



2017 Vitality Engagement Study



INSIGHTS
FROM VITALITY

THE VITALITY ENGAGEMENT STUDY 2017

Employer-sponsored wellness programs continue to grow as employers take aim at the key behaviors that drive the prevalence of chronic diseases, with approximately 79 percent of employers in the United States offering wellness and health improvement programs to their employees.¹ Financial incentives, strength of communication, and workplace culture have all been suggested as key drivers of employee participation. While most workplace wellness programs make use of incentives and further strategies to increase engagement, program designs and options vary widely, leading to varying degrees of effectiveness.

Vitality's previous engagement study released in 2014 explained program design components that helped to quantify the impact of different factors on engagement. To account for changes in innovation, technology and other program updates, Vitality has conducted a new in-depth statistical analysis on our client base to quantify the impact of different factors on engagement. **This study aims to help employers optimize program design to achieve the best health outcomes in the most cost-effective way.**

In conducting this analysis, Vitality aims to answer a number of key questions facing employers:

- 1. **What incentives and employer support actions have the biggest impact on initial participation as measured by health review completion?**
- 2. **What incentives and employer support actions have the biggest impact on sustained program engagement?**
- 3. **What do companies with high-employee engagement do differently than the rest?**

To demonstrate the impact our analysis has on engagement, we use several components of the Vitality program that include:

VITALITY HEALTH REVIEW™ (VHR), more commonly known as a health risk assessment, is Vitality's interactive online tool that gathers information about each of the 10 modifiable health risk factors and conditions targeted by Vitality, as well as readiness to change, perceived health status and performance. With more than 20 years of experience, and 35 million years of member data collected, our VHR has been developed with a considerable amount of behavioral and clinical rigor. The VHR, in collaboration with biometric screening outcomes (if applicable), provides members with their Vitality Age®, which is a risk-adjusted age that translates everyday behaviors and choices into a personalized health-related age.

NUMBER OF ACTIVITIES MEMBERS ENGAGE IN PER MONTH looks at the number of point-earning activities in which members participate outside of assessments or screenings such as the VHR, biometric screenings and self-reported workouts. Vitality offers members a wide range of activities

Having analyzed numerous client attributes across the spectrum of the Vitality program, we developed a model that pinpoints the most significant drivers of engagement. The key modifiable drivers of the model were found to be:

| INCENTIVES | COMPANY SUPPORT |
|--------------------------------|--------------------------|
| Vitality Contribution Manager™ | Strong communication |
| Rewards mall | Spouse eligibility* |
| Device subsidy | Vitality Champs® program |

In this study, we look at the marginal impact of each attribute on overall engagement, but in the ideal Vitality setting – in which all recommended attributes are adopted. Additionally, program year plays a factor in the level of engagement, allowing us to chart how engagement varies over time. With the Vitality program, we see that as members become more familiar, their engagement rates increase. By incorporating clients that have been with Vitality for varying lengths of time, we've built a model that includes a time factor.

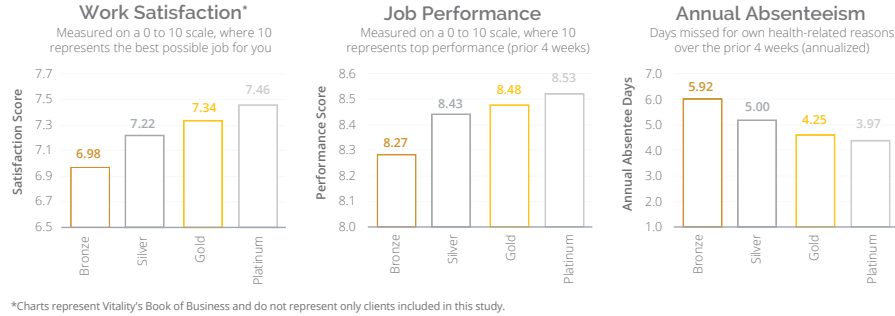
While the precise demographic data of an employer will impact the engagement output, the overall direction and magnitude of the shifts stemming from various Vitality program elements should not vary greatly from the material presented**.

* Spouse eligibility includes both eligibility and a spouse VCM requirement.
** The analysis shows an association of varying engagement levels based on certain program parameters being in place, it is not causal.

from which to choose and engage, allowing participation in ways that are important to members personally. Categories of activities include: physical activity, prevention, certifications, online education, challenges, healthy eating and many others.

VITALITY STATUS® IS AN ACTUARIALLY AND CLINICALLY VERIFIED MEASURE to classify and motivate members based on their personal engagement in wellness. Status combines activity and outcomes into one simple and easy-to-understand engagement metric. Status has a proven correlation to mortality and morbidity and healthcare costs. Vitality Status starts at Bronze (lowest engagement level) and moves to Silver, Gold and Platinum status as members earn Vitality Points™ through engagement. Reaching higher levels of Vitality Status requires long-term engagement in the program. On average, it takes members 3.5 months to reach Silver status, 5.4 months to reach Gold, and 7.2 months to reach Platinum. The following charts demonstrate the direct link between Vitality Status and program impact. There exists a correlation between employee performance and Vitality Status, with higher Vitality Status exhibiting higher satisfaction at work, higher perceived job

performance, and lower reported health-related absences. Vitality Status is risk-adjusted so that regardless of a member's health status or starting point, anyone can reach Platinum status and experience the health benefits associated with long-term engagement.



WHAT INCENTIVES, EMPLOYER SUPPORT ACTIONS AND PROGRAM COMPONENTS HAVE THE BIGGEST IMPACT ON VHR COMPLETION AND AVERAGE ACTIVITIES PER MEMBER PER MONTH?

The first part of the analysis evaluates the importance and impact of individual components, such as program features and supportive company structures on employee participation. Employee participation is defined as the percentage of employees who complete the VHR. In addition to VHR completion percentages, we include the potential impact on engagement in point-earning activities **per member per month (pmpm)** and progression into higher Vitality Status based on the presence of the incentive, program component or supportive company structure.

A regression analysis was done to construct an explanatory function of employee health review completion and the number of activities members complete per month based on past experience. The regression model allows us to rank each of the factors by the size of their impact. The model looks at each of the program's elements and their impact in year 1 of the program as well as years 2 and 3.

| | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>1*</div> <div></div> <div>VITALITY CONTRIBUTION MANAGER</div> <div>Correlates to a":</div> <div><div> 8.7-25.8% VHR completion rate increase</div><div> 0.9-3.1 increase in activities pmpm**</div></div> | <div>2</div> <div></div> <div>COMMUNICATION</div> <div>Correlates to a":</div> <div><div> 13-20.8% VHR completion rate increase</div><div> 1.6-2.8 increase in activities pmpm</div></div> | <div>3</div> <div></div> <div>REWARDS MALL</div> <div>Correlates to a":</div> <div><div> 4.1-15.7% VHR completion rate increase</div><div> 0.5-2.1 increase in activities pmpm</div></div> | <div>4</div> <div></div> <div>SPOUSE ELIGIBILITY</div> <div>Correlates to a":</div> <div><div> 5.1% VHR completion rate increase</div><div> 0.8 increase in activities pmpm</div></div> | <div>5</div> <div></div> <div>DEVICE SUBSIDY</div> <div>Correlates to a":</div> <div><div> 2% VHR completion rate increase</div><div> 0.3 increase in activities pmpm</div></div> | <div>6</div> <div></div> <div>VITALITY CHAMPS</div> <div>Correlates to a":</div> <div><div> 0.01-0.8% VHR completion rate increase</div><div> 0.3 increase in activities pmpm</div></div> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

*Engagement impact is illustrative as a client in program year 1. **The increases represented are comparing the least impactful to the more impactful strategies within each component. ***pmpm = per member per month.

1. Vitality Contribution Manager

Behavioral economics tells us that people are predictably irrational. We know that people over-consume healthcare, because it is free at the point of care, as insurance or an employer is paying for it. The benefit is immediate: You see a doctor and you get treatment. In the case of wellness, the price is immediate, but the benefits could be years down the line. Present bias dictates that people will often make the wrong decision in order to gain immediate gratification, i.e., choosing a cheeseburger over a salad. Incentives play an important role in overcoming these behavioral challenges, guiding people to do the right thing today.

Incentives have been widely used and proven to be effective in driving participation in health-related activities. Kevin Volpp et al. in their article, *A Randomized, Controlled Trial of Financial Incentives for Smoking Cessation*, published in the New England

Journal of Medicine, assessed the impact financial incentives have on getting people to quit smoking.² When comparing a financially incentivized group against a control group, the study found that those participants in the financially incentivized group saw higher participation in the smoking cessation program, experienced higher completion rates and had higher short- and long-term cessation rates.

The Vitality Contribution Manager (VCM) is a highly configurable incentive mechanism leveraged for targeted emphasis on specific engagement and/or outcomes criteria. Vitality clients use the VCM as a tool for inspiring members to increase both immediate and longer-term engagement. By setting the requirement for achieving their employer incentive at Silver or Gold Vitality Status, members must engage for longer periods of time and in a variety of different lifestyle improvement activities.

The VCM incentive strategies can be configured in a variety of ways to align with clients' goals. Our analysis looked at the impact specific VCM strategies had on engagement, including:

1. **No VCM strategy**, where the client does not have an incentive strategy in place as part of the program
2. **Outcomes-based VCM**, where the client aligns the incentive to meeting one or more in-range biometric screening metrics
3. **Activity-only VCM**, where the client aligns the incentive to completion of a certain activity such as the completion of the VHR or a biometric screening
4. **Tiered Vitality Status**, where the client aligns different incentives to members based on Vitality Status
5. **Silver Vitality Status VCM**, where the client aligns the incentive to members achieving Silver Vitality Status or above
6. **Gold Vitality Status VCM**, where the client aligns the incentive to members achieving Gold Vitality Status or above

There is a strong correlation between participation in the VHR by employees and whether the VCM is implemented. As reflected in the VHR Completion Rate graph, completion rates of the VHR differ depending on the strategy being deployed. For example, a program that includes a VCM strategy that aligns to biometric outcomes experiences a 46.3 percent participation rate in year 1 which increases to 52.5 percent in years 2 and 3. Comparatively, programs with a VCM strategy aligned to Gold Vitality Status or above experience a 63.4 percent participation rate in year 1 and 69.7 percent in years 2 and 3, a respective 17.1 and 17.2 percentage point increase in completion compared to an outcomes-based incentive strategy.

VHR Completion Rate

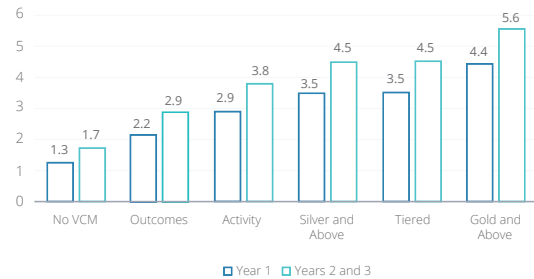


ENCOURAGING REGULAR EMPLOYEE ENGAGEMENT

The VCM can be an effective method of encouraging higher employee engagement. Employee engagement beyond VHR completion is defined as the average number of healthy activities per month tracked by Vitality. Our analysis showed varying increases of activities completed pmpm, depending on VCM strategy. For example, clients in year 1 would expect to see an average of 2.2 activities pmpm for an outcomes-based VCM strategy, 3.5 activities pmpm aligned to a tiered VCM strategy, and 4.4 activities pmpm for a VCM strategy aligned to Gold status or above, a respective 69 percent, 169 percent and 238 percent increase in engagement in activities pmpm compared to clients who do not use a VCM strategy with an expected activities pmpm of 1.3.

This trend continues in program years 2 and 3 with expected engagement in activities pmpm for an outcomes-based VCM strategy at 2.9 activities, 4.5 activities for a tiered VCM strategy, and 5.6 for a VCM strategy set at Gold or above, a respective 70 percent, 164 percent, and 229 percent increase in engagement in activities pmpm compared to clients who do not use a VCM strategy (1.7).

Average Monthly Activities per Member

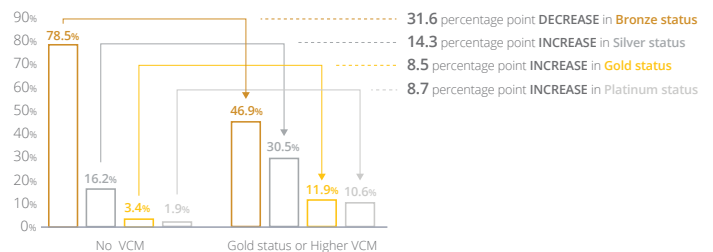


SUSTAINING ENGAGEMENT

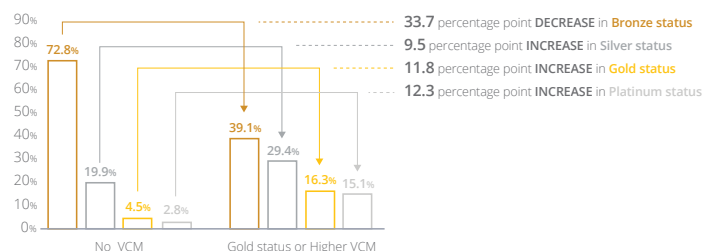
Engagement can also be viewed in terms of status progression. Moving up to a higher Vitality Status requires long-term engagement. Employers who deploy a VCM strategy see higher percentages of members in more engaged status levels.

For example, the status distribution charts below show a comparison between clients who do not use a VCM strategy and those who do, and set it at Gold status or higher. Clients who use the VCM strategy aligned to Gold status or above see a substantial decrease in the low-engaging population (Bronze) while experiencing increases in the populations reaching higher engagement statuses (Silver and above).

YEAR 1



YEARS 2 AND 3



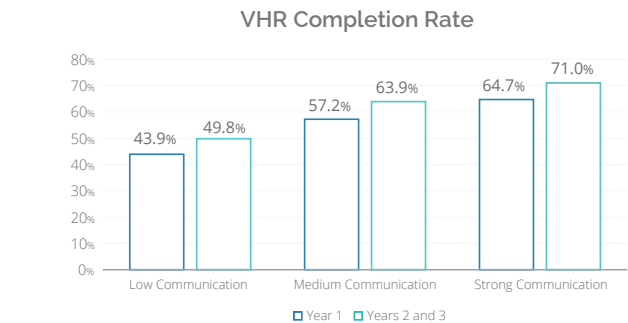
2. Communication

In the United States, only 12 percent of adults have a proficient health literacy level, meaning that the majority of American adults would be challenged with common health tasks, e.g., understanding nutrition labels.³ Effective communication educates members on health and well-being. This is critical to changing health behavior and ultimately making people healthier.

Communication strength falls into either strong, medium, or low categories

| LOW | MEDIUM | STRONG |
|--------------------------------------------------------|--------------------------------------------|----------------------------------------------------|
| Client relies only on triggered emails | Client uses Vitality Communications Center | Monthly communications |
| Turned off triggered emails | Posters in common areas | Client uses Vitality Communications Center |
| Relies on posters or digital ads (TV monitors) | Quarterly communications | Posters in common areas |
| Limited communications usually revolve around VCM only | 2 challenges per year | Newsletter inserts |
| | | Participates in quarterly campaigns |
| | | Uses website real estate and/or push notifications |
| | | 4 or more challenges per year |

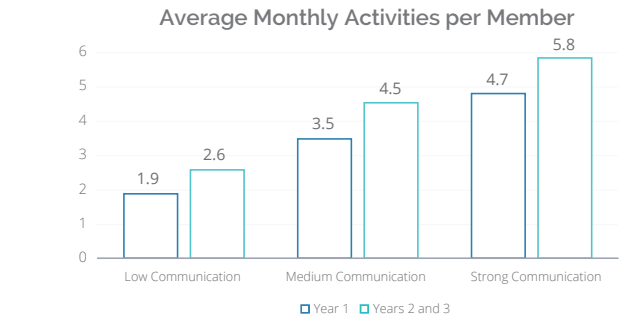
There is a significant correlation between employers deploying strong levels of communication and increased completion of the VHR compared to groups who have low communication strength. For example, a client who has a low level of communication strength can expect to experience a 43.9 percent VHR completion rate in program year 1 and a 49.8 percent completion rate in years 2 and 3. Comparatively, employers who have a strong level of communication strength can expect to experience a 64.7 percent completion rate in program year 1 and a 71 percent completion rate in years 2 and 3, a respective 20.8 percentage point difference in completion rates in year 1 and 21.2 percentage point difference in years 2 and 3.



ENCOURAGING REGULAR EMPLOYEE ENGAGEMENT

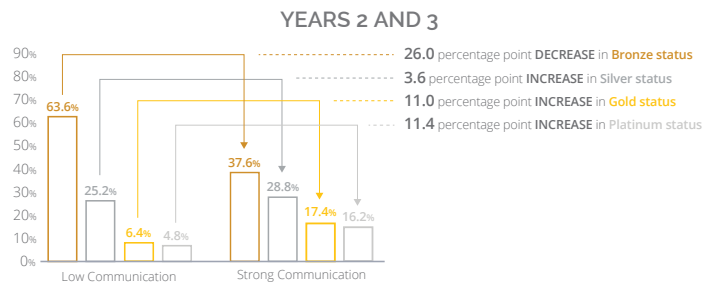
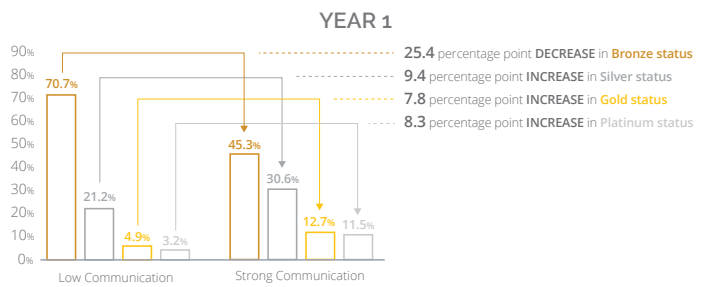
The analysis also shows that the level of communication strength has an impact on the number of activities members are engaging in per month. For example, clients in year 1 would expect to see an average of 1.9 activities pmpm for groups with low communication strength, 3.5 for employers with medium communication strength, and 4.7 for employers with strong communication strength, a respective 84.2 percent and 147.4 percent increase in activities pmpm.

This trend continues in program years 2 and 3 with expected engagement in activities pmpm for low communication strength groups at 2.6 activities pmpm, 4.5 for groups with medium communication strength, and 5.8 for groups with strong communication strength, representing a 73.1 percent and 123.1 percent increase in activities pmpm.



SUSTAINING ENGAGEMENT

When looking at engagement in terms of Vitality Statuses, our data suggests that there is a significant correlation between employers who have stronger levels of communication strength and increased populations in higher engaged Vitality Status (Silver and above). For example, the status distribution charts below show a comparison between clients who have low communication strengths to those who have strong communication strength, where those who offer strong levels of communication show a substantial decrease of the low engaging population (Bronze) while increasing the populations reaching higher engagement statuses (Silver and above).



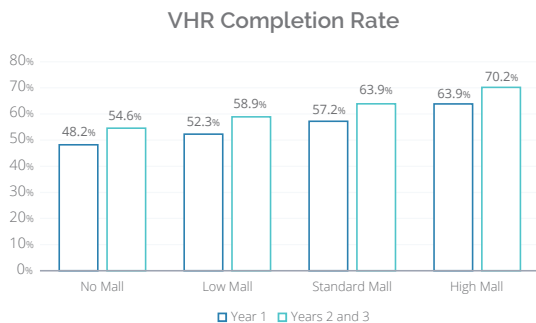
3. Rewards Mall

Earlier in this study we discussed present bias. To address this powerful decision error, Vitality offers clients an additional strategy: the Vitality Mall®. Through the Mall, members can use their points earned through engagement throughout the program, to reward themselves with some of the most powerful consumer brand products, helping them overcome behavioral barriers in present bias.

Our analysis shows a correlation of increased engagement at various levels when the Mall is offered, dependent on the level of the offering. Vitality Mall® can be configured to meet a client's budgetary requirements as the monetary value of the "Vitality Buck™" can be set to one of three levels (low, standard, or high).

As reflected in the VHR Completion Rate graph below, VHR completion rates differ depending on the level of Mall offered by the employer. For example, in program year 1, a group who has a low-level Mall can expect to experience a 52.3 percent VHR completion rate, 57.2 percent for a group offering a standard Mall, and a 63.9 percent completion rate for groups offering a high Mall. That's a respective 4.1, 9, and 15.7 percentage point increase in VHR completion compared to those who do not offer the Mall (48.2 percent VHR completion rate).

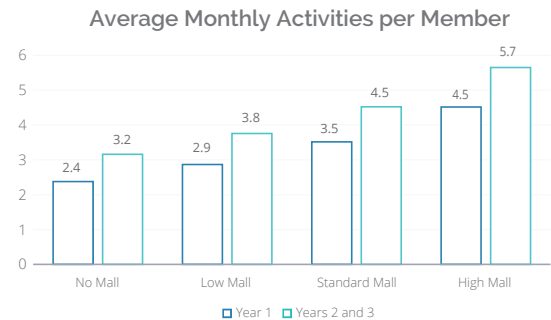
This trend continues in program years 2 and 3 with those who offer a low mall experiencing a 58.9 percent VHR completion rate, those offering a standard Mall 63.9 percent, and those offering a high Mall 70.2 percent, a respective 4.3, 9.3, and 15.6 percentage point increase in VHR completion compared to those who do not offer the mall (54.6 percent VHR completion rate).



ENCOURAGING REGULAR EMPLOYEE ENGAGEMENT

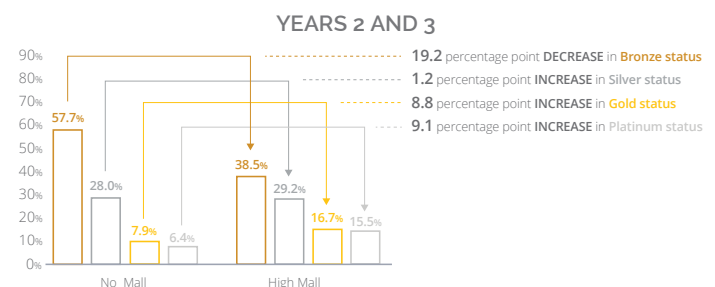
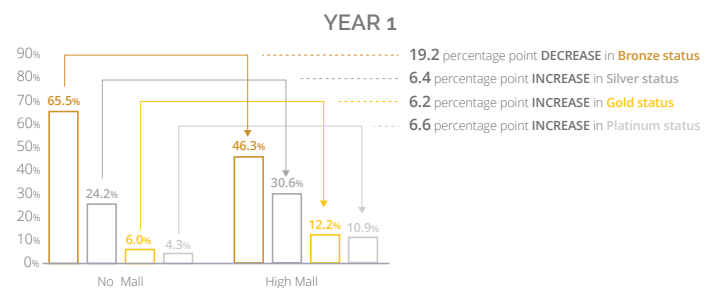
When looking at engagement in terms of number of activities members complete per month, our analysis shows increased engagement in activities pmpm when compared to no Mall. For example, clients in year 1 would expect to see an average of 2.9 activities pmpm for clients with a low Mall offering, 3.5 for employers with a standard Mall offering, and 4.5 for employers with a high Mall offering, a 20.8 percent, 45.8 percent, and 87.5 percent increase in activities pmpm compared to those who do not offer the Mall (2.4 activities pmpm).

This trend continues in program years 2 and 3 with expected engagement in activities pmpm for low Mall-offering groups at 3.8 activities pmpm, 4.5 for groups with a standard Mall offering, and 5.7 for groups with a high Mall offering. This represents an 18.8 percent, 41.9 percent, and 78.1 percent increase in activities pmpm compared to those who do not offer the Mall (3.2 activities pmpm).



SUSTAINING ENGAGEMENT

When considering engagement in terms of Vitality Status, our data suggests that there is a correlation between increased percentage of members in higher Vitality Status and employers offering the Mall. For example, the Status Distribution Shifts charts show the status distribution between clients who do not offer the Mall compared to those who offer a high Mall offering. The high Mall offering shows a substantial decrease of low engaging population (Bronze) while increasing the populations reaching higher engagement statuses (Silver and above).

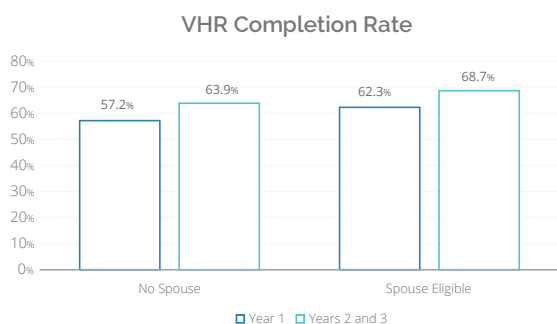


4. Spouse Eligibility*

Social networks can have a profound impact on an individual's health. Dr. Nicholas Christakis and James Fowler, in their article *The Collective Dynamics of Smoking in a Large Social Network* published in the New England Journal of Medicine, evaluated smoking behavior and the impact of social-network ties over a 32-year period⁴. Their findings showed that when one spouse quit smoking, the other spouse was dramatically less likely to smoke. Our analysis shows a correlation between inclusion of spouses and higher engagement.

As reflected in the VHR Completion Rate graph below, completion rates of the VHR differ depending on whether the employer includes or excludes spouses. For example, a group in program year 1 who does not allow spouses as part of the program can expect to experience a 57.2 percent VHR completion rate, while those who offer the program to spouses see a 62.3 percent completion rate, a 5.1 percentage point increase.

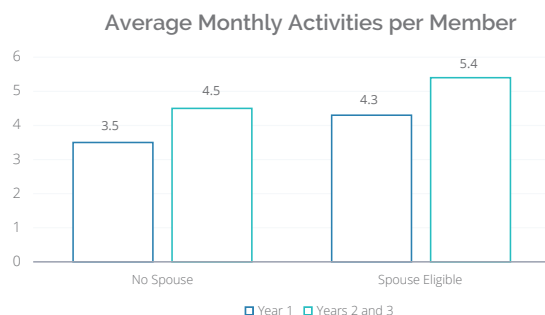
The trend continues in years 2 and 3. Groups who exclude spouses from the program experience a 63.9 percent VHR completion rate, while those who include spouses experience a 68.7 percent completion rate, a 4.8 percentage point increase.



ENCOURAGING REGULAR EMPLOYEE ENGAGEMENT

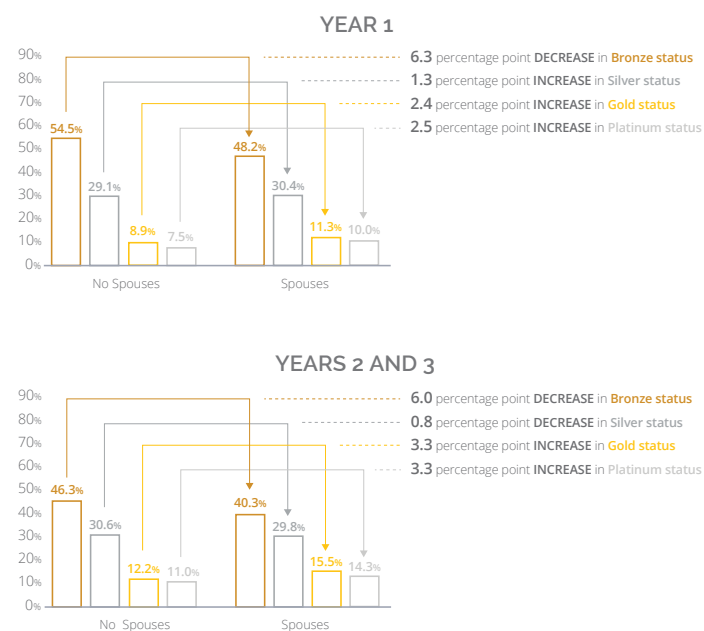
We also see a difference in engagement levels by activities completed pmpm between groups who include spouses, compared to those who do not. Groups who do not offer spouses on the program experience 3.5 activities pmpm, whereas groups who do offer the program to spouses experience 4.3 activities pmpm, a 22.9 percent increase.

In program years 2 and 3, this trend continues as our analysis shows that groups who do not offer the program to spouses experience 4.5 activities pmpm, whereas groups that do include spouses on the program experience 5.4 activities pmpm, a 20 percent increase.



SUSTAINING ENGAGEMENT

Looking at engagement in terms of Vitality Status, our data suggests that there is a correlation between employers who include spouses on the program and higher percentages of members in more engaged status levels (Silver and above). For example, those who offer the program to spouses show a substantial decrease of the low-engaging population (Bronze) while increasing the populations reaching higher engagement statuses (Silver and above).



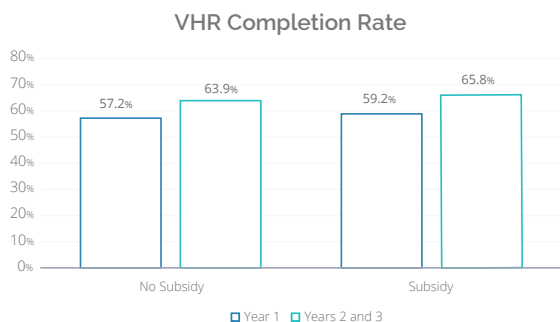
* Spouse eligibility includes both eligibility and a spouse VCM requirement.

5. Device Subsidy

Fitness tracking devices have come a long way from traditional pedometers to devices that track multiple vitals and integrate with smartphones and smartwatches. With the proliferation of fitness devices being introduced to the masses, it has made current physical activities levels more present and easy to understand.

There is a correlation between the offering of a device subsidy and increased participation in the VHR. For example, a group that does not offer a device subsidy as part of the program can expect to experience a 57.2 percent VHR completion rate in year 1 of the program, while those who do offer a device subsidy experience a 59.2 percent completion rate, a 2 percentage point increase.

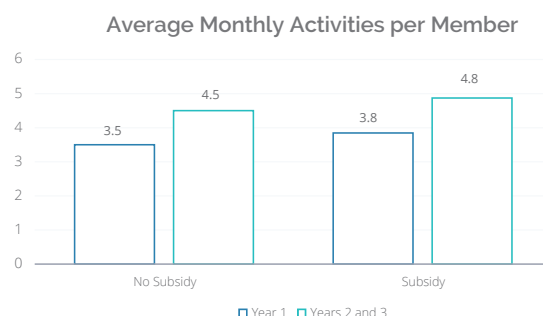
Additionally, in years 2 and 3, this trend continues with those groups who do not offer a device subsidy seeing a 63.9 percent VHR completion rate, while those that offer a device subsidy experience a 65.8 percent completion rate, a 1.9 percentage point increase.



ENCOURAGING REGULAR EMPLOYEE ENGAGEMENT

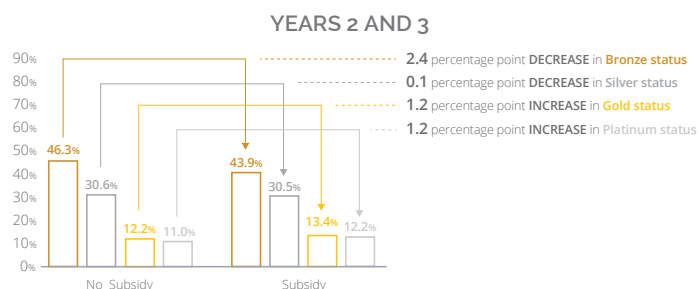
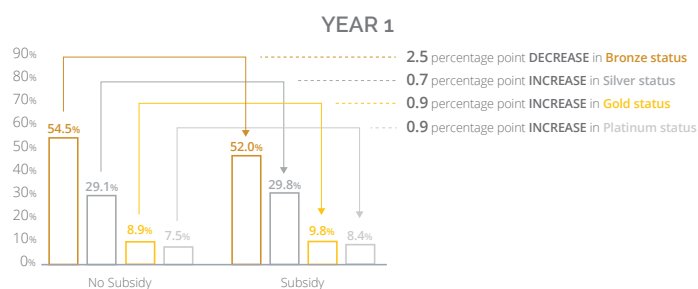
We also see an increase in the average monthly activities pmpm when a device subsidy is offered compared to when it is not. Groups in program year 1 that do not offer a device subsidy experience 3.5 activities pmpm, whereas groups that offer a device subsidy experience 3.8 activities pmpm, an 8.6 percent increase.

In program years 2 and 3, this trend continues as our analysis shows that groups that do not offer a device subsidy on the program experience 4.5 activities pmpm, whereas groups that do offer a device subsidy experience 4.8 activities pmpm, a 6.7 percent increase.



SUSTAINING ENGAGEMENT

Our data shows a correlation between employers who offer a device subsidy and higher percentages of members in the more engaged status levels (Silver and above). The status distribution charts below show that employers who offer a device subsidy have a lower proportion of members in the low engaging population (Bronze status) and an increased proportion of members in higher engagement statuses (Silver status and above).



6. Champs Program

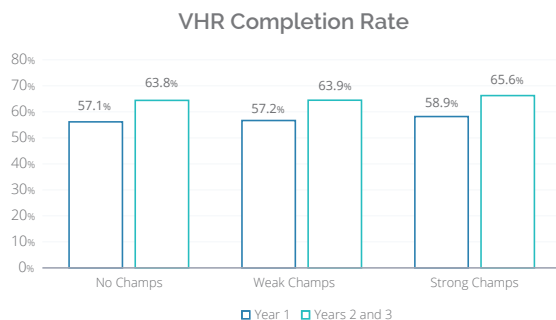
Earlier in the study we introduced the impact that social networks can have on overall engagement in the program, and supporting evidence from Dr. Christakis and James Fowler. An additional study by Christakis and Fowler from the New England Journal of Medicine titled, *The Spread of Obesity in a Large Social Network over 32 Years*, describes how a variety of social connections, including spouses, different degrees of friends, and other family members can have influence over obesity⁵. The study's conclusion is that social networks can have a dramatic impact on your health. Working-age adults spend the majority of their time at work, and as such, there is an opportunity to be influenced, positively or negatively, by those around you. Vitality works with clients to establish an internal network of "Vitality Champs" that aims to find influential members within the workplace and enable them to promote the wellness program to their coworkers. Champs are wellness ambassadors, spreading the culture of health throughout their client's organization, and our data has shown them to be significantly influential in driving engagement.

Champs programs fall into either weak or strong programs.

| NONE | WEAK | STRONG |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No Champs program | Champs identified. Champ meetings often canceled and/or are sparsely attended. They are not motivated (may have been assigned vs. volunteered), have little support and are not empowered to run activities on their own at their locations. | Champs program is established and Champs attend and run monthly calls. They are motivated and active, and they have the freedom to run regular activities. They have full support of management, and have access to—and utilize—the employer portal to manage employer-sponsored events. |

Employers deploying a weaker Champs program experience a 57.2 percent VHR completion rate in year 1 of the program, while those with a stronger Champs program experience a 58.9 percent completion rate, a 1.7 percentage point increase.

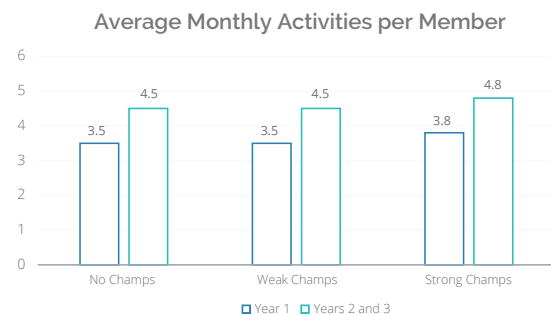
Additionally, in years 2 and 3, this trend continues with those groups that have weaker Champs programs experiencing a 63.9 percent VHR completion rate, while those that have a stronger Champs program experience a 65.6 percent completion rate, a 1.7 percentage point increase.



ENCOURAGING REGULAR EMPLOYEE ENGAGEMENT

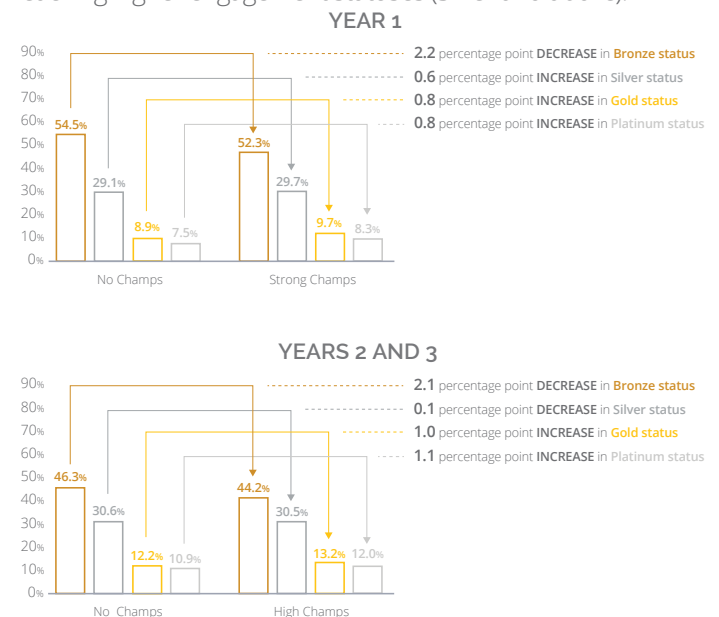
Our analysis also shows a correlation between employers who establish a Champs program and higher engagement in activities pmpm depending on the strength of the Champ program. For example, groups that have a weak Champs program experience 3.5 activities pmpm, whereas groups that have a strong Champs program experience 3.8 activities pmpm in program year 1, a respective 8.8 percent increase compared to employers who do not have a Champs program in place.

This trend continues in years 2 and 3 as our analysis shows that groups who have a weak a Champs program experience 4.5 activities pmpm, whereas groups who have a strong Champs program experience 4.8 activities pmpm, a respective 6.7 percent increase compared to employers with no Champs program in place.



SUSTAINING ENGAGEMENT

The analysis showed a correlation to the presence of a Champs program and an increase in members progressing into higher Vitality Statuses. For example, employers who have a strong Champs program see a decrease in the low engaging population (Bronze status) while increasing the population reaching higher engagement statuses (Silver and above).



WHAT DO COMPANIES WITH HIGH EMPLOYEE ENGAGEMENT DO DIFFERENTLY?

Having analyzed how each incentive or company support structure can impact various engagement levels, the next part of the analysis reviews the cohort of employers included in the engagement study analysis and identifies the program incentives or company support structures that companies with highly engaged employees have in place.

The level of engagement is determined by the following:

| LOW | MEDIUM | HIGH |
|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Defined as less than 3.37 monthly activities with a VHR completion rate below 41 percent. | Defined as 3.37-6.63 monthly activities with a VHR completion rate in excess of 41 percent. | Defined as more than 6.63 monthly activities with a VHR completion rate in excess of 41 percent. |

VITALITY CONTRIBUTION MANAGER

The analysis shows that employers who achieve high levels of engagement deploy a VCM strategy, with a tiered VCM and Gold Vitality Status or above being the most common amongst groups achieving high engagement levels. Employers who achieve lower levels of engagement either do not deploy a VCM strategy or use an activity-based VCM.

COMMUNICATION

Where the level of communication was shown to have a significant impact on various measurements of engagement, this part of the analysis shows that the majority of employers who reach high levels of engagement have a strong level of communication, while the majority of those who fall into the low engagement category have weak communication strength.

REWARDS MALL

Our analysis shows that the majority of clients who achieve a high level of engagement offer a standard level of the Mall, while groups who offer a low level of mall or no mall at all see the highest percentage of clients who fall into the low engagement category.

SPOUSE ELIGIBILITY

The first part of the analysis showed how spouse eligibility coupled with a VCM requirement for spouses can improve engagement. A similar trend continues in this part of the analysis as the majority of groups who reach high levels of engagement include spouses as eligible on the program with a VCM requirement, whereas lower engaging groups tend to offer spouse eligibility without a VCM or do not offer spouse eligibility.

DEVICE SUBSIDY

Offering a device subsidy was shown to have an impact on engagement. It is important to note that device subsidies are not offered universally and are not widely adopted. However, this part of the analysis shows that employers who do offer a device subsidy are more likely to reach the highly engaged cohort.

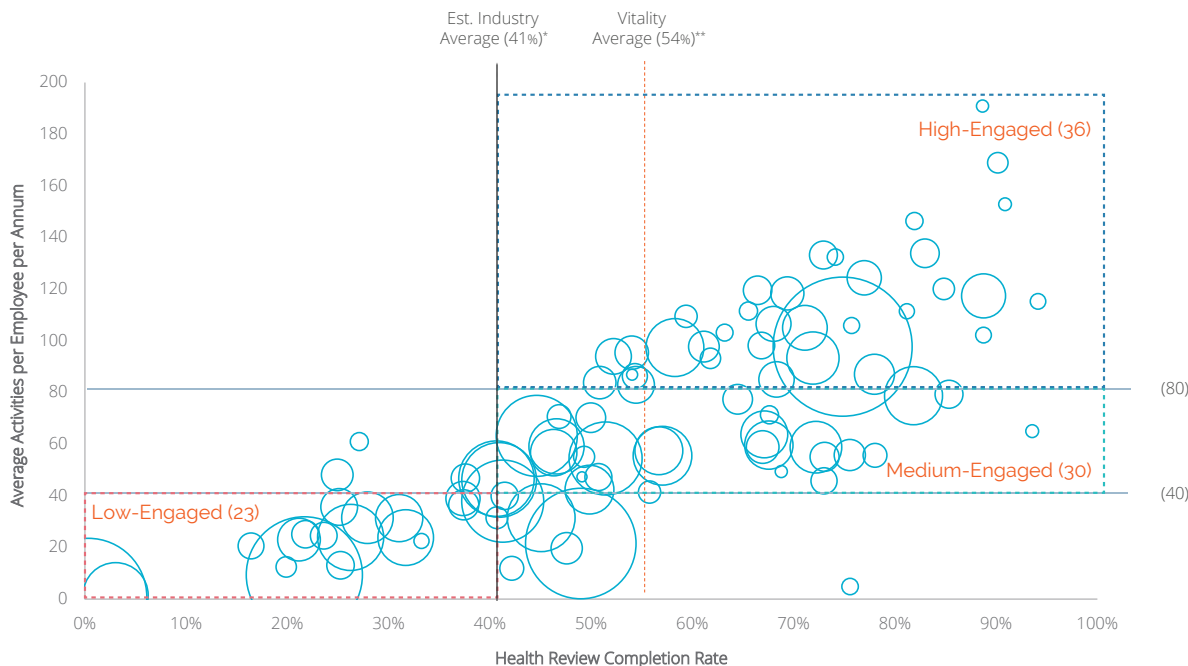
CHAMPS PROGRAM

Establishment of a Champs program was shown to drive increases in engagement in the first part of the analysis. Overall, employers who establish a Champs program are significantly more likely to reach the highly engaged cohort, while employers who do not establish a Champ program are found to be in lower engaged cohorts.

CHALLENGES

Challenges such as health review completion, steps, or workouts can be effective in getting people motivated and engaged in healthy lifestyle activities. While challenges did not appear in the first part of the analysis as an individual program component driving significant engagement, it does appear in the second part of the analysis as the majority of groups reaching the highly engaged cohort offer challenges in the program, compared to those that do not offer challenges, which typically reach lower levels of engagement.

The chart below is a visual representation of where the cohort of clients included in this analysis fall in relation to low, medium and high engagement.



*RAND Health, a Review of the US Workplace Wellness Market, 2012.

**Average completion rate for clients used in the model.

Principles in Practice- Lessons from Vitality Clients

MCKESSON

McKesson is recognized as the largest healthcare services company in the nation and ranks 5th on the FORTUNE 500 list of companies with more than \$190 billion in annual revenue. McKesson's workforce members reside in all 50 states, and the average distance from McKesson's corporate headquarters is 1,769 miles to their employees, resulting in a relatively disperse population with unique challenges.

Since joining Vitality, McKesson has effectively used Vitality's incentives, technology, and account management team, and they have put in place strong support structures to encourage employees to participate and engage in the program. The company has received prestigious awards, such as the 2015 C. Everett Koop National Health Award for their health and well-being offerings and it has seen impressive outcomes in improved health and financial benefits.

Incentives*



VCM



Device subsidy



Vitality Mall



Company Support*



Strong wellness communication



Vitality Champs



Spouses on program



Wellness Results**

73.6% VHR Completion Rate

10 average monthly activities per employee

67.3% of current employees earned Vitality Silver status or above.

* The incentives and company support structures represented are not the only program components in place for this client, but only represent those that matched the overall analysis as key engagement drivers.
 ** Program results from program year 2016, January - November.

METHODOLOGY

Health participation is defined as the percentage of employees within a company who completed the Vitality Health Review prior to the completion of their most recent program year as of September 2016. Engagement has been defined as the number of activities completed per employee in a given program year, which could be measured as a function of the VHR completion rate, monthly activities*, or the Vitality Status distribution.

The study is composed of 110 diverse clients**, which were believed to encompass a reasonable representation of the market more generally. A Generalized Linear Model was fitted to the data with a coefficient of determination – or R^2 – equal to 0.71. Status Score† was used as the response variable, from which VHR completion rate, monthly activities and the Vitality Status distribution were all derived.

The analysis revealed that the Vitality Contribution Manager and Communication Strength were the two most substantial drivers of engagement, with each variable proving to be statistically significant at the 5 percent level.

All the demographic parameters were treated as numeric variables (with the exception of Industry) while the majority of incentive parameters, such as the VCM and Rewards Mall, were treated as categorical variables. For the qualitative measures, the definitions of Communication Strength and the Champs program were developed by the Wellness Strategy Management team leads; the Rewards Mall level was determined by a given client's Vitality Buck to dollar conversion rate.

References

¹<http://www.businessgrouphealth.org/pressroom/pressRelease.cfm?ID=252>

²<http://www.nejm.org/doi/full/10.1056/NEJMsa0806819#t=article>

³<https://health.gov/communication/literacy/quickguide/factsbasic.htm>

⁴<http://www.nejm.org/doi/full/10.1056/NEJMsa0706154#t=article>

⁵<http://www.nejm.org/doi/full/10.1056/NEJMsa066082#t=article>

COMMUNICATION STRENGTH

Weak:

Client sends only quarterly communications or fewer, needs regular assistance on what/how to communicate, does not often use the Vitality Communications Center and does not follow the annual communication plan developed with the Wellness Strategy Manager (WSM).

Medium:

Client sends communications twice per quarter, needs minimal assistance on what/how to communicate, periodically uses the Vitality Communications Center, and follows most of the annual communication plan developed with the WSM. May use some communication features in the POV and may have Champs that assist with communication.

Strong:

Client sends communications at least monthly, does not need assistance with Vitality Communication Center and utilizes it consistently, regularly follows the annual communication plan developed with the WSM, utilizes Champs for communications regularly if they have a Champ program, and utilizes the Challenges platform. Incorporates other forms of communication, i.e., Push notifications, POV message center/Newsfeed, and other resources available to them such as their intranet, digital message boards, posters, etc.

REWARDS MALL

None: No Mall.

Low: Low Mall factor.

Standard: Standard Mall factor.

High: High Mall factor.

CHAMPS

None:

No Champ program.

Weak:

Champs identified. Champ meetings often canceled and/or are sparsely attended. They are not motivated (may have been assigned vs. volunteered), have little support and are not empowered to run activities on their own at their locations.

Strong:

Champ program is established and Champs attend and run monthly calls. They are motivated and active, and they have the freedom to run regular activities. They have full support of management, and have access to and utilize the employer portal to manage employer-sponsored events.

* Monthly activities exclude all VHR, Vitality Check screenings, and self-reported Healthy Habits. Average monthly activity counts are calculated by dividing total monthly activity counts by the number of Vitality-eligible members in a given month.

** All clients included in the study are standard groups with a 12-month program year.

† Status Score is a weighted average of a group's Vitality Status distribution. In particular, Status Score=(2.5×Silver Status %)+(6×Gold Status %)+(10×Platinum Status %). See methodology section for full description.