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Community responses to malaria: interventions in sub-Saharan Africa

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Discussion and conclusions

Introduction

Within the broad field of international public health, over the last 10 to 15 years, social scientists have increasingly studied attitudes and behaviours related to malaria in sub-Saharan Africa (see, for example, chapter two). Many studies have relied on quantitative data collected using questionnaire surveys, an approach that is often attractive to medically trained researchers because of the speed with which such studies can be conducted and because they are often at ease with the analysis and interpretation of numerical data. The limitations of this approach are well known, but criticisms have also been made of malaria-related qualitative research: questions have been particularly raised about the rigor of the methods used, highlighting a lack of observational data and a reliance on a single data collection technique, such as focus groups or in-depth interviews [1]. Indeed, these limitations may well have contributed to the limited translation of findings into policy [1, 2].

In this concluding chapter, I seek to discuss some of the more general implications of the articles collated in this thesis. I also describe how the studies described in this thesis have taken on board the criticisms of previous malaria-related qualitative research and incorporated strategies to improve the reliability of findings – reducing the impact of potential sources of bias, increasing transparency of analysis – but maintaining the benefits of qualitative methods and ultimately seeking to enable broad(er) and strong(er) recommendations to be made. The methodologies used in our research on IPTi and MiP also brought challenges and, in this chapter, I examine these challenges together with the strategies that were employed to overcome them. First, however, I summarize and discuss the findings of each chapter.

The social and cultural context to MiP

Chapter two provides a comprehensive overview of qualitative research on social and cultural factors relevant to uptake of MiP interventions in sub-Saharan Africa. This chapter is fruit of a systematic review, a technique, whose increasing popularity in the health sciences over the last 20 years has been driven by the paradigm of evidence-based medicine [3]. Although this has attracted some criticism – as a further de-contextualization of medical practice, whereby the value of clinicians' *craft* is further whittled away [4] – systematic reviews and meta-analyses are now *de rigueur* for new health interventions and robust guidelines have been developed for reviewing

quantitative studies, particularly clinical trials (for example, Cochrane reviews and PRISMA guidelines).

Systematic reviews also provide up-to-date, comprehensive overviews of a research field for specialists and non-specialists, identifying lacunae and providing direction for future studies. Conducting a systematic review of qualitative research however entails addressing several challenges: for example, identifying relevant social science literature is complicated by the comparative slowness of many social scientists to publish their research in online formats and the lesser use of key-words and descriptive titles; also, placing limits on the included literature is also more challenging because studies that may not deal directly with the research question in hand may also offer important insight; and furthermore, compared to quantitative meta-analyses, there is less consensus amongst scholars with regard to how to go about synthesizing the results of multiple qualitative studies [5, 6]. There is therefore a need for careful consideration of the search strategy utilized and how the findings from diverse studies are synthesized to produce meaningful and useful results [7]. Reviewers must also – as we did – outline clearly their methods and analysis and acknowledge the limitations of their findings.

The systematic review described in chapter two sought to provide a state-of-the-art for qualitative research on malaria during pregnancy and identify key research questions for the MiP research programme. A total of 37 studies were reviewed and several key themes identified: concepts of malaria and risk in pregnancy, attitudes towards interventions, structural factors affecting delivery and uptake, and perceptions of ANC. These themes were therefore taken forward as key lines of enquiry for fieldwork. Moreover, the synthesis of findings highlighted that although malaria risk is associated with pregnancy, women's vulnerability is often considered less disease-specific and MiP is interpreted in locally defined categories. Local discourse and health workers' ideas and comments also influence concerns about MiP interventions. Understandings of ANC, health worker-client interactions, household decision-making, gender relations, cost and distance to health facilities affect pregnant women's access to MiP interventions, and poor healthcare infrastructure limits provision of interventions. Reviewing the literature also drew attention to the limitations of previous qualitative studies: many relied on one or two data collection techniques and observational techniques were rare. This finding emphasized the need for further in-depth research and justified the approach taken to data collection for the programme of research on the social and cultural context of malaria during pregnancy.

Drawing on data from the research programme on the social and cultural context of MiP, chapter three explores and compares local understandings of

MiP and their links with other pregnancy-related health problems at four sites across sub-Saharan Africa. This article therefore forms part of a broad body of medical anthropology that has addressed the relevance of local illness concepts for health interventions [8]. Indeed for malaria, the complex relationship between locally approximate illnesses and the various categories of the biomedically defined disease – uncomplicated or severe – has been explored by a number of scholars [9]. In our research, we were mindful of the biomedical complexity of MiP, its symptomology and outcomes as well as our respondents’ uncertainty about MiP and the fluid nature of local understandings of the illness.

The article illustrates how, across the four sites (Upper East and Ashanti Ghana, Nyanza, Kenya, and southern Malawi), local malaria concepts overlapped with biomedically defined malaria. In terms of symptoms, at-risk groups, outcomes and aetiology of malaria during pregnancy, this overlap was however both site-specific and partial. Moreover, the local malaria concepts were not monolithic and their descriptions varied amongst respondents. The symptoms of pregnancy and malaria also overlapped but, for respondents, symptom severity was the distinguishing factor. Malaria was generally, though not universally, perceived as serious for pregnant women. Miscarriage was the most widely known outcome, and links with anaemia, low birth weight and congenital malaria were mentioned. Nonetheless, amongst many potential causes of miscarriage, malaria was not recognized as the most important, but rather interacted with other pregnancy-related problems.

Our findings highlighted how, for many women in endemic areas, malaria and pregnancy were intertwined domains of experience. This emphasizes the potential disadvantages of single-disease approaches – based on *etic* perspectives – when studying local illness concepts and highlights the importance of more *horizontal* approaches, based on the concerns of respondents themselves [8]. In public health terms, given the overlap of common pregnancy problems with the symptoms of malaria, and the limited association of malaria with its main outcomes, a *comprehensive* ANC programme is the most appropriate strategy for the provision of health education, prevention and treatment for MiP: the fragmentation of ANC into several vertical, disease/outcome-focused interventions should therefore be avoided. The findings also illustrate how locally shared understandings of MiP are not static or homogenous: women have diverse and changing ideas about MiP, which are influenced, to varying degrees, by health messages.

Chapter four draws on the same data as chapter three but focuses on current recommended MiP prevention and control: intermittent preventive treatment (IPTp), distribution of insecticide treated bednets (ITNs) and appropriate case

management. In this article, I explore the social and cultural context to the uptake of these interventions at the four sites across Africa. The findings illustrate that although ITNs were generally recognized as important for malaria prevention, their availability and use differed across the sites. In Malawi and Kenya, ITNs were sought-after items but there were complaints about availability. In central Ghana (Ashanti Region), women saved ITNs until the birth of the child and they were used seasonally in northern Ghana. In Kenya and central Ghana, pregnant women did not associate IPTp with malaria, whereas, in Malawi and northern Ghana (Upper East), IPTp was linked to malaria, but not always with prevention. Whether delivered with directly observed treatment or not, although IPTp adherence was the norm, at all sites, some women did not comply with IPTp, often because of previous side effects. Although generally viewed as positive, experiences of malaria testing varied across the four sites and in both Ghana and Malawi there were cases of overtreatment. Despite generally following the advice of health staff, particularly in Kenya, the availability and accessibility of medication – including antimalarials – influenced where women received malaria treatment.

Two key recommendations can be drawn from these findings: due to the cases of IPTp non-adherence, further research is required regarding IPTp delivery and, given the importance of side effects, measures are required to mitigate their impact on adherence; and because negative malaria test results did not necessarily lead to non-treatment (particularly in Ghana and Malawi, and in the former as a result of a misinterpretation of national policy) local implementation of national malaria plans must be monitored carefully.

Chapter five comparatively explored the factors that influence ANC attendance at the same sites as the previous chapters. In malaria endemic settings such as these, ANC attendance plays a crucial role in uptake of MiP interventions, and therefore exploring factors that influence ANC attendance was a key objective of the research into the social and cultural context of MiP.

In these socially and culturally diverse settings, the findings suggested that both demand *and* supply side factors have an important influence on ANC attendance. Timely ANC attendance was influenced by: women's and health staff's uncertainties in early pregnancy; the design of ANC and its capacity to deal with uncertainty around pregnancy status and the degree to which care is orientated towards women's health concerns; the provision of clear, unambiguous recommendations about the timing of ANC and messages that identify ANC as a service that deals with health concerns during early pregnancy; and the perceived normality of ANC initiation in early pregnancy. Furthermore, a perceived lack of flexibility regarding follow-up appointments

increased the total cost of ANC, which can result in delayed ANC, particularly amongst women with limited resources and who face high transport costs. Moreover, the direct charges levied for ANC procedures – not authorized in national ANC policy – represented only part of the wider cost of ANC.

In light of these findings, to ensure appropriate design and effective delivery of ANC, attention should be paid to the *on-the-ground* implementation of ANC. Women's understanding of these local forms of ANC at health facilities, how women deal with reproductive uncertainty and the efforts that women make to care for themselves and their pregnancies should also be considered. Our findings demonstrate that health messages about early ANC attendance must also be accompanied by services that meet the needs of women during this period of pregnancy – pregnancy testing being the most obvious example. For researchers and policy makers working on MiP, the findings also illustrate the need for close collaboration with their colleagues engaged in maternal and reproductive health more broadly.

Although we undertook our research on MiP in socially and cultural diverse settings some broader implications can perhaps be drawn from chapters two to four. For many women, pregnancy was a fragile bodily state. In the poor, rural and peri-urban contexts where the research was conducted, women commonly suffered a variety of ongoing health problems, which were compounded by the unrelenting demands of physical labour that they often had to bear. Many of these health complaints were also viewed as unremarkable: non-severe symptoms, which may have been caused by malaria, did not necessarily lead to them seeking healthcare. Indeed, the *care*, which should be integral ANC was also often lacking. Our research suggests that only in Ghana did health staff regularly address the care needs of women who attend clinics for ANC; only here, were women consistently the focus of “focused” ANC. Ensuring that care is provided within ANC, and that the visits do not simply concentrate on meeting the targets of vertical programmes is a key challenge for healthcare systems in under-resourced contexts. This was particularly apparent during the first trimester, a time when women often faced uncertainty about their pregnancy. In spite of the widely recognized need for women to attend ANC during the first trimester, the services on offer were scarce and did not necessarily address women's priorities. Moreover, given the increased awareness of the morbidity and mortality impacts of malaria infection during the first trimester of pregnancy it is key that health systems investigate strategies to address the needs of women during early pregnancy.

Community responses to IPTi

Chapter six provides an overview of the IPTi research. The findings presented are mainly based on data from five sites (in five countries) across East, West and Southern Africa. At these sites, the studies were conducted in the context of clinical trials and implementation studies of IPTi. The social and cultural acceptability of IPTi formed the central research question, but we also examined the influence of responses to IPTi on attitudes to and uptake of immunization, malaria prevention and treatment for infants.

The data from these five sites illustrate that IPTi was widely acceptable because it resonated with existing preventive practices and a general concern about infant health and good motherhood. It also fit neatly with routine vaccination, which was already widely valued. Acceptance and adherence were further facilitated by the hierarchical relationships in healthcare settings and resulting authority of health staff, and by the social importance of clinic attendance for women, which was in addition to obtaining health care. The type of IPTi drug administered and regimen were important: newer drugs were seen as more effective, as well as potentially more dangerous. Single-dose infant formulations delivered in the clinic seemed to promote acceptability and adherence. The studies revealed little to suggest that IPTi *per se* had a negative impact on attitudes to other vaccinations or that it had any effect on adherence to other vaccinations. Evidence of any negative impact on health seeking for infants with febrile illness or existing preventive practices was also absent.

Using similar approaches, members of the research team have carried out additional research on the social response to IPTi in other settings: Mozambique [10], southern Tanzania [11] and Papua New Guinea [12]. The results of these studies highlight some striking similarities across diverse social and cultural contexts. For example, mothers at all sites were familiar with vaccination as prevention yet uncertain regarding the particular diseases that are prevented and the nature of the prevention (whether complete or partial). Also the difficulties that women faced with regard to attending health facilities (mainly distance, and transport and treatment costs) were also similar. There were common complaints about (non-trial) health staff criticizing and chastising mothers during interactions at healthcare facilities [13]. The data also suggest that fathers occupy similar roles in infant care: although playing a relatively minor role in day-to-day childcare, when more serious matters arise, such as participation in a clinical trial or severe illness, they are often heavily involved in decision-making and can veto decisions. Even the nature of the rumours that circulated around the clinical trial of IPTi

in PNG, relating to the selling of the blood sampled, resonated strongly with the rumours encountered in other trial sites [10, 14].

The similarity of findings across these varied sites – a total of six countries on two continents – was striking, and this enables tentative generalization regarding responses to IPTi and implementation. In practical terms, the degree of similarity across the sites suggests that IPTi requires minimal adjustment prior to roll-out across diverse social and cultural contexts. In addition to our research on IPTi, the results of the clinical and cost-effectiveness studies were also favourable and resulted in a qualified recommendation from the WHO [15]. The incorporation of IPTi into policy across appropriate countries has however, for a range of reasons, been laboured [16].

The social response to IPTi was therefore, on the whole, positive and boded well for the implementation of this intervention alongside the EPI vaccinations that infants receive. This perhaps contrasts with some of the more varied responses to MiP interventions, particularly IPTp, that we encountered. Several issues should however be taken into consideration when appraising this. The IPTi research was undertaken in the context of clinical trials and implementation studies. Although the implementation studies were intended to provide insight into the real world roll out of the intervention, health staff received specific training and IPTi was novel. In contrast, the research on MiP took place in health facilities where IPTp had been delivered for a number of years and health staff had received no recent additional training. Also, as I will return to in the section below, at implementation study sites, IPTi was often viewed as a remedy for post-vaccination fever – often conflated with *malaria*, as a result of the breadth of the local illness concept – and therefore viewed as a positive addition to the vaccination schedule. Ideas about prevention were also well ingrained into the care offered for infants at health facilities, whereas, during pregnancy, understandings of ANC were more focused on the position of the child, the woman's weight and the progress of the pregnancy. Moreover, infants were commonly seen as the most vulnerable group to malaria – possibly a result of the prominence that this population group has received in malaria-related health messages – and indeed, if necessary, pregnant women commonly prioritized their young children for malaria prevention and gave them their ITN to sleep under.

The broader focus of the research on MiP and the use of case studies – women who were interviewed at various intervals during pregnancy and post-partum – meant that cases of non-adherence to interventions were more likely to be

encountered. Furthermore, pregnant women's non-adherence to MiP interventions should not be over-stated: generally women did follow the advice of health staff, particularly regarding malaria. The overall confidence that women (and men) had in health staff underpinned the general – albeit sometime begrudging adherence to the interventions. The authority of health staff was also intertwined with the hierarchical nature of relationships between them and the women who attended health facilities for pregnancy care or to vaccinate their infants. Although the unevenness of the relationship promotes adherence to interventions, particularly in the case of ANC, such strict hierarchies can contribute to care being less focused on women's needs and ultimately lead to delays in them seeking care, which, in turn has implications for the coverage of interventions.

The challenges of multi-site, collaborative medical anthropology

Both programmes of research were ensconced within international multi-disciplinary research consortia and their objectives entailed collaboration with local medically orientated research centres. For the IPTi research, collaboration with the centres ensured access to the mothers of infants who had participated in the clinical trials or implementation studies. For the MiP projects, amongst the supplementary objectives, the research also sought to address the acceptability of new MiP treatment and prevention interventions (for example, as part of a clinical trial, the use of IST rather than SP for IPTp)²⁶. Given that the projects brought together researchers from the “culture of social science” and “the culture of medicine”, who as Napolitano and Jones [17] have suggested, often “appear to exist in almost totally separate conceptual universes”, it is unsurprising that research teams faced some challenges.

In chapter seven, I discuss the most memorable challenge that I encountered during the research on IPTi and MiP. In this article, which was aimed at a general audience of non-anthropologists, I sought to take a step back from the public health priorities that underpinned much of our research and explore a dispute that arose around an additional draft article, which I wrote based on data collected as part of our IPTi research. The manuscript explored the persistence of “blood stealing” rumours linked to medical research at one of the IPTi study sites; rumours, which I encountered during fieldwork in this setting, but which were also recorded in remarkably similar guises during data collection at other context for our research on MiP and IPTi, are well known by researchers working in Africa, and have hence been examined by

²⁶ Based on the collected data, the relevant findings are currently being written up for publication.

other social scientists [14, 18, 19]. A range of factors underpinned this specific dispute with a group of collaborating western medical researchers, many of which were linked to the context and the dynamics of collaboration at the specific research site. Hence the dispute was rather an exceptional occurrence within largely successful and cordial inter-disciplinary collaborations.

Nonetheless, some wider lessons can perhaps be drawn from the conflict. Attitudes to data and evidence varied amongst the medical anthropologists and medical researchers and this conflict brought such differences into sharp relief: the western medical researchers advocated the quantification of the rumours and the development of a profile of those who spread rumours to serve as a tool that would be of practical value to the research centre. These same researchers also dismissed comments about the research centre as irrelevant and labelled the accounts of staff members who had been influenced by the rumours as “hearsay”. The article’s exploratory nature, which, to a certain extent, was accentuated by the amorphous nature of the rumours, was also a target of criticism: the analysis was deemed invalid, and dubbed “rumour” and “hearsay”. During this dispute, these issues were brought particularly to the fore and utilized as a way to undermine the article. In contrast to other medical researchers, who have positively or ambivalently accepted attempts to explore the rumours that circulated around their clinical (and non-clinical) studies [12, 14] – they drew on disciplinary differences to undermine and ultimately censure the article, via the use of institutional publication committee. Therefore, one lesson is the careful negotiation of publication rights prior to beginning collaborations.

The contrast between the responses of these scientists, and those of other collaborators whose research centres were also linked to blood stealing rumours in previous research by members of the research team is remarkable. Seeing their research institution – and by extension themselves as individuals – as the object the analysis played a role in their response. Although I did not seek to critique the particular research centre, the collaborating medical researchers seemingly saw the article as an attack on their institution. Their prioritization of the public image of the research institution over all else was probably also accentuated by their previous experience of negative media reports of blood stealing rumours linked to clinical research in the local communities. In retrospect, I also appreciate how my use of language, such as the literal translation of the blood stealing rumours (“washing one’s hands in blood”) in the article led to an immediately hostile response on their part. From then on, my efforts to tone-down the terms used were futile: the die had already been cast. My inexperience and apparent lack of tact therefore also seemingly contributed to the forcefulness of their rejection of the article.

In addition to this rather tense dispute, other – often more mundane – challenges arose during the programmes of research. The research teams were usually able to work through these challenges, mitigating any possible impact on the projects' findings. In the following section, I explore such issues and the efforts undertaken to address them. Indeed some of the challenges highlighted issues about the nature of this configuration of social science and inter-disciplinary collaboration.

Ethics approval

Collaboration with medical research centres entailed obtaining research approval from each of their institutional review boards (IRBs) and ethics committees and this presented particular challenges. For example, to carry out the IPTi research, authorization was granted by a total of ten IRBs or ethics review committees, each with different procedures and requirements. Meeting the basic submission criteria of each committee required significant efforts. Furthermore, not all committees were convened with the same regularity. Therefore submitting with sufficient notice to enable commencement of data collection simultaneously across several sites was extremely unlikely. In addition to managing the basic criteria and timetables of several committees, the research team had to deal with the committees' varied capacity to assess social science research.

There has been much debate about the appropriateness of ethics review committees, developed largely to evaluate the risks of clinical research to human subjects, for qualitative social science, particularly anthropology [20]. The anthropological approach of both programmes of research – and particularly the iterative nature of data collection – differed from the studies to which biomedical ethics committees were accustomed and for which they had devised criteria specifically tailored to biomedical research: commonly requiring pre-determined sample sizes and specific (questionnaire) questions. In response, the research team took a largely pragmatic approach to the demands of the different committees: positing estimated numbers of interviews etc, with the caveat that these were subject to revision; and broad question topics were laid out in a manner to accommodate the emergence of novel themes and their exploration.

Data collection

Ensuring an anthropological approach to data collection required particular attention from more experienced members of the research team. The research protocols described an iterative and flexible data collection strategy and analysis based on Grounded Theory [21]. Staff therefore received initial

general training in social science research methods, and were briefed on use of the data collection tools and the research approach. Some team members, however, were more comfortable with a structured, quantitative approach. This was perhaps a result of the research profile of collaborating institutions where the majority of personnel were employed largely in epidemiological, or other clinical research, and whose work was structured by samples, quotas and deadlines. Ongoing training and feedback was therefore key, and undertaking interviews together with more experience team members was a particularly successful approach to further developing interview skills. The field visits of coordinating anthropologists were therefore key not simply to collect additional data but also to provide continued mentoring.

As a result of the questions that they asked and their interactions with staff from other studies, respondents and community members often associated the members of our research team with the local research institutions. Such associations had implications for assessing attitudes towards particular interventions, for example, because mothers may have been less willing to offer negative opinions to avoid angering research centre staff, who they viewed as gatekeepers to future participation in clinical trials (which entailed advantages in terms of the quality of care for their infants and also was an access to cash, provided as “travel allowance”). To minimize this, field workers sought to distance themselves from the local research centres and clinics: they walked the final stretch to their destination; they dressed casually and explained their roles clearly. Research staff also spent time building rapport with community members, and carried out participant observation to provide additional data. This entailed contacting respondents outside of health facilities and interviewing them informally (some of which were not recorded).

Training in participant observation and social anthropology was therefore offered and research staff kept a field diary to record observations. This yielded varying degrees of success: some were keen to practice their skills as budding ethnographers but others struggled with this less-structured work. In some cases, field notes covered tangential topics, such as the weather, the local flora or the journey to the interview. The broader underpinnings of these difficulties are perhaps beyond the scope of this discussion but it is possible that the predominance of structured questionnaire-based research at the institutions where they were based played a role. Given the length of fieldwork for these projects (at over one year at each site) it is unlikely that a lack of time influenced this. On first view, because many researchers were conducting anthropology “at home”, participant observation may have been particularly difficult. However, this is a simplification. Across the sites, research staff had varying connections with local communities: some were

members of the same community, whereas others were born in the same region but accustomed to urban life. Regardless of the detail of their field notes, during discussions with more senior team members, assumptions and implicit knowledge of the social and cultural context were explored. Indeed, such intensive debriefing sessions were an invaluable exercise that improved research skills and provided data that were sometimes lost from interview transcripts and field diaries.

Teamwork – combining researchers from a range of contexts – was therefore key to interrogating implicit knowledge and enriched the data collected. Team-based anthropology is however a departure from the traditional model of anthropology as an individual undertaking. Yet, anthropology and qualitative research more broadly has often been criticised for the individual and *subjective* nature of data collection and analysis: data based on participation observation and interviews carried out by one person have been labelled biased and untestable [22]. For both programmes of research, in part, team-based data collection was one element of the response to such criticisms and had clear advantages. However, team-based data collection also presented challenges.

Recruiting sufficient researchers was complicated by a paucity of appropriately trained applicants²⁷ and these difficulties were compounded during the projects when key team members with little notice. Although replacements were found, they required additional training and time to familiarise themselves with the data collection tools and the research strategy. This led to delays during the period of adjustment to the project. The staff members who left often sought further training or better-paid employment with international NGOs or in the West. Although local, social science capacity building was considered an important aspect of the research – training in social science research methods and qualitative data analysis software was provided as part of workshops – further formal education, such as a master's degree, was cited as contributing to staff attrition. This highlights the importance of career development as a crucial strategy for building local capacity. Mitigating the loss of employees for purely financial motives may however be more difficult as the local collaborating institutions that employed the lead social scientists and field workers cannot compete in terms of the remuneration packages offered to employees by international NGOs.

²⁷ For the IPTi research, the grant awarding body required that all field workers hold a bachelor's degree in a social science related discipline, lead social scientists required a master's degree and work experience in social sciences.

As team-based and multisite anthropology entailed a greater management burden, multi-site research added extra layers of complexity to the analysis and interpretation of data. Collecting data in diverse social and cultural contexts and in settings where interventions were delivered in different ways enabled firmer conclusions to be drawn about future implementation of interventions. However, data collection in such varied settings also entailed addressing diverse understandings of interventions. For example, in the case of IPTi, although familiar with the abbreviation, respondents had quite different understanding of “IPTi”. When delivered within a clinical trial, mothers sometimes conflated IPTi with the wider experience of medical research: free medical care for their infants, venous blood sampling and travel allowance. In contrast, at IPTi implementation study sites, mothers often understood IPTi, as a remedy for the common post-vaccination fever.

Although participants’ varying conceptualisations of IPTi across the sites posed a challenge for standardization of research questions, the clarification of these varying understanding of IPTi demonstrates the importance of qualitative, and particularly anthropological, approaches to investigating the acceptability of health interventions: these *emic* perceptions of interventions provide important insights into why local objections may be raised, and provide appropriate models which can inform programmes of education and sensitization. This highlights further how the comparative element of these programmes of research is, I would argue, a key strength: by collecting data in varied social and cultural contexts, phenomena that could have easily been taken for granted were exposed and could be explored.

Concluding remarks

The articles compiled in this thesis are (part of) the fruit of two programmes of multi-site research, which were carried out on a scale that is uncommon in medical anthropology. Indeed, the scale of this research, the primacy of policy-relevant aims and the dissemination of results in public health periodicals are key characteristics that contrast with the traditional model of anthropology. However, focusing on the archetype of individual, single-site, participant observation ignores anthropology’s many methodological transformations and its varied past and present theoretical approaches; it also overlooks the strengths of team-based multi-site research and downplays the contemporary realities of scholarly endeavour, from which anthropology is not isolated: core funding is a rare luxury and funders increasingly focus on the *impact* of results.

Our methodologies were appropriate for the aims of the research and the target audiences, and through the scale and robustness of the research,

anthropology – particularly in the case of IPTi – impacted directly the policy process. Indeed, anthropology was evident in the principles that underpinned our work, for example: we conducted long-term fieldwork, which incorporated observational techniques; we collected data with an awareness for and examination of *emic* and *etic* perspectives, particularly local illness terms and concepts; we made efforts to contextualize findings and to avoid abstracting phenomena from their wider social context; reflexivity was encouraged amongst the researchers; and we did not consider *culture* to be deterministic, but rather unpacked its influence on practice. Provided that the limitations are acknowledged and efforts made to meet the challenges that it brings, when appropriate, this configuration of research therefore offers a way to ensure that anthropology influences health policy in crucial ways.

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