

# CONSENT TO PARTICIPATE IN RESEARCH

## TITLE OF RESEARCH PROJECT: EARLY DETECTION OF INFLUENZA-LIKE ILLNESSES.

Dear prospective participant,

My name is Pieter Zietsman, a master's student at the Department of Industrial Engineering at Stellenbosch University. We would like to invite you to take part in a research study which involves the collection of your smartwatch data along with weekly health surveys for a duration of **2 months**. Your participation is **entirely voluntary**, and you are free to decline to participate or to opt-out of the study, even if you have agreed to take part initially. The collected data will be completely anonymous and would not be possible to link anything back to you.

### What is the study about?

This study **aims** to use vitals data such as heart rate, resting heart rate, heart rate variability, steps, and sleep duration that is measured with a fitness-focused smartwatch to detect the onset of an influenza-like illness before symptoms start to show. A machine-learning algorithm will be trained to identify any abnormalities in your real-time vitals, activity, and sleep data.

### Requirements to enrol in this study include:

- Must have a smartphone with an internet connection.
- Must have a fitness-focused smartwatch. (Click [here](#) to see all suitable smartwatches)
- Smartwatch must be linked with Google Fit or Apple Health.
- Smartwatch must be able to measure heart rate, resting heart rate, steps, and sleep.

There are a limited amount of smartwatches available that can be borrowed for the duration of this study should you not have one of the required smartwatches mentioned above. Please fill out [this](#) form to sign up.

### What will participating in this study entail?

If you agree to participate you will first be asked to provide demographic information such as age, weight, height, and sex. It plays a big role in how your body responds to an infection and will be used to help determine the severity of an illness and also to better control the parameters of the machine learning algorithm. You will be requested to wear your smartwatch daily, as much as possible, and to download a study app called Fluomatic with which to share the data collected from your smartwatch. In addition, weekly self-assessment health surveys must be completed and will take approximately 5 - 10 minutes to complete. The surveys contain a combination of daily symptom tracking questions, reports of past illnesses, and dates of alcohol consumption.

### What are the benefits from taking part in this study?

If you take part in this study, you will be rewarded an Uber Eats voucher with a value of R100 at the end of the study. There will also be a lucky draw at the end for a chance to win 1 of 3 smartwatches. You will also be compensated for the data used to download and use the app.

### Are there any risks involved in taking part in this study?

There is very minimal risk involved in participating in this study. Your collected smartwatch data and survey responses will be completely anonymous and stored in a secure cloud database that only the Principal Investigator has access to. Your data will also be encrypted then synchronised with the cloud.

### Will there be a way to Opt-out of the study?

There will be an opt-out button in the study app to stop the app collecting any further data. The data that was already collected will still be securely stored for auditing and reporting purposes but will be excluded from final analysis.

### **Permission to have all anonymous data shared with journals:**

When this study has been completed, the researcher(s) would like to publish results of the study in journals. Most journals require us to share your anonymous data with them before they publish the results. Therefore, we would like to obtain your permission to have your anonymous data shared with journals.

☐ I agree to share my data.

You can phone the Principal Investigator of this study, **Pieter Zietsman** at **20714386@sun.ac.za** if you have any questions about this study or encounter any problems.

This study has been approved by the Health Research Ethics Committee at Stellenbosch University. The study will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, and the Department of Health Ethics in Health Research: Principles, Processes and Studies (2015).

You can phone the Health Research Ethics Committee at 021 938 9677/9819 if there still is something that concerns you about how this study is being conducted, or if you have a complaint.

**Please save** a copy of this information and consent form for you to keep safe.

I, \_\_\_\_\_, hereby confirm that I:

- Am over 18 years old.
- Adhere to the requirements of this study.
- Have read and understood the above explanation about the study.
- Agree to participate in the study.
- Also understand that my participation in this study is strictly voluntary.
- Give permission to share anonymous data with journals.