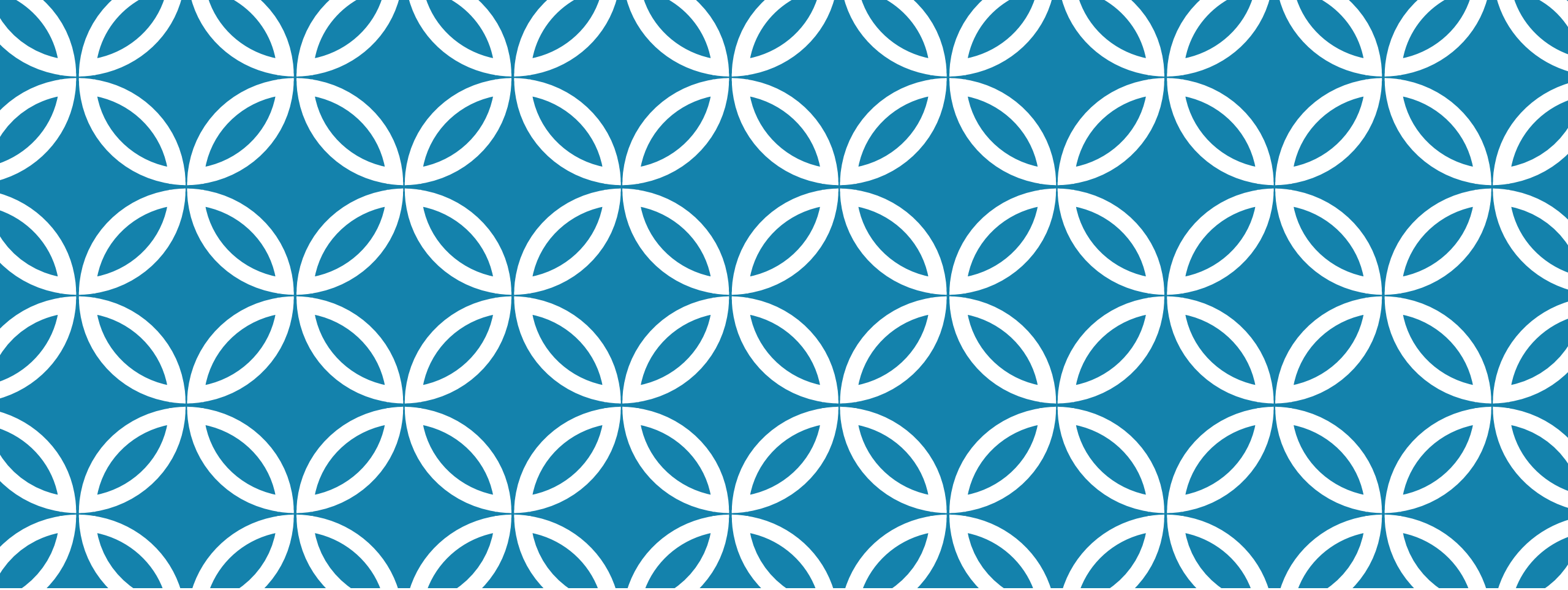


MUSCLEHUB

INTRODUCTION

This was a scenario where 5,004 individuals who visited MuscleHub's application status, participation in a fitness test and ultimately membership was recorded in a SQLite database.

The results of which were analysed to better understand where MuscleHub has agency to improve their membership uptake rate.

A/B TEST

Janet at MuscleHub has a SQLite database. The database contains a number of tables; ‘visits’, ‘fitness_tests’, ‘applications’ and ‘purchases’. As the data was rather fragmented across the four tables, it was more efficient for data analysis to distil the four tables into one dataframe; ‘df’.

The df can be grouped into Group A and B, the former who were given fitness tests and the latter who were not. Ultimately these groups were offered the opportunity to apply for MuscleHub membership.

HYPOTHESIS TEST 1

H_1: There is **a statistically significant difference** in the application rates of Groups A and B

H_0: There is **no statistically significant difference** in the application rates of Groups A and B

Test Results

P-value = .001 < .05 Reject H_0

Test Rationale - Chi^2 tests are useful when we want to test for differences between two categorical datasets; Group A and B.

HYPOTHESIS TEST 2

H_1: Given the participant has picked up an application, the fitness test **will have a significant impact** on the membership rate

H_0: Given the participant has picked up an application, the fitness test **does not have a statistically significant impact** on membership rate

Test Results

P-value = .4326 > .05 Fail to accept H_0

Test Rationale - Chi^2 tests are appropriate where we are testing between two categorical groups, in this case those who took the fitness test (Group A) and those that did not (Group B).

HYPOTHESIS TEST 3

H_1: There is **a statistically significant difference** in the membership rates of Groups A and B

H_0: There is **no statistically significant difference** in the membership rates of Groups A and B

Test Results

P-value = .0147 < .05 Reject the H_0

Test Rationale

Similar to the previous test, the Chi^2 test is apt here because the two datasets being compared are categorically different; Group A and B.

QUALITATIVE DATA SUMMARY

There is very little qualitative data available in the form of interview excerpts. Conventionally, interviews should be codified to establish uniformity in the appreciation of the contents. As such each interview was assessed in relation to the attitude to the Fitness Test and Membership.

Fitness Test

There were two different type of responses to the fitness test; the first being rather enthusiastic and the second being wholly apathetic. The majority of respondents seemed to feel that immediately being cajoled into participating in a fitness test was rather distasteful and mentioned LiftCity as an example.

Membership

Half of respondents ended up signing up for the membership.

Conclusion

In regards to both the fitness test and membership the sample is too small to make any meaningful inferences regarding the population.

RECOMMENDATIONS

Fitness Test

According to the funnel charts and statistical significance between the membership rates of Groups A and B, it would be in MuscleHub's best interest to not administer Fitness Tests prior to membership because it resulted in a lower application (Fig.1) and membership rate (Fig. 2).

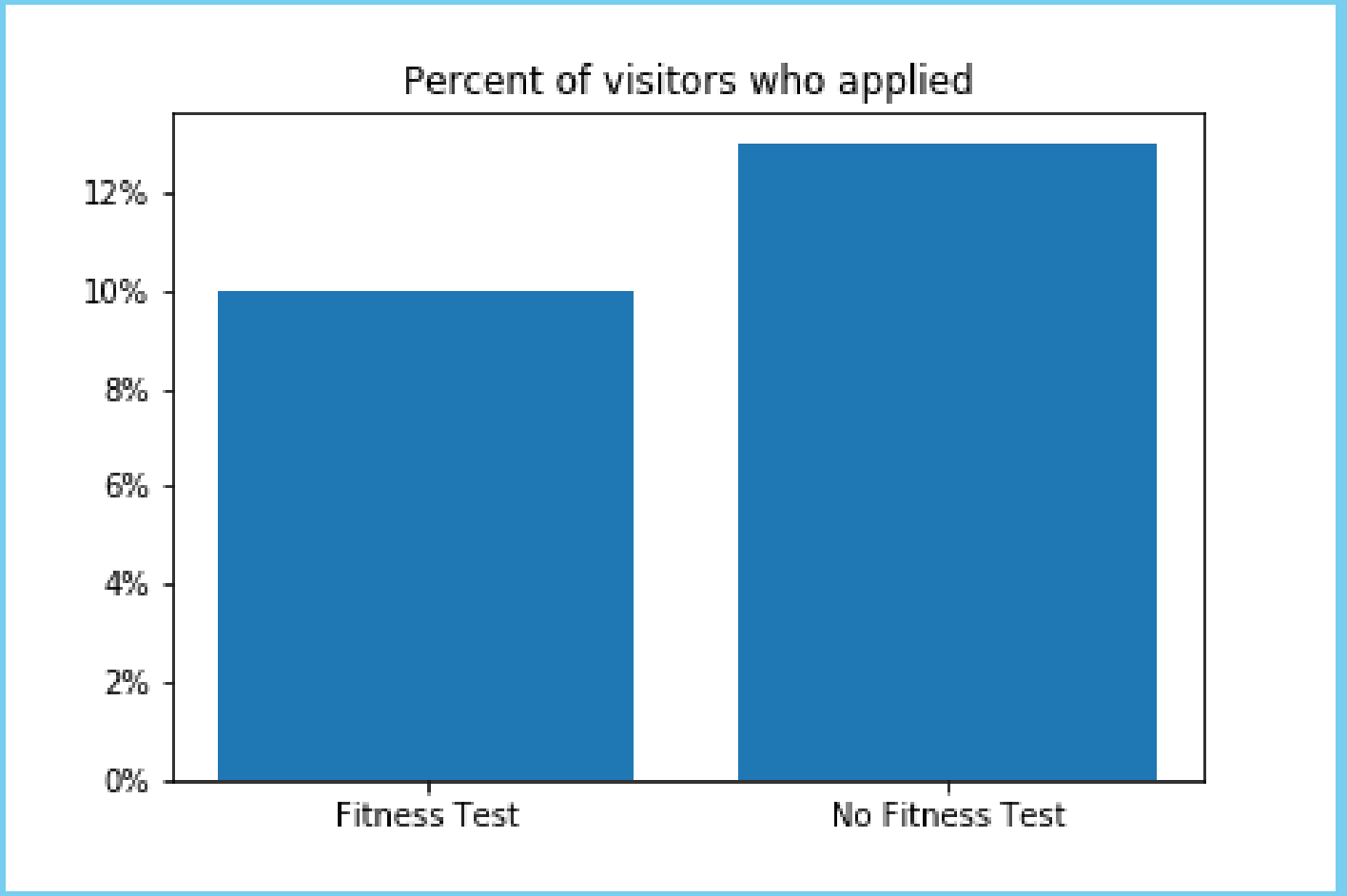

Percent of visitors who applied
12%
10%
8%
6%
4%
2%
0%
Fitness Test
No Fitness Test

FIG.1

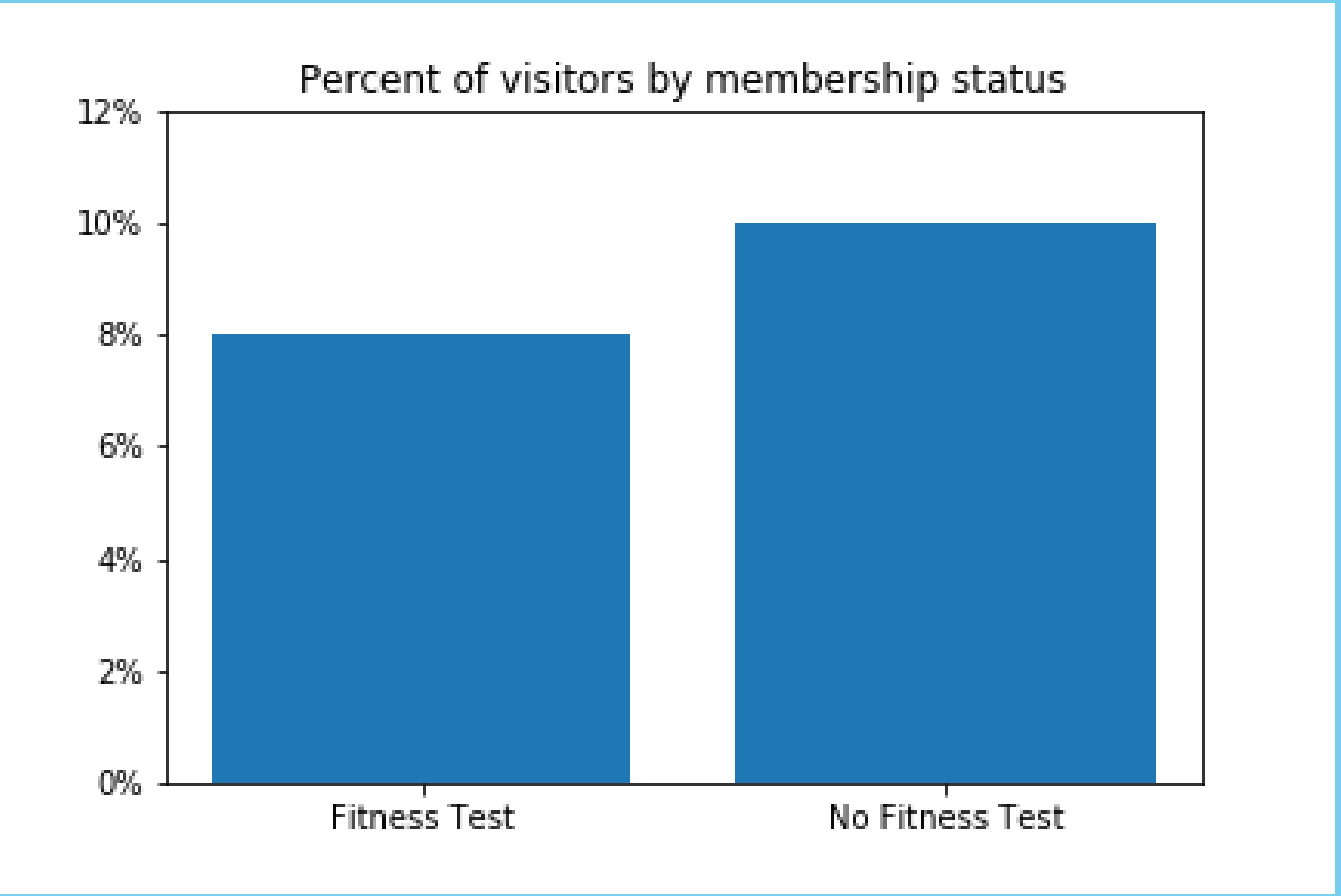
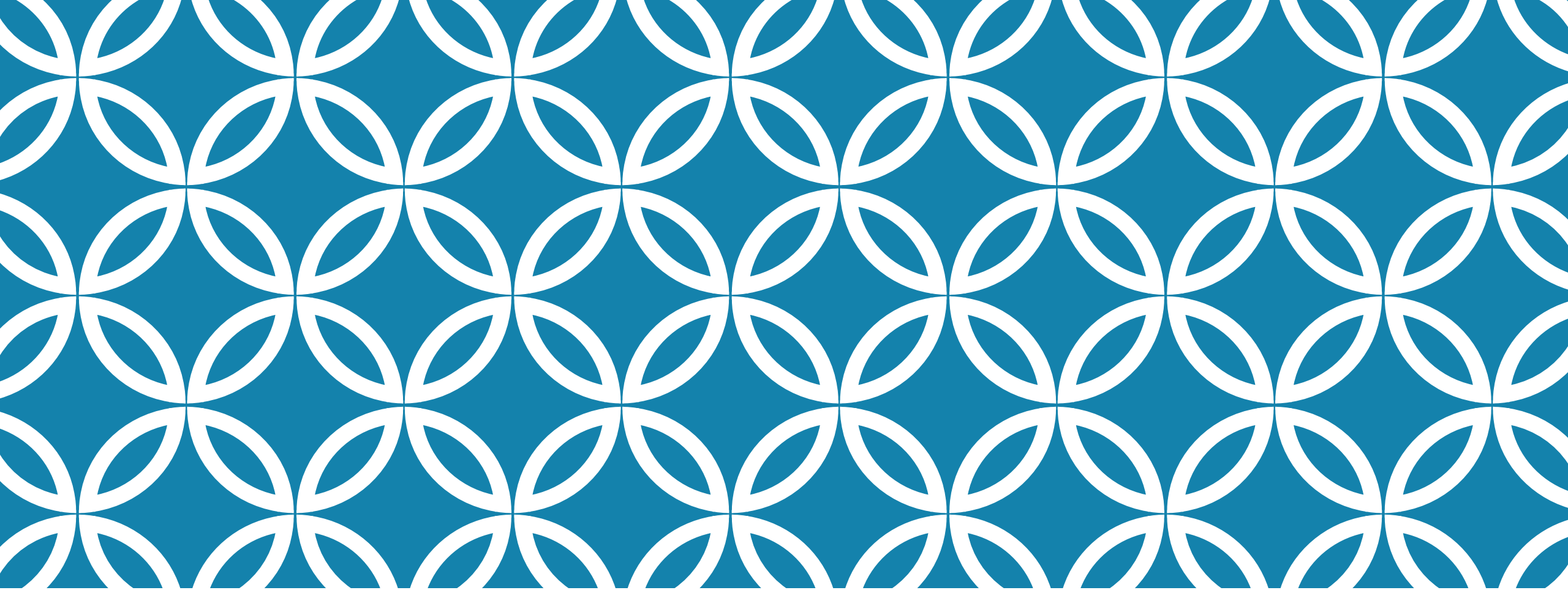

Percent of visitors by membership status
12%
10%
8%
6%
4%
2%
0%
Fitness Test
No Fitness Test

FIG.2

CONCLUSION

MuschHub carried out an experiment to see whether Fitness Tests statistically impacted their membership and application rates. They found that there was a statistically significant impact on the two respective rates.

As the rates for those who participated in a fitness test were less than those that didn't, MuscleHub should proceed to remove the fitness test from the membership and application process to take advantage of the greater membership and application rates.



THE END

By Abdullah-Isa Amole BA MSc
An exercise in patience and persistence