

Participant Information Sheet (PIS)

Title: Evaluating a Community-Based Digital Health Intervention with Air Quality Warnings for Non-Communicable Diseases Prevention in Rural Indonesia

Dear Sir/Madam,

Currently we are conducting research entitled "Evaluating a Community-Based Digital Health Intervention with Air Quality Warnings for Non-Communicable Diseases Prevention in Rural Indonesia" in order to generate evidence that can inform targeted public health interventions and environmental policies. Before you decide whether to take part, it is important for you to understand why the research is being conducted and what it will involve. Please take time to read the following information carefully before deciding whether to take part, and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information. Thank you for taking the time to read this sheet.

About the research

1. Who will conduct the research?

This study is a collaboration between researchers from Universitas Brawijaya (Indonesia), the University of Manchester (UK), Imperial College London (UK) and The George Institute for Global Health (India).

2. What is the purpose of the research?

This study aims to evaluate the use of digital health application (SMARTHealth Climate App) to improve people's health from the impacts of air pollution, especially those who have heart disease (cardiovascular disease, or CVD) and lung disease (chronic obstructive pulmonary disease, or COPD). To do this, we will involve community health workers (Kader) and doctors who will assess and follow up participants with CVD and/or COPD using SMARTHealth Climate App. In addition to this, small air quality sensors will be placed in the villages to track levels of pollution, and a warning system will send alerts to people's phones and to Kader with some simple tips to help reduce air pollution exposure, such as staying indoors or wearing a mask.

3. Am I suitable to take part?

You can take part in this study if you:

- Are 40 years old or older
- Have been identified as having a high risk of CVD and COPD through a previous screening by a community health worker (Kader) and GP
- Are willing to participate and give informed consent

4. Will the outcomes of the research be published?

We will provide a lay summary of the research results to all individuals who consent to receive one. We will also publish our findings in an academic journal and present our findings at conferences and community events. You will not be identifiable in any of these outputs, both in research reports, journal articles, conference presentations, and other scientific publications.

5. Who has reviewed the research project?

The University of Brawijaya has approved this research through the Research Ethics Committee with the following approval number 77.1/EC/KEPK/04/2025).

What would my involvement be?

1. What would I be asked to do if I took part?

If you are interested in this study, we will provide you with this information sheet to read at your convenience. After 24 hours, you may confirm your willingness to take part by contacting a member of the research team, the enumerators, or your local Head of Neighbourhood (RT). Contact details for Prof Sri Andarini, the enumerator, and the RT are provided on page 5 of this Participant Information Sheet.

- Your name, address, occupation, and phone number (to schedule visits and contact you about study results).
- Information about your lifestyle habits, such as smoking, alcohol use, diet, and physical activity.
- Your current symptoms (e.g., cough, breathlessness, chest pain) and recent healthcare usage (e.g., hospital visits, medications).
- Your medical and family history, including any diagnosed conditions such as heart disease, stroke, diabetes, high blood pressure, COPD, asthma, and tuberculosis.
- Your blood pressure, blood sugar, cholesterol, and other cardiovascular health markers from health assessments.
- Responses to questions about your quality of life and psychological wellbeing.

If you decide to take part in this study, a trained researcher will visit your home to ask you some questions and conduct simple health measurements. First, you will be asked to answer some questions about lifestyle habits (including smoking, diet, and physical activity), current symptoms, medical use and healthcare access for cardiovascular or lung diseases, and psychological wellbeing. This survey will take approximately 30–45 minutes to complete and will help us understand the difference of your health conditions before and after the intervention program. Some questions in the questionnaire may inquire about highly personal topics, such as health status, lifestyle, or emotional well-being. Please note that you are free to skip any questions you do not feel comfortable answering. After completing the questionnaire, we will measure your blood pressure, blood glucose, weight and waist circumference. This is a quick and painless procedure that helps assess your health.

If any concerning results are found during the health checks (for example, very high blood pressure), a qualified member of the medical team will contact you directly to explain the findings. If you agree, we can forward the health information to the public health centres (Puskesmas). You may also be invited to attend a follow-up visit at your local Puskesmas to receive further explanation and support. This is entirely voluntary and will only be arranged with your consent.

Your participation in this study is entirely voluntary, and you are free to withdraw at any time without giving a reason. If you decide to withdraw from the study, your questionnaire data will be deleted.

In addition to individual participation, we will install air pollution monitors (PurpleAir sensors) in selected villages to measure local air quality. You will not need to take any action for this part of the study, but it will help us understand how air pollution levels in your community are related to health outcomes.

2. Will I be compensated for taking part?

This survey will take approximately 30-45 minutes of your time. You will receive a shopping voucher worth IDR 100,000 (approximately £5) as a token of appreciation for your time and participation. The voucher can be used directly at convenience stores. Receiving this voucher is voluntary and will not affect your right to participate in the study.

3. What happens if I do not want to take part or if I change my mind?

It is up to you to decide whether to participate. If you decide to participate, you will be given this information sheet to keep and will be asked to sign a consent form. If you decide to take part, you are still free to withdraw at any time without giving a reason and without detriment to yourself. However, it will not be possible to remove your data from the project once the survey has started. Nevertheless, your data will be anonymised. We will not be able to identify your specific data so it does not affect your data protection rights. If you decide not to take part you do not need to do anything further.

Data Protection and Confidentiality

1. What information will you collect about me?

In order to participate in this research project we will need to collect information that could identify you, called “personal identifiable information”. Specifically we will need to collect:

- Your name, address, occupation, and phone number (to schedule visits and contact you about study results).
- Information about your lifestyle habits, such as smoking, alcohol use, diet, and physical activity.
- Your current symptoms (e.g., cough, breathlessness, chest pain) and recent healthcare usage (e.g., hospital visits, medications).
- Your medical and family history, including any diagnosed conditions such as heart disease, stroke, diabetes, high blood pressure, COPD, asthma, and tuberculosis.
- Your blood pressure, blood sugar, cholesterol, and other cardiovascular health markers from health assessments.
- Responses to questions about your quality of life and psychological wellbeing.

2. Under what legal basis are you collecting this information?

The information you provide is considered personal information under the Indonesian Privacy and Personal Information Protection Act 2022, Number 27 (IND). In addition, we collect and

store this personal identifiable information in accordance with UK data protection law, which protects your rights. These state that we must have a legal basis (specific reason) for collecting your data. For this research, the specific reason is that it is “a public interest task” and “a process necessary for research purposes”.

3. What are my rights in relation to the information you will collect about me?

You have a number of rights under data protection law regarding your personal information. For example, you can request a copy of the information we hold about you.

If you would like to learn more about your various rights or how we use your personal information to ensure compliance with the law, please refer to our Privacy Notice for Research.

4. Will my participation in the research be confidential and my personal identifiable information be protected?

In accordance with data protection law, Brawijaya University is the Data Controller for this project. This means that we are responsible for ensuring your personal information is kept secure, confidential, and used only in the manner you have been informed it will be used. All researchers are trained with this in mind, and your data will be looked after in the following ways:

The research team at Brawijaya University will have access to your personal information, and they will anonymise it as soon as possible. Your name and any other identifying information will be removed and replaced with a random ID number. The research team will have access to the key that links this ID number to your personal information. Your signed consent form will be retained for 5 years in a locked cabinet for audit purposes. If you provide consent for this, your details will be securely stored in a digital folder accessible only to the research team and used solely for the purposes described above.

At the end of the project, we will deposit a fully anonymised dataset in an open data repository where it will be permanently stored. Researchers at other institutions and others can access the anonymised data directly from the repository and use it for further research or to check our analysis and results.

There may be occasions when we may need to break confidentiality and these are outlined below:

- If, during the research, we have concerns about your safety or the safety of others, including a serious health risk about the examination result, we may need to inform your care team/family member. You will be asked for consent prior to this.
- If, during the research, you disclose information about any current or future illegal activities, we have a legal obligation to report this. We will therefore need to inform the relevant authorities. We will not do this without informing you of this.

Please also note that individuals from The University of Manchester or regulatory authorities may need to look at the data collected for this research to make sure the project is being carried out as planned. This may involve looking at identifiable data. All individuals involved in auditing and monitoring the research will have a strict duty of confidentiality to you as a research participant.

What if I have a complaint?

If you have a complaint, here are the procedure report complaints:

1. If you wish report complaints direct to members of the research team, please contact via email address or phone number below:

Researcher Name : Prof.Dr.dr.Sri Andarini, M.Kes, Sp.KKLP
Email Address : dr.sriandarini.fk@ub.ac.id
Phone Number : 0816554610
Address : Faculty of Medicine, Brawijaya University

2. If you wish to make a formal complaint to someone independent of the research team or if you are not satisfied with the response you have gained from the researchers in the first instance then please contact via email address or phone number below:

- Ethical Committee, Faculty of Medicine Universitas Brawijaya, Jl. Veteran Malang by access insitu.fk.ub.ac.id/loginsikep (+62341 569117).

3. If you wish to contact us about your data protection rights, please email sekr.fk@ub.ac.id or write to the Health Research Ethics Committee Office, Faculty of Medicine, Brawijaya University at Jalan Veteran, Malang and we will guide you through the process of exercising your rights.

Contact Details

If you have any queries about the research or if you are interested in taking part then please contact the researcher(s):

Researcher Name : Prof.Dr.dr.Sri Andarini, M.Kes, Sp.KKLP
Email Address : dr.sriandarini.fk@ub.ac.id
Phone Number : 0816554610
Address : Faculty of Medicine, Brawijaya University

Enumerator Name :
Email address :
Phone Number :
Address : Faculty of Medicine, Brawijaya University

Head of Neighborhood (RT) :
Email address :
Phone Number :
Address :