

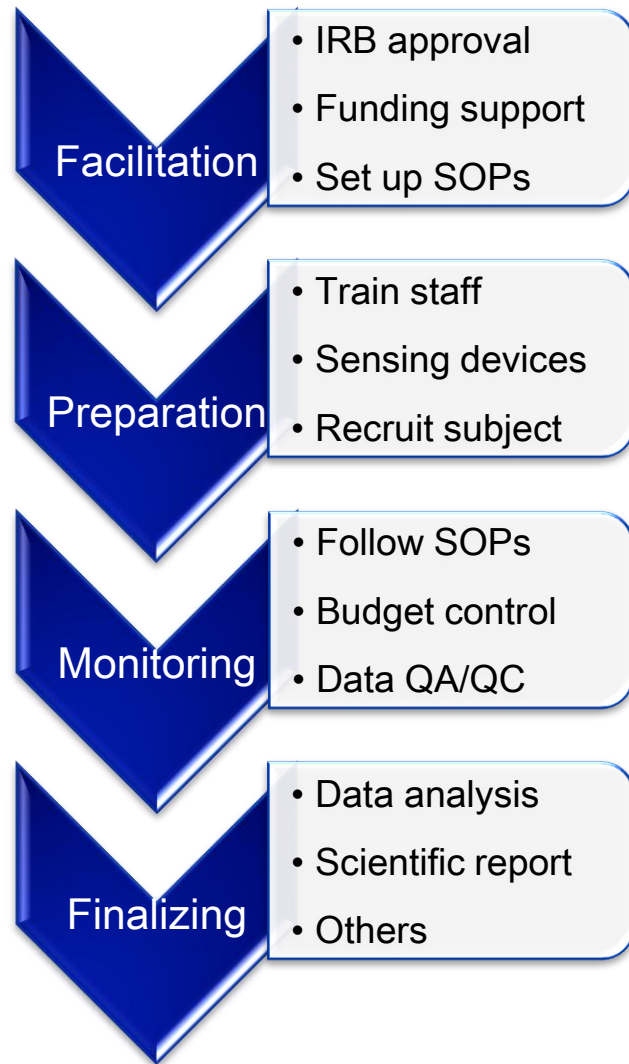


Subject Recruitment

is an art

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SC Candice LUNG



The importance of institutional review board (IRB) approval

- Respect your subjects
- The requirement of funding agency
- For journal publisher

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For research that involves **human subjects**, certify that an **institutional review board** approved the protocol and that participation of human subjects did not occur until after **informed consent** was obtained. Additionally, certify that this information is provided in the manuscript.

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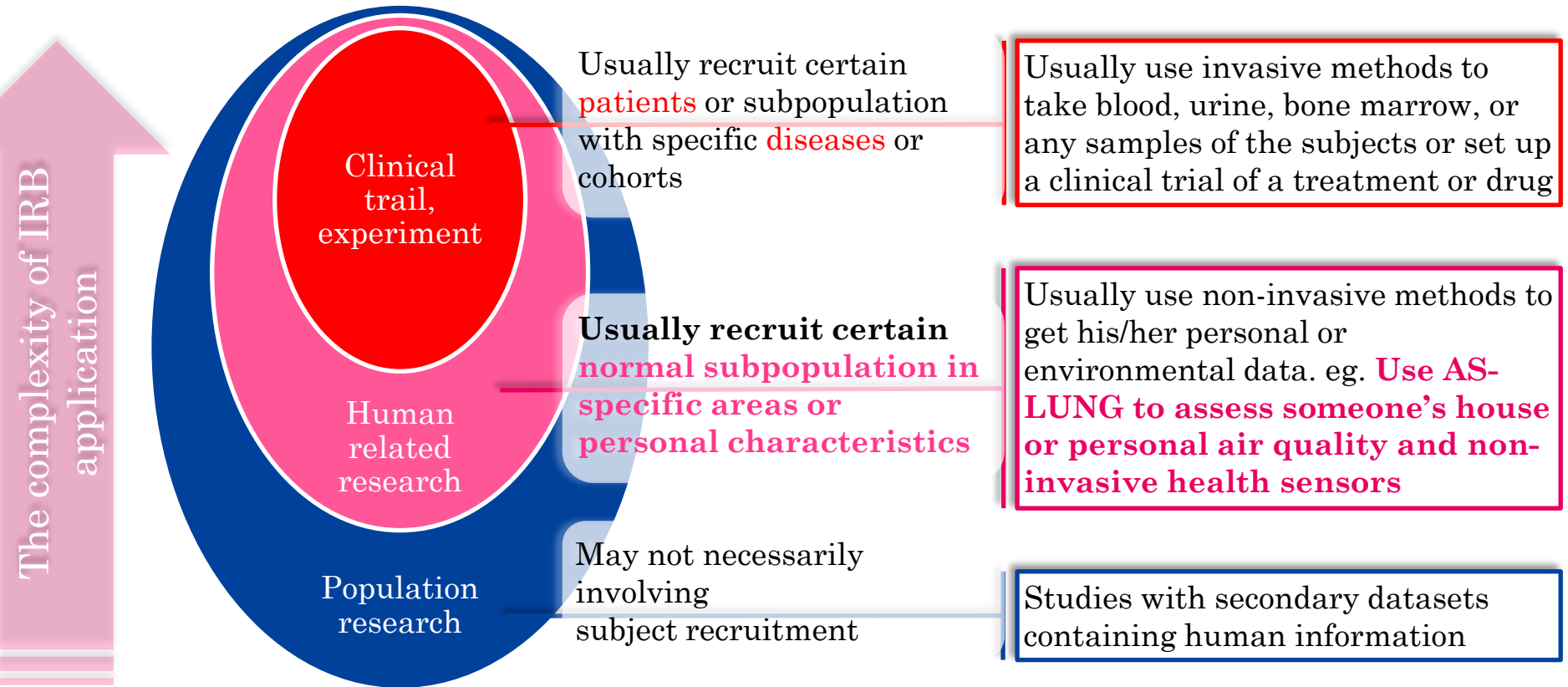
- **institutional review board, IRB**
- **informed consent: informed consent form, ICF**
- **Subjects sign the ICF, then you collect your data**

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IRB, the Necessity and Role in your research plan

- An **institutional review board (IRB)**, also known as an **independent ethics committee (IEC)**, **ethical review board (ERB)**, or **research ethics board (REB)**
- This is a type of committee that applies research ethics **by reviewing the methods proposed for research to ensure that they are ethical**. Such boards are formally designated to approve (or reject), monitor, and review biomedical and behavioral research involving humans.
- They often conduct some form of **risk-benefit analysis** in an attempt to determine whether or not research should be conducted.
- The purpose of the IRB is to assure that appropriate steps are taken **to protect the rights and welfare of humans participating as subjects** in a research study.
- Along with developed countries, many developing countries have established national, regional or local Institutional Review Boards in order to safeguard ethical conduct of research concerning both national and international norms, regulations or codes.

Different levels of Human Subject Research





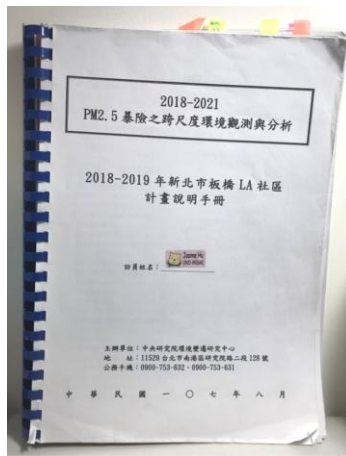
How to Recruit Subjects

- Get IRB approval first
 - Most human studies require IRB approval
 - Define subjects “enrollment criteria” and “exclusion criteria”
- Recruitment methods
 - Randomly select through a list
 - Open to the public by organizing recruitment meetings through local leaders
 - Invite certain subpopulation
- Thoroughly train your staff and interviewers before you start your project

Standard Operation Procedures (SOPs)

• In 2018, one of Dr. LUNG's project involving **12 staff**, **35 subjects**, **5 types of instruments**, two kinds **25-page of questionnaire**. Totally, **245 person-day of HRV** monitoring and **1500 person-day of air quality** monitoring

- We listed all the details on a handbook which was called "SOPs for training staff"
- This handbook is about 100 A4-size pages.



Facilitation

- IRB approval
- Funding support
- Set up SOPs

Preparation

- Train staff
- Sensing devices
- Recruit subject

Monitoring

- Follow SOPs
- Budget control
- Data QA/QC

Finalizing

- Data analysis
- Scientific report
- Others

Characteristics of a good project leader for subject recruitment

- Neutral attitude, calm and clear speak tones
- Proper manners (Don't be over-polite or over-friendly)
- Carry out tasks precisely and follow standard operation procedures (SOPs)
- Protect subjects' privacy and data confidentiality

Characteristics of an excellent research assistant or questionnaire interviewer

- When he/she carries out projects
 - Carry out tasks precisely and follow standard operation procedures (SOP)
 - Always **communicate, coordinate and cooperate** with team leader and coworkers
- When he/she faces subjects
 - **Protect subjects' privacy and data confidentiality**
 - Remain **neutral** attitude, calm and clear speak tones
 - Keep **proper manners**
 - **Keep proper distance** from subjects

2013 questionnaire and instrument training courses for 25 interviewers in heatwave and air quality research project

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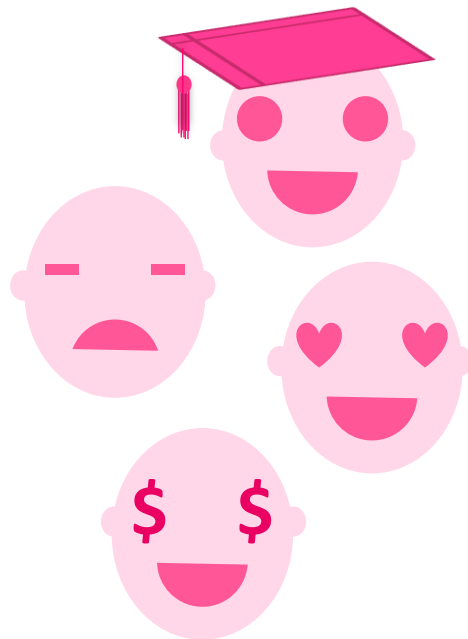


Two key elements to have a successful subject recruitment

Well Trained Staff

- Be familiar with your project and the study area
- Always follow project “SOP”
- Resourceful and improvise
- People smart
- Friendly, but not “too” friendly
- Semi-formal dress and proper manners

“Proper” personalities of Subjects



Do **REJECT** subjects with these “extreme” personalities

Professionally understand your field
with his/her hidden agenda and interests



Coldness, Careless



Over Enthusiasm



Only love compensation

Incentive design

incentive

noun [C or U] • **UK**  /ɪnˈsen.tɪv/ **US**  /ɪnˈsen.tɪv/

★  something that encourages a person to do something

- Common types of incentive in public health research
 - **Knowledge**: by joining in your project can get knowledge of air pollution and its prevention methods.
 - **Happiness and Community involvement**: for some subjects, they love to help people.
 - **Compensation**: the most powerful incentive. optional in your project based on budget and local situation.

compensation *noun* (JOB PAYMENT)

- ★ [U] the combination of money and other benefits (= rewards) that an employee receives for doing their job

Over Enthusiasm



- Subject with some enthusiasm tends to participate
- **BUT** those with **too much enthusiasm** have some **back fires**
 - They always instruct you or try to persuade you
 - They may **change their behaviors or truth** during monitoring
 - eg. Someone never goes to night market. But he knows that in your project that night market is an important place that needs to be recorded. HERE he goes to the night market.
 - They always influence other subjects
 - They might spread rumors when they are not satisfied in joining your project
- **Advice for project leader**: Embrace their enthusiasm and try to not let them influence your project. Staff rotation is a good way.

Only love compensation



- By giving some compensation may help you to recruit more subjects
- **BUT** those who only care about compensation will lead to some **back fires**:
 - **Conceal some information** that matters with his/her qualifications as a subject
 - Always ask for more compensation
 - **Behaviors changes**
 - Spread rumors when they are not satisfied
- **Advice for project leader**: Always reveal the compensation **last minute** when you recruit subjects

Professionally understand your field With his/her hidden agenda and interests



- Subjects with **some understanding** with your project are good. They are always very supportive and will be the middle man between you and your subjects.
- **BUT** those who are **too** professional and influential may bring some **back fires**
 - They might steal your project ideas
 - They always instruct you or your staff how to do your project
 - Other subjects might consider him or her as an opinion leader, not you
- **Advice for project leader**: It is an art to get along with them.

A decorative graphic on the left side of the slide. It features several vertical lines in shades of pink and yellow. Overlaid on these lines are five solid pink circles of varying sizes. The largest circle is positioned in the upper left, with four smaller circles scattered below and to its right.

Situations that might happen and the proper responses to subjects

FIRST of all: Staff needs to calm down and remain neutral attitude to handle all kinds of situation.

REMEMBER that even subjects signed the ICF, they still have the rights to withdrawal from your project any time. If this happened, you have to destroy/erase all his data in this project.

withdrawal *noun* (NOT AVAILABLE)

★ **C2** [U] the act or process of taking something away so that it is no longer available, or of someone stopping being involved in an activity

Situation ① show me the money



- Subject:
 - I want to know how much I can get for participating in this project?
 - If I can get you some subjects, how much will you pay me?
- Staff:
 1. Thank you for asking.
 2. This is a **voluntarily recruitment** for a scientific project. We will review your qualification and interview all subjects **individually**. (Thus, if you know someone qualified and willing to join, welcome to let us know, **thanks for your help. But we won't be able to pay you**)
 3. After you are chosen, we will let you sign an **informed consent form**, then you will know your rights, tasks and compensation for participating in our project.

Situation ② unexpected interferes from others

○ Subject:

- A professor told us that you are hiding something
- A local leader told us that your instrument will put a monitor in our body for controlling our mind

○ Staff:

1. Thank you for asking.
2. May I know who he/she is? I certainly want to visit him to clarify this rumor.
3. As I said before, this project has been approved by IRB and we have revealed everything in this Informed Consent Form. We did not hide anything. The instrument does not have a monitor to control your mind.

Situation ③ subject enrollment



- Subject:
 - Why did you choose him as your subject? NOT ME! Not my cousin? My cousin and I are so cute. And we love your project so much.
- Staff:
 1. Thank you for asking.
 2. This recruitment is open to the public (or invited only).
 3. We consider several “enrollment criteria” and “exclusion criteria”.
 4. If all of you are qualified, then we roll the dice to decide whom are chosen.
 5. And for keeping our subject’s privacy, we will not reveal any details about this process. It’s all top secret.

Situation ④ always about money



○ Subject:

- Why did he get **more compensation** than me?
- I have heard that someone got **more compensation**.

○ Staff:

1. **Thank you for asking.**
2. We have detailed description about the compensation and its rules.
3. The compensation amount depends on the tasks that you have finished.
4. And **I can't tell you the details** about other subject's compensation.

Situation ⑤ Any reason, excuse and situation occur.



- Subject:
 - I don't feel right. I am not comfortable. My wife doesn't agree me to join. I don't like AS-LUNG's color.
- Staff needs to **comfort subject right away**.
 1. Take away these sensing devices from the subject immediately and then ask subject some questions.
 - May I know when did you feel uncomfortable?
 - Do you still want to join this project?
 2. **"You absolutely have the rights to withdrawal from this project. We will destroy/erase all information and data about you"**
- PI or project leader may need to file a report about this case to **IRB**.

Situation 6



- Subject:
 - I want to quit this project! (with angry mood.)
- Staff:
 1. “You absolutely have the right to withdrawal from this project. We will destroy all information and data about you.”
 2. Take away these sensing devices from the subject immediately and then ask the rejection reason if he lets you.
 - May I know why you want to withdrawal from this project?
- Staff need to try to fix problems or understand his rejection reasons. This is for your own good to **prevent other subjects** who might get influences from this case.
- PI or project leader may need to file a report about this case to **IRB**.

1998, Dr. Candice LUNG's first three meetings in subject recruitment in her early career



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Academia Sinica

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2019, Dr. Candice LUNG's subject recruitment meeting hosted by her research assistant, Miss Wang.



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Academia Sinica

AI on Hi-ASAP



1997, my first field study as a staff wearing air quality monitors, much heavier than AS-LONG-P



Time-activity Diary (TAD)

1999, Dr. Candice LUNG's first subject in her early career



Outdoor instruments

Personal instruments

Indoor instruments

Keep subject's privacy

2019, Dr. Candice LUNG's subjects wearing AS-LUNG-P



- We listed “taking photos” as one item of subject’s tasks in the **informed consent form (ICF)**.
- **SOP**: We ask subject’s permission, take the picture avoiding his/her face, then show the picture that we keep his/her privacy as we promised in ICF.

2019, indoor, in one subject's kitchen



Always ask subject's
permission before you set
up your sensing devices
and take pictures

2019, indoor, in one subject's worshiping place

taboo

noun [C] • **UK**  /tə'buː/ **US**  /tə'buː/ PLURAL **taboos**

- ★ an action or word that is avoided for religious or social reasons
(宗教或社會習俗方面的) 禁忌, 忌諱



Attention to any taboo that
might have

2019, outdoor, AS-LUNG-O outside some subjects' apartments



• Always **avoid identical information** such as address, human being when you take pictures



Homework and take home messages

- Check your country's **IRB guideline or regulation**
- Make sure you have **enough time for IRB application** when you get funded or even BEFORE you get funded
- Add more **extra** numbers of sensing devices/subjects and longer observation durations in your IRB proposal and informed consent form
- **Always protect subject's privacy.** It is a basic common sense and the foundation of trust between you and your subjects

**Thank you for your attention.
Any questions and experiences sharing
are welcome!**

**Subject Recruitment
September 4**

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