

Study protocol: Qualitative investigation of mpox in Thailand

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1. Introduction

1.1 Overall aim

The study is a component of a large collaboration which aims to develop and implement innovative rapid qualitative research methods exploring mpox preparedness and experiences in Italy, Nigeria, Thailand and the UK. Study methods will be adaptable and agile, allowing researchers to respond quickly to future emerging infectious disease outbreaks among marginalised groups. This capacity-building aspect is crucial for enhancing global health preparedness and response. By training a network of researchers across Europe, Africa, and Asia in these methods, the study will foster international collaboration and strengthen the global research community's ability to tackle future public health challenges.

1.2 The VERDI Consortium

VERDI was initially established in 2021 in response to the SARS-CoV-2 pandemic. It aims to investigate transmission, variants of concern, vaccine strategies and clinical outcomes related to SARS-Cov-2, with a specific focus on children and pregnant women. VERDI is oriented towards pandemic preparedness, allowing data to inform timely recommendations for reducing transmission and clinical management of paediatric and pregnant populations. This focus on pandemic preparedness, means that VERDI is well-positioned to investigate other (re)emerging infections. In August 2022, VERDI funders (the European Commission, EC) asked the consortium to leverage their existing methods and collaborative networks to investigate the 2022 mpox outbreak, asking partners to expand the remit of work from children and pregnant women to those attending sexual health clinics and people living with HIV.

1.3 Background and rationale

In recent months, Thailand has witnessed a notable increase in cases of mpox, with 822 individuals diagnosed between July 2022 and August 2024. This surge predominantly affects men, particularly men who have sex with men (MSM), many of whom also live with HIV. The urgency of addressing this outbreak is underscored by Thailand's approval of an mpox vaccination program, which commenced in March 2024 in Bangkok. This vaccine programme is however limited to one health service (Red Cross Anonymous Clinic) and is costly for the end user. Drawing from past experiences with HIV and the COVID-19 pandemic, the study emphasizes the necessity of situating (re)emerging infections within broader social contexts to effectively intervene while mitigating unintended consequences.

Despite the urgency, there is a dearth of qualitative research on mpox, particularly in Thailand and Southeast Asia. Existing studies highlight the critical need to understand sexual behavior changes and vaccination decisions among affected populations, and the centrality of stigma to experiences of mpox illness (1-4). This study seeks to fill these gaps by conducting a qualitative investigation to develop nuanced insights into the ongoing mpox outbreak in Thailand. Additionally, we aim to enhance research

capacity by innovating rapid qualitative research methods and establishing a collaborative network across Europe, Africa, and Asia to address future (re)emerging infections.

1.4 Objectives

- 3.1 Understand social media representations (TikTok) of mpox in Thailand
- 3.2 Understand lived experiences of mpox, including stigma, among Thai MSM
- 3.3 Describe attitudes to and recommendations for public health messaging around mpox in Thailand
- 3.4 Co-produce recommendations for public health policy and practice

2. Study design and methods of data collection

This study on the clade IIb mpox outbreak in Thailand aims to provide in-depth qualitative insights into the disease's impact, perceptions, and responses within affected communities. By employing innovative qualitative methodologies and fostering international collaboration, the research seeks not only to inform immediate public health responses but also to enhance preparedness for future (re)emerging infectious diseases globally.

The study employs a multi-method qualitative approach to achieve its objectives, including social media analysis, focus group discussions (FGDs), semi-structured interviews (SSIs) and photovoice. Each method is tailored to capture different aspects of the mpox outbreak and its impact on affected communities.

Social media analysis will be used to explore representations of mpox outbreaks and public discourse about mpox (including vaccination). TikTok will be used and the search strategy will employ Searches will use keywords such as “mpox”, “monkeypox”, “monkey pox” and “MPX”. In Thailand, we will add Thai-specific keywords such as ฝีดาษ (*Phidard*), ฝีดาษลิง (*Phidardling*), and ฝีดาษวานร (*Phidardwanon*).

FGDs will be used to gain in-depth insights from participants about lived experiences of mpox among those at risk. As such, they will provide in-depth understanding of participants' knowledge and perceptions surrounding the global mpox outbreak as well as local perceptions. Topic guides cover public perceptions, sources of information, attitudes towards preventative behaviors, public health messaging, and social and emotional impacts of mpox.

SSIs and photovoice will be conducted with individuals with lived experience of mpox infection. These will cover a range of issues, including diagnosis, treatment and experiences of both felt and enacted stigma. Photovoice will be used with those who are currently experiencing mpox infection, empowering them to communicate their experiences through photos. We plan to have a Community Advisory Board (CAB) made up of persons from public health authorities (Department of Disease Control, Ministry of Public Health), practitioner/doctors (public and private hospitals), Non-Governmental Organizations (NGOs), online/offline Press (local and national), and people from community will be convened to shape

all aspects of this work, including the protocol, data collection instruments, analysis, dissemination and write-up of the results of this research.

This study will be overseen by Community Advisory Board (CAB) made up of persons from public health authorities (Department of Disease Control, Ministry of Public Health), practitioner/doctors (public and private hospitals), Non-Governmental Organizations (NGOs), online/offline Press (local and national), and people from community will be convened to shape all aspects of this work, including the protocol, data collection instruments, analysis, dissemination and write-up of the results of this research.

Inclusion criteria:

Focus Group Discussions (FGDs): Participants must be aged 18 years or older, perceive themselves to be at risk of acquiring mpox, living in Thailand or ordinarily resident there, able to give informed consent, and willing to have the discussion audio-recorded. Two additional FGDs will involve healthcare providers working with mpox patients.

Semi-Structured Interviews (SSIs): Participants must be aged 18 years or older, diagnosed with mpox, residing in or ordinarily resident in Thailand, and able to provide informed consent.

Photovoice: Participants must be aged 18 years or older, diagnosed with mpox, residing in or ordinarily resident in Thailand, and able to provide informed consent.

Sample Size and Data Saturation:

The study plans to enroll:

FGD Focus group discussion :

6 groups (6-10 at risk participants), n=36

2 groups (6-10 healthcare professionals), n=12

(SSIs) : n=20 (Please note that 10 participants from SSIs will be invited and reconsented into the photovoice activity)

Final sample sizes will be determined based on achieving theoretical sufficiency, ensuring comprehensive coverage of themes across participant groups.

2.1 Procedures

2.1.1 Semi-structured interviews

SSIs are a form of interviewing that is in between structured and unstructured interviews. The interview guide for SSIs combines a predefined structure with flexibility in questions, allowing for the exploration of different issues while covering the research topics comprehensively. SSIs are commonly used in qualitative research that requires flexible questioning to collect data, ensuring that all relevant topics are thoroughly covered. In this study, interviews will be conducted with 20 participants.

The researchers will ask participants to choose the interview location, ensuring it is private, not crowded, not too noisy, and has a comfortable and relaxed atmosphere. Before starting the interview, the researchers will explain the project details and obtain informed consent from the participants. They will inform participants about the interview duration, compensation, and confidentiality, emphasizing that some questions might cause discomfort or distress. Participants can refuse to answer any question or terminate the interview at any time while still receiving their compensation.

During the interview, researchers will ask approximately ten broad questions related to attitudes and experiences regarding mpox infection and associated stigmas, as well as policy and public health practice suggestions. Researchers will observe participants' body language, facial expressions, and behavior to assess their comfort and consent continuously. Before concluding the interview, researchers will give participants the opportunity to ask questions, share concerns, and provide feedback related to the research. Participants will also be informed about how to contact the research project if they have any further questions.

2.1.2 Focus Group Discussions

FGD Focus Group Discussion The researchers will coordinate with public health agencies and non-governmental organizations (NGOs), such as Hospital for Tropical Diseases, the Institute of HIV Research and Innovation (IHRI), and other NGOs to recruit participants.

They will explain the project details, criteria, and conditions to ensure the selection of participants who meet the research criterias. Participants will be divided into two groups: 1) 36 participants at risk of MPOX and 2) 12 healthcare providers involved with MPOX. The focus group discussion among 6-10 participants each group will include 10 questions about attitudes and experiences regarding MPOX infection and associated stigmas, as well as policy and public health practice suggestions.

The researchers will coordinate with participants to select interview locations that are private, not crowded, not too noisy, and have a comfortable atmosphere.

Before the focus group discussion, researchers will explain the project details and obtain informed consent. Participants will be informed about the interview duration, compensation, and confidentiality, emphasizing that some questions might cause discomfort or distress. Participants can refuse to answer any question or terminate the interview at any time while still receiving their compensation.

During the focus group discussion, researchers will ask approximately ten questions related to attitudes and experiences regarding MPOX infection and associated stigmas, as well as policy and public health practice suggestions. Researchers will observe participants' body language, facial expressions, and behavior to continuously assess their comfort and consent. Before concluding the interview, researchers will give participants the opportunity to ask questions, share concerns, and provide feedback related to the research. Participants will also be informed about how to contact the research project if they have any further questions.

2.1.3 Photovoice

Following the completion of the SSI, 10 participants with active mpox infection will be invited to participate in the photovoice activity and given the opportunity to ask questions. The researcher will go through informed consent procedures verbally. Photovoice, along with other arts based methods, is a highly participatory method in which participants take and caption photographs to share their views and experiences (5, 6). It has been widely used in health research, including in HIV and COVID-19, and is especially useful when exploring sensitive and complex issues. We will use photovoice where we will ask participants to respond to twice-weekly prompts through SMS text message or email (depending on participant preference). Participants will be asked to submit up to five photographs to a secure Mahidol university database in response to each prompt. Towards the end of recruitment, we will invite participants to join two online workshops to share and discuss their photographs. Captions and notes taken during workshops will be analyzed thematically and triangulated with SSI data. Participants will then receive twice-weekly prompts from the local research team by SMS or email (whatever they prefer) to respond with images and text, and will be invited to participate in online workshops towards the end of the study. Photovoice participants will be invited to join two online workshops to share and discuss their photographs with each other facilitated by two researchers. Captions and notes taken during workshops will be analyzed thematically and triangulated with SSI data.

2.2 Eligibility criteria

Focus group discussions (FGDs):

Inclusion*:**

- aged ≥ 18 years
- perceive themselves to be (or having been) at risk of mpox acquisition, (or for two FGDs, healthcare providers working with people with mpox),
- living in Thailand (or ordinarily resident in Thailand)
- able to give verbal informed consent
- consent to audio recording

Semi-structured interviews (SSIs)

Inclusion:

- aged ≥ 18 years
 - diagnosis of mpox
 - living in Thailand for at least 3 months (or ordinarily resident in Thailand)
 - able to give verbal informed consent
 - able to give verbal informed consent
- Please note that 10 participants from SSIs will be invited and re-consented into the photovoice activity (there is no additional inclusion/exclusion criteria)

Photovoice/online workshop:

- aged ≥ 18 years
- diagnosis of mpox

- living in Thailand for at least 3 months (or ordinarily resident in Thailand)
- able to give verbal informed consent

2.3 Consent

2.3.1 Verbal Informed Consent process

To protect participants from stigmatization and negative stereotyping associated with MPOX, verbal informed consent will be used. This is due to society's biases against MPOX patients, often viewing them as promiscuous, engaging in unprotected sex, pleasure-seeking, and socially irresponsible. Verbal consent is a method to protect participants from these risks. The details are as follows:

SSIs (Semi-structured Interviews): The researchers will contact participants via phone to introduce themselves and provide preliminary details about the research project. They will send the research information document to the participants through their preferred communication method, such as email or postal mail, ensuring the participants' privacy and data security. The researchers will then call to explain the research project in detail and obtain verbal informed consent. If participants agree to the interview, the researchers will schedule a convenient date, time, and location. On the interview day, the researchers will again explain the research details and confirm the participants' consent before starting the interview. Before concluding, the researchers will allow participants to ask any questions or express any concerns related to the research.

Photovoice: Participants for the Photovoice method will be selected from those who have participated in SSIs and/or FGD and have interesting experiences and intersectionality, such as economic status, income, education level, occupation, class, and religion. The researchers will contact participants via phone to introduce themselves and provide preliminary details about the research project. They will send the research information document to the participants through their preferred communication method, such as email or postal mail, ensuring the participants' privacy and data security. The researchers will then call to explain the research project in detail and obtain verbal informed consent. If participants agree to participate in Photovoice, the researchers will explain the data collection process. Participants will have 30 days for the Photovoice activity, during which they can ask questions or express any concerns related to the research at any time

FGDs: The researchers will contact participants via phone to introduce themselves and provide preliminary details about the research project. They will send the research information document to the participants through their preferred communication method, such as email or postal mail, ensuring the participants' privacy and data security. The researchers will then call to explain the research project in detail and obtain verbal informed consent. If participants agree to the group interview, the researchers will schedule a convenient date, time, and location for all participants. On the interview day, the researchers will again explain the research details and confirm the participants' consent before starting the interview. They will also emphasize the importance of confidentiality and anonymity, allowing participants to use pseudonyms. Before concluding, the researchers will allow participants to ask any questions or express any concerns related to the research.

2.3.2 Withdrawal/discontinuation criteria

The study employed qualitative methods using various data collection techniques such as semi-structured interviews (SSIs), Photovoice, and focus group discussions (FGDs). Each method was refined to explore different aspects of the mpox outbreak's impact on the community. Participants were informed beforehand about their right to withdraw or terminate their participation without any repercussions. They retained the right to withdraw at any time while still receiving compensation, ensuring no physical or psychological harm.

During data collection, researchers will observe participants' body language, facial expressions, and gestures to assess their comfort levels and sense of safety. If a participant appeared uneasy or upset the researchers promptly reiterate their right to withdraw without any consequences. This right included the option to terminate their participation while still receiving compensation and avoiding any physical or psychological impact. Compensation will be provided at the beginning of the interview/focus group.

Furthermore, participants will be given the opportunity to provide feedback on creating a safe space, which would be used to improve future data collection processes.

2.4 Data analysis

SSIs: Data will be synthesized during data collection using a modified Rapid Assessment Procedure (RAP) sheet. Each researcher has their own RAP sheet to allow quick identification of emerging findings. Thematic analysis of SSIs using NVivo will also be conducted. Prior to the analysis of interviews, some a priori codes will be developed from engagement with the qualitative literature, however, the emphasis will be on what emerges from the interview data.

Participatory photography: The interpretation of the visual materials and writing tasks will include a focus on the subject-matter of separate photographs (e.g., how many photographs are intended to document stigma or symptoms); and also, the visual narrative created by each participant (i.e., how the visual data tell the story of each participants' individual experience). Workshops will be co-facilitated by at least two researchers, allowing detailed notes to be kept and key themes during the discussion will be identified between the researchers.

FGDs. Data will be synthesized during data collection using a modified RAP sheet which will capture findings by topic in real time. Following initial rapid assessment, data will be analyzed thematically using NVivo. Initial findings from the rapid and thematic analyses will be presented to community partners to allow for feedback and insights. We will also conduct comparative analyses across geographical regions.

Online workshop and dissemination events. We will video/audio record the workshops and dissemination events and then transcribe the recordings in Thai. Workshops will be co-facilitated by at least two research staff, allowing detailed notes to be kept and key themes during the discussion will be identified between the facilitators. Thematic analysis of texts from the online workshop and dissemination events using NVivo will also be conducted.

2.5 Assessment and management of risk

Research methods such as Photovoice, Focus Group Discussions (FGDs), and Semi-Structured Interviews offer profound insights into participants' experiences and perspectives. However, these methods also present various risks, particularly regarding privacy, ethical considerations, and emotional well-being. To conduct research ethically and responsibly, researchers must implement both preventive and alleviative measures.

Semi-Structured Interviews (SSIs)

Semi-Structured Interviews offer flexibility but can also delve into sensitive areas that may cause distress in rare cases. Preventive measures include obtaining informed consent, clearly explaining the interview's purpose, and potential risks. Privacy must be protected by using pseudonyms and securely storing data. Researchers should be trained to handle sensitive topics and manage emotional responses. Alleviative measures involve providing participants with the option to skip questions or end the interview at any time. Offering access to counseling services can help alleviate distress caused by discussing sensitive topics. Debriefing participants after interviews provides an opportunity to address any lingering concerns and offer support.

Photovoice

Photovoice allows participants to capture their experiences through photographs, but it also raises significant privacy concerns. Preventive measures include obtaining explicit, Verbal informed consent from participants, detailing the research purpose, the use of photographs, and potential risks. We will also ask participants not to share photos with faces in them. Confidentiality agreements should specify how identities will be protected, often by using pseudonyms and ensuring no identifiable information is shared without consent. To alleviate risks, researchers should maintain open communication, regularly checking in with participants to reaffirm their consent and address concerns. Anonymizing data by blurring faces or removing identifiable features in photographs enhances privacy protection. Handling sensitive content involves conducting a thorough risk assessment and providing ethical training to participants, ensuring they understand appropriate image capture and sensitive situation handling. Counseling services and debriefing sessions can alleviate emotional distress from dealing with sensitive content.

Focus Group Discussions (FGDs)

FGDs involve group interactions that can lead to confidentiality breaches and psychological distress, although this is very rare. Preventive measures include obtaining informed consent and establishing ground rules for confidentiality. Participants should agree not to disclose any information shared during the discussion. Questions will be asked generally without specifically discussing individuals' experiences, unless these are shared spontaneously. Moderators will be trained to handle sensitive topics and manage group dynamics to prevent distress. To alleviate risks, providing a safe and supportive environment is essential. Offering counseling services and conducting debriefing sessions after discussions can help participants process their experiences and mitigate emotional impacts.

2.6. Data management

Once data has been extracted from audio files, we will upload digitized data onto our password-protected, encrypted server and hard-drive in the Mahidol University Faculty of Tropical Medicine server. We will then have the data processor extract any personal identifiers from the audio files and then send them to our transcriber. After transcribing, the text will then be saved as a password-protected file and encrypted. This file will then be sent to the data processor and the PI before sending to the translators. The data processor will make sure that there are no personal identifiers in the text. If there are any personal identifiers, they will be taken out before sending to the translators. Finally, the Thai and English-translated text files will be kept in double-encrypted, password-protected folders on the Faculty of Tropical Medicine server and on a physical password-protected hard drive which will be kept in a locked file cabinet at Faculty of Tropical Medicine. Only the data processor and the PI will have access to the folders and to the files that have linked participant information.

2.7 Recording and reporting of risk events and incidents

As the sponsor of the study, UCL is solely responsible for complying with any safety reporting obligations towards competent authorities, ethics committees or Institutional Review Boards (IRBs), within the required timelines. All events and incidents (and near misses) that occur to participants and/ or staff that are unexpected and directly related to the research study will be reported to the Sponsor via research-incidents@ucl.ac.uk or UCL REDCAP incident reporting form) and documented in the Trial Master File/Investigator Site File via study-specific incident logs (and related correspondence). This will be completed by the PI. The Sponsor will be responsible for investigating, reviewing, or escalating to a serious breach if required.

3. Funding

This study is funded by Horizon Europe under the Grant Agreement No. 101045989 as part of the VERDI (SARS-CoV2 variants Evaluation in pRegnancy and paeDiatrics cohorts) project.

4. Monitoring and auditing

The PI will ensure there are adequate quality and number of monitoring activities conducted by the study team. This will include adherence to the protocol, procedures for consenting and ensuring adequate data quality.

The PI will inform the Sponsor should she have concerns which have arisen from monitoring activities, and/or if there are problems with oversight/monitoring procedures. The Study Management Team (SMT) consists of the study Chief Investigator, Senior Research Fellows, Research Fellows, Research Assistant and the VERDI Project Manager. This team oversees the day to day running of the study and meets regularly to discuss all aspects of the study. The VERDI Project Steering Committee will be contacted if relevant issues arise and the SMT will feed back as appropriate to the VERDI Project Steering Committee

via the Work Package 7 lead. The study Community Advisory Board will review documents, contribute to analyses and papers (as co-authors) and inform dissemination and further research plans. The CAB will meet 2-4 times a year to discuss the overall study and more regularly at specific time points (e.g. during an analysis) as required.

Finally, a broader group of qualitative researchers working on mpox from across Thailand has been set up to take part in the Investigators Group. They provide guidance as to the direction and focus of the study and to minimise cross over with existing Thailand qualitative Mpox projects. It meets approximately twice a year for reviews and updates.

5. Publication and dissemination

In order to acknowledge the level and nature of contribution of key individuals in publications arising from the project, we will follow The International Committee of Medical Journal Editors Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals (ICMJE Recommendations 2013) which recommends that authorship be based on the following four criteria:

- Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work
- Drafting the work or revising it critically for important intellectual content
- Final approval of the version to be published
- Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

The PI or last author are responsible for identifying who meets these criteria when planning the work, making modifications as appropriate as the work progresses. All publications will reference “and the VERDI Consortium”. Contributors are those who meet fewer than all 4 of the above criteria for authorship. They will not be listed as authors, but they should be acknowledged. Because acknowledgment may imply endorsement by acknowledged individuals of the study’s data and conclusions, editors (the WP Lead and lead or last author) are advised to require that the corresponding author obtain written permission to be acknowledged from all acknowledged individuals. All outputs will also include at least one CAB member as a co-author, where possible.

All manuscripts must be sent to the VERDI Project Manager at least 30 calendar days before the planned publication date. Any objection by partners must be made by writing to the Project Coordinator and to the partners proposing the publication within 15 calendar days. If no objections are received within the time limit, the paper can be submitted for publication.

6. References

1. Witzel TC, Ghobrial A, Palich R, Charles H, Rodger AJ, Sabin C, et al. Experiences of mpox illness and case management among cis and trans gay, bisexual and other men who have sex with men in England: a qualitative study. *eClinicalMedicine*. 2024;70.
2. May T, Towler L, Smith LE, Horwood J, Denford S, Rubin J, et al. Mpox knowledge, behaviours and barriers to public health measures among gay, bisexual and other men who have sex with men in the UK: A qualitative study to inform public health guidance and messaging. *medRxiv*. 2023:2023.05.19.23290102.
3. Zhang W, Qi X, Yang L, Meng X, Xu G, Luo S, et al. Mpox patients' experience from infection to treatment and implications for prevention and control: A multicenter qualitative study in China. *Journal of Medical Virology*. 2024;96(1):e29338.
4. Papparini S, Whelan I, Mwendera C, Hayes R, Maatouk I, Lewis R, et al. Prevention of sexual transmission of mpox: a systematic review and qualitative evidence synthesis of approaches. *Infectious Diseases*. 2024;56(8):589-605.
5. Catalani C, Minkler M. Photovoice: A review of the literature in health and public health. *Health education & behavior*. 2010;37(3):424-51.
6. Ojanen TT, Burford J, Kuttiparambil B, Boonmongkon P, Samoh N, Woratworawan W, et al. Picturing sexuality education in Thailand: a visual methods approach. *Sex Education*. 2024:1-20.

7. Annexes

7.1 Participant Information Sheets

Submission No. TMEC 24-080
FTM-ECF-020-06 (TH)

Participant Information Sheet for Focus Group Discussion (FGD)

This document may contain information that you do not fully understand. If that is the case, please feel free to ask the principal investigator or a designated representative to provide clarification. You may also take this document home to consult with family members, close friends, your personal physician, or other medical professionals to assist you in deciding whether to participate in this study.

Title of the Project (Thai): Qualitative investigation of mpox in Thailand
Principal Investigator: Associate Professor Dr. Thomas Guadamuz
Research Location: Thailand
Funding Agency: European Union

Purpose of the Research

This study aims to explore the contextual understanding of the ongoing outbreak of Mpox (Monkeypox) in Thailand. The anticipated benefit of this research is to gain insights into the lived experiences of individuals involved with Mpox (Monkeypox), including attitudes, beliefs, and perspectives. The findings will be used to develop policy recommendations and public health practices that promote sustainable health solutions.

You are invited to participate because you are aged 18 or older, reside in a study-selected area, and have experiences or involvement with Mpox (Monkeypox). Approximately 36 participants will take part in this research, with 6-10 participants in each focus group discussion. The research will span 12 months, and your involvement will last approximately 6 months.

Procedures

If you voluntarily agree to participate, you will be interviewed on topics related to your "experiences with Mpox (Monkeypox) in social, cultural, and regulatory contexts and policies." The interview will last approximately 90 minutes and consist of about 12 questions.

Data Sharing and Confidentiality

The researcher will seek your permission to record the focus group discussion. Personal identifiers will be replaced with codes, and data will be securely stored for 5 years. Audio files will be encrypted and stored on a secure computer, accessible only to authorized researchers. After 5 years, identifiable raw data, such as audio recordings, will be destroyed. Identifiable data will be stored separately from other research materials and accessible only to the research team, authorized personnel, and the ethics committee.

Data from this study may be used in future research projects approved by the ethics committee and/or stored in designated databases. Any shared or published data will be anonymized to prevent individual identification.

Potential Risks or Discomforts

Some questions may cause discomfort or unease. You have the right to decline to answer any questions and may withdraw from the study at any time without prior notice. Your decision to withdraw will not affect you in any way.

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Voluntary Participation

Participation in this study is entirely voluntary. Choosing not to participate or deciding to withdraw will have no current or future impact on your physical or mental well-being.

Contact Information

If you have questions about the research, or if you experience any injury or adverse effects related to the study, you can contact the principal investigator, Associate Professor Dr. Thomas Guadamuz, at:

- **Office Hours:** 02-306-9100
- **24-hour Mobile:** 086-084-4154

Compensation

Participants will receive a compensation of 500 THB for their time, regardless of whether they complete or withdraw from the discussion. There are no costs involved in participating in this study.

Benefits

Participants will have the opportunity to exchange and learn from the experiences of others. Your shared experiences will be analyzed and synthesized into policy recommendations that will significantly contribute to the development of public health regulations for the Thai population.

If additional information arises regarding the benefits or risks of this study, the researcher will promptly inform participants without withholding any details.

Confidentiality

Your personal information will remain confidential and will not be disclosed individually in public reports. Only aggregated findings will be reported. Some groups, such as the ethics committee or funding agency, may audit the research data, but individual data will not be shared publicly.

You may withdraw from the study at any time without prior notice, and your decision will have no adverse consequences on your physical or mental health.

Ethics Complaints

If you feel that you have not been treated as outlined in this document, you may contact the Ethics Committee at:

- **Secretariat of the Ethics Committee for Research Involving Human Subjects**
Office of Research Services, 4th Floor, 60th Anniversary Chalemprakiat Building
Faculty of Tropical Medicine, Mahidol University
420/6 Ratchawithi Road, Ratchathewi District, Bangkok 10400, Thailand
Tel: 02-306-9126

Notes

1. If the participant is a minor (under 18 years old), this document should be read by the parent/guardian. Pronouns should be adjusted accordingly (e.g., "the child under your care").
2. Researchers should provide participants or their guardians with copies of both the consent form and this participant information sheet.

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Participant Information Sheet for Focus Group Discussion (Healthcare Provider)

Introduction:

This document provides detailed information regarding participation in a focus group discussion (FGD) as part of the research project. If there are any sections you find unclear, please consult the principal investigator or their representative for further explanation. You may take this document home to review it with your family, close friends, personal physician, or other advisors to help you decide whether to participate.

Research Title (Thai): Qualitative investigation of mpox in Thailand

Principal Investigator: Associate Professor Dr. Thomas Guadamuz

Research Location: Thailand

Funding Agency: European Union

Research Objective:

This study aims to explore the contextual understanding of the ongoing Mpox (Monkeypox) outbreak in Thailand. The anticipated benefits include gaining insights into the lived experiences, attitudes, beliefs, and perceptions related to Mpox. These findings will inform policy recommendations and public health practices to develop sustainable health solutions.

You are invited to participate because you are a healthcare provider aged 18 years or older, residing in the selected study area, and have relevant experience with Mpox. Approximately 12 participants will join this FGD, with 6–10 individuals per group. The research duration is 12 months, during which you will be involved for approximately 12 months, including one FGD session and a presentation meeting to discuss research findings.

Study Procedures:

If you voluntarily agree to participate, you will be interviewed on topics concerning your experiences with Mpox, including its social, cultural, and policy contexts. The interview will last approximately 90 minutes and include around 12 questions.

Data Sharing:

Data collected during the FGD will include audio recordings, which will be anonymized using codes to protect your identity. Personal data will be securely stored for five years. Audio files will be encrypted and accessible only to authorized research personnel. After five years, raw data that could identify participants (e.g., audio files) will be destroyed. Personal identifiers will be stored separately from other data and accessible only to the research team, authorized personnel, and the ethics committee. De-identified data may be used in other ethically approved studies or stored in designated databases.

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Risks and Discomforts:

You may feel discomfort or unease with certain questions. You have the right to decline to answer any questions and may withdraw from the study at any time without prior notice. Declining participation or withdrawing will have no impact on you physically, mentally, or otherwise.

Voluntary Participation:

Participation in this research is entirely voluntary. Choosing not to participate or withdrawing at any point will not affect your current or future physical or mental well-being.

Contact Information:

If you have any questions about the research or experience injury or distress during the study, you may contact:

Associate Professor Dr. Thomas Gwadamuz

Phone (business hours): 02 306 9100

Phone (24-hour): 086 084 4154

Compensation:

You will receive 500 THB as compensation for your time, whether you complete the interview or choose to withdraw before its conclusion.

Benefits:

Participants will have the opportunity to share and exchange knowledge with peers. Your shared experiences will contribute to policy recommendations, helping to shape public health regulations and improve the well-being of Thai citizens.

Confidentiality:

Your personal information will remain confidential and will not be disclosed publicly. Results will be reported as aggregate data. Individual participant data may be reviewed by specific groups such as ethics committees or funding agencies.

Withdrawal Rights:

You may withdraw from the study at any time without explanation, and doing so will not result in any adverse effects.

If you feel that the procedures outlined in this document are not followed, you may report this to the Ethics Committee Secretariat:

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Submission No. TMEC 24-080
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Ethics Committee for Research in Humans
Research Administration Office
4th Floor, Chulalongkorn Building for the Celebration of His Majesty's 60th Anniversary
Faculty of Tropical Medicine, Mahidol University
420/6 Rajvithi Road, Ratchathewi, Bangkok 10400
Phone: 02-306-9126

Notes:

1. If the participant is a minor (under 18 years of age), this document should be addressed to their parent/guardian, replacing "you" with "your child/ward" where appropriate.
2. The researcher should provide the participant or guardian with a copy of the consent form and this information sheet.

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Submission No. TMEC 24-080
FTM-ECF-020-06 (TH)

Participant Information Sheet for Photovoice

This document may contain statements that you find unclear or do not fully understand. Please feel free to ask the research team or a representative to clarify any part until you are confident in your understanding. You are welcome to take this document home to consult with your family, close friends, or personal physician to assist in your decision to participate in the study.

Research Title (Thai): Qualitative investigation of mpox in Thailand

Principal Investigator: Associate Professor Dr. Thomas Guadamuz

Research Location: Thailand

Funding Agency: European Union

Research Objectives

This research aims to explore contextual understanding of the ongoing Mpox (Monkeypox) outbreak in Thailand. The expected benefit of this study is to provide insights into the lived experiences of individuals affected by Mpox, examining attitudes, beliefs, and perceptions related to the disease. This understanding will be used to develop policy recommendations and public health practices to address health challenges sustainably.

You are invited to participate in this research because you are 18 years or older, reside in the selected study area, and have personal experience or involvement with Mpox. Approximately 10 participants will engage in the Photovoice activity. The research will span 12 months, with individual participation lasting about 6 months.

Participation Procedures

If you consent to participate, you will be asked to take photographs and provide captions related to your Mpox-related experiences within the contexts of society, culture, laws, policies, and regulations. Participants will submit two sets of five photographs per week over one month via SMS, LINE, or email.

You will also be invited to join two online workshops to share and discuss your experiences with other participants.

Data Sharing and Confidentiality

The images and information you provide will be recorded and anonymized using unique codes. Your personal data will be securely stored for five years, with access limited to authorized research team members. After five years, raw data that could identify participants will be destroyed.

Your data may be shared or used in other approved research projects, or stored in specified databases, ensuring it is anonymized and untraceable to you.

Risks and Inconveniences

You may feel discomfort or unease when taking certain photographs or answering specific questions. You have the right to decline to take or share any photograph or answer any question. You may also withdraw from the study at any time without prior notice, and this decision will have no negative impact on you.

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Voluntary Participation

Participation in this study is entirely voluntary. Choosing not to participate or withdrawing from the study will not affect your physical or mental well-being now or in the future.

Researcher Contact Information

For any questions, concerns, or if you experience harm related to the study, you may contact the Principal Investigator, Associate Professor Dr. Thomas Guadramus, at:

- **Office hours:** +66 2 306 9100
- **24/7 mobile contact:** +66 86 084 4154

Compensation

Participants will receive a compensation of 1,000 THB for completing the study, even if they withdraw early. Those attending the online workshops will receive 500 THB per session.

Benefits to You and Others

The experiences you share will contribute to policy recommendations that could significantly improve public health guidelines and practices in Thailand.

Confidentiality

Your personal information will remain confidential and will not be disclosed individually. Only authorized individuals, such as ethics committees and funding agencies, may access specific data for review purposes.

Withdrawal Rights

You may withdraw from the study at any time without prior notice, with no adverse effects on your physical or mental health.

Ethics Oversight

If you feel that you have not been treated as described in this document, you may contact the Research Ethics Committee at:

Research Ethics Office, Faculty of Tropical Medicine, Mahidol University
420/6 Ratchawithi Road, Ratchathewi, Bangkok 10400, Thailand
Phone: +66 2 306 9126

Additional Notes

1. If the participant is a minor (under 18 years old), this document should be read by their legal guardian, with pronouns adjusted accordingly.
2. A copy of the consent form and information sheet will be provided to the participant or their guardian.

**Submission No. TMEC 24-080
FTM-ECF-020-06 (TH)**

Participant Information Sheet for Semi-Structured Interviews (SSIs)

This document may contain information that you do not fully understand. Please do not hesitate to contact the principal investigator or a designated representative to clarify any questions or concerns. You may also take this document home to consult with family members, close friends, your primary care physician, or other medical professionals before deciding whether to participate in this research.

Project Title: Qualitative investigation of mpox in Thailand
Principal Investigator: Associate Professor Dr. Thomas Guadamuz
Research Location: Thailand
Funding Agency: European Union

Purpose of the Research

This study aims to explore contextual understandings of the ongoing mpox (monkeypox) outbreak in Thailand. The anticipated benefit of this research is to provide a comprehensive understanding of the lived experiences of individuals involved with mpox, elucidating relevant attitudes, beliefs, and perceptions. This will contribute to policy recommendations and public health guidelines to address health challenges sustainably.

You have been invited to participate because you are over 18 years old, live in a region selected for the study, and have personal experience or involvement with mpox. Approximately 20 participants will take part in this study, which will span 12 months. Your participation is expected to last approximately 6 months.

Procedures

If you agree to participate and sign the informed consent form, you will be invited to participate in an interview on the topic of "Experiences Related to Mpox in the Context of Society, Culture, and Legal/Policy Frameworks." The interview will last approximately 90 minutes and consist of 12 questions. You may choose the format for the interview: telephone, online, or in-person.

Sharing Your Information with Other Researchers

The research team will seek your permission to audio-record the interview. Your name and personal information will be anonymized using a coding system. Data related to your participation will be stored securely for 5 years. Audio files will be encrypted and stored on a secure computer, accessible only to authorized members of the research team. After 5 years, identifiable raw data (e.g., audio files) will be destroyed.

Identifying information will be stored separately from other data. Only the research team, authorized personnel, and the ethics committee will have access to the records. Your data may be used in future research after obtaining ethics committee approval and/or stored in a designated database. Shared or published data will not contain personally identifiable information.

Risks and Discomforts

Participation may involve minimal risk, such as discomfort with certain questions. You have the right to skip any questions you do not wish to answer or withdraw from the study at any time without prior notice. Withdrawal will not result in any adverse consequences for you.

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**Submission No. TMEC 24-080
FTM-ECF-020-06 (TH)**

Voluntary Participation

Your participation in this study is entirely voluntary. Non-participation or withdrawal from the study will have no impact on your physical or psychological well-being, either now or in the future.

Contact Information

If you have questions about the study, experience any discomfort, or wish to raise concerns, please contact the principal investigator:

Associate Professor Dr. Thomas Guadamuz

During office hours: **02-306-9100**

After office hours (24/7): **086-084-4154**

Compensation

You will receive compensation of 500 THB for completing the interview. If you consent to participate but choose to end the interview early, you will still receive the same compensation. No additional costs will be incurred by you.

Benefits to You and Others

The experiences you share will be analyzed and synthesized into policy recommendations that will significantly contribute to health-related regulations and public health in Thailand.

If any additional information regarding potential benefits or risks emerges during the study, it will be communicated to you promptly and transparently.

Confidentiality

Your personal information will be kept confidential and will not be disclosed individually. The study findings will be reported in aggregate form. Some entities, such as the ethics committee or the funding agency, may review individual data.

You may withdraw from the study at any time without prior notice, and your decision will not affect your physical or psychological well-being.

Reporting Concerns

If you experience treatment inconsistent with the details outlined in this document, you may contact the Ethics Committee at:

Secretary, Ethics Committee for Research Involving Human Subjects

Research Administration Division, 4th Floor, Chalemprakiat Building, Faculty of Tropical Medicine,

Mahidol University,

420/6 Ratchawithi Road, Ratchathewi, Bangkok 10400

Phone: **02-306-9126**

Notes:

1. If participants are minors (under 18 years old), this document should be provided to their parent or legal guardian, and pronouns referring to “you” should be replaced with “the child under your care” as appropriate.
2. A copy of the informed consent form and participant information sheet should be provided to the participant or their guardian.

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7.2 Consent Forms

Submission No. TMEC 24-080
TMPSS-ECF-021-09(TH)

Informed Consent Form

Date:

I, (Mr./Ms./Mrs.) Last Name:, aged years,
residing at House No., Village No., Subdistrict,
District, Province, hereby voluntarily agree to participate in
the research project titled "Qualitative investigation of mpox in Thailand".

I have read the research project description document and/or received an explanation from Associate Professor Dr. Thomas Guadamuz and the research team. I understand the details of the project, including its objectives, duration, the steps and actions I am required to take, the benefits I may receive, the compensation for my participation, as well as the potential risks or discomforts that might arise from participating in the study.

I consent to the researchers using the information and experiences I provide through interviews and focus group discussions on topics related to my experiences with Mpox (Monkeypox), including its social, cultural, regulatory, and policy contexts. This information will be analyzed and synthesized into academic data and policy recommendations, which will contribute significantly to the development of regulations and public health policies for the benefit of the Thai population. The research data will be presented in aggregate form and will not identify individuals publicly.

I understand that I can withdraw or decline to participate in the research at any time without any physical, psychological, or other repercussions, and that my right to receive medical care and services in the future will remain unaffected.

If I have any questions about the research procedures or experience adverse side effects from the study, I may contact Associate Professor Dr. Thomas Guadamuz at the Faculty of Tropical Medicine, Mahidol University, 420/6 Ratchawithi Road, Thung Phaya Thai Subdistrict, Ratchathewi District, Bangkok 10400, Thailand. Telephone: 02-306-9100 ext. 1465 or mobile: 086-084-4154.

If I feel that I have not been treated as outlined in the participant information document, I may report this to the Ethics Committee through the Secretariat of the Ethics Committee for Research Involving Human Subjects at the Office of Research Services, 4th Floor, 60th Anniversary Chalermprakiat Building, Faculty of Tropical Medicine, Mahidol University, 420/6 Ratchawithi Road, Ratchathewi District, Bangkok 10400, Thailand. Telephone: 02-306-9126.

I fully understand the contents of the participant information document and this informed consent form. I therefore willingly sign to participate in the research project titled " Qualitative investigation of mpox in Thailand."

Signature of Research Participant:

(Name:)

Date: Month: Year:

Signature of Researcher/Consent Solicitor:

(Name:)

Date: Month: Year:

**Submission No. TMEC 24-080
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For participants unable to read/sign:

If I am unable to read, the researcher has read this consent form to me, and I understand its contents. I willingly provide my fingerprint as consent in the presence of a witness.

Signature of Explainer/Reader:
(Name:)
Date: Month: Year:

Participant's Fingerprint:

Witness (not the explainer):
(Name:)
Date: Month: Year:

Verbal Informed Consent Script for Focus Group Discussions

This research project aims to explore contextual understandings of the ongoing mpox (monkeypox) outbreak in Thailand. The anticipated outcome of this study is to gain insight into the lived experiences of individuals involved with mpox, shedding light on related attitudes, perceptions, and beliefs. These insights will contribute to policy recommendations and public health practices that promote sustainable health solutions.

You have been invited to participate because you are 18 years of age or older, reside in the area selected for the study, and have experience or involvement related to mpox. This research will include approximately 36 participants across multiple focus groups, with 6–10 participants in the group you join.

During the study, the research team will conduct a group interview focusing on the topic: “Experiences Related to Mpox in the Context of Society, Culture, and Policy Frameworks.” The session will last approximately 90 minutes and include around 12 questions. You will receive compensation of 500 THB for your participation. During the session, the research team will take notes and audio-record the discussion with your permission.

Risks and Participant Rights

While participating in the focus group discussion, you may feel uncomfortable or uneasy with certain questions. You have the right to skip any question you do not wish to answer. You may also withdraw from the study at any time without prior notice. Choosing not to participate or withdrawing from the study will not result in any negative consequences.

This study is conducted anonymously. Participants will not be asked for their names, ID numbers, or any other information that could reveal their identities. A pseudonym will be used during the discussion to maintain confidentiality. Participation in this study is entirely voluntary, and you are free to decline any procedures or activities you are not comfortable with.

Contact Information

This research is conducted by **Associate Professor Dr. Thomas Guadamuz** from the Department of Tropical Hygiene, Faculty of Tropical Medicine, Mahidol University. If you have any questions or require additional information, please contact:

Phone: **086-084-4154**

Email: **thomas.gua@mahidol.edu**

Researcher Declaration

I confirm that I have explained the details of this research project to the participant.

Signature:

(Name:)

Researcher

Verbal Informed Consent Script for Photovoice

This research project aims to explore the contextual understanding of the ongoing mpox (monkeypox) outbreak in Thailand. The anticipated benefit of this study is to gain insight into the lived experiences of individuals involved with mpox, highlighting attitudes, beliefs, and perspectives. This will help to generate policy recommendations and public health practices to support sustainable health solutions.

You have been invited to participate in this research because you are over 18 years of age, reside in an area selected by the researcher, and have experience or involvement with mpox. A total of 10 participants will be involved in submitting photographs with captions.

The researcher will ask you to take photographs related to the topic of "Experiences related to mpox, including social, cultural, and policy contexts" twice a week, submitting 5 photos each time, for a period of one month. As compensation for your time, you will receive 1,000 Baht for participation. After this period, the researcher will invite you to participate in an online workshop to share and exchange experiences, where you will receive an additional 500 Baht as compensation per session.

During the data collection, the researcher will request permission to take photos and record audio. Potential risks associated with participation in this research include feeling uncomfortable or uneasy about taking certain photos or answering certain questions. You have the right to decline taking any photos or answering any questions you do not wish to engage with. Additionally, you may withdraw from the study at any time without prior notice, and doing so will have no negative impact on you.

This study will maintain anonymity. Participants will not be asked for names, identification numbers, or other information that could reveal their identity. Pseudonyms will be used during interviews. Participation is voluntary, and if there is any step you feel uncomfortable with, you may opt not to proceed with that step.

This research is conducted by Associate Professor Dr. Thomas Guadamus from the Department of Tropical Hygiene, Faculty of Tropical Medicine, Mahidol University. Should you have any questions or need further information, please contact him at 086 084 4154 or via email at thomas.gua@mahidol.edu.

I confirm that I have provided the participant with all the necessary information about this research.

Signature: ()
Researcher

Verbal Informed Consent Script for Interviews

This research project aims to explore the contextual understanding of the ongoing mpox (monkeypox) outbreak in Thailand. The anticipated benefit of this study is to gain insight into the lived experiences of individuals involved with mpox, highlighting attitudes, beliefs, and perspectives. This will help to generate policy recommendations and public health practices to support sustainable health solutions.

You have been invited to participate in this research because you are over 18 years of age, reside in an area selected by the researcher, and have experience or involvement with mpox. A total of approximately 20 participants will be involved in the interviews for this study.

The researcher will conduct a group interview with you on topics related to "Experiences related to mpox, including social, cultural, and policy contexts." The interview will last approximately 90 minutes and include about 12 questions. As compensation for your time, you will receive 500 Baht for participating. During the session, the researcher will request permission to take notes and record the audio.

Potential risks associated with participation in this research include feeling uncomfortable or uneasy about certain questions during the interview. You have the right to decline answering any questions you do not wish to respond to. Additionally, you may withdraw from the study at any time without prior notice, and doing so will have no negative impact on you.

This study will maintain anonymity. Participants will not be asked for names, identification numbers, or other information that could reveal their identity. Pseudonyms will be used during the interview. Participation is voluntary, and if there is any step you feel uncomfortable with, you may opt not to proceed with that step.

This research is conducted by Associate Professor Dr. Thomas Guadamuz from the Department of Tropical Hygiene, Faculty of Tropical Medicine, Mahidol University. Should you have any questions or need further information, please contact him at 086 084 4154 or via email at thomas.gua@mahidol.edu.

I confirm that I have provided the participant with all the necessary information about this research.

Signature: ()
Researcher

7.3 Topic guides

Focus Group Interview Questions

Qualitative Investigation of Mpox in Thailand

FGD with Healthcare Providers

1. **Introduction:** Please introduce yourself with the name you're comfortable sharing, your occupation, years of experience, and your role in mpox-related healthcare or public health services.
2. **Professional Awareness:** When did you first become aware of mpox in Thailand? How did you receive information about it?
3. **Preparedness and Response:** How did your healthcare facility or organization initially respond to mpox cases? What protocols were in place, and were there any challenges in implementation?
4. **Patient Interactions:** From your perspective, how have patients with mpox reacted upon diagnosis? What are the most common concerns they express?
5. **Community Perception:** How do you think the public perceives mpox? Have you encountered any significant misinformation or stigma related to the disease?
6. **Healthcare Challenges:** What are the biggest difficulties healthcare professionals face when diagnosing, treating, or managing mpox cases? (e.g., lack of resources, training, misinformation, patient reluctance, etc.)
7. **Resource Availability:** Are there sufficient resources, such as medications, isolation facilities, and testing kits, for effective mpox management? If not, what is lacking?
8. **Communication and Public Awareness:** What strategies have been used to educate the public about mpox? How effective do you think they have been?
9. **Support for Healthcare Workers:** How has your institution or the government supported healthcare professionals involved in mpox care? Have you faced any burnout or psychological challenges?
10. **Policy and Systematic Improvements:** What policies or structural changes do you think are needed to improve mpox prevention, management, and public awareness?
11. **Future Strategies:** Based on your experience, what recommendations would you give to improve Thailand's response to future mpox outbreaks or similar health crises?

FGD with At-Risk Groups

1. **Introduction:** Please introduce yourself with a name you feel comfortable using, your age, occupation, and where you currently live.
2. **First Awareness:** When did you first hear about mpox? How did you learn about it?
3. **Community Perceptions:** How do people in your social circles, including peers, family, and clients, view mpox? Have you noticed any fear, stigma, or misinformation?
4. **Personal Concerns:** What concerns do you have about mpox? How has it affected your daily life, work, or social interactions?
5. **Access to Information and Services:** Where do you usually seek health information? Have you faced any challenges in accessing accurate mpox-related information?
6. **Preventive and Protective Measures:** What steps have you taken to protect yourself from mpox? Have you found these measures practical and accessible?
7. **Barriers to Healthcare:** Have you encountered any difficulties in seeking medical care or testing for mpox? (e.g., discrimination, cost, fear of exposure, lack of services, etc.)
8. **Community Support:** Have there been any community-led initiatives or support groups that have helped you navigate concerns around mpox?
9. **Experiences with Healthcare Providers:** What has been your experience when seeking medical assistance related to mpox? Have you felt welcomed and supported?
10. **Recommendations for Public Health Strategies:** What do you think needs to change in the healthcare system to better support people in your community regarding mpox prevention, treatment, and information?

In-Depth Interview Guide

Qualitative Investigation of Mpox in Thailand

1. **Introduction:** Could you introduce yourself with a name you feel comfortable using, your occupation, age, and where you currently live? If you're comfortable, could you share a little about your background?
2. **First Impressions:** When you first heard about mpox, what were your immediate thoughts or emotions? If you could describe them in three words, what would they be?
3. **Initial Awareness:** Can you recall when and how you first learned about mpox? What was your source of information, and how did it affect you at that moment?
4. **Personal Experience:** How did you come to realize that you had mpox? What were your first symptoms, and how did you seek help?
5. **Emotional Response:** How did you feel when you were diagnosed? What were your biggest concerns or fears at the time?
6. **Social Impact:** How did your family, friends, or workplace react when they found out about your mpox diagnosis? Did you experience support or stigma?
7. **Information and Awareness:** Where did you turn for reliable information about mpox? Were there any sources you found particularly helpful or misleading?
8. **Coping Mechanisms:** How did you manage your daily life during the illness? What changes did you make to your routine, and how did you maintain your well-being?
9. **Challenges and Barriers:** What were the biggest challenges you faced during your experience with mpox? (e.g., difficulty accessing healthcare, misinformation, discrimination, emotional distress, etc.)
10. **Medical and Social Support:** Did you receive any form of medical, emotional, or financial support from healthcare providers, NGOs, or the government? What kind of support did you need but not receive?
11. **Lessons Learned:** What has this experience taught you about health, society, or yourself?
12. **Future Recommendations:** Based on your experience, what recommendations would you give to the healthcare system or policymakers to improve mpox-related care and awareness?