



# Exploring terminology and naming for Controlled Human Infection Models

# Background and methodology

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- Controlled Human Infection Models (CHIM) – where a volunteer is deliberately infected with a pathogen as part of a tightly controlled experiment – have the potential to rapidly advance the development of vaccines.
- Current language used to describe CHIM is complex and confusing, with many different alternative names being used.
- In 2017 and 2018, Wellcome worked with Dr Vicki Marsh at KEMRI Wellcome Trust Research Programme (KWTRP), Kenya and YouGov to carry out research to understand stakeholders' and public attitudes to terms currently used for CHIM, identify any challenges and opportunities with existing terminology and opinions on new terminology.

# What we did

We explored this through three research streams:

1:1s  
with  
range of  
experts

**Semi-structured depth interviews with a wide range of external experts from UK, US, Germany, Netherlands, Australia, Kenya, Malawi, Zambia, Gambia, Uganda and Tanzania.** This included a wide range of perspectives represented from funders of CHIM, CHIM-experienced global health researchers, public engagement and research ethicists.

Workshop  
with  
researchers

**Open workshop session at IABS Conference with CHIM-experienced researchers in Washington DC in September 2017.**

Public

**Public survey in the UK, Vietnam, Thailand, India and South Africa to sense-check and validate the findings.** Nationally representative surveys of adults (18+) carried out using YouGov's global omnibus online survey.

# Key findings

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- 1 There is **widespread stakeholder support for an ‘umbrella’ term** to create unified discussion and narrative around the practice as well as consistent tagging across journals and platforms.
- 2 **Human Infection Studies emerged as most popular choice** (clarity, comprehension) amongst audiences, with the ability to specialise for diseases e.g. Shigella Human Infection Study.
- 3 Whilst Volunteer Infection Studies appeared initially popular in the first wave of research, **concerns were raised about having ‘volunteer’ in the name** as it does not differentiate this approach from other clinical trials as essentially all trials use volunteers. However it was also felt that volunteer is a helpful term in alleviating concerns that the process isn’t exploitative.
- 4 Similarly, **the emphasis on the monitored nature of practice was important for all audiences** to alleviate concerns and there was widespread support for this to be included in the sentence explainer.
- 5 Overall, the **sentence explainer was well received by lay and specialist audiences** with little feedback for change.

# Widespread support for an 'umbrella' term to create a unified narrative and consistent tagging

- There was a consensus that common terminology was needed to help improve communication between researchers and literature searches in the field.
- There was a desire to have a general term which covers the broad range of studies (including those for studying disease progression).
- Fragmented landscape with variety of terms being used by different research communities which was seen as problematic and confusing:
  - Hard to search, journal articles not consistently tagged.
  - Hard to explain to new settings or to ethics committees (partly those newer to this type of study).
  - High use of acronyms which doesn't aid clarity.
  - More established programmes (such as Malaria community) would use umbrella term as an addition rather than to replace existing acronyms.

*"I'm glad you're looking at this, I've always found the terminology problematic..."*

CHIM Funder

*"There are a myriad of different terms and each challenge has its own term and/or acronym. It's a barrier for trust and understanding."*

CHIM Funder

*"I want it to be inclusive in my own small way for everybody. Whatever we do there is some commonality - we are taking human and infecting them in a monitored way, so the name needs to reflect this."*

Researcher, IABS workshop session.

*"You could use CHMI or CHIM underneath [an umbrella term] that which might be more specific to people's actual roles if they are doing something with bacteria or parasites or whatever."*

Researcher, IABS workshop session.

# A unified term for the practice will bring together the community and create trust between science and the public

- There was also recognition that a common name could also be used to build up the recognition, reputation and trust about CHIM as a field.
- Importantly, **high public awareness of the approach** and its value was seen as **an important positive outcome to aim for**, rather than focusing on engagement towards 'containing risks'.
- There was definitely a desire across the research community to create a more inclusive public narrative about the importance and benefits of CHIM.

*"It isn't just a naming issue it is also a narrative issue. It would be nice if we could come to agreement so that when I'm writing papers we had common terminology."*

Researcher, IABS workshop session.

Clear criteria that an umbrella term and sentence explainer would need to:

- ✓ Be simple and clear: avoid language with multiple meanings
- ✓ Be inclusive: an overarching term to cover all work using this approach
- ✓ Highlight the human aspects: be clear we are intentionally and carefully infecting people with a disease
- ✓ Be reassuring: emphasis that the studies are monitored, the process standardized and regulated



# Human Infection Studies - clear, accurate and understandable

- Human Infection Studies emerged as the most popular choice (clarity, comprehension) across all the terms tested. It can also be adapted to specialise for diseases e.g. Shigella Human Infection Study.
- **Human** was well liked as a reminder that these studies take place by infecting people.
- **Infection** was considered essential for inclusion by research stakeholders to highlight the intentional nature of the infection.
  - Although not all are official infections (e.g. carriage studies or disease models) it works to describe the type of study.
  - It was also thought for those working within endemic country settings that infection is not a frightening word; it is commonly used.
- **Study** also favored as a clearer description of the practice, rather than model to avoid confusion with animal models.
- It is also easily understood by the public:
  - Across the 5 markets where the public was surveyed the highest proportion (34%) of respondents chose Human Infection Studies as the clearest name choice, compared with 21% who chose Volunteer Infection Studies

*“You need people to expect some level of illness.”*

*Researcher, IABS workshop,  
Washington*

*“You are always technically infecting someone with an illness or disease.”*

*Researcher, IABS workshop,  
Washington*

*“You can’t say we are giving you CHMI so we say we are giving you a controlled human infection.”*

*Community engagement  
practioner, KEMRI.*

# Volunteer – too ethically loaded for inclusion?

- ‘Volunteer Infection Studies’ was a polarising term within the community; nearly equally liked and disliked, often with strong feelings around both positions.
- For a large swathe of respondents, it was the most popular candidate for clarity and comprehensive particularly for non-specialist audiences. It was liked because it provided a sense that participants are informed partners in the study.
- However for others, it was a highly contentious seen as a euphemistic and ethically loaded term and not specific to CHIM, as all research participants are volunteers.
- Healthy volunteer was tested to assess whether this mitigated potential ethical considerations but was discounted as ‘healthy’ is hard to define.
- In the public testing, worries about volunteer not being a specific enough term was also heard; implying for some that there are studies where people do not volunteer.

*“[Use of volunteer] isn't morally neutral...separate studies into subjects who are not voluntary?”*

Senior ethicist

*“Disliking was primarily linked to seeing the term volunteer as i) euphemistic and ethically loaded and ii) not specific to challenge studies, as all research participants are volunteers”*

Dr Vicki Marsh, KEMRI, Kenya

*“Volunteer is a very drastic term. It leads to a number of ways. So the term must be specific”*

Public respondent from India

# Conveying the monitored nature of the practice was critical for all audiences

- It was important to highlight to respondents that it is a regulated study design to reassure potential participants.
- Those involved with CHIM wanted to strike a balance between reassuring people while being clear that the process involves infecting people.
- Most of the worries raised by the public in the survey focused on the possibility of adverse side effects or risk to volunteers and so emphasizing that any infection could be monitored and treated was essential.
- The controlled or monitored nature of the approach was felt to very appropriate and important to include in the main name and/or strapline to make it clear that many different aspects of the approach were being conducted with appropriate levels of care.
- For some the term 'controlled' causes confusion with connotations of randomized controlled trials. Some felt it over-complicated the name and would be better in the strapline where it would be given more context.
- 85% of public respondents rated 'controlled' as either very helpful or fairly helpful in explaining the practice and so it is clear that using controlled or monitored in the name or strapline is essential.

*"We want the public to feel that the trial is secure, all will go well and be reassuring. If I was the subject and going into those trials, I will feel better because controlled means safe and reassuring."*

Funder

*"Controlled' was felt to be very appropriate and important to include in the main name and/or strapline, to make clear that many different aspects of the approach were being planned and conducted with appropriate levels of care"*

Dr Vicki Marsh, KEMRI, Kenya

# An explainer sentence is essential to further help explain the practice

- It was felt crucial for public audiences that the name will never be used in isolation, always provided with a clear and thorough explanation to provide extra context and explanation.
- Core information that experts felt was important to include in the strapline was:
  - Deliberate giving of infection to healthy volunteers – it isn't a naturally occurring infection.
  - Monitored environment where the safety of participants is ensured and supported.
- Explainer sentence tested:
  - 'Giving people a carefully monitored infection, with healthcare support, to learn more about diseases and how to stop them'.
- 88% of the respondents in the public poll felt that this sentence explainer was helpful.
- Experts interviewed also agreed that this provided a good succinct summary of the practice.

*“Given the difficulty in providing enough information about the challenge research approach in a generic name, the additional explanation provided through a strapline/sentence explainer was seen as very critical”*

Dr Vicki Marsh, KEMRI, Kenya

# Recommendation

# Terminology recommendation

## Human infection studies

**Giving people a carefully monitored infection, with healthcare support, to learn how diseases work [locally] and how to stop them**



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