over time
  - Whether these changes were associated with changes in the probability and cost of hospitalisation
Increase in Fitness Engagement

% of members using the gym benefit

<table>
<thead>
<tr>
<th>Year</th>
<th>% of members using the gym benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>21.1</td>
</tr>
<tr>
<td>2</td>
<td>24.8</td>
</tr>
<tr>
<td>3</td>
<td>27.0</td>
</tr>
<tr>
<td>4</td>
<td>31.1</td>
</tr>
<tr>
<td>5</td>
<td>31.8</td>
</tr>
</tbody>
</table>
Outcomes associated with transitions between engagement levels

Year 1
- Inactive
- Less active
- Active

Year 3
- Inactive
- More Active
- Active

Hospital cost per member, Year 4 to 5
Benchmark
- 6%
- 8%
- 9%

Western Cape Government Health
Relationship between increasing activity and the odds of hospitalisation

- Number of additional gym visits per week from Year 1 to Year 3
- Odds ratio for hospitalisation in Years 4 to 5:
  - 0.5: 3%
  - 1.0: 7%
  - 1.5: 10%
  - 2.0: 13%

Graph showing the decrease in odds ratio with increased gym visits per week.
HealthyFood™

25% saving on nutritional items purchased at Pick n Pay
HealthyFood™ structure

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>WHO dietary recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturated fat</td>
<td>10 en%</td>
</tr>
<tr>
<td>Trans fat</td>
<td>1 en%</td>
</tr>
<tr>
<td>Sodium</td>
<td>1.2mg/kcal</td>
</tr>
<tr>
<td>Added sugar</td>
<td>10 en%</td>
</tr>
<tr>
<td>Dietary fibre</td>
<td>1.3mg/kcal</td>
</tr>
</tbody>
</table>

- Fruit and vegetables: 3,000 products
- Grains and cereals: 1,425 products
- Lentils and legumes: 373 products
- Chicken, fish and meat alternatives: 479 products
- Vegetable oils and nuts: 536 products
- Milk and dairy products: 217 products

61,000 products assessed; 10,000 classified as HealthyFood™
HealthyFood™ mechanics

HealthyFood™ purchases marked on till slips

---

**TAX EXEMPT INDICATOR**  *
**NON-TAXABLE INDICATOR**  #

**DISCOVERY VITALITY**  VIT

---

Discovery Vitality members save up to 25% on HealthyFood™.
Visit www.discovery.co.za
Now more than ever it pays to be healthy!
Adoption of the HealthyFood™ Benefit

Result: Over 240,000 families have activated the HealthyFood™ benefit
JOIN THE RACE
TO BE SOUTH AFRICA'S
Healthiest Company

Most people spend the better part of their day at work, so a healthy workplace is one of the keys to a healthy lifestyle. The Discovery Sunday Times Healthy Company Index is the first survey of its kind in South Africa. And your company can take part too! It’s all about helping your company understand how healthy your workplace is, and what it can do to ensure all employees’ wellbeing.

Login to www.healthycompanyindex.co.za before 26 November 2010 to register your company and join the race to become South Africa’s healthiest company to work for.

Discovery is an authorised financial services provider.

The Health of a company
is reflected in the figures of its people

Find out how healthy your company is!
Discovery Healthy Company Index

Levels of physical activity

- High Risk: 71%
- Medium Risk: 10%
- Low Risk: 19%

BMI of employees

- Underweight (BMI <18.5): 4%
- Healthy weight (BMI 18.5-24.9): 37%
- Overweight (BMI 25-29.9): 33%
- Obese (BMI 30+): 26%

63% of respondents have an unhealthy weight, with 25.9% obese

Nutrition risk according to the number of daily fruit and vegetable servings

- High risk (less than 3): 48%
- Medium risk (3 to 4): 34%
- Low risk (5 or more): 18%

Employees' smoking habits

- Smoker: 22%
- Ex Smoker: 16%
- Never Smoked: 62%

82% of employees do not eat enough fruit and vegetables every day

78% of employees do not smoke
Healthy Active Kids Report Card 2010
Healthy Active Kids Report Card 2010

Physical Activity (Grade D):
• Less than 70% of high school learners report having regularly scheduled physical education.
• Less than 50% participate in enough physical activity for it to be considered ‘health-enhancing’.

Nutrition (Grade D):
• Just over 2 servings of fruits and vegetables per day, with less than 1 serving of fruit per day.
• Over 50% drink sweetened cool drinks more than 4 times a week.
• Nearly 30% eat fast food between 2 and 3 times per week.
Healthy Active Kids Report Card 2010

Screen time (Grade F):
• Nearly 1 in 3 adolescents watch more than 3 hours of television daily

Overweight, obesity (Grade C-) and stunting (Grade D-):
• 20% are overweight and 5% are obese
• 13% of teens are stunted

Smoking (Grade D):
• 29.5% of adolescents report having smoked
• 21% are current smokers
Vitality Schools Programme

### Lesson plans
- **Grades 1 to 3**

<table>
<thead>
<tr>
<th>Day</th>
<th>Carbohydrate</th>
<th>Protein</th>
<th>Fat</th>
<th>Vegetable</th>
<th>Fruit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>Whole wheat bread/DIY bread</td>
<td>Meat/meal/legumes</td>
<td>Fat</td>
<td>Salad and cucumber</td>
<td>Banana</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Bread Roll</td>
<td>Low fat cheese</td>
<td>Fat</td>
<td>Salad and cucumber</td>
<td>Tomato</td>
</tr>
<tr>
<td>Wednesday</td>
<td>Baby potatoes</td>
<td>Carrot/pea soup</td>
<td>Low fat margarine</td>
<td>Lettuce and corn</td>
<td>Tomato</td>
</tr>
<tr>
<td>Thursday</td>
<td>bread roll</td>
<td>Low fat cheese</td>
<td>Fat</td>
<td>Salad and cucumber</td>
<td>Couscous, cornflakes, fruit</td>
</tr>
<tr>
<td>Friday</td>
<td>Whole wheat roll</td>
<td>Meat/meal/legumes</td>
<td>Fat</td>
<td>Lettuce and corn</td>
<td>Apple</td>
</tr>
</tbody>
</table>

### Warm-up exercises
- **Grades 1 to 3**

1. **Finger tip walk:** Walk on your fingers for 10 meters.
2. **Jumping jack:** Perform jumping jacks for 1 minute.
3. **Star jump:** Jump into a star shape and then back to the starting position.
4. **High knee run:** Run in place, keeping your knees high.
5. **Side shuffle:** Shuffle side to side for 30 seconds.

**Reminders:**
- Keep hydrated by drinking water throughout the lessons.
- Wear comfortable clothes and closed shoes for physical activities.
- Listen to the instructions carefully and follow the guidance of the teacher.

### Health Tip
- **Discovery Vitality:** Eating a balanced diet and staying active are key to maintaining good health. Include a variety of foods from each food group to ensure you get all the nutrients you need.
Vitality Schools Programme
Developing healthy active kids

Make the healthier choice!
Developing healthy active kids
Vitality Schools Programme

Lesson plans
Download Primary school lesson plans.
Get South Africa walking

Everyone’s got the fever to enter the Discovery Cape Times Big Walk now. You’re a superhero at heart now be a superhero for charity.

Western Cape Government
Health
Vitality Healthiest City

PE a city of couch potatoes, new health survey reveals

http://www.theherald.co.za/article.php?id=55586

20100408
Lee-Anne Butler butter@avusa.co.za

IT S official – Port Elizabeth is a city of couch potatoes.

Cape Town has the dubious honour of leading a Discovery Vitality survey of cities and has the most smokers, heaviest drinkers, lowest levels of physical activity and the most overweight residents. Port Elizabeth is ranked second in the unhealthy lifestyle followed by Pretoria and Durban. Johannesburg is the healthiest city of the five.

"While Capetonians may think the sun, sea and mountain gives them an edge when it comes to leading a healthier lifestyle, our research data indicates that theirs is in fact the least healthy major city in South Africa," said Craig Nosel, head of Vitality Wellness. Cape Town’s overall health rating is based on the Vitality Age calculation, which is a lifestyle behaviours (risk factors) of smoking, physical activity, fruit and vegetable consumption, blood pressure, cholesterol, depressive symptoms, body mass index of Vitality members resident in these areas.

Out of a sample of 1700 people from Port Elizabeth, 24.8% are smokers and 25.8% are smokers. Also, 54.7% exercise less than 75 minutes a week while only 7.7% exercise more than 300 minutes a week.

Most surprisingly, only 31.3% of the Port Elizabeth members fell within the reference mass index range of between 18.5 and 26. Also, 5.4% of the people in Port Elizabeth drink more than 15 alcoholic drinks per week.

Men’s Health

SA’s Healthiest City

Would you guess is the healthiest city in the country? The Discovery Vitality survey may surprise you

By Priscilla Davies

Four not folks, amidst all the smog, big business stress, high housing prices and other factors, Cape Town is the healthiest city in South Africa. Cape Town, with its laid-back lifestyle and slower pace is the unhealthiest city in Cape Town. However, the city is six months older than their counterparts in Johannesburg, said Craig Nosel, head of Vitality Wellness.

The Capetonians could do with some strict mothering (and some hard alcohol) when it comes to smoking, heaviest drinkers, lowest levels of physical activity and the most overweight residents.

The Cape Town analysis of data collected during a series of wellness days at corporate clients around the country revealed that the Capetonians had the healthiest lifestyle, followed by Durban and Pretoria.

While Capetonians may think they lead a healthier lifestyle, our research data indicates that theirs is in fact the healthiest major city in South Africa," said Craig Nosel, head of Vitality Wellness.

The statistics across all cities are quite worrying. Physical inactivity and obesity are approaching epidemic proportions globally. The result is an increased prevalence of chronic diseases, poor quality of life, increased healthcare expenditure and premature death." - Staff Reporter

CT the unhealthiest city in SA


Last updated: Wednesday, April 07, 2010 Print

Johannesburg is the healthiest city in South Africa. Cape Town, South Africa’s unhealthiest city, contains the most smokers, heaviest drinkers, lowest levels of physical activity and the most overweight residents.
% Difference in mortality risk, compared to Johannesburg

- Durban: 2.8
- Pretoria: 4.7
- Port Elizabeth: 9.8
- Cape Town: 12.7
### Vitality Healthiest City

<table>
<thead>
<tr>
<th>Condition</th>
<th>Durban</th>
<th>Pretoria</th>
<th>Port Elizabeth</th>
<th>Cape Town</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Blood Pressure</td>
<td>2.9</td>
<td>0.9</td>
<td>3.1</td>
<td>1.2</td>
</tr>
<tr>
<td>High Cholesterol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretoria</td>
<td>-2.5</td>
<td>-0.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Port Elizabeth</td>
<td>-3.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unhealthy Weight</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretoria</td>
<td>1.5</td>
<td>1.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Port Elizabeth</td>
<td>3.9</td>
<td>3.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretoria</td>
<td>2.6</td>
<td>3.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Port Elizabeth</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insufficient Physical Activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretoria</td>
<td>1.7</td>
<td>1.8</td>
<td></td>
<td>1.2</td>
</tr>
<tr>
<td>Port Elizabeth</td>
<td>2.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Western Cape Government**
Health

The graphs above represent various health indicators across different cities. Each bar indicates the prevalence or severity of a specific health issue, with cities listed from left to right: Durban, Pretoria, Port Elizabeth, and Cape Town.