

Health service needs and perspectives of remote forest communities in Papua New Guinea: study protocol for combined clinical and rapid anthropological assessments with parallel treatment of urgent cases

Article (Supplemental Material)

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Supplementary File

Middleton, Abdad, Beauchamp *et al.* Health service needs and perspectives of remote forest communities in Papua New Guinea: study protocol for combined clinical and rapid anthropological assessments with parallel treatment of urgent cases. Submitted to *BMJ Open* June 2020 post reviewer comments.

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Web search for RAP protocols

A literature search was conducted in PubMed on 15 February 2018 with the following search terms: 'Rapid assessment procedures OR rapid anthropological assessment procedures AND protocol AND health'. The search returned 484 items, none of which were RAP protocols.

Detailed study timelines for Mount Wilhelm

PNG research staff will go house to house on the first day in each settlement. Using the study 'Recruitment Script' they will explain that a focus group for adult females and individual primary care assessments for adult females and children will be carried out at the research station on day two, and for adult males and children on day three. At the beginning of day two and three those attending at the research station will have the study explained by the Research Fellow and Research Technicians, the 'Focus Group Information Sheet' and associated consent form will be read out, and potential participants will have the opportunity to ask questions before giving informed consent. As vulnerable study populations are often keen to please those who are seen as bringing resources, at least a 30min gap will be left between these collective read-outs and consenting. This will enable those who wish to opt out a further opportunity to do so with reduced awkwardness. The focus group and individual primary care assessments will then be carried out in parallel. This will be possible as we expect focus groups to take 1-2 hours each and only involve a minority of those having individual primary care assessments, which we expect to take most of the day. Before individual primary care assessments are carried out individuals will have read to them and be given copies of the 'Individual Examination Information Sheet' and associated consent form.

Malaria diagnostic test

The test requires a 5ul whole blood finger prick sample, to be destroyed in the field immediately following test results, which take approximately 15 min. No human tissue or material will be retained. Sharps will be collected in a sharps box, sealed in the field and taken to Madang Hospital for disposal. We will pay for any costs associated with disposal as necessary.

Data curation

At BSMS/UoS digital data will be held in a password protected folder, and papers in a locked cabinet. The code book will be archived at BSMS for two years after SURFACES stage 1 (i.e. until February 2023) and then destroyed securely. The project clinical lead will take care of university copies of identifiable personal information. This will be archived at BSMS separately from research data. Research data, consent forms and administrative records will be retained for two years after SURFACES stage 1 completion, and are the responsibility of the principle investigator. The project clinical lead will keep medical communications for three years after SURFACES stage 1 completion.

PNG capacity building and training

PNG research staff will benefit from in-country training prior to data collection and develop these skills and knowledge in practice, with hours and roles recorded and certificated. BSMS and UoS certificated training for PNG staff will include: Theory and methodology of Rapid anthropological Assessment Procedures (RAP); Use of Open Data Kit systems; Focus groups and interview techniques (if required, depending on prior experience); Integrated conservation

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and health case studies. Six PNG staff involved in the study (selected from all academic levels and both sex's) will travel to the UK and Czech Republic for 1-month of intensive training in: biodiversity survey; conservation project evaluation; ecology; microbiology; evidence synthesis and meta-analysis; rapid anthropological assessments; health research. Visits to partner institutions will also be arranged to build the international networks of PNG staff. IMR and BRC are the two largest PNG research organisations in health and biology respectively, but have not previously worked together. This study will build inter-institutional relationships which will enable future in-country collaborations beyond the project.

Treatment formulary, equipment, and materials

List developed by Co-Is with clinical backgrounds from Brighton and Sussex Medical School and London School of Hygiene and Tropical Medicine, specifically for this study's sites. List approved as part of protocol submitted for UK and PNG ethics applications.

1 Medicines

- Salbutamol inhaler 100mcg
- Prednisolone 5mg
- Fluconazole 150mg
- Antifungal cream
- Antibacterial cream
- Steroid cream
- Terbinafine cream
- Permethrin 5% cream
- Ivermectin
- Ciprofloxacin 500mg
- Clarithromycin 500mg
- Co-amoxiclav 500/125
- Amoxicillin 500mg
- Doxycycline 100mg
- Mebendazole 100mg
- Anti-malarials – atovaquone-proguanil; artemether-lumefantrine
- Paracetamol 500mg
- Naproxen 250mg
- Co-codamol 30/500
- Chloramphenicol
- Amethocaine eye drops
- Adrenaline 1:1000
- Hydrocortisone 100mg
- Chlorphenamine 10mg
- Loratadine 10mg
- Aspirin 300mg

2 Major trauma

- Slishman Femoral Traction Splint Hiking Pole Set
- Sam Splints (92x12cm)
- T6 Trauma wound dressings (15x18cm)

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- T4 Trauma wound dressings (10x18cm)
- Quikclot Emergency Haemostatic dressings (10x10cm)
- Celox Haemostatic PreFilled Plunger (6g)
- Combat Application Tourniquets
- Asherman Chest Seals
- Water-Jel Burn Face Mask (30.5x40.5cm)

3 Minor trauma

- Steri Strips (8x3mm)
- Medium Sterile Dressings (12x12cm)
- No. 2 Ambulance Dressings (20x15cm)
- No. 3 Ambulance Dressings (28x20cm)
- Sterofix Dressing Retention Tape (10cmx10m)
- Dressing pads (8x10cm)
- Dressing pads (10x10cm)
- Irrigation syringe

4 Airway/Resus

- I-gel Supraglottic Airways (adult sizes 1-4; paediatric x2)
- Guedal Airways (00-4)
- Nasosafe NP Airways (6-9mm)
- Pocket Bag Valve Mask
- Disposable Suction Unit

5 Diagnostics

- Pulse Oximeter
- Electronic sphygmomanometers
- Stethoscopes
- Tympanic Ear Thermometer
- Blood sugar monitor
- Heine Delta 20 Dermatoscope, with camera
- Scales
- Malaria rapid diagnostic test kits

6 Other

- Purple Nitrile Gloves
- Yellow hazard bags
- Sharps Box
- Spacer device
- Antiseptic liquid
- Suture packs and sutures

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Safety issues and mitigation*Participant safety*

Some participants may find being examined stressful. Beyond that possibility, we do not expect the research to induce psychological stress or anxiety, or produce humiliation, or cause harm or negative consequences beyond the risks encountered in normal life. The PC-HCP will provide basic support if participants are affected by any subjects/results/experiences that arise during discussion and assessments. If further support is needed participants will be given information on how to access in-country services. Whilst the research itself does not involve treatments, they will be provided by the PC-HCP where individual primary care assessments indicate they are required, and thus there is a risk of adverse drug events. Where possible known pharmacological properties of traditional medicines (as recorded by WHO Western Pacific Region) used by treated individuals will be taken into consideration re drug interactions. Any serious adverse events will be reported in writing to the IMR Institutional Review Board within one week of any study staff member becoming aware of the event.

REF: WHO Western Pacific Region. Medicinal plants in Papua New Guinea: Information on 126 commonly used medicinal plants in Papua New Guinea. Manila: World Health Organization Western Pacific Region; 2009.

Hazards to study staff and control measures

Hazard	Control measure
Sunburn	Minimise exposure, suitable clothing, sunscreen.
Heat Exhaustion	Adequate hydration, acclimatisation, suitable clothing.
Accidents (general)	Maintain hazard awareness especially in remote locations, use established trails when travelling on foot, and follow local guides. Trauma kit carried. The PC-HCP and RF have trauma care training and experience though healthcare work (general practice; ambulance service).
Road accidents	Avoid unnecessary travel. Safe vehicles with dedicated drivers and drivers assistants supplied by BRC. Wear seat belts, avoid travel at night. Trauma kit carried, the PC-HCP and RF have trauma care training and experience through healthcare work (general practice; ambulance service).
Malaria	Malarone, protective clothing, mosquito nets, diagnostic tests, treatment.
Water-borne illnesses	Potable water, pump purification and tablets.
Altitude Sickness	Acclimatisation, hydration, no planned travel >3700m (highest BRC-UoS established field station), prophylactic Diamox >2500 metres, treatment also carried. Both researchers aware of signs and symptoms, and will operate buddy system inc. SPo2 monitoring.
Other illnesses	Vaccinations, protective measures, medical kit carried.
Differing customs and languages	Respect for other people, comply with wishes of clan leaders, and follow advice of BRC/IMR staff.
Physical violence and/or verbal abuse	The RF and PC-HCP will follow advice from PNG staff at all times, operate under the protection of village clan leaders, not travel at night, and during fieldwork be accompanied at all times by PNG staff.
Potential negative psychological effects of the research subject matter/diagnosis and treatment processes	The RF and PC-HCP have prior experience in observing and managing physical and emotional trauma in others (general practice; ambulance service). In the unlikely event either they or in-country staff have an emotionally disturbing reaction to the nature or subject of the research, they will provide peer support in the field, and seek support via clinical pathways in the UK/PNG.

Supplementary File Table 1 Fieldwork hazards to study staff and control measures

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Surfaces RecruitmentScript 3 [to be used on day 1 in each community on Mount Wilhelm to explain timeline of study.]

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Recruitment script

My name is I am working with a study team from the Binatang Research Centre, Madang.

Our main aim is to provide the evidence to support future planning of health services to your community.

We are looking to find out what the medical needs of your community are, how you understand what makes you ill and what treatments and health services you use. We also want to understand better how environmental and cultural factors affect whether people get disease.

The study is a collaborative study with investigators from Brighton and Sussex Medical School/University of Sussex in England.

We will be holding a meeting of women in the village tomorrow to discuss these issues, and of men the day after. Please come along if you want to be involved, but you don't have to if you don't want to.

Our doctor will also be talking to people individually in a private house about their medical history and will want to examine people to see what their present health is like. If you feel sick or have any health concerns and want to see the doctor you can, even if you do not want to take part in the study. We have limited medicine, but if the doctor finds something he thinks he needs to treat he will do what he can. If he thinks it is something more serious he can tell you where to go to get help.

If you would like to be involved we are asking women to come tomorrow, they can bring the children they normally look after. Men can come on the next day, and can also bring children they normally look after.

Do you have any questions?

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Surfaces RecruitmentScript 3 In Tok Pisin

Kamapim klia tingting na mekim kamapim gutpela helt bilong ol manmeri na pikinini i stap long bus bilong Papua Niu Gini.

Toktok bilong pulim na kisim man/meri long dispela stadi

Nem bilong mi, mi wok wantaim wanpela stadi grup long Binatang Research Centre, long Madang.

Bikpela as tingting bilong dispela stadi em long givim trupela na gutpela ripot we i ken halivim long mekim ol gutpela plan bilong helt sevis insait long kominiti bilong yupela.

Mipela i laik painim out wanem kain marasin kominiti bilong yu I nidim, sapos yu gat save na klia long samting i mekim yu sik, na wanem kain marasin na helt sevis yu save usim. Mipela tu i laik kisim moa klia tingting sapos hap ples i stap long en na pasin tumbuna i mekim na ol manmeri I kisim ol dispela kain sik.

Dispela stadi i kamap long bung wok i kamap namel long ol risetsa bilong Medical Skul bilong Brighton na Sussex, na Sussex Univesiti long England.

Mipela bai holim bung bilong ol meri tasol long ples tumora, long bungim tingting long wanem kain sik i stap long famili, na kominiti, na wanem kain marasin na helt sevis i save stap. Wankain bung bai I kamap long hap tumora, we mipela bai singautim ol man tasol. Plis kam sapos yu laik long stap insait long kain bung, na sapos yu no laik, em tu em orait.

Dokta bilong mipela bai i toktok long wan wan man na meri long wanpela hait haus long wanem ol sik ol i kisim bipo na sekim helt blong ol i stap olsem wanem nau long dispela taim. Sapos yu no laik stap insait long dispela stadi, tasol yu pilim sik o ting olsem helt blong yu i no gutpela, yu ken lukim dokta tu. Mipela i nogat planti marasin, liklik tasol, na sapos dokta i painim sik long bodi bilong yu, we em ting em I ken givim yu marasin, em bai givim yu marasin. Sapos em ting olsem, em I sampela bikpela sik liklik, em bai tokim yu long go long bikpela hausik long kisim moa halivim.

Sapos yu laik long stap insait long dispela kain bung, mipela nau i askim ol meri long kam tumora na ol i ken kam wantaim ol pikinini bilong ol. Ol man I ken kam hap tumora, na ol tu i ken kam wantaim ol pikinini bilong ol.

Yu gat sampela askim o nogat?

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Information Sheets and Consent Forms in all languages

Surfaces IndividualInterviewInfoSheet 3 [for individual semi-structured interviews with clan leaders, ward councillors, and those involved in traditional medicine.]

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Individual Interview Information Sheet

My name is I am working with a study team from the Binatang Research Centre, Madang. The study is a collaborative study with investigators from Brighton and Sussex Medical School, and University of Sussex in England.

Why is this study being done? Our main aim is to provide evidence to support future planning of health services in your community. We are looking to find out what the medical needs are, how you understand what makes you ill and what treatments and health services you use. We also want to understand better how environmental and cultural factors affect whether people get disease.

Who will be interviewed? You were invited because you are the clan leader where the research station is/are involved in treating sick people in the community [*delete as appropriate*] and we value your knowledge and experience. We will also be carrying out interviews with clan leaders/and those involved treating sick people [*delete as appropriate*] elsewhere in the conservation area.

What is involved? I will ask you very general questions and we are very interested in all your ideas, comments and suggestions. There is no right or wrong answer. All comments – both positive and negative – are welcome. Whatever you say will not make us feel good or bad or affect us in any way. So feel free to give frank and honest answers. You have probably noticed the voice-recorder. If you don't mind, I will record the interview. The purpose is to ensure I don't miss anything you said. Since people often say very helpful things in these interviews and I can't write fast enough to get them all down, I prefer to use voice-recorder. It will probably take under an hour.

What are the risks in participating? There are no risks in participating beyond those encountered in normal life. If you are emotionally affected by any subjects/results/experiences that arise you can speak to myself or one of the other researchers for support.

What are the benefits in taking part in the study? The study purpose is to provide the knowledge we need to help plan potential health services in your community.

Options The interview is voluntary; you don't have to do it if you don't want to.

What about confidentiality? We won't publish names, comments are confidential for research only.

What is the cost of participating in the study? There is no cost.

What rights do you have? If you wish to discontinue the interview at any time, you may. However, all information you give us is highly valuable to the study. You can remove your data from the study up until the health needs assessment is produced. If you decide you want to after our team have left the field station contact New Guinea Binatang Research Center before XX/XX/XXXX.

Who can you contact if you have questions or problems? PNG: Francesca Dem OR Vojtech Novotny, New Guinea Binatang Research Center (Madang) Telephone: 675 423 3258, fdemicr@gmail.com OR novotny@entu.cas.cz. UK: Jo Middleton, Brighton and Sussex Medical School (UK), j.middleton@bsms.ac.uk.

On the back of this sheet is a consent form to take part in the interview, I'll read it out in a moment and if you have any questions please ask me before deciding to sign the form and participate.

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Surfaces IndividualInterviewInfoSheet 3 In Tok pisin

Kamapim Klia Tingting na Mekim Kamapim Gutpela Helt bilong ol Manmeri na Pikinini i Stap long Bus bilong Papua Niu Gini.

Toksave Pepa bilong Helt Ripot bilong wan wan Manmeri

Nem blong mi Mi wok wantaim wanpela stadi grup bilong Binatang Research Centre, Madang. Dispela stadi i kamap long bung wok i kamap namel long ol risetsa bilong Medical Skul bilong Brighton na Sussex, na Sussex Univesiti long England.

Long wanem as dispela stadi mas kamap? Bikpela as tingting em long givim trupela na gutpela ripot we i ken halivim long mekim ol gutpela plan bilong helt sevis insait long kominiti bilong yupela. Mipela i laik painim out wanem kain marasin yu nidim, sapos yu gat save na klia long samting I mekim yu sik, na wanem kain marasin na helt sevis yu save usim. Mipela tu I laik kisim moa klia tingting sapos hap ples i stap long en na pasin tumbuna i mekim na ol manmeri I kisim ol dispela kain sik.

Husat bai i kisim ol askim bilong mipela? Mipela I singautim yu bikos yu clan lida where resets station is stap long en o yu bin halivim long lukim ol sik manmeri/pikinini long kominiti, na mipela I luksave long save na wok bilong yu. Mipela bai singautim ol clan lida na husat narapela we i bin lukim na givim marasin long ol sik manmeri/pikinini long narapela ples insait long konseveisen eria.

Wanem ol toktok bai stap insait long dispela ol skim? Mi bai askim yu sampela askim na mipela i laik stret long yupela givim tingting bilong yupela. Nogat ansa em rait o rong, olgeta ansa em orait tasol. Olgeta tingting em mipela laik harim, na noken gat pret olsem sapos yu autim tingting bilong yu, nogut yu mekim mipela pilim nogut, nogat em mipela i no nap pilim olsem. Olsem na, mipela laikim bai yu pilim fri long toktok long tingting bilong yu stret na givim trupela ansa o bekim. Mipela laik rekodim olgeta toktok bilong bung bilong yumi, olsem na sapos yupela i wanbel mipela bai rekodim toktok yumi bai mekim long bung bilong yumi. As tingting bilong usim rekoda em olsem ol man i save givim gutpela toktok tasol em i hat long raitim olgeta toktok i go daun, olsem na gutpela long usim rekoda, na sapos mi no raitim sampela toktok i go daun, mi laik usim rekoda, na bihain mi ken go bek na pleim na harim gen. Dispela bung bai kisim aninit long tupela awa.

Wanem hevi o nogut samting i ken kamap taim yu i stap insait long dispela stadi? Nogat hevi or nogut samting i ken kamap, we i winim ol hevi yu save bungim long laip bilong yu, taim yu stap insait long stadi. Sapos yu tingim bek sampela samting is kamap long yu bipo na i mekim yu i pilim nogut o sore o poreit o wari, yu ken toktok long mi o wanpela long ol narapela risetsa na mipela i ken givim toktok blong strongim yu.

Wanem gutpela samting i ken kamap sapos yu stap insait long dispela stadi? As tingting bilong dispela stadi em long givim save we mipela i laikim na i ken usim dispela save long kamapim wantaim plan bilong helt sevis long kominiti bilong yupela.

Laik bilong yu o laik bilong risets grup? Em i stap long laik bilong yu yet long stap insait long dispela stadi, sapos yu laik stap insait long stadi o nogat, mipela ino nap bosim yu na tok yu mas mekim.

Ol hait toktok blong yu, yu givim, em bai mipela kamapim ples klia o nogat? Mipela i no nap usim ol nem in stap long ripot, na tu ol toktok yu givim em mipela bai usim long dispela risets tasol na ino long narapela samting o tingting.

Bai i gat mak mak o pei taim yu stap insait long dispela stadi? I nogat mak mak o pei taim yu stap insait long stadi.

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Wanem ol rait yu gat taim yu stap insait long stadi? Sapos yu no laik moa long toktok long mipela or long mipela bai i stop long askim yu, yu ken tokim mipela long stop. Tasol olgeta toktok yu givim mipela em gutpela stret bilong dispela stadi. Yu ken rausim ol toktok bilong yu long stat bilong stadi inap taim mipela bai putim dispela helt ripot long buk. Sapos yu no laik moa long stap insait dispela stadi bihain long mipela I lusim Papua Niu Gini no go bek, yu ken ringim New Guinea Binatang Research Centre bipo long XX/XX/XXXX.

Husat yu ken ringim o lukim sapos yu gat sampela askim o hevi? Papua Niu Gini: Francesca Dem o Vojtech Novotny, New Guinea Binatang Research Centre (Madang), Mobile: 7939 9892, fdemic@gmail.com o novotny@entu.cas.cz. UK: Jo Middleton, Brighton na Sussex Medical Skul (UK), j.middleton@bsms.ac.uk.

Long baksait bilong dispela pepa, i gat toktok blong yu givim tok orait blong yu sapos yu laik stap insait long dispela stadi. Mi bai ritim na sapos yu gat sampela askim plis askim me bipo yu putim mak blong yu long soim olsem yu tok orait long stap insait long dispela stadi.

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Surfaces FocusGroupInfoSheet 2 [for focus groups]

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Focus Groups Information Sheet and Introduction Script

My name is I am working with a study team from the Binatang Research Centre, Madang. The study is a collaborative study with investigators from Brighton and Sussex Medical School, and University of Sussex in England.

Why is this study being done? Our main aim is to provide evidence to support future planning of health services in your community. We are looking to find out what the medical needs are, how you understand what makes you ill and what treatments and health services you use. We also want to understand better how environmental and cultural factors affect whether people get disease.

Who will be part of this discussion? You were invited because you are a woman/man [*delete as appropriate*] in this community aged [*insert focus group specific age bracket*] and we value your knowledge and experience. We will also be carrying out discussions with men/women [*delete as appropriate*] aged [*insert focus group specific age bracket*] and men/women [*delete as appropriate*] aged [*insert focus group specific age bracket*] both in this community and elsewhere in the conservation area.

What is involved? We will ask you as a group some very general questions and we are very interested in all your ideas, comments and suggestions. There is no right or wrong answer. All comments – both positive and negative – are welcome. Whatever you say will not make us feel good or bad or affect us in any way. So feel free to give frank and honest answers. You have probably noticed the voice-recorder. If you don't mind, we will record the discussion. The purpose is to ensure we don't miss anything you say. Since people often say very helpful things in these discussions and we can't write fast enough to get them all down, we prefer to use voice-recorder. It will probably take under two hours.

What are the risks in participating? There are no risks in participating beyond those encountered in normal life. If you are emotionally affected by any subjects/results/experiences that arise you can speak to myself or one of the other researchers for support.

What are the benefits in taking part in the study? The study purpose is to provide the knowledge we need to help plan potential health services in your community.

Options The discussion is voluntary; you don't have to do it if you don't want to.

What about confidentiality? We won't use names in reports, comments are confidential for research purposes only.

What is the cost of participating in the study? There is no cost.

What rights do you have? If you wish to stop being part of the discussion at any time, you may. However, all information you give us is highly valuable to the study. You can remove your data from the study up until the health needs assessment is produced. If you decide you want to after our team have left the field station contact New Guinea Binatang Research Center before XX/XX/XXXX.

Individual primary care assessments and treatment As you probably know one of our team is a doctor and will be speaking to people individually and examining them in a private place to assess their health. This is also part of the research and if you want to take part in that, one of our team will speak to you later about it and answer any questions. If you feel sick or have any health concerns, you can see the

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doctor even if you do not want to take part in the study. We have some limited medicine, and if the doctor finds something he thinks he needs to treat he will do what he can. If he thinks it is something more serious, he can tell you where to go for help.

Who can you contact if you have questions or problems? PNG: Francesca Dem OR Vojtech Novotny, New Guinea Binatang Research Center (Madang) Telephone: 675 423 3258, fdemic@gmail.com OR novotny@entu.cas.cz. UK: Jo Middleton, Brighton and Sussex Medical School (UK), j.middleton@bsms.ac.uk.

On the back of this sheet is a consent form to take part in the discussion, I'll read it out in a moment and if you have any questions please ask me before deciding to sign the form and participate.

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Surfaces FocusGroupInfoSheet 2 in Tok Pisin

Kamapim Klia Tingting na Mekim Kamapim Gutpela Helt bilong ol Manmeri na Pikinini i Stap long Bus bilong Papua Niu Gini.

Toksave Pepa na Tok i go Pas bilong Grup:

Nem blong mi Mi wok wantaim wanpela stadi grup bilong Binatang Research Centre, Madang. Dispela stadi i kamap long bung wok i kamap namel long ol risetsa bilong Medical Skul bilong Brighton na Sussex, na Sussex Univesiti long England.

Long wanem as dispela stadi mas kamap? Bikpela as tingting em long givim trupela na gutpela ripot we i ken halivim long mekim ol gutpela plan bilong helt sevis insait long komuniti bilong yupela. Mipela i laik painim out wanem kain marasin yu nidim, sapos yu gat save na klia long samting I mekim yu sik, na wanem kain marasin na helt sevis yu save usim. Mipela tu I laik kisim moa klia tingting sapos hap ples i stap long en na pasin tumbuna i mekim na ol manmeri I kisim ol dispela kain sik.

Husat bai i stap insait long dispela bung? Ol i singautim yu i kam long dispela bung bikos yu man/meri (rausim man sapos meri i raitim dispela pepa o rausim meri sapos man i raitim dispela pepa) long dispela komuniti. Mi gat kristmas. Mipela i luksave long save na wok bilong yu. Mipela bai holim bung wantaim man/meri (rausim man sapos bung em bilong ol meri tasol o rausim meri sapos bung em bilong ol man tasol) insait long dispela komuniti na ol narapela komuniti I stap insait long konseveisen eria.

Wanem ol toktok bai stap insait long bung? Mipela bai askim yupela olsem grup, sampla askim na mipela i laik stret long yupela givim tingting bilong yupela. Nogat ansa em rait o rong, olgeta ansa em orait tasol. Olgeta tingting em mipela laik harim, na noken gat pret olsem sapos yu autim tingting bilong yu, nogut yu mekim mipela pilim nogut, nogat em mipela i no nap pilim olsem. Olsem na, mipela laikim bai yu pilim fri long toktok long tingting bilong yu stret na givim trupela ansa o bekim. Mipela laik rekodim olgeta toktok bilong bung bilong yumi, olsem na sapos yupela i wanbel mipela bai rekodim toktok yumi bai mekim long bung bilong yumi. As tingting bilong usim rekoda em olsem ol man I save toktok hariap na em i hat long raitim olgeta toktok i go daun, olsem na gutpela long usim rekoda, na sapos yu no raitim sampela toktok i go daun, yu ken go bek na pleim na harim gen. Dispela bung bai kisim aninit long tupela awa.

Wanem hevi o nogut samting i ken kamap taim yu i stap insait long dispela stadi? Nogat hevi or nogut samting i ken kamap, we i winim ol hevi yu save bungim long laip bilong yu, taim yu stap insait long stadi. Sapos yu tingim bek sampela samting is kamap long yu bipo na i mekim yu i pilim nogut o sore o poret o wari, yu ken toktok long mi o wanpela long ol narapela risetsa long givim yu toktok blong strongim yu.

Wanem gutpela samting i ken kamap sapos yu stap insait long dispela stadi? As tingting bilong dispela stadi em long givim save we mipela i laikim na i ken usim dispela save long kamapim wantaim plan bilong helt sevis long komuniti bilong yupela.

Laik bilong yu o laik bilong risets grup: Em i stap long laik bilong yu yet long stap insait long dispela stadi, sapos yu laik stap insait long stadi o nogat, mipela ino nap bosim yu na tok yu mas mekim.

Ol hait toktok blong yu yu givim, em bai mipela kamapim ples klia o nogat? Mipela I no nap usim ol nem in stap long ripot, na tu ol toktok yu givim em mipela bai usim long dispela risets tasol na ino long narapela samting.

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Bai i gat mak mak o pei taim yu stap insait long dispela stadi? I nogat mak mak o pei taim yu stap insait long stadi.

Wanem ol rait yu gat taim yu stap insait long stadi? Sapos yu no laik moa long stap insait long stadi, yu ken lusim o stop long laik bilong. Tasol olgeta toktok yu givim mipela em gutpela stret bilong dispela stadi. Yu ken rausim ol toktok bilong yu long stat bilong stadi inap taim mipela bai putim dispela helt ripot long buk. Sapos yu no laik moa long stap insait dispela stadi bihain long mipela I lusim Papua Niu Gini no go bek, yu ken ringim New Guinea Binatang Research Centre bipo long XX/XX/XXXX.

Helt ripot na rot blong pinisim sik bilong wan wan man/meri. Mipela i gat wanpela dokta long grup bilong mipela na em bai toktok long wan wan man na meri na sekim na kisim gut stori blong helt bilong ol long sampela ples hait. Dispela wok dokta i mekim em i stap insait tu long dispela stadi, na sapos yu lain stap insait tu long dispela, wanpela memba blong grup bilong mipela bai i toktok wantaim yu bihain. Sapos yu no laik stap insait long dispela stadi, tasol yu pilim sik o ting olsem helt blong yu i no gutpela, yu ken lukim dokta tu. Mipela i nogat planti marasin, liklik tasol, na sapos dokta i painim sik long bodi bilong yu, we em ting em I ken givim yu marasin, em bai givim yu marasin. Sapos em ting olsem, em I sampela bikpela sik liklik, em bai tokim yu long go long bikpela hausik long kisim moa halivim.

Husat yu ken ringim o lukim sapos yu gat sampela askim o hevi? Papua Niu Gini: Francesca Dem o Vojtech Novotny, New Guinea Binatang Research Centre (Madang), Mobile: 7939 9892, fdemic@gmail.com o novotny@entu.cas.cz. UK: Jo Middleton, Brighton na Sussex Medical Skul (UK), j.middleton@bsms.ac.uk.

Long baksait bilong dispela pepa, i gat toktok blong yu givim tok orait blong yu sapos yu laik stap insait long dispela stadi. Mi bai ritim na sapos yu gat sampela askim plis askim me bipo yu putim mak blong yu long soim olsem yu tok orait long stap insait long dispela stadi.

Surfaces_FieldworkProtocolStage1a_Supplementary_PostReviewers_CleanJune20

Surfaces_IndividualExaminationInfoSheet_3 [for individual primary care assessments]

Understanding and enhancing health of populations living in the rainforests of Papua New Guinea

Primary Care Assessment Information Sheet

My name is I am working with a study team from the Binatang Research Centre, Madang. The study is a collaborative study with investigators from Brighton and Sussex Medical School, and University of Sussex in England.

Why is this study being done? Our main aim is to provide evidence to support future planning of health services in your community. We are looking to find out what the medical needs are, how you understand what makes you ill and what treatments and health services you use. We also want to understand better how environmental and cultural factors affect whether people get disease.

Who can be seen by the doctor? If the doctor thinks he has time he can see any of you who wants to see him and participate in that part of the research. If you feel sick or have any health concerns and want to see the doctor you can, even if you do not want to take part in the study. If the doctor thinks he may not be able to see everyone who want to see him, people will be seen in this order: (1) those with an illness they/their parent believe to be serious, (2) those with an illness they/their parent believe to be not serious, (3) those perceived (by themselves or their parent) to not to have an illness.

What is involved? As part of the study our doctor is talking to people individually about their medical history and examining them in a private place to see what their present health is. The doctor will have a research assistant who will be taking down your answers and will act as a translator when needed. The doctor will ask you very general questions as well as examine you. Whatever you say will not make us feel good or bad or affect us in any way. So feel free to give frank and honest answers. The doctor will not look at any private areas of your body unless you ask them to, and if you do not want to be examined anywhere, or at all, you do not have to be. It is entirely voluntary.

What are the risks in participating? There are no risks in participating beyond those encountered in normal life. If you are emotionally affected by being examined or by any subjects/results/experiences that arise you can speak to myself or one of the other researchers for support.

What are the benefits in taking part in the study? The study purpose is to provide the knowledge we need to help plan potential health services in your community. We have some limited medicine, and if the doctor finds something they think needs to be treated they will do what they can. If they think it is something more serious they can tell you where to go for help. If the doctor gives you a treatment or recommends that you go somewhere for treatment, they will give you a letter to take with you explaining what they found and any treatment they gave you.

Options The primary care assessment is voluntary; you don't have to do it if you don't want to.

What about confidentiality? We won't use names in reports, comments and results of examinations are confidential for research purposes only. If the doctor has written a letter about treatment they have given you, or a recommendation you seek treatment elsewhere, they and the medical school they work for will keep a copy of this letter for three years, then destroy it. The information in these letters will not be included in the research study.

What is the cost of participating in the study? There is no cost, for participation in the study or any treatment you are given during the primary care assessment.

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What rights do you have? If you wish to stop either speaking to our team or being examined, you may. However, all information you give us is highly valuable to the study. You can remove your data from the study up until the health needs assessment is produced. If you decide you want to after our team have left the field station contact New Guinea Binatang Research Center before XX/XX/XXXX.

Who can you contact if you have questions or problems? PNG: Francesca Dem OR Vojtech Novotny, New Guinea Binatang Research Center (Madang) Telephone: 675 423 3258, fdemic@gmail.com OR novotny@entu.cas.cz. UK: Jo Middleton, Brighton and Sussex Medical School (UK), j.middleton@bsms.ac.uk.

On the back of this sheet is a consent form to take part in the discussion, I'll read it out in a moment and if you have any questions please ask me before deciding to sign the form and participate.

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Surfaces IndividualExaminationInfoSheet 3**Kamapim Klia Tingting na Mekim Kamapim Gutpela Helt bilong ol Manmeri na Pikinini i Stap long Bus bilong Papua Niu Gini.****Toksave Pepa Bilong Helt Ripot**

Nem blong mi Mi wok wantaim wanpela stadi grup bilong Binatang Research Centre, Madang. Dispela stadi i kamap long bung wok i kamap namel long ol risetsa bilong Medical Skul bilong Brighton na Sussex, na Sussex Univesiti long England.

Long wanem as dispela stadi mas kamap? Bikpela as tingting em long givim trupela na gutpela ripot we i ken halivim long mekim ol gutpela plan bilong helt sevis insait long kominiti bilong yupela. Mipela i laik painim out wanem kain marasin yu nidim, sapos yu gat save na klia long samting I mekim yu sik, na wanem kain marasin na helt sevis yu save usim. Mipela tu I laik kisim moa klia tingting sapos hap ples i stap long en na pasin tumbuna i mekim na ol manmeri I kisim ol dispela kain sik.

Husat i ken lukim dokta? Sapos dokta I ting em i gat taim, em bai lukim husat i laik lukim em na stap insait long dispela risets. Sapos yu no laik stap insait long dispela stadi, tasol yu pilim sik o ting olsem helt blong yu i no gutpela, yu ken lukim dokta tu. Sapos dokta i ting olsem em i nogat planti taim long lukim olgeta man/meri husat i laik lukim em, ol dispela manmeri bai I bihainim dispela rot: (1) husat i gat sik we ol yet o papamama bilong ol I bilip olsem em I bikpela sik, (2) husat i gat sik we ol yet o papamama bilong ol i bilip olsem em i no bikpela sik, (3) husat I laik lukim dokta tasol ol yet o papamama bilong ol i no ting olsem ol i gat sik.

Wanem toktok bai i stap insait long dispela stadi? Olsem narapela han bilong stadi bilong mipela, dokta bilong mipela bai i toktok long wan wan man na meri na sekim na kisim gut stori bilong ol long helt bilong ol long dispela taim long sampela ples hait. Dokta bai I gat wanpela man bai I halivim em, na dispela man o meri bai I raitim bekim bilong ol manmeri na tu em bai tanim toktok bilong dokta long Tok Pisin, sapos dispela man o meri i no save long Tok Iglis. Dokta bai askim yu sampela askim na tu sekim bodi bilong yu. Pilim fri long givim wanem bekim yu laik givim na yu ken tokaut stret, wanem bekim yu givim ino nap mekim mipela i pilim nogut o sem. Dokta ino nap sekim ol hait skin bilong yu, sapos yu yet askim, em bai sekim, na sapos yu no laik long dokta bai sekim wanpela hap bilong bodi bilong yu o ino laikim dokta long sekim olgeta bodi bilong yu, em i stap long laik bilong yu yet, dokta ino nap tok yu mas mekim.

Wanem hevi o nogut samting i ken kamap taim yu i stap insait long dispela stadi? Nogat hevi or nogut samting i ken kamap, we i winim ol hevi yu save bungim long laip bilong yu, taim yu stap insait long stadi. Sapos yu tingim bek sampela samting is kamap long yu bipo na i mekim yu i pilim nogut o sore o poret o wari, yu ken toktok long mi o wanpela long ol narapela risetsa na mipela i ken givim toktok blong strongim yu.

Wanem gutpela samting i ken kamap sapos yu stap insait long dispela stadi? As tingting bilong dispela stadi em long givim save we mipela i laikim na i ken usim dispela save long kamapim wantaim plan bilong helt sevis long kominiti bilong yupela. Mipela i nogat planti marasin, liklik tasol, na sapos dokta i painim sik long bodi bilong yu, we em ting em I ken givim yu marasin, em bai givim yu marasin. Sapos dokta i ting olsem, dispela em I sampela bikpela sik liklik, em bai tokim yu long go long bikpela hausik long kisim moa halivim, na dokta bai raitim pas, we pas bai toksave long wanem kain sik dokta i painim long yu na marasin em i givim yu na bai yu karim dispela pas wantaim yu i go long bikpela hausik.

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Wanem ol rot i stap: Em i stap long laik bilong yu yet long stap insait long dispela stadi, sapos yu laik stap insait long stadi o nogat, mipela ino nap bosim yu na tok yu mas mekim.

Ol hait toktok blong yu, yu givim, em bai mipela kamapim ples klia o nogat? Mipela i no nap usim ol nem in stap long ripot, na tu ol toktok yu givim em mipela bai usim long dispela risets tasol na ino long narapela samting o tingting. Sapos dokta i raitim pas long toksave long wanem marasin em i bin givim yu o toksave blong givim tingting long kisim narapela halivim long narapela haus sik, ol na Medical Skul ol i wok long en bai I holim kopi bilong dispela letter long 3 yia na bihain ol bai i tromoim. Wanem toktok in stap long dispela pas, em ino nap stap long dispela risets stadi.

Bai i gat mak mak o pei taim yu stap insait long dispela stadi? I nogat mak mak o pei taim yu stap insait long stadi.

Wanem ol rait yu gat taim yu stap insait long stadi? Sapos yu no laik moa long toktok long mipela or long mipela bai I stop long sekim yu, yu ken tokim mipela long stop. Tasol olgeta toktok yu givim mipela em gutpela stret bilong dispela stadi. Yu ken rausim ol toktok bilong yu long stat bilong stadi inap taim mipela bai putim dispela helt ripot long buk. Sapos yu no laik moa long stap insait dispela stadi bihain long mipela I lusim Papua Niu Gini no go bek, yu ken ringim New Guinea Binatang Research Centre bipo long XX/XX/XXXX.

Husat yu ken ringim o lukim sapos yu gat sampela askim o hevi? Papua Niu Gini: Francesca Dem o Vojtech Novotny, New Guinea Binatang Research Centre (Madang), Mobile: 7939 9892, fdemic@gmail.com o novotny@entu.cas.cz. UK: Jo Middleton, Brighton na Sussex Medical Skul (UK), j.middleton@bsms.ac.uk.

Long baksait bilong dispela pepa, i gat toktok blong yu givim tok orait blong yu sapos yu laik stap insait long dispela stadi. Mi bai ritim na sapos yu gat sampela askim plis askim me bipo yu putim mak blong yu long soim olsem yu tok orait long stap insait long dispela stadi.

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Surfaces InterviewandFGConsentForm_3 In Tok Pisin**Tok Orait Pepa bilong ol askim na ol Grup****As Tingting bilong Stadi: Kamapim klia tingting na mekim kamapim gutpela helt bilong ol manmeri na pikinini i stap long bus bilong Papua Niu Gini.****Nem bilong Risetsa:** Jo Middleton, Brighton na Sussex Medical School (UK) j.middleton@bsms.ac.uk**Husat long lukim long Papua Niu Gini:** Francesca Dem O Vojtech Novotny, New Guinea Binatang Research Center (Madang) Mobile: 7939 9892, fdemic@gmail.com O novotny@entu.cas.czPlis putim mak
long box wantaim
X

1. Mi ridim/ol ridim long mi na mi kisim wanem toktok i stap long pepa blong kisim ripot blong helt blong wanwan man or meri na mi wan bel long dispela. Mi gat taim blong askim ol taim mi no klia long sampla samting long pepa na mi wanbel long bekim blong askim blong mi.
2. Mi klia olsem stap blong mi long dispela stadi em long laik blong mi yet na mi fri tasol long lusim dispela stadi taim mi pilim olsem mi laik stop, na mi noken pilim olsem mi mas painim risen blong mekim olsem.
3. Mi klia olsem mi ken rausim nem na helt ripot blong mi, long stat blong stadi inap long taim olgeta helt ripot i go daun long buk, na sapos mi tingting long rausim ripot blong mi bihain long ol risetsa I go pinis, mi ken ringim Vojtech Novotny long New Guinea Binatang Research Centre bipo long XX/XX/XXXX.
4. Mi klia olsem dispela ol askim/grup bung bai ol I rekodim.
5. Mi wanbel long stap insait long dispela stadi.

Nem blong man/meri	Date	Signature
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Nem blong ausait witness	Date	Signature
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Em bilong risetsa long pulumapim

- Mi autim gut dispela olgeta toksave i stap long dispela pepa na mi givim toktok bilong strongim wanwan man na meri long pilim fri long askim taim ol i no klia tumas long samplea toktok i stap long pepa na tu mi givim taim inap long mi bekim askim bilong ol.

Nem blong risetsa o man/meri is askim long kisim tok orait	Date	Signature
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Surfaces_AdultPrimaryCareAssessmentsConsentForm_2 In Tok Pisin**Tok Orait Pepa bilong Helt Ripot bilong ol Bikpela Manmeri.****As Tingting bilong Stadi: Kamapim klia tingting na mekim kamapim gutpela helt bilong ol manmeri na pikinini i stap long bus bilong Papua Niu Gini.****Nem bilong Risetsa:** Jo Middleton, Brighton na Sussex Medical School (UK) j.middleton@bsms.ac.uk**Husat long lukim long Papua Niu Gini:** Francesca Dem O Vojtech Novotny, New Guinea Binatang Research Center (Madang) Mobile: 7939 9892, fdemic@gmail.com O novotny@entu.cas.cz**Plis putim mak
long box wantaim
X.**

1. Mi ridim/ol ridim long mi na mi kisim wanem toktok i stap long pepa blong kisim ripot blong helt blong wanwan man or meri na mi wan bel long dispela. Mi gat taim blong askim ol taim mi no klia long sampla samting long pepa na mi wanbel long bekim blong askim blong mi.
2. Mi klia olsem stap blong mi long dispela stadi em long laik blong mi yet na mi fri tasol long lusim dispela stadi taim mi pilim olsem mi laik stop, na mi noken pilim olsem mi mas painim risen blong mekim olsem.
3. Mi klia olsem mi ken rausim nem na helt ripot blong mi, long stat blong stadi inap long taim olgeta helt ripot i go daun long buk, na sapos mi tingting long rausim ripot blong mi bihain long ol risetsa I go pinis, mi ken ringim Vojtech Novotny long New Guinea Binatang Research Centre bipo long XX/XX/XXXX.
4. Mi wanbel long stap insait long dispela stadi.

Nem blong man/meri_____
Date_____
Signature_____
Nem blong ausait witness_____
Date_____
Signature-----
Em bilong Risetsa long pulumapim.

- Mi autim gut dispela olgeta toksave i stap long dispela pepa na mi givim toktok bilong strongim wanwan man na meri long pilim fri long askim taim ol i no klia tumas long samplea toktok i stap long pepa na tu mi givim taim inap long mi bekim askim bilong ol.

Nem bilong Risetsa
o man/meri asking long kisim
tok orait ._____
Date_____
Signature

Surfaces_FieldworkProtocolStage1a_Supplementary_PostReviewers_CleanJune20

Surfaces_NonAdultPrimaryCareAssessmentsConsentForm_2 [for primary care assessments]

Consent Form for Non-Adult Participants Primary Care Assessments

Title of Study: Understanding and enhancing health of populations living in the rainforests of Papua New Guinea

Name of Researcher: Jo Middleton, Brighton and Sussex Medical School (UK)
j.middleton@bsms.ac.uk

Papua New Guinea Contact: Francesca Dem OR Vojtech Novotny, New Guinea Binatang Research Center (Madang) Telephone: 675 423 3258, fdemic@gmail.com OR novotny@entu.cas.cz

Please mark
box with an X

1. I confirm I have read/had read to me *[delete as appropriate]* and understood the information sheet on the individual health assessments. I have had time to ask questions and am satisfied with the answers I have been given.

2. I confirm that as.....
[insert relationship] I have customary authority to consent that
.....

who is years old may participate in the study.

3. I understand their participation in this study is voluntary and I am free to stop their participation at any time, and I do not have to give a reason for doing so.

4. I understand I can remove their data from the study up until the health needs assessment is produced, and that if I decide to after the researchers have left the field station I should phone Vojtech Novotny at New Guinea Binatang Research Center before/.....

5. I agree.....
can take part in the above study.

Name of consenting person Date Signature

Name of Independent Witness Date Signature

Researcher to complete:

- I have explained the information in this document and encouraged the participant to ask questions and provided adequate time to answer them.

Name of Researcher
or Person Seeking Consent
(If different from researcher) Date Signature

15 June 2020 – j.middleton@bsms.ac.uk

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Surfaces_NonAdultPrimaryCareAssessmentsConsentForm_2 In Tok Pisin**Tok Orait Pepa na Helt Ripot bilong ol Pikinini.****As Tingting bilong Stadi: Kamapim klia tingting na mekim kamapim gutpela helt bilong ol manmeri na pikinini i stap long bus bilong Papua Niu Gini.****Nem bilong Risetisa:** Jo Middleton, Brighton na Sussex Medical School (UK) j.middleton@bsms.ac.uk**Husat long lukim long Papua Niu Gini: Francesca Dem O Vojtech Novotny**, New Guinea Binatang Research Center (Madang) Mobile: 7939 9892, fdemic@gmail.com O novotny@entu.cas.cz

- Plis putim mak wantaim X
1. Mi ridim/ol ridim long mi na mi kisim wanem toktok i stap long pepa blong kisim ripot blong helt blong wanwan man or meri na mi wan bel long dispela. Mi gat taim long askim ol taim mi no klia long sampla samting long pepa na mi wanbel long bekim blong askim blong mi.
 2. Mi wanbel olsem
(putim sapos yu papa o mama o susa,brata), mi gat rait long pasin tumbuna long givim tok orait olsem

husat em i gatkrimas i ken stap insait long dispela stadi.
 3. Mi klia olsem stap blong ol pikinini long dispela stadi em long laik blong mi yet na mi fri tasol long stopim ol long dispela stadi taim mi pilim olsem mi laik stopim ol, na mi noken pilim olsem mi mas painim risen blong mekim olsem.
 4. Mi klia olsem mi ken rausim nem na helt ripot blong ol pikinini, long stat blong stadi inap long taim olgeta helt ripot i go daun long buk, na sapos mi tingting long rausim ripot blong ol bihain long ol risetsa i go pinis, mi ken ringim Vojtech Novotny long New Guinea Binatang Research Centre bipo long XX/XX/XXXX.
 5. Mi wanbel olsem
I ken stap insait long dispela stadi.

Nem bilong man/meri i givim tok orait	Date	Signature
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Nem blong ausait witness	Date	Signature
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Em bilong risetsa long pulumapim

Mi autim gut dispela olgeta toksave i stap long dispela pepa na mi givim toktok bilong strongim wanwan man na meri long pilim fri long askim taim ol i no klia tumas long samplea toktok i stap long pepa na tu mi givim taim inap long mi bekim askim bilong ol.

Nem blong risetsa o man/meri i askim long kisim tok orait	Date	Signature
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Surfaces_FieldworkProtocolStage1a_Supplementary_PostReviewers_CleanJune20

Focus Group topic guide

1 Focus group

- 1a Date (day/month/year)
- 1b Facilitators (initials)
- 1c Translators (initials)
- 1d Site
- 1e Focus group language/s

2 Demographics

- 2a Sex (female/male)
- 2b Clan affiliation?
- 2c Age group?

3 Greeting and Introduction

Introduce researchers

Reiterate study aims

Remind participants:

- there are no wrong answers
- the discussion will be audio recorded
- their names will not be used when reporting findings
- they can withdraw at any point without giving a reason

Have participants introduce themselves:

- 3a First name
- 3b Age
- 3c Occupation/position within the community

4 Burden, definitions, and treatments of illness and injury

- 4a Use the Nominal Group Technique. Participants are asked to list all of the healthcare issues affecting the community. This is carried out individually with RT support.
- 4b Participants then asked as a group to rank the top five most significant healthcare issues affecting the community (allow ethno-classifications to arise as required).

For each of the five:

- 4ca-e What is the name or names given to the illness or injury?
- 4da-e Who is affected by it?
- 4ea-e When in the year does it occur?
- 4fa-e What can you see on the body, or what do the ill/injured persons say about how they feel that means you think they are sick with this particular illness?
- 4ga-e What do you think causes the illness/injury?
- 4ha-e How is the illness/injury treated, and by whom?
- 4i Which of these illnesses/injuries do you think are the most important, and why?

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If not previously mentioned, ask about the following, using questions 4c-h (but do not incorporate in Nominal Group list)

4ja-g Skin conditions

4ka-g Animal bites/stings

5 Disease prevention

5a What do people do to avoid illness or injury in your community? How do they stay 'healthy'?

5b Where do people go to find out information about health?

Probes

- media
- professionals
- school
- community members

5c What kind of services are in place to prevent illness or injury in the community?

Probes

- WASH
- vaccination
- mosquito nets
- sexuality education
- antenatal visits
- health education
- occupational health
- nutrition
- road safety or accident prevention

5d Do you have any suggestions about how to improve disease and injury prevention in the community?

6 Healthcare provision

6a What kind of traditional healthcare is available in the community?

Probes

- plant medicine and/or ritual action
- village midwife

6aa Types of health practitioner?

6ab Types of facilities?

6b What kind of biomedical healthcare is available in the community?

6ba Types of health practitioners

6bb Types of facilities

Probes

- Government Aid Posts

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- Government hospitals
- Medical patrols (by whom and how often?)
- Private healthcare services
- Non-governmental organisations
- Pharmacies

6c Transportation to each (biomedical and traditional, as stated by group in 6a & 6b):

6ca Distance to resource

6cb Transportation type

6cc Cost

6d In what situation/for which health problems would someone access different healthcare...?

6db What about kinds of traditional healthcare? (as stated by group in 6a-6ab)

6dc What about kind of biomedical healthcare? (as stated by group 6b-6bb)

6e Are there any barriers to people using existing healthcare?

6ea If yes, what are they?

Probes

- Costs
- Transport
- Quality of service
- Availability of medicines
- Staff demeanour
- Cultural beliefs
- Gender dynamics
- Literacy

6eb If yes, how can these barriers be overcome?

6f How could current healthcare be improved?

6g What healthcare is missing from the community?

Probes

If biomedical health services are requested:

- Why do you value biomedical health services ?

6h Use the Nominal Group Technique. What healthcare (existing or non-existing) do you think should be prioritized to improve the health of the community and why?

Have participants rank their top five healthcare priorities as a group.

7 Summarise and ask for questions

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Semi-structured interview schedule

For individual semi-structured interviews with clan leaders, ward councillors, and those involved in traditional medicine.

1 Interview

- 1a Date (day/month/year)
- 1b Interviewer (initials)
- 1c Translator (initials)
- 1d Site
- 1e Study ID
- 1f Interview language/s

2 Demographics

- 2a Sex (female/male)

What is your:

- 2b clan affiliation?
- 2c age?
- 2d birth place?
- 2e village role/status (clan leader/ward councillor/involved in traditional medicine)?

3 Burden, definitions, and treatments of illness and injury

- 3a What are the most common illnesses or injuries in your community? For each:
- 3ba-e What is the name or names given to the illness or injury?
- 3ca-e Who is affected by it?
- 3da-e When in the year does it occur?
- 3ea-e What can you see on the body, or what do the ill/injured persons say about how they feel that means you think they are sick with this particular illness?
- 3fa-e What do you think causes the illness?
- 3ga-e How is the illness/injury treated, and by whom?

- 3ha-e Which of these illnesses and injuries do you think are the most important, and why?

- 3i What do you think are the most important causes of illness or injury in your community?

4 Disease prevention

- 4a How do people in your community try and stay healthy? How do they avoid illness or injury?

- 4b Where do people go to learn about health?
Probes
 - media
 - professionals
 - school
 - community members

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4c What kind of services are in place to prevent illness or injury in the community?

Probes

- Water Sanitation and Hygiene (WASH)
- vaccination
- mosquito nets
- sexuality education
- antenatal visits
- health education
- occupational health
- nutrition
- road safety or accident prevention

4d Do you have suggestions how to improve disease and injury prevention in the community?

5 Healthcare provision

5a What kind of traditional healthcare is available in the community?

Probes

- plant medicine and/or ritual action
- village midwifery

5aa Types of health practitioner?

5ab Types of facilities?

5ac We would like to interview some – who do you think it would be best to interview?

5b What kind of biomedical healthcare is available in the community?

5ba Types of health practitioners

5bb Types of facilities

Probes

- Government Aid Posts
- Government hospitals
- Medical patrols (by whom and how often?)
- Private healthcare services
- Non-governmental organisations
- Pharmacies

5c Transportation to each (biomedical and traditional, as stated by participant 5a & 5b):

5ca Distance to resources

5cb Transportation types

5cc Costs

5d In what situation/for which health problems would someone access different healthcare?

5db What about kinds of traditional healthcare? (as stated by participant in 5a-5ab)

5dc What about kind of biomedical healthcare? (as stated by participant 5b-5bb)

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- 5e Are there any barriers to people using existing healthcare?
- 5ea If yes, what are they
- Probes
- Costs
 - Transport
 - Quality of service
 - Availability of medicines
 - Staff demeanour
 - Cultural beliefs
 - Gender dynamics
 - Literacy
- 5eb If yes, how can these barriers be overcome?
- 5f What do you think is needed to improve healthcare in your community?
- Probes
- If biomedical health services are requested:
- Why do you value biomedical health services?
- 5g If you could provide one healthcare service for your community what would it be and why?

For woman/HCPs involved in community childbirth

- 6a Have any women in this village died in childbirth in the last five years?
- 6aa If yes, how many?
- 6ab If yes, how many in the last year?
- 6b What proportion of births attended by skilled health person?
- 6ba What type of health person?
- Probes
- family member
 - village midwife
 - healthcare professional in the community
 - healthcare professional in a clinic/hospital
- 6c Have any children in this village died before their fifth birthday in the last five years?
- 6ca If yes, how many?
- 6cb If yes, how many in the last year?

Thank you very much. Do you have any questions?

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Individual primary care assessment

This data collection tool is available for free non-commercial use, with or without adaptation, as long as this article is cited as origin in any reports, articles, or other outputs (CC BY-NC 4.0).

Versions available from the corresponding author:

- Questionnaire type form
- Coded tool for Open Data Kit

During assessments, questions will be translated into local languages by Research Technicians.

Sections 1-6

Collected by Research Technicians and Research Fellow, reviewed by primary care HCP.

Sections 7 and 8

Collected by primary care HCP with Research Technician.

1 Assessment (1 of 2)

- Date (1a: day/month/year)
- Staff (1ba: staff_1 [initials], 0/1. 1bb: staff_2 [initials], 0/1. etc.)
- Examination site (1ca: site_a, 0/1. 1cb: site_b, 0/1; etc.)
- Study ID (1d=1-600)
- Interview language/s (1ea: language_a, 0/1; 1eb: language_b, 0/1, etc.)

2 Demographics

- Sex (2aa: female, 0/1. 2ab: male, 0/1)

Please tell me your:

- clan affiliation (2ba: clan_a, 0/1; 2bb: clan_b, 0/1; etc.)
- date of birth (2ca: day/month/year. 2cb: known 0/1; estimated 0/1)
 - birth place (2da: site_a, 0/1; 2db: site_b, 0/1; etc.; 2dc: free text)
 - village role/status (2ea: role_a, 0/1; 2eb: role_b, 0/1; etc.; 2ec: free text)

3 Social and occupational history

How do you spend your days? (3a: free text)

- Have you worked away from your clan land? (3ba: 0/1)
If yes, where (3bb: free text), and when (3bc: free text).
- How much of the day and night do you spend around indoor open fires? (3ca: x4 hours)
- Do you smoke tobacco? (3da: 0/1)
- Do you drink alcohol? (3ea: 0/1)
- Do you chew betel nut (3fa: 0/1)

4 Current health status and interventions

How do you see your current health? (4a: free text)

- How would you score your current health?? (4b: 1-5, low to high)
- Do you currently suffer from any illnesses or injuries? (4c: 0/1)
If yes, what (4d: free text)

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- Have you had treatment for any illnesses in the past month? (4ea: 0/1)
If yes, what? (4eb: free text)

If there is a current illness/injury.

Please describe this illness for me (4f: free text. 4g: site_system, numeric ref as per MAQ.)

- What impact has the illness/injury had on your life? (4h: free text)
- Do you have any thoughts on why you have this illness/injury? (4i: free text)
- Are you currently using any biomedical treatments? (4ja: 0/1)
If yes, what (4jb: free text)
“I think these treatments are...? (4jc: 1-5 = making it allot better, 2; making it a little better, 1; making no difference, 0; making it a little worse, -1; making it allot worse, -2)
If yes
- Are you currently using any traditional treatments? (4ka: 0/1)
If yes, what (4kb: free text)
“I think these treatments are...? (4kc: 1-5 = making it allot better, 2; making it a little better, 1; making no difference, 0; making it a little worse, -1; making it allot worse, -2)
- Have you been to a clinic (4la: 0/1) or hospital with this illness/injury? (4lb: 0/1)
If yes, how was the care and treatment you received there? (4lc: free text)
- What do you think will happen with this illness/injury in the future? (4ma: n/a, 0/1. 4mb: free text)
- Do you think you are at risk of getting any illnesses/injuries in the future? (4na: 0/1. 4nb: free text)
- Which of these concern you the most? (4nc: free text)

5 & 6 Past medical history/experience of health services

Have you had any illnesses/injuries in the past? (5a: 0/1)

Please list them for me? (5b: free text)

Just to be sure we haven't missed anything can you tell me if you have had any illnesses in these areas:

- skin (5ca: 0/1. 5cb: free text)
- breathing (5da: 0/1. 5db: free text)
- eating and digesting (5ea: 0/1. 5eb: free text)
- drinking and urinating (5fa: 0/1. 5fb: free text)
- heart and circulation (5ga: 0/1. 5gb: free text)
- movement and walking (5ha: 0/1. 5hb: free text)
- thinking or mood (5ia: 0/1. 5ib: free text)
- fevers or weakness (5ja: 0/1. 5jb: free text)
- serious injuries or broken bones (5ka: 0/1. 5kb: free text)
- problems with pregnancy or birth? (5la: 0/1. 5lb: free text)

Have you ever had [X] [a], if so who diagnosed [b], and what treatment did you get [c]?

- malaria (5ma: 0/1. 5mb: free text. 5mc: free text)
- TB (5na: 0/1. 5nb: free text. 5nc: free text)
- Filariasis (5oa: 0/1. 5ob: free text. 5oc: free text)

[Skin: with image prompts]

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- Tokelau (5pa: 0/1. 5pb: free text. 5pc: free text)
 - Scabies (5qa: 0/1. 5qb: free text. 5qc: free text)
 - burns (5ra: 0/1. 5rb: free text. 5rc: free text)
 - skin rashes (5sa: 0/1. 5sb: free text. 5sc: free text)
 - skin ulcers? (5ta: 0/1. 5tb: free text. 5tc: free text)
- [Top 5 from community focus groups]*
- community_identified_condition_1 (5ua: 0/1. 5ub: free text. 5uc: free text)
 - community_identified_condition_2 (5va: 0/1. 5vb: free text. 5vc: free text)
 - community_identified_condition_3 (5wa: 0/1. 5wb: free text. 5wc: free text)
 - community_identified_condition_4 (5xa: 0/1. 5xb: free text. 5xc: free text)
 - community_identified_condition_5 (5ya: 0/1. 5yb: free text. 5yc: free text)
- [Other]
- condition_other (5za: 0/1. 5zb: free text. 5zc: free text).
-
- Did you go to any clinics or hospitals or have treatment from a medical patrol? (6aa: clinic, 0/1; 6ab: hospital, 0/1; 6ac: medical patrol, 0/1. 6b: free text)
 - Did you have any bad reactions to any of the treatments? (6c: 0/1)
If yes, what reaction did you have? (6d: free text)
-
- Have you had any immunisations? (6ea: 0/1)
If yes, which ones (6eb: vac_1, 0/1; 6ec: vac_2, 0/1; etc.)

Family history

- Does anyone else in your family suffer from the same illnesses/injuries as you? (6g: 0/1)
If yes, which illness/s?
- Malaria (6ha: 0/1.)
If yes, which family member/s (no names). (6hb: wife_1, 0/1; 6hc: husband_1, 0/1; 6hd: daughter_1, 0/1; 6he: daughter_2, 0/1; 6hf: daughter_3; 6hg: daughter_4, 0/1, 6hh: daughter_5, 0/1; 6hi: son_1, 0/1; 6hj: son_2, 0/1; 6hk: son_3, 0/1; 6hl: son_4, 0/1; 6hm: son_5, 0/1; 6hn: sister_1, 0/1; 6ho: sister_2, 0/1 6hp: sister_3, 0/1) 6hq: sister_4, 0/1; 6hr: sister_5, 0/1; 6hs: brother_1, 0/1; 6ht: brother_2, 0/1 6hu: brother_3, 0/1) 6hv: brother_4, 0/1; 6hw: brother_5, 0/1; 6hx: mother, 0/1; 6hy: father, 0/1; 6hz: other/s, free text)
- TB (6ia: 0/1)
If yes, which family member/s. (6ib: wife_1, 0/1; etc. Coded as per 6h)
- Filariasis (6ja: 0/1)
If yes, which family member/s. (6jb: wife_1, 0/1; etc. Coded as per 6h)

[Skin: with image prompts]

- Tokelau (6ka: 0/1)
If yes, which family member/s. (6kb: wife_1, 0/1; etc. Coded as per 6h)
- Scabies (6la: 0/1)
If yes, which family member/s. (6lb: wife_1, 0/1; etc. Coded as per 6h)
- burns (6ma: 0/1)
If yes, which family member/s. (6mb: wife_1, 0/1; etc. Coded as per 6h)
- skin rashes (6na: 0/1)
If yes, which family member/s. (6nb: wife_1, 0/1; etc. Coded as per 6h)
- skin ulcers? (6oa: 0/1)
If yes, which family member/s. (6ob: wife_1, 0/1; etc. Coded as per 6h)

[Top 5 from community focus groups]

- community_identified_condition_1 (6pa: 0/1)

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- If yes, which family member/s. (6pb: wife_1, 0/1; etc. Coded as per 6h)
- community_identified_condition_2 (6qa: 0/1)
If yes, which family member/s. (6qb: wife_1, 0/1; etc. Coded as per 6h)
 - community_identified_condition_3 (6ra: 0/1)
If yes, which family member/s. (6rb: wife_1, 0/1; etc. Coded as per 6h)
 - community_identified_condition_4 (6sa: 0/1)
If yes, which family member/s. (6sb: wife_1, 0/1; etc. Coded as per 6h)
 - community_identified_condition_5 (6ta: 0/1)
If yes, which family member/s. (6tb: wife_1, 0/1; etc. Coded as per 6h)
 - condition_other/s (6ua: 0/1. 6ub: free text)
If yes, which family member/s. (6uc: wife_1, 0/1; etc. Coded as per 6h)

Women only

- Women - have you had children? (6va: 0/1)
If yes, who helped at the births? (6wa: no-one, 0/1; 6wb: family member, 0/1; 6wc: village midwife, 0/1; 6wd: healthcare professional in the community, 0/1; 6we: healthcare professional in a clinic/hospital, 0/1)
If yes, how many children have you given birth to? (6x: 0-...)
If yes, how many children have you now, including children which are now adults (6ya: 0-...)
If some died, what did they die of? (6yb: free text)

Time taken (6z: mins)

Section 7 on detachable sheet

7 Questioning and examination by primary care Health Care Professional

- Study ID (7a=1-600)
- Examination carried out? (7ba: 0/1).
If not, why not? (7bb: free text)
- Time started (7c: 24 hr)
- Staff in examination (7da: Staff_1 [initials], 0/1. 7db: staff_2 [initials], 0/1. etc.)

Clinician review of stated medical history (sections 1-6)

Targeted questioning and examination of sites/systems of perceived current or past illness/injury

- Presenting complaint; observations; impression; plan (7e: free text)
 - Any other observations (7f: free text)
 - Any logistical issues in assessment (7g: free text)
 - Additional pages (7h: numeric)
 - Time examination ended (7i: 24 hr).
-

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8 Results of assessment by primary care Health Care Professional

- Diagnosis (8aa: free text; 8ab: free text; etc.)
- Treated (8b: 0/1)
- Referred (8c: 0/1)
- Malaria Rapid Diagnostic Test (8da: all -, 0/1; 8db: PF +, 0/1; 8dc: Mixed +, 0/1; 8dd: other +).
- Mid-Upper Arm Circumference (8e: cm)
- Weight (8f: Kg)
- Comments (8g: free text)
- Time taken (8h: mins)