



THE CASE FOR GETTING ACTIVE

An analysis of the impact on doctors
of Vitality Active Rewards for the
three year period to **March 2019**

Executive summary

Discovery Health cares about our country's doctors and recognises the important role that they play in the shared value healthcare system. One key step in building a better healthcare system and showing our appreciation for these dedicated professionals, is to enable doctors themselves to become and stay healthy.

In 2017, a bespoke Vitality Active Rewards for Doctors was launched which incentivises doctors to increase their physical activity levels and improve their health along with that of their patients.

Key findings of the paper

Vitality Active Rewards enjoys high levels of take-up and engagement, across a broad range of doctors. The programme has expanded to over 4 300 doctors, approximately a third of all doctors in private practice in South Africa, who are engaging in physical activity.

The programme has significantly increased activity levels amongst doctors. Doctors exercise, on average, 15% more frequently after activating Vitality Active Rewards, with a 12% increase in the proportion of high intensity workout sessions.

Engagement in Vitality Active Rewards amongst doctors has increased since the introduction of the Vitality Active Rewards for Doctors programme with the goal achievement rate increasing from 29% to 35% after the most recent launch of the programme.

The impact of Vitality Active Rewards is greatest among doctors living with chronic conditions. These doctors stand to gain the greatest health benefits from increasing their physical activity levels and engaging in other healthy lifestyle behaviours. Doctors with a significant or complex chronic condition, on average, increased their exercise frequency by 17%.

Patients' activity levels increase after they visit a doctor who has activated and is engaged in Vitality Active Rewards. An 11% increase in the proportion of high intensity workouts is seen in the six months following the patient's visit to the doctor.

Doctors who have completed a Vitality Health Check themselves have a larger proportion of patients who complete the Vitality Health Check in the six months following the patient's visit to the doctor.

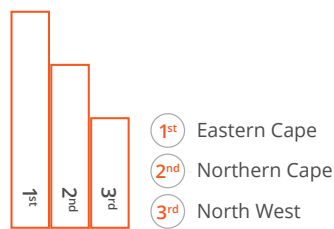
Vitality Active Rewards in numbers



Longest goal streak: 186 weeks and counting

- 69 year old male** ophthalmologist
- 44 year old female** paediatrician

Most engaged GPs by region*



* based on goal achievement rate

Most engaged procedural specialist

Urologist

Most engaged consulting specialist

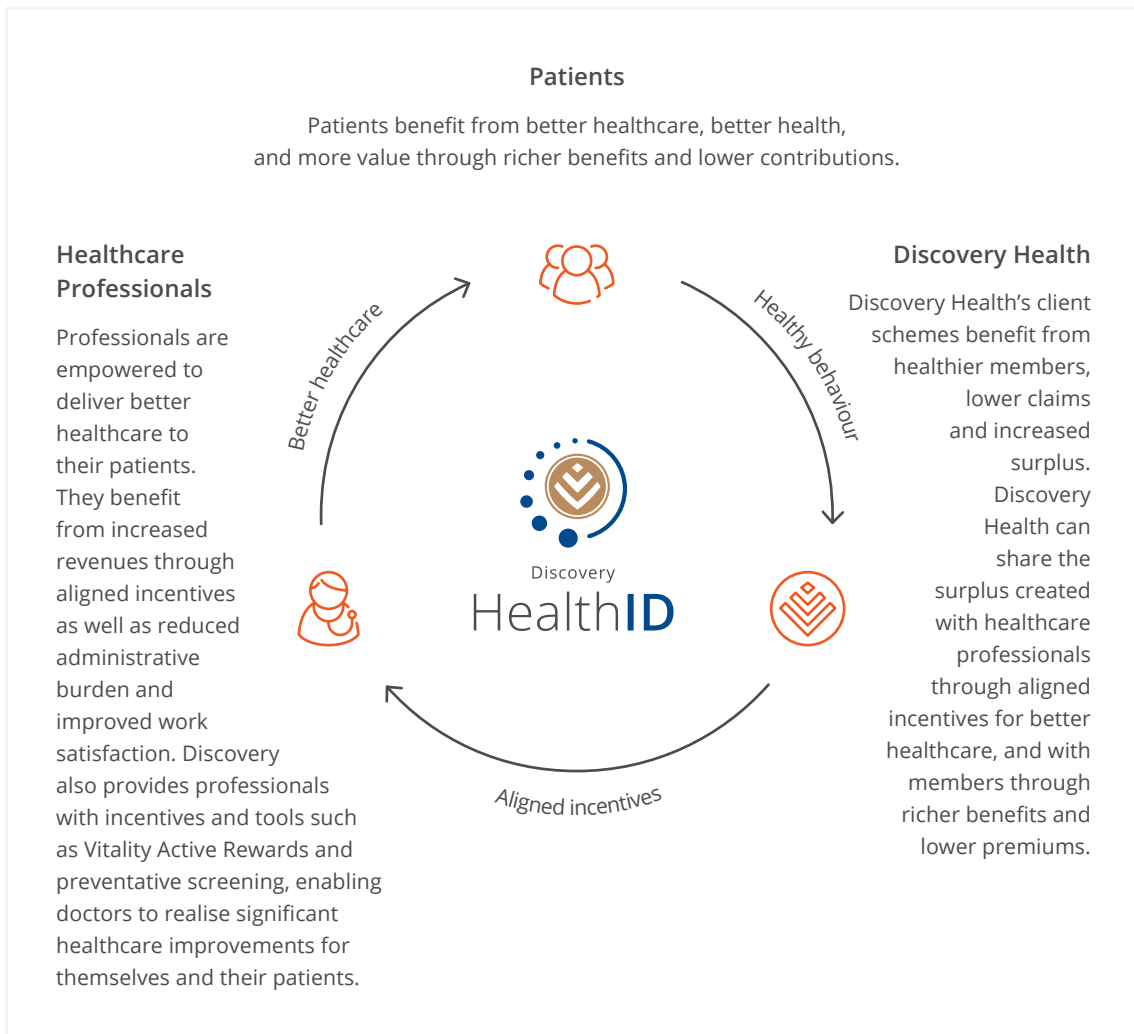
Paediatrician



Building a shared-value healthcare system

Discovery was founded on a socially progressive core purpose – to make people healthier and enhance and protect their lives. Central to this core purpose is the concept of shared value, whereby all parties involved benefit from the positive behaviour change of members. This now also applies to doctors.

In South Africa, the shared value healthcare model uniquely generates value for all stakeholders in the healthcare system by promoting better health and better healthcare. By encouraging members to manage their health and wellness through the Vitality programme, schemes administered by Discovery experience lower claims and positive selection which leads to actuarial surplus. By sharing this actuarial surplus with healthcare professionals through aligned incentives to deliver better healthcare, a virtuous cycle is created that delivers better health and better healthcare for the benefit of all stakeholders.



Healthier doctors have healthier patients

South Africa faces a critical shortage of doctors, coupled with an ageing doctor population. Discovery cares about our country's doctors and recognises the important role that they play in the shared value healthcare system. One key step in building a better healthcare system, is to enable doctors themselves to become and stay healthy.

A growing body of clinical evidence has shown that the more aware doctors are of their own health and fitness status, the more empowered they are to influence the lifestyle choices and health of their patients.

- 'Physicians who practice healthy habits play a key role by helping their patients adopt healthy lifestyles for primary prevention of chronic diseases. One of the **strongest predictors of health** promotion counselling by primary care physicians is **practicing a healthful behaviour oneself** – it is clear that many physicians report difficulty counselling patients about behaviours they themselves do not practice.'¹
- 'Physician wellness might not only benefit the individual physician, it could also be **vital to the delivery of high-quality health care**.'²
- '**Increased awareness of the importance of physician wellness**, both individually and organisationally, is needed by physicians, their patients, and their employers.'²



We believe that doctors who lead by example and start living healthy lives are better equipped to encourage healthy behaviour in their patients.

Physical activity is recognised as a trigger for other healthy behaviours making it essential to incentivise physical activity in the short and long-term. Discovery has provided doctors with access to Vitality Active Rewards to help them get more active and, over the long-term, to enable doctors to realise significant healthcare improvements for themselves and the patients for whom they care.

Reference

¹ Oberg & Frank, 2009

² Wallace, Lemaire & Ghali. Physician wellness: a missing quality indicator. Lancet 2009

Incentivising physical activity through **Vitality Active Rewards**

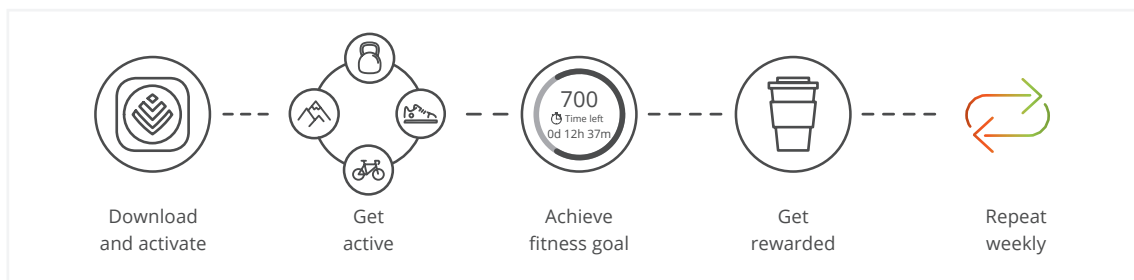
Vitality Active Rewards enhances the Vitality model to help members get more active.

The Vitality Active Rewards (VAR) programme is a smartphone application that is designed to encourage members to increase their activity levels by setting weekly personalised physical activity goals – and then rewards users for achieving them.

Every week the VAR programme allocates members a target number of fitness points. These can be achieved by participating in a range of Vitality-backed physical activity options, including using partner gyms, taking part in a social running programme (such as Parkrun) or completing organised endurance events. Members can also engage in self-chosen activities that get recorded via various wearable activity tracking devices that measure heart rate, duration of activity and/or steps.

Once the points have been tallied, users who achieve their weekly goal qualify for a range of rewards, from smoothie and coffee vouchers to in-store and online shopping vouchers as well as flights or international holidays. It's a practical system with desirable results.

The results of a study on Vitality Active Rewards done by RAND Europe 'suggest that incentivising physical activity can lead to increased activity levels' and more specifically that Vitality Active Rewards along with the Apple Watch benefit has been successful in incentivising behaviour change. This is particularly true for more unhealthy individuals.



Vitality Active Rewards for Doctors

In 2017, a bespoke Vitality Active Rewards for Doctors was launched which incentivises doctors to increase their physical activity levels and improve their health along with that of their patients.

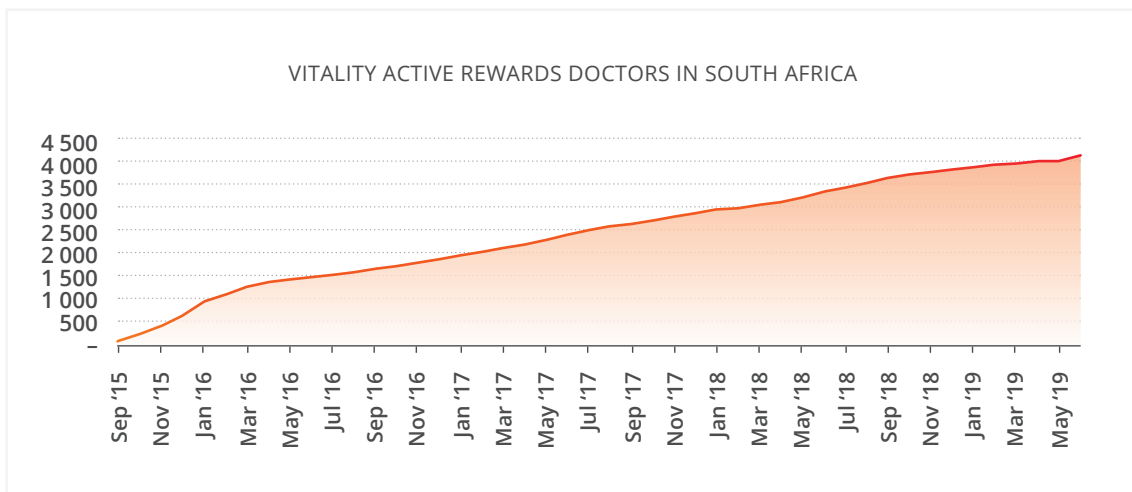
Doctors qualify for boosted rewards based on the following factors:

- **Personal engagement** – number of VAR goals the doctor has met in a month
- **Patient engagement** – proportion of the doctor's Discovery Health Medical Scheme members who are engaged in their personal wellness and have at least Bronze Vitality status
- **Practice engagement** – based on the practice's Discovery Digital Score

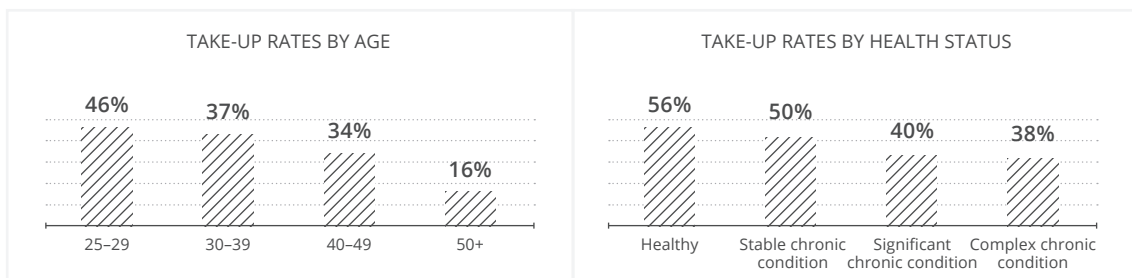
Discovery made Vitality Active Rewards available for free to all doctors, without any requirement for the doctor to be a member of Vitality or hold any other Discovery product.

Vitality Active Rewards enjoys **high levels of take-up and engagement**, across a broad range of doctors

- Since the introduction of Vitality Active Rewards in 2015 along with the introduction of Vitality Active Rewards for Doctors, the programme has expanded to over 4 300 doctors, approximately a third of all doctors in private practice in South Africa, who are engaging in their physical activity. This number continues to increase on a weekly basis.



- Take-up amongst doctors is higher in younger individuals and individuals of better health status, however there is still **strong representation amongst individuals of older ages and individuals living with chronic conditions**.
 - Take-up is highest in the 25 – 29 year age band, with 46% of doctors engaging in the benefit.
 - Over 35% of doctors with multiple complex chronic conditions engage in Vitality Active Rewards and 16% of doctors over the age of 50 have taken up Vitality Active Rewards.



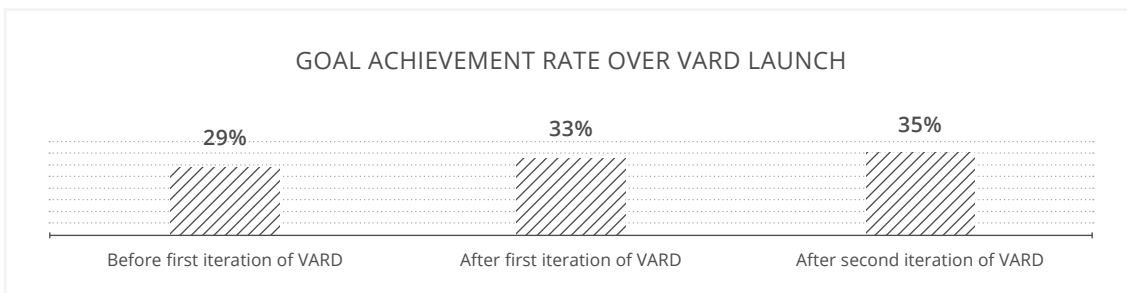
Methodology

- Doctors are defined into health risk categories according to the number of chronic conditions they have as well as the state of the conditions i.e. stable or unstable.
- Take up rates are defined as the number of doctors who have taken up Vitality Active Rewards in that segment as a proportion of the total number of doctors who fall in that segment.
- Take-up rates by age and health status are calculated for doctors who are members of the Discovery Health Medical Scheme.



Engagement among doctors has **increased** since the introduction of **Vitality Active Rewards for Doctors**

- Vitality Active Rewards for Doctors (VARD) is a bespoke programme tailored to the unique needs of doctors
 - After the launch of the most recent iteration of Vitality Active Rewards for Doctors in 2018, the goal achievement rate of doctors has increased from 29% to 35%.
 - The first iteration of VARD offered doctors cash back on a Cardio Check Plus Analyser and/or wearable fitness device. The level of cash back was based on the doctor's engagement in Vitality Active Rewards as well as their patient and practice engagement.
 - The second iteration of VARD provides doctors with the opportunity to earn additional boosted rewards through the 'Top Achievers' and 'Most Improved' leaderboards as well as once-off rewards for activating Vitality Active Rewards and monthly rewards for achieving at least one goal.
- Engagement in Vitality Active Rewards amongst doctors has increased since the introduction of VARD. Targeted communication around engagement in physical activity as well as a bespoke programme tailored to the unique needs of doctors has influenced this increase.

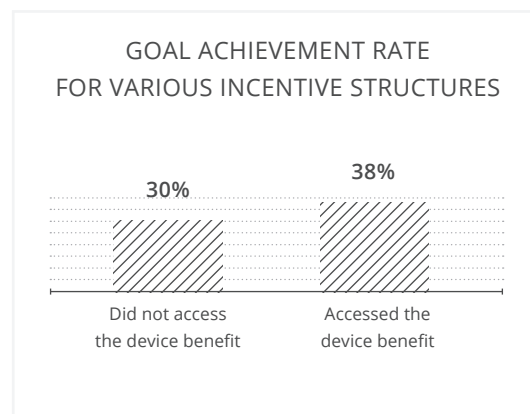
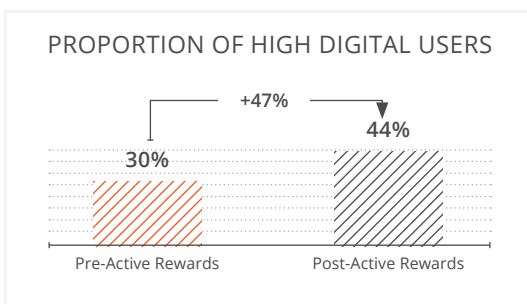


Methodology

Doctors have been segmented for this analysis based on whether or not they took up the device benefit offered in the first iteration of Vitality Active Rewards for Doctors. Their goal achievement rate since they activated Vitality Active Rewards is compared with the goal achievement rate of doctors who chose not to take-up the device benefit.

- Vitality Active Rewards uses a combination of communication, feedback and incentive structures to drive behaviour change. The Cardio Check Plus Analyser and/or wearable fitness device offered to doctors in the first iteration of VARD is an example of such an incentive structure.
 - Doctors who accessed this device benefit had a **goal achievement rate of 38%** compared to an achievement rate of 30% for the other doctors.

- The proportion of doctors who are considered **high digital users** has increased to **44%**.



Vitality Active Rewards **significantly increases activity levels** among doctors

- A cohort analysis has shown that doctors' activity levels increased significantly post activating Vitality Active Rewards:
 - 15% increase, on average, in the number of exercise days per month to 6.1 days per month.
 - 12% increase, on average, in the proportion of high intensity workouts to 44% of all workouts.
- Research highlights the benefits of higher intensity workouts with Nes et al (American Journal of Medicine, 2016) commenting that 'fewer sessions, if performed at higher intensities, provide similar or larger health benefits compared with frequent, low-intensity activity of longer duration'.
 - Vitality incentivises members to perform physical activity at higher levels of intensity by offering a greater number of Vitality points for workouts completed at a minimum of 80% of a member's maximum heart rate.



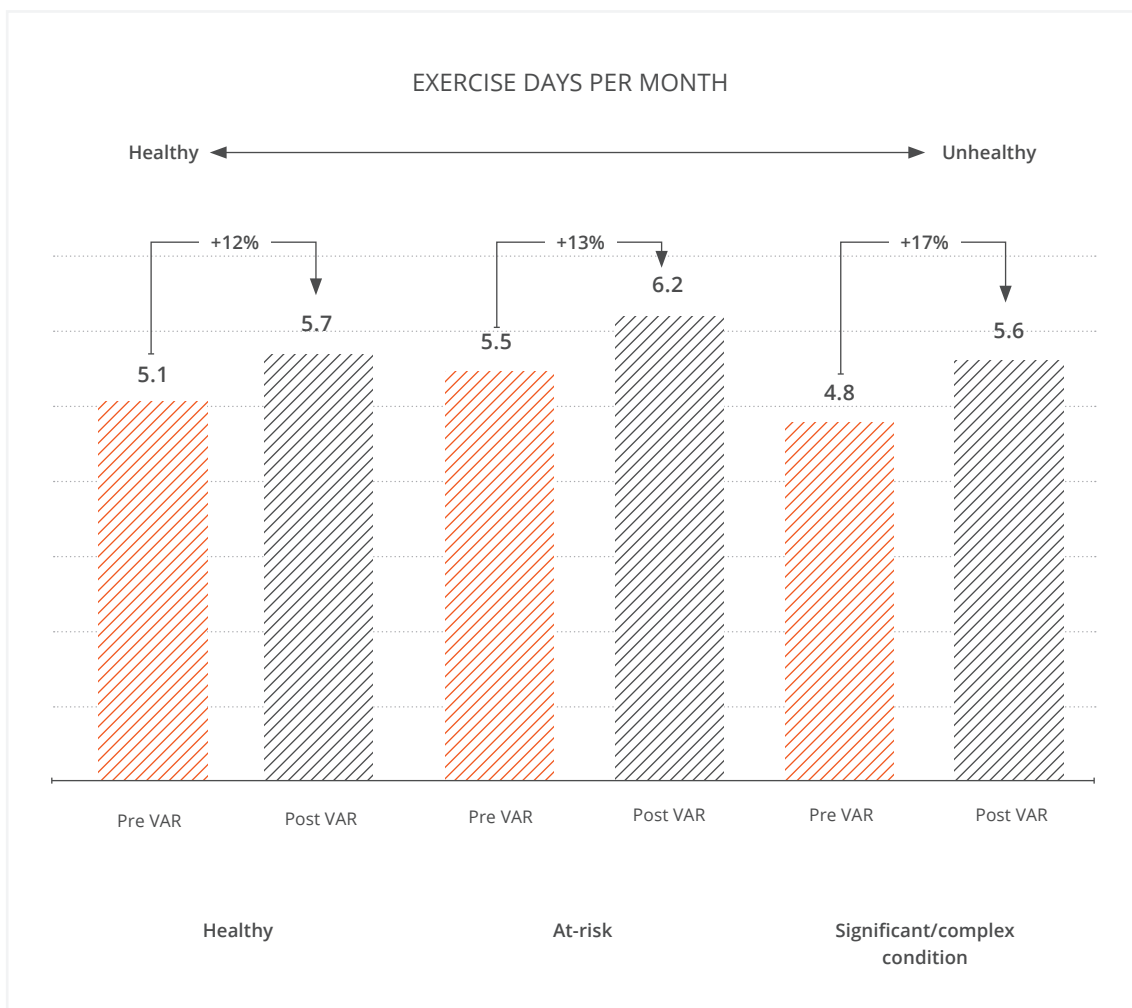
Methodology

Physical activity levels of approximately 2 000 doctors have been tracked over the prior three years to understand the impact of Vitality Active Rewards. The analysis compared physical activity levels 12 months before and 12 months after activating the benefit in terms of both frequency and intensity of physical activity:

- Frequency refers to the number of gym visits a month. In order to standardise for take-up in wearable devices, only members that had activated the gym benefit were considered.
- Intensity refers to the proportion of workouts performed at 80% or higher of a member's maximum heart rate. Approximately 400 doctors had heart rate devices in the 12 months before and 12 months after Vitality Active Rewards.

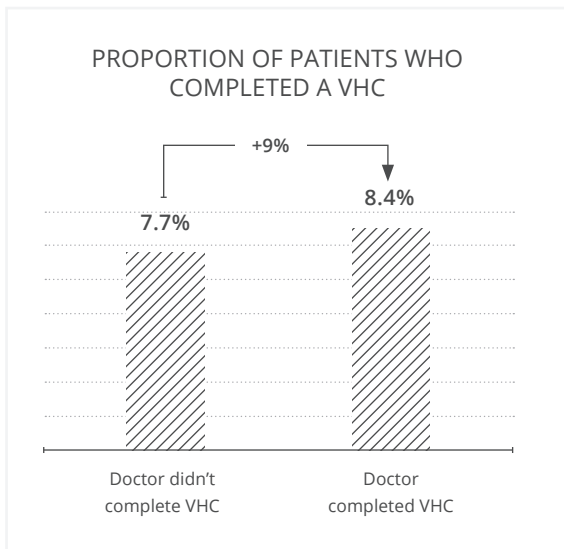
The impact on activity levels is **greatest** amongst doctors **most at-risk**

- Changes in the frequency of physical activity are highest amongst doctors of poorer health status. These doctors stand to gain the greatest health benefits from increasing their physical activity levels and engaging in other healthy lifestyle behaviours.
- For example, doctors with a complex chronic condition on average increased their exercise frequency by 17%. These increases are off a lower base, with the levels of physical activity post activating Vitality Active Rewards comparable across the different health statuses.



Engaged doctors have **more** **engaged patients**

- Doctors who have completed a Vitality Health Check (VHC) are more likely to have patients who complete a VHC
 - 9% more patients complete a VHC after visiting a doctor who has completed a VHC when compared to patients who visit a doctor who hasn't completed a VHC.

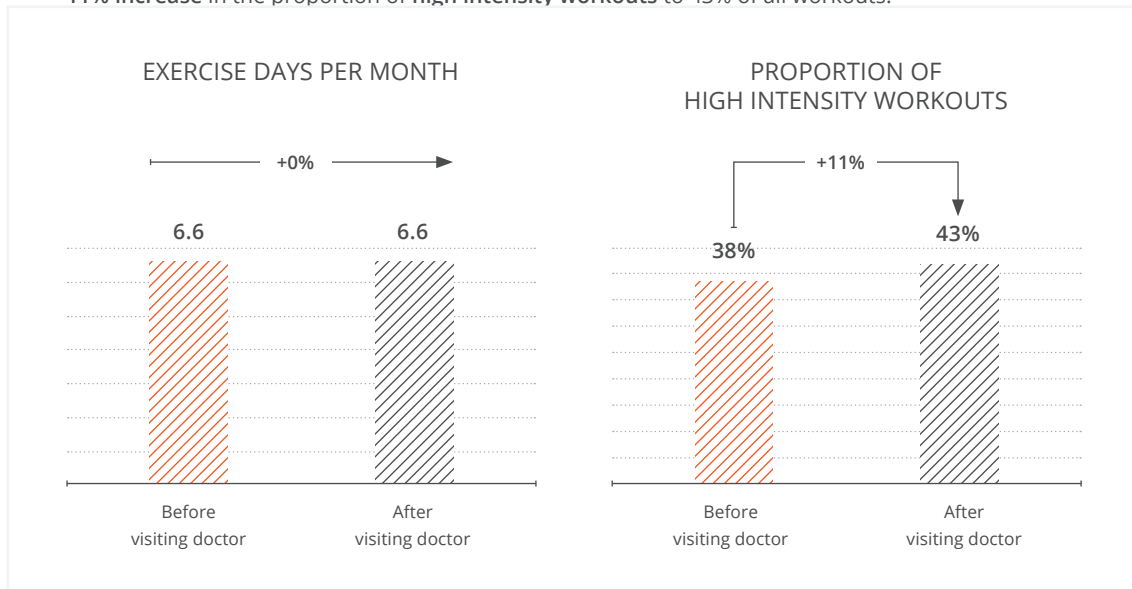


Methodology

Patients who have registered on the Discovery Health Medical Scheme for hypertension, hypercholesterolaemia, diabetes as well as Ischaemic heart disease are considered in this cohort.

- Patients visited a doctor in the Premier Plus GP network.
- The doctors considered to be engaged in Vitality Active Rewards achieved an average of at least 2 weekly goals per month.
- Activity levels were considered in the 6 months prior to the GP visit as well as the 6 months post the GP visit.

- A cohort analysis has shown that patients' activity levels increase after they visit a doctor who has activated and is engaged in Vitality Active Rewards:
 - Average number of exercise days per month are maintained after visiting the doctor. This experience differs from what is seen across the Vitality Active Rewards base where members usually have an increase in exercise days during the initial period after activation which then begins to decrease in the longer term.
 - 11% increase in the proportion of high intensity workouts to 43% of all workouts.



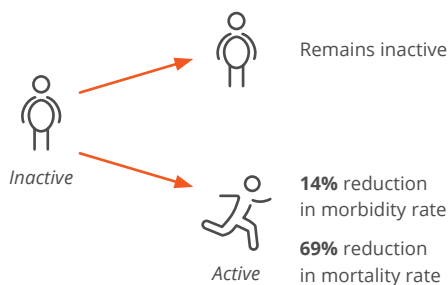
Higher engagement in physical activity across the base of Vitality members is directly correlated to better health outcomes

- Members who increase their levels of physical activity experience materially lower healthcare costs and mortality rates, irrespective of the member's historical level of engagement in physical activity.
 - Inactive members** who start to become physically active experience **14% lower healthcare costs** and **69% lower mortality rates** than members who remained unengaged throughout the period.
 - Members who were already physically active and increased their activity levels lowered their **mortality rates by 31%** and **healthcare costs by 22%**.

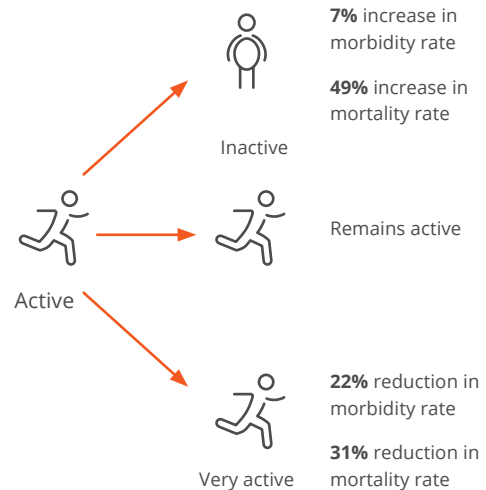
Methodology

A longitudinal study over a five-year period performed across Discovery Health Medical Scheme and Vitality members tracked engagement levels of physical activity across the period. Members were classified based on their levels of physical activity over the initial six-month period, and the change in activity levels over the subsequent four and a half years. Hospital claims and mortality rates in the final year were used as the outcome of the analysis.

MORBIDITY AND MORTALITY IMPACT OF MEMBERS STARTING TO EXERCISE



MORBIDITY AND MORTALITY IMPACT OF MEMBERS ALREADY EXERCISING









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